

Wednesday, February 24, 2010

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

ATTN: Valerie Davis

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

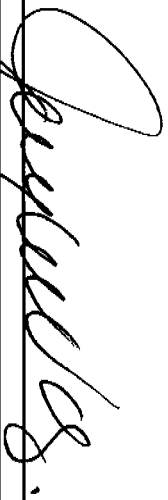
Please analyse the enclosed samples  
according to the schedule indicated:

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

RAD SCREENING: Yes, Below Background  
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:

Signature:



These Samples are on:

LANL Request Number:10-2027  
Per Agreement Number:126310011  
Project Cost Code: MR3A05529E00

REQUEST NUMBER: 10-2027

PRIORITY	METHOD CODE	CMTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8082	1	RE36-10-8490	R	2/20/2010	
	SW-846:8260B	1	RE36-10-8470	R	2/20/2010	
		1	RE36-10-8474	R	2/20/2010	
		1	RE36-10-8476	R	2/20/2010	
		1	RE36-10-8478	R	2/20/2010	
		1	RE36-10-8480	R	2/20/2010	
		1	RE36-10-8482	R	2/20/2010	
		1	RE36-10-8483	R	2/20/2010	
		1	RE36-10-8490	R	2/20/2010	

Wednesday, February 24, 2010

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REQUEST NUMBER: 10-2027

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
SW-846:8260B	SW-846:8270C	1	RE36-10-8496	S	2/20/2010	
		1	RE36-10-8470	R	2/20/2010	
		1	RE36-10-8474	R	2/20/2010	
		1	RE36-10-8476	R	2/20/2010	
		1	RE36-10-8478	R	2/20/2010	
		1	RE36-10-8480	R	2/20/2010	
		1	RE36-10-8482	R	2/20/2010	
		1	RE36-10-8483	R	2/20/2010	
		1	RE36-10-8490	R	2/20/2010	
		1	RE36-10-8470	R	2/20/2010	
SW-846:8321A_MOD		1	RE36-10-8474	R	2/20/2010	
		1	RE36-10-8476	R	2/20/2010	
		1	RE36-10-8478	R	2/20/2010	
		1	RE36-10-8480	R	2/20/2010	
		1	RE36-10-8482	R	2/20/2010	
		1	RE36-10-8483	R	2/20/2010	
		1	RE36-10-8490	R	2/20/2010	
		1	RE36-10-8470	R	2/20/2010	
		1	RE36-10-8474	R	2/20/2010	
		1	RE36-10-8476	R	2/20/2010	

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Wednesday, February 24, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2027

**LOS ALAMOS**

REQUEST NUMBER: 10-2027

**NATIONAL LABORATORY**

ATTN: Valerie Davis

TURNAROUND/REPORT DUE: 3/26/2010

General Engineering Laboratories, Inc.,  
Charleston, SC.

TURNAROUND REQ'D: 30

2040 Savage Rd

Charleston, SC 29407

## LAB REQUEST COMMENTS:

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE36-10-8496	1	SEPTUM AMBER GLASS	8260B Trip Blank	Ice	S
RE36-10-8490	1	AMBER GLASS	8082+8270+NMED-EXP	Ice	R
RE36-10-8490	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-8470	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-8470	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE36-10-8476	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-8476	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE36-10-8480	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-8480	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE36-10-8474	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-8474	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE36-10-8478	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-8478	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE36-10-8483	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-8483	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE36-10-8482	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-8482	1	AMBER GLASS	8270C+NMED Exp	Ice	R

Relinquished By:

Date Time

Received By:

Date Time

Printed Name

Signature

Printed Name

Signature

Printed Name

Signature

Printed Name

Signature

Printed Name

Signature

Printed Name

Signature

Received for DISPOSAL By:

Date Time

Remarks:

Printed Name

Signature

## SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2511

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

SAMPLE ID: RE36-10-8470

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		02/20/2010	MEDIA:	QBT3		QBT 2	
TIME COLLECTED (HH:MM)		10:13	SUB-MEDIA:	TUFF 1		OK	
PRS ID:	36-003(a)	OK	SAMPLE TECH CODE:	HA			
LOCATION ID:	36-610882	OK	FIELD QC TYPE:	NA			
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	NA			
TOP DEPTH:	0	5.0 ft	SAMPLE USAGE:	INV			
BOTTOM DEPTH:	0	5.6 ft	SCREEN/PORT DESC:			NA	
FIELD MATRIX:	R	OK	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 <sup>from 2/20/10</sup> clear	Ice	Y	
1		8270C+NMED Exp	500 ML AMBER GLASS	Ice		
1		AM241+GS+ISO PU+ISOU	1 LITER POLY	None		
1		H3	500 ML POLY	Ice		
1		METALS+U-GEL	125 ML POLY	Ice		
1		Perchlorate+CN+N03+pH	500 ML POLY	Ice		
1		RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None		

SAMPLE DESC:

Light brownish gray pulverized ash flow tuff, dig

SAMPLE COMMENTS: NA

LOCATION DESC:

3a 5 7.6 ft from 3a 6; 5 ft N of staked location 3a 5

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha = 27 dpm  
Beta/Gamma = 2220 dpm

PID  $\frac{\text{Ambient Reading}}{0.1} = \text{ppm}$

COLLECTED BY (PRINT)

R. Saunders

REVIEWED BY (PRINT)

J. MARIN

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) JON MARIN	2/20/10	(Printed Name) Sheri Sheenwood	2/20/10
(Signature) Jon R. Marin	16:05	(Signature) Sheri Sheenwood	16:05
RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time



## SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2511

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

SAMPLE ID: RE36-10-8474

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		02/20/2010		MEDIA:		QBT3	
TIME COLLECTED (HH:MM)		13:45		SUB-MEDIA:		TUFF 1	
PRS ID:	36-003(a)	OK		SAMPLE TECH CODE:		HA	
LOCATION ID:	36-610884	1		FIELD QC TYPE:		NA	
LOCATION TYPE:	GENERIC	1		FIELD PREP:		NA	
TOP DEPTH:	0	0.5 ft		SAMPLE USAGE:		INV	
BOTTOM DEPTH:	0	1.0 ft		SCREEN/PORT DESC:		NA	
FIELD MATRIX:	R	S		EXCAVATED: YES/NO/NA		NA	
COMPOSITE TYPE: NA		COMPOSITE TIME INTERVAL: NA		WATER FLOWING: YES/NO/NA		NA	
BOREHOLE: YES/NO/NA		BOREHOLE DECLINATION: NA		BOREHOLE DIRECTION: NA			

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	8260B	125 ML SEPTUM AMBER GLASS 1/2m 1/2010 Clear	Ice	Y	
1		8270C+NMED Exp	500 ML AMBER GLASS	Ice		
1		AM241+GS+ISO PU+ISOU	1 LITER POLY	None		
1		H3	500 ML POLY	Ice		
1		METALS+U-GEL	125 ML POLY	Ice		
1		Perchlorate+CN+N03+pH	500 ML POLY	Ice		
1		RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None		

SAMPLE DESC:

Light brown dry silty soil

SAMPLE COMMENTS:

NA

LOCATION DESC:

3a7 drain field

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha = 22 dpm  
Beta/Gamma = 1955 dpm

PID <sup>1m</sup> Ambient Reading <sup>2/20/10</sup> = ppm

COLLECTED BY (PRINT)

L. Lopez

REVIEWED BY (PRINT)

J. Marin

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) JON MARIN	2/20/10	(Printed Name) Sherry Sherwood	2/20/10
(Signature) J. Marin	16:05	(Signature) Sherry Sherwood	1605
RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time

## SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2511

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

SAMPLE ID: RE36-10-8476

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		02/20/2010		MEDIA:	QBT3		OK
TIME COLLECTED (HH:MM)		13:52		SUB-MEDIA:	TUFF 1		
PRS ID:	36-003(a)	OK		SAMPLE TECH CODE:	HA		
LOCATION ID:	36-610885	OK		FIELD QC TYPE:	NA		
LOCATION TYPE:	GENERIC	OK		FIELD PREP:	NA		
TOP DEPTH:	0	1.5		SAMPLE USAGE:	INV		
BOTTOM DEPTH:	0	2.5		SCREEN/PORT DESC:	N/A		
FIELD MATRIX:	R	OK		EXCAVATED: YES (NO) NA			
COMPOSITE TYPE:	NA			COMPOSITE TIME INTERVAL:	NA		
BOREHOLE: YES (NO) NA				BOREHOLE DECLINATION:	NA		
				BOREHOLE DIRECTION:			

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS <sup>9x10mm</sup> <del>2/20/10</del> clear	Ice	Y	
1		8270C+NMED Exp	500 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISO PU+ISOU	1 LITER POLY	None	Y	
1		H3	500 ML POLY	Ice	Y	
1		METALS+U-GEL	125 ML POLY	Ice	Y	
1		Perchlorate+CN+N03+pH	500 ML POLY	Ice	Y	
1		RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: *Welched - Indurated - Pinkish Gray tuff*

SAMPLE COMMENTS:

N/A

LOCATION DESC:

3a-8

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha = 22 dpm  
Beta/Gamma = 2270 dpm

<sup>1RM</sup>  
<sup>2/20/10</sup>  
PID <sup>Ambient</sup> ~~Reading~~ = ppm

COLLECTED BY (PRINT)

*LARRY A. LOPEZ*

REVIEWED BY (PRINT)

*J. MARIN*

RELINQUISHED BY

(Printed Name) *LARRY A. LOPEZ*(Signature) *Larry A. Lopez*

Date/Time

2/20/10

16:05

RECEIVED BY

(Printed Name) *Sheniferwood*(Signature) *Sheniferwood*

Date/Time

2/20/10

16:05

RELINQUISHED BY

Date/Time

RECEIVED BY

Date/Time

## SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2511

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

SAMPLE ID: RE36-10-8478

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		02/20/2010		MEDIA:		QBT3	
TIME COLLECTED (HH:MM)		14:00		SUB-MEDIA:		TUFF 1	
PRS ID:	36-003(a)	OK		SAMPLE TECH CODE:		HA	
LOCATION ID:	36-610886			FIELD QC TYPE:		NA	
LOCATION TYPE:	GENERIC			FIELD PREP:		NA	
TOP DEPTH:	0	1.5 ft		SAMPLE USAGE:		INV	
BOTTOM DEPTH:	0	2.3 ft		SCREEN/PORT DESC:		NA	
FIELD MATRIX:	R	S		EXCAVATED: YES/NO/NA		NA	
COMPOSITE TYPE: NA		COMPOSITE TIME INTERVAL: NA		WATER FLOWING: YES/NO/NA		NA	
BOREHOLE: YES/NO/NA		BOREHOLE DECLINATION: NA		BOREHOLE DIRECTION: NA		NA	

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	8260B	125 ML SEPTUM AMBER GLASS <sup>1RM</sup> <del>2/20/10</del> clear	Ice	Y	
1		8270C+NMED Exp	500 ML AMBER GLASS	Ice		
1		AM241+GS+ISO PU+ISOU	1 LITER POLY	None		
1		H3	500 ML POLY	Ice		
1		METALS+U-GEL	125 ML POLY	Ice		
1		Perchlorate+CN+N03+pH	500 ML POLY	Ice		
1		RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None		

## SAMPLE DESC:

Light brown silty sandy dry soil

## SAMPLE COMMENTS:

NA

## LOCATION DESC:

3a710  
1RM  
2/20/10

## FIELD SCREENING/MEASUREMENT RESULTS:

Alpha = 27 dpm  
Beta/Gamma = 2310 dpmPID  $\frac{\text{Ambient Reading}}{\text{Reading}} = \text{ppm}$   
1RM  
2/20/10

## COLLECTED BY (PRINT)

L. Lopez

## REVIEWED BY (PRINT)

J. MARIN

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) JON MARIN	2/20/10	(Printed Name) Sherri Sherwood	2/20/10
(Signature) Jon R. Marin	16:07	(Signature) Sherri Sherwood	16:07
RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time

## SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2511

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

SAMPLE ID: RE36-10-8480

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		02/20/2010		MEDIA:		OBT3	
TIME COLLECTED (HH:MM)		15:30		SUB-MEDIA:		TUFF 1	
PRS ID: 36-003(a)		OK		SAMPLE TECH CODE:		HA	
LOCATION ID: 36-610887				FIELD QC TYPE:		NA	
LOCATION TYPE: GENERIC				FIELD PREP:		NA	
TOP DEPTH: 0		1.5 ft		SAMPLE USAGE:		INV	
BOTTOM DEPTH: 0		2.0 ft		SCREEN/PORT DESC:		X1A	
FIELD MATRIX: R		S		EXCAVATED: YES <input checked="" type="radio"/> NO <input type="radio"/>			
COMPOSITE TYPE: NA		COMPOSITE TIME INTERVAL: NA		WATER FLOWING: YES <input checked="" type="radio"/> NO <input type="radio"/> NA			
BOREHOLE: YES <input checked="" type="radio"/> NO <input type="radio"/> NA		BOREHOLE DECLINATION: NA		BOREHOLE DIRECTION: NA			

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

SAMPLE DESC:

Light brown sandy silty dry soil

SAMPLE COMMENTS: NA

LOCATION DESC: 3a-9

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha = \_\_\_\_\_ dpm  
 Beta/Gamma = \_\_\_\_\_ dpm

*JMW*  
 2/20/10  
 PID ~~Ambient~~ Reading = ppm

COLLECTED BY (PRINT)

REVIEWED BY (PRINT) J. MARIN

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) J. MARIN	2/20/10	(Printed Name) Sherri Sherwood	2/20/10
(Signature) <i>J. Marin</i>	16:07	(Signature) <i>Sherri Sherwood</i>	16:07
RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time

## SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2511

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

SAMPLE ID: RE36-10-8482

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		02/20/2010		MEDIA:		QBT3	
TIME COLLECTED (HH:MM)		14:30		SUB-MEDIA:		TUFF 1	
PRS ID:	36-003(a)	OK		SAMPLE TECH CODE:		HA	
LOCATION ID:	36-610888			FIELD QC TYPE:		NA	
LOCATION TYPE:	GENERIC			FIELD PREP:		NA	
TOP DEPTH:	0	2.0		SAMPLE USAGE:		INV	
BOTTOM DEPTH:	0	3.5		SCREEN/PORT DESC:		NA	
FIELD MATRIX:	R	S		EXCAVATED: YES (NO) NA			
COMPOSITE TYPE: NA		COMPOSITE TIME INTERVAL: NA		WATER FLOWING: YES (NO) NA			
BOREHOLE: YES (NO) NA		BOREHOLE DECLINATION: NA		BOREHOLE DIRECTION: NA			

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	8260B	125 ML SEPTUM AMBER GLASS 2260 clear	Ice	Y	
1		8270C+NMED Exp	500 ML AMBER GLASS	Ice		
1		AM241+GS+ISO PU+ISOU	1 LITER POLY	None		
1		H3	500 ML POLY	Ice		
1		METALS+U-GEL	125 ML POLY	Ice		
1		Perchlorate+CN+N03+pH	500 ML POLY	Ice		
1		RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None		

SAMPLE DESC: FD: RE36-10-8490 Light brown silty sand dry soil

SAMPLE COMMENTS: NA

LOCATION DESC: 3a-11

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha = 11 dpm  
Beta/Gamma = 2260 dpm

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

COLLECTED BY (PRINT)

REVIEWED BY (PRINT) J. Marin

RELINQUISHED BY (Printed Name) JON MARIN (Signature) Jon R. Marin	Date/Time 2/20/10 16:07	RECEIVED BY (Printed Name) Sheri Sherwood (Signature) Sheri Sherwood	Date/Time 2/20/10 16:07
RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time

## SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2511

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

SAMPLE ID: RE36-10-8483

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		02/20/2010		MEDIA:	OBT3		OK
TIME COLLECTED (HH:MM)		14:45		SUB-MEDIA:	TUFF 1		
PRS ID:	36-003(a)	OK		SAMPLE TECH CODE:	HA		
LOCATION ID:	36-610888	OK		FIELD QC TYPE:	NA		
LOCATION TYPE:	GENERIC	OK		FIELD PREP:	NA		
TOP DEPTH:	0	2 feet 5.0	7.0	SAMPLE USAGE:	INV		
BOTTOM DEPTH:	0	2 feet 6.0	8.0	SCREEN/PORT DESC:	NA		
FIELD MATRIX:	R	OK		EXCAVATED: YES/NO/NA			
COMPOSITE TYPE:	NA			COMPOSITE TIME INTERVAL:	NA		
BOREHOLE: YES/NO/NA				BOREHOLE DECLINATION:	NA		
				BOREHOLE DIRECTION:	NA		

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

SAMPLE DESC: Pinkish-Gray Weathered - slightly welded Tuff.

SAMPLE COMMENTS:

NA

LOCATION DESC: 3a-11

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha = 16 dpm  
Beta/Gamma = 2236 dpm

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

COLLECTED BY (PRINT)

Larry A. Lopez

REVIEWED BY (PRINT)

J. MARIN

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Larry A. Lopez	02/20/10	(Printed Name) Sherry Shewood	2/20/10
(Signature) Larry A. Lopez	16:07	(Signature) Sherry Shewood	16:07
RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time

## SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2511

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

SAMPLE ID: RE36-10-8490

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		02/20/2010	MEDIA:	OBT3		ALLH	
TIME COLLECTED (HH:MM)		14:30	SUB-MEDIA:	TUFF 1		NA	
PRS ID:	36-003(a)	OK	SAMPLE TECH CODE:	HA		OK	
LOCATION ID:	UNK	36-610888	FIELD QC TYPE:	ED			
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	NA			
TOP DEPTH:	0	2.0 ft	SAMPLE USAGE:	QC			
BOTTOM DEPTH:	0	3.5 ft	SCREEN/PORT DESC:			NA	
FIELD MATRIX:	R	S	EXCAVATED: YES/NO/NA				
COMPOSITE TYPE:	NA		COMPOSITE TIME INTERVAL:	NA		WATER FLOWING: YES (NO) NA	
BOREHOLE: YES (NO) NA			BOREHOLE DECLINATION:	NA		BOREHOLE DIRECTION:	NA

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

SAMPLE DESC: QC Sample of RE36-10-8482 Light brown silty sandy dry soil

SAMPLE COMMENTS: NA

LOCATION DESC: 3a-11

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha = 11 dpm  
Beta/Gamma = 2260 dpm

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

COLLECTED BY (PRINT)

REVIEWED BY (PRINT) J. MARIN

RELINQUISHED BY (Printed Name) JON MARIN (Signature) Jon R. Marin	Date/Time 2/20/10 16:07	RECEIVED BY (Printed Name) Sheri Sherwood (Signature) Sheri Sherwood	Date/Time 2/20/10 16:07
RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time

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

EVENT ID: 2511

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

SAMPLE ID: RE36-10-8494

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		02/20/2010		MEDIA: NA		OK	
TIME COLLECTED (HH:MM)		15:15		SUB-MEDIA: OTHER			
PRS ID: 36-003(a)		OK		SAMPLE TECH CODE: DC			
LOCATION ID: UNK		36-610888		FIELD QC TYPE: FR			
LOCATION TYPE: GENERIC		OK		FIELD PREP: UF			
TOP DEPTH: 0		0		SAMPLE USAGE: QC			
BOTTOM DEPTH: 0		0		SCREEN/PORT DESC:		NA	
FIELD MATRIX: W		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	METALS+U-GEL	1 LITER POLY	Nitric Acid	Y	
1		NO3NO2	250 ML POLY	Sulfuric Acid (Hydrogen Sulfate)		
1		SW-846:6850	250 ML POLY	Ice		
1		TCN	500 ML POLY	Sodium Hydroxide		

SAMPLE DESC: QC Sample of RE36-10-8483

SAMPLE COMMENTS: NA

LOCATION DESC: 3a-11

FIELD SCREENING/MEASUREMENT RESULTS: NA

COLLECTED BY (PRINT)

REVIEWED BY (PRINT) J. MARIN

RELINQUISHED BY (Printed Name) JOW MARIN (Signature) J. Marin	Date/Time 2/20/10 16:08	RECEIVED BY (Printed Name) Sherrin Sherwood (Signature) Sherrin Sherwood	Date/Time 2/20/10 16:08
RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time



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

EVENT ID: 2511

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

SAMPLE ID: RE36-10-8496

WORK ORDER:

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		02/20/2010	MEDIA:	NA	OK
TIME COLLECTED (HH:MM)		13:35	SUB-MEDIA:	OTHER	
PRS ID:	36-003(a)	OK	SAMPLE TECH CODE:	DC	
LOCATION ID:	UNK	36-610884	FIELD QC TYPE:	FTB	
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	NA	
TOP DEPTH:	0		SAMPLE USAGE:	QC	
BOTTOM DEPTH:	0		SCREEN/PORT DESC:		NA
FIELD MATRIX:	S		EXCAVATED: YES <input checked="" type="radio"/> NO <input type="radio"/> NA		
COMPOSITE TYPE:	NA		COMPOSITE TIME INTERVAL:	NA	
			WATER FLOWING: YES <input checked="" type="radio"/> NO <input type="radio"/> NA		
BOREHOLE: YES <input checked="" type="radio"/> NO <input type="radio"/> NA			BOREHOLE DECLINATION:	NA	
			BOREHOLE DIRECTION:	NA	

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
9/20/2010 1 <sup>2</sup>	Normal	8260B Trip Blank	40 ML SEPTUM AMBER GLASS	Ice	Y	

SAMPLE DESC: QC Sample of RE36-10-8474

SAMPLE COMMENTS:

LOCATION DESC: 3a7

FIELD SCREENING/MEASUREMENT RESULTS: NA

COLLECTED BY (PRINT)

REVIEWED BY (PRINT) J. MARIN

RELINQUISHED BY (Printed Name) JON MARIN (Signature) Jon R Marin	Date/Time 2/20/10 16:07	RECEIVED BY (Printed Name) Sheri Sherwood (Signature) Sheri Sherwood	Date/Time 2/20/10 16:07
RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time

## Rad Screening Data Release Form

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

RE36-10-8470

8474

8476

8478

8480

8482

8483

8490

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):

RE36-10-8496 FTB

8494 FR

Reason:

.....

Print Last Name MARIN

Signature

John L. Marin

Date

2/20/10




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

ARS Sample Delivery Group: AR52-10-00066  
Client Sample ID: RE36-10-8470  
Sample Collection Date: 02/20/10 10:13  
Sample Matrix: Soil/Solid

Request or PO Number:  
ARS Sample ID: AR52-10-00066-003  
Date Received: 02/22/10 00:00  
Report Date: 02/23/10 11:46

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	36.88	28.87	32.75	28.92		pCi/g	EPA 900.0M	2/23/2010	ME	N/A
GROSS BETA	72.04	19.27	18.31	21.19		pCi/g	EPA 900.0M	2/23/2010	ME	N/A
NA-22	-0.04	41.01	0.13	41.01		pCi/g	EPA 901.1M	2/23/2010	ME	N/A
K-40	28.35	9.87	1.41	9.90		pCi/g	EPA 901.1M	2/23/2010	ME	N/A
CO-60	0.00	0.00	0.14	0.00		pCi/g	EPA 901.1M	2/23/2010	ME	N/A
CS-134	-0.05	39.88	0.09	39.88		pCi/g	EPA 901.1M	2/23/2010	ME	N/A
CS-137	0.02	0.04	0.08	0.04		pCi/g	EPA 901.1M	2/23/2010	ME	N/A
EU-152	-0.88	158.76	0.36	158.76		pCi/g	EPA 901.1M	2/23/2010	ME	N/A
PB-212	1.84	0.64	0.21	0.64		pCi/g	EPA 901.1M	2/23/2010	ME	N/A
RA-228	2.47	0.99	0.34	0.99		pCi/g	EPA 901.1M	2/23/2010	ME	N/A
U-235	1.37	1.22	0.57	1.22		pCi/g	EPA 901.1M	2/23/2010	ME	N/A
U-238	5.07	5.04	1.99	5.17		pCi/g	EPA 901.1M	2/23/2010	ME	N/A
AM-241	0.08	0.19	0.10	0.19		pCi/g	EPA 901.1M	2/23/2010	ME	N/A

NOTES: % Moisture: 0.65

  
Quality Assurance Review

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LELAP Certificate# 30658

NELAP Certificate # B87558



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

ARS Sample Delivery Group: ARS2-10-00066  
Client Sample ID: RE36-10-8474  
Sample Collection Date: 02/20/10 13:45  
Sample Matrix: Soil/Solid

Request or PO Number:  
ARS Sample ID: ARS2-10-00066-004  
Date Received: 02/22/10 00:00  
Report Date: 02/23/10 11:46

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	32.71	27.23	33.91	27.52		pCi/g	EPA 900.0M	2/23/2010	ME	N/A
GROSS BETA	33.76	14.64	17.73	15.21		pCi/g	EPA 900.0M	2/23/2010	ME	N/A
NA-22	0.04	0.30	0.18	0.30		pCi/g	EPA 901.1M	2/23/2010	ME	N/A
K-40	32.40	11.11	1.57	11.15		pCi/g	EPA 901.1M	2/23/2010	ME	N/A
CO-60	0.00	0.00	0.15	0.00		pCi/g	EPA 901.1M	2/23/2010	ME	N/A
CS-134	0.06	0.12	0.12	0.12		pCi/g	EPA 901.1M	2/23/2010	ME	N/A
CS-137	0.03	0.06	0.09	0.06		pCi/g	EPA 901.1M	2/23/2010	ME	N/A
BU-152	0.70	0.84	0.39	0.84		pCi/g	EPA 901.1M	2/23/2010	ME	N/A
PB-212	1.51	0.62	0.21	0.62		pCi/g	EPA 901.1M	2/23/2010	ME	N/A
RA-228	2.01	0.95	0.35	0.95		pCi/g	EPA 901.1M	2/23/2010	ME	N/A
U-235	1.14	0.69	0.52	0.69		pCi/g	EPA 901.1M	2/23/2010	ME	N/A
U-238	6.34	3.68	1.35	3.96		pCi/g	EPA 901.1M	2/23/2010	ME	N/A
AM-241	0.75	0.48	0.15	0.48		pCi/g	EPA 901.1M	2/23/2010	ME	N/A

NOTES: % Moisture: 1.51

*Matthew L. Eden*  
Quality Assurance Review

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LELAP Certificate# 30658

NELAP Certificate # E87558



133 State Road 4, White Rock, NM 87544

505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group: ARS2-10-00066  
 Client Sample ID: RE36-10-8476  
 Sample Collection Date: 02/20/10 13:52  
 Sample Matrix: Soil/Solid

Request or PO Number:  
 ARS Sample ID: ARS2-10-00066-005  
 Date Received: 02/22/10 00:00  
 Report Date: 02/23/10 11:46

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	34.42	29.41	37.46	29.71		pCi/g	EPA 900.0M	2/23/2010	ME	N/A
GROSS BETA	50.13	16.56	18.42	17.66		pCi/g	EPA 900.0M	2/23/2010	ME	N/A
NA-22	-0.04	45.95	0.15	45.95		pCi/g	EPA 901.1M	2/23/2010	ME	N/A
K-40	33.69	11.39	1.58	11.43		pCi/g	EPA 901.1M	2/23/2010	ME	N/A
CO-60	0.13	0.16	0.15	0.16		pCi/g	EPA 901.1M	2/23/2010	ME	N/A
CS-134	0.42	0.38	0.15	0.35		pCi/g	EPA 901.1M	2/23/2010	ME	N/A
CS-137	0.02	0.04	0.09	0.04		pCi/g	EPA 901.1M	2/23/2010	ME	N/A
SU-152	-0.05	-0.11	0.43	-0.11		pCi/g	EPA 901.1M	2/23/2010	ME	N/A
PB-212	0.97	0.55	0.22	0.55		pCi/g	EPA 901.1M	2/23/2010	ME	N/A
RA-228	2.47	1.08	0.38	1.08		pCi/g	EPA 901.1M	2/23/2010	ME	N/A
U-235	0.15	0.62	0.61	0.62		pCi/g	EPA 901.1M	2/23/2010	ME	N/A
U-238	1.44	3.28	1.58	3.30		pCi/g	EPA 901.1M	2/23/2010	ME	N/A
AM-241	0.30	0.40	0.18	0.40		pCi/g	EPA 901.1M	2/23/2010	ME	N/A
NOTES: % Moisture: 0.39										

*Matthew A. Eden*  
 Quality Assurance Review

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

ARS Sample Delivery Group: ARS2-10-00066  
Client Sample ID: RE36-10-8478  
Sample Collection Date: 02/20/10 14:00  
Sample Matrix: Soil/Solid

Request or PO Number:  
ARS Sample ID: ARS2-10-00066-006  
Date Received: 02/22/10 00:00  
Report Date: 02/23/10 11:46

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	23.63	24.18	34.06	24.35		pCi/g	EPA 900.0M	2/23/2010	ME	N/A
GROSS BETA	25.34	13.52	17.92	13.87		pCi/g	EPA 900.0M	2/23/2010	ME	N/A
NA-22	0.04	0.16	0.13	0.16		pCi/g	EPA 901.1M	2/23/2010	ME	N/A
K-40	23.47	9.03	1.43	9.06		pCi/g	EPA 901.1M	2/23/2010	ME	N/A
CO-60	0.00	0.00	0.14	0.00		pCi/g	EPA 901.1M	2/23/2010	ME	N/A
CS-134	0.09	0.10	0.11	0.10		pCi/g	EPA 901.1M	2/23/2010	ME	N/A
CS-137	0.10	0.14	0.08	0.14		pCi/g	EPA 901.1M	2/23/2010	ME	N/A
SU-152	-0.56	172.49	0.39	172.49		pCi/g	EPA 901.1M	2/23/2010	ME	N/A
PB-212	1.62	0.58	0.18	0.59		pCi/g	EPA 901.1M	2/23/2010	ME	N/A
RA-228	2.65	1.06	0.35	1.07		pCi/g	EPA 901.1M	2/23/2010	ME	N/A
U-235	0.43	0.44	0.47	0.44		pCi/g	EPA 901.1M	2/23/2010	ME	N/A
U-238	3.42	3.39	1.50	3.47		pCi/g	EPA 901.1M	2/23/2010	ME	N/A
AM-241	0.12	0.25	0.13	0.25		pCi/g	EPA 901.1M	2/23/2010	ME	N/A
NOTES: % Moisture: 0.49										

Quality Assurance Review

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LELAP Certificate # 30558

NELAP Certificate # E87558



133 State Road 4, White Rock, NM 87544  
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ARS Sample Delivery Group: ARS2-10-00066  
Client Sample ID: RE36-10-8480  
Sample Collection Date: 02/20/10 15:30  
Sample Matrix: Soil/Solid

Request or PO Number:  
ARS Sample ID: ARS2-10-00066-007  
Date Received: 02/22/10 00:00  
Report Date: 02/23/10 11:46

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	2.77	13.74	32.75	13.75		pCi/g	EPA 900.0M	2/23/2010	ME	N/A
GROSS BETA	69.73	18.43	18.31	20.31		pCi/g	EPA 900.0M	2/23/2010	ME	N/A
NA-22	-0.04	42.97	0.14	42.97		pCi/g	EPA 901.1M	2/23/2010	ME	N/A
K-40	36.91	11.53	1.48	11.58		pCi/g	EPA 901.1M	2/23/2010	ME	N/A
CO-60	0.17	0.25	0.14	0.25		pCi/g	EPA 901.1M	2/23/2010	ME	N/A
CS-134	0.03	0.05	0.12	0.05		pCi/g	EPA 901.1M	2/23/2010	ME	N/A
CS-137	0.20	0.20	0.08	0.20		pCi/g	EPA 901.1M	2/23/2010	ME	N/A
EU-152	0.26	0.30	0.37	0.30		pCi/g	EPA 901.1M	2/23/2010	ME	N/A
PB-212	1.54	0.57	0.16	0.57		pCi/g	EPA 901.1M	2/23/2010	ME	N/A
RA-226	2.61	1.39	0.36	1.40		pCi/g	EPA 901.1M	2/23/2010	ME	N/A
U-235	0.57	1.02	0.56	1.02		pCi/g	EPA 901.1M	2/23/2010	ME	N/A
U-238	6.24	3.51	1.27	3.79		pCi/g	EPA 901.1M	2/23/2010	ME	N/A
AM-241	0.44	0.29	0.09	0.30		pCi/g	EPA 901.1M	2/23/2010	ME	N/A
NOTES: % Moisture: 1.24										

Quality Assurance Review

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

LELAP Certificate# 30658

NELAP Certificate # E87558



133 State Road 4, White Rock, NM 87544  
505-872-2770 FAX 505-872-9534

ARS Sample Delivery Group: ARS2-10-00066  
Client Sample ID: RE36-10-5482  
Sample Collection Date: 02/20/10 14:30  
Sample Matrix: Soil/Solid

Request or PO Number:  
ARS Sample ID: ARS2-10-00066-008  
Date Received: 02/22/10 00:00  
Report Date: 02/23/10 11:46

Analyte Description	Analyte Results	Analyte Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	5.13	15.98	33.91	15.99		pCi/g	EPA 900.0M	2/23/2010	ME	N/A
GROSS BETA	55.05	16.40	17.73	17.73		pCi/g	EPA 900.0M	2/23/2010	ME	N/A
NA-22	-0.04	40.19	0.13	40.19		pCi/g	EPA 901.1M	2/23/2010	ME	N/A
K-40	22.73	8.75	1.38	8.77		pCi/g	EPA 901.1M	2/23/2010	ME	N/A
CO-60	0.00	0.00	0.13	0.00		pCi/g	EPA 901.1M	2/23/2010	ME	N/A
CS-134	0.15	0.23	0.16	0.23		pCi/g	EPA 901.1M	2/23/2010	ME	N/A
CS-137	0.00	0.00	0.08	0.00		pCi/g	EPA 901.1M	2/23/2010	ME	N/A
EU-182	0.31	0.33	0.38	0.33		pCi/g	EPA 901.1M	2/23/2010	ME	N/A
PB-212	1.58	0.52	0.11	0.52		pCi/g	EPA 901.1M	2/23/2010	ME	N/A
RA-228	0.00	0.00	0.34	0.00		pCi/g	EPA 901.1M	2/23/2010	ME	N/A
U-235	1.17	0.80	0.42	0.80		pCi/g	EPA 901.1M	2/23/2010	ME	N/A
U-238	2.24	2.98	1.48	3.03		pCi/g	EPA 901.1M	2/23/2010	ME	N/A
AM-241	0.02	0.16	0.10	0.16		pCi/g	EPA 901.1M	2/23/2010	ME	N/A
NOTES: % Moisture: 0.31										

*Matthew A. Baker*  
Quality Assurance Review

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

LELAP Certificate# 30658

NELAP Certificate # EB7558





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

ARS Sample Delivery Group: ARS2-10-00066  
Client Sample ID: RE36-10-8483  
Sample Collection Date: 02/20/10 14:45  
Sample Matrix: Soil/Solid

Request or PO Number:  
ARS Sample ID: ARS2-10-00066-009  
Date Received: 02/22/10 00:00  
Report Date: 02/23/10 11:46

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	29.50	27.75	37.46	27.98		pCi/g	EPA 900.0M	2/23/2010	ME	N/A
GROSS BETA	36.61	18.10	18.42	15.75		pCi/g	EPA 900.0M	2/23/2010	ME	N/A
NA-22	-0.04	40.77	0.13	40.77		pCi/g	EPA 901.1M	2/23/2010	ME	N/A
K-40	31.60	10.39	1.41	10.43		pCi/g	EPA 901.1M	2/23/2010	ME	N/A
CO-60	0.00	0.00	0.14	0.00		pCi/g	EPA 901.1M	2/23/2010	ME	N/A
CS-134	0.08	0.12	0.11	0.12		pCi/g	EPA 901.1M	2/23/2010	ME	N/A
CS-137	0.00	0.00	0.08	0.00		pCi/g	EPA 901.1M	2/23/2010	ME	N/A
EU-152	-0.95	157.83	0.35	157.83		pCi/g	EPA 901.1M	2/23/2010	ME	N/A
PB-212	1.50	0.55	0.16	0.55		pCi/g	EPA 901.1M	2/23/2010	ME	N/A
RA-228	2.25	0.96	0.34	0.96		pCi/g	EPA 901.1M	2/23/2010	ME	N/A
U-235	-0.22	-0.80	0.56	-0.80		pCi/g	EPA 901.1M	2/23/2010	ME	N/A
U-238	5.84	4.32	1.61	4.52		pCi/g	EPA 901.1M	2/23/2010	ME	N/A
AM-241	0.04	0.14	0.08	0.14		pCi/g	EPA 901.1M	2/23/2010	ME	N/A
NOTES: % Moisture: 0.21										

*Matthew J. Foley*  
Quality Assurance Review

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LELAP Certificate# 30658

NELAP Certificate # E87558



133 State Road 4, White Rock, NM 87544

505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group: ARS2-10-00066  
 Client Sample ID: RE36-10-8490  
 Sample Collection Date: 02/20/10 15:00  
 Sample Matrix: Soil/Solid

Request or PO Number:  
 ARS Sample ID: ARS2-10-00066-013  
 Date Received: 02/22/10 00:00  
 Report Date: 02/23/10 11:46


Analysis Description	Analysis Results	Analysis Error +/- 1 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	19.59	24.11	37.46	24.23		pCi/g	EPA 900.0M	2/23/2010	ME	N/A
GROSS BETA	39.28	15.20	18.42	15.94		pCi/g	EPA 900.0M	2/23/2010	ME	N/A
NA-22	0.00	0.00	0.13	0.00		pCi/g	EPA 901.1M	2/23/2010	ME	N/A
K-40	32.30	10.41	1.37	10.45		pCi/g	EPA 901.1M	2/23/2010	ME	N/A
CO-60	0.00	0.00	0.13	0.00		pCi/g	EPA 901.1M	2/23/2010	ME	N/A
CS-134	0.13	0.15	0.09	0.15		pCi/g	EPA 901.1M	2/23/2010	ME	N/A
CS-137	0.02	0.04	0.08	0.04		pCi/g	EPA 901.1M	2/23/2010	ME	N/A
WU-182	-0.54	194.01	0.38	194.01		pCi/g	EPA 901.1M	2/23/2010	ME	N/A
PB-212	1.47	0.60	0.22	0.60		pCi/g	EPA 901.1M	2/23/2010	ME	N/A
RA-228	2.02	1.28	0.33	1.28		pCi/g	EPA 901.1M	2/23/2010	ME	N/A
U-235	0.55	0.63	0.89	0.63		pCi/g	EPA 901.1M	2/23/2010	ME	N/A
U-238	4.13	3.40	1.41	3.53		pCi/g	EPA 901.1M	2/23/2010	ME	N/A
AM-241	-0.03	37.68	0.08	37.68		pCi/g	EPA 901.1M	2/23/2010	ME	N/A
NOTES: % Moisture: 0.63										

*Matthew A. Edman*  
 Quality Assurance Review

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

LELAP Certificate# 30658

NELAP Certificate # E87558

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

Section I.		
REQUEST NUMBER: <u>10-2027</u>	VALIDATION DATE: <u>4/21/10</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. The ICV and/or CC Vs associated with all the samples, the %Ds were >20% for acetone. All the associated sample results were NDs and, thus, were qualified UJ,V7c.							
Reviewed by: <u>Mary Donovan</u>				Level: <u>I</u>		Date: <u>04/21/10</u>	

VALIDATOR'S SIGNATURE: <u>Eric T. Mink</u>	DATE: <u>4/21/10</u>
Form 5114-1, Revision 0.0	
LOS ALAMOS Environmental Restoration Project	

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

5114-2

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

Records Use only



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

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


5114-2

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


Records Use only



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

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

Yes No N/A (Check One)			Assign Qualifier Listed Below If Criterion = Yes	Non-detected Analyte	Detected Analyte
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	21. The IS area count for the quantitating IS is >200% of the area count for the previous organic continuing calibration. Follow the method-specific windows.	UJ, V1c	J, V1c
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	22. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V1d	R, V1d
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	23. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.	R, V3	J-, V3
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	24. The surrogate is < the Lower Acceptance Limit (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package.	UJ, V3a	J-, V3a
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	25. The surrogate %R is > the Upper Acceptance Limit (UAL) Follow the external laboratory limits located within the associated data package.	N/A	J+, V3b
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	26. At least one surrogate is > the UAL and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, V3c	J, V3c
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	27. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V3d	R, V3d
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	28. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, V12	J-, V12
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	29. The LCS percent recovery was < the LAL but > 10%. Follow the external laboratory limits located within the associated data package.	UV, V12a	J-, V12a
<input 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	
<b>5114-2</b>  <b>Volatile Organic Compound (VOC) 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"/>	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 type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input checked="" type="checkbox"/>	33. The mass spectrum column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V8a	R, V8a
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	34. Duplicate, dilution, or reanalysis.	UJ, V88	J, V88
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	35. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytes identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, V15	R, V15
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	36. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	37. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, V19	J, R, V19

**Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2027

Lab Sample ID: 248012001

Date Collected: 02/20/2010 12:00

Date Received: 02/25/2010 08:45

Matrix: S

Client ID: RE36-10-8496

Batch ID: 959900

Run Date: 03/03/2010 00:57

Prep Date: 03/02/2010 17:00

Data File: 030210V3\3B233.D

Client: LANL010

Method: SW846 8260B

Inst: VOA3.I

Analyst: CDS1

Aliquot: 5 g

Column: DB-624

Project: LANL01004

SOP Ref: GL-OA-E-038

Dilution: 1

Purge Vol: 5 mL

Final Volume: 5 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	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 UJ,V7c
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

ETM  
4/21/10



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

SDG Number: 10-2027	Date Collected: 02/20/2010 12:00	Matrix: S
Lab Sample ID: 248012001	Date Received: 02/25/2010 08:45	
Client ID: RE36-10-8496	Client: LANL010	Project: LANL01004
Batch ID: 959900	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Run Date: 03/03/2010 00:57	Inst: VOA3.I	Dilution: 1
Prep Date: 03/02/2010 17:00	Analyst: CDS1	Purge Vol: 5 mL
Data File: 030210V3\3B233.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	1.00	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	Flt	Qual
	No Tentatively Identified Compounds Found			ug/kg		

ETM  
4/21/10

**Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2027  
Lab Sample ID: 248012002

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8260B  
Inst: VOA3.I  
Analyst: CDS1  
Aliquot: 5 g  
Column: DB-624

Matrix: R  
%Moisture: 5.1  
Project: LANL01004  
SOP Ref: GL-OA-E-038  
Dilution: 1  
Purge Vol: 5 mL  
Final Volume: 5 mL

Client ID: RE36-10-8490  
Batch ID: 959900  
Run Date: 03/03/2010 01:27  
Prep Date: 03/02/2010 17:01  
Data File: 030210V3\3B234.D

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.05	ug/kg	0.358	1.05
74-87-3	Chloromethane	U	1.05	ug/kg	0.316	1.05
75-01-4	Vinyl chloride	U	1.05	ug/kg	0.316	1.05
74-83-9	Bromomethane	U	1.05	ug/kg	0.316	1.05
75-00-3	Chloroethane	U	1.05	ug/kg	0.316	1.05
75-69-4	Trichlorofluoromethane	U	1.05	ug/kg	0.316	1.05
67-64-1	Acetone	U	5.27	ug/kg	1.75	5.27 UJ,V7c
75-35-4	1,1-Dichloroethylene	U	1.05	ug/kg	0.316	1.05
74-88-4	Iodomethane	U	5.27	ug/kg	1.69	5.27
75-09-2	Methylene chloride	U	5.27	ug/kg	2.11	5.27
75-15-0	Carbon disulfide	U	5.27	ug/kg	1.32	5.27
156-60-5	trans-1,2-Dichloroethylene	U	1.05	ug/kg	0.316	1.05
75-34-3	1,1-Dichloroethane	U	1.05	ug/kg	0.316	1.05
78-93-3	2-Butanone	U	5.27	ug/kg	1.58	5.27
156-59-2	cis-1,2-Dichloroethylene	U	1.05	ug/kg	0.316	1.05
594-20-7	2,2-Dichloropropane	U	1.05	ug/kg	0.316	1.05
67-66-3	Chloroform	U	1.05	ug/kg	0.316	1.05
74-97-5	Bromochloromethane	U	1.05	ug/kg	0.348	1.05
71-55-6	1,1,1-Trichloroethane	U	1.05	ug/kg	0.316	1.05
563-58-6	1,1-Dichloropropene	U	1.05	ug/kg	0.316	1.05
56-23-5	Carbon tetrachloride	U	1.05	ug/kg	0.316	1.05
107-06-2	1,2-Dichloroethane	U	1.05	ug/kg	0.316	1.05
71-43-2	Benzene	U	1.05	ug/kg	0.316	1.05
79-01-6	Trichloroethylene	U	1.05	ug/kg	0.348	1.05
78-87-5	1,2-Dichloropropane	U	1.05	ug/kg	0.316	1.05
75-27-4	Bromodichloromethane	U	1.05	ug/kg	0.316	1.05
74-95-3	Dibromomethane	U	1.05	ug/kg	0.316	1.05
108-10-1	4-Methyl-2-pentanone	U	5.27	ug/kg	1.32	5.27
10061-01-5	cis-1,3-Dichloropropylene	U	1.05	ug/kg	0.316	1.05
108-88-3	Toluene	U	1.05	ug/kg	0.316	1.05
10061-02-6	trans-1,3-Dichloropropylene	U	1.05	ug/kg	0.316	1.05
79-00-5	1,1,2-Trichloroethane	U	1.05	ug/kg	0.316	1.05
591-78-6	2-Hexanone	U	5.27	ug/kg	1.58	5.27
142-28-9	1,3-Dichloropropane	U	1.05	ug/kg	0.316	1.05
127-18-4	Tetrachloroethylene	U	1.05	ug/kg	0.316	1.05
124-48-1	Dibromochloromethane	U	1.05	ug/kg	0.316	1.05
106-93-4	1,2-Dibromoethane	U	1.05	ug/kg	0.316	1.05
108-90-7	Chlorobenzene	U	1.05	ug/kg	0.316	1.05

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**Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2027	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 248012002	Date Received: 02/25/2010 08:45	%Moisture: 5.1
Client ID: RE36-10-8490	Client: LANL010	Project: LANL01004
Batch ID: 959900	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Run Date: 03/03/2010 01:27	Inst: VOA3.I	Dilution: 1
Prep Date: 03/02/2010 17:01	Analyst: CDS1	Purge Vol: 5 mL
Data File: 030210V3\3B234.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	1.05	ug/kg	0.316	1.05
179601-23-1	m,p-Xylenes	U	2.11	ug/kg	0.316	2.11
95-47-6	o-Xylene	U	1.05	ug/kg	0.316	1.05
100-42-5	Styrene	U	1.05	ug/kg	0.316	1.05
75-25-2	Bromoform	U	1.05	ug/kg	0.316	1.05
79-34-5	1,1,2,2-Tetrachloroethane	U	1.05	ug/kg	0.316	1.05
96-18-4	1,2,3-Trichloropropane	U	1.05	ug/kg	0.316	1.05
108-86-1	Bromobenzene	U	1.05	ug/kg	0.316	1.05
103-65-1	n-Propylbenzene	U	1.05	ug/kg	0.316	1.05
95-49-8	2-Chlorotoluene	U	1.05	ug/kg	0.316	1.05
98-82-8	Isopropylbenzene	U	1.05	ug/kg	0.316	1.05
108-67-8	1,3,5-Trimethylbenzene	U	1.05	ug/kg	0.316	1.05
106-43-4	4-Chlorotoluene	U	1.05	ug/kg	0.316	1.05
98-06-6	tert-Butylbenzene	U	1.05	ug/kg	0.316	1.05
95-63-6	1,2,4-Trimethylbenzene	U	1.05	ug/kg	0.316	1.05
135-98-8	sec-Butylbenzene	U	1.05	ug/kg	0.316	1.05
99-87-6	4-Isopropyltoluene	U	1.05	ug/kg	0.316	1.05
541-73-1	1,3-Dichlorobenzene	U	1.05	ug/kg	0.316	1.05
106-46-7	1,4-Dichlorobenzene	U	1.05	ug/kg	0.316	1.05
104-51-8	n-Butylbenzene	U	1.05	ug/kg	0.316	1.05
96-12-8	1,2-Dibromo-3-chloropropane	U	1.05	ug/kg	0.316	1.05
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	5.27	ug/kg	1.69	5.27
	Trichlorotrifluoroethane					
630-20-6	1,1,1,2-Tetrachloroethane	U	1.05	ug/kg	0.316	1.05
95-50-1	1,2-Dichlorobenzene	U	1.05	ug/kg	0.316	1.05

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown siloxane	19.05	5.3	ug/kg	0	J

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

SDG Number: 10-2027	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 248012003	Date Received: 02/25/2010 08:45	%Moisture: 6.2
Client ID: RE36-10-8470	Client: LANL010	Project: LANL01004
Batch ID: 959900	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Run Date: 03/03/2010 01:56	Inst: VOA3.I	Dilution: 1
Prep Date: 03/02/2010 17:02	Analyst: CDS1	Purge Vol: 5 mL
Data File: 030210V3\3B235.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	1.07	ug/kg	0.362	1.07
74-87-3	Chloromethane	U	1.07	ug/kg	0.320	1.07
75-01-4	Vinyl chloride	U	1.07	ug/kg	0.320	1.07
74-83-9	Bromomethane	U	1.07	ug/kg	0.320	1.07
75-00-3	Chloroethane	U	1.07	ug/kg	0.320	1.07
75-69-4	Trichlorofluoromethane	U	1.07	ug/kg	0.320	1.07
67-64-1	Acetone	U	5.33	ug/kg	1.77	5.33 UJ,V7c
75-35-4	1,1-Dichloroethylene	U	1.07	ug/kg	0.320	1.07
74-88-4	Iodomethane	U	5.33	ug/kg	1.71	5.33
75-09-2	Methylene chloride	U	5.33	ug/kg	2.13	5.33
75-15-0	Carbon disulfide	U	5.33	ug/kg	1.33	5.33
156-60-5	trans-1,2-Dichloroethylene	U	1.07	ug/kg	0.320	1.07
75-34-3	1,1-Dichloroethane	U	1.07	ug/kg	0.320	1.07
78-93-3	2-Butanone	U	5.33	ug/kg	1.60	5.33
156-59-2	cis-1,2-Dichloroethylene	U	1.07	ug/kg	0.320	1.07
594-20-7	2,2-Dichloropropane	U	1.07	ug/kg	0.320	1.07
67-66-3	Chloroform	U	1.07	ug/kg	0.320	1.07
74-97-5	Bromochloromethane	U	1.07	ug/kg	0.352	1.07
71-55-6	1,1,1-Trichloroethane	U	1.07	ug/kg	0.320	1.07
563-58-6	1,1-Dichloropropene	U	1.07	ug/kg	0.320	1.07
56-23-5	Carbon tetrachloride	U	1.07	ug/kg	0.320	1.07
107-06-2	1,2-Dichloroethane	U	1.07	ug/kg	0.320	1.07
71-43-2	Benzene	U	1.07	ug/kg	0.320	1.07
79-01-6	Trichloroethylene	U	1.07	ug/kg	0.352	1.07
78-87-5	1,2-Dichloropropane	U	1.07	ug/kg	0.320	1.07
75-27-4	Bromodichloromethane	U	1.07	ug/kg	0.320	1.07
74-95-3	Dibromomethane	U	1.07	ug/kg	0.320	1.07
108-10-1	4-Methyl-2-pentanone	U	5.33	ug/kg	1.33	5.33
10061-01-5	cis-1,3-Dichloropropylene	U	1.07	ug/kg	0.320	1.07
108-88-3	Toluene	U	1.07	ug/kg	0.320	1.07
10061-02-6	trans-1,3-Dichloropropylene	U	1.07	ug/kg	0.320	1.07
79-00-5	1,1,2-Trichloroethane	U	1.07	ug/kg	0.320	1.07
591-78-6	2-Hexanone	U	5.33	ug/kg	1.60	5.33
142-28-9	1,3-Dichloropropane	U	1.07	ug/kg	0.320	1.07
127-18-4	Tetrachloroethylene	U	1.07	ug/kg	0.320	1.07
124-48-1	Dibromochloromethane	U	1.07	ug/kg	0.320	1.07
106-93-4	1,2-Dibromoethane	U	1.07	ug/kg	0.320	1.07
108-90-7	Chlorobenzene	U	1.07	ug/kg	0.320	1.07

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

SDG Number: 10-2027	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 248012003	Date Received: 02/25/2010 08:45	%Moisture: 6.2
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-8470	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Batch ID: 959900	Inst: VOA3.1	Dilution: 1
Run Date: 03/03/2010 01:56	Analyst: CDS1	Purge Vol: 5 mL
Prep Date: 03/02/2010 17:02	Allquot: 5 g	Final Volume: 5 mL
Data File: 030210V3\3B235.D	Column: DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.07	ug/kg	0.320	1.07
179601-23-1	m,p-Xylenes	U	2.13	ug/kg	0.320	2.13
95-47-6	o-Xylene	U	1.07	ug/kg	0.320	1.07
100-42-5	Styrene	U	1.07	ug/kg	0.320	1.07
75-25-2	Bromoforn	U	1.07	ug/kg	0.320	1.07
79-34-5	1,1,2,2-Tetrachloroethane	U	1.07	ug/kg	0.320	1.07
96-18-4	1,2,3-Trichloropropane	U	1.07	ug/kg	0.320	1.07
108-86-1	Bromobenzene	U	1.07	ug/kg	0.320	1.07
103-65-1	n-Propylbenzene	U	1.07	ug/kg	0.320	1.07
95-49-8	2-Chlorotoluene	U	1.07	ug/kg	0.320	1.07
98-82-8	Isopropylbenzene	U	1.07	ug/kg	0.320	1.07
108-67-8	1,3,5-Trimethylbenzene	U	1.07	ug/kg	0.320	1.07
106-43-4	4-Chlorotoluene	U	1.07	ug/kg	0.320	1.07
98-06-6	tert-Butylbenzene	U	1.07	ug/kg	0.320	1.07
95-63-6	1,2,4-Trimethylbenzene	U	1.07	ug/kg	0.320	1.07
135-98-8	sec-Butylbenzene	U	1.07	ug/kg	0.320	1.07
99-87-6	4-Isopropyltoluene	U	1.07	ug/kg	0.320	1.07
541-73-1	1,3-Dichlorobenzene	U	1.07	ug/kg	0.320	1.07
106-46-7	1,4-Dichlorobenzene	U	1.07	ug/kg	0.320	1.07
104-51-8	n-Butylbenzene	U	1.07	ug/kg	0.320	1.07
96-12-8	1,2-Dibromo-3-chloropropane	U	1.07	ug/kg	0.320	1.07
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	5.33	ug/kg	1.71	5.33
	Trichlorotrifluoroethane					
630-20-6	1,1,1,2-Tetrachloroethane	U	1.07	ug/kg	0.320	1.07
95-50-1	1,2-Dichlorobenzene	U	1.07	ug/kg	0.320	1.07

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown hydrocarbon	16.95	10.3	ug/kg	0	J

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

SDG Number: 10-2027  
 Lab Sample ID: 248012004

Date Collected: 02/20/2010 12:00  
 Date Received: 02/25/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA3.I  
 Analyst: CDS1  
 Allquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 4.2  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

Client ID: RE36-10-8476  
 Batch ID: 959900  
 Run Date: 03/03/2010 02:26  
 Prep Date: 03/02/2010 17:03  
 Data File: 030210V3\3B236.D

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.04	ug/kg	0.355	1.04
74-87-3	Chloromethane	U	1.04	ug/kg	0.313	1.04
75-01-4	Vinyl chloride	U	1.04	ug/kg	0.313	1.04
74-83-9	Bromomethane	U	1.04	ug/kg	0.313	1.04
75-00-3	Chloroethane	U	1.04	ug/kg	0.313	1.04
75-69-4	Trichlorofluoromethane	U	1.04	ug/kg	0.313	1.04
67-64-1	Acetone	U	5.22	ug/kg	1.73	5.22 UJ,V7c
75-35-4	1,1-Dichloroethylene	U	1.04	ug/kg	0.313	1.04
74-88-4	Iodomethane	U	5.22	ug/kg	1.67	5.22
75-09-2	Methylene chloride	U	5.22	ug/kg	2.09	5.22
75-15-0	Carbon disulfide	U	5.22	ug/kg	1.30	5.22
156-60-5	trans-1,2-Dichloroethylene	U	1.04	ug/kg	0.313	1.04
75-34-3	1,1-Dichloroethane	U	1.04	ug/kg	0.313	1.04
78-93-3	2-Butanone	U	5.22	ug/kg	1.57	5.22
156-59-2	cis-1,2-Dichloroethylene	U	1.04	ug/kg	0.313	1.04
594-20-7	2,2-Dichloropropane	U	1.04	ug/kg	0.313	1.04
67-66-3	Chloroform	U	1.04	ug/kg	0.313	1.04
74-97-5	Bromochloromethane	U	1.04	ug/kg	0.344	1.04
71-55-6	1,1,1-Trichloroethane	U	1.04	ug/kg	0.313	1.04
563-58-6	1,1-Dichloropropene	U	1.04	ug/kg	0.313	1.04
56-23-5	Carbon tetrachloride	U	1.04	ug/kg	0.313	1.04
107-06-2	1,2-Dichloroethane	U	1.04	ug/kg	0.313	1.04
71-43-2	Benzene	U	1.04	ug/kg	0.313	1.04
79-01-6	Trichloroethylene	U	1.04	ug/kg	0.344	1.04
78-87-5	1,2-Dichloropropane	U	1.04	ug/kg	0.313	1.04
75-27-4	Bromodichloromethane	U	1.04	ug/kg	0.313	1.04
74-95-3	Dibromomethane	U	1.04	ug/kg	0.313	1.04
108-10-1	4-Methyl-2-pentanone	U	5.22	ug/kg	1.30	5.22
10061-01-5	cis-1,3-Dichloropropylene	U	1.04	ug/kg	0.313	1.04
108-88-3	Toluene	U	1.04	ug/kg	0.313	1.04
10061-02-6	trans-1,3-Dichloropropylene	U	1.04	ug/kg	0.313	1.04
79-00-5	1,1,2-Trichloroethane	U	1.04	ug/kg	0.313	1.04
591-78-6	2-Hexanone	U	5.22	ug/kg	1.57	5.22
142-28-9	1,3-Dichloropropane	U	1.04	ug/kg	0.313	1.04
127-18-4	Tetrachloroethylene	U	1.04	ug/kg	0.313	1.04
124-48-1	Dibromochloromethane	U	1.04	ug/kg	0.313	1.04
106-93-4	1,2-Dibromoethane	U	1.04	ug/kg	0.313	1.04
108-90-7	Chlorobenzene	U	1.04	ug/kg	0.313	1.04

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

SDG Number: 10-2027	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 248012004	Date Received: 02/25/2010 08:45	%Moisture: 4.2
Client ID: RE36-10-8476	Client: LANL010	Project: LANL01004
Batch ID: 959900	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Run Date: 03/03/2010 02:26	Inst: VOA3.I	Dilution: 1
Prep Date: 03/02/2010 17:03	Analyst: CDS1	Purge Vol: 5 mL
Data File: 030210V3\3B236.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	1.04	ug/kg	0.313	1.04
179601-23-1	m,p-Xylenes	U	2.09	ug/kg	0.313	2.09
95-47-6	o-Xylene	U	1.04	ug/kg	0.313	1.04
100-42-5	Styrene	U	1.04	ug/kg	0.313	1.04
75-25-2	Bromoform	U	1.04	ug/kg	0.313	1.04
79-34-5	1,1,2,2-Tetrachloroethane	U	1.04	ug/kg	0.313	1.04
96-18-4	1,2,3-Trichloropropane	U	1.04	ug/kg	0.313	1.04
108-86-1	Bromobenzene	U	1.04	ug/kg	0.313	1.04
103-65-1	n-Propylbenzene	U	1.04	ug/kg	0.313	1.04
95-49-8	2-Chlorotoluene	U	1.04	ug/kg	0.313	1.04
98-82-8	Isopropylbenzene	U	1.04	ug/kg	0.313	1.04
108-67-8	1,3,5-Trimethylbenzene	U	1.04	ug/kg	0.313	1.04
106-43-4	4-Chlorotoluene	U	1.04	ug/kg	0.313	1.04
98-06-6	tert-Butylbenzene	U	1.04	ug/kg	0.313	1.04
95-63-6	1,2,4-Trimethylbenzene	U	1.04	ug/kg	0.313	1.04
135-98-8	sec-Butylbenzene	U	1.04	ug/kg	0.313	1.04
99-87-6	4-Isopropyltoluene	U	1.04	ug/kg	0.313	1.04
541-73-1	1,3-Dichlorobenzene	U	1.04	ug/kg	0.313	1.04
106-46-7	1,4-Dichlorobenzene	U	1.04	ug/kg	0.313	1.04
104-51-8	n-Butylbenzene	U	1.04	ug/kg	0.313	1.04
96-12-8	1,2-Dibromo-3-chloropropane	U	1.04	ug/kg	0.313	1.04
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	5.22	ug/kg	1.67	5.22
630-20-6	Trichlorotrifluoroethane	U	1.04	ug/kg	0.313	1.04
95-50-1	1,1,1,2-Tetrachloroethane	U	1.04	ug/kg	0.313	1.04
	1,2-Dichlorobenzene	U	1.04	ug/kg	0.313	1.04

**Tentatively Identified Compound Summary**

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

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

SDG Number: 10-2027  
 Lab Sample ID: 248012005

Date Collected: 02/20/2010 12:00  
 Date Received: 02/25/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA3.I  
 Analyst: CDS1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 10.8  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

Client ID: RE36-10-8480  
 Batch ID: 959900  
 Run Date: 03/03/2010 02:55  
 Prep Date: 03/02/2010 17:04  
 Data File: 030210V3\3B237.D

CAS No.	Parname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.12	ug/kg	0.381	1.12
74-87-3	Chloromethane	U	1.12	ug/kg	0.336	1.12
75-01-4	Vinyl chloride	U	1.12	ug/kg	0.336	1.12
74-83-9	Bromomethane	U	1.12	ug/kg	0.336	1.12
75-00-3	Chloroethane	U	1.12	ug/kg	0.336	1.12
75-69-4	Trichlorofluoromethane	U	1.12	ug/kg	0.336	1.12
67-64-1	Acetone	U	5.61	ug/kg	1.86	5.61 UJ,V7c
75-35-4	1,1-Dichloroethylene	U	1.12	ug/kg	0.336	1.12
74-88-4	Iodomethane	U	5.61	ug/kg	1.79	5.61
75-09-2	Methylene chloride	U	5.61	ug/kg	2.24	5.61
75-15-0	Carbon disulfide	U	5.61	ug/kg	1.40	5.61
156-60-5	trans-1,2-Dichloroethylene	U	1.12	ug/kg	0.336	1.12
75-34-3	1,1-Dichloroethane	U	1.12	ug/kg	0.336	1.12
78-93-3	2-Butanone	U	5.61	ug/kg	1.68	5.61
156-59-2	cis-1,2-Dichloroethylene	U	1.12	ug/kg	0.336	1.12
594-20-7	2,2-Dichloropropane	U	1.12	ug/kg	0.336	1.12
67-66-3	Chloroform	U	1.12	ug/kg	0.336	1.12
74-97-5	Bromochloromethane	U	1.12	ug/kg	0.370	1.12
71-55-6	1,1,1-Trichloroethane	U	1.12	ug/kg	0.336	1.12
563-58-6	1,1-Dichloropropene	U	1.12	ug/kg	0.336	1.12
56-23-5	Carbon tetrachloride	U	1.12	ug/kg	0.336	1.12
107-06-2	1,2-Dichloroethane	U	1.12	ug/kg	0.336	1.12
71-43-2	Benzene	U	1.12	ug/kg	0.336	1.12
79-01-6	Trichloroethylene	U	1.12	ug/kg	0.370	1.12
78-87-5	1,2-Dichloropropane	U	1.12	ug/kg	0.336	1.12
75-27-4	Bromodichloromethane	U	1.12	ug/kg	0.336	1.12
74-95-3	Dibromomethane	U	1.12	ug/kg	0.336	1.12
108-10-1	4-Methyl-2-pentanone	U	5.61	ug/kg	1.40	5.61
10061-01-5	cis-1,3-Dichloropropylene	U	1.12	ug/kg	0.336	1.12
108-88-3	Toluene	U	1.12	ug/kg	0.336	1.12
10061-02-6	trans-1,3-Dichloropropylene	U	1.12	ug/kg	0.336	1.12
79-00-5	1,1,2-Trichloroethane	U	1.12	ug/kg	0.336	1.12
591-78-6	2-Hexanone	U	5.61	ug/kg	1.68	5.61
142-28-9	1,3-Dichloropropane	U	1.12	ug/kg	0.336	1.12
127-18-4	Tetrachloroethylene	U	1.12	ug/kg	0.336	1.12
124-48-1	Dibromochloromethane	U	1.12	ug/kg	0.336	1.12
106-93-4	1,2-Dibromoethane	U	1.12	ug/kg	0.336	1.12
108-90-7	Chlorobenzene	U	1.12	ug/kg	0.336	1.12



**Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2027

Lab Sample ID: 248012005

Date Collected: 02/20/2010 12:00

Date Received: 02/25/2010 08:45

Matrix: R

%Moisture: 10.8

Client ID: RE36-10-8480

Batch ID: 959900

Run Date: 03/03/2010 02:55

Prep Date: 03/02/2010 17:04

Data File: 030210V3\3B237.D

Client: LANL010

Method: SW846 8260B

Inst: VOA3.I

Analyst: CDS1

Aliquot: 5 g

Column: DB-624

Project: LANL01004

SOP Ref: GL-OA-E-038

Dilution: 1

Purge Vol: 5 mL

Final Volume: 5 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.12	ug/kg	0.336	1.12
179601-23-1	m,p-Xylenes	U	2.24	ug/kg	0.336	2.24
95-47-6	o-Xylene	U	1.12	ug/kg	0.336	1.12
100-42-5	Styrene	U	1.12	ug/kg	0.336	1.12
75-25-2	Bromoform	U	1.12	ug/kg	0.336	1.12
79-34-5	1,1,2,2-Tetrachloroethane	U	1.12	ug/kg	0.336	1.12
96-18-4	1,2,3-Trichloropropane	U	1.12	ug/kg	0.336	1.12
108-86-1	Bromobenzene	U	1.12	ug/kg	0.336	1.12
103-65-1	n-Propylbenzene	U	1.12	ug/kg	0.336	1.12
95-49-8	2-Chlorotoluene	U	1.12	ug/kg	0.336	1.12
98-82-8	Isopropylbenzene	U	1.12	ug/kg	0.336	1.12
108-67-8	1,3,5-Trimethylbenzene	U	1.12	ug/kg	0.336	1.12
106-43-4	4-Chlorotoluene	U	1.12	ug/kg	0.336	1.12
98-06-6	tert-Butylbenzene	U	1.12	ug/kg	0.336	1.12
95-63-6	1,2,4-Trimethylbenzene	U	1.12	ug/kg	0.336	1.12
135-98-8	sec-Butylbenzene	U	1.12	ug/kg	0.336	1.12
99-87-6	4-Isopropyltoluene	U	1.12	ug/kg	0.336	1.12
541-73-1	1,3-Dichlorobenzene	U	1.12	ug/kg	0.336	1.12
106-46-7	1,4-Dichlorobenzene	U	1.12	ug/kg	0.336	1.12
104-51-8	n-Butylbenzene	U	1.12	ug/kg	0.336	1.12
96-12-8	1,2-Dibromo-3-chloropropane	U	1.12	ug/kg	0.336	1.12
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	5.61	ug/kg	1.79	5.61
	<i>Trichlorotrifluoroethane</i>					
630-20-6	1,1,1,2-Tetrachloroethane	U	1.12	ug/kg	0.336	1.12
95-50-1	1,2-Dichlorobenzene	U	1.12	ug/kg	0.336	1.12

**Tentatively Identified Compound Summary**

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

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

SDG Number: 10-2027	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 248012006	Date Received: 02/25/2010 08:45	%Moisture: 12.8
Client ID: RE36-10-8474	Client: LANL010	Project: LANL01004
Batch ID: 959900	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Run Date: 03/04/2010 12:43	Inst: VOA3.I	Dilution: 1
Prep Date: 03/04/2010 07:02	Analyst: CDS1	Purge Vol: 5 mL
Data File: 030410V3\3B410.D	Allquot: 5 g	Final Volume: 5 mL
	Column: DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.15	ug/kg	0.390	1.15
74-87-3	Chloromethane	U	1.15	ug/kg	0.344	1.15
75-01-4	Vinyl chloride	U	1.15	ug/kg	0.344	1.15
74-83-9	Bromomethane	U	1.15	ug/kg	0.344	1.15
75-00-3	Chloroethane	U	1.15	ug/kg	0.344	1.15
75-69-4	Trichlorofluoromethane	U	1.15	ug/kg	0.344	1.15
67-64-1	Acetone	U	5.74	ug/kg	1.90	5.74 UJ,V7c
75-35-4	1,1-Dichloroethylene	U	1.15	ug/kg	0.344	1.15
74-88-4	Iodomethane	U	5.74	ug/kg	1.84	5.74
75-09-2	Methylene chloride	U	5.74	ug/kg	2.29	5.74
75-15-0	Carbon disulfide	U	5.74	ug/kg	1.43	5.74
156-60-5	trans-1,2-Dichloroethylene	U	1.15	ug/kg	0.344	1.15
75-34-3	1,1-Dichloroethane	U	1.15	ug/kg	0.344	1.15
78-93-3	2-Butanone	U	5.74	ug/kg	1.72	5.74
156-59-2	cis-1,2-Dichloroethylene	U	1.15	ug/kg	0.344	1.15
594-20-7	2,2-Dichloropropane	U	1.15	ug/kg	0.344	1.15
67-66-3	Chloroform	U	1.15	ug/kg	0.344	1.15
74-97-5	Bromochloromethane	U	1.15	ug/kg	0.379	1.15
71-55-6	1,1,1-Trichloroethane	U	1.15	ug/kg	0.344	1.15
563-58-6	1,1-Dichloropropene	U	1.15	ug/kg	0.344	1.15
56-23-5	Carbon tetrachloride	U	1.15	ug/kg	0.344	1.15
107-06-2	1,2-Dichloroethane	U	1.15	ug/kg	0.344	1.15
71-43-2	Benzene	U	1.15	ug/kg	0.344	1.15
79-01-6	Trichloroethylene	U	1.15	ug/kg	0.379	1.15
78-87-5	1,2-Dichloropropane	U	1.15	ug/kg	0.344	1.15
75-27-4	Bromodichloromethane	U	1.15	ug/kg	0.344	1.15
74-95-3	Dibromomethane	U	1.15	ug/kg	0.344	1.15
108-10-1	4-Methyl-2-pentanone	U	5.74	ug/kg	1.43	5.74
10061-01-5	cis-1,3-Dichloropropylene	U	1.15	ug/kg	0.344	1.15
108-88-3	Toluene	U	1.15	ug/kg	0.344	1.15
10061-02-6	trans-1,3-Dichloropropylene	U	1.15	ug/kg	0.344	1.15
79-00-5	1,1,2-Trichloroethane	U	1.15	ug/kg	0.344	1.15
591-78-6	2-Hexanone	U	5.74	ug/kg	1.72	5.74
142-28-9	1,3-Dichloropropane	U	1.15	ug/kg	0.344	1.15
127-18-4	Tetrachloroethylene	U	1.15	ug/kg	0.344	1.15
124-48-1	Dibromochloromethane	U	1.15	ug/kg	0.344	1.15
106-93-4	1,2-Dibromoethane	U	1.15	ug/kg	0.344	1.15
108-90-7	Chlorobenzene	U	1.15	ug/kg	0.344	1.15

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

SDG Number: 10-2027	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 248012006	Date Received: 02/25/2010 08:45	%Moisture: 12.8
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-8474	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Batch ID: 959900	Inst: VOA3.I	Dilution: 1
Run Date: 03/04/2010 12:43	Analyst: CDS1	Purge Vol: 5 mL
Prep Date: 03/04/2010 07:02	Aliquot: 5 g	Final Volume: 5 mL
Data File: 030410V3\3B410.D	Column: DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.15	ug/kg	0.344	1.15
179601-23-1	m,p-Xylenes	U	2.29	ug/kg	0.344	2.29
95-47-6	o-Xylene	U	1.15	ug/kg	0.344	1.15
100-42-5	Styrene	U	1.15	ug/kg	0.344	1.15
75-25-2	Bromoform	U	1.15	ug/kg	0.344	1.15
79-34-5	1,1,2,2-Tetrachloroethane	U	1.15	ug/kg	0.344	1.15
96-18-4	1,2,3-Trichloropropane	U	1.15	ug/kg	0.344	1.15
108-86-1	Bromobenzene	U	1.15	ug/kg	0.344	1.15
103-65-1	n-Propylbenzene	U	1.15	ug/kg	0.344	1.15
95-49-8	2-Chlorotoluene	U	1.15	ug/kg	0.344	1.15
98-82-8	Isopropylbenzene	U	1.15	ug/kg	0.344	1.15
108-67-8	1,3,5-Trimethylbenzene	U	1.15	ug/kg	0.344	1.15
106-43-4	4-Chlorotoluene	U	1.15	ug/kg	0.344	1.15
98-06-6	tert-Butylbenzene	U	1.15	ug/kg	0.344	1.15
95-63-6	1,2,4-Trimethylbenzene	U	1.15	ug/kg	0.344	1.15
135-98-8	sec-Butylbenzene	U	1.15	ug/kg	0.344	1.15
99-87-6	4-Isopropyltoluene	U	1.15	ug/kg	0.344	1.15
541-73-1	1,3-Dichlorobenzene	U	1.15	ug/kg	0.344	1.15
106-46-7	1,4-Dichlorobenzene	U	1.15	ug/kg	0.344	1.15
104-51-8	n-Butylbenzene	U	1.15	ug/kg	0.344	1.15
96-12-8	1,2-Dibromo-3-chloropropane	U	1.15	ug/kg	0.344	1.15
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	5.74	ug/kg	1.84	5.74
	Trichlorotrifluoroethane					
630-20-6	1,1,1,2-Tetrachloroethane	U	1.15	ug/kg	0.344	1.15
95-50-1	1,2-Dichlorobenzene	U	1.15	ug/kg	0.344	1.15

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown siloxane	19.05	7.06	ug/kg	0	J

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

SDG Number: 10-2027	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 248012007	Date Received: 02/25/2010 08:45	%Moisture: 4.7
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-8478	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Batch ID: 959900	Inst: VOA3.I	Dilution: 1
Run Date: 03/03/2010 03:24	Analyst: CDS1	Purge Vol: 5 mL
Prep Date: 03/02/2010 17:05	Aliquot: 5 g	Final Volume: 5 mL
Data File: 030210V3\3B238.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
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	5.25	ug/kg	1.74	5.25 UJ,V7c
75-35-4	1,1-Dichloroethylene	U	1.05	ug/kg	0.315	1.05
74-88-4	Iodomethane	U	5.25	ug/kg	1.68	5.25
75-09-2	Methylene chloride	U	5.25	ug/kg	2.10	5.25
75-15-0	Carbon disulfide	U	5.25	ug/kg	1.31	5.25
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	5.25	ug/kg	1.57	5.25
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	5.25	ug/kg	1.31	5.25
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	5.25	ug/kg	1.57	5.25
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: 10-2027	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 248012007	Date Received: 02/25/2010 08:45	%Moisture: 4.7
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-8478	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Batch ID: 959900	Inst: VOA3.I	Dilution: 1
Run Date: 03/03/2010 03:24	Analyst: CDS1	Purge Vol: 5 mL
Prep Date: 03/02/2010 17:05	Aliquot: 5 g	Final Volume: 5 mL
Data File: 030210V3\3B238.D	Column: DB-624	

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	5.25	ug/kg	1.68	5.25
	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		

ETM  
4/21/10

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

SDG Number: 10-2027  
 Lab Sample ID: 248012008

Date Collected: 02/20/2010 12:00  
 Date Received: 02/25/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA3.I  
 Analyst: CDS1  
 Allquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 2.3  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

Client ID: RE36-10-8483  
 Batch ID: 959900  
 Run Date: 03/04/2010 13:12  
 Prep Date: 03/04/2010 07:03  
 Data File: 030410V33B411.D

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.02	ug/kg	0.348	1.02
74-87-3	Chloromethane	U	1.02	ug/kg	0.307	1.02
75-01-4	Vinyl chloride	U	1.02	ug/kg	0.307	1.02
74-83-9	Bromomethane	U	1.02	ug/kg	0.307	1.02
75-00-3	Chloroethane	U	1.02	ug/kg	0.307	1.02
75-69-4	Trichlorofluoromethane	U	1.02	ug/kg	0.307	1.02
67-64-1	Acetone	U	5.12	ug/kg	1.70	5.12 UJ,V7c
75-35-4	1,1-Dichloroethylene	U	1.02	ug/kg	0.307	1.02
74-88-4	Iodomethane	U	5.12	ug/kg	1.64	5.12
75-09-2	Methylene chloride	U	5.12	ug/kg	2.05	5.12
75-15-0	Carbon disulfide	U	5.12	ug/kg	1.28	5.12
156-60-5	trans-1,2-Dichloroethylene	U	1.02	ug/kg	0.307	1.02
75-34-3	1,1-Dichloroethane	U	1.02	ug/kg	0.307	1.02
78-93-3	2-Butanone	U	5.12	ug/kg	1.54	5.12
156-59-2	cis-1,2-Dichloroethylene	U	1.02	ug/kg	0.307	1.02
594-20-7	2,2-Dichloropropane	U	1.02	ug/kg	0.307	1.02
67-66-3	Chloroform	U	1.02	ug/kg	0.307	1.02
74-97-5	Bromochloromethane	U	1.02	ug/kg	0.338	1.02
71-55-6	1,1,1-Trichloroethane	U	1.02	ug/kg	0.307	1.02
563-58-6	1,1-Dichloropropene	U	1.02	ug/kg	0.307	1.02
56-23-5	Carbon tetrachloride	U	1.02	ug/kg	0.307	1.02
107-06-2	1,2-Dichloroethane	U	1.02	ug/kg	0.307	1.02
71-43-2	Benzene	U	1.02	ug/kg	0.307	1.02
79-01-6	Trichloroethylene	U	1.02	ug/kg	0.338	1.02
78-87-5	1,2-Dichloropropane	U	1.02	ug/kg	0.307	1.02
75-27-4	Bromodichloromethane	U	1.02	ug/kg	0.307	1.02
74-95-3	Dibromomethane	U	1.02	ug/kg	0.307	1.02
108-10-1	4-Methyl-2-pentanone	U	5.12	ug/kg	1.28	5.12
10061-01-5	cis-1,3-Dichloropropylene	U	1.02	ug/kg	0.307	1.02
108-88-3	Toluene	U	1.02	ug/kg	0.307	1.02
10061-02-6	trans-1,3-Dichloropropylene	U	1.02	ug/kg	0.307	1.02
79-00-5	1,1,2-Trichloroethane	U	1.02	ug/kg	0.307	1.02
591-78-6	2-Hexanone	U	5.12	ug/kg	1.54	5.12
142-28-9	1,3-Dichloropropane	U	1.02	ug/kg	0.307	1.02
127-18-4	Tetrachloroethylene	U	1.02	ug/kg	0.307	1.02
124-48-1	Dibromochloromethane	U	1.02	ug/kg	0.307	1.02
106-93-4	1,2-Dibromoethane	U	1.02	ug/kg	0.307	1.02
108-90-7	Chlorobenzene	U	1.02	ug/kg	0.307	1.02

**Volatile  
Certificate of Analysis  
Sample Summary**

<b>SDG Number:</b> 10-2027	<b>Date Collected:</b> 02/20/2010 12:00	<b>Matrix:</b> R
<b>Lab Sample ID:</b> 248012008	<b>Date Received:</b> 02/25/2010 08:45	<b>%Moisture:</b> 2.3
<b>Client ID:</b> RE36-10-8483	<b>Client:</b> LANL010	<b>Project:</b> LANL01004
<b>Batch ID:</b> 959900	<b>Method:</b> SW846 8260B	<b>SOP Ref:</b> GL-OA-E-038
<b>Run Date:</b> 03/04/2010 13:12	<b>Inst:</b> VOA3.I	<b>Dilution:</b> 1
<b>Prep Date:</b> 03/04/2010 07:03	<b>Analyst:</b> CDS1	<b>Purge Vol:</b> 5 mL
<b>Data File:</b> 030410V3\3B411.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	1.02	ug/kg	0.307	1.02
179601-23-1	m,p-Xylenes	U	2.05	ug/kg	0.307	2.05
95-47-6	o-Xylene	U	1.02	ug/kg	0.307	1.02
100-42-5	Styrene	U	1.02	ug/kg	0.307	1.02
75-25-2	Bromoform	U	1.02	ug/kg	0.307	1.02
79-34-5	1,1,2,2-Tetrachloroethane	U	1.02	ug/kg	0.307	1.02
96-18-4	1,2,3-Trichloropropane	U	1.02	ug/kg	0.307	1.02
108-86-1	Bromobenzene	U	1.02	ug/kg	0.307	1.02
103-65-1	n-Propylbenzene	U	1.02	ug/kg	0.307	1.02
95-49-8	2-Chlorotoluene	U	1.02	ug/kg	0.307	1.02
98-82-8	Isopropylbenzene	U	1.02	ug/kg	0.307	1.02
108-67-8	1,3,5-Trimethylbenzene	U	1.02	ug/kg	0.307	1.02
106-43-4	4-Chlorotoluene	U	1.02	ug/kg	0.307	1.02
98-06-6	tert-Butylbenzene	U	1.02	ug/kg	0.307	1.02
95-63-6	1,2,4-Trimethylbenzene	U	1.02	ug/kg	0.307	1.02
135-98-8	sec-Butylbenzene	U	1.02	ug/kg	0.307	1.02
99-87-6	4-Isopropyltoluene	U	1.02	ug/kg	0.307	1.02
541-73-1	1,3-Dichlorobenzene	U	1.02	ug/kg	0.307	1.02
106-46-7	1,4-Dichlorobenzene	U	1.02	ug/kg	0.307	1.02
104-51-8	n-Butylbenzene	U	1.02	ug/kg	0.307	1.02
96-12-8	1,2-Dibromo-3-chloropropane	U	1.02	ug/kg	0.307	1.02
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	5.12	ug/kg	1.64	5.12
	Trichlorotrifluoroethane					
630-20-6	1,1,1,2-Tetrachloroethane	U	1.02	ug/kg	0.307	1.02
95-50-1	1,2-Dichlorobenzene	U	1.02	ug/kg	0.307	1.02

**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: 10-2027  
 Lab Sample ID: 248012009

Date Collected: 02/20/2010 12:00  
 Date Received: 02/25/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA3.I  
 Analyst: CDS1  
 Aliquot: 5 g  
 Column: DB-624

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

Client ID: RE36-10-8482  
 Batch ID: 959900  
 Run Date: 03/03/2010 03:54  
 Prep Date: 03/02/2010 17:06  
 Data File: 030210V3\3B239.D

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.05	ug/kg	0.358	1.05
74-87-3	Chloromethane	U	1.05	ug/kg	0.316	1.05
75-01-4	Vinyl chloride	U	1.05	ug/kg	0.316	1.05
74-83-9	Bromomethane	U	1.05	ug/kg	0.316	1.05
75-00-3	Chloroethane	U	1.05	ug/kg	0.316	1.05
75-69-4	Trichlorofluoromethane	U	1.05	ug/kg	0.316	1.05
67-64-1	Acetone	U	5.27	ug/kg	1.75	5.27 UJ.V7c
75-35-4	1,1-Dichloroethylene	U	1.05	ug/kg	0.316	1.05
74-88-4	Iodomethane	U	5.27	ug/kg	1.68	5.27
75-09-2	Methylene chloride	U	5.27	ug/kg	2.11	5.27
75-15-0	Carbon disulfide	U	5.27	ug/kg	1.32	5.27
156-60-5	trans-1,2-Dichloroethylene	U	1.05	ug/kg	0.316	1.05
75-34-3	1,1-Dichloroethane	U	1.05	ug/kg	0.316	1.05
78-93-3	2-Butanone	U	5.27	ug/kg	1.58	5.27
156-59-2	cis-1,2-Dichloroethylene	U	1.05	ug/kg	0.316	1.05
594-20-7	2,2-Dichloropropane	U	1.05	ug/kg	0.316	1.05
67-66-3	Chloroform	U	1.05	ug/kg	0.316	1.05
74-97-5	Bromochloromethane	U	1.05	ug/kg	0.348	1.05
71-55-6	1,1,1-Trichloroethane	U	1.05	ug/kg	0.316	1.05
563-58-6	1,1-Dichloropropene	U	1.05	ug/kg	0.316	1.05
56-23-5	Carbon tetrachloride	U	1.05	ug/kg	0.316	1.05
107-06-2	1,2-Dichloroethane	U	1.05	ug/kg	0.316	1.05
71-43-2	Benzene	U	1.05	ug/kg	0.316	1.05
79-01-6	Trichloroethylene	U	1.05	ug/kg	0.348	1.05
78-87-5	1,2-Dichloropropane	U	1.05	ug/kg	0.316	1.05
75-27-4	Bromodichloromethane	U	1.05	ug/kg	0.316	1.05
74-95-3	Dibromomethane	U	1.05	ug/kg	0.316	1.05
108-10-1	4-Methyl-2-pentanone	U	5.27	ug/kg	1.32	5.27
10061-01-5	cis-1,3-Dichloropropylene	U	1.05	ug/kg	0.316	1.05
108-88-3	Toluene	U	1.05	ug/kg	0.316	1.05
10061-02-6	trans-1,3-Dichloropropylene	U	1.05	ug/kg	0.316	1.05
79-00-5	1,1,2-Trichloroethane	U	1.05	ug/kg	0.316	1.05
591-78-6	2-Hexanone	U	5.27	ug/kg	1.58	5.27
142-28-9	1,3-Dichloropropane	U	1.05	ug/kg	0.316	1.05
127-18-4	Tetrachloroethylene	U	1.05	ug/kg	0.316	1.05
124-48-1	Dibromochloromethane	U	1.05	ug/kg	0.316	1.05
106-93-4	1,2-Dibromoethane	U	1.05	ug/kg	0.316	1.05
108-90-7	Chlorobenzene	U	1.05	ug/kg	0.316	1.05

ETM  
4/21/10



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


SDG Number: 10-2027	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 248012009	Date Received: 02/25/2010 08:45	%Moisture: 5
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-8482	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Batch ID: 959900	Inst: VOA3.I	Dilution: 1
Run Date: 03/03/2010 03:54	Analyst: CDS1	Purge Vol: 5 mL
Prep Date: 03/02/2010 17:06	Aliquot: 5 g	Final Volume: 5 mL
Data File: 030210V3\3B239.D	Column: DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.05	ug/kg	0.316	1.05
179601-23-1	m,p-Xylenes	U	2.11	ug/kg	0.316	2.11
95-47-6	o-Xylene	U	1.05	ug/kg	0.316	1.05
100-42-5	Styrene	U	1.05	ug/kg	0.316	1.05
75-25-2	Bromoform	U	1.05	ug/kg	0.316	1.05
79-34-5	1,1,2,2-Tetrachloroethane	U	1.05	ug/kg	0.316	1.05
96-18-4	1,2,3-Trichloropropane	U	1.05	ug/kg	0.316	1.05
108-86-1	Bromobenzene	U	1.05	ug/kg	0.316	1.05
103-65-1	n-Propylbenzene	U	1.05	ug/kg	0.316	1.05
95-49-8	2-Chlorotoluene	U	1.05	ug/kg	0.316	1.05
98-82-8	Isopropylbenzene	U	1.05	ug/kg	0.316	1.05
108-67-8	1,3,5-Trimethylbenzene	U	1.05	ug/kg	0.316	1.05
106-43-4	4-Chlorotoluene	U	1.05	ug/kg	0.316	1.05
98-06-6	tert-Butylbenzene	U	1.05	ug/kg	0.316	1.05
95-63-6	1,2,4-Trimethylbenzene	U	1.05	ug/kg	0.316	1.05
135-98-8	sec-Butylbenzene	U	1.05	ug/kg	0.316	1.05
99-87-6	4-Isopropyltoluene	U	1.05	ug/kg	0.316	1.05
541-73-1	1,3-Dichlorobenzene	U	1.05	ug/kg	0.316	1.05
106-46-7	1,4-Dichlorobenzene	U	1.05	ug/kg	0.316	1.05
104-51-8	n-Butylbenzene	U	1.05	ug/kg	0.316	1.05
96-12-8	1,2-Dibromo-3-chloropropane	U	1.05	ug/kg	0.316	1.05
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	5.27	ug/kg	1.68	5.27
	Trichlorotrifluoroethane					
630-20-6	1,1,1,2-Tetrachloroethane	U	1.05	ug/kg	0.316	1.05
95-50-1	1,2-Dichlorobenzene	U	1.05	ug/kg	0.316	1.05

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown siloxane	19.05	11	ug/kg	0	J

ETM  
4/21/10

DATA VALIDATION COVER SHEET	
<b>5115-1</b>  <p style="text-align: center;"><b>Data Validation Cover Sheet</b></p>	Records Use only  

**Section I.**

REQUEST NUMBER: 10-2027      VALIDATION DATE: 4/21/10      LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

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

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

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

☒ OTHER (DESCRIBE): SVOCs

**Section II.      Completeness Check**


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

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

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

Reviewed by: Mary Donovan      Level: I      Date: 04/21/10

VALIDATOR'S SIGNATURE: <u>Eric T. Mink</u>	DATE: <u>4/21/10</u>
Form 5115-1, Revision 0.0	LOS ALAMOS Environmental Restoration Project

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

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

# **SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST**


5115-2

## **Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist**


Records Use only



Yes No N/A				Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	12. 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 type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	26. The surrogate %R value is > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, SV3b
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	27. At least one surrogate is > the Upper Acceptance Limit (UAL) and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, SV3c	J, SV3c
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	28. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV3d	R, SV3d
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	29. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, SV12	J-, SV12

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

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

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

SDG Number: 10-2027  
Lab Sample ID: 248012003

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD8.I  
Analyst: NAG1  
Allquot: 30.01 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 6.2  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

Client ID: RE36-10-8470  
Batch ID: 959457  
Run Date: 03/06/2010 12:31  
Prep Date: 03/01/2010 23:22  
Data File: s8c0611.d

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	355	ug/kg	71.0	355
108-95-2	Phenol	U	355	ug/kg	71.0	355
95-57-8	2-Chlorophenol	U	355	ug/kg	71.0	355
106-46-7	1,4-Dichlorobenzene	U	355	ug/kg	71.0	355
621-64-7	N-Nitrosodipropylamine	U	355	ug/kg	71.0	355
59-50-7	4-Chloro-3-methylphenol	U	355	ug/kg	71.0	355
83-32-9	Acenaphthene	U	35.5	ug/kg	11.7	35.5
121-14-2	2,4-Dinitrotoluene	U	355	ug/kg	35.5	355
100-02-7	4-Nitrophenol	U	355	ug/kg	117	355
87-86-5	Pentachlorophenol	U	355	ug/kg	88.8	355
129-00-0	Pyrene	J	12.3	ug/kg	10.7	35.5
110-86-1	Pyridine	U	355	ug/kg	71.0	355 UJ,SV7c
62-53-3	Aniline	U	355	ug/kg	107	355 UJ,SV7c
111-44-4	bis(2-Chloroethyl) ether	U	355	ug/kg	71.0	355
541-73-1	1,3-Dichlorobenzene	U	355	ug/kg	71.0	355
100-51-6	Benzyl alcohol	U	355	ug/kg	107	355
95-50-1	1,2-Dichlorobenzene	U	355	ug/kg	71.0	355
108-60-1	bis(2-Chloroisopropyl)ether	U	355	ug/kg	71.0	355
95-48-7	o-Cresol	U	355	ug/kg	71.0	355
65794-96-9	m,p-Cresols	U	355	ug/kg	107	355
67-72-1	Hexachloroethane	U	355	ug/kg	71.0	355
98-95-3	Nitrobenzene	U	355	ug/kg	71.0	355
78-59-1	Isophorone	U	355	ug/kg	71.0	355
88-75-5	2-Nitrophenol	U	355	ug/kg	71.0	355
105-67-9	2,4-Dimethylphenol	U	355	ug/kg	124	355
111-91-1	bis(2-Chloroethoxy)methane	U	355	ug/kg	71.0	355
120-83-2	2,4-Dichlorophenol	U	355	ug/kg	71.0	355
65-85-0	Benzoic acid	U	710	ug/kg	178	710
91-20-3	Naphthalene	U	35.5	ug/kg	10.7	35.5
106-47-8	4-Chloroaniline	U	355	ug/kg	71.0	355
87-68-3	Hexachlorobutadiene	U	355	ug/kg	71.0	355
91-57-6	2-Methylnaphthalene	U	35.5	ug/kg	7.10	35.5
77-47-4	Hexachlorocyclopentadiene	U	355	ug/kg	71.0	355 UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	355	ug/kg	71.0	355
95-95-4	2,4,5-Trichlorophenol	U	355	ug/kg	71.0	355
91-58-7	2-Chloronaphthalene	U	35.5	ug/kg	11.7	35.5
88-74-4	2-Nitroaniline	U	355	ug/kg	71.0	355
99-09-2	<i>o</i> -Nitroaniline					
	3-Nitroaniline	U	355	ug/kg	71.0	355

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

SDG Number: 10-2027	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 248012003	Date Received: 02/25/2010 08:45	%Moisture: 6.2
Client ID: RE36-10-8470	Client: LANL010	Project: LANL01004
Batch ID: 959457	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Run Date: 03/06/2010 12:31	Inst: MSD8.I	Dilution: 1
Prep Date: 03/01/2010 23:22	Analyst: NAG1	Inj. Vol: .5 uL
Data File: s8c0611.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	U	355	ug/kg	71.0	355
606-20-2	Dimethylphthalate	U	355	ug/kg	35.5	355
208-96-8	2,6-Dinitrotoluene	U	35.5	ug/kg	10.7	35.5
51-28-5	Acenaphthylene	U	710	ug/kg	135	710
132-64-9	2,4-Dinitrophenol	U	355	ug/kg	71.0	355
84-66-2	Dibenzofuran	U	355	ug/kg	71.0	355
86-73-7	Diethylphthalate	U	35.5	ug/kg	10.7	35.5
7005-72-3	Fluorene	U	355	ug/kg	71.0	355
534-52-1	4-Chlorophenylphenylether	U	355	ug/kg	71.0	355
100-01-6	2-Methyl-4,6-dinitrophenol	U	355	ug/kg	71.0	355 UJ,SV7c
122-39-4	4-Nitroaniline	U	355	ug/kg	107	355
122-66-7	<i>p</i> -Nitroaniline	U	355	ug/kg	71.0	355
101-55-3	Diphenylamine	U	355	ug/kg	71.0	355
118-74-1	Azobenzene	U	355	ug/kg	71.0	355
85-01-8	1,2-Diphenylhydrazine	U	355	ug/kg	71.0	355
120-12-7	4-Bromophenylphenylether	U	355	ug/kg	71.0	355
84-74-2	Hexachlorobenzene	U	355	ug/kg	71.0	355
206-44-0	Phenanthrene	U	80.0	ug/kg	10.7	35.5
85-68-7	Anthracene	U	35.5	ug/kg	7.10	35.5
56-55-3	Di-n-butylphthalate	U	355	ug/kg	71.0	355
91-94-1	Fluoranthene	J	15.1	ug/kg	10.7	35.5
218-01-9	Butylbenzylphthalate	U	355	ug/kg	71.0	355
117-81-7	Benzo(a)anthracene	U	35.5	ug/kg	10.7	35.5
117-84-0	3,3'-Dichlorobenzidine	U	355	ug/kg	107	355
205-99-2	Chrysene	U	35.5	ug/kg	10.7	35.5
207-08-9	bis(2-Ethylhexyl)phthalate	U	355	ug/kg	71.0	355
50-32-8	Di-n-octylphthalate	U	355	ug/kg	71.0	355
193-39-5	Benzo(b)fluoranthene	U	35.5	ug/kg	10.7	35.5
53-70-3	Benzo(k)fluoranthene	U	35.5	ug/kg	10.7	35.5
191-24-2	Benzo(a)pyrene	U	35.5	ug/kg	10.7	35.5
120-82-1	Indeno(1,2,3-cd)pyrene	U	35.5	ug/kg	10.7	35.5
	Dibenzo(a,h)anthracene	U	35.5	ug/kg	10.7	35.5
	Benzo(ghi)perylene	U	35.5	ug/kg	10.7	35.5
	1,2,4-Trichlorobenzene	U	355	ug/kg	71.0	355

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.08	429	ug/kg		JA
1000140-07-7	1,4-Dimethyl-8-isopropylidenetricyclo[5.	16.27	277	ug/kg	83	NJ

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

SDG Number: 10-2027  
Lab Sample ID: 248012006

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD8.I  
Analyst: NAG1  
Allquot: 30.14 g  
Column: J&W DB-5MS

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

Client ID: RE36-10-8474  
Batch ID: 959457  
Run Date: 03/06/2010 13:58  
Prep Date: 03/01/2010 23:22  
Data File: s8c0614.d

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	381	ug/kg	76.1	381
108-95-2	Phenol	U	381	ug/kg	76.1	381
95-57-8	2-Chlorophenol	U	381	ug/kg	76.1	381
106-46-7	1,4-Dichlorobenzene	U	381	ug/kg	76.1	381
621-64-7	N-Nitrosodipropylamine	U	381	ug/kg	76.1	381
59-50-7	4-Chloro-3-methylphenol	U	381	ug/kg	76.1	381
83-32-9	Acenaphthene	U	38.1	ug/kg	12.6	38.1
121-14-2	2,4-Dinitrotoluene	U	381	ug/kg	38.1	381
100-02-7	4-Nitrophenol	U	381	ug/kg	126	381
87-86-5	Pentachlorophenol	U	381	ug/kg	95.2	381
129-00-0	Pyrene	U	38.1	ug/kg	11.4	38.1
110-86-1	Pyridine	U	381	ug/kg	76.1	381 UJ,SV7c
62-53-3	Aniline	U	381	ug/kg	114	381 UJ,SV7c
111-44-4	bis(2-Chloroethyl) ether	U	381	ug/kg	76.1	381
541-73-1	1,3-Dichlorobenzene	U	381	ug/kg	76.1	381
100-51-6	Benzyl alcohol	U	381	ug/kg	114	381
95-50-1	1,2-Dichlorobenzene	U	381	ug/kg	76.1	381
108-60-1	bis(2-Chloroisopropyl)ether	U	381	ug/kg	76.1	381
95-48-7	o-Cresol	U	381	ug/kg	76.1	381
65794-96-9	m,p-Cresols	U	381	ug/kg	114	381
67-72-1	Hexachloroethane	U	381	ug/kg	76.1	381
98-95-3	Nitrobenzene	U	381	ug/kg	76.1	381
78-59-1	Isophorone	U	381	ug/kg	76.1	381
88-75-5	2-Nitrophenol	U	381	ug/kg	76.1	381
105-67-9	2,4-Dimethylphenol	U	381	ug/kg	133	381
111-91-1	bis(2-Chloroethoxy)methane	U	381	ug/kg	76.1	381
120-83-2	2,4-Dichlorophenol	U	381	ug/kg	76.1	381
65-85-0	Benzoic acid	U	761	ug/kg	190	761
91-20-3	Naphthalene	U	38.1	ug/kg	11.4	38.1
106-47-8	4-Chloroaniline	U	381	ug/kg	76.1	381
87-68-3	Hexachlorobutadiene	U	381	ug/kg	76.1	381
91-57-6	2-Methylnaphthalene	U	38.1	ug/kg	7.61	38.1
77-47-4	Hexachlorocyclopentadiene	U	381	ug/kg	76.1	381 UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	381	ug/kg	76.1	381
95-95-4	2,4,5-Trichlorophenol	U	381	ug/kg	76.1	381
91-58-7	2-Chloronaphthalene	U	38.1	ug/kg	12.6	38.1
88-74-4	2-Nitroaniline	U	381	ug/kg	76.1	381
99-09-2	o-Nitroaniline					
	3-Nitroaniline	U	381	ug/kg	76.1	381

ETM  
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Semi-Volatile  
Certificate of Analysis  
Sample Summary

SDG Number: 10-2027	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 248012006	Date Received: 02/25/2010 08:45	%Moisture: 12.8
Client ID: RE36-10-8474	Client: LANL010	Project: LANL01004
Batch ID: 959457	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Run Date: 03/06/2010 13:58	Inst: MSD8.I	Dilution: 1
Prep Date: 03/01/2010 23:22	Analyst: NAG1	Inj. Vol: .5 uL
Data File: s8c0614.d	Aliquot: 30.14 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	381	ug/kg	76.1	381
606-20-2	2,6-Dinitrotoluene	U	381	ug/kg	38.1	381
208-96-8	Acenaphthylene	U	38.1	ug/kg	11.4	38.1
51-28-5	2,4-Dinitrophenol	U	761	ug/kg	145	761
132-64-9	Dibenzofuran	U	381	ug/kg	76.1	381
84-66-2	Diethylphthalate	U	381	ug/kg	76.1	381
86-73-7	Fluorene	U	38.1	ug/kg	11.4	38.1
7005-72-3	4-Chlorophenylphenylether	U	381	ug/kg	76.1	381
534-52-1	2-Methyl-4,6-dinitrophenol	U	381	ug/kg	76.1	381 UJ,SV7c
100-01-6	4-Nitroaniline	U	381	ug/kg	114	381
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	381	ug/kg	76.1	381
122-66-7	Azobenzene	U	381	ug/kg	76.1	381
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	381	ug/kg	76.1	381
118-74-1	Hexachlorobenzene	U	381	ug/kg	76.1	381
85-01-8	Phenanthrene	U	38.1	ug/kg	11.4	38.1
120-12-7	Anthracene	U	38.1	ug/kg	7.61	38.1
84-74-2	Di-n-butylphthalate	U	381	ug/kg	76.1	381
206-44-0	Fluoranthene	U	38.1	ug/kg	11.4	38.1
85-68-7	Butylbenzylphthalate	U	381	ug/kg	76.1	381
56-55-3	Benzo(a)anthracene	U	38.1	ug/kg	11.4	38.1
91-94-1	3,3'-Dichlorobenzidine	U	381	ug/kg	114	381
218-01-9	Chrysene	U	38.1	ug/kg	11.4	38.1
117-81-7	bis(2-Ethylhexyl)phthalate	U	381	ug/kg	76.1	381
117-84-0	Di-n-octylphthalate	U	381	ug/kg	76.1	381
205-99-2	Benzo(b)fluoranthene	U	38.1	ug/kg	11.4	38.1
207-08-9	Benzo(k)fluoranthene	U	38.1	ug/kg	11.4	38.1
50-32-8	Benzo(a)pyrene	U	38.1	ug/kg	11.4	38.1
193-39-5	Indeno(1,2,3-cd)pyrene	U	38.1	ug/kg	11.4	38.1
53-70-3	Dibenzo(a,h)anthracene	U	38.1	ug/kg	11.4	38.1
191-24-2	Benzo(ghi)perylene	U	38.1	ug/kg	11.4	38.1
120-82-1	1,2,4-Trichlorobenzene	U	381	ug/kg	76.1	381

## Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	1.89	1250	ug/kg		J
	Unknown Aldol Condensate	3.08	443	ug/kg		JA

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

SDG Number: 10-2027	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 248012006	Date Received: 02/25/2010 08:45	%Moisture: 12.8
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-8474	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 959457	Inst: MSD8.I	Dilution: 1
Run Date: 03/06/2010 13:58	Analyst: NAG1	Inj. Vol: .5 uL
Prep Date: 03/01/2010 23:22	Aliquot: 30.14 g	Final Volume: 1 mL
Data File: s8c0614.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	11.5	327	ug/kg		J
25491-20-7	1H-3a,7-Methanoazulene, octahydro-1,4,9,	11.52	212	ug/kg	80	NJ

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

SDG Number: 10-2027	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 248012004	Date Received: 02/25/2010 08:45	%Moisture: 4.2
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-8476	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 959457	Inst: MSD8.I	Dilution: 1
Run Date: 03/06/2010 13:00	Analyst: NAG1	Inj. Vol: .5 uL
Prep Date: 03/01/2010 23:22	Aliquot: 30.19 g	Final Volume: 1 mL
Data File: s8c0612.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	346	ug/kg	69.1	346
108-95-2	Phenol	U	346	ug/kg	69.1	346
95-57-8	2-Chlorophenol	U	346	ug/kg	69.1	346
106-46-7	1,4-Dichlorobenzene	U	346	ug/kg	69.1	346
621-64-7	N-Nitrosodipropylamine	U	346	ug/kg	69.1	346
59-50-7	4-Chloro-3-methylphenol	U	346	ug/kg	69.1	346
83-32-9	Acenaphthene	U	34.6	ug/kg	11.4	34.6
121-14-2	2,4-Dinitrotoluene	U	346	ug/kg	34.6	346
100-02-7	4-Nitrophenol	U	346	ug/kg	114	346
87-86-5	Pentachlorophenol	U	346	ug/kg	86.4	346
129-00-0	Pyrene	U	34.6	ug/kg	10.4	34.6
110-86-1	Pyridine	U	346	ug/kg	69.1	346 UJ,SV7c
62-53-3	Aniline	U	346	ug/kg	104	346 UJ,SV7c
111-44-4	bis(2-Chloroethyl) ether	U	346	ug/kg	69.1	346
541-73-1	1,3-Dichlorobenzene	U	346	ug/kg	69.1	346
100-51-6	Benzyl alcohol	U	346	ug/kg	104	346
95-50-1	1,2-Dichlorobenzene	U	346	ug/kg	69.1	346
108-60-1	bis(2-Chloroisopropyl)ether	U	346	ug/kg	69.1	346
95-48-7	o-Cresol	U	346	ug/kg	69.1	346
65794-96-9	m,p-Cresols	U	346	ug/kg	104	346
67-72-1	Hexachloroethane	U	346	ug/kg	69.1	346
98-95-3	Nitrobenzene	U	346	ug/kg	69.1	346
78-59-1	Isophorone	U	346	ug/kg	69.1	346
88-75-5	2-Nitrophenol	U	346	ug/kg	69.1	346
105-67-9	2,4-Dimethylphenol	U	346	ug/kg	121	346
111-91-1	bis(2-Chloroethoxy)methane	U	346	ug/kg	69.1	346
120-83-2	2,4-Dichlorophenol	U	346	ug/kg	69.1	346
65-85-0	Benzoic acid	U	691	ug/kg	173	691
91-20-3	Naphthalene	U	34.6	ug/kg	10.4	34.6
106-47-8	4-Chloroaniline	U	346	ug/kg	69.1	346
87-68-3	Hexachlorobutadiene	U	346	ug/kg	69.1	346
91-57-6	2-Methylnaphthalene	U	34.6	ug/kg	6.91	34.6
77-47-4	Hexachlorocyclopentadiene	U	346	ug/kg	69.1	346 UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	346	ug/kg	69.1	346
95-95-4	2,4,5-Trichlorophenol	U	346	ug/kg	69.1	346
91-58-7	2-Chloronaphthalene	U	34.6	ug/kg	11.4	34.6
88-74-4	2-Nitroaniline	U	346	ug/kg	69.1	346
	o-Nitroaniline					
99-09-2	3-Nitroaniline	U	346	ug/kg	69.1	346

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

SDG Number: 10-2027  
Lab Sample ID: 248012004

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD8.I  
Analyst: NAG1  
Aliquot: 30.19 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 4.2  
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	346	ug/kg	69.1	346
606-20-2	2,6-Dinitrotoluene	U	346	ug/kg	34.6	346
208-96-8	Acenaphthylene	U	34.6	ug/kg	10.4	34.6
51-28-5	2,4-Dinitrophenol	U	691	ug/kg	131	691
132-64-9	Dibenzofuran	U	346	ug/kg	69.1	346
84-66-2	Diethylphthalate	U	346	ug/kg	69.1	346
86-73-7	Fluorene	U	34.6	ug/kg	10.4	34.6
7005-72-3	4-Chlorophenylphenylether	U	346	ug/kg	69.1	346
534-52-1	2-Methyl-4,6-dinitrophenol	U	346	ug/kg	69.1	346 UJ,SV7c
100-01-6	4-Nitroaniline	U	346	ug/kg	104	346
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	346	ug/kg	69.1	346
122-66-7	Azobenzene	U	346	ug/kg	69.1	346
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	346	ug/kg	69.1	346
118-74-1	Hexachlorobenzene	U	346	ug/kg	69.1	346
85-01-8	Phenanthrene	U	34.6	ug/kg	10.4	34.6
120-12-7	Anthracene	U	34.6	ug/kg	6.91	34.6
84-74-2	Di-n-butylphthalate	U	346	ug/kg	69.1	346
206-44-0	Fluoranthene	U	34.6	ug/kg	10.4	34.6
85-68-7	Butylbenzylphthalate	U	346	ug/kg	69.1	346
56-55-3	Benzo(a)anthracene	U	34.6	ug/kg	10.4	34.6
91-94-1	3,3'-Dichlorobenzidine	U	346	ug/kg	104	346
218-01-9	Chrysene	U	34.6	ug/kg	10.4	34.6
117-81-7	bis(2-Ethylhexyl)phthalate	U	346	ug/kg	69.1	346
117-84-0	Di-n-octylphthalate	U	346	ug/kg	69.1	346
205-99-2	Benzo(b)fluoranthene	U	34.6	ug/kg	10.4	34.6
207-08-9	Benzo(k)fluoranthene	U	34.6	ug/kg	10.4	34.6
50-32-8	Benzo(a)pyrene	U	34.6	ug/kg	10.4	34.6
193-39-5	Indeno(1,2,3-cd)pyrene	U	34.6	ug/kg	10.4	34.6
53-70-3	Dibenzo(a,h)anthracene	U	34.6	ug/kg	10.4	34.6
191-24-2	Benzo(ghi)perylene	U	34.6	ug/kg	10.4	34.6
120-82-1	1,2,4-Trichlorobenzene	U	346	ug/kg	69.1	346

## Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	1.9	223	ug/kg		J
	Unknown Aldol Condensate	3.08	434	ug/kg		JA

ETM  
4/21/10

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

<b>SDG Number:</b> 10-2027	<b>Date Collected:</b> 02/20/2010 12:00	<b>Matrix:</b> R
<b>Lab Sample ID:</b> 248012004	<b>Date Received:</b> 02/25/2010 08:45	<b>%Moisture:</b> 4.2
<b>Client ID:</b> RE36-10-8476	<b>Client:</b> LANL010	<b>Project:</b> LANL01004
<b>Batch ID:</b> 959457	<b>Method:</b> SW846 8270C	<b>SOP Ref:</b> GL-OA-E-009
<b>Run Date:</b> 03/06/2010 13:00	<b>Inst:</b> MSD8.I	<b>Dilution:</b> 1
<b>Prep Date:</b> 03/01/2010 23:22	<b>Analyst:</b> NAG1	<b>Inj. Vol:</b> .5 uL
<b>Data File:</b> s8c0612.d	<b>Allquot:</b> 30.19 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
Tentatively Identified Compound Summary				Estimated		
CAS No.	Tentatively Identified Compound (TIC)	RT		Units	Fit	Qual
475-20-7	1,4-Methanoazulene, decahydro-4,8,8-trim	7.18	182	ug/kg	97	NJ
511-15-9	2-Phenanthrenol, 4b,5,6,7,8,8a,9,10-octa	11.36	238	ug/kg	97	NJ
301-02-0	9-Octadecenamide, (Z)-	11.41	174	ug/kg	94	NJ
559-74-0	Friedelan-3-one	11.52	141	ug/kg	99	NJ
	Unknown	16.27	155	ug/kg		J

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

SDG Number: 10-2027  
Lab Sample ID: 248012007

Client ID: RE36-10-8478  
Batch ID: 959457  
Run Date: 03/06/2010 14:28  
Prep Date: 03/01/2010 23:22  
Data File: s8c0615.d

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD8.I  
Analyst: NAG1  
Allquot: 30.12 g  
Column: J&W DB-5MS

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

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	349	ug/kg	69.7	349
108-95-2	Phenol	U	349	ug/kg	69.7	349
95-57-8	2-Chlorophenol	U	349	ug/kg	69.7	349
106-46-7	1,4-Dichlorobenzene	U	349	ug/kg	69.7	349
621-64-7	N-Nitrosodipropylamine	U	349	ug/kg	69.7	349
59-50-7	4-Chloro-3-methylphenol	U	349	ug/kg	69.7	349
83-32-9	Acenaphthene	U	34.9	ug/kg	11.5	34.9
121-14-2	2,4-Dinitrotoluene	U	349	ug/kg	34.9	349
100-02-7	4-Nitrophenol	U	349	ug/kg	115	349
87-86-5	Pentachlorophenol	U	349	ug/kg	87.1	349
129-00-0	Pyrene	U	34.9	ug/kg	10.5	34.9
110-86-1	Pyridine	U	349	ug/kg	69.7	349 UJ,SV7c
62-53-3	Aniline	U	349	ug/kg	105	349 UJ,SV7c
111-44-4	bis(2-Chloroethyl) ether	U	349	ug/kg	69.7	349
541-73-1	1,3-Dichlorobenzene	U	349	ug/kg	69.7	349
100-51-6	Benzyl alcohol	U	349	ug/kg	105	349
95-50-1	1,2-Dichlorobenzene	U	349	ug/kg	69.7	349
108-60-1	bis(2-Chloroisopropyl)ether	U	349	ug/kg	69.7	349
95-48-7	o-Cresol	U	349	ug/kg	69.7	349
65794-96-9	m,p-Cresols	U	349	ug/kg	105	349
67-72-1	Hexachloroethane	U	349	ug/kg	69.7	349
98-95-3	Nitrobenzene	U	349	ug/kg	69.7	349
78-59-1	Isophorone	U	349	ug/kg	69.7	349
88-75-5	2-Nitrophenol	U	349	ug/kg	69.7	349
105-67-9	2,4-Dimethylphenol	U	349	ug/kg	122	349
111-91-1	bis(2-Chloroethoxy)methane	U	349	ug/kg	69.7	349
120-83-2	2,4-Dichlorophenol	U	349	ug/kg	69.7	349
65-85-0	Benzoic acid	U	697	ug/kg	174	697
91-20-3	Naphthalene	U	34.9	ug/kg	10.5	34.9
106-47-8	4-Chloroaniline	U	349	ug/kg	69.7	349
87-68-3	Hexachlorobutadiene	U	349	ug/kg	69.7	349
91-57-6	2-Methylnaphthalene	U	34.9	ug/kg	6.97	34.9
77-47-4	Hexachlorocyclopentadiene	U	349	ug/kg	69.7	349 UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	349	ug/kg	69.7	349
95-95-4	2,4,5-Trichlorophenol	U	349	ug/kg	69.7	349
91-58-7	2-Chloronaphthalene	U	34.9	ug/kg	11.5	34.9
88-74-4	2-Nitroaniline	U	349	ug/kg	69.7	349
99-09-2	o-Nitroaniline	U	349	ug/kg	69.7	349
	3-Nitroaniline					

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

SDG Number: 10-2027  
Lab Sample ID: 248012007

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD8.I  
Analyst: NAG1  
Aliquot: 30.12 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 4.7  
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	U	349	ug/kg	69.7	349
606-20-2	Dimethylphthalate	U	349	ug/kg	34.9	349
208-96-8	2,6-Dinitrotoluene	U	34.9	ug/kg	10.5	34.9
51-28-5	Acenaphthylene	U	697	ug/kg	132	697
132-64-9	2,4-Dinitrophenol	U	349	ug/kg	69.7	349
84-66-2	Dibenzofuran	U	349	ug/kg	69.7	349
86-73-7	Diethylphthalate	U	34.9	ug/kg	10.5	34.9
7005-72-3	Fluorene	U	349	ug/kg	69.7	349
534-52-1	4-Chlorophenylphenylether	U	349	ug/kg	69.7	349
100-01-6	2-Methyl-4,6-dinitrophenol	U	349	ug/kg	69.7	349 UJ,SV7c
122-39-4	4-Nitroaniline	U	349	ug/kg	105	349
122-66-7	<i>p</i> -Nitroaniline	U	349	ug/kg	69.7	349
101-55-3	Diphenylamine	U	349	ug/kg	69.7	349
118-74-1	Azobenzene	U	349	ug/kg	69.7	349
85-01-8	1,2-Diphenylhydrazine	U	349	ug/kg	69.7	349
120-12-7	4-Bromophenylphenylether	U	349	ug/kg	69.7	349
84-74-2	Hexachlorobenzene	U	34.9	ug/kg	10.5	34.9
206-44-0	Phenanthrene	U	34.9	ug/kg	6.97	34.9
85-68-7	Anthracene	U	349	ug/kg	69.7	349
56-55-3	Di-n-butylphthalate	U	34.9	ug/kg	10.5	34.9
91-94-1	Fluoranthene	U	349	ug/kg	69.7	349
218-01-9	Butylbenzylphthalate	U	34.9	ug/kg	10.5	34.9
117-81-7	Benzo(a)anthracene	U	349	ug/kg	105	349
117-84-0	3,3'-Dichlorobenzidine	U	34.9	ug/kg	10.5	34.9
205-99-2	Chrysene	U	349	ug/kg	69.7	349
207-08-9	bis(2-Ethylhexyl)phthalate	U	34.9	ug/kg	10.5	34.9
50-32-8	Di-n-octylphthalate	U	34.9	ug/kg	10.5	34.9
193-39-5	Benzo(b)fluoranthene	U	34.9	ug/kg	10.5	34.9
53-70-3	Benzo(k)fluoranthene	U	34.9	ug/kg	10.5	34.9
191-24-2	Benzo(a)pyrene	U	34.9	ug/kg	10.5	34.9
120-82-1	Indeno(1,2,3-cd)pyrene	U	34.9	ug/kg	10.5	34.9
	Dibenzo(a,h)anthracene	U	34.9	ug/kg	10.5	34.9
	Benzo(ghi)perylene	U	34.9	ug/kg	10.5	34.9
	1,2,4-Trichlorobenzene	U	349	ug/kg	69.7	349

## Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	1.89	222	ug/kg		J
	Unknown Aldol Condensate	3.08	479	ug/kg		JA



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

SDG Number: 10-2027	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 248012007	Date Received: 02/25/2010 08:45	%Moisture: 4.7
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-8478	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 959457	Inst: MSD8.I	Dilution: 1
Run Date: 03/06/2010 14:28	Analyst: NAG1	Inj. Vol: .5 uL
Prep Date: 03/01/2010 23:22	Aliquot: 30.12 g	Final Volume: 1 mL
Data File: s8c0615.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
559-74-0	Friedelan-3-one	11.52	186	ug/kg	98	NJ
1000140-07-7	1,4-Dimethyl-8-isopropylidenetricyclo[5.	16.27	158	ug/kg	83	NJ

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

SDG Number: 10-2027  
Lab Sample ID: 248012005

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD8.I  
Analyst: NAG1  
Aliquot: 3018 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 10.8  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

Client ID: RE36-10-8480  
Batch ID: 959457  
Run Date: 03/06/2010 13:30  
Prep Date: 03/01/2010 23:22  
Data File: s8c0613.d

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	3.71	ug/kg	0.743	3.71
108-95-2	Phenol	U	3.71	ug/kg	0.743	3.71
95-57-8	2-Chlorophenol	U	3.71	ug/kg	0.743	3.71
106-46-7	1,4-Dichlorobenzene	U	3.71	ug/kg	0.743	3.71
621-64-7	N-Nitrosodipropylamine	U	3.71	ug/kg	0.743	3.71
59-50-7	4-Chloro-3-methylphenol	U	3.71	ug/kg	0.743	3.71
83-32-9	Acenaphthene	U	0.371	ug/kg	0.123	0.371
121-14-2	2,4-Dinitrotoluene	U	3.71	ug/kg	0.371	3.71
100-02-7	4-Nitrophenol	U	3.71	ug/kg	1.23	3.71
87-86-5	Pentachlorophenol	U	3.71	ug/kg	0.929	3.71
129-00-0	Pyrene	U	0.371	ug/kg	0.111	0.371
110-86-1	Pyridine	U	3.71	ug/kg	0.743	3.71 UJ,SV7c
62-53-3	Aniline	U	3.71	ug/kg	1.11	3.71 UJ,SV7c
111-44-4	bis(2-Chloroethyl) ether	U	3.71	ug/kg	0.743	3.71
541-73-1	1,3-Dichlorobenzene	U	3.71	ug/kg	0.743	3.71
100-51-6	Benzyl alcohol	U	3.71	ug/kg	1.11	3.71
95-50-1	1,2-Dichlorobenzene	U	3.71	ug/kg	0.743	3.71
108-60-1	bis(2-Chloroisopropyl)ether	U	3.71	ug/kg	0.743	3.71
95-48-7	o-Cresol	U	3.71	ug/kg	0.743	3.71
65794-96-9	m,p-Cresols	U	3.71	ug/kg	1.11	3.71
67-72-1	Hexachloroethane	U	3.71	ug/kg	0.743	3.71
98-95-3	Nitrobenzene	U	3.71	ug/kg	0.743	3.71
78-59-1	Isophorone	U	3.71	ug/kg	0.743	3.71
88-75-5	2-Nitrophenol	U	3.71	ug/kg	0.743	3.71
105-67-9	2,4-Dimethylphenol	U	3.71	ug/kg	1.30	3.71
111-91-1	bis(2-Chloroethoxy)methane	U	3.71	ug/kg	0.743	3.71
120-83-2	2,4-Dichlorophenol	U	3.71	ug/kg	0.743	3.71
65-85-0	Benzoic acid	U	7.43	ug/kg	1.86	7.43
91-20-3	Naphthalene	U	0.371	ug/kg	0.111	0.371
106-47-8	4-Chloroaniline	U	3.71	ug/kg	0.743	3.71
87-68-3	Hexachlorobutadiene	U	3.71	ug/kg	0.743	3.71
91-57-6	2-Methylnaphthalene	U	0.371	ug/kg	0.0743	0.371
77-47-4	Hexachlorocyclopentadiene	U	3.71	ug/kg	0.743	3.71 UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	3.71	ug/kg	0.743	3.71
95-95-4	2,4,5-Trichlorophenol	U	3.71	ug/kg	0.743	3.71
91-58-7	2-Chloronaphthalene	U	0.371	ug/kg	0.123	0.371
88-74-4	2-Nitroaniline	U	3.71	ug/kg	0.743	3.71
99-09-2	o-Nitroaniline					
	3-Nitroaniline	U	3.71	ug/kg	0.743	3.71

ETM  
4/21/10

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

SDG Number: 10-2027  
Lab Sample ID: 248012005

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD8.I  
Analyst: NAG1  
Allquot: 3018 g  
Column: J&W DB-SMS

Matrix: R  
%Moisture: 10.8  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
131-11-3	<i>m</i> -Nitroaniline					
	Dimethylphthalate	U	3.71	ug/kg	0.743	3.71
606-20-2	2,6-Dinitrotoluene	U	3.71	ug/kg	0.371	3.71
208-96-8	Acenaphthylene	U	0.371	ug/kg	0.111	0.371
51-28-5	2,4-Dinitrophenol	U	7.43	ug/kg	1.41	7.43
132-64-9	Dibenzofuran	U	3.71	ug/kg	0.743	3.71
84-66-2	Diethylphthalate	U	3.71	ug/kg	0.743	3.71
86-73-7	Fluorene	U	0.371	ug/kg	0.111	0.371
7005-72-3	4-Chlorophenylphenylether	U	3.71	ug/kg	0.743	3.71
534-52-1	2-Methyl-4,6-dinitrophenol	U	3.71	ug/kg	0.743	3.71 UJ,SV7c
100-01-6	4-Nitroaniline	U	3.71	ug/kg	1.11	3.71
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	3.71	ug/kg	0.743	3.71
122-66-7	Azobenzene	U	3.71	ug/kg	0.743	3.71
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	3.71	ug/kg	0.743	3.71
118-74-1	Hexachlorobenzene	U	3.71	ug/kg	0.743	3.71
85-01-8	Phenanthrene	U	0.371	ug/kg	0.111	0.371
120-12-7	Anthracene	U	0.371	ug/kg	0.0743	0.371
84-74-2	Di-n-butylphthalate	U	3.71	ug/kg	0.743	3.71
206-44-0	Fluoranthene	U	0.371	ug/kg	0.111	0.371
85-68-7	Butylbenzylphthalate	U	3.71	ug/kg	0.743	3.71
56-55-3	Benzo(a)anthracene	U	0.371	ug/kg	0.111	0.371
91-94-1	3,3'-Dichlorobenzidine	U	3.71	ug/kg	1.11	3.71
218-01-9	Chrysene	U	0.371	ug/kg	0.111	0.371
117-81-7	bis(2-Ethylhexyl)phthalate	U	3.71	ug/kg	0.743	3.71
117-84-0	Di-n-octylphthalate	U	3.71	ug/kg	0.743	3.71
205-99-2	Benzo(b)fluoranthene	U	0.371	ug/kg	0.111	0.371
207-08-9	Benzo(k)fluoranthene	U	0.371	ug/kg	0.111	0.371
50-32-8	Benzo(a)pyrene	U	0.371	ug/kg	0.111	0.371
193-39-5	Indeno(1,2,3-cd)pyrene	U	0.371	ug/kg	0.111	0.371
53-70-3	Dibenzo(a,h)anthracene	U	0.371	ug/kg	0.111	0.371
191-24-2	Benzo(ghi)perylene	U	0.371	ug/kg	0.111	0.371
120-82-1	1,2,4-Trichlorobenzene	U	3.71	ug/kg	0.743	3.71

## Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.08	4.05	ug/kg		JA
301-02-0	9-Octadecenamide, (Z)-	13.22	1.6	ug/kg	94	NJ

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

SDG Number: 10-2027  
Lab Sample ID: 248012009

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD8.I  
Analyst: NAG1  
Allquot: 30.17 g  
Column: J&W DB-5MS

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

Client ID: RE36-10-8482  
Batch ID: 959457  
Run Date: 03/06/2010 16:56  
Prep Date: 03/01/2010 23:22  
Data File: s8c0620.d

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	349	ug/kg	69.8	349
108-95-2	Phenol	U	349	ug/kg	69.8	349
95-57-8	2-Chlorophenol	U	349	ug/kg	69.8	349
106-46-7	1,4-Dichlorobenzene	U	349	ug/kg	69.8	349
621-64-7	N-Nitrosodipropylamine	U	349	ug/kg	69.8	349
59-50-7	4-Chloro-3-methylphenol	U	349	ug/kg	69.8	349
83-32-9	Acenaphthene	U	34.9	ug/kg	11.5	34.9
121-14-2	2,4-Dinitrotoluene	U	349	ug/kg	34.9	349
100-02-7	4-Nitrophenol	U	349	ug/kg	115	349
87-86-5	Pentachlorophenol	U	349	ug/kg	87.3	349
129-00-0	Pyrene		151	ug/kg	10.5	34.9
110-86-1	Pyridine	U	349	ug/kg	69.8	349 UJ,SV7c
62-53-3	Aniline	U	349	ug/kg	105	349 UJ,SV7c
111-44-4	bis(2-Chloroethyl) ether	U	349	ug/kg	69.8	349
541-73-1	1,3-Dichlorobenzene	U	349	ug/kg	69.8	349
100-51-6	Benzyl alcohol	U	349	ug/kg	105	349
95-50-1	1,2-Dichlorobenzene	U	349	ug/kg	69.8	349
108-60-1	bis(2-Chloroisopropyl)ether	U	349	ug/kg	69.8	349
95-48-7	o-Cresol	U	349	ug/kg	69.8	349
65794-96-9	m,p-Cresols	U	349	ug/kg	105	349
67-72-1	Hexachloroethane	U	349	ug/kg	69.8	349
98-95-3	Nitrobenzene	U	349	ug/kg	69.8	349
78-59-1	Isophorone	U	349	ug/kg	69.8	349
88-75-5	2-Nitrophenol	U	349	ug/kg	69.8	349
105-67-9	2,4-Dimethylphenol	U	349	ug/kg	122	349
111-91-1	bis(2-Chloroethoxy)methane	U	349	ug/kg	69.8	349
120-83-2	2,4-Dichlorophenol	U	349	ug/kg	69.8	349
65-85-0	Benzoic acid	U	698	ug/kg	175	698
91-20-3	Naphthalene	U	34.9	ug/kg	10.5	34.9
106-47-8	4-Chloroaniline	U	349	ug/kg	69.8	349
87-68-3	Hexachlorobutadiene	U	349	ug/kg	69.8	349
91-57-6	2-Methylnaphthalene	U	34.9	ug/kg	6.98	34.9
77-47-4	Hexachlorocyclopentadiene	U	349	ug/kg	69.8	349 UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	349	ug/kg	69.8	349
95-95-4	2,4,5-Trichlorophenol	U	349	ug/kg	69.8	349
91-58-7	2-Chloronaphthalene	U	34.9	ug/kg	11.5	34.9
88-74-4	2-Nitroaniline	U	349	ug/kg	69.8	349
	<i>o</i> -Nitroaniline					
99-09-2	3-Nitroaniline	U	349	ug/kg	69.8	349

ETM  
4/21/10

Semi-Volatile  
Certificate of Analysis  
Sample Summary

SDG Number: 10-2027  
Lab Sample ID: 248012009

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD8.I  
Analyst: NAG1  
Aliquot: 30.17 g  
Column: J&W DB-5MS

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

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
131-11-3	<i>m</i> -Nitroaniline					
	Dimethylphthalate	U	349	ug/kg	69.8	349
606-20-2	2,6-Dinitrotoluene	U	349	ug/kg	34.9	349
208-96-8	Acenaphthylene	U	34.9	ug/kg	10.5	34.9
51-28-5	2,4-Dinitrophenol	U	698	ug/kg	133	698
132-64-9	Dibenzofuran	U	349	ug/kg	69.8	349
84-66-2	Diethylphthalate	U	349	ug/kg	69.8	349
86-73-7	Fluorene	U	34.9	ug/kg	10.5	34.9
7005-72-3	4-Chlorophenylphenylether	U	349	ug/kg	69.8	349
534-52-1	2-Methyl-4,6-dinitrophenol	U	349	ug/kg	69.8	349 UJ,SV7c
100-01-6	4-Nitroaniline	U	349	ug/kg	105	349
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	349	ug/kg	69.8	349
122-66-7	Azobenzene	U	349	ug/kg	69.8	349
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	349	ug/kg	69.8	349
118-74-1	Hexachlorobenzene	U	349	ug/kg	69.8	349
85-01-8	Phenanthrene		125	ug/kg	10.5	34.9
120-12-7	Anthracene	J	11.0	ug/kg	6.98	34.9
84-74-2	Di-n-butylphthalate	U	349	ug/kg	69.8	349
206-44-0	Fluoranthene		148	ug/kg	10.5	34.9
85-68-7	Butylbenzylphthalate	U	349	ug/kg	69.8	349
56-55-3	Benzo(a)anthracene		106	ug/kg	10.5	34.9
91-94-1	3,3'-Dichlorobenzidine	U	349	ug/kg	105	349
218-01-9	Chrysene		145	ug/kg	10.5	34.9
117-81-7	bis(2-Ethylhexyl)phthalate	U	349	ug/kg	69.8	349
117-84-0	Di-n-octylphthalate	U	349	ug/kg	69.8	349
205-99-2	Benzo(b)fluoranthene		176	ug/kg	10.5	34.9
207-08-9	Benzo(k)fluoranthene		68.4	ug/kg	10.5	34.9
50-32-8	Benzo(a)pyrene		106	ug/kg	10.5	34.9
193-39-5	Indeno(1,2,3-cd)pyrene		52.5	ug/kg	10.5	34.9
53-70-3	Dibenzo(a,h)anthracene	U	34.9	ug/kg	10.5	34.9
191-24-2	Benzo(ghi)perylene		50.9	ug/kg	10.5	34.9
120-82-1	1,2,4-Trichlorobenzene	U	349	ug/kg	69.8	349

## Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	1.88	793	ug/kg		J
	Unknown Aldol Condensate	3.08	411	ug/kg		JA

ETM  
4/21/10

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

<b>SDG Number:</b> 10-2027	<b>Date Collected:</b> 02/20/2010 12:00	<b>Matrix:</b> R
<b>Lab Sample ID:</b> 248012009	<b>Date Received:</b> 02/25/2010 08:45	<b>%Moisture:</b> 5
<b>Client ID:</b> RE36-10-8482	<b>Client:</b> LANL010	<b>Project:</b> LANL01004
<b>Batch ID:</b> 959457	<b>Method:</b> SW846 8270C	<b>SOP Ref:</b> GL-OA-E-009
<b>Run Date:</b> 03/06/2010 16:56	<b>Inst:</b> MSD8.1	<b>Dilution:</b> 1
<b>Prep Date:</b> 03/01/2010 23:22	<b>Analyst:</b> NAG1	<b>Inj. Vol:</b> .5 uL
<b>Data File:</b> s8c0620.d	<b>Aliquot:</b> 30.17 g	<b>Final Volume:</b> 1 mL
	<b>Column:</b> J&W DB-5MS	<b>Level:</b> LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
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Tentatively Identified Compound Summary						
CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Flt	Qual
	Unknown	4.33	193	ug/kg		J
	Unknown	11.52	379	ug/kg		J
5155-70-4	1-Phenanthrenecarboxylic acid, 1,2,3,4,4	11.84	149	ug/kg	93	NJ
112-95-8	Eicosane	13.81	168	ug/kg	96	NJ
58-22-0	Androst-4-en-3-one, 17-hydroxy-, (17.bet	17.7	167	ug/kg	80	NJ

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

SDG Number: 10-2027  
Lab Sample ID: 248012008

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD8.1  
Analyst: NAG1  
Allquot: 30.01 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 2.3  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	341	ug/kg	68.2	341
108-95-2	Phenol	U	341	ug/kg	68.2	341
95-57-8	2-Chlorophenol	U	341	ug/kg	68.2	341
106-46-7	1,4-Dichlorobenzene	U	341	ug/kg	68.2	341
621-64-7	N-Nitrosodipropylamine	U	341	ug/kg	68.2	341
59-50-7	4-Chloro-3-methylphenol	U	341	ug/kg	68.2	341
83-32-9	Acenaphthene	U	34.1	ug/kg	11.3	34.1
121-14-2	2,4-Dinitrotoluene	U	341	ug/kg	34.1	341
100-02-7	4-Nitrophenol	U	341	ug/kg	113	341
87-86-5	Pentachlorophenol	U	341	ug/kg	85.3	341
129-00-0	Pyrene	U	34.1	ug/kg	10.2	34.1
110-86-1	Pyridine	U	341	ug/kg	68.2	341 UJ,SV7c
62-53-3	Aniline	U	341	ug/kg	102	341 UJ,SV7c
111-44-4	bis(2-Chloroethyl) ether	U	341	ug/kg	68.2	341
541-73-1	1,3-Dichlorobenzene	U	341	ug/kg	68.2	341
100-51-6	Benzyl alcohol	U	341	ug/kg	102	341
95-50-1	1,2-Dichlorobenzene	U	341	ug/kg	68.2	341
108-60-1	bis(2-Chloroisopropyl)ether	U	341	ug/kg	68.2	341
95-48-7	o-Cresol	U	341	ug/kg	68.2	341
65794-96-9	m,p-Cresols	U	341	ug/kg	102	341
67-72-1	Hexachloroethane	U	341	ug/kg	68.2	341
98-95-3	Nitrobenzene	U	341	ug/kg	68.2	341
78-59-1	Isophorone	U	341	ug/kg	68.2	341
88-75-5	2-Nitrophenol	U	341	ug/kg	68.2	341
105-67-9	2,4-Dimethylphenol	U	341	ug/kg	119	341
111-91-1	bis(2-Chloroethoxy)methane	U	341	ug/kg	68.2	341
120-83-2	2,4-Dichlorophenol	U	341	ug/kg	68.2	341
65-85-0	Benzoic acid	U	682	ug/kg	171	682
91-20-3	Naphthalene	U	34.1	ug/kg	10.2	34.1
106-47-8	4-Chloroaniline	U	341	ug/kg	68.2	341
87-68-3	Hexachlorobutadiene	U	341	ug/kg	68.2	341
91-57-6	2-Methylnaphthalene	U	34.1	ug/kg	6.82	34.1
77-47-4	Hexachlorocyclopentadiene	U	341	ug/kg	68.2	341 UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	341	ug/kg	68.2	341
95-95-4	2,4,5-Trichlorophenol	U	341	ug/kg	68.2	341
91-58-7	2-Chloronaphthalene	U	34.1	ug/kg	11.3	34.1
88-74-4	2-Nitroaniline	U	341	ug/kg	68.2	341
99-09-2	<i>o</i> -Nitroaniline					
	3-Nitroaniline	U	341	ug/kg	68.2	341

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

SDG Number: 10-2027	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 248012008	Date Received: 02/25/2010 08:45	%Moisture: 2.3
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-8483	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 959457	Inst: MSD8.I	Dilution: 1
Run Date: 03/06/2010 14:57	Analyst: NAG1	Inj. Vol: .5 uL
Prep Date: 03/01/2010 23:22	Allquot: 30.01 g	Final Volume: 1 mL
Data File: s8c0616.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					
606-20-2	Dimethylphthalate	U	341	ug/kg	68.2	341
208-96-8	2,6-Dinitrotoluene	U	341	ug/kg	34.1	341
51-28-5	Acenaphthylene	U	34.1	ug/kg	10.2	34.1
132-64-9	2,4-Dinitrophenol	U	682	ug/kg	130	682
84-66-2	Dibenzofuran	U	341	ug/kg	68.2	341
86-73-7	Diethylphthalate	U	341	ug/kg	68.2	341
7005-72-3	Fluorene	U	34.1	ug/kg	10.2	34.1
534-52-1	4-Chlorophenylphenylether	U	341	ug/kg	68.2	341
100-01-6	2-Methyl-4,6-dinitrophenol	U	341	ug/kg	68.2	341
	4-Nitroaniline	U	341	ug/kg	102	341
122-39-4	<i>p</i> -Nitroaniline					
122-66-7	Diphenylamine	U	341	ug/kg	68.2	341
	Azobenzene	U	341	ug/kg	68.2	341
101-55-3	<i>1,2</i> -Diphenylhydrazine					
118-74-1	4-Bromophenylphenylether	U	341	ug/kg	68.2	341
85-01-8	Hexachlorobenzene	U	341	ug/kg	68.2	341
120-12-7	Phenanthrene	U	34.1	ug/kg	10.2	34.1
84-74-2	Anthracene	U	34.1	ug/kg	6.82	34.1
206-44-0	Di-n-butylphthalate	U	341	ug/kg	68.2	341
85-68-7	Fluoranthene	U	34.1	ug/kg	10.2	34.1
56-55-3	Butylbenzylphthalate	U	341	ug/kg	68.2	341
91-94-1	Benzo(a)anthracene	U	34.1	ug/kg	10.2	34.1
218-01-9	3,3'-Dichlorobenzidine	U	341	ug/kg	102	341
117-81-7	Chrysene	U	34.1	ug/kg	10.2	34.1
117-84-0	bis(2-Ethylhexyl)phthalate	U	341	ug/kg	68.2	341
205-99-2	Di-n-octylphthalate	U	341	ug/kg	68.2	341
207-08-9	Benzo(b)fluoranthene	U	34.1	ug/kg	10.2	34.1
50-32-8	Benzo(k)fluoranthene	U	34.1	ug/kg	10.2	34.1
193-39-5	Benzo(a)pyrene	U	34.1	ug/kg	10.2	34.1
53-70-3	Indeno(1,2,3-cd)pyrene	U	34.1	ug/kg	10.2	34.1
191-24-2	Dibenzo(a,h)anthracene	U	34.1	ug/kg	10.2	34.1
120-82-1	Benzo(ghi)perylene	U	34.1	ug/kg	10.2	34.1
	1,2,4-Trichlorobenzene	U	341	ug/kg	68.2	341

## Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Flt	Qual
	Unknown	1.89	723	ug/kg		J
	Unknown Aldol Condensate	3.08	577	ug/kg		JA



Semi-Volatile  
Certificate of Analysis  
Sample Summary

SDG Number: 10-2027	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 248012008	Date Received: 02/25/2010 08:45	%Moisture: 2.3
Client ID: RE36-10-8483	Client: LANL010	Project: LANL01004
Batch ID: 959457	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Run Date: 03/06/2010 14:57	Inst: MSD8.I	Dilution: 1
Prep Date: 03/01/2010 23:22	Analyst: NAG1	Inj. Vol: .5 uL
Data File: s8c0616.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
Tentatively Identified Compound Summary						
CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
112-95-8	Eicosane	13.81	171	ug/kg	98	NJ

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

SDG Number: 10-2027  
Lab Sample ID: 248012002

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD8.I  
Analyst: NAG1  
Allquot: 30.13 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 5.1  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

Client ID: RE36-10-8490  
Batch ID: 959457  
Run Date: 03/06/2010 12:02  
Prep Date: 03/01/2010 23:22  
Data File: s8c0610.d

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	350	ug/kg	70.0	350
108-95-2	Phenol	U	350	ug/kg	70.0	350
95-57-8	2-Chlorophenol	U	350	ug/kg	70.0	350
106-46-7	1,4-Dichlorobenzene	U	350	ug/kg	70.0	350
621-64-7	N-Nitrosodipropylamine	U	350	ug/kg	70.0	350
59-50-7	4-Chloro-3-methylphenol	U	350	ug/kg	70.0	350
83-32-9	Acenaphthene	U	35.0	ug/kg	11.5	35.0
121-14-2	2,4-Dinitrotoluene	U	350	ug/kg	35.0	350
100-02-7	4-Nitrophenol	U	350	ug/kg	115	350
87-86-5	Pentachlorophenol	U	350	ug/kg	87.5	350
129-00-0	Pyrene	U	35.0	ug/kg	10.5	35.0
110-86-1	Pyridine	U	350	ug/kg	70.0	350 UJ,SV7c
62-53-3	Aniline	U	350	ug/kg	105	350 UJ,SV7c
111-44-4	bis(2-Chloroethyl) ether	U	350	ug/kg	70.0	350
541-73-1	1,3-Dichlorobenzene	U	350	ug/kg	70.0	350
100-51-6	Benzyl alcohol	U	350	ug/kg	105	350
95-50-1	1,2-Dichlorobenzene	U	350	ug/kg	70.0	350
108-60-1	bis(2-Chloroisopropyl)ether	U	350	ug/kg	70.0	350
95-48-7	o-Cresol	U	350	ug/kg	70.0	350
65794-96-9	m,p-Cresols	U	350	ug/kg	105	350
67-72-1	Hexachloroethane	U	350	ug/kg	70.0	350
98-95-3	Nitrobenzene	U	350	ug/kg	70.0	350
78-59-1	Isophorone	U	350	ug/kg	70.0	350
88-75-5	2-Nitrophenol	U	350	ug/kg	70.0	350
105-67-9	2,4-Dimethylphenol	U	350	ug/kg	122	350
111-91-1	bis(2-Chloroethoxy)methane	U	350	ug/kg	70.0	350
120-83-2	2,4-Dichlorophenol	U	350	ug/kg	70.0	350
65-85-0	Benzoic acid	U	700	ug/kg	175	700
91-20-3	Naphthalene	U	35.0	ug/kg	10.5	35.0
106-47-8	4-Chloroaniline	U	350	ug/kg	70.0	350
87-68-3	Hexachlorobutadiene	U	350	ug/kg	70.0	350
91-57-6	2-Methylnaphthalene	U	35.0	ug/kg	7.00	35.0
77-47-4	Hexachlorocyclopentadiene	U	350	ug/kg	70.0	350 UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	350	ug/kg	70.0	350
95-95-4	2,4,5-Trichlorophenol	U	350	ug/kg	70.0	350
91-58-7	2-Chloronaphthalene	U	35.0	ug/kg	11.5	35.0
88-74-4	2-Nitroaniline	U	350	ug/kg	70.0	350
99-09-2	o-Nitroaniline					
	3-Nitroaniline	U	350	ug/kg	70.0	350

Semi-Volatile  
Certificate of Analysis  
Sample Summary

Page 2 of 2

SDG Number: 10-2027

Lab Sample ID: 248012002

Date Collected: 02/20/2010 12:00

Date Received: 02/25/2010 08:45

Matrix: R

%Moisture: 5.1

Client: LANL010

Project: LANL01004

Method: SW846 8270C

SOP Ref: GL-OA-E-009

Inst: MSD8.I

Dilution: 1

Client ID: RE36-10-8490

Batch ID: 959457

Run Date: 03/06/2010 12:02

Analyst: NAG1

Inj. Vol: .5 uL

Prep Date: 03/01/2010 23:22

Aliquot: 30.13 g

Final Volume: 1 mL

Data File: s8c0610.d

Column: J&amp;W DB-5MS

Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
131-11-3	<i>m</i> -Nitroaniline					
	Dimethylphthalate	U	350	ug/kg	70.0	350
606-20-2	2,6-Dinitrotoluene	U	350	ug/kg	35.0	350
208-96-8	Acenaphthylene	U	35.0	ug/kg	10.5	35.0
51-28-5	2,4-Dinitrophenol	U	700	ug/kg	133	700
132-64-9	Dibenzofuran	U	350	ug/kg	70.0	350
84-66-2	Diethylphthalate	U	350	ug/kg	70.0	350
86-73-7	Fluorene	U	35.0	ug/kg	10.5	35.0
7005-72-3	4-Chlorophenylphenylether	U	350	ug/kg	70.0	350
534-52-1	2-Methyl-4,6-dinitrophenol	U	350	ug/kg	70.0	350 UJ,SV7c
100-01-6	4-Nitroaniline	U	350	ug/kg	105	350
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	350	ug/kg	70.0	350
122-66-7	Azobenzene	U	350	ug/kg	70.0	350
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	350	ug/kg	70.0	350
118-74-1	Hexachlorobenzene	U	350	ug/kg	70.0	350
85-01-8	Phenanthrene	U	35.0	ug/kg	10.5	35.0
120-12-7	Anthracene	U	35.0	ug/kg	7.00	35.0
84-74-2	Di-n-butylphthalate	U	350	ug/kg	70.0	350
206-44-0	Fluoranthene	U	35.0	ug/kg	10.5	35.0
85-68-7	Butylbenzylphthalate	U	350	ug/kg	70.0	350
56-55-3	Benzo(a)anthracene	U	35.0	ug/kg	10.5	35.0
91-94-1	3,3'-Dichlorobenzidine	U	350	ug/kg	105	350
218-01-9	Chrysene	U	35.0	ug/kg	10.5	35.0
117-81-7	bis(2-Ethylhexyl)phthalate	U	350	ug/kg	70.0	350
117-84-0	Di-n-octylphthalate	U	350	ug/kg	70.0	350
205-99-2	Benzo(b)fluoranthene	U	35.0	ug/kg	10.5	35.0
207-08-9	Benzo(k)fluoranthene	U	35.0	ug/kg	10.5	35.0
50-32-8	Benzo(a)pyrene	U	35.0	ug/kg	10.5	35.0
193-39-5	Indeno(1,2,3-cd)pyrene	U	35.0	ug/kg	10.5	35.0
53-70-3	Dibenzo(a,h)anthracene	U	35.0	ug/kg	10.5	35.0
191-24-2	Benzo(ghi)perylene	U	35.0	ug/kg	10.5	35.0
120-82-1	1,2,4-Trichlorobenzene	U	350	ug/kg	70.0	350

## Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	1.89	148	ug/kg		J
	Unknown Aldol Condensate	3.08	443	ug/kg		JA

## DATA VALIDATION COVER SHEET

5122-1

## Data Validation Cover Sheet

Records Use only



## Section I.

REQUEST NUMBER: 10-2027 VALIDATION DATE: 4/21/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

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

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

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

## Section II. Completeness Check

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

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

1. The CCV %Ds were >20% with a positive bias for 2,4,6-trinitrotoluene; RDX; tetryl; 2-amino-4,6-dinitrotoluene; PETN and 2,4-diamino-6-nitrotoluene. The RDX result for sample RE36-10-8482 was a detect and, thus, was qualified J,HE7c. All the other associated sample results were NDs and, thus, were not qualified.
2. The LCS %R was < the laboratory's LAL but  $\geq 10\%$  for tetryl. The associated sample results were NDs and, thus, were qualified UJ,HE12a.
3. The MS/MSD RPD was > the laboratory's acceptance limit for tetryl. The associated sample results were NDs and, thus, were qualified UJ,HE12g.
4. It should be noted that the raw ICAL data from the instrument used for the secondary HE analysis was not reported in the data package. Thus, surrogate RT criteria could not be evaluated. No sample data were qualified as a result.

Reviewed by: Mary Donovan


Level: I

Date: 04/21/10

VALIDATOR'S SIGNATURE:

Eric T. Mink

DATE: 4/21/10

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 (Check One)				Assign Qualifier Listed Below If Criterion = Yes	
				Non-detected Analyte	Detected Analyte
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1. The IS retention time has shifted by more than 30 seconds.	R, UJ, HE0	J, HE0
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	2. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE0b	R, HE0b
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	3. The quantitating IS area count is <25% of the expected value, which indicates increased potential for false negative results and other possible problems with sample quantitation. Follow the method-specific windows.	R, HE1a	J, HE1a
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	4. The IS area count for the quantitating IS is <70% but >25% of the average of that obtained from the calibration standards.	UJ, HE1b	J+, HE1b
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	5. The IS area count for the quantitating IS is >130% of the average of that obtained from the calibration standards.	UJ, HE1c	J-, HE1c
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	6. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE1d	R, HE1d
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7. The surrogate is <10%R. Follow the external laboratory limits.	R, HE3	J-, HE3
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8. The surrogate is < the Lower Acceptance Limit but ≥10% recovery. Follow the external laboratory limits.	UJ, HE3a	J-, HE3a
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9. The surrogate %R value is > the Upper Acceptance Limit. Follow the external laboratory limits.	N/A	J+, HE3b
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	10. At least one surrogate is > the Upper Acceptance Limit and one surrogate is < the Lower Acceptance Limit. Follow the external laboratory limits.	UJ, HE3c	J, HE3c

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

5122-2

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

Records Use only



Yes No N/A				Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	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


5122-2

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

Records Use only



Yes No N/A				Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	23. The mass spectral documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE8a	R, HE8a
<input 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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	33. The MS/MSD relative percent difference was >30%.	UJ, HE12g	J, HE12g
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	34. The affected analytes are considered suspect because the sample was diluted without any target analytes identified due to matrix interference. (Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.)	UJ, R, HE15	R, HE15
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	35. The sample was diluted because target analytes were > the initial verification calibration.	UJ, HE15a	J, HE15a

LC/MS/MS HIGH EXPLOSIVE ANALYTICAL DATA VALIDATION CHECKLIST	
<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: RE36-10-8490

Lab Code: GEI

GEL Job No (SDG) 10-2027

Matrix: SOIL

GEL Sample ID: 248012002

Sample Amount 2

Moisture: 5.1

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958246

Concentrated Extract Volume (mL) 10

Date Extracted: 02-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0408092a

Date Analyzed: 10-APR-10 18:20

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  
4/21/10

1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-8490

Lab Code: GEL

GEL Job No (SDG) 10-2027

Matrix: SOIL

GEL Sample ID: 248012002

Sample Amount 2

Moisture: 5.1

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958246

Concentrated Extract Volume (mL) 10

Date Extracted: 02-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03310060.wiff

Date Analyzed: 01-APR-10 00:07

Units: ug/kg

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

\*Concentration =

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

ETM  
4/21/10

1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-8470

Lab Code: GEL

GEL Job No (SDG) 10-2027

Matrix: SOIL

GEL Sample ID: 248012003

Sample Amount 2

Moisture: 6.2

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958246

Concentrated Extract Volume (mL) 10

Date Extracted: 02-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0408093a

Date Analyzed: 10-APR-10 18:49

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: RE36-10-8470

Lab Code: GEL

GEL Job No (SDG) 10-2027

Matrix: SOIL

GEL Sample ID: 248012003

Sample Amount 2

Moisture: 6.2

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958246

Concentrated Extract Volume (mL) 10

Date Extracted: 02-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03310064.wiff

Date Analyzed: 01-APR-10 01:10

Units: ug/kg

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

\*Concentration =

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

1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-8476

Lab Code: GEL

GEL Job No (SDG) 10-2027

Matrix: SOIL

GEL Sample ID: 248012004

Sample Amount 2

Moisture: 4.2

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958246

Concentrated Extract Volume (mL) 10

Date Extracted: 02-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0408094a

Date Analyzed: 10-APR-10 19:19

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: RE36-10-8476

Lab Code: GEL

GEL Job No (SDG) 10-2027

Matrix: SOIL

GEL Sample ID: 248012004

Sample Amount 2

Moisture: 4.2

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958246

Concentrated Extract Volume (mL) 10

Date Extracted: 02-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03310065.wiff

Date Analyzed: 01-APR-10 01:26

Units: ug/kg

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

\*Concentration =

Instrument	X	Concentrated Extract Volume	X	Dilution
Value		Sample Amoun		Factor

1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-8480

Lab Code: GEL

GEL Job No (SDG) 10-2027

Matrix: SOIL

GEL Sample ID: 248012005

Sample Amount 2

Moisture: 10.8

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958246

Concentrated Extract Volume (mL) 10

Date Extracted: 02-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0408095a

Date Analyzed: 10-APR-10 19:48

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: RE36-10-8480

Lab Code: GEL

GEL Job No (SDG) 10-2027

Matrix: SOIL

GEL Sample ID: 248012005

Sample Amount 2

Moisture: 10.8

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958246

Concentrated Extract Volume (mL) 10

Date Extracted: 02-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03310066.wiff

Date Analyzed: 01-APR-10 01:42

Units: ug/kg

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

\*Concentration =

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



1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-8474

Lab Code: GEL

GEL Job No (SDG) 10-2027

Matrix: SOIL

GEL Sample ID: 248012006

Sample Amount 2

Moisture: 12.8

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958246

Concentrated Extract Volume (mL) 10

Date Extracted: 02-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0408096a

Date Analyzed: 10-APR-10 20:18

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	Concentrated Extract Volume	X	Dilution Factor
		Sample Amount		

1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-8474

Lab Code: GEL

GEL Job No (SDG) 10-2027

Matrix: SOIL

GEL Sample ID: 248012006

Sample Amount 2

Molsture: 12.8

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958246

Concentrated Extract Volume (mL) 10

Date Extracted: 02-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03310067.wiff

Date Analyzed: 01-APR-10 01:57

Units: ug/kg

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

\*Concentration =

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

1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-8478

Lab Code: GEL

GEL Job No (SDG) 10-2027

Matrix: SOIL

GEL Sample ID: 248012007

Sample Amount 2

Moisture: 4.7

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958246

Concentrated Extract Volume (mL) 10

Date Extracted: 02-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0408097a

Date Analyzed: 10-APR-10 20:47

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: RE36-10-8478

Lab Code: GEL

GEL Job No (SDG) 10-2027

Matrix: SOIL

GEL Sample ID: 248012007

Sample Amount 2

Moisture: 4.7

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958246

Concentrated Extract Volume (mL) 10

Date Extracted: 02-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03310068.wiff

Date Analyzed: 01-APR-10 02:13

Units: ug/kg

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

\*Concentration =

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

1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-8483

Lab Code: GEL

GEL Job No (SDG) 10-2027

Matrix: SOIL

GEL Sample ID: 248012008

Sample Amount 2

Moisture: 2.3

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958246

Concentrated Extract Volume (mL) 10

Date Extracted: 02-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0408101a

Date Analyzed: 10-APR-10 22:45

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 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: RE36-10-8483

Lab Code: GEL

GEL Job No (SDG) 10-2027

Matrix: SOIL

GEL Sample ID: 248012008

Sample Amount 2

Moisture: 2.3

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958246

Concentrated Extract Volume (mL) 10

Date Extracted: 02-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03310069.wiff

Date Analyzed: 01-APR-10 02:29

Units: ug/kg

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

\*Concentration =

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

1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-8482

Lab Code: GEL

GEL Job No (SDG) 10-2027

Matrix: SOIL

GEL Sample ID: 248012009

Sample Amount 2

Moisture: 5.0

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958246

Concentrated Extract Volume (mL) 10

Date Extracted: 02-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0408102a

Date Analyzed: 10-APR-10 23:15

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 J,HE7c	184	J
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	Concentrated Extract Volume	X	Dilution Factor
		Sample Amount		

ETM  
4/21/10

1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-8482

Lab Code: GEL

GEL Job No (SDG) 10-2027

Matrix: SOIL

GEL Sample ID: 248012009

Sample Amount 2

Moisture: 5.0

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958246

Concentrated Extract Volume (mL) 10

Date Extracted: 02-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03310070.wiff

Date Analyzed: 01-APR-10 02:44

Units: ug/kg

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

\*Concentration =

Instrument Value	X	Concentrated Extract Volume	X	Dilution Factor
		Sample Amount		



## DATA VALIDATION COVER SHEET

5116-1

## Data Validation Cover Sheet

Records Use only



## Section I.

REQUEST NUMBER: 10-2027 VALIDATION DATE: 4/21/10 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 checked="" type="checkbox"/> ORGANOCHLORINE |
| <input type="checkbox"/> GENERAL CHEMISTRY      | <input type="checkbox"/> RADIOCHEMISTRY  | <input type="checkbox"/> LCMSMS HIGH EXPLOSIVES | PESTICIDES/POLYCHLORINATED BIPHENYLS               |
| <input type="checkbox"/> OTHER (DESCRIBE): PCBs |  |   |  |

## Section II. Completeness Check

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

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

1. It should be noted that the MS/MSD analyses were performed on a LANL sample from a different RN and the raw data for the parent sample was not provided in the data package. However, MS/MSD analyses are not required for this analysis and, thus, no sample data were qualified.

Reviewed by: Mary Donovan

Level: I

Date: 04/21/10

VALIDATOR'S SIGNATURE:

Eric T. Mink

DATE: 4/21/10

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


5116-2

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

Records Use only



Yes No N/A				Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, P9	J-, P9
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	2. The holding time was >2 times the applicable holding time requirement.	R, P9	J-, P9a
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, P9b	R, P9b
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	4. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, P7	J, P7
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	5. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, P7a	J, P7a
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	6. The Initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, P7c	J, P7c
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, P7d	J, P7d
<input type="checkbox"/>	<input 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	
<b>5116-2</b>  <b>Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist</b>	Records Use only  

Yes   No   N/A (Check One)				Assign Qualifier Listed Below If Criterion = Yes	
				Non-detected Analyte	Detected Analyte
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	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 (Check One)				Assign Qualifier Listed Below If Criterion = Yes	
				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				Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				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: 10-2027  
Lab Sample ID: 248012002

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8082  
Inst: ECD8A.I  
Analyst: JAOC  
Allquot: 30.05 g  
Column: 1 CLP1  
2 CLP2

Matrix: R  
% Moisture: 5.1  
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	3.51	ug/kg	1.17	3.51	1
11104-28-2	Aroclor-1221	U	3.51	ug/kg	1.17	3.51	1
11141-16-5	Aroclor-1232	U	3.51	ug/kg	1.17	3.51	1
53469-21-9	Aroclor-1242	U	3.51	ug/kg	1.17	3.51	1
12672-29-6	Aroclor-1248	U	3.51	ug/kg	1.17	3.51	1
11097-69-1	Aroclor-1254	U	3.51	ug/kg	1.17	3.51	1
11096-82-5	Aroclor-1260	U	3.51	ug/kg	1.17	3.51	1

Wednesday, February 24, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2027

LOS ALAMOS

REQUEST NUMBER: 10-2027

NATIONAL LABORATORY

ATTN: Valerie Davis

TURNAROUND/REPORT DUE: 3/26/2010

General Engineering Laboratories, Inc.,  
Charleston, SC.

TURNAROUND REQ'D: 30

2040 Savage Rd

Charleston, SC 29407

LAB REQUEST COMMENTS:

248012.1

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE36-10-8498	1	SEPTUM AMBER GLASS	8260B Trip Blank	Ice	S
RE36-10-8490	1	AMBER GLASS	8082+8270+NMED-EXP	Ice	R
RE36-10-8490	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-8470	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-8470	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE36-10-8476	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-8476	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE36-10-8480	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-8480	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE36-10-8474	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-8474	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE36-10-8478	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-8478	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE36-10-8483	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-8483	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE36-10-8482	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-8482	1	AMBER GLASS	8270C+NMED Exp	Ice	R

Relinquished By:

Date

Time

Received By:

Date

Time

Printed Name

Signature

Printed Name

Signature

Printed Name

Signature

Printed Name

Signature

Printed Name

Signature

Printed Name

Signature

Received for DISPOSAL By:

Date

Time

Remarks:

Printed Name

Signature

**NATIONAL LABORATORY**

**Charleston, SC 29407**

**Project Cost Code: MR3A05529E00**

**Please analyse the enclosed samples according to the schedule indicated:**

SHIP DATE: 2/24/2010

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

**TURNAROUND REQ'D: 30 Days**

**RAD SCREENING: Yes, Below Background**

**LAB REQUEST COMMENTS:**

LANL ER SMO CONTACT:

**Signature:**

PRIORITY	METHOD CODE	CN/NR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8082	1	RE36-10-8490	R	2/20/2010	
	SW-846:8260B	1	RE36-10-8470	R	2/20/2010	
		1	RE36-10-8474	R	2/20/2010	
		1	RE36-10-8478	R	2/20/2010	
		1	RE36-10-8478	R	2/20/2010	
		1	RE36-10-8480	R	2/20/2010	
		1	RE36-10-8482	R	2/20/2010	
		1	RE36-10-8483	R	2/20/2010	
		1	RE36-10-8490	R	2/20/2010	



Wednesday, February 24, 2010

Page 2 of 2

REQUEST NUMBER: 10-2027

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8260B	1	RE36-10-8496	S	2/20/2010	
	SW-846:8270C	1	RE36-10-8470	R	2/20/2010	
		1	RE36-10-8474	R	2/20/2010	
		1	RE36-10-8476	R	2/20/2010	
		1	RE36-10-8478	R	2/20/2010	
		1	RE36-10-8480	R	2/20/2010	
		1	RE36-10-8482	R	2/20/2010	
		1	RE36-10-8483	R	2/20/2010	
		1	RE36-10-8490	R	2/20/2010	
	SW-846:8321A_MOD	1	RE36-10-8470	R	2/20/2010	
		1	RE36-10-8474	R	2/20/2010	
		1	RE36-10-8476	R	2/20/2010	
		1	RE36-10-8478	R	2/20/2010	
		1	RE36-10-8480	R	2/20/2010	
		1	RE36-10-8482	R	2/20/2010	
		1	RE36-10-8483	R	2/20/2010	
		1	RE36-10-8490	R	2/20/2010	

Final Page of REQUEST NUMBER 10-2027



March 04, 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: 248012  
SDG: 10-2027

Dear Ms. Valdez:

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

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

Sincerely,

Valerie Davis  
Project Manager

Purchase Order: 72733-001-09  
Chain of Custody: 10-2027  
Enclosures

**Los Alamos National Laboratory (72733-001-09)**  
**LANL ER Project**  
**Work Order #: 248012**  
**SDG: 10-2027**

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# Case Narrative

**Case Narrative for  
Los Alamos National Laboratory (72733-001-09)  
LANL ER Project  
Workorder #: 248012  
SDG # : 10-2027**

**March 04, 2010**

**Laboratory Identification:**

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

**Summary**

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

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

<u>Laboratory ID</u>	<u>Client ID</u>
248012001	RE36-10-8496
248012002	RE36-10-8490
248012003	RE36-10-8470
248012004	RE36-10-8476
248012005	RE36-10-8480
248012006	RE36-10-8474
248012007	RE36-10-8478
248012008	RE36-10-8483
248012009	RE36-10-8482

**Case Narrative**

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

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

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



Valerie Davis  
Project Manager

**List of current GEL Certifications as of 04 March 2010**

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



# **Chain of Custody and Supporting Documentation**

Wednesday, February 24, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2027

LOS ALAMOS

REQUEST NUMBER: 10-2027

NATIONAL LABORATORY

ATTN: Valerie Davis

TURNAROUND/REPORT DUE: 3/26/2010

General Engineering Laboratories, Inc.,  
Charleston, SC.

TURNAROUND REQ'D: 30

2040 Savage Rd

Charleston, SC 29407

LAB REQUEST COMMENTS:

248012.1

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE36-10-8496	1	SEPTUM AMBER GLASS	8260B Trip Blank	Ice	S
RE36-10-8490	1	AMBER GLASS	8082+8270+NMED-EXP	Ice	R
RE36-10-8490	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-8470	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-8470	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE36-10-8476	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-8476	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE36-10-8480	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-8480	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE36-10-8474	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-8474	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE36-10-8478	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-8478	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE36-10-8483	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-8483	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE36-10-8482	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-8482	1	AMBER GLASS	8270C+NMED Exp	Ice	R

Relinquished By:

Date Time

Received By:

Date Time

*[Signature]* 2/24/10 1400

Greg Tyler *[Signature]* 2-25-10 0845

Printed Name

Signature

Printed Name

Signature

Printed Name

Signature

Printed Name

Signature

Received for DISPOSAL By:

Date Time

Remarks:

Printed Name

Signature

Wednesday, February 24, 2010

**LOS ALAMOS  
NATIONAL LABORATORY**

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

Please analyse the enclosed samples  
according to the schedule indicated:

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

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

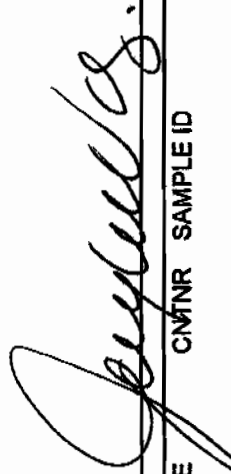
**TURNAROUND REQ'D: 30 Days**

**RAD SCREENING: Yes, Below Background**

**LAB REQUEST COMMENTS:**

LANL ER SMO CONTACT:

Signature:



REQUEST NUMBER: 10-2027

These Samples are on:

LANL Request Number: 10-2027

Per Agreement Number: 126310011

Project Cost Code: MR3A05529E00

PRIORITY	METHOD CODE	CMTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8082	1	RE36-10-8490	R	2/20/2010	
	SW-846:8280B	1	RE36-10-8470	R	2/20/2010	
		1	RE36-10-8474	R	2/20/2010	
		1	RE36-10-8476	R	2/20/2010	
		1	RE36-10-8478	R	2/20/2010	
		1	RE36-10-8480	R	2/20/2010	
		1	RE36-10-8482	R	2/20/2010	
		1	RE36-10-8483	R	2/20/2010	
		1	RE36-10-8490	R	2/20/2010	

Wednesday, February 24, 2010

REQUEST NUMBER: 10-2027

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8260B	1	RE36-10-8496	S	2/20/2010	
	SW-846:8270C	1	RE36-10-8470	R	2/20/2010	
		1	RE36-10-8474	R	2/20/2010	
		1	RE36-10-8476	R	2/20/2010	
		1	RE36-10-8478	R	2/20/2010	
		1	RE36-10-8480	R	2/20/2010	
		1	RE36-10-8482	R	2/20/2010	
		1	RE36-10-8483	R	2/20/2010	
		1	RE36-10-8490	R	2/20/2010	
	SW-846:8321A_MOD	1	RE36-10-8470	R	2/20/2010	
		1	RE36-10-8474	R	2/20/2010	
		1	RE36-10-8476	R	2/20/2010	
		1	RE36-10-8478	R	2/20/2010	
		1	RE36-10-8480	R	2/20/2010	
		1	RE36-10-8482	R	2/20/2010	
		1	RE36-10-8483	R	2/20/2010	
		1	RE36-10-8490	R	2/20/2010	

Final Page of REQUEST NUMBER 10-2027



## SAMPLE RECEIPT &amp; REVIEW FORM

Client: LANL			SDG/ARCOC/Work Order: 10-2027		
Received By: Greg Tyler			Date Received: 2/25/10		
Suspected Hazard Information	Yes	No	*If Counts > x2 area background on samples not marked "radioactive", contact the Radiation Safety Group of further investigation.		
COC/Samples marked as radioactive?		X	Maximum Counts Observed*: 80cpm		
Classified Radioactive II by RSO?		X			
COC/Samples marked containing PCBs?		X			
Shipped as a DOT Hazardous?		X	Hazard Class Shipped: UN#:		
Samples identified as Foreign Soil?		X			

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

Comments:

Fed Ex Tracking Numbers:

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

LOS ALAMOS NATL LAB  
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545  
UNITED STATES US

ACTWGT: 49.0 LB  
CAD: 0014178/CAFE

BILL SENDER

JOYLENE VALDEZ  
LOS ALAMOS NATL LAB  
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545  
UNITED STATES US

SHIP DATE: 24FEB10  
ACTWGT: 63.0 LB  
CAD: 0014178/CAFE2450

BILL SENDER

VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

CHARLESTON SC 29407

(843) 556-8171  
REF: 6B010AMR3A0532VA00

TO VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

CHARLESTON SC 29407

(843) 556-8171  
REF: 6B010AMR1A015AGWMO

FedEx

FedEx  
Express



2 of 2  
IN 7209 7850 1919  
Trk 7209 7850 1908 0201

THU - 25FEB  
PRIORITY OVERNIGHT

2 of 2  
NPS# 7209 7850 2146  
Matr# 7209 7850 2135 0201

THU - 25FEB A1  
PRIORITY OVERNIGHT

X CHSA

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SC-US  
CHS

UNITED STATES US

VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

CHARLESTON SC 29407

(843) 556-8171  
REF: 6B010AMR3A05529E00

UNITED STATES US

VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

CHARLESTON SC 29407

(843) 556-8171  
REF: 6B010AMR1A015AGWMO

FedEx  
Express



FedEx  
Express



2 of 3  
IN 7209 7850 1952  
Trk 7209 7850 1941 0201

THU - 25FEB A1  
PRIORITY OVERNIGHT

29407  
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1 of 2  
TRK# 7209 7850 2054  
NN MASTER NN

THU - 25FEB A1  
PRIORITY OVERNIGHT

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CHS

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JEN VALDEZ  
ALAMOS NATL LAB  
3 BLDG 1237 DPU 03

ALAMOS, NM 87545  
ED STATES US

ACTWGT: 49.0 LB MAN  
CAD: 0014176/CAFE2450

BILL SENDER

LERIE DAVIS  
NERAL ENGINEERING LAB  
40 SAVAGE RD

ARLESTON SC 29407

(1) 556-8171  
REF: 6B010AMR3A05529E00

FedEx



JEN VALDEZ  
ALAMOS NATL LAB  
3 BLDG 1237 DPU 03

BILL SENDER

TO VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

CHARLESTON SC 29407

(843) 556-8171  
REF: 6B010AMR2A0515BDD0

FedEx



3 of 3

7209 7850 1963

N 7209 7850 1941 0201

THU - 25FEB A1  
PRIORITY OVERNIGHT

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ALAMOS, NM 87545  
ED STATES US

BILL SENDER

LERIE DAVIS  
NERAL ENGINEERING LAB  
40 SAVAGE RD

ARLESTON SC 29407

(1) 556-8171  
REF: 6B010AMR1A015AGW00

FedEx

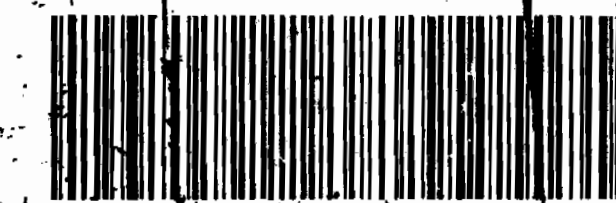


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PRIORITY OVERNIGHT

TRK# 7209 7850 2021

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SC-US  
CHS



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GENERAL ENGINEERING LAB  
2040 SAVAGE RD

CHARLESTON SC 29407

(843) 556-8171  
REF: 6B010AMR1A015AGW00

FedEx



1 of 2

7209 7850 2113

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PRIORITY OVERNIGHT

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CHS



2 of 2

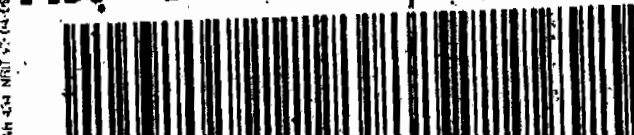
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Matr# 7209 7850 2098 0201

XX CHSA

THU - 25FEB A1  
PRIORITY OVERNIGHT

29407  
SC-US  
CHS



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

SHIP DATE: 24 FEB 10  
ACTWGT: 55.0 LB MAN  
CAD: 0014176/CAFE2450  
BILL SENDER

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

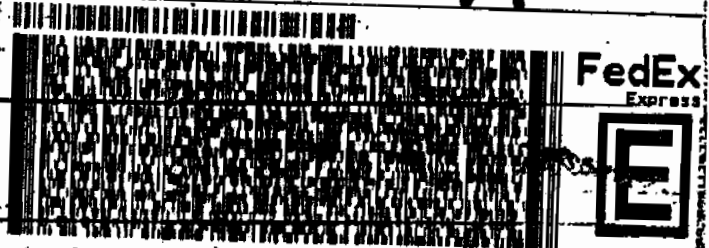
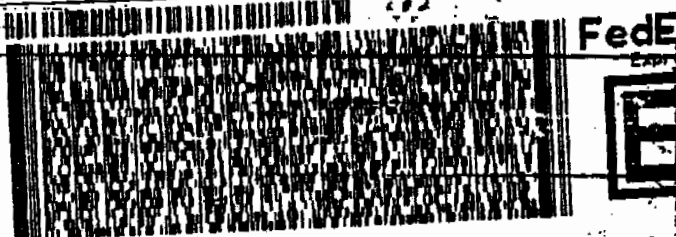
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BILL SENDER

TO VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

CHARLESTON SC 29407  
(843) 656-8171  
REF: 6B010AMR3A0532VA00

VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

CHARLESTON SC 29407  
(843) 656-8171  
REF: 6B010AMR1A015AGNMO



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

XX CHSA



THU - 25FEB  
PRIORITY OVERNIGHT

29407

1 of 2  
TRKH 7209 7850 2076  
IN MASTER IN

XX CHSA



THU - 25FEB A1  
PRIORITY OVERNIGHT

29407  
SC-US  
CHS

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

SHIP DATE: 24 FEB 10  
ACTWGT: 49.0 LB MAN  
CAD: 0014176/CAFE2450  
BILL SENDER

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

SHIP DATE: 24 FEB 10  
ACTWGT: 49.0 LB MAN  
CAD: 0014176/CAFE2450  
BILL SENDER

TO VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

CHARLESTON SC 29407  
(843) 656-8171  
REF: 6B010AMR1A015AGNMO

VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

CHARLESTON SC 29407  
(843) 656-8171  
REF: 6B010AMR2A0515BYDO



2 of 2  
MPSH 7209 7850 2065  
Matr# 7209 7850 2054 0201

XX CHSA

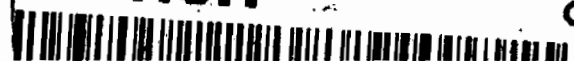


THU - 25FEB A1  
PRIORITY OVERNIGHT

29407  
SC-US  
CHS

2 of 2  
MPSH 7209 7850 1996  
Matr# 7209 7850 1885 0201

XX CHSA



THU - 25FEB A1  
PRIORITY OVERNIGHT

29407  
SC-US  
CHS



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

ACTING: 51.0 LB MAN  
CRO: 0014178/SAFE2450  
BILL SENDER

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

SHIP DATE: 24FEB10  
ACTING: 51.0 LB MAN  
CRO: 0014178/SAFE2450  
BILL SENDER

TO VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

CHARLESTON SC 29407

(843) 556-8171

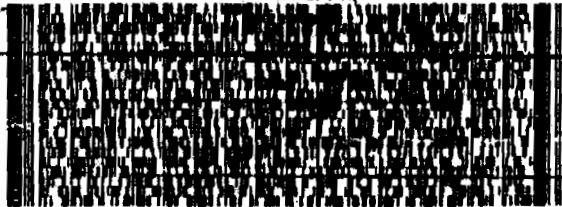
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TO VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

CHARLESTON SC 29407

(843) 556-8171

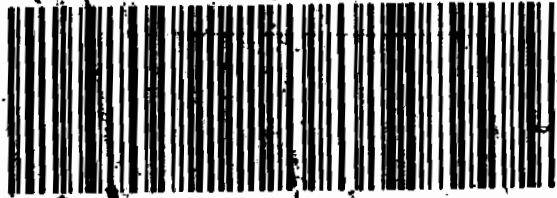
REF: 6B010AMR3A0223KY10



1 of 2  
TRKH 7209 7850 2135  
0201  
NN MASTER NN

THU - 25FEB  
PRIORITY OVERNIGHT

XX CHSA



1 of 2  
TRKH 7209 7850 2032  
0201  
NN MASTER NN

THU - 25FEB A1  
PRIORITY OVERNIGHT

XX CHSA



29407  
SC-US  
CHS

JOYLENE VALDEZ  
LOS ALAMOS NATL LAB  
TAGO BLDG 1237 DPU 83

ACTING: 51.0 LB MAN  
CRO: 0014178/SAFE2450

LOS ALAMOS, NM 87545  
UNITED STATES US

BILL SENDER

JOYLENE VALDEZ  
LOS ALAMOS NATL LAB  
TAGO BLDG 1237 DPU 83

LOS ALAMOS, NM 87545  
UNITED STATES US

BILL SENDER

TO VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

CHARLESTON SC 29407

(843) 556-8171

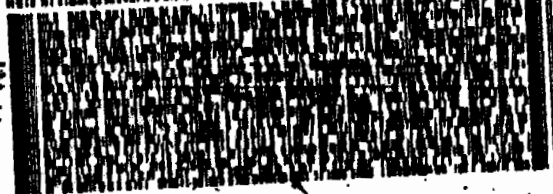
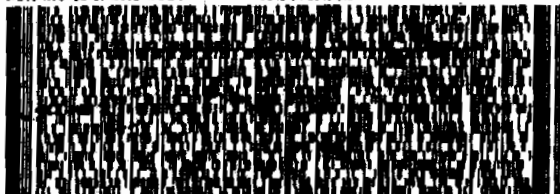
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TO VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

CHARLESTON SC 29407

(843) 556-8171

REF: 6B010AAREN0140T500



2 of 2  
MPS# 7209 7850 2249  
0263  
Matr# 7209 7850 2238 0201

THU - 25FEB A1  
PRIORITY OVERNIGHT

XX CHSA



TRKH 7209 7850 2168  
0201

THU - 25FEB A1  
PRIORITY OVERNIGHT

XX CHSA



29407  
SC-US  
CHS

LOS ALAMOS NATL LAB  
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545  
UNITED STATES US

ACTWGT: 52.0 LB MAN  
CAD: 0014176/CAFE2450

BILL SENDER

JOYLENE VALDEZ  
LOS ALAMOS NATL LAB  
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545  
UNITED STATES US

ACTWGT: 52.0 LB MAN  
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

CHARLESTON SC 29407

(843) 556-8171  
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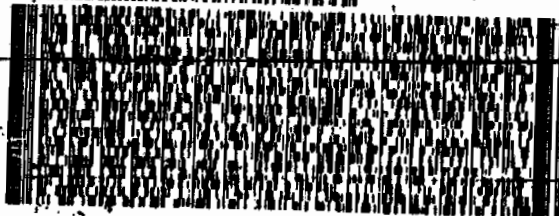
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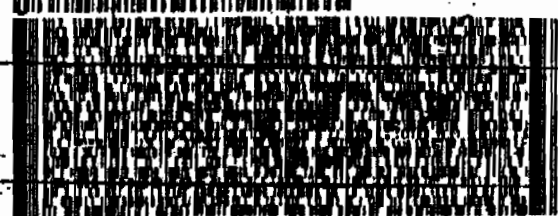
CHARLESTON SC 29407

(843) 556-8171  
REF: 6B010AMR3A0223KY10

3c



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1 of 3  
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NM MASTER NM

THU - 25FEB A1  
PRIORITY OVERNIGHT

29407  
SC-US  
CHS

XX CHSA

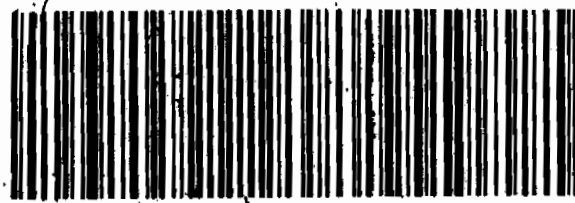


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MatrN 7209 7850 2032 0201

THU - 25FEB A1  
PRIORITY OVERNIGHT

29407  
SC-US  
CHS

XX CHSA



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

LOS ALAMOS, NM 87545  
UNITED STATES US

ACTWGT: 52.0 LB MAN  
CAD: 0014176/CAFE2450

BILL SENDER

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: 24FEB10  
ACTWGT: 57.0 LB MAN  
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

CHARLESTON SC 29407

(843) 556-8171  
REF: 6B010AMR1A015AGWMO

3

TO VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

CHARLESTON SC 29407

(843) 556-8171  
REF: 6B010AMR1A015AGWMO

3c



FedEx



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1 of 2  
TRKH 7209 7850 2238  
NM MASTER NM

THU - 25FEB A1  
PRIORITY OVERNIGHT

29407  
SC-US  
CHS

XX CHSA

2 of 2  
NPSH 7209 7850 2124  
MatrN 7209 7850 2113 0201

THU - 25FEB A1  
PRIORITY OVERNIGHT

29407  
SC-US  
CHS

XX CHSA

JOYLENE VALDEZ  
LOS ALAMOS NATL LAB  
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545  
UNITED STATES US

ACTWGT  
CAD: 0%

49.0 LB MAN  
114176/CAFE2450

LOS ALAMOS NATL LAB  
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545  
UNITED STATES US

CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

CHARLESTON SC 29407  
(843) 556-8171  
REF: 6B010AMR3A05529E00

TO VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

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

11011 011000000000 011000000000 011000000000 011000000000



FedEx  
Express



JAN 20 09 11 32 22 Z

FedEx  
Express



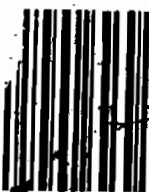
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THU -  
PRIORITY

25FEB A1  
OVERNIGHT

29407  
SC-US  
CHS

XX CHSA



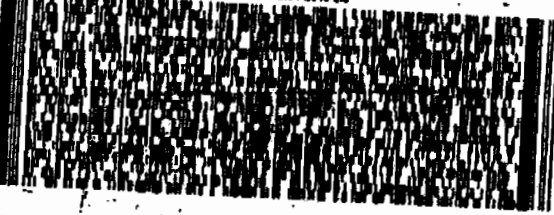
LOS ALAMOS, NM 87545  
UNITED STATES US

BILL SENDER

TO VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

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

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FedEx  
Express



JAN 20 09 11 32 22 Z

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29407  
SC-US  
CHS

XX CHSA

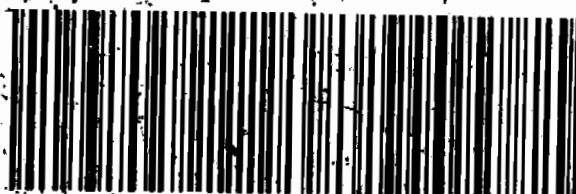


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THU - 25FEB A  
PRIORITY OVERNIGHT

2940  
SC-US  
CHS

XX CHSA



JOYLENE VALDEZ  
LOS ALAMOS NATL LAB  
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545  
UNITED STATES US

ACTWGT: 55.0 LB MAN  
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

CHARLESTON SC 29407  
(843) 556-8171  
REF: 6B010AMR1A015AGWMO

11011 011000000000 011000000000 011000000000 011000000000



FedEx  
Express



JAN 20 09 11 32 22 Z

MPSH  
0263 7209 7850 2087  
MatrN 7209 7850 2078 0201

THU - 25FEB A1  
PRIORITY OVERNIGHT

29407  
SC-US  
CHS

XX CHSA



JOYLENE VALDEZ  
LOS ALAMOS NATL LAB  
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545  
UNITED STATES US

ACTWGT: 62.0 LB MM  
CAD: 0014176/CAFE24

BILL SENDER

ORIGIN-ID: SAFR (500) 000-0000  
JOYLENE VALDEZ  
LOS ALAMOS NATL LAB  
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545  
UNITED STATES US

ACTWGT: 48.0 LB MM  
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

CHARLESTON SC 29407

(843) 556-8171

REF: 6B010AMR2A05158YD0

5c

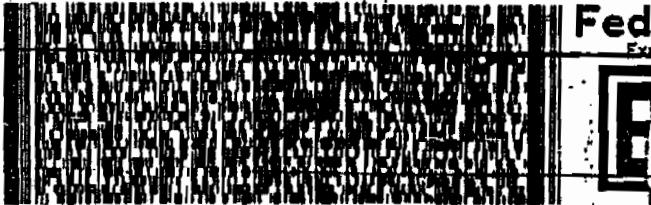
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GENERAL ENGINEERING LAB  
2040 SAVAGE RD

CHARLESTON SC 29407

(843) 556-8171

REF: 6B010AMR6L11570000

6c



FedEx



FedEx



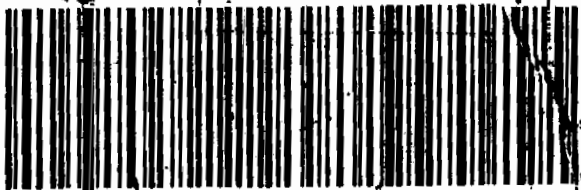
EXPRESS

2 of 2  
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0263  
Matr# 7209 7850 2000 0201

THU - 25FEB  
PRIORITY OVERNIGHT

294

XX CHSA



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

CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

CHARLESTON SC 29407

(843) 556-8171

REF: 6B010AMR3A0532VA00

12c

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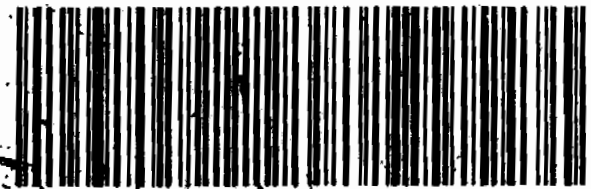
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PRIORITY OVERNIGHT

29407

SC-US

CHS

XX CHSA



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

CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

CHARLESTON SC 29407

(843) 556-8171

REF: 6B010AMR3A0532VA00

12c



edit



FedEx



EXPRESS

1 of 3  
TRKH 7209 7850 1871  
0201  
MH MASTER MH

THU - 25FEB  
PRIORITY OVERNIGHT

294

XX CHSA



3 of 3  
MPS# 7209 7850 1893  
0263  
Matr# 7209 7850 1871 0201

THU - 25FEB A1  
PRIORITY OVERNIGHT

29407

SC-US

CHS

XX CHSA





ORIGIN ID: SAFA (505) 555-9958  
JOYLENE VALDEZ  
LOS ALAMOS NATL LAB  
TAGO BLDG 1237 DPU 03

LOS ALAMOS, NM 87545  
UNITED STATES US

ACTWGT: 58.8 LB MAN  
CAD: 0014176/CAFE2450

BILL SENDER

JOYLENE VALDEZ  
LOS ALAMOS NATL LAB  
TAGO BLDG 1237 DPU 03

LOS ALAMOS, NM 87545  
UNITED STATES US

ACTWGT: 54.8 LB MAN  
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

CHARLESTON SC 29407

(843) 556-8171

REF: 68010AMR3A0532VA00

12c

TO VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

CHARLESTON SC 29407

(843) 556-8171

REF: 68010AMR3A0532VA00

13c



FedEx



FedEx

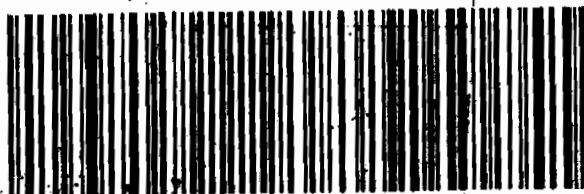


3 of 3  
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THU - 25FEB A1  
PRIORITY OVERNIGHT

2940  
SC-US  
CHS

XX CHSA



2 of 3  
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8263  
Mstr# 7209 7850 1827 8201

THU - 25FEB A1  
PRIORITY OVERNIGHT

29407  
SC-US  
CHS

XX CHSA



ORIGIN ID: SAFA (505) 555-9958  
JOYLENE VALDEZ  
LOS ALAMOS NATL LAB  
TAGO BLDG 1237 DPU 03  
LOS ALAMOS, NM 87545  
UNITED STATES US

SHIP DATE: 24FEB10  
ACTWGT: 54.8 LB MAN  
CAD: 0014176/CAFE2450

BILL SENDER

ORIGIN ID: SAFA (505) 555-9958  
JOYLENE VALDEZ  
LOS ALAMOS NATL LAB  
TAGO BLDG 1237 DPU 03  
LOS ALAMOS, NM 87545  
UNITED STATES US

ACTWGT: 56.8 LB MAN  
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

CHARLESTON SC 29407

(843) 556-8171

REF: 68010AMR3A0532VA00

13c

TO VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

CHARLESTON SC 29407

(843) 556-8171

REF: 68010AMR3A0532VA00

13c



FedEx



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2 of 2  
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SC-US  
CHS

XX CHSA

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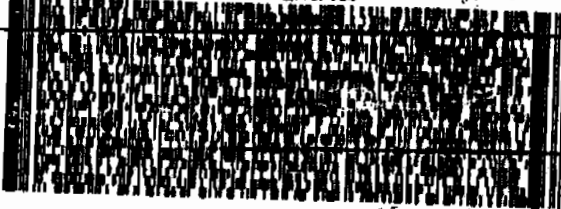
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Express



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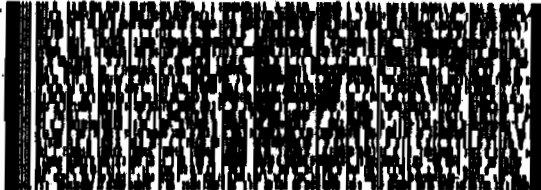
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SC-US  
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**FedEx**  
EXPRESS



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PRIORITY OVERNIGHT

29407  
SC-US  
RHS

# **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 10-2027**

**Method/Analysis Information**

Procedure: Volatile Organic Compounds (VOC) by Gas Chromatograph/Mass Spectrometer  
Analytical Method: SW846 8260B  
Prep Method: SW846 5030  
Analytical Batch Number: 959900  
Prep Batch Number: 959898

**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>
248012001	RE36-10-8496
248012002	RE36-10-8490
248012003	RE36-10-8470
248012004	RE36-10-8476
248012005	RE36-10-8480
248012006	RE36-10-8474
248012007	RE36-10-8478
248012008	RE36-10-8483
248012009	RE36-10-8482
1202070215	Method Blank (MB)
1202070216	Laboratory Control Sample (LCS)
1202070217	Laboratory Control Sample (LCS)
1202070218	Method Blank (MB)
1202070219	Laboratory Control Sample (LCS)
1202070220	Laboratory Control Sample (LCS)
1202058832	248012009(RE36-10-8482) Post Spike (PS)
1202058833	248012009(RE36-10-8482) Post Spike Duplicate (PSD)

NOTE: For volatile organic analyses the matrix spike designations may be indicated as "PS" or "PSD". The "PS" designation (post spike) indicates that the matrix was fortified prior to analysis but after applying any prep factors, such as a dilution. The laboratory considers the MS/MSD and PS/PSD designations interchangeable.

Samples 248012 002, 003, 004, 005, 006, 007, 008 and 009 in this SDG were analyzed on an "dry weight" basis. Samples 248012 001 in this SDG were analyzed on a "as received" basis.

**Preparation/Analytical Method Verification**

**SOP Reference**

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories

LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-038 REV# 14.

Raw data reports are processed and reviewed by the analyst using the Chemstation software package. False positives have been removed from the quantitation reports per standard operating procedures (SOP) section 19.1.2. False positive analytes are designated on the quantitation report with a 'd' qualifier.

#### **Calibration Information**

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

The surrogate compounds were calibrated using a minimum five-point calibration curve. The surrogates were added by the auto sampler at a concentration of 50 ug/L. GEL Laboratories LLC will not have surrogate recoveries reported for Dibromofluoromethane. This is due to increased regulations for this analyte and an industry shortage.

A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package.

#### **Initial Calibration**

All initial calibration requirements have been met for this sample delivery groups (SDG). A second source initial calibration verification (ICV) was included in the standard section directly behind the initial calibration.

#### **Continuing Calibration Verification Requirements**

All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

#### **Quality Control (QC) Information**

##### **Method Blank (MB) Statement**

The MBs analyzed with this SDG met the acceptance criteria.

##### **Surrogate Recoveries**

Surrogate recoveries in all client and quality control samples were within the acceptance limits.

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

The LCS spike recoveries met the acceptance limits.

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

Sample 248012009 (RE36-10-8482) was designated for spike analysis in this SDG.

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

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

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

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

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

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

**Internal Standard (ISTD) Acceptance**

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

**Technical Information****Holding Time Specifications**

GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection or sample receipt. Those holding times expressed in hours are calculated in the ALPHALIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

**Sample Preservation and Integrity**

All samples met the sample preservation and integrity requirements.

**Sample Dilutions**

The samples in this SDG did not require dilutions.

**Sample Re-extraction/Re-analysis**

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

**Miscellaneous Information****Electronic Packaging Comment**

This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted: Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative will include the data validator's signature and title. The signature page also includes the data qualifiers used in the fractional package. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

**Data Exception (DER) Documentation**

A Data Exception Report is not required for this SDG.

**Manual Integrations**

Data files associated with the initial calibration, continuing calibration check, and samples did not require manual integrations.

**TIC Comment**

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

**Additional Comments**

No additional comments are 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>
VOA3.I	Gas Chromatograph/Mass Spectrometer	HP6890/HP5973	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: 10-2027 GEL Work Order: 248012

**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: Stacy Calloway**

**Date: 23 MAR 2010**

**Title: Data Validator**

# **Sample Data Summary**



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

SDG Number: 10-2027  
 Lab Sample ID: 248012001

Date Collected: 02/20/2010 12:00  
 Date Received: 02/25/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA3.I  
 Analyst: CDS1  
 Aliquot: 5 g  
 Column: DB-624

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

Client ID: RE36-10-8496  
 Batch ID: 959900  
 Run Date: 03/03/2010 00:57  
 Prep Date: 03/02/2010 17:00  
 Data File: 030210V3\3B233.D

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: 10-2027  
 Lab Sample ID: 248012001

Date Collected: 02/20/2010 12:00  
 Date Received: 02/25/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA3I  
 Analyst: CDS1  
 Aliquot: 5 g  
 Column: DB-624

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

Client ID: RE36-10-8496  
 Batch ID: 959900  
 Run Date: 03/03/2010 00:57  
 Prep Date: 03/02/2010 17:00  
 Data File: 030210V33B233.D

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

**Tentatively Identified Compound Summary**

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

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

SDG Number: 10-2027  
 Lab Sample ID: 248012002  
  
 Client ID: RE36-10-8490  
 Batch ID: 959900  
 Run Date: 03/03/2010 01:27  
 Prep Date: 03/02/2010 17:01  
 Data File: 030210V3\3B234.D

Date Collected: 02/20/2010 12:00  
 Date Received: 02/25/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA3.I  
 Analyst: CDS1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 5.1  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.05	ug/kg	0.358	1.05
74-87-3	Chloromethane	U	1.05	ug/kg	0.316	1.05
75-01-4	Vinyl chloride	U	1.05	ug/kg	0.316	1.05
74-83-9	Bromomethane	U	1.05	ug/kg	0.316	1.05
75-00-3	Chloroethane	U	1.05	ug/kg	0.316	1.05
75-69-4	Trichlorofluoromethane	U	1.05	ug/kg	0.316	1.05
67-64-1	Acetone	U	5.27	ug/kg	1.75	5.27
75-35-4	1,1-Dichloroethylene	U	1.05	ug/kg	0.316	1.05
74-88-4	Iodomethane	U	5.27	ug/kg	1.69	5.27
75-09-2	Methylene chloride	U	5.27	ug/kg	2.11	5.27
75-15-0	Carbon disulfide	U	5.27	ug/kg	1.32	5.27
156-60-5	trans-1,2-Dichloroethylene	U	1.05	ug/kg	0.316	1.05
75-34-3	1,1-Dichloroethane	U	1.05	ug/kg	0.316	1.05
78-93-3	2-Butanone	U	5.27	ug/kg	1.58	5.27
156-59-2	cis-1,2-Dichloroethylene	U	1.05	ug/kg	0.316	1.05
594-20-7	2,2-Dichloropropane	U	1.05	ug/kg	0.316	1.05
67-66-3	Chloroform	U	1.05	ug/kg	0.316	1.05
74-97-5	Bromochloromethane	U	1.05	ug/kg	0.348	1.05
71-55-6	1,1,1-Trichloroethane	U	1.05	ug/kg	0.316	1.05
563-58-6	1,1-Dichloropropene	U	1.05	ug/kg	0.316	1.05
56-23-5	Carbon tetrachloride	U	1.05	ug/kg	0.316	1.05
107-06-2	1,2-Dichloroethane	U	1.05	ug/kg	0.316	1.05
71-43-2	Benzene	U	1.05	ug/kg	0.316	1.05
79-01-6	Trichloroethylene	U	1.05	ug/kg	0.348	1.05
78-87-5	1,2-Dichloropropane	U	1.05	ug/kg	0.316	1.05
75-27-4	Bromodichloromethane	U	1.05	ug/kg	0.316	1.05
74-95-3	Dibromomethane	U	1.05	ug/kg	0.316	1.05
108-10-1	4-Methyl-2-pentanone	U	5.27	ug/kg	1.32	5.27
10061-01-5	cis-1,3-Dichloropropylene	U	1.05	ug/kg	0.316	1.05
108-88-3	Toluene	U	1.05	ug/kg	0.316	1.05
10061-02-6	trans-1,3-Dichloropropylene	U	1.05	ug/kg	0.316	1.05
79-00-5	1,1,2-Trichloroethane	U	1.05	ug/kg	0.316	1.05
591-78-6	2-Hexanone	U	5.27	ug/kg	1.58	5.27
142-28-9	1,3-Dichloropropane	U	1.05	ug/kg	0.316	1.05
127-18-4	Tetrachloroethylene	U	1.05	ug/kg	0.316	1.05
124-48-1	Dibromochloromethane	U	1.05	ug/kg	0.316	1.05
106-93-4	1,2-Dibromoethane	U	1.05	ug/kg	0.316	1.05
108-90-7	Chlorobenzene	U	1.05	ug/kg	0.316	1.05

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

SDG Number: 10-2027  
 Lab Sample ID: 248012002

Date Collected: 02/20/2010 12:00  
 Date Received: 02/25/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA3.I  
 Analyst: CDS1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 5.1  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

Client ID: RE36-10-8490  
 Batch ID: 959900  
 Run Date: 03/03/2010 01:27  
 Prep Date: 03/02/2010 17:01  
 Data File: 030210V3\3B234.D

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.05	ug/kg	0.316	1.05
179601-23-1	m,p-Xylenes	U	2.11	ug/kg	0.316	2.11
95-47-6	o-Xylene	U	1.05	ug/kg	0.316	1.05
100-42-5	Styrene	U	1.05	ug/kg	0.316	1.05
75-25-2	Bromoform	U	1.05	ug/kg	0.316	1.05
79-34-5	1,1,2,2-Tetrachloroethane	U	1.05	ug/kg	0.316	1.05
96-18-4	1,2,3-Trichloropropane	U	1.05	ug/kg	0.316	1.05
108-86-1	Bromobenzene	U	1.05	ug/kg	0.316	1.05
103-65-1	n-Propylbenzene	U	1.05	ug/kg	0.316	1.05
95-49-8	2-Chlorotoluene	U	1.05	ug/kg	0.316	1.05
98-82-8	Isopropylbenzene	U	1.05	ug/kg	0.316	1.05
108-67-8	1,3,5-Trimethylbenzene	U	1.05	ug/kg	0.316	1.05
106-43-4	4-Chlorotoluene	U	1.05	ug/kg	0.316	1.05
98-06-6	tert-Butylbenzene	U	1.05	ug/kg	0.316	1.05
95-63-6	1,2,4-Trimethylbenzene	U	1.05	ug/kg	0.316	1.05
135-98-8	sec-Butylbenzene	U	1.05	ug/kg	0.316	1.05
99-87-6	4-Isopropyltoluene	U	1.05	ug/kg	0.316	1.05
541-73-1	1,3-Dichlorobenzene	U	1.05	ug/kg	0.316	1.05
106-46-7	1,4-Dichlorobenzene	U	1.05	ug/kg	0.316	1.05
104-51-8	n-Butylbenzene	U	1.05	ug/kg	0.316	1.05
96-12-8	1,2-Dibromo-3-chloropropane	U	1.05	ug/kg	0.316	1.05
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	5.27	ug/kg	1.69	5.27
630-20-6	1,1,1,2-Tetrachloroethane	U	1.05	ug/kg	0.316	1.05
95-50-1	1,2-Dichlorobenzene	U	1.05	ug/kg	0.316	1.05

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown siloxane	19.05	5.3	ug/kg	0	J

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

SDG Number: 10-2027  
 Lab Sample ID: 248012003

Client ID: RE36-10-8470  
 Batch ID: 959900  
 Run Date: 03/03/2010 01:56  
 Prep Date: 03/02/2010 17:02  
 Data File: 030210V33B235.D

Date Collected: 02/20/2010 12:00  
 Date Received: 02/25/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA3I  
 Analyst: CDS1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 6.2  
 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	1.07	ug/kg	0.362	1.07
74-87-3	Chloromethane	U	1.07	ug/kg	0.320	1.07
75-01-4	Vinyl chloride	U	1.07	ug/kg	0.320	1.07
74-83-9	Bromomethane	U	1.07	ug/kg	0.320	1.07
75-00-3	Chloroethane	U	1.07	ug/kg	0.320	1.07
75-69-4	Trichlorofluoromethane	U	1.07	ug/kg	0.320	1.07
67-64-1	Acetone	U	5.33	ug/kg	1.77	5.33
75-35-4	1,1-Dichloroethylene	U	1.07	ug/kg	0.320	1.07
74-88-4	Iodomethane	U	5.33	ug/kg	1.71	5.33
75-09-2	Methylene chloride	U	5.33	ug/kg	2.13	5.33
75-15-0	Carbon disulfide	U	5.33	ug/kg	1.33	5.33
156-60-5	trans-1,2-Dichloroethylene	U	1.07	ug/kg	0.320	1.07
75-34-3	1,1-Dichloroethane	U	1.07	ug/kg	0.320	1.07
78-93-3	2-Butanone	U	5.33	ug/kg	1.60	5.33
156-59-2	cis-1,2-Dichloroethylene	U	1.07	ug/kg	0.320	1.07
594-20-7	2,2-Dichloropropane	U	1.07	ug/kg	0.320	1.07
67-66-3	Chloroform	U	1.07	ug/kg	0.320	1.07
74-97-5	Bromochloromethane	U	1.07	ug/kg	0.352	1.07
71-55-6	1,1,1-Trichloroethane	U	1.07	ug/kg	0.320	1.07
563-58-6	1,1-Dichloropropene	U	1.07	ug/kg	0.320	1.07
56-23-5	Carbon tetrachloride	U	1.07	ug/kg	0.320	1.07
107-06-2	1,2-Dichloroethane	U	1.07	ug/kg	0.320	1.07
71-43-2	Benzene	U	1.07	ug/kg	0.320	1.07
79-01-6	Trichloroethylene	U	1.07	ug/kg	0.352	1.07
78-87-5	1,2-Dichloropropane	U	1.07	ug/kg	0.320	1.07
75-27-4	Bromodichloromethane	U	1.07	ug/kg	0.320	1.07
74-95-3	Dibromomethane	U	1.07	ug/kg	0.320	1.07
108-10-1	4-Methyl-2-pentanone	U	5.33	ug/kg	1.33	5.33
10061-01-5	cis-1,3-Dichloropropylene	U	1.07	ug/kg	0.320	1.07
108-88-3	Toluene	U	1.07	ug/kg	0.320	1.07
10061-02-6	trans-1,3-Dichloropropylene	U	1.07	ug/kg	0.320	1.07
79-00-5	1,1,2-Trichloroethane	U	1.07	ug/kg	0.320	1.07
591-78-6	2-Hexanone	U	5.33	ug/kg	1.60	5.33
142-28-9	1,3-Dichloropropane	U	1.07	ug/kg	0.320	1.07
127-18-4	Tetrachloroethylene	U	1.07	ug/kg	0.320	1.07
124-48-1	Dibromochloromethane	U	1.07	ug/kg	0.320	1.07
106-93-4	1,2-Dibromoethane	U	1.07	ug/kg	0.320	1.07
108-90-7	Chlorobenzene	U	1.07	ug/kg	0.320	1.07

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

Page 2 of 2

SDG Number: 10-2027  
 Lab Sample ID: 248012003

Date Collected: 02/20/2010 12:00  
 Date Received: 02/25/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA3.I  
 Analyst: CDS1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 6.2  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

Client ID: RE36-10-8470  
 Batch ID: 959900  
 Run Date: 03/03/2010 01:56  
 Prep Date: 03/02/2010 17:02  
 Data File: 030210V3\3B235.D

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.07	ug/kg	0.320	1.07
179601-23-1	m,p-Xylenes	U	2.13	ug/kg	0.320	2.13
95-47-6	o-Xylene	U	1.07	ug/kg	0.320	1.07
100-42-5	Styrene	U	1.07	ug/kg	0.320	1.07
75-25-2	Bromoform	U	1.07	ug/kg	0.320	1.07
79-34-5	1,1,2,2-Tetrachloroethane	U	1.07	ug/kg	0.320	1.07
96-18-4	1,2,3-Trichloropropane	U	1.07	ug/kg	0.320	1.07
108-86-1	Bromobenzene	U	1.07	ug/kg	0.320	1.07
103-65-1	n-Propylbenzene	U	1.07	ug/kg	0.320	1.07
95-49-8	2-Chlorotoluene	U	1.07	ug/kg	0.320	1.07
98-82-8	Isopropylbenzene	U	1.07	ug/kg	0.320	1.07
108-67-8	1,3,5-Trimethylbenzene	U	1.07	ug/kg	0.320	1.07
106-43-4	4-Chlorotoluene	U	1.07	ug/kg	0.320	1.07
98-06-6	tert-Butylbenzene	U	1.07	ug/kg	0.320	1.07
95-63-6	1,2,4-Trimethylbenzene	U	1.07	ug/kg	0.320	1.07
135-98-8	sec-Butylbenzene	U	1.07	ug/kg	0.320	1.07
99-87-6	4-Isopropyltoluene	U	1.07	ug/kg	0.320	1.07
541-73-1	1,3-Dichlorobenzene	U	1.07	ug/kg	0.320	1.07
106-46-7	1,4-Dichlorobenzene	U	1.07	ug/kg	0.320	1.07
104-51-8	n-Butylbenzene	U	1.07	ug/kg	0.320	1.07
96-12-8	1,2-Dibromo-3-chloropropane	U	1.07	ug/kg	0.320	1.07
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	5.33	ug/kg	1.71	5.33
	<i>Trichlorotrifluoroethane</i>					
630-20-6	1,1,1,2-Tetrachloroethane	U	1.07	ug/kg	0.320	1.07
95-50-1	1,2-Dichlorobenzene	U	1.07	ug/kg	0.320	1.07

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown hydrocarbon	16.95	10.3	ug/kg	0	J

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

SDG Number: 10-2027  
 Lab Sample ID: 248012004

Date Collected: 02/20/2010 12:00  
 Date Received: 02/25/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA3.I  
 Analyst: CDS1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 4.2  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

Client ID: RE36-10-8476  
 Batch ID: 959900  
 Run Date: 03/03/2010 02:26  
 Prep Date: 03/02/2010 17:03  
 Data File: 030210V33B236.D

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.04	ug/kg	0.355	1.04
74-87-3	Chloromethane	U	1.04	ug/kg	0.313	1.04
75-01-4	Vinyl chloride	U	1.04	ug/kg	0.313	1.04
74-83-9	Bromomethane	U	1.04	ug/kg	0.313	1.04
75-00-3	Chloroethane	U	1.04	ug/kg	0.313	1.04
75-69-4	Trichlorofluoromethane	U	1.04	ug/kg	0.313	1.04
67-64-1	Acetone	U	5.22	ug/kg	1.73	5.22
75-35-4	1,1-Dichloroethylene	U	1.04	ug/kg	0.313	1.04
74-88-4	Iodomethane	U	5.22	ug/kg	1.67	5.22
75-09-2	Methylene chloride	U	5.22	ug/kg	2.09	5.22
75-15-0	Carbon disulfide	U	5.22	ug/kg	1.30	5.22
156-60-5	trans-1,2-Dichloroethylene	U	1.04	ug/kg	0.313	1.04
75-34-3	1,1-Dichloroethane	U	1.04	ug/kg	0.313	1.04
78-93-3	2-Butanone	U	5.22	ug/kg	1.57	5.22
156-59-2	cis-1,2-Dichloroethylene	U	1.04	ug/kg	0.313	1.04
594-20-7	2,2-Dichloropropane	U	1.04	ug/kg	0.313	1.04
67-66-3	Chloroform	U	1.04	ug/kg	0.313	1.04
74-97-5	Bromochloromethane	U	1.04	ug/kg	0.344	1.04
71-55-6	1,1,1-Trichloroethane	U	1.04	ug/kg	0.313	1.04
563-58-6	1,1-Dichloropropene	U	1.04	ug/kg	0.313	1.04
56-23-5	Carbon tetrachloride	U	1.04	ug/kg	0.313	1.04
107-06-2	1,2-Dichloroethane	U	1.04	ug/kg	0.313	1.04
71-43-2	Benzene	U	1.04	ug/kg	0.313	1.04
79-01-6	Trichloroethylene	U	1.04	ug/kg	0.344	1.04
78-87-5	1,2-Dichloropropane	U	1.04	ug/kg	0.313	1.04
75-27-4	Bromodichloromethane	U	1.04	ug/kg	0.313	1.04
74-95-3	Dibromomethane	U	1.04	ug/kg	0.313	1.04
108-10-1	4-Methyl-2-pentanone	U	5.22	ug/kg	1.30	5.22
10061-01-5	cis-1,3-Dichloropropylene	U	1.04	ug/kg	0.313	1.04
108-88-3	Toluene	U	1.04	ug/kg	0.313	1.04
10061-02-6	trans-1,3-Dichloropropylene	U	1.04	ug/kg	0.313	1.04
79-00-5	1,1,2-Trichloroethane	U	1.04	ug/kg	0.313	1.04
591-78-6	2-Hexanone	U	5.22	ug/kg	1.57	5.22
142-28-9	1,3-Dichloropropane	U	1.04	ug/kg	0.313	1.04
127-18-4	Tetrachloroethylene	U	1.04	ug/kg	0.313	1.04
124-48-1	Dibromochloromethane	U	1.04	ug/kg	0.313	1.04
106-93-4	1,2-Dibromoethane	U	1.04	ug/kg	0.313	1.04
108-90-7	Chlorobenzene	U	1.04	ug/kg	0.313	1.04

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

SDG Number: 10-2027  
 Lab Sample ID: 248012004

Date Collected: 02/20/2010 12:00  
 Date Received: 02/25/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA3.I  
 Analyst: CDS1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 4.2  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

Client ID: RE36-10-8476  
 Batch ID: 959900  
 Run Date: 03/03/2010 02:26  
 Prep Date: 03/02/2010 17:03  
 Data File: 030210V3\3B236.D

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.04	ug/kg	0.313	1.04
179601-23-1	m,p-Xylenes	U	2.09	ug/kg	0.313	2.09
95-47-6	o-Xylene	U	1.04	ug/kg	0.313	1.04
100-42-5	Styrene	U	1.04	ug/kg	0.313	1.04
75-25-2	Bromoform	U	1.04	ug/kg	0.313	1.04
79-34-5	1,1,2,2-Tetrachloroethane	U	1.04	ug/kg	0.313	1.04
96-18-4	1,2,3-Trichloropropane	U	1.04	ug/kg	0.313	1.04
108-86-1	Bromobenzene	U	1.04	ug/kg	0.313	1.04
103-65-1	n-Propylbenzene	U	1.04	ug/kg	0.313	1.04
95-49-8	2-Chlorotoluene	U	1.04	ug/kg	0.313	1.04
98-82-8	Isopropylbenzene	U	1.04	ug/kg	0.313	1.04
108-67-8	1,3,5-Trimethylbenzene	U	1.04	ug/kg	0.313	1.04
106-43-4	4-Chlorotoluene	U	1.04	ug/kg	0.313	1.04
98-06-6	tert-Butylbenzene	U	1.04	ug/kg	0.313	1.04
95-63-6	1,2,4-Trimethylbenzene	U	1.04	ug/kg	0.313	1.04
135-98-8	sec-Butylbenzene	U	1.04	ug/kg	0.313	1.04
99-87-6	4-Isopropyltoluene	U	1.04	ug/kg	0.313	1.04
541-73-1	1,3-Dichlorobenzene	U	1.04	ug/kg	0.313	1.04
106-46-7	1,4-Dichlorobenzene	U	1.04	ug/kg	0.313	1.04
104-51-8	n-Butylbenzene	U	1.04	ug/kg	0.313	1.04
96-12-8	1,2-Dibromo-3-chloropropane	U	1.04	ug/kg	0.313	1.04
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	5.22	ug/kg	1.67	5.22
630-20-6	1,1,1,2-Tetrachloroethane	U	1.04	ug/kg	0.313	1.04
95-50-1	1,2-Dichlorobenzene	U	1.04	ug/kg	0.313	1.04

**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: 10-2027  
 Lab Sample ID: 248012005

Date Collected: 02/20/2010 12:00  
 Date Received: 02/25/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA3I  
 Analyst: CDS1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 10.8  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

Client ID: RE36-10-8480  
 Batch ID: 959900  
 Run Date: 03/03/2010 02:55  
 Prep Date: 03/02/2010 17:04  
 Data File: 030210V33B237.D

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.12	ug/kg	0.381	1.12
74-87-3	Chloromethane	U	1.12	ug/kg	0.336	1.12
75-01-4	Vinyl chloride	U	1.12	ug/kg	0.336	1.12
74-83-9	Bromomethane	U	1.12	ug/kg	0.336	1.12
75-00-3	Chloroethane	U	1.12	ug/kg	0.336	1.12
75-69-4	Trichlorofluoromethane	U	1.12	ug/kg	0.336	1.12
67-64-1	Acetone	U	5.61	ug/kg	1.86	5.61
75-35-4	1,1-Dichloroethylene	U	1.12	ug/kg	0.336	1.12
74-88-4	Iodomethane	U	5.61	ug/kg	1.79	5.61
75-09-2	Methylene chloride	U	5.61	ug/kg	2.24	5.61
75-15-0	Carbon disulfide	U	5.61	ug/kg	1.40	5.61
156-60-5	trans-1,2-Dichloroethylene	U	1.12	ug/kg	0.336	1.12
75-34-3	1,1-Dichloroethane	U	1.12	ug/kg	0.336	1.12
78-93-3	2-Butanone	U	5.61	ug/kg	1.68	5.61
156-59-2	cis-1,2-Dichloroethylene	U	1.12	ug/kg	0.336	1.12
594-20-7	2,2-Dichloropropane	U	1.12	ug/kg	0.336	1.12
67-66-3	Chloroform	U	1.12	ug/kg	0.336	1.12
74-97-5	Bromochloromethane	U	1.12	ug/kg	0.370	1.12
71-55-6	1,1,1-Trichloroethane	U	1.12	ug/kg	0.336	1.12
563-58-6	1,1-Dichloropropene	U	1.12	ug/kg	0.336	1.12
56-23-5	Carbon tetrachloride	U	1.12	ug/kg	0.336	1.12
107-06-2	1,2-Dichloroethane	U	1.12	ug/kg	0.336	1.12
71-43-2	Benzene	U	1.12	ug/kg	0.336	1.12
79-01-6	Trichloroethylene	U	1.12	ug/kg	0.370	1.12
78-87-5	1,2-Dichloropropane	U	1.12	ug/kg	0.336	1.12
75-27-4	Bromodichloromethane	U	1.12	ug/kg	0.336	1.12
74-95-3	Dibromomethane	U	1.12	ug/kg	0.336	1.12
108-10-1	4-Methyl-2-pentanone	U	5.61	ug/kg	1.40	5.61
10061-01-5	cis-1,3-Dichloropropylene	U	1.12	ug/kg	0.336	1.12
108-88-3	Toluene	U	1.12	ug/kg	0.336	1.12
10061-02-6	trans-1,3-Dichloropropylene	U	1.12	ug/kg	0.336	1.12
79-00-5	1,1,2-Trichloroethane	U	1.12	ug/kg	0.336	1.12
591-78-6	2-Hexanone	U	5.61	ug/kg	1.68	5.61
142-28-9	1,3-Dichloropropane	U	1.12	ug/kg	0.336	1.12
127-18-4	Tetrachloroethylene	U	1.12	ug/kg	0.336	1.12
124-48-1	Dibromochloromethane	U	1.12	ug/kg	0.336	1.12
106-93-4	1,2-Dibromoethane	U	1.12	ug/kg	0.336	1.12
108-90-7	Chlorobenzene	U	1.12	ug/kg	0.336	1.12

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

SDG Number: 10-2027  
 Lab Sample ID: 248012005

Date Collected: 02/20/2010 12:00  
 Date Received: 02/25/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA3.I  
 Analyst: CDS1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 10.8  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

Client ID: RE36-10-8480  
 Batch ID: 959900  
 Run Date: 03/03/2010 02:55  
 Prep Date: 03/02/2010 17:04  
 Data File: 030210V3\3B237.D

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.12	ug/kg	0.336	1.12
179601-23-1	m,p-Xylenes	U	2.24	ug/kg	0.336	2.24
95-47-6	o-Xylene	U	1.12	ug/kg	0.336	1.12
100-42-5	Styrene	U	1.12	ug/kg	0.336	1.12
75-25-2	Bromoform	U	1.12	ug/kg	0.336	1.12
79-34-5	1,1,2,2-Tetrachloroethane	U	1.12	ug/kg	0.336	1.12
96-18-4	1,2,3-Trichloropropane	U	1.12	ug/kg	0.336	1.12
108-86-1	Bromobenzene	U	1.12	ug/kg	0.336	1.12
103-65-1	n-Propylbenzene	U	1.12	ug/kg	0.336	1.12
95-49-8	2-Chlorotoluene	U	1.12	ug/kg	0.336	1.12
98-82-8	Isopropylbenzene	U	1.12	ug/kg	0.336	1.12
108-67-8	1,3,5-Trimethylbenzene	U	1.12	ug/kg	0.336	1.12
106-43-4	4-Chlorotoluene	U	1.12	ug/kg	0.336	1.12
98-06-6	tert-Butylbenzene	U	1.12	ug/kg	0.336	1.12
95-63-6	1,2,4-Trimethylbenzene	U	1.12	ug/kg	0.336	1.12
135-98-8	sec-Butylbenzene	U	1.12	ug/kg	0.336	1.12
99-87-6	4-Isopropyltoluene	U	1.12	ug/kg	0.336	1.12
541-73-1	1,3-Dichlorobenzene	U	1.12	ug/kg	0.336	1.12
106-46-7	1,4-Dichlorobenzene	U	1.12	ug/kg	0.336	1.12
104-51-8	n-Butylbenzene	U	1.12	ug/kg	0.336	1.12
96-12-8	1,2-Dibromo-3-chloropropane	U	1.12	ug/kg	0.336	1.12
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	5.61	ug/kg	1.79	5.61
630-20-6	1,1,1,2-Tetrachloroethane	U	1.12	ug/kg	0.336	1.12
95-50-1	1,2-Dichlorobenzene	U	1.12	ug/kg	0.336	1.12

**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: 10-2027  
 Lab Sample ID: 248012006

Date Collected: 02/20/2010 12:00  
 Date Received: 02/25/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA3.I  
 Analyst: CDS1  
 Aliquot: 5 g  
 Column: DB-624

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

Client ID: RE36-10-8474  
 Batch ID: 959900  
 Run Date: 03/04/2010 12:43  
 Prep Date: 03/04/2010 07:02  
 Data File: 030410V33B410.D

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.15	ug/kg	0.390	1.15
74-87-3	Chloromethane	U	1.15	ug/kg	0.344	1.15
75-01-4	Vinyl chloride	U	1.15	ug/kg	0.344	1.15
74-83-9	Bromomethane	U	1.15	ug/kg	0.344	1.15
75-00-3	Chloroethane	U	1.15	ug/kg	0.344	1.15
75-69-4	Trichlorofluoromethane	U	1.15	ug/kg	0.344	1.15
67-64-1	Acetone	U	5.74	ug/kg	1.90	5.74
75-35-4	1,1-Dichloroethylene	U	1.15	ug/kg	0.344	1.15
74-88-4	Iodomethane	U	5.74	ug/kg	1.84	5.74
75-09-2	Methylene chloride	U	5.74	ug/kg	2.29	5.74
75-15-0	Carbon disulfide	U	5.74	ug/kg	1.43	5.74
156-60-5	trans-1,2-Dichloroethylene	U	1.15	ug/kg	0.344	1.15
75-34-3	1,1-Dichloroethane	U	1.15	ug/kg	0.344	1.15
78-93-3	2-Butanone	U	5.74	ug/kg	1.72	5.74
156-59-2	cis-1,2-Dichloroethylene	U	1.15	ug/kg	0.344	1.15
594-20-7	2,2-Dichloropropane	U	1.15	ug/kg	0.344	1.15
67-66-3	Chloroform	U	1.15	ug/kg	0.344	1.15
74-97-5	Bromochloromethane	U	1.15	ug/kg	0.379	1.15
71-55-6	1,1,1-Trichloroethane	U	1.15	ug/kg	0.344	1.15
563-58-6	1,1-Dichloropropene	U	1.15	ug/kg	0.344	1.15
56-23-5	Carbon tetrachloride	U	1.15	ug/kg	0.344	1.15
107-06-2	1,2-Dichloroethane	U	1.15	ug/kg	0.344	1.15
71-43-2	Benzene	U	1.15	ug/kg	0.344	1.15
79-01-6	Trichloroethylene	U	1.15	ug/kg	0.379	1.15
78-87-5	1,2-Dichloropropane	U	1.15	ug/kg	0.344	1.15
75-27-4	Bromodichloromethane	U	1.15	ug/kg	0.344	1.15
74-95-3	Dibromomethane	U	1.15	ug/kg	0.344	1.15
108-10-1	4-Methyl-2-pentanone	U	5.74	ug/kg	1.43	5.74
10061-01-5	cis-1,3-Dichloropropylene	U	1.15	ug/kg	0.344	1.15
108-88-3	Toluene	U	1.15	ug/kg	0.344	1.15
10061-02-6	trans-1,3-Dichloropropylene	U	1.15	ug/kg	0.344	1.15
79-00-5	1,1,2-Trichloroethane	U	1.15	ug/kg	0.344	1.15
591-78-6	2-Hexanone	U	5.74	ug/kg	1.72	5.74
142-28-9	1,3-Dichloropropane	U	1.15	ug/kg	0.344	1.15
127-18-4	Tetrachloroethylene	U	1.15	ug/kg	0.344	1.15
124-48-1	Dibromochloromethane	U	1.15	ug/kg	0.344	1.15
106-93-4	1,2-Dibromoethane	U	1.15	ug/kg	0.344	1.15
108-90-7	Chlorobenzene	U	1.15	ug/kg	0.344	1.15

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

SDG Number: 10-2027  
 Lab Sample ID: 248012006  
  
 Client ID: RE36-10-8474  
 Batch ID: 959900  
 Run Date: 03/04/2010 12:43  
 Prep Date: 03/04/2010 07:02  
 Data File: 030410V33B410.D

Date Collected: 02/20/2010 12:00  
 Date Received: 02/25/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA3.I  
 Analyst: CDS1  
 Aliquot: 5 g  
 Column: DB-624

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

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.15	ug/kg	0.344	1.15
179601-23-1	m,p-Xylenes	U	2.29	ug/kg	0.344	2.29
95-47-6	o-Xylene	U	1.15	ug/kg	0.344	1.15
100-42-5	Styrene	U	1.15	ug/kg	0.344	1.15
75-25-2	Bromoform	U	1.15	ug/kg	0.344	1.15
79-34-5	1,1,2,2-Tetrachloroethane	U	1.15	ug/kg	0.344	1.15
96-18-4	1,2,3-Trichloropropane	U	1.15	ug/kg	0.344	1.15
108-86-1	Bromobenzene	U	1.15	ug/kg	0.344	1.15
103-65-1	n-Propylbenzene	U	1.15	ug/kg	0.344	1.15
95-49-8	2-Chlorotoluene	U	1.15	ug/kg	0.344	1.15
98-82-8	Isopropylbenzene	U	1.15	ug/kg	0.344	1.15
108-67-8	1,3,5-Trimethylbenzene	U	1.15	ug/kg	0.344	1.15
106-43-4	4-Chlorotoluene	U	1.15	ug/kg	0.344	1.15
98-06-6	tert-Butylbenzene	U	1.15	ug/kg	0.344	1.15
95-63-6	1,2,4-Trimethylbenzene	U	1.15	ug/kg	0.344	1.15
135-98-8	sec-Butylbenzene	U	1.15	ug/kg	0.344	1.15
99-87-6	4-Isopropyltoluene	U	1.15	ug/kg	0.344	1.15
541-73-1	1,3-Dichlorobenzene	U	1.15	ug/kg	0.344	1.15
106-46-7	1,4-Dichlorobenzene	U	1.15	ug/kg	0.344	1.15
104-51-8	n-Butylbenzene	U	1.15	ug/kg	0.344	1.15
96-12-8	1,2-Dibromo-3-chloropropane	U	1.15	ug/kg	0.344	1.15
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	5.74	ug/kg	1.84	5.74
630-20-6	Trichlorotrifluoroethane	U	1.15	ug/kg	0.344	1.15
95-50-1	1,1,1,2-Tetrachloroethane	U	1.15	ug/kg	0.344	1.15
95-50-1	1,2-Dichlorobenzene	U	1.15	ug/kg	0.344	1.15

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown siloxane	19.05	7.06	ug/kg	0	J

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

SDG Number: 10-2027  
 Lab Sample ID: 248012007

Client ID: RE36-10-8478  
 Batch ID: 959900  
 Run Date: 03/03/2010 03:24  
 Prep Date: 03/02/2010 17:05  
 Data File: 030210V3\3B238.D

Date Collected: 02/20/2010 12:00  
 Date Received: 02/25/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA3.I  
 Analyst: CDS1  
 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	5.25	ug/kg	1.74	5.25
75-35-4	1,1-Dichloroethylene	U	1.05	ug/kg	0.315	1.05
74-88-4	Iodomethane	U	5.25	ug/kg	1.68	5.25
75-09-2	Methylene chloride	U	5.25	ug/kg	2.10	5.25
75-15-0	Carbon disulfide	U	5.25	ug/kg	1.31	5.25
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	5.25	ug/kg	1.57	5.25
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	5.25	ug/kg	1.31	5.25
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	5.25	ug/kg	1.57	5.25
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**

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SDG Number: 10-2027  
 Lab Sample ID: 248012007

Date Collected: 02/20/2010 12:00  
 Date Received: 02/25/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA3I  
 Analyst: CDS1  
 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: RE36-10-8478  
 Batch ID: 959900  
 Run Date: 03/03/2010 03:24  
 Prep Date: 03/02/2010 17:05  
 Data File: 030210V33B238.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	5.25	ug/kg	1.68	5.25
	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: 10-2027  
 Lab Sample ID: 248012008

Date Collected: 02/20/2010 12:00  
 Date Received: 02/25/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA3.I  
 Analyst: CDS1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 2.3  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

Client ID: RE36-10-8483  
 Batch ID: 959900  
 Run Date: 03/04/2010 13:12  
 Prep Date: 03/04/2010 07:03  
 Data File: 030410V33B411.D

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.02	ug/kg	0.348	1.02
74-87-3	Chloromethane	U	1.02	ug/kg	0.307	1.02
75-01-4	Vinyl chloride	U	1.02	ug/kg	0.307	1.02
74-83-9	Bromomethane	U	1.02	ug/kg	0.307	1.02
75-00-3	Chloroethane	U	1.02	ug/kg	0.307	1.02
75-69-4	Trichlorofluoromethane	U	1.02	ug/kg	0.307	1.02
67-64-1	Acetone	U	5.12	ug/kg	1.70	5.12
75-35-4	1,1-Dichloroethylene	U	1.02	ug/kg	0.307	1.02
74-88-4	Iodomethane	U	5.12	ug/kg	1.64	5.12
75-09-2	Methylene chloride	U	5.12	ug/kg	2.05	5.12
75-15-0	Carbon disulfide	U	5.12	ug/kg	1.28	5.12
156-60-5	trans-1,2-Dichloroethylene	U	1.02	ug/kg	0.307	1.02
75-34-3	1,1-Dichloroethane	U	1.02	ug/kg	0.307	1.02
78-93-3	2-Butanone	U	5.12	ug/kg	1.54	5.12
156-59-2	cis-1,2-Dichloroethylene	U	1.02	ug/kg	0.307	1.02
594-20-7	2,2-Dichloropropane	U	1.02	ug/kg	0.307	1.02
67-66-3	Chloroform	U	1.02	ug/kg	0.307	1.02
74-97-5	Bromochloromethane	U	1.02	ug/kg	0.338	1.02
71-55-6	1,1,1-Trichloroethane	U	1.02	ug/kg	0.307	1.02
563-58-6	1,1-Dichloropropene	U	1.02	ug/kg	0.307	1.02
56-23-5	Carbon tetrachloride	U	1.02	ug/kg	0.307	1.02
107-06-2	1,2-Dichloroethane	U	1.02	ug/kg	0.307	1.02
71-43-2	Benzene	U	1.02	ug/kg	0.307	1.02
79-01-6	Trichloroethylene	U	1.02	ug/kg	0.338	1.02
78-87-5	1,2-Dichloropropane	U	1.02	ug/kg	0.307	1.02
75-27-4	Bromodichloromethane	U	1.02	ug/kg	0.307	1.02
74-95-3	Dibromomethane	U	1.02	ug/kg	0.307	1.02
108-10-1	4-Methyl-2-pentanone	U	5.12	ug/kg	1.28	5.12
10061-01-5	cis-1,3-Dichloropropylene	U	1.02	ug/kg	0.307	1.02
108-88-3	Toluene	U	1.02	ug/kg	0.307	1.02
10061-02-6	trans-1,3-Dichloropropylene	U	1.02	ug/kg	0.307	1.02
79-00-5	1,1,2-Trichloroethane	U	1.02	ug/kg	0.307	1.02
591-78-6	2-Hexanone	U	5.12	ug/kg	1.54	5.12
142-28-9	1,3-Dichloropropane	U	1.02	ug/kg	0.307	1.02
127-18-4	Tetrachloroethylene	U	1.02	ug/kg	0.307	1.02
124-48-1	Dibromochloromethane	U	1.02	ug/kg	0.307	1.02
106-93-4	1,2-Dibromoethane	U	1.02	ug/kg	0.307	1.02
108-90-7	Chlorobenzene	U	1.02	ug/kg	0.307	1.02

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

SDG Number: 10-2027  
 Lab Sample ID: 248012008

Date Collected: 02/20/2010 12:00  
 Date Received: 02/25/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA3I  
 Analyst: CDS1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 2.3  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

Client ID: RE36-10-8483  
 Batch ID: 959900  
 Run Date: 03/04/2010 13:12  
 Prep Date: 03/04/2010 07:03  
 Data File: 030410V33B411.D

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.02	ug/kg	0.307	1.02
179601-23-1	m,p-Xylenes	U	2.05	ug/kg	0.307	2.05
95-47-6	o-Xylene	U	1.02	ug/kg	0.307	1.02
100-42-5	Styrene	U	1.02	ug/kg	0.307	1.02
75-25-2	Bromoform	U	1.02	ug/kg	0.307	1.02
79-34-5	1,1,2,2-Tetrachloroethane	U	1.02	ug/kg	0.307	1.02
96-18-4	1,2,3-Trichloropropane	U	1.02	ug/kg	0.307	1.02
108-86-1	Bromobenzene	U	1.02	ug/kg	0.307	1.02
103-65-1	n-Propylbenzene	U	1.02	ug/kg	0.307	1.02
95-49-8	2-Chlorotoluene	U	1.02	ug/kg	0.307	1.02
98-82-8	Isopropylbenzene	U	1.02	ug/kg	0.307	1.02
108-67-8	1,3,5-Trimethylbenzene	U	1.02	ug/kg	0.307	1.02
106-43-4	4-Chlorotoluene	U	1.02	ug/kg	0.307	1.02
98-06-6	tert-Butylbenzene	U	1.02	ug/kg	0.307	1.02
95-63-6	1,2,4-Trimethylbenzene	U	1.02	ug/kg	0.307	1.02
135-98-8	sec-Butylbenzene	U	1.02	ug/kg	0.307	1.02
99-87-6	4-Isopropyltoluene	U	1.02	ug/kg	0.307	1.02
541-73-1	1,3-Dichlorobenzene	U	1.02	ug/kg	0.307	1.02
106-46-7	1,4-Dichlorobenzene	U	1.02	ug/kg	0.307	1.02
104-51-8	n-Butylbenzene	U	1.02	ug/kg	0.307	1.02
96-12-8	1,2-Dibromo-3-chloropropane	U	1.02	ug/kg	0.307	1.02
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	5.12	ug/kg	1.64	5.12
	Trichlorotrifluoroethane					
630-20-6	1,1,1,2-Tetrachloroethane	U	1.02	ug/kg	0.307	1.02
95-50-1	1,2-Dichlorobenzene	U	1.02	ug/kg	0.307	1.02

**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: 10-2027  
 Lab Sample ID: 248012009

Date Collected: 02/20/2010 12:00  
 Date Received: 02/25/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA3.I  
 Analyst: CDS1  
 Aliquot: 5 g  
 Column: DB-624

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

Client ID: RE36-10-8482  
 Batch ID: 959900  
 Run Date: 03/03/2010 03:54  
 Prep Date: 03/02/2010 17:06  
 Data File: 030210V33B239.D

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.05	ug/kg	0.358	1.05
74-87-3	Chloromethane	U	1.05	ug/kg	0.316	1.05
75-01-4	Vinyl chloride	U	1.05	ug/kg	0.316	1.05
74-83-9	Bromomethane	U	1.05	ug/kg	0.316	1.05
75-00-3	Chloroethane	U	1.05	ug/kg	0.316	1.05
75-69-4	Trichlorofluoromethane	U	1.05	ug/kg	0.316	1.05
67-64-1	Acetone	U	5.27	ug/kg	1.75	5.27
75-35-4	1,1-Dichloroethylene	U	1.05	ug/kg	0.316	1.05
74-88-4	Iodomethane	U	5.27	ug/kg	1.68	5.27
75-09-2	Methylene chloride	U	5.27	ug/kg	2.11	5.27
75-15-0	Carbon disulfide	U	5.27	ug/kg	1.32	5.27
156-60-5	trans-1,2-Dichloroethylene	U	1.05	ug/kg	0.316	1.05
75-34-3	1,1-Dichloroethane	U	1.05	ug/kg	0.316	1.05
78-93-3	2-Butanone	U	5.27	ug/kg	1.58	5.27
156-59-2	cis-1,2-Dichloroethylene	U	1.05	ug/kg	0.316	1.05
594-20-7	2,2-Dichloropropane	U	1.05	ug/kg	0.316	1.05
67-66-3	Chloroform	U	1.05	ug/kg	0.316	1.05
74-97-5	Bromochloromethane	U	1.05	ug/kg	0.348	1.05
71-55-6	1,1,1-Trichloroethane	U	1.05	ug/kg	0.316	1.05
563-58-6	1,1-Dichloropropene	U	1.05	ug/kg	0.316	1.05
56-23-5	Carbon tetrachloride	U	1.05	ug/kg	0.316	1.05
107-06-2	1,2-Dichloroethane	U	1.05	ug/kg	0.316	1.05
71-43-2	Benzene	U	1.05	ug/kg	0.316	1.05
79-01-6	Trichloroethylene	U	1.05	ug/kg	0.348	1.05
78-87-5	1,2-Dichloropropane	U	1.05	ug/kg	0.316	1.05
75-27-4	Bromodichloromethane	U	1.05	ug/kg	0.316	1.05
74-95-3	Dibromomethane	U	1.05	ug/kg	0.316	1.05
108-10-1	4-Methyl-2-pentanone	U	5.27	ug/kg	1.32	5.27
10061-01-5	cis-1,3-Dichloropropylene	U	1.05	ug/kg	0.316	1.05
108-88-3	Toluene	U	1.05	ug/kg	0.316	1.05
10061-02-6	trans-1,3-Dichloropropylene	U	1.05	ug/kg	0.316	1.05
79-00-5	1,1,2-Trichloroethane	U	1.05	ug/kg	0.316	1.05
591-78-6	2-Hexanone	U	5.27	ug/kg	1.58	5.27
142-28-9	1,3-Dichloropropane	U	1.05	ug/kg	0.316	1.05
127-18-4	Tetrachloroethylene	U	1.05	ug/kg	0.316	1.05
124-48-1	Dibromochloromethane	U	1.05	ug/kg	0.316	1.05
106-93-4	1,2-Dibromoethane	U	1.05	ug/kg	0.316	1.05
108-90-7	Chlorobenzene	U	1.05	ug/kg	0.316	1.05

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

SDG Number: 10-2027  
 Lab Sample ID: 248012009

Date Collected: 02/20/2010 12:00  
 Date Received: 02/25/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA3.I  
 Analyst: CDS1  
 Aliquot: 5 g  
 Column: DB-624

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

Client ID: RE36-10-8482  
 Batch ID: 959900  
 Run Date: 03/03/2010 03:54  
 Prep Date: 03/02/2010 17:06  
 Data File: 030210V3\3B239.D

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.05	ug/kg	0.316	1.05
179601-23-1	m,p-Xylenes	U	2.11	ug/kg	0.316	2.11
95-47-6	o-Xylene	U	1.05	ug/kg	0.316	1.05
100-42-5	Styrene	U	1.05	ug/kg	0.316	1.05
75-25-2	Bromoform	U	1.05	ug/kg	0.316	1.05
79-34-5	1,1,2,2-Tetrachloroethane	U	1.05	ug/kg	0.316	1.05
96-18-4	1,2,3-Trichloropropane	U	1.05	ug/kg	0.316	1.05
108-86-1	Bromobenzene	U	1.05	ug/kg	0.316	1.05
103-65-1	n-Propylbenzene	U	1.05	ug/kg	0.316	1.05
95-49-8	2-Chlorotoluene	U	1.05	ug/kg	0.316	1.05
98-82-8	Isopropylbenzene	U	1.05	ug/kg	0.316	1.05
108-67-8	1,3,5-Trimethylbenzene	U	1.05	ug/kg	0.316	1.05
106-43-4	4-Chlorotoluene	U	1.05	ug/kg	0.316	1.05
98-06-6	tert-Butylbenzene	U	1.05	ug/kg	0.316	1.05
95-63-6	1,2,4-Trimethylbenzene	U	1.05	ug/kg	0.316	1.05
135-98-8	sec-Butylbenzene	U	1.05	ug/kg	0.316	1.05
99-87-6	4-Isopropyltoluene	U	1.05	ug/kg	0.316	1.05
541-73-1	1,3-Dichlorobenzene	U	1.05	ug/kg	0.316	1.05
106-46-7	1,4-Dichlorobenzene	U	1.05	ug/kg	0.316	1.05
104-51-8	n-Butylbenzene	U	1.05	ug/kg	0.316	1.05
96-12-8	1,2-Dibromo-3-chloropropane	U	1.05	ug/kg	0.316	1.05
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	5.27	ug/kg	1.68	5.27
	Trichlorotrifluoroethane					
630-20-6	1,1,1,2-Tetrachloroethane	U	1.05	ug/kg	0.316	1.05
95-50-1	1,2-Dichlorobenzene	U	1.05	ug/kg	0.316	1.05

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown siloxane	19.05	11	ug/kg	0	J

# **Quality Control Summary**

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

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SDG Number: 10-2027

Matrix Type: SOLID

Sample ID	Client ID	DCED4 %REC	TOL %REC	BFB %REC
1202070216	LCS for batch 959898	101	99	97
1202070217	LCS for batch 959898	106	104	104
1202070215	MB for batch 959898	102	103	104
248012001	RE36-10-8496	103	105	103
248012002	RE36-10-8490	101	101	101
248012003	RE36-10-8470	98	106	104
248012004	RE36-10-8476	99	102	101
248012005	RE36-10-8480	99	103	101
248012007	RE36-10-8478	102	102	100
248012009	RE36-10-8482	98	105	104
1202058832	RE36-10-8482PS	98	101	97
1202058833	RE36-10-8482PSD	99	101	100
1202070219	LCS for batch 959898	98	107	98
1202070220	LCS for batch 959898	103	104	101
1202070218	MB for batch 959898	101	104	99
248012006	RE36-10-8474	97	104	105
248012008	RE36-10-8483	98	100	101

**Surrogate****Acceptance Limits**

DCED4 = 1,2-Dichloroethane-d4

(66%-134%)

TOL = Toluene-d8

(71%-128%)

BFB = Bromofluorobenzene

(65%-130%)

\* Recovery outside Acceptance Limits

# Column to be used to flag recovery values

D Sample Diluted

## Volatile

Quality Control Summary  
Spike Recovery Report

SDG Number: 10-2027

Sample Type: Post Spike

Client ID: RE36-10-8482PS

Matrix: R

Lab Sample ID: 1202058832

%Moisture: 5

Instrument: VOA3.I

Analysis Date: 03/03/2010 04:23

Dilution: 1

Analyst: CDS1

Prep Batch ID: 959898

Purge Vol: 5 mL

Batch ID: 959900

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	42.4	85	39-148
74-87-3	PS Chloromethane	50.0	0.00 U	43.1	86	42-131
75-01-4	PS Vinyl chloride	50.0	0.00 U	47.2	94	50-127
74-83-9	PS Bromomethane	50.0	0.00 U	44.4	89	26-135
75-00-3	PS Chloroethane	50.0	0.00 U	45.8	92	54-128
75-69-4	PS Trichlorofluoromethane	50.0	0.00 U	42.2	84	55-138
67-64-1	PS Acetone	250	0.00 U	105	42	20-144
75-35-4	PS 1,1-Dichloroethylene	50.0	0.00 U	40.2	80	55-128
74-88-4	PS Iodomethane	250	0.00 U	176	70	47-132
75-09-2	PS Methylene chloride	50.0	0.00 U	39.1	78	56-123
75-15-0	PS Carbon disulfide	250	0.00 U	199	79	53-133
156-60-5	PS trans-1,2-Dichloroethylene	50.0	0.00 U	40.5	81	57-119
75-34-3	PS 1,1-Dichloroethane	50.0	0.00 U	40.8	82	62-125
78-93-3	PS 2-Butanone	250	0.00 U	127	51	30-150
156-59-2	PS cis-1,2-Dichloroethylene	50.0	0.00 U	41.9	84	60-124
594-20-7	PS 2,2-Dichloropropane	50.0	0.00 U	38.5	77	56-129
67-66-3	PS Chloroform	50.0	0.00 U	41.5	83	62-120
74-97-5	PS Bromochloromethane	50.0	0.00 U	42.1	84	51-135
71-55-6	PS 1,1,1-Trichloroethane	50.0	0.00 U	41.0	82	58-129
563-58-6	PS 1,1-Dichloropropene	50.0	0.00 U	40.0	80	59-126
56-23-5	PS Carbon tetrachloride	50.0	0.00 U	42.1	84	55-132
107-06-2	PS 1,2-Dichloroethane	50.0	0.00 U	39.9	80	54-121

Volatile  
Quality Control Summary  
Spike Recovery Report

Page 2 of 6

SDG Number: 10-2027

Sample Type: Post Spike

Client ID: RE36-10-8482PS

Matrix: R

Lab Sample ID: 1202058832

%Moisture: 5

Instrument: VOA3.I

Analysis Date: 03/03/2010 04:23

Dilution: 1

Analyst: CDS1

Prep Batch II 959898

Purge Vol: 5 mL

Batch ID: 959900

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	40.3	81	58-120
79-01-6	PS Trichloroethylene	50.0	0.00 U	39.8	80	54-130
78-87-5	PS 1,2-Dichloropropane	50.0	0.00 U	43.3	87	59-121
75-27-4	PS Bromodichloromethane	50.0	0.00 U	45.7	91	57-130
74-95-3	PS Dibromomethane	50.0	0.00 U	43.2	86	57-124
108-10-1	PS 4-Methyl-2-pentanone	250	0.00 U	196	78	40-137
10061-01-5	PS cis-1,3-Dichloropropylene	50.0	0.00 U	40.1	80	50-131
108-88-3	PS Toluene	50.0	0.00 U	39.7	79	54-119
10061-02-6	PS trans-1,3-Dichloropropylene	50.0	0.00 U	41.4	83	47-133
79-00-5	PS 1,1,2-Trichloroethane	50.0	0.00 U	43.9	88	60-130
591-78-6	PS 2-Hexanone	250	0.00 U	98.9	40	30-139
142-28-9	PS 1,3-Dichloropropane	50.0	0.00 U	42.8	86	59-125
127-18-4	PS Tetrachloroethylene	50.0	0.00 U	38.2	76	50-126
124-48-1	PS Dibromochloromethane	50.0	0.00 U	47.1	94	54-131
106-93-4	PS 1,2-Dibromoethane	50.0	0.00 U	41.6	83	55-127
108-90-7	PS Chlorobenzene	50.0	0.00 U	39.0	78	50-130
100-41-4	PS Ethylbenzene	50.0	0.00 U	38.3	77	50-121
179601-23-1	PS m,p-Xylenes	100	0.00 U	76.8	77	47-125
95-47-6	PS o-Xylene	50.0	0.00 U	41.8	84	51-127
100-42-5	PS Styrene	50.0	0.00 U	38.8	78	41-136
75-25-2	PS Bromoform	50.0	0.00 U	39.9	80	48-143
79-34-5	PS 1,1,2,2-Tetrachloroethane	50.0	0.00 U	41.5	83	52-129

## Volatile

Page 3 of 6

Quality Control Summary  
Spike Recovery Report

SDG Number: 10-2027

Sample Type: Post Spike

Client ID: RE36-10-8482PS

Matrix: R

Lab Sample ID: 1202058832

%Moisture: 5

Instrument: VOA3.I

Analysis Date: 03/03/2010 04:23

Dilution: 1

Analyst: CDS1

Pre Batch ID: 959898

Purge Vol: 5 mL

Batch ID: 959900

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	41.4	83	56-139
108-86-1	PS Bromobenzene	50.0	0.00 U	38.5	77	54-125
103-65-1	PS n-Propylbenzene	50.0	0.00 U	36.2	72	46-127
95-49-8	PS 2-Chlorotoluene	50.0	0.00 U	37.8	76	47-130
98-82-8	PS Isopropylbenzene	50.0	0.00 U	38.3	77	42-126
108-67-8	PS 1,3,5-Trimethylbenzene	50.0	0.00 U	38.3	77	44-132
106-43-4	PS 4-Chlorotoluene	50.0	0.00 U	36.1	72	46-127
98-06-6	PS tert-Butylbenzene	50.0	0.00 U	39.2	78	48-136
95-63-6	PS 1,2,4-Trimethylbenzene	50.0	0.00 U	36.5	73	42-132
135-98-8	PS sec-Butylbenzene	50.0	0.00 U	36.1	72	47-130
99-87-6	PS 4-Isopropyltoluene	50.0	0.00 U	29.5	59	36-142
541-73-1	PS 1,3-Dichlorobenzene	50.0	0.00 U	34.5	69	41-130
106-46-7	PS 1,4-Dichlorobenzene	50.0	0.00 U	34.6	69	41-126
104-51-8	PS n-Butylbenzene	50.0	0.00 U	33.1	66	37-136
96-12-8	PS 1,2-Dibromo-3-chloropropane	50.0	0.00 U	35.3	71	42-143
630-20-6	PS 1,1,1,2-Tetrachloroethane	50.0	0.00 U	45.1	90	58-127
95-50-1	PS 1,2-Dichlorobenzene	50.0	0.00 U	35.3	71	42-128

Volatile  
Quality Control Summary  
Spike Recovery Report

SDG Number: 10-2027

Sample Type: Post Spike Duplicate

Client ID: RE36-10-8482PSD

Matrix: R

Lab Sample ID: 1202058833

%Moisture: 5

Instrument: VOA3.I

Analysis Date: 03/03/2010 04:52

Dilution: 1

Analyst: CDS1

Pre Batch II 959898

Purge Vol: 5 mL

Batch ID: 959900

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	46.2	92	39-148	9	0-19
74-87-3	PSD Chloromethane	50.0	0.00 U	45.7	91	42-131	6	0-23
75-01-4	PSD Vinyl chloride	50.0	0.00 U	50.1	100	50-127	6	0-23
74-83-9	PSD Bromomethane	50.0	0.00 U	46.0	92	26-135	3	0-22
75-00-3	PSD Chloroethane	50.0	0.00 U	47.7	95	54-128	4	0-25
75-69-4	PSD Trichlorofluoromethane	50.0	0.00 U	44.5	89	55-138	5	0-21
67-64-1	PSD Acetone	250	0.00 U	95.4	38	20-144	10	0-22
75-35-4	PSD 1,1-Dichloroethylene	50.0	0.00 U	42.4	85	55-128	5	0-20
74-88-4	PSD Iodomethane	250	0.00 U	185	74	47-132	5	0-20
75-09-2	PSD Methylene chloride	50.0	0.00 U	39.9	80	56-123	2	0-20
75-15-0	PSD Carbon disulfide	250	0.00 U	205	82	53-133	3	0-22
156-60-5	PSD trans-1,2-Dichloroethylene	50.0	0.00 U	42.6	85	57-119	5	0-20
75-34-3	PSD 1,1-Dichloroethane	50.0	0.00 U	43.0	86	62-125	5	0-20
78-93-3	PSD 2-Butanone	250	0.00 U	122	49	30-150	4	0-21
156-59-2	PSD cis-1,2-Dichloroethylene	50.0	0.00 U	43.8	88	60-124	4	0-20
594-20-7	PSD 2,2-Dichloropropane	50.0	0.00 U	40.2	80	56-129	4	0-20
67-66-3	PSD Chloroform	50.0	0.00 U	44.1	88	62-120	6	0-25
74-97-5	PSD Bromochloromethane	50.0	0.00 U	44.8	90	51-135	6	0-20
71-55-6	PSD 1,1,1-Trichloroethane	50.0	0.00 U	42.8	86	58-129	4	0-20
563-58-6	PSD 1,1-Dichloropropene	50.0	0.00 U	42.7	85	59-126	7	0-20
56-23-5	PSD Carbon tetrachloride	50.0	0.00 U	44.4	89	55-132	5	0-20
107-06-2	PSD 1,2-Dichloroethane	50.0	0.00 U	42.3	85	54-121	6	0-20



### Quality Control Summary Spike Recovery Report

SDG Number: 10-2027

Sample Type: Post Spike Duplicate

Client ID: RE36-10-8482PSD

Matrix: R

Lab Sample ID: 1202058833

%Moisture: 5

Instrument: VOA3.I

Analysis Date: 03/03/2010 04:52

Dilution: 1

Analyst: CDS1

Pren Batch II 959898

Purge Vol: 5 mL

Batch ID: 959900

CAS No	Parname	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	42.6	85	58-120	6	0-20
79-01-6	PSD Trichloroethylene	50.0	0.00 U	42.0	84	54-130	5	0-23
78-87-5	PSD 1,2-Dichloropropane	50.0	0.00 U	45.3	91	59-121	4	0-20
75-27-4	PSD Bromodichloromethane	50.0	0.00 U	47.6	95	57-130	4	0-20
74-95-3	PSD Dibromomethane	50.0	0.00 U	44.4	89	57-124	3	0-20
108-10-1	PSD 4-Methyl-2-pentanone	250	0.00 U	200	80	40-137	2	0-25
10061-01-5	PSD cis-1,3-Dichloropropylene	50.0	0.00 U	41.5	83	50-131	3	0-20
108-88-3	PSD Toluene	50.0	0.00 U	41.8	84	54-119	5	0-23
10061-02-6	PSD trans-1,3-Dichloropropylene	50.0	0.00 U	42.8	86	47-133	3	0-24
79-00-5	PSD 1,1,2-Trichloroethane	50.0	0.00 U	45.1	90	60-130	3	0-20
591-78-6	PSD 2-Hexanone	250	0.00 U	85.1	34	30-139	15	0-21
142-28-9	PSD 1,3-Dichloropropane	50.0	0.00 U	44.0	88	59-125	3	0-20
127-18-4	PSD Tetrachloroethylene	50.0	0.00 U	40.4	81	50-126	6	0-20
124-48-1	PSD Dibromochloromethane	50.0	0.00 U	48.3	97	54-131	3	0-23
106-93-4	PSD 1,2-Dibromoethane	50.0	0.00 U	43.5	87	55-127	4	0-23
108-90-7	PSD Chlorobenzene	50.0	0.00 U	41.2	82	50-130	5	0-24
100-41-4	PSD Ethylbenzene	50.0	0.00 U	40.5	81	50-121	6	0-24
179601-23-1	PSD m,p-Xylenes	100	0.00 U	81.3	81	47-125	6	0-25
95-47-6	PSD o-Xylene	50.0	0.00 U	43.5	87	51-127	4	0-24
100-42-5	PSD Styrene	50.0	0.00 U	38.9	78	41-136	0	0-24
75-25-2	PSD Bromoform	50.0	0.00 U	41.9	84	48-143	5	0-20
79-34-5	PSD 1,1,2,2-Tetrachloroethane	50.0	0.00 U	43.8	88	52-129	5	0-20

## Volatile

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Quality Control Summary  
Spike Recovery Report

SDG Number: 10-2027

Sample Type: Post Spike Duplicate

Client ID: RE36-10-8482PSD

Matrix: R

Lab Sample ID: 1202058833

%Moisture: 5

Instrument: VOA3.I

Analysis Date: 03/03/2010 04:52

Dilution: 1

Analyst: CDS1

Pren Batch II 959898

Purge Vol: 5 mL

Batch ID: 959900

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	43.4	87	56-139	5	0-34
108-86-1	PSD Bromobenzene	50.0	0.00 U	41.3	83	54-125	7	0-22
103-65-1	PSD n-Propylbenzene	50.0	0.00 U	39.6	79	46-127	9	0-25
95-49-8	PSD 2-Chlorotoluene	50.0	0.00 U	41.2	82	47-130	9	0-24
98-82-8	PSD Isopropylbenzene	50.0	0.00 U	41.3	83	42-126	7	0-22
108-67-8	PSD 1,3,5-Trimethylbenzene	50.0	0.00 U	41.3	83	44-132	8	0-25
106-43-4	PSD 4-Chlorotoluene	50.0	0.00 U	39.6	79	46-127	9	0-26
98-06-6	PSD tert-Butylbenzene	50.0	0.00 U	42.6	85	48-136	8	0-24
95-63-6	PSD 1,2,4-Trimethylbenzene	50.0	0.00 U	40.2	80	42-132	9	0-26
135-98-8	PSD sec-Butylbenzene	50.0	0.00 U	38.9	78	47-130	8	0-27
99-87-6	PSD 4-Isopropyltoluene	50.0	0.00 U	32.0	64	36-142	8	0-27
541-73-1	PSD 1,3-Dichlorobenzene	50.0	0.00 U	37.7	75	41-130	9	0-25
106-46-7	PSD 1,4-Dichlorobenzene	50.0	0.00 U	37.2	74	41-126	7	0-25
104-51-8	PSD n-Butylbenzene	50.0	0.00 U	36.7	73	37-136	10	0-29
96-12-8	PSD 1,2-Dibromo-3-chloropropane	50.0	0.00 U	37.7	75	42-143	6	0-21
630-20-6	PSD 1,1,1,2-Tetrachloroethane	50.0	0.00 U	46.3	93	58-127	3	0-20
95-50-1	PSD 1,2-Dichlorobenzene	50.0	0.00 U	37.6	75	42-128	6	0-24

## Volatile

Page 1 of 3

Quality Control Summary  
Spike Recovery Report

SDG Number: 10-2027

Sample Type: Laboratory Control Sample

Client ID: LCS for batch 959898

Matrix: MISC SOLID

Lab Sample ID: 1202070216

Instrument: VOA3.I

Analysis Date: 03/02/2010 22:02

Dilution: 1

Analyst: CDS1

Pred Batch II 959898

Purge Vol: 5 mL

Batch ID: 959900

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	53.1	106	52-151
74-87-3	LCS Chloromethane	50.0	0.0	45.1	90	56-130
75-01-4	LCS Vinyl chloride	50.0	0.0	50.0	100	66-130
74-83-9	LCS Bromomethane	50.0	0.0	49.0	98	70-126
75-00-3	LCS Chloroethane	50.0	0.0	48.9	98	67-129
75-69-4	LCS Trichlorofluoromethane	50.0	0.0	49.9	100	73-143
67-64-1	LCS Acetone	250	0.0	186	74	30-140
75-35-4	LCS 1,1-Dichloroethylene	50.0	0.0	44.3	89	71-129
74-88-4	LCS Iodomethane	250	0.0	214	86	72-125
75-09-2	LCS Methylene chloride	50.0	0.0	40.7	81	64-121
75-15-0	LCS Carbon disulfide	250	0.0	227	91	70-133
156-60-5	LCS trans-1,2-Dichloroethylene	50.0	0.0	44.6	89	73-120
75-34-3	LCS 1,1-Dichloroethane	50.0	0.0	45.6	91	73-120
78-93-3	LCS 2-Butanone	250	0.0	204	81	32-145
156-59-2	LCS cis-1,2-Dichloroethylene	50.0	0.0	46.4	93	74-124
594-20-7	LCS 2,2-Dichloropropane	50.0	0.0	49.4	99	73-134
67-66-3	LCS Chloroform	50.0	0.0	46.5	93	74-120
74-97-5	LCS Bromochloromethane	50.0	0.0	47.1	94	73-122
71-55-6	LCS 1,1,1-Trichloroethane	50.0	0.0	48.3	97	74-132
563-58-6	LCS 1,1-Dichloropropene	50.0	0.0	47.5	95	79-128
56-23-5	LCS Carbon tetrachloride	50.0	0.0	49.2	98	75-135
107-06-2	LCS 1,2-Dichloroethane	50.0	0.0	44.7	89	65-120

### Quality Control Summary Spike Recovery Report

SDG Number: 10-2027

Sample Type: Laboratory Control Sample

Client ID: LCS for batch 959898

Matrix: MISC SOLID

Lab Sample ID: 1202070216

Instrument: VOA3.I

Analysis Date: 03/02/2010 22:02

Dilution: 1

Analyst: CDS1

Pre Batch II 959898

Purge Vol: 5 mL

Batch ID: 959900

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	44.3	89	74-120
79-01-6	LCS Trichloroethylene	50.0	0.0	45.8	92	77-124
78-87-5	LCS 1,2-Dichloropropane	50.0	0.0	45.8	92	73-120
75-27-4	LCS Bromodichloromethane	50.0	0.0	49.8	100	75-128
74-95-3	LCS Dibromomethane	50.0	0.0	47.5	95	75-120
108-10-1	LCS 4-Methyl-2-pentanone	250	0.0	237	95	63-133
10061-01-5	LCS cis-1,3-Dichloropropylene	50.0	0.0	50.4	101	78-127
108-88-3	LCS Toluene	50.0	0.0	44.9	90	74-120
10061-02-6	LCS trans-1,3-Dichloropropylene	50.0	0.0	51.3	103	70-125
79-00-5	LCS 1,1,2-Trichloroethane	50.0	0.0	47.4	95	75-120
591-78-6	LCS 2-Hexanone	250	0.0	219	88	40-153
142-28-9	LCS 1,3-Dichloropropane	50.0	0.0	46.8	94	73-120
127-18-4	LCS Tetrachloroethylene	50.0	0.0	45.6	91	72-126
124-48-1	LCS Dibromochloromethane	50.0	0.0	51.7	103	74-126
106-93-4	LCS 1,2-Dibromoethane	50.0	0.0	48.4	97	79-120
108-90-7	LCS Chlorobenzene	50.0	0.0	46.2	92	76-120
100-41-4	LCS Ethylbenzene	50.0	0.0	45.3	91	74-120
179601-23-1	LCS m,p-Xylenes	100	0.0	93.5	94	76-120
95-47-6	LCS o-Xylene	50.0	0.0	49.2	98	76-122
100-42-5	LCS Styrene	50.0	0.0	50.9	102	75-125
75-25-2	LCS Bromoform	50.0	0.0	43.5	87	68-135
79-34-5	LCS 1,1,2,2-Tetrachloroethane	50.0	0.0	45.7	91	72-122

## Volatile

Page 3 of 3

Quality Control Summary  
Spike Recovery Report

SDG Number: 10-2027

Sample Type: Laboratory Control Sample

Client ID: LCS for batch 959898

Matrix: MISC SOLID

Lab Sample ID: 1202070216

Instrument: VOA3.I

Analysis Date: 03/02/2010 22:02

Dilution: 1

Analyst: CDS1

Prep Batch ID: 959898

Purge Vol: 5 mL

Batch ID: 959900

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	46.4	93	72-129
108-86-1	LCS Bromobenzene	50.0	0.0	46.7	93	74-120
103-65-1	LCS n-Propylbenzene	50.0	0.0	46.1	92	70-120
95-49-8	LCS 2-Chlorotoluene	50.0	0.0	46.0	92	70-120
98-82-8	LCS Isopropylbenzene	50.0	0.0	46.8	94	60-121
108-67-8	LCS 1,3,5-Trimethylbenzene	50.0	0.0	47.2	94	71-121
106-43-4	LCS 4-Chlorotoluene	50.0	0.0	47.0	94	71-120
98-06-6	LCS tert-Butylbenzene	50.0	0.0	48.7	97	75-123
95-63-6	LCS 1,2,4-Trimethylbenzene	50.0	0.0	47.1	94	73-120
135-98-8	LCS sec-Butylbenzene	50.0	0.0	46.9	94	74-123
99-87-6	LCS 4-Isopropyltoluene	50.0	0.0	48.4	97	76-127
541-73-1	LCS 1,3-Dichlorobenzene	50.0	0.0	46.0	92	75-120
106-46-7	LCS 1,4-Dichlorobenzene	50.0	0.0	45.7	91	73-120
104-51-8	LCS n-Butylbenzene	50.0	0.0	47.1	94	73-128
96-12-8	LCS 1,2-Dibromo-3-chloropropane	50.0	0.0	41.5	83	69-136
630-20-6	LCS 1,1,1,2-Tetrachloroethane	50.0	0.0	49.9	100	75-124
95-50-1	LCS 1,2-Dichlorobenzene	50.0	0.0	45.3	91	75-120

Volatile

Page 1 of 1

Quality Control Summary  
Spike Recovery Report

SDG Number: 10-2027

Sample Type: Laboratory Control Sample

Client ID: LCS for batch 959898

Matrix: MISC SOLID

Lab Sample ID:1202070217

Instrument: VOA3.I

Analysis Date: 03/02/2010 23:00

Dilution: 1

Analyst: CDS1

Prep Batch ID: 959898

Purge Vol: 5 mL

Batch ID: 959900

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	213	85	67-140

## Volatile

Page 1 of 3

Quality Control Summary  
Spike Recovery Report

SDG Number: 10-2027

Sample Type: Laboratory Control Sample

Client ID: LCS for batch 959898

Matrix: MISC SOLID

Lab Sample ID: 1202070219

Instrument: VOA3.I

Analysis Date: 03/04/2010 09:22

Dilution: 1

Analyst: CDS1

Pre Batch II 959898

Purge Vol: 5 mL

Batch ID: 959900

CAS No	Parname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
75-71-8	LCS Dichlorodifluoromethane	50.0	0.0	47.2	94	52-151
74-87-3	LCS Chloromethane	50.0	0.0	45.8	92	56-130
75-01-4	LCS Vinyl chloride	50.0	0.0	50.8	102	66-130
74-83-9	LCS Bromomethane	50.0	0.0	50.5	101	70-126
75-00-3	LCS Chloroethane	50.0	0.0	49.3	99	67-129
75-69-4	LCS Trichlorofluoromethane	50.0	0.0	47.5	95	73-143
67-64-1	LCS Acetone	250	0.0	197	79	30-140
75-35-4	LCS 1,1-Dichloroethylene	50.0	0.0	44.2	88	71-129
74-88-4	LCS Iodomethane	250	0.0	215	86	72-125
75-09-2	LCS Methylene chloride	50.0	0.0	40.8	82	64-121
75-15-0	LCS Carbon disulfide	250	0.0	230	92	70-133
156-60-5	LCS trans-1,2-Dichloroethylene	50.0	0.0	45.2	90	73-120
75-34-3	LCS 1,1-Dichloroethane	50.0	0.0	43.7	87	73-120
78-93-3	LCS 2-Butanone	250	0.0	205	82	32-145
156-59-2	LCS cis-1,2-Dichloroethylene	50.0	0.0	44.0	88	74-124
594-20-7	LCS 2,2-Dichloropropane	50.0	0.0	45.6	91	73-134
67-66-3	LCS Chloroform	50.0	0.0	44.4	89	74-120
74-97-5	LCS Bromochloromethane	50.0	0.0	45.3	91	73-122
71-55-6	LCS 1,1,1-Trichloroethane	50.0	0.0	45.7	91	74-132
563-58-6	LCS 1,1-Dichloropropene	50.0	0.0	45.8	92	79-128
56-23-5	LCS Carbon tetrachloride	50.0	0.0	47.5	95	75-135
107-06-2	LCS 1,2-Dichloroethane	50.0	0.0	41.9	84	65-120

Volatile  
Quality Control Summary  
Spike Recovery Report

Page 2 of 3

SDG Number: 10-2027

Sample Type: Laboratory Control Sample

Client ID: LCS for batch 959898

Matrix: MISC SOLID

Lab Sample ID: 1202070219

Instrument: VOA3.I

Analysis Date: 03/04/2010 09:22

Dilution: 1

Analyst: CDS1

Pre Batch ID: 959898

Purge Vol: 5 mL

Batch ID: 959900

CAS No	Parname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
71-43-2	LCS Benzene	50.0	0.0	43.6	87	74-120
79-01-6	LCS Trichloroethylene	50.0	0.0	44.2	88	77-124
78-87-5	LCS 1,2-Dichloropropane	50.0	0.0	46.7	93	73-120
75-27-4	LCS Bromodichloromethane	50.0	0.0	47.6	95	75-128
74-95-3	LCS Dibromomethane	50.0	0.0	45.1	90	75-120
108-10-1	LCS 4-Methyl-2-pentanone	250	0.0	243	97	63-133
10061-01-5	LCS cis-1,3-Dichloropropylene	50.0	0.0	48.4	97	78-127
108-88-3	LCS Toluene	50.0	0.0	45.7	91	74-120
10061-02-6	LCS trans-1,3-Dichloropropylene	50.0	0.0	51.5	103	70-125
79-00-5	LCS 1,1,2-Trichloroethane	50.0	0.0	47.9	96	75-120
591-78-6	LCS 2-Hexanone	250	0.0	235	94	40-153
142-28-9	LCS 1,3-Dichloropropane	50.0	0.0	47.6	95	73-120
127-18-4	LCS Tetrachloroethylene	50.0	0.0	46.6	93	72-126
124-48-1	LCS Dibromochloromethane	50.0	0.0	51.6	103	74-126
106-93-4	LCS 1,2-Dibromoethane	50.0	0.0	47.5	95	79-120
108-90-7	LCS Chlorobenzene	50.0	0.0	44.7	89	76-120
100-41-4	LCS Ethylbenzene	50.0	0.0	44.8	90	74-120
179601-23-1	LCS m,p-Xylenes	100	0.0	90.8	91	76-120
95-47-6	LCS o-Xylene	50.0	0.0	47.9	96	76-122
100-42-5	LCS Styrene	50.0	0.0	49.8	100	75-125
75-25-2	LCS Bromoform	50.0	0.0	42.1	84	68-135
79-34-5	LCS 1,1,2,2-Tetrachloroethane	50.0	0.0	43.9	88	72-122



Volatile  
Quality Control Summary  
Spike Recovery Report

SDG Number: 10-2027

Sample Type: Laboratory Control Sample

Client ID: LCS for batch 959898

Matrix: MISC SOLID

Lab Sample ID:1202070219

Instrument: VOA3.I

Analysis Date: 03/04/2010 09:22

Dilution: 1

Analyst: CDS1

Pren Batch II 959898

Purge Vol: 5 mL

Batch ID: 959900

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	43.8	88	72-129
108-86-1	LCS Bromobenzene	50.0	0.0	43.7	87	74-120
103-65-1	LCS n-Propylbenzene	50.0	0.0	45.2	90	70-120
95-49-8	LCS 2-Chlorotoluene	50.0	0.0	45.4	91	70-120
98-82-8	LCS Isopropylbenzene	50.0	0.0	44.3	89	60-121
108-67-8	LCS 1,3,5-Trimethylbenzene	50.0	0.0	46.0	92	71-121
106-43-4	LCS 4-Chlorotoluene	50.0	0.0	44.8	90	71-120
98-06-6	LCS tert-Butylbenzene	50.0	0.0	46.3	93	75-123
95-63-6	LCS 1,2,4-Trimethylbenzene	50.0	0.0	45.6	91	73-120
135-98-8	LCS sec-Butylbenzene	50.0	0.0	45.6	91	74-123
99-87-6	LCS 4-Isopropyltoluene	50.0	0.0	46.7	93	76-127
541-73-1	LCS 1,3-Dichlorobenzene	50.0	0.0	44.2	88	75-120
106-46-7	LCS 1,4-Dichlorobenzene	50.0	0.0	43.7	87	73-120
104-51-8	LCS n-Butylbenzene	50.0	0.0	46.5	93	73-128
96-12-8	LCS 1,2-Dibromo-3-chloropropane	50.0	0.0	39.7	79	69-136
630-20-6	LCS 1,1,1,2-Tetrachloroethane	50.0	0.0	49.0	98	75-124
95-50-1	LCS 1,2-Dichlorobenzene	50.0	0.0	43.1	86	75-120

Volatile

Page 1 of 1

Quality Control Summary  
Spike Recovery Report

SDG Number: 10-2027

Sample Type: Laboratory Control Sample

Client ID: LCS for batch 959898

Matrix: MISC SOLID

Lab Sample ID: 1202070220

Instrument: VOA3.I

Analysis Date: 03/04/2010 11:15

Dilution: 1

Analyst: CDS1

Prep Batch ID: 959898

Purge Vol: 5 mL

Batch ID: 959900

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	194	78	67-140

## Method Blank Summary

Page 1 of 1

SDG Number:	10-2027	Client:	LANL010	Matrix:	MISC SOLID
Client ID:	MB for batch 959898	Instrument ID:	VOA3.I	Data File:	030210V3\3B231.D
Lab Sample ID:	1202070215	Prep Date:	03/02/2010 15:00	Analyzed:	03/02/10 23:59
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 959898	1202070216	030210V3\3B227.D	03/02/10	2202
02 LCS for batch 959898	1202070217	030210V3\3B229.D	03/02/10	2300
03 RE36-10-8496	248012001	030210V3\3B233.D	03/03/10	0057
04 RE36-10-8490	248012002	030210V3\3B234.D	03/03/10	0127
05 RE36-10-8470	248012003	030210V3\3B235.D	03/03/10	0156
06 RE36-10-8476	248012004	030210V3\3B236.D	03/03/10	0226
07 RE36-10-8480	248012005	030210V3\3B237.D	03/03/10	0255
08 RE36-10-8478	248012007	030210V3\3B238.D	03/03/10	0324
09 RE36-10-8482	248012009	030210V3\3B239.D	03/03/10	0354
10 RE36-10-8482PS	1202058832	030210V3\3B240.D	03/03/10	0423
11 RE36-10-8482PSD	1202058833	030210V3\3B241.D	03/03/10	0452

## Method Blank Summary

Page 1 of 1

SDG Number:	10-2027	Client:	LANL010	Matrix:	MISC SOLID
Client ID:	MB for batch 959898	Instrument ID:	VOA3.I	Data File:	030410V3\3B409BJ.D
Lab Sample ID:	1202070218	Prep Date:	03/04/2010 06:00	Analyzed:	03/04/10 12:13
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 959898	1202070219	030410V3\3B404LJ.D	03/04/10	0922
02 LCS for batch 959898	1202070220	030410V3\3B407SLSJ.D	03/04/10	1115
03 RE36-10-8474	248012006	030410V3\3B410.D	03/04/10	1243
04 RE36-10-8483	248012008	030410V3\3B411.D	03/04/10	1312

## Instrument Performance Check

BFB

Lab Name GEL Laboratories LLC

Client SDG: 10-2027

Instrument ID: VOA3.1

Injection Date/Time: 26-FEB-10 09:25

Column Description: DB-624

Lab File ID 022610V3\3A501.D

m/e	Ion Abundance Criteria	% Relative Abundance
50	15.0 - 40.0% of mass 95	17.8
75	30.0 - 60.0% of mass 95	47
95	Base Peak, 100% Relative Abundance	100
96	5.0 - 9.0% of mass 95	6.7
173	Less than 2.0% of mass 174	0.5
174	50.0 - 100.0% of mass 95	82.6
175	5.0 - 9.0% of mass 174	7.1
176	95.0 - 101.0% of mass 174	97.7
177	5.0 - 9.0% of mass 176	6.4

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

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
ICALMIX[A]	W3VM100226-01	022610V3\3A503.D	26-FEB-10 10:23
ICALMIX[A]	W3VM100226-02	022610V3\3A504.D	26-FEB-10 10:53
ICALMIX[A]	W3VM100226-03	022610V3\3A505.D	26-FEB-10 11:23
ICALMIX[A]	W3VM100226-04	022610V3\3A506.D	26-FEB-10 11:52
ICALMIX[A]	W3VM100226-05	022610V3\3A507.D	26-FEB-10 12:22
ICALMIX[A]	W3VM100226-07	022610V3\3A509.D	26-FEB-10 13:21
ICALMIX[A]	W3VM100226-08	022610V3\3A511.D	26-FEB-10 14:20
ICVMIX[A]01	W3VM100226-10	022610V3\3A513.D	26-FEB-10 15:19
ICALMIX[B]	W3VM100226-11	022610V3\3A515.D	26-FEB-10 16:17
ICALMIX[B]	W3VM100226-12	022610V3\3A516.D	26-FEB-10 16:46
ICALMIX[B]	W3VM100226-13	022610V3\3A517.D	26-FEB-10 17:15
ICALMIX[B]	W3VM100226-14	022610V3\3A518.D	26-FEB-10 17:45
ICALMIX[B]	W3VM100226-15	022610V3\3A519.D	26-FEB-10 18:14
ICALMIX[B]	W3VM100226-16	022610V3\3A520.D	26-FEB-10 18:43
ICALMIX[B]	W3VM100226-17	022610V3\3A521.D	26-FEB-10 19:14
ICVMIX[B]02	W3VM100226-18	022610V3\3A523.D	26-FEB-10 20:12

## Instrument Performance Check

BFB

Lab Name GEL Laboratories LLC

Client SDG: 10-2027

Instrument ID: VOA3.I

Injection Date/Time: 02-MAR-10 20:36

Column Description: DB-624

Lab File ID 030210V3\3B224.D

m/e	Ion Abundance Criteria	% Relative Abundance
50	15.0 - 40.0% of mass 95	18.1
75	30.0 - 60.0% of mass 95	47.7
95	Base Peak, 100% Relative Abundance	100
96	5.0 - 9.0% of mass 95	7.1
173	Less than 2.0% of mass 174	0.5
174	50.0 - 100.0% of mass 95	78.9
175	5.0 - 9.0% of mass 174	7
176	95.0 - 101.0% of mass 174	97.6
177	5.0 - 9.0% of mass 176	6.4

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

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
CCVMIX[A]02	W3VM100302-06	030210V3\3B225.D	02-MAR-10 21:02
BLK01LCS	1202070216	030210V3\3B227.D	02-MAR-10 22:02
CCVMIX[B]03	W3VM100302-09	030210V3\3B228.D	02-MAR-10 22:31
BLK01SLCS	1202070217	030210V3\3B229.D	02-MAR-10 23:00
BLK01	1202070215	030210V3\3B231.D	02-MAR-10 23:59
RE36-10-8496	248012001	030210V3\3B233.D	03-MAR-10 00:57
RE36-10-8490	248012002	030210V3\3B234.D	03-MAR-10 01:27
RE36-10-8470	248012003	030210V3\3B235.D	03-MAR-10 01:56
RE36-10-8476	248012004	030210V3\3B236.D	03-MAR-10 02:26
RE36-10-8480	248012005	030210V3\3B237.D	03-MAR-10 02:55
RE36-10-8478	248012007	030210V3\3B238.D	03-MAR-10 03:24
RE36-10-8482	248012009	030210V3\3B239.D	03-MAR-10 03:54
RE36-10-8482MS	1202058832	030210V3\3B240.D	03-MAR-10 04:23
RE36-10-8482MSD	1202058833	030210V3\3B241.D	03-MAR-10 04:52

## Instrument Performance Check

## BFB

Lab Name GEL Laboratories LLC

Client SDG: 10-2027

Instrument ID: VOA3.I

Injection Date/Time: 04-MAR-10 07:57

Column Description: DB-624

Lab File ID 030410V3\3B401.D

m/e	Ion Abundance Criteria	% Relative Abundance
50	15.0 - 40.0% of mass 95	18.7
75	30.0 - 60.0% of mass 95	47.8
95	Base Peak, 100% Relative Abundance	100
96	5.0 - 9.0% of mass 95	6.9
173	Less than 2.0% of mass 174	0.3
174	50.0 - 100.0% of mass 95	80.2
175	5.0 - 9.0% of mass 174	6.8
176	95.0 - 101.0% of mass 174	97
177	5.0 - 9.0% of mass 176	6.5

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

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
CCVMIX[A]04	W3VM100304-01	030410V3\3B402.D	04-MAR-10 08:23
BLK02LCS	1202070219	030410V3\3B404LJ.D	04-MAR-10 09:22
CCVMIX[B]05	W3VM100304-05	030410V3\3B406.D	04-MAR-10 10:20
BLK02SLCS	1202070220	030410V3\3B407SLSJ.D	04-MAR-10 11:15
BLK02	1202070218	030410V3\3B409BJ.D	04-MAR-10 12:13
RE36-10-8474	248012006	030410V3\3B410.D	04-MAR-10 12:43
RE36-10-8483	248012008	030410V3\3B411.D	04-MAR-10 13:12

### Internal Standard Area and RT Summary

Lab Name : GEL Laboratories LLC

Client SDG: 10-2027

Instrument: VOA3.1

STD Analysis Time: 02-MAR-10 21:02

GC Column: DB-624

Data File: C:\msdchem\1\DATA\030210V3\3B225.D

	Fluorobenzene		Chlorobenzene-d5		1,4-Dichlorobenzene-d4	
	Area	# RT #	Area	# RT #	Area	# RT #
12 Hour STD	1014657	12.2	786113	15.9	409402	18.4
Upper Limit	2029314	12.7	1572226	16.4	818804	18.9
Lower Limit	507329	11.7	393057	15.4	204701	17.9
Sample ID						
BLK01LCS	1009753	12.2	779818	15.9	415542	18.4
BLK01SLCS	961039	12.2	741731	15.9	380480	18.4
BLK01	892774	12.2	674996	15.9	335975	18.4
RE36-10-8496	867546	12.2	654962	15.9	327040	18.4
RE36-10-8490	872769	12.2	656509	15.9	317644	18.4
RE36-10-8470	797654	12.2	568805	15.9	267716	18.4
RE36-10-8476	829470	12.2	624103	15.9	299603	18.4
RE36-10-8480	824144	12.2	614579	15.9	298464	18.4
RE36-10-8478	780531	12.2	594860	15.9	290657	18.4
RE36-10-8482	805670	12.2	594168	15.9	276474	18.4
RE36-10-8482MS	845585	12.2	651164	15.9	338841	18.4
RE36-10-8482MSD	868565	12.2	675278	15.9	340923	18.4

Area Upper Limit = +100% of internal standard area

Area Lower Limit = - 50% of internal standard area

RT Upper Limit = + 0.50 minutes of internal standard RT

RT Lower Limit = - 0.50 minutes of internal standard RT

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

\* Value outside of QC Limits



### Internal Standard Area and RT Summary

Lab Name : GEL Laboratories LLC

Client SDG: 10-2027

Instrument: VOA3.I

STD Analysis Time: 04-MAR-10 08:23

GC Column: DB-624

Data File: C:\msdchem\1\DATA\030410V3\3B402.D

	Fluorobenzene			Chlorobenzene-d5			1,4-Dichlorobenzene-d4		
	Area	#	RT #	Area	#	RT #	Area	#	RT #
12 Hour STD	784183		12.2	604495		15.9	316586		18.4
Upper Limit	1568366		12.7	1208990		16.4	633172		18.9
Lower Limit	392092		11.7	302248		15.4	158293		17.9
Sample ID									
BLK02LCS	803684		12.2	601528		15.9	332524		18.4
BLK02SLCS	870265		12.2	655227		15.9	329996		18.4
BLK02	776280		12.2	580730		15.9	284295		18.4
RE36-10-8474	731165		12.2	531268		15.9	234857		18.4
RE36-10-8483	720226		12.2	534429		15.9	252259		18.4

Area Upper Limit = +100% of internal standard area

Area Lower Limit = - 50% of internal standard area

RT Upper Limit = + 0.50 minutes of internal standard RT

RT Lower Limit = - 0.50 minutes of internal standard RT

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

\* Value outside of QC Limits

# Sample Data

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

Page 1 of 2

SDG Number: 10-2027  
 Lab Sample ID: 248012001

Date Collected: 02/20/2010 12:00  
 Date Received: 02/25/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA3.I  
 Analyst: CDS1  
 Aliquot: 5 g  
 Column: DB-624

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

Client ID: RE36-10-8496  
 Batch ID: 959900  
 Run Date: 03/03/2010 00:57  
 Prep Date: 03/02/2010 17:00  
 Data File: 030210V3\3B233.D

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**

Page 2 of 2

SDG Number: 10-2027  
 Lab Sample ID: 248012001

Date Collected: 02/20/2010 12:00  
 Date Received: 02/25/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA3.I  
 Analyst: CDS1  
 Aliquot: 5 g  
 Column: DB-624

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

Client ID: RE36-10-8496  
 Batch ID: 959900  
 Run Date: 03/03/2010 00:57  
 Prep Date: 03/02/2010 17:00  
 Data File: 030210V3\3B233.D

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\030210V3\  
Data File : 3B233.D  
Acq On : 3 Mar 2010 12:57 am  
Operator : CDS1  
InstName : VOA3  
Sample : |248012001|959900|1|VOA|1|VOA8260BS|  
Misc : LANL 5G - SOIL  
ALS Vial : 34 Sample Multiplier: 1

Quant Time: Mar 04 17:32:01 2010  
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 01 09:52:36 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev (Min)
1) Fluorobenzene	12.232	12.232	1.000	96	867887	50.00	ug/L	0.00
41) Chlorobenzene-d5	15.849	15.849	1.000	117	655028	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	18.411	18.410	1.000	152	320495	50.00	ug/L	0.00
82) B Fluorobenzene	12.232	12.232	1.000	96	867546	50.00	ug/L	0.00
103) B Chlorobenzene-d5	15.849	15.849	1.000	117	654962	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	18.411	18.410	1.000	152	327040	50.00	ug/L	0.00
System Monitoring Compounds								Dev (Min)
29) 1,2-Dichloroethane-d4	11.794	11.793	0.964	65	274313	51.54	ug/L	0.00
Spiked Amount	50.000	Range 66 - 134	Recovery	=	103.08%			
43) Toluene-d8	14.165	14.165	0.894	98	928293	52.66	ug/L	0.00
Spiked Amount	50.000	Range 71 - 128	Recovery	=	105.32%			
61) Bromofluorobenzene	17.130	17.130	0.930	95	333309	51.58	ug/L	0.00
Spiked Amount	50.000	Range 65 - 130	Recovery	=	103.16%			
Target Compounds								QValue
2) Dichlorodifluoromethane	0.000	4.800	0.000		0	N.D.		
3) Chloromethane	0.000	5.216	0.000		0	N.D.		
4) Vinyl chloride	0.000	5.528	0.000		0	N.D.		
5) Bromomethane	0.000	6.291	0.000		0	N.D.		
6) Chloroethane	0.000	6.493	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	7.062	0.000		0	N.D.		
8) Ethyl ether	0.000	7.512	0.000		0	N.D.		
9) Acetone	7.999	7.987	0.654	43	4423	N.D.		
10) 1,1-Dichloroethylene	0.000	7.987	0.000		0	N.D.		
11) Iodomethane	0.000	8.271	0.000		0	N.D.		
12) Acetonitrile	0.000	8.449	0.000		0	N.D.		
13) Methyl acetate	0.000	8.520	0.000		0	N.D.		
14) Carbon disulfide	8.426	8.449	0.689	76	918	N.D.		
15) Methylene chloride	8.746	8.746	0.715	84	6984	N.D.		
16) tert-Butyl methyl ether	9.173	9.173	0.750	73	1238	N.D.		
17) trans-1,2-Dichloroethy...	0.000	9.208	0.000		0	N.D.		
18) Vinyl acetate	0.000	9.837	0.000		0	N.D.		
19) 1,1-Dichloroethane	0.000	9.860	0.000		0	N.D.		
20) 2-Butanone	0.000	10.643	0.000		0	N.D.		
21) cis-1,2-Dichloroethylene	0.000	10.691	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	10.714	0.000		0	N.D.		
23) Bromochloromethane	0.000	11.034	0.000		0	N.D.		
24) Chloroform	0.000	11.094	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	11.426	0.000		0	N.D.		
26) Cyclohexane	0.000	11.532	0.000		0	N.D.		
27) 1,1-Dichloropropene	0.000	11.627	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	11.663	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	11.888	0.000		0	N.D.		
31) Benzene	0.000	11.912	0.000		0	N.D.		
32) Cyclohexene	0.000	12.054	0.000		0	N.D.		
33) n-Butyl alcohol	0.000	12.398	0.000		0	N.D.		
34) Trichloroethylene	0.000	12.695	0.000		0	N.D.		
35) 1,2-Dichloropropane	0.000	12.979	0.000		0	N.D.		
36) Methylcyclohexane	0.000	12.991	0.000		0	N.D.		
37) Dibromomethane	0.000	13.133	0.000		0	N.D.		

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030210V3\  
Data File : 3B233.D  
Acq On : 3 Mar 2010 12:57 am  
Operator : CDS1  
InstName : VOA3  
Sample : |248012001|959900|1|VOA|1|VOA8260BS|  
Misc : LANL 5G - SOIL  
ALS Vial : 34 Sample Multiplier: 1

Quant Time: Mar 04 17:32:01 2010  
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 01 09:52:36 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
38) Bromodichloromethane	0.000	13.288	0.000		0	N.D.	
39) 2-Chloroethylvinyl ether	0.000	13.560	0.000		0	N.D.	
40) cis-1,3-Dichloropropylene	0.000	13.809	0.000		0	N.D.	
42) 4-Methyl-2-pentanone	0.000	13.928	0.000		0	N.D.	
44) Toluene	14.248	14.248	0.899	91	966	N.D.	
45) trans-1,3-Dichloroprop...	0.000	14.426	0.000		0	N.D.	
46) 1,1,2-Trichloroethane	0.000	14.675	0.000		0	N.D.	
47) 2-Hexanone	0.000	14.888	0.000		0	N.D.	
48) 1,3-Dichloropropane	0.000	14.888	0.000		0	N.D.	
49) Tetrachloroethylene	0.000	14.912	0.000		0	N.D.	
50) Dibromochloromethane	0.000	15.173	0.000		0	N.D.	
51) 1,2-Dibromoethane	0.000	15.351	0.000		0	N.D.	
52) Chlorobenzene	0.000	15.885	0.000		0	N.D.	
53) 1,1,1,2-Tetrachloroethane	0.000	15.956	0.000		0	N.D.	
54) Ethylbenzene	16.074	15.968	1.014	91	720	N.D.	
55) m,p-Xylenes	0.000	16.086	0.000		0	N.D.	
56) o-Xylene	0.000	16.549	0.000		0	N.D.	
57) Styrene	0.000	16.549	0.000		0	N.D.	
59) Bromoform	0.000	16.821	0.000		0	N.D.	
60) Isopropylbenzene	0.000	16.928	0.000		0	N.D.	
62) 1,1,2,2-Tetrachloroethane	0.000	17.213	0.000		0	N.D.	
63) 1,2,3-Trichloropropane	0.000	17.308	0.000		0	N.D.	
64) Bromobenzene	0.000	17.343	0.000		0	N.D.	
65) n-Propylbenzene	0.000	17.367	0.000		0	N.D.	
66) 1,3,5-Trimethylbenzene	0.000	17.533	0.000		0	N.D.	
67) 2-Chlorotoluene	0.000	17.521	0.000		0	N.D.	
68) 4-Chlorotoluene	17.628	17.628	0.957	91	181	N.D.	
69) tert-Butylbenzene	0.000	17.912	0.000		0	N.D.	
70) 1,2,4-Trimethylbenzene	0.000	17.960	0.000		0	N.D.	
71) sec-Butylbenzene	0.000	18.150	0.000		0	N.D.	
72) 4-Isopropyltoluene	0.000	18.280	0.000		0	N.D.	
73) 1,3-Dichlorobenzene	18.434	18.351	1.001	146	645	N.D.	
74) 1,4-Dichlorobenzene	18.434	18.434	1.001	146	645	N.D.	
75) n-Butylbenzene	0.000	18.742	0.000		0	N.D.	
76) 1,2-Dichlorobenzene	0.000	18.885	0.000		0	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000	19.810	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	0.000	20.936	0.000		0	N.D.	
79) Hexachlorobutadiene	0.000	21.126	0.000		0	N.D.	
80) Naphthalene	21.351	21.351	1.160	128	1282	N.D.	
81) 1,2,3-Trichlorobenzene	0.000	21.719	0.000		0	N.D.	
83) Chlorotrifluoroethylene	0.000	4.711	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000	5.751	0.000		0	N.D.	
85) Acrolein	0.000	7.750	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000	7.975	0.000		0	N.D.	
87) Isopropyl Alcohol	0.000	8.141	0.000		0	N.D.	
88) Allyl chloride	0.000	8.556	0.000		0	N.D.	
89) tert-Butyl Alcohol	0.000	8.793	0.000		0	N.D.	
90) Acrylonitrile	0.000	9.090	0.000		0	N.D.	
91) Isopropyl ether	0.000	9.884	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	0.000	10.003	0.000		0	N.D.	
93) Ethyl tert-butyl ether	0.000	10.406	0.000		0	N.D.	
94) Ethyl acetate	0.000	10.679	0.000		0	N.D.	

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030210V3\  
Data File : 3B233.D  
Acq On : 3 Mar 2010 12:57 am  
Operator : CDS1  
InstName : VOA3  
Sample : |248012001|959900|1|VOA|1|VOA8260BS|  
Misc : LANL 5G - SOIL  
ALS Vial : 34 Sample Multiplier: 1

Quant Time: Mar 04 17:32:01 2010  
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 01 09:52:36 2010  
Response via : Initial Calibration  
Integrator: RTE

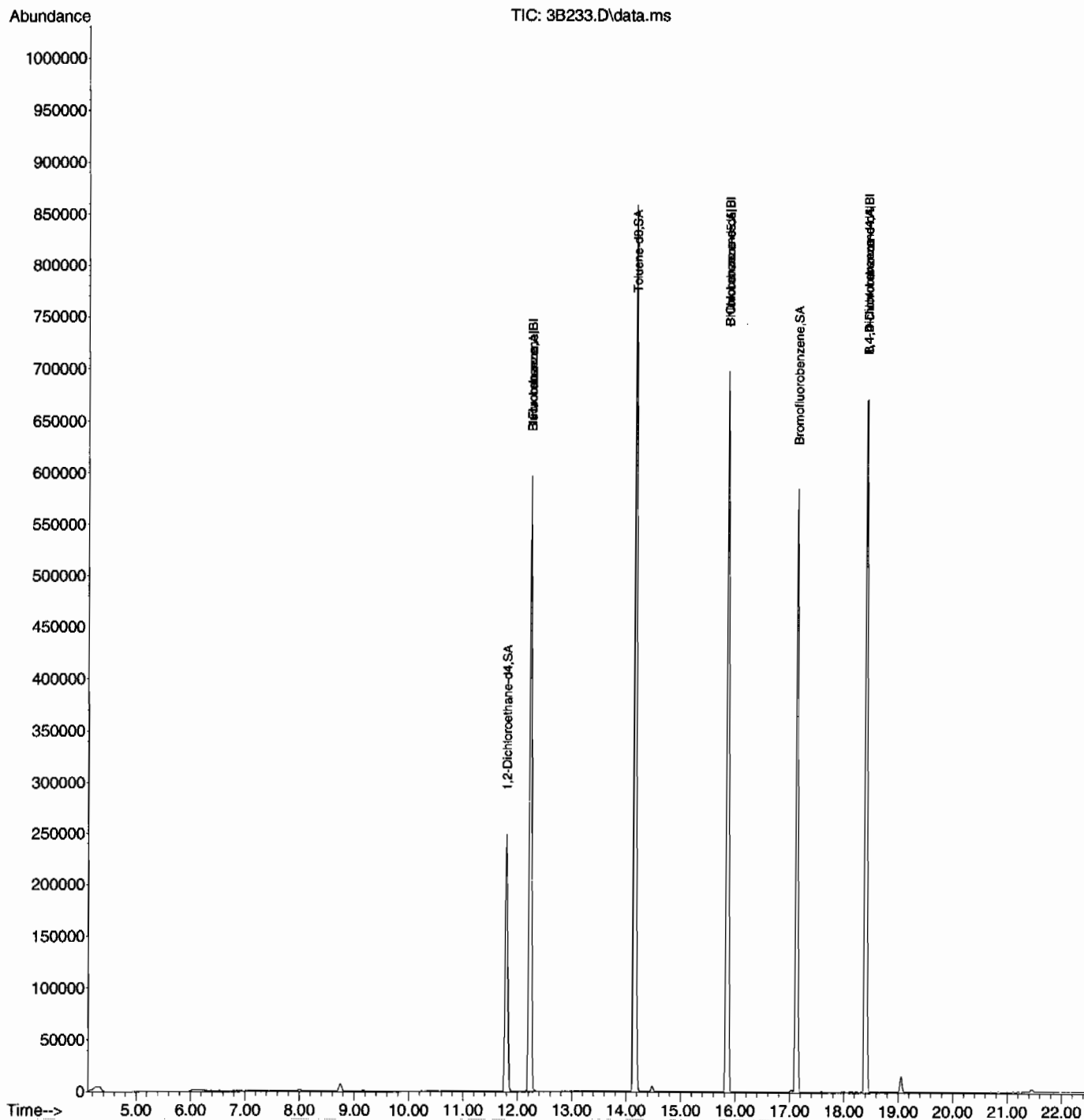
Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95) Propionitrile	0.000	10.726	0.000		0	N.D.	
96) Methacrylonitrile	0.000	10.951	0.000		0	N.D.	
97) Tetrahydrofuran	0.000	11.094	0.000		0	N.D.	
98) Isobutyl alcohol	0.000	11.556	0.000		0	N.D.	
99) Methyl tert-amyl ether	0.000	11.971	0.000		0	N.D.	
100) Methyl methacrylate	0.000	12.991	0.000		0	N.D.	
101) 1,4-Dioxane	0.000	13.098	0.000		0	N.D.	
102) 2-Nitropropane	0.000	13.525	0.000		0	N.D.	
104) Ethyl methacrylate	0.000	14.450	0.000		0	N.D.	
106) 1-Chlorohexane	0.000	15.754	0.000		0m	N.D.	d
107) cis-1,4-Dichloro-2-butene	0.000	16.964	0.000		0	N.D.	
108) Cyclohexanone	0.000	17.082	0.000		0	N.D.	
109) trans-1,4-Dichloro-2-b...	0.000	17.260	0.000		0	N.D.	
110) Pentachloroethane	0.000	17.983	0.000		0	N.D.	
111) Benzyl chloride	0.000	18.553	0.000		0m	N.D.	d
112) bis(2-Chloroisopropyl)...	19.039	18.980	1.034	45	1027	N.D.	

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

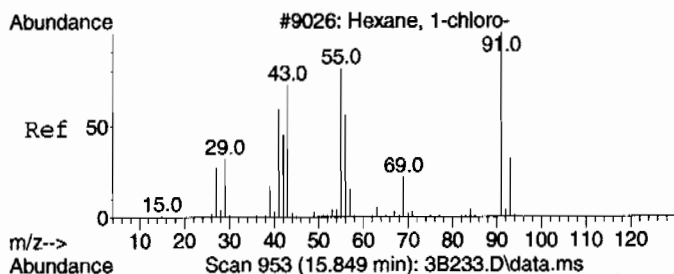
Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030210V3\  
Data File : 3B233.D  
Acq On : 3 Mar 2010 12:57 am  
Operator : CDS1  
InstName : VOA3  
Sample : |248012001|959900|1|VOA|1|VOA8260BS|  
Misc : LANL 5G - SOIL  
ALS Vial : 34 Sample Multiplier: 1

Quant Time: Mar 04 17:32:01 2010  
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 01 09:52:36 2010  
Response via : Initial Calibration  
Integrator: RTE

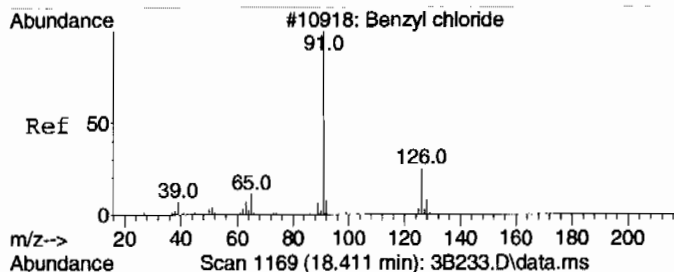
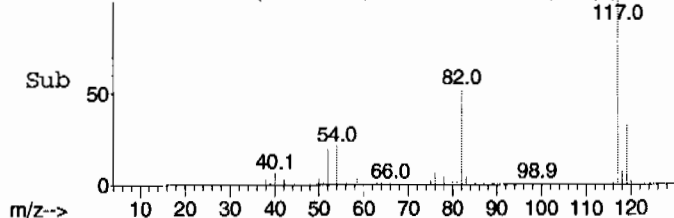
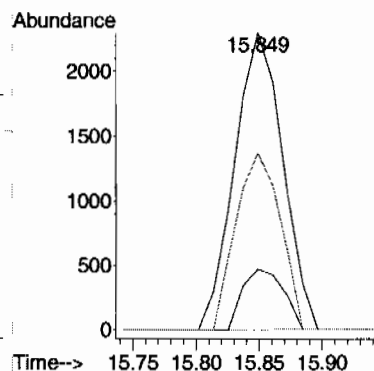
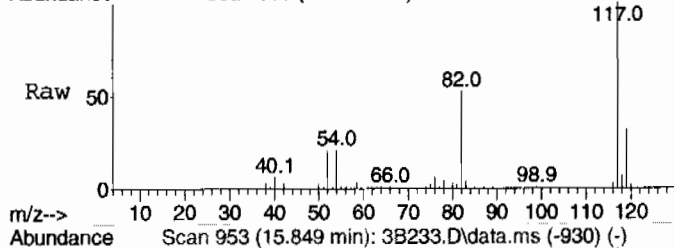






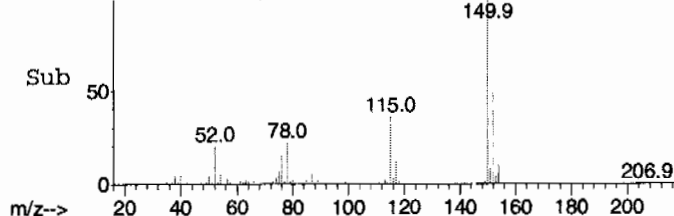
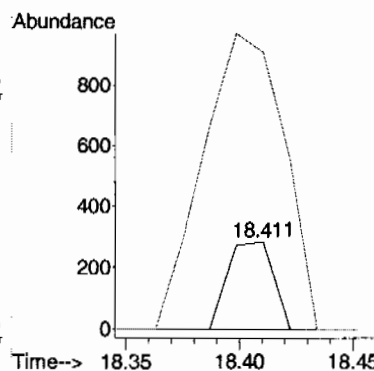
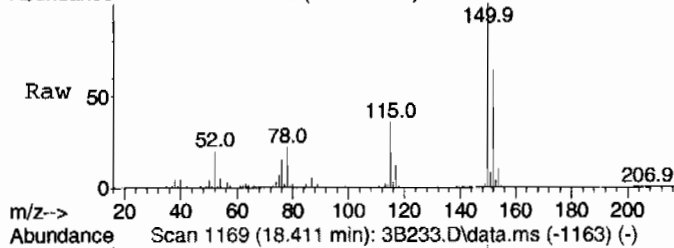
#106 BEFORE analyst DELETION  
1-Chlorohexane  
Concen: 2.07 ug/L  
RT: 15.849 min Scan# 953  
Delta R.T. 0.095 min  
Lab File: 3B233.D  
Acq: 3 Mar 2010 12:57 am

Tgt Ion: 55 Resp: 6148  
Ion Ratio Lower Upper  
55 100  
91 17.3 119.7 179.7#  
56 55.0 29.6 89.6



#111 BEFORE analyst DELETION  
Benzyl chloride  
Concen: 1.67 ug/L  
RT: 18.411 min Scan# 1169  
Delta R.T. -0.142 min  
Lab File: 3B233.D  
Acq: 3 Mar 2010 12:57 am

Tgt Ion: 91 Resp: 396  
Ion Ratio Lower Upper  
91 100  
126 0.0 0.0 51.8  
65 609.1 0.0 41.3#



Library Search Compound Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030210V3\  
Data File : 3B233.D  
Acq On : 3 Mar 2010 12:57 am  
Operator : CDS1  
Sample : |248012001|959900|1|VOA|1|VOA8260BS|  
Misc : LANL 5G - SOIL  
ALS Vial : 34 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.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\030210V3\  
Data File : 3B233.D  
Acq On : 3 Mar 2010 12:57 am  
Operator : CDS1  
Sample : |248012001|959900|1|VOA|1|VOA8260BS|  
Misc : LANL 5G - SOIL  
ALS Vial : 34 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.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**

Page 1 of 2

SDG Number: 10-2027  
 Lab Sample ID: 248012002

Date Collected: 02/20/2010 12:00  
 Date Received: 02/25/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA3.I  
 Analyst: CDS1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 5.1  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

Client ID: RE36-10-8490  
 Batch ID: 959900  
 Run Date: 03/03/2010 01:27  
 Prep Date: 03/02/2010 17:01  
 Data File: 030210V33B234.D

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.05	ug/kg	0.358	1.05
74-87-3	Chloromethane	U	1.05	ug/kg	0.316	1.05
75-01-4	Vinyl chloride	U	1.05	ug/kg	0.316	1.05
74-83-9	Bromomethane	U	1.05	ug/kg	0.316	1.05
75-00-3	Chloroethane	U	1.05	ug/kg	0.316	1.05
75-69-4	Trichlorofluoromethane	U	1.05	ug/kg	0.316	1.05
67-64-1	Acetone	U	5.27	ug/kg	1.75	5.27
75-35-4	1,1-Dichloroethylene	U	1.05	ug/kg	0.316	1.05
74-88-4	Iodomethane	U	5.27	ug/kg	1.69	5.27
75-09-2	Methylene chloride	U	5.27	ug/kg	2.11	5.27
75-15-0	Carbon disulfide	U	5.27	ug/kg	1.32	5.27
156-60-5	trans-1,2-Dichloroethylene	U	1.05	ug/kg	0.316	1.05
75-34-3	1,1-Dichloroethane	U	1.05	ug/kg	0.316	1.05
78-93-3	2-Butanone	U	5.27	ug/kg	1.58	5.27
156-59-2	cis-1,2-Dichloroethylene	U	1.05	ug/kg	0.316	1.05
594-20-7	2,2-Dichloropropane	U	1.05	ug/kg	0.316	1.05
67-66-3	Chloroform	U	1.05	ug/kg	0.316	1.05
74-97-5	Bromochloromethane	U	1.05	ug/kg	0.348	1.05
71-55-6	1,1,1-Trichloroethane	U	1.05	ug/kg	0.316	1.05
563-58-6	1,1-Dichloropropene	U	1.05	ug/kg	0.316	1.05
56-23-5	Carbon tetrachloride	U	1.05	ug/kg	0.316	1.05
107-06-2	1,2-Dichloroethane	U	1.05	ug/kg	0.316	1.05
71-43-2	Benzene	U	1.05	ug/kg	0.316	1.05
79-01-6	Trichloroethylene	U	1.05	ug/kg	0.348	1.05
78-87-5	1,2-Dichloropropane	U	1.05	ug/kg	0.316	1.05
75-27-4	Bromodichloromethane	U	1.05	ug/kg	0.316	1.05
74-95-3	Dibromomethane	U	1.05	ug/kg	0.316	1.05
108-10-1	4-Methyl-2-pentanone	U	5.27	ug/kg	1.32	5.27
10061-01-5	cis-1,3-Dichloropropylene	U	1.05	ug/kg	0.316	1.05
108-88-3	Toluene	U	1.05	ug/kg	0.316	1.05
10061-02-6	trans-1,3-Dichloropropylene	U	1.05	ug/kg	0.316	1.05
79-00-5	1,1,2-Trichloroethane	U	1.05	ug/kg	0.316	1.05
591-78-6	2-Hexanone	U	5.27	ug/kg	1.58	5.27
142-28-9	1,3-Dichloropropane	U	1.05	ug/kg	0.316	1.05
127-18-4	Tetrachloroethylene	U	1.05	ug/kg	0.316	1.05
124-48-1	Dibromochloromethane	U	1.05	ug/kg	0.316	1.05
106-93-4	1,2-Dibromoethane	U	1.05	ug/kg	0.316	1.05
108-90-7	Chlorobenzene	U	1.05	ug/kg	0.316	1.05

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

SDG Number: 10-2027  
 Lab Sample ID: 248012002

Date Collected: 02/20/2010 12:00  
 Date Received: 02/25/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA3.I  
 Analyst: CDS1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 5.1  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

Client ID: RE36-10-8490  
 Batch ID: 959900  
 Run Date: 03/03/2010 01:27  
 Prep Date: 03/02/2010 17:01  
 Data File: 030210V3\3B234.D

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.05	ug/kg	0.316	1.05
179601-23-1	m,p-Xylenes	U	2.11	ug/kg	0.316	2.11
95-47-6	o-Xylene	U	1.05	ug/kg	0.316	1.05
100-42-5	Styrene	U	1.05	ug/kg	0.316	1.05
75-25-2	Bromoform	U	1.05	ug/kg	0.316	1.05
79-34-5	1,1,2,2-Tetrachloroethane	U	1.05	ug/kg	0.316	1.05
96-18-4	1,2,3-Trichloropropane	U	1.05	ug/kg	0.316	1.05
108-86-1	Bromobenzene	U	1.05	ug/kg	0.316	1.05
103-65-1	n-Propylbenzene	U	1.05	ug/kg	0.316	1.05
95-49-8	2-Chlorotoluene	U	1.05	ug/kg	0.316	1.05
98-82-8	Isopropylbenzene	U	1.05	ug/kg	0.316	1.05
108-67-8	1,3,5-Trimethylbenzene	U	1.05	ug/kg	0.316	1.05
106-43-4	4-Chlorotoluene	U	1.05	ug/kg	0.316	1.05
98-06-6	tert-Butylbenzene	U	1.05	ug/kg	0.316	1.05
95-63-6	1,2,4-Trimethylbenzene	U	1.05	ug/kg	0.316	1.05
135-98-8	sec-Butylbenzene	U	1.05	ug/kg	0.316	1.05
99-87-6	4-Isopropyltoluene	U	1.05	ug/kg	0.316	1.05
541-73-1	1,3-Dichlorobenzene	U	1.05	ug/kg	0.316	1.05
106-46-7	1,4-Dichlorobenzene	U	1.05	ug/kg	0.316	1.05
104-51-8	n-Butylbenzene	U	1.05	ug/kg	0.316	1.05
96-12-8	1,2-Dibromo-3-chloropropane	U	1.05	ug/kg	0.316	1.05
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	5.27	ug/kg	1.69	5.27
630-20-6	1,1,1,2-Tetrachloroethane	U	1.05	ug/kg	0.316	1.05
95-50-1	1,2-Dichlorobenzene	U	1.05	ug/kg	0.316	1.05

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown siloxane	19.05	5.3	ug/kg	0	J

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030210V3\  
Data File : 3B234.D  
Acq On : 3 Mar 2010 1:27 am  
Operator : CDS1  
InstName : VOA3  
Sample : |248012002|959900|1|VOA|1|VOA8260BS|  
Misc : LANL 5G - SOIL  
ALS Vial : 35 Sample Multiplier: 1

Quant Time: Mar 04 17:32:22 2010  
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 01 09:52:36 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev (Min)
1) Fluorobenzene	12.232	12.232	1.000	96	873045	50.00	ug/L	0.00
41) Chlorobenzene-d5	15.849	15.849	1.000	117	656509	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	18.410	18.410	1.000	152	311389	50.00	ug/L	0.00
82) B Fluorobenzene	12.232	12.232	1.000	96	872769	50.00	ug/L	0.00
103) B Chlorobenzene-d5	15.849	15.849	1.000	117	656509	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	18.410	18.410	1.000	152	317644	50.00	ug/L	0.00
System Monitoring Compounds								Dev (Min)
29) 1,2-Dichloroethane-d4	11.793	11.793	0.964	65	269885	50.41	ug/L	0.00
Spiked Amount 50.000	Range 66	- 134	Recovery	=	100.82%			
43) Toluene-d8	14.165	14.165	0.894	98	894221	50.61	ug/L	0.00
Spiked Amount 50.000	Range 71	- 128	Recovery	=	101.22%			
61) Bromofluorobenzene	17.130	17.130	0.930	95	317325	50.54	ug/L	0.00
Spiked Amount 50.000	Range 65	- 130	Recovery	=	101.08%			
Target Compounds								QValue
2) Dichlorodifluoromethane	0.000	4.800	0.000		0	N.D.		
3) Chloromethane	0.000	5.216	0.000		0	N.D.		
4) Vinyl chloride	0.000	5.528	0.000		0	N.D.		
5) Bromomethane	0.000	6.291	0.000		0	N.D.		
6) Chloroethane	0.000	6.493	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	7.062	0.000		0	N.D.		
8) Ethyl ether	0.000	7.512	0.000		0	N.D.		
9) Acetone	0.000	7.987	0.000		0	N.D.		
10) 1,1-Dichloroethylene	0.000	7.987	0.000		0	N.D.		
11) Iodomethane	0.000	8.271	0.000		0	N.D.		
12) Acetonitrile	0.000	8.449	0.000		0	N.D.		
13) Methyl acetate	0.000	8.520	0.000		0	N.D.		
14) Carbon disulfide	8.426	8.449	0.689	76	607	N.D.		
15) Methylene chloride	8.746	8.746	0.715	84	6253	N.D.		
16) tert-Butyl methyl ether	0.000	9.173	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	9.208	0.000		0	N.D.		
18) Vinyl acetate	0.000	9.837	0.000		0	N.D.		
19) 1,1-Dichloroethane	0.000	9.860	0.000		0	N.D.		
20) 2-Butanone	0.000	10.643	0.000		0	N.D.		
21) cis-1,2-Dichloroethylene	0.000	10.691	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	10.714	0.000		0	N.D.		
23) Bromochloromethane	0.000	11.034	0.000		0	N.D.		
24) Chloroform	0.000	11.094	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	11.426	0.000		0	N.D.		
26) Cyclohexane	0.000	11.532	0.000		0	N.D.		
27) 1,1-Dichloropropene	0.000	11.627	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	11.663	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	11.888	0.000		0	N.D.		
31) Benzene	0.000	11.912	0.000		0	N.D.		
32) Cyclohexene	0.000	12.054	0.000		0	N.D.		
33) n-Butyl alcohol	0.000	12.398	0.000		0	N.D.		
34) Trichloroethylene	0.000	12.695	0.000		0	N.D.		
35) 1,2-Dichloropropane	0.000	12.979	0.000		0	N.D.		
36) Methylcyclohexane	0.000	12.991	0.000		0	N.D.		
37) Dibromomethane	0.000	13.133	0.000		0	N.D.		

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030210V3\  
Data File : 3B234.D  
Acq On : 3 Mar 2010 1:27 am  
Operator : CDS1  
InstName : VOA3  
Sample : |248012002|959900|1|VOA|1|VOA8260BS|  
Misc : LANL 5G - SOIL  
ALS Vial : 35 Sample Multiplier: 1

Quant Time: Mar 04 17:32:22 2010  
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 01 09:52:36 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
38) Bromodichloromethane	0.000	13.288	0.000		0	N.D.	
39) 2-Chloroethylvinyl ether	0.000	13.560	0.000		0	N.D.	
40) cis-1,3-Dichloropropylene	0.000	13.809	0.000		0	N.D.	
42) 4-Methyl-2-pentanone	0.000	13.928	0.000		0	N.D.	
44) Toluene	14.248	14.248	0.899	91	852	N.D.	
45) trans-1,3-Dichloroprop...	0.000	14.426	0.000		0	N.D.	
46) 1,1,2-Trichloroethane	0.000	14.675	0.000		0	N.D.	
47) 2-Hexanone	0.000	14.888	0.000		0	N.D.	
48) 1,3-Dichloropropane	0.000	14.888	0.000		0	N.D.	
49) Tetrachloroethylene	0.000	14.912	0.000		0	N.D.	
50) Dibromochloromethane	0.000	15.173	0.000		0	N.D.	
51) 1,2-Dibromoethane	0.000	15.351	0.000		0	N.D.	
52) Chlorobenzene	0.000	15.885	0.000		0	N.D.	
53) 1,1,1,2-Tetrachloroethane	0.000	15.956	0.000		0	N.D.	
54) Ethylbenzene	16.086	15.968	1.015	91	1237	N.D.	
55) m,p-Xylenes	16.074	16.086	1.014	106	425	N.D.	
56) o-Xylene	0.000	16.549	0.000		0	N.D.	
57) Styrene	0.000	16.549	0.000		0	N.D.	
59) Bromoform	0.000	16.821	0.000		0	N.D.	
60) Isopropylbenzene	0.000	16.928	0.000		0	N.D.	
62) 1,1,2,2-Tetrachloroethane	0.000	17.213	0.000		0	N.D.	
63) 1,2,3-Trichloropropane	0.000	17.308	0.000		0	N.D.	
64) Bromobenzene	0.000	17.343	0.000		0	N.D.	
65) n-Propylbenzene	0.000	17.367	0.000		0	N.D.	
66) 1,3,5-Trimethylbenzene	0.000	17.533	0.000		0	N.D.	
67) 2-Chlorotoluene	0.000	17.521	0.000		0	N.D.	
68) 4-Chlorotoluene	0.000	17.628	0.000		0	N.D.	
69) tert-Butylbenzene	0.000	17.912	0.000		0	N.D.	
70) 1,2,4-Trimethylbenzene	0.000	17.960	0.000		0	N.D.	
71) sec-Butylbenzene	0.000	18.150	0.000		0	N.D.	
72) 4-Isopropyltoluene	0.000	18.280	0.000		0	N.D.	
73) 1,3-Dichlorobenzene	0.000	18.351	0.000		0	N.D.	
74) 1,4-Dichlorobenzene	0.000	18.434	0.000		0	N.D.	
75) n-Butylbenzene	0.000	18.742	0.000		0	N.D.	
76) 1,2-Dichlorobenzene	0.000	18.885	0.000		0	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000	19.810	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	0.000	20.936	0.000		0	N.D.	
79) Hexachlorobutadiene	0.000	21.126	0.000		0	N.D.	
80) Naphthalene	21.351	21.351	1.160	128	1288	N.D.	
81) 1,2,3-Trichlorobenzene	0.000	21.719	0.000		0	N.D.	
83) Chlorotrifluoroethylene	0.000	4.711	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000	5.751	0.000		0	N.D.	
85) Acrolein	0.000	7.750	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000	7.975	0.000		0	N.D.	
87) Isopropyl Alcohol	0.000	8.141	0.000		0	N.D.	
88) Allyl chloride	0.000	8.556	0.000		0	N.D.	
89) tert-Butyl Alcohol	0.000	8.793	0.000		0	N.D.	
90) Acrylonitrile	0.000	9.090	0.000		0	N.D.	
91) Isopropyl ether	0.000	9.884	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	0.000	10.003	0.000		0	N.D.	
93) Ethyl tert-butyl ether	0.000	10.406	0.000		0	N.D.	
94) Ethyl acetate	0.000	10.679	0.000		0	N.D.	

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030210V3\  
Data File : 3B234.D  
Acq On : 3 Mar 2010 1:27 am  
Operator : CDS1  
InstName : VOA3  
Sample : |248012002|959900|1|VOA|1|VOA8260BS|  
Misc : LANL 5G - SOIL  
ALS Vial : 35 Sample Multiplier: 1

Quant Time: Mar 04 17:32:22 2010  
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 01 09:52:36 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95) Propionitrile	0.000	10.726	0.000		0	N.D.	
96) Methacrylonitrile	0.000	10.951	0.000		0	N.D.	
97) Tetrahydrofuran	0.000	11.094	0.000		0	N.D.	
98) Isobutyl alcohol	0.000	11.556	0.000		0	N.D.	
99) Methyl tert-amyl ether	0.000	11.971	0.000		0	N.D.	
100) Methyl methacrylate	0.000	12.991	0.000		0	N.D.	
101) 1,4-Dioxane	0.000	13.098	0.000		0	N.D.	
102) 2-Nitropropane	0.000	13.525	0.000		0	N.D.	
104) Ethyl methacrylate	0.000	14.450	0.000		0	N.D.	
106) 1-Chlorohexane	0.000	15.754	0.000		0m	N.D.	d
107) cis-1,4-Dichloro-2-butene	0.000	16.964	0.000		0	N.D.	
108) Cyclohexanone	0.000	17.082	0.000		0	N.D.	
109) trans-1,4-Dichloro-2-b...	0.000	17.260	0.000		0	N.D.	
110) Pentachloroethane	0.000	17.983	0.000		0	N.D.	
111) Benzyl chloride	0.000	18.553	0.000		0m	N.D.	d
112) bis(2-Chloroisopropyl)...	0.000	18.980	0.000		0m	N.D.	d

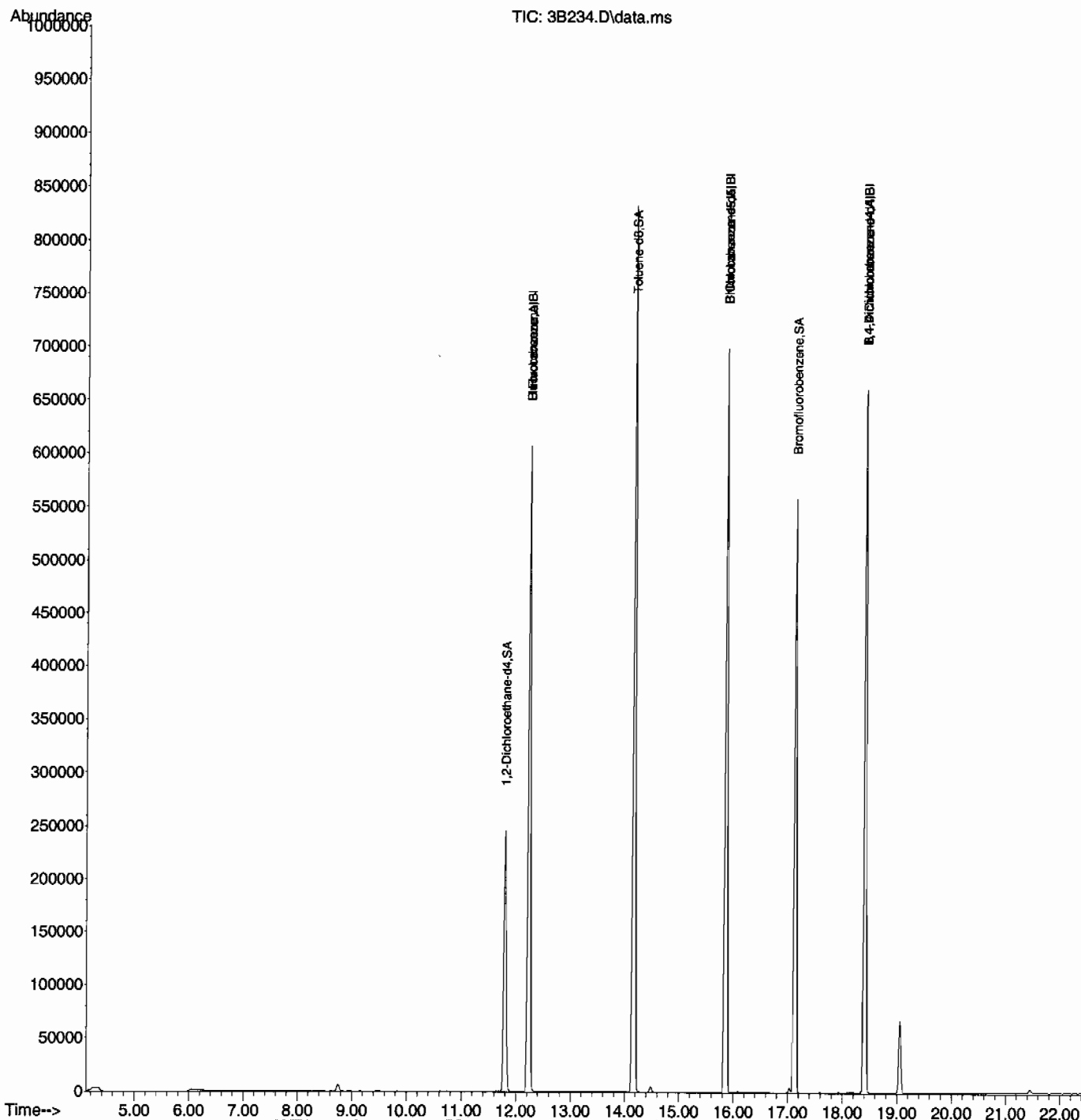
(#) = qualifier out of range (m) = manual integration (+) = signals summed  
(E) = Over the calibration range (d) = deleted

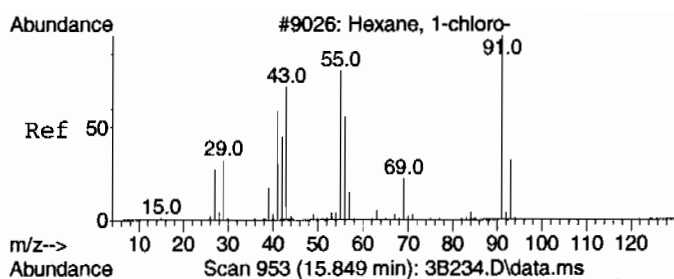


Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030210V3\  
Data File : 3B234.D  
Acq On : 3 Mar 2010 1:27 am  
Operator : CDS1  
InstName : VOA3  
Sample : |248012002|959900|1|VOA|1|VOA8260BS|  
Misc : LANL 5G - SOIL  
ALS Vial : 35 Sample Multiplier: 1

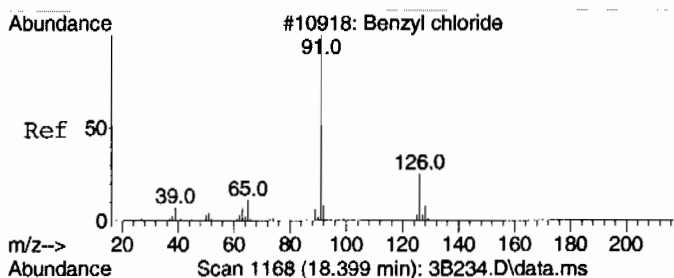
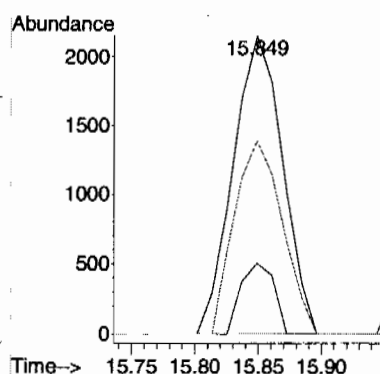
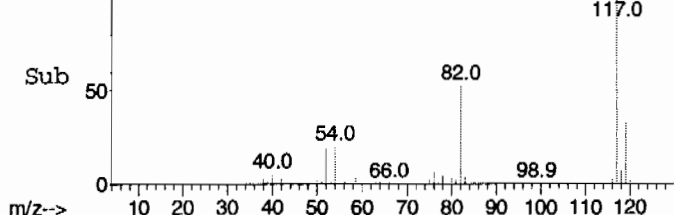
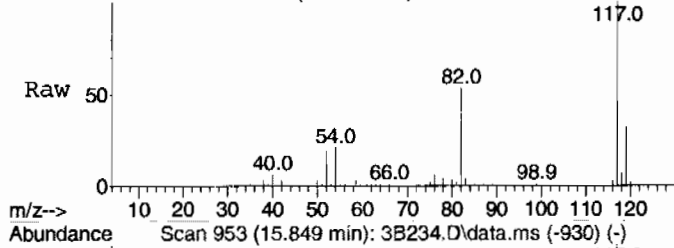
Quant Time: Mar 04 17:32:22 2010  
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 01 09:52:36 2010  
Response via : Initial Calibration  
Integrator: RTE





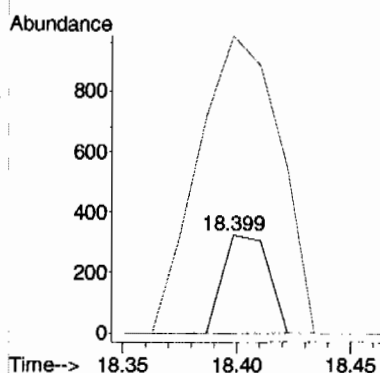
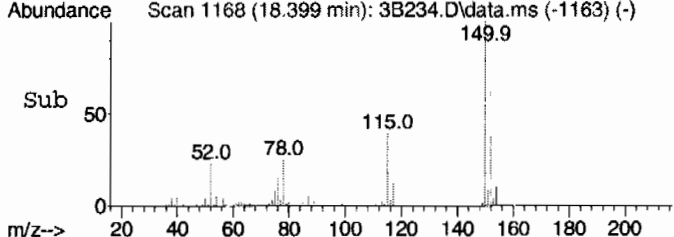
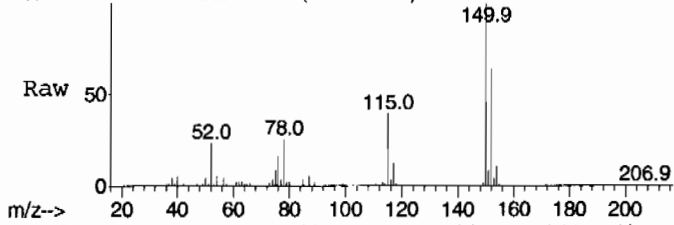
#106 BEFORE analyst DELETION  
1-Chlorohexane  
Concen: 2.03 ug/L  
RT: 15.849 min Scan# 953  
Delta R.T. 0.095 min  
Lab File: 3B234.D  
Acq: 3 Mar 2010 1:27 am

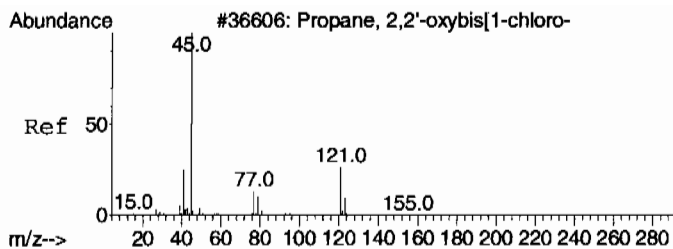
Tgt Ion: 55 Resp: 5838  
Ion Ratio Lower Upper  
55 100  
91 15.8 119.7 179.7#  
56 62.7 29.6 89.6



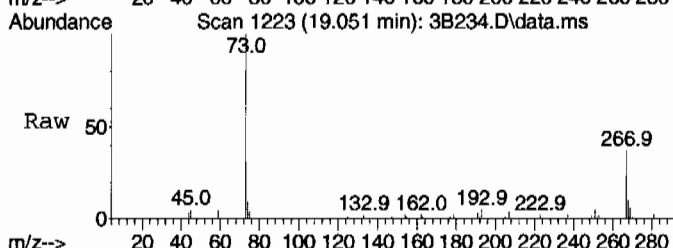
#111 BEFORE analyst DELETION  
Benzyl chloride  
Concen: 1.68 ug/L  
RT: 18.399 min Scan# 1168  
Delta R.T. -0.154 min  
Lab File: 3B234.D  
Acq: 3 Mar 2010 1:27 am

Tgt Ion: 91 Resp: 451  
Ion Ratio Lower Upper  
91 100  
126 0.0 0.0 51.8  
65 544.1 0.0 41.3#

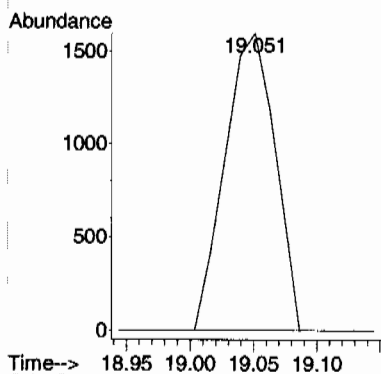
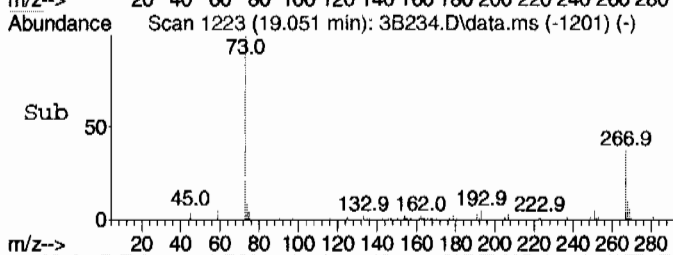




#112 BEFORE analyst DELETION  
bis(2-Chloroisopropyl)ether  
Concen: 2.14 ug/L  
RT: 19.051 min Scan# 1223  
Delta R.T. 0.071 min  
Lab File: 3B234.D  
Acq: 3 Mar 2010 1:27 am



Tgt Ion: 45 Resp: 4392  
Ion Ratio Lower Upper  
45 100  
121 0.0 0.0 59.6



Library Search Compound Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030210V3\  
Data File : 3B234.D  
Acq On : 3 Mar 2010 1:27 am  
Operator : CDS1  
Sample : |248012002|959900|1|VOA|1|VOA8260BS|  
Misc : LANL 5G - SOIL  
ALS Vial : 35 Sample Multiplier: 1

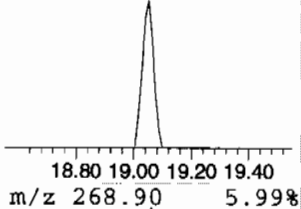
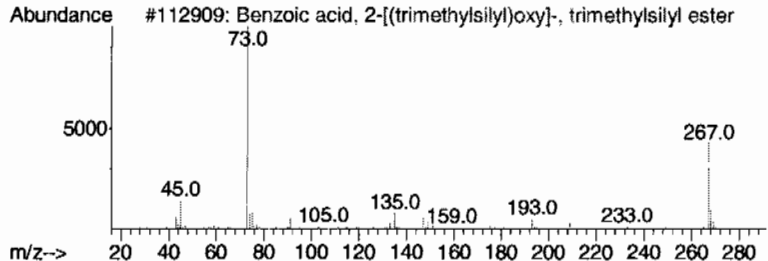
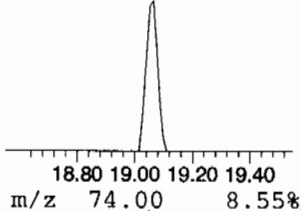
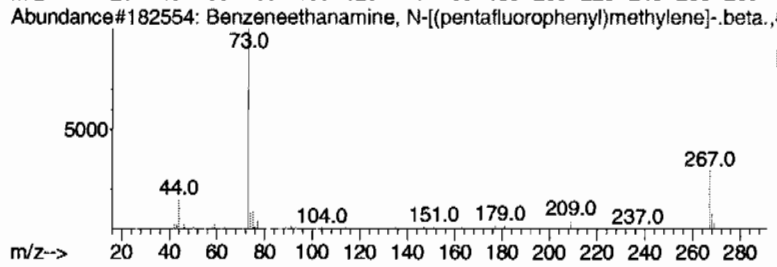
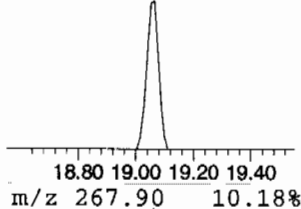
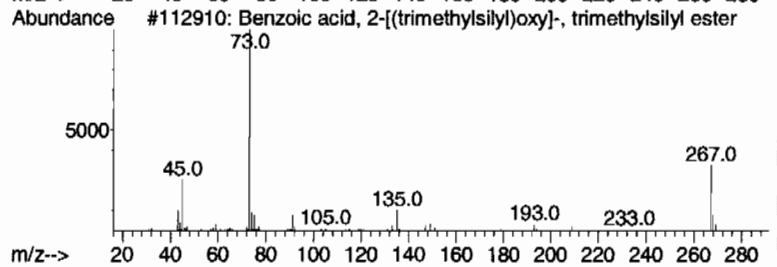
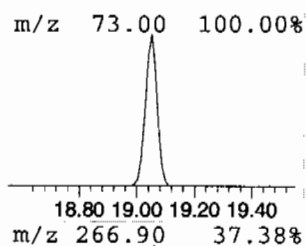
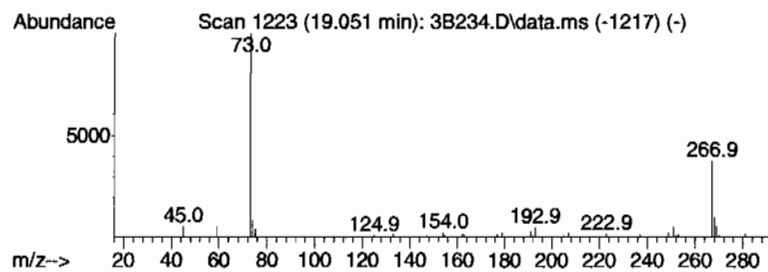
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M  
Quant Title : Volatile Organics 8260B SubList :

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.
19.051	5.03 ug/L	187772	B 1,4-Dichlorobenzene-d4	18.410

Hit#	of	Tentative ID	MW	MolForm	CAS#	Qual
1	5	Benzoic acid, 2-[(trimethylsilyl)oxy]-, trimethylsilyl ester	282	C13H22O3Si2	003789-85-3	64
2		Benzenethanamine, N-[(pentafluorophenyl)methylene]-, beta,	475	C21H26F5NO2Si2	055429-85-1	53
3		Benzoic acid, 2-[(trimethylsilyl)oxy]-, trimethylsilyl ester	282	C13H22O3Si2	003789-85-3	50
4		Benzoic acid, 2-[(trimethylsilyl)oxy]-, trimethylsilyl ester	282	C13H22O3Si2	003789-85-3	39
5		11H-Dibenzo[b,e][1,4]diazepin-11-one	267	C16H17N3O	013450-73-2	27



Tentatively Identified Compound (LSC) summary  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030210V3\  
Data File : 3B234.D  
Acq On : 3 Mar 2010 1:27 am  
Operator : CDS1  
Sample : |248012002|959900|1|VOA|1|VOA8260BS|  
Misc : LANL 5G - SOIL  
ALS Vial : 35 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.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	19.051	5.0	ug/L	187772	6	18.410	1866050	50.0

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

SDG Number: 10-2027  
 Lab Sample ID: 248012003

Date Collected: 02/20/2010 12:00  
 Date Received: 02/25/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA3.I  
 Analyst: CDS1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 6.2  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

Client ID: RE36-10-8470  
 Batch ID: 959900  
 Run Date: 03/03/2010 01:56  
 Prep Date: 03/02/2010 17:02  
 Data File: 030210V3\3B235.D

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.07	ug/kg	0.362	1.07
74-87-3	Chloromethane	U	1.07	ug/kg	0.320	1.07
75-01-4	Vinyl chloride	U	1.07	ug/kg	0.320	1.07
74-83-9	Bromomethane	U	1.07	ug/kg	0.320	1.07
75-00-3	Chloroethane	U	1.07	ug/kg	0.320	1.07
75-69-4	Trichlorofluoromethane	U	1.07	ug/kg	0.320	1.07
67-64-1	Acetone	U	5.33	ug/kg	1.77	5.33
75-35-4	1,1-Dichloroethylene	U	1.07	ug/kg	0.320	1.07
74-88-4	Iodomethane	U	5.33	ug/kg	1.71	5.33
75-09-2	Methylene chloride	U	5.33	ug/kg	2.13	5.33
75-15-0	Carbon disulfide	U	5.33	ug/kg	1.33	5.33
156-60-5	trans-1,2-Dichloroethylene	U	1.07	ug/kg	0.320	1.07
75-34-3	1,1-Dichloroethane	U	1.07	ug/kg	0.320	1.07
78-93-3	2-Butanone	U	5.33	ug/kg	1.60	5.33
156-59-2	cis-1,2-Dichloroethylene	U	1.07	ug/kg	0.320	1.07
594-20-7	2,2-Dichloropropane	U	1.07	ug/kg	0.320	1.07
67-66-3	Chloroform	U	1.07	ug/kg	0.320	1.07
74-97-5	Bromochloromethane	U	1.07	ug/kg	0.352	1.07
71-55-6	1,1,1-Trichloroethane	U	1.07	ug/kg	0.320	1.07
563-58-6	1,1-Dichloropropene	U	1.07	ug/kg	0.320	1.07
56-23-5	Carbon tetrachloride	U	1.07	ug/kg	0.320	1.07
107-06-2	1,2-Dichloroethane	U	1.07	ug/kg	0.320	1.07
71-43-2	Benzene	U	1.07	ug/kg	0.320	1.07
79-01-6	Trichloroethylene	U	1.07	ug/kg	0.352	1.07
78-87-5	1,2-Dichloropropane	U	1.07	ug/kg	0.320	1.07
75-27-4	Bromodichloromethane	U	1.07	ug/kg	0.320	1.07
74-95-3	Dibromomethane	U	1.07	ug/kg	0.320	1.07
108-10-1	4-Methyl-2-pentanone	U	5.33	ug/kg	1.33	5.33
10061-01-5	cis-1,3-Dichloropropylene	U	1.07	ug/kg	0.320	1.07
108-88-3	Toluene	U	1.07	ug/kg	0.320	1.07
10061-02-6	trans-1,3-Dichloropropylene	U	1.07	ug/kg	0.320	1.07
79-00-5	1,1,2-Trichloroethane	U	1.07	ug/kg	0.320	1.07
591-78-6	2-Hexanone	U	5.33	ug/kg	1.60	5.33
142-28-9	1,3-Dichloropropane	U	1.07	ug/kg	0.320	1.07
127-18-4	Tetrachloroethylene	U	1.07	ug/kg	0.320	1.07
124-48-1	Dibromochloromethane	U	1.07	ug/kg	0.320	1.07
106-93-4	1,2-Dibromoethane	U	1.07	ug/kg	0.320	1.07
108-90-7	Chlorobenzene	U	1.07	ug/kg	0.320	1.07

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

SDG Number: 10-2027  
 Lab Sample ID: 248012003

Date Collected: 02/20/2010 12:00  
 Date Received: 02/25/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA3.I  
 Analyst: CDS1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 6.2  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

Client ID: RE36-10-8470  
 Batch ID: 959900  
 Run Date: 03/03/2010 01:56  
 Prep Date: 03/02/2010 17:02  
 Data File: 030210V3\3B235.D

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.07	ug/kg	0.320	1.07
179601-23-1	m,p-Xylenes	U	2.13	ug/kg	0.320	2.13
95-47-6	o-Xylene	U	1.07	ug/kg	0.320	1.07
100-42-5	Styrene	U	1.07	ug/kg	0.320	1.07
75-25-2	Bromoform	U	1.07	ug/kg	0.320	1.07
79-34-5	1,1,2,2-Tetrachloroethane	U	1.07	ug/kg	0.320	1.07
96-18-4	1,2,3-Trichloropropane	U	1.07	ug/kg	0.320	1.07
108-86-1	Bromobenzene	U	1.07	ug/kg	0.320	1.07
103-65-1	n-Propylbenzene	U	1.07	ug/kg	0.320	1.07
95-49-8	2-Chlorotoluene	U	1.07	ug/kg	0.320	1.07
98-82-8	Isopropylbenzene	U	1.07	ug/kg	0.320	1.07
108-67-8	1,3,5-Trimethylbenzene	U	1.07	ug/kg	0.320	1.07
106-43-4	4-Chlorotoluene	U	1.07	ug/kg	0.320	1.07
98-06-6	tert-Butylbenzene	U	1.07	ug/kg	0.320	1.07
95-63-6	1,2,4-Trimethylbenzene	U	1.07	ug/kg	0.320	1.07
135-98-8	sec-Butylbenzene	U	1.07	ug/kg	0.320	1.07
99-87-6	4-Isopropyltoluene	U	1.07	ug/kg	0.320	1.07
541-73-1	1,3-Dichlorobenzene	U	1.07	ug/kg	0.320	1.07
106-46-7	1,4-Dichlorobenzene	U	1.07	ug/kg	0.320	1.07
104-51-8	n-Butylbenzene	U	1.07	ug/kg	0.320	1.07
96-12-8	1,2-Dibromo-3-chloropropane	U	1.07	ug/kg	0.320	1.07
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	5.33	ug/kg	1.71	5.33
	Trichlorotrifluoroethane					
630-20-6	1,1,1,2-Tetrachloroethane	U	1.07	ug/kg	0.320	1.07
95-50-1	1,2-Dichlorobenzene	U	1.07	ug/kg	0.320	1.07

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown hydrocarbon	16.95	10.3	ug/kg	0	J

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030210V3\  
Data File : 3B235.D  
Acq On : 3 Mar 2010 1:56 am  
Operator : CDS1  
InstName : VOA3  
Sample : |248012003|959900|1|VOA|1|VOA8260BS|  
Misc : LANL 5G - SOIL  
ALS Vial : 36 Sample Multiplier: 1

Quant Time: Mar 04 17:33:00 2010  
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 01 09:52:36 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	12.232	12.232	1.000	96	797994	50.00	ug/L	0.00
41) Chlorobenzene-d5	15.849	15.849	1.000	117	568805	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	18.410	18.410	1.000	152	262086	50.00	ug/L	0.00
82) B Fluorobenzene	12.232	12.232	1.000	96	797654	50.00	ug/L	0.00
103) B Chlorobenzene-d5	15.849	15.849	1.000	117	568805	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	18.410	18.410	1.000	152	267716	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	11.793	11.793	0.964	65	239829	49.00	ug/L	0.00
Spiked Amount	50.000	Range 66 - 134	Recovery	=	98.00%			
43) Toluene-d8	14.165	14.165	0.894	98	813775	53.16	ug/L	0.00
Spiked Amount	50.000	Range 71 - 128	Recovery	=	106.32%			
61) Bromofluorobenzene	17.130	17.130	0.930	95	275782	52.19	ug/L	0.00
Spiked Amount	50.000	Range 65 - 130	Recovery	=	104.38%			
Target Compounds								QValue
2) Dichlorodifluoromethane	0.000	4.800	0.000		0	N.D.		
3) Chloromethane	0.000	5.216	0.000		0	N.D.		
4) Vinyl chloride	0.000	5.528	0.000		0	N.D.		
5) Bromomethane	0.000	6.291	0.000		0	N.D.		
6) Chloroethane	0.000	6.493	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	7.062	0.000		0	N.D.		
8) Ethyl ether	0.000	7.512	0.000		0	N.D.		
9) Acetone	7.999	7.987	0.654	43	5035	N.D.		
10) 1,1-Dichloroethylene	0.000	7.987	0.000		0	N.D.		
11) Iodomethane	0.000	8.271	0.000		0	N.D.		
12) Acetonitrile	8.627	8.449	0.705	41	369	N.D.		
13) Methyl acetate	0.000	8.520	0.000		0	N.D.		
14) Carbon disulfide	8.426	8.449	0.689	76	1260	N.D.		
15) Methylene chloride	8.746	8.746	0.715	84	7241	N.D.		
16) tert-Butyl methyl ether	0.000	9.173	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	9.208	0.000		0	N.D.		
18) Vinyl acetate	0.000	9.837	0.000		0	N.D.		
19) 1,1-Dichloroethane	0.000	9.860	0.000		0	N.D.		
20) 2-Butanone	10.655	10.643	0.871	43	996	N.D.		
21) cis-1,2-Dichloroethylene	0.000	10.691	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	10.714	0.000		0	N.D.		
23) Bromochloromethane	0.000	11.034	0.000		0	N.D.		
24) Chloroform	0.000	11.094	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	11.426	0.000		0	N.D.		
26) Cyclohexane	0.000	11.532	0.000		0	N.D.		
27) 1,1-Dichloropropene	0.000	11.627	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	11.663	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	11.888	0.000		0	N.D.		
31) Benzene	11.912	11.912	0.974	78	957	N.D.		
32) Cyclohexene	0.000	12.054	0.000		0	N.D.		
33) n-Butyl alcohol	0.000	12.398	0.000		0	N.D.		
34) Trichloroethylene	0.000	12.695	0.000		0	N.D.		
35) 1,2-Dichloropropane	0.000	12.979	0.000		0	N.D.		
36) Methylcyclohexane	0.000	12.991	0.000		0	N.D.		
37) Dibromomethane	0.000	13.133	0.000		0	N.D.		



Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030210V3\  
Data File : 3B235.D  
Acq On : 3 Mar 2010 1:56 am  
Operator : CDS1  
InstName : VOA3  
Sample : |248012003|959900|1|VOA|1|VOA8260BS|  
Misc : LANL 5G - SOIL  
ALS Vial : 36 Sample Multiplier: 1

Quant Time: Mar 04 17:33:00 2010  
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 01 09:52:36 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
38) Bromodichloromethane	0.000	13.288	0.000		0	N.D.	
39) 2-Chloroethylvinyl ether	0.000	13.560	0.000		0	N.D.	
40) cis-1,3-Dichloropropylene	0.000	13.809	0.000		0	N.D.	
42) 4-Methyl-2-pentanone	0.000	13.928	0.000		0	N.D.	
44) Toluene	14.248	14.248	0.899	91	2428	N.D.	
45) trans-1,3-Dichloroprop...	0.000	14.426	0.000		0	N.D.	
46) 1,1,2-Trichloroethane	0.000	14.675	0.000		0	N.D.	
47) 2-Hexanone	0.000	14.888	0.000		0	N.D.	
48) 1,3-Dichloropropane	0.000	14.888	0.000		0	N.D.	
49) Tetrachloroethylene	0.000	14.912	0.000		0	N.D.	
50) Dibromochloromethane	0.000	15.173	0.000		0	N.D.	
51) 1,2-Dibromoethane	0.000	15.351	0.000		0	N.D.	
52) Chlorobenzene	0.000	15.885	0.000		0	N.D.	
53) 1,1,1,2-Tetrachloroethane	0.000	15.956	0.000		0	N.D.	
54) Ethylbenzene	16.086	15.968	1.015	91	1400	N.D.	
55) m,p-Xylenes	16.074	16.086	1.014	106	490	N.D.	
56) o-Xylene	0.000	16.549	0.000		0	N.D.	
57) Styrene	0.000	16.549	0.000		0	N.D.	
59) Bromoform	0.000	16.821	0.000		0	N.D.	
60) Isopropylbenzene	0.000	16.928	0.000		0m	N.D.	d
62) 1,1,2,2-Tetrachloroethane	0.000	17.213	0.000		0	N.D.	
63) 1,2,3-Trichloropropane	0.000	17.308	0.000		0	N.D.	
64) Bromobenzene	0.000	17.343	0.000		0	N.D.	
65) n-Propylbenzene	17.367	17.367	0.943	91	399	N.D.	
66) 1,3,5-Trimethylbenzene	0.000	17.533	0.000		0	N.D.	
67) 2-Chlorotoluene	0.000	17.521	0.000		0	N.D.	
68) 4-Chlorotoluene	0.000	17.628	0.000		0m	N.D.	d
69) tert-Butylbenzene	0.000	17.912	0.000		0	N.D.	
70) 1,2,4-Trimethylbenzene	17.960	17.960	0.976	105	835	N.D.	
71) sec-Butylbenzene	0.000	18.150	0.000		0	N.D.	
72) 4-Isopropyltoluene	0.000	18.280	0.000		0	N.D.	
73) 1,3-Dichlorobenzene	0.000	18.351	0.000		0	N.D.	
74) 1,4-Dichlorobenzene	0.000	18.434	0.000		0	N.D.	
75) n-Butylbenzene	0.000	18.742	0.000		0	N.D.	
76) 1,2-Dichlorobenzene	0.000	18.885	0.000		0	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000	19.810	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	0.000	20.936	0.000		0	N.D.	
79) Hexachlorobutadiene	0.000	21.126	0.000		0	N.D.	
80) Naphthalene	21.340	21.351	1.159	128	1197	N.D.	
81) 1,2,3-Trichlorobenzene	0.000	21.719	0.000		0	N.D.	
83) Chlorotrifluoroethylene	0.000	4.711	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000	5.751	0.000		0	N.D.	
85) Acrolein	0.000	7.750	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000	7.975	0.000		0	N.D.	
87) Isopropyl Alcohol	0.000	8.141	0.000		0	N.D.	
88) Allyl chloride	8.627	8.556	0.705	41	369	N.D.	
89) tert-Butyl Alcohol	0.000	8.793	0.000		0	N.D.	
90) Acrylonitrile	0.000	9.090	0.000		0	N.D.	
91) Isopropyl ether	0.000	9.884	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	0.000	10.003	0.000		0	N.D.	
93) Ethyl tert-butyl ether	0.000	10.406	0.000		0	N.D.	
94) Ethyl acetate	10.655	10.679	0.871	43	996	N.D.	

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030210V3\  
Data File : 3B235.D  
Acq On : 3 Mar 2010 1:56 am  
Operator : CDS1  
InstName : VOA3  
Sample : |248012003|959900|1|VOA|1|VOA8260BS|  
Misc : LANL 5G - SOIL  
ALS Vial : 36 Sample Multiplier: 1

Quant Time: Mar 04 17:33:00 2010  
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 01 09:52:36 2010  
Response via : Initial Calibration  
Integrator: RTE

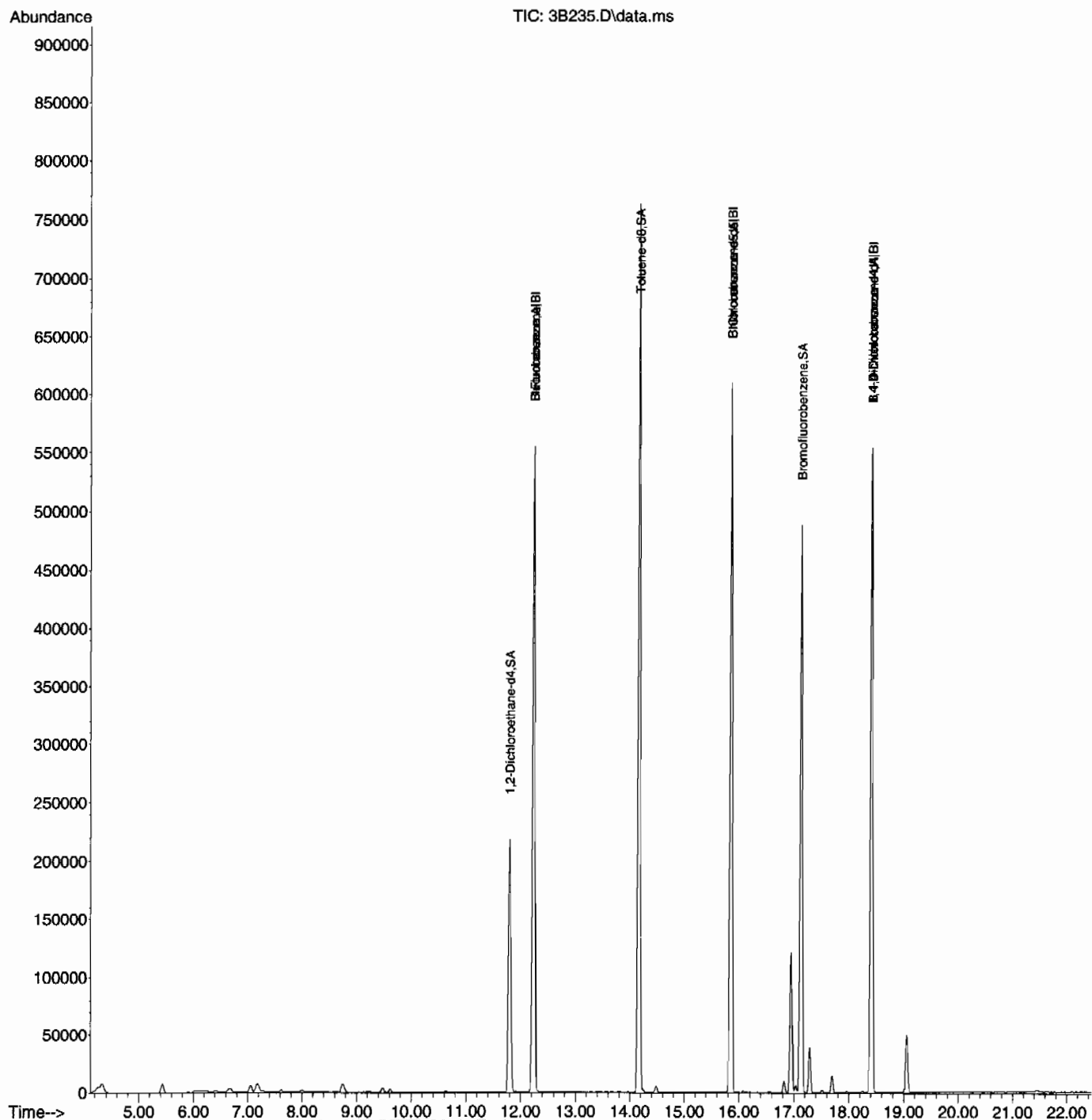
Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95) Propionitrile	0.000	10.726	0.000		0	N.D.	
96) Methacrylonitrile	0.000	10.951	0.000		0	N.D.	
97) Tetrahydrofuran	0.000	11.094	0.000		0	N.D.	
98) Isobutyl alcohol	0.000	11.556	0.000		0	N.D.	
99) Methyl tert-amyl ether	0.000	11.971	0.000		0	N.D.	
100) Methyl methacrylate	0.000	12.991	0.000		0	N.D.	
101) 1,4-Dioxane	0.000	13.098	0.000		0	N.D.	
102) 2-Nitropropane	0.000	13.525	0.000		0	N.D.	
104) Ethyl methacrylate	0.000	14.450	0.000		0	N.D.	
106) 1-Chlorohexane	0.000	15.754	0.000		0m	N.D.	d
107) cis-1,4-Dichloro-2-butene	0.000	16.964	0.000		0m	N.D.	d
108) Cyclohexanone	16.952	17.082	0.921	42	655	N.D.	
109) trans-1,4-Dichloro-2-b...	0.000	17.260	0.000		0m	N.D.	d
110) Pentachloroethane	0.000	17.983	0.000		0	N.D.	
111) Benzyl chloride	0.000	18.553	0.000		0m	N.D.	d
112) bis(2-Chloroisopropyl)...	0.000	18.980	0.000		0m	N.D.	d

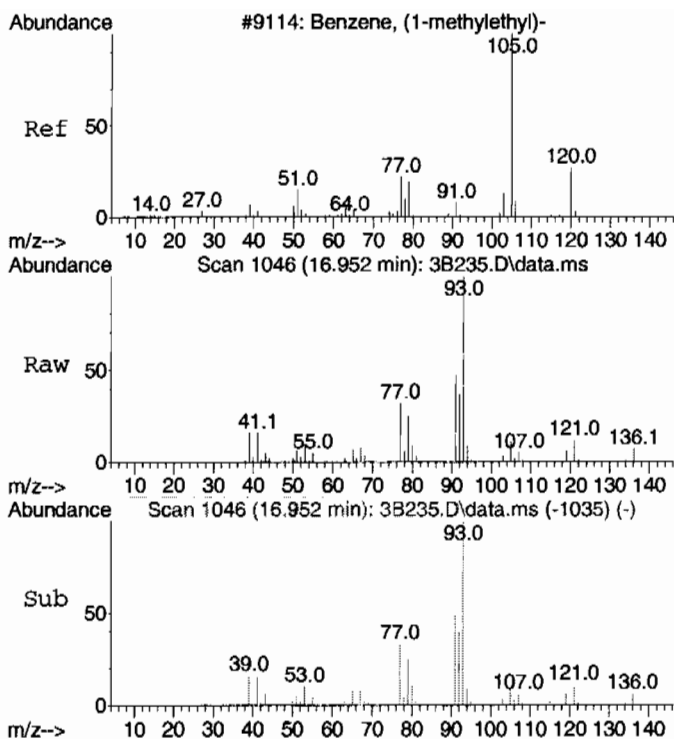
(#) = qualifier out of range (m) = manual integration (+) = signals summed  
(E) = Over the calibration range (d) = deleted

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030210V3\  
Data File : 3B235.D  
Acq On : 3 Mar 2010 1:56 am  
Operator : CDS1  
InstName : VOA3  
Sample : |248012003|959900|1|VOA|1|VOA8260BS|  
Misc : LANL 5G - SOIL  
ALS Vial : 36 Sample Multiplier: 1

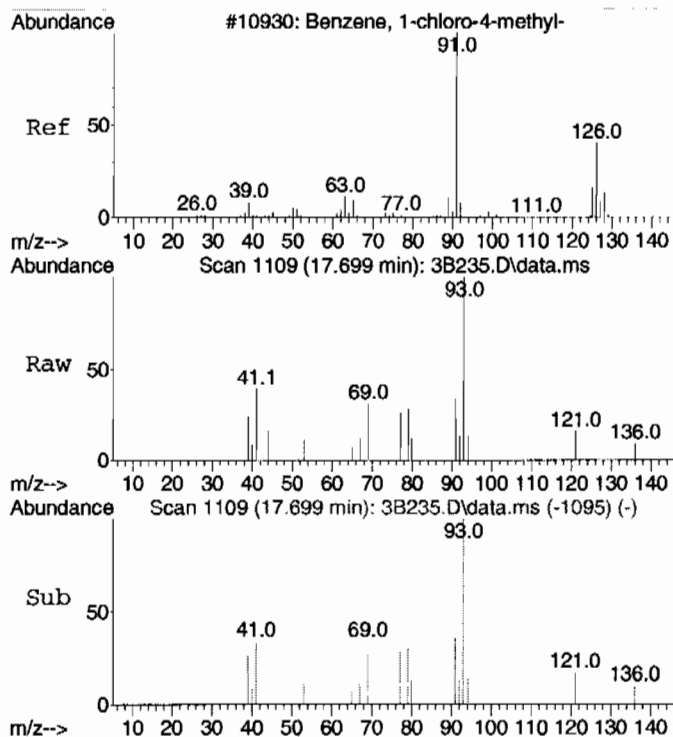
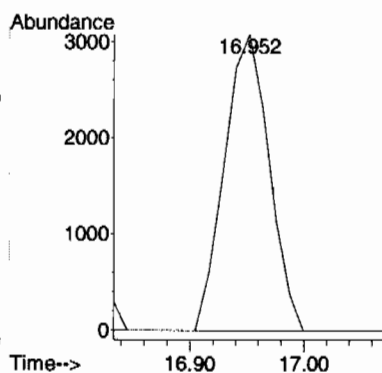
Quant Time: Mar 04 17:33:00 2010  
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 01 09:52:36 2010  
Response via : Initial Calibration  
Integrator: RTE





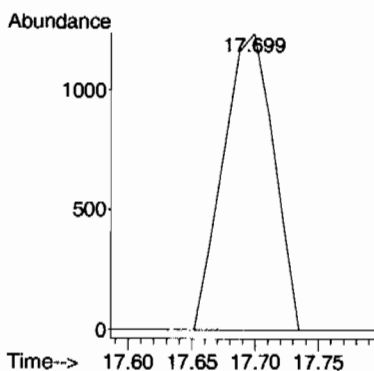
#60 BEFORE analyst DELETION  
Isopropylbenzene  
Concen: 0.65 ug/L  
RT: 16.952 min Scan# 1046  
Delta R.T. 0.024 min  
Lab File: 3B235.D  
Acq: 3 Mar 2010 1:56 am

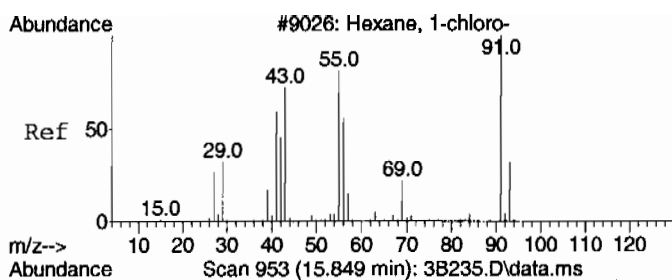
Tgt Ion: 105 Resp: 8382  
Ion Ratio Lower Upper  
105 100  
120 0.0 0.0 57.6



#68 BEFORE analyst DELETION  
4-Chlorotoluene  
Concen: 0.37 ug/L  
RT: 17.699 min Scan# 1109  
Delta R.T. 0.071 min  
Lab File: 3B235.D  
Acq: 3 Mar 2010 1:56 am

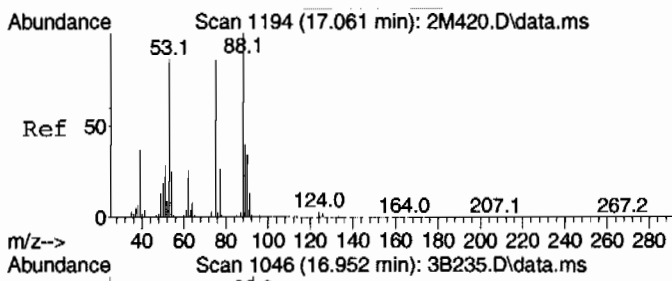
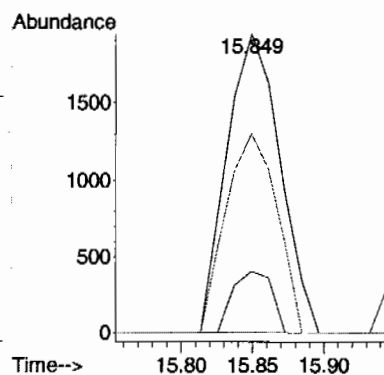
Tgt Ion: 91 Resp: 3427  
Ion Ratio Lower Upper  
91 100  
126 0.0 5.8 65.8#





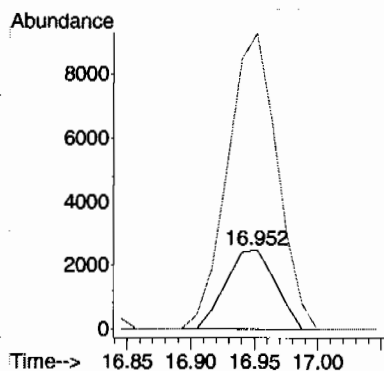
#106 BEFORE analyst DELETION  
1-Chlorohexane  
Concen: 2.09 ug/L  
RT: 15.849 min Scan# 953  
Delta R.T. 0.095 min  
Lab File: 3B235.D  
Acq: 3 Mar 2010 1:56 am

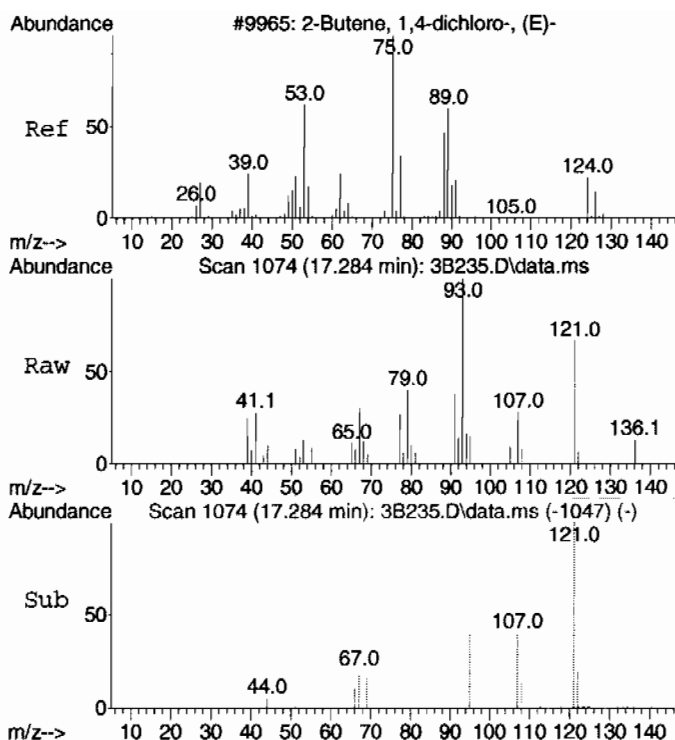
Tgt Ion: 55 Resp: 5067  
Ion Ratio Lower Upper  
55 100  
91 15.2 119.7 179.7#  
56 64.4 29.6 89.6



#107 BEFORE analyst DELETION  
cis-1,4-Dichloro-2-butene  
Concen: 7.43 ug/L  
RT: 16.952 min Scan# 1046  
Delta R.T. -0.012 min  
Lab File: 3B235.D  
Acq: 3 Mar 2010 1:56 am

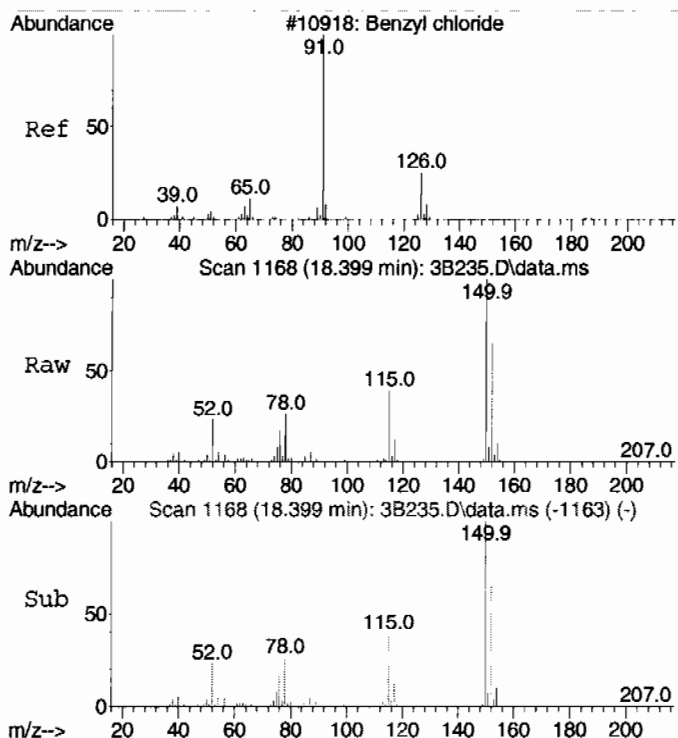
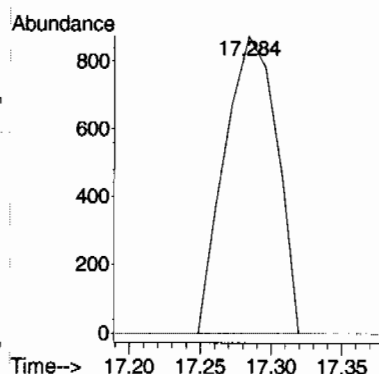
Tgt Ion: 53 Resp: 6670  
Ion Ratio Lower Upper  
53 100  
88 0.0 89.1 149.1#  
77 377.1 4.4 64.4#





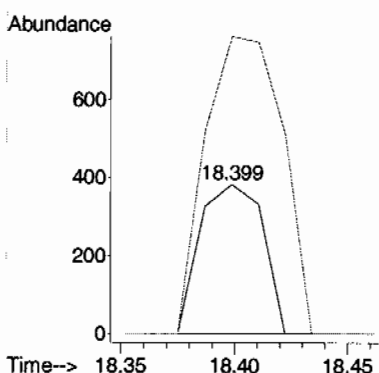
#109 BEFORE analyst DELETION  
trans-1,4-Dichloro-2-butene  
Concen: 2.56 ug/L  
RT: 17.284 min Scan# 1074  
Delta R.T. 0.024 min  
Lab File: 3B235.D  
Acq: 3 Mar 2010 1:56 am

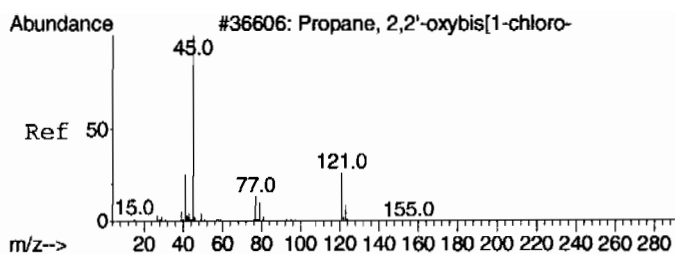
Tgt Ion: 53 Resp: 2243  
Ion Ratio Lower Upper  
53 100  
88 0.0 25.2 85.2#  
75 0.0 101.7 161.7#



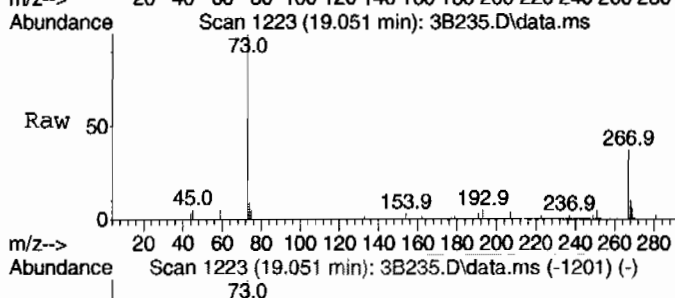
#111 BEFORE analyst DELETION  
Benzyl chloride  
Concen: 1.76 ug/L  
RT: 18.399 min Scan# 1168  
Delta R.T. -0.154 min  
Lab File: 3B235.D  
Acq: 3 Mar 2010 1:56 am

Tgt Ion: 91 Resp: 740  
Ion Ratio Lower Upper  
91 100  
126 0.0 0.0 51.8  
65 245.1 0.0 41.3#

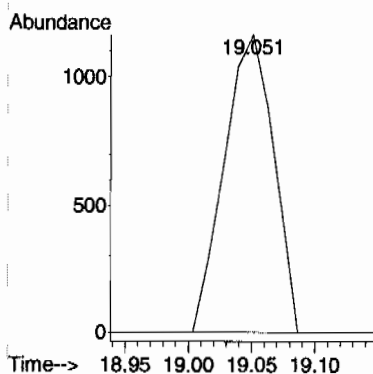
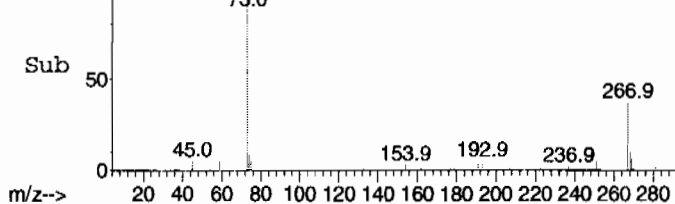




#112 BEFORE analyst DELETION  
 bis(2-Chloroisopropyl)ether  
 Concen: 1.83 ug/L  
 RT: 19.051 min Scan# 1223  
 Delta R.T. 0.071 min  
 Lab File: 3B235.D  
 Acq: 3 Mar 2010 1:56 am



Tgt Ion: 45 Resp: 3175  
 Ion Ratio Lower Upper  
 45 100  
 121 0.0 0.0 59.6



Library Search Compound Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030210V3\  
Data File : 3B235.D  
Acq On : 3 Mar 2010 1:56 am  
Operator : CDS1  
Sample : |248012003|959900|1|VOA|1|VOA8260BS|  
Misc : LANL 5G - SOIL  
ALS Vial : 36 Sample Multiplier: 1

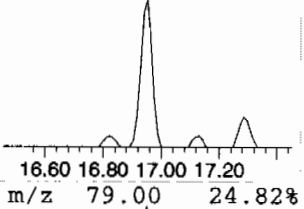
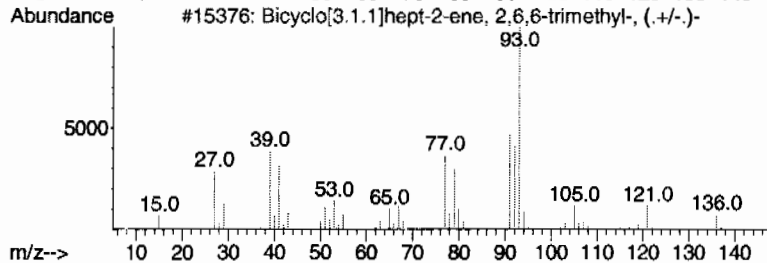
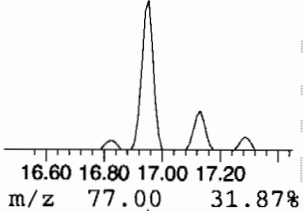
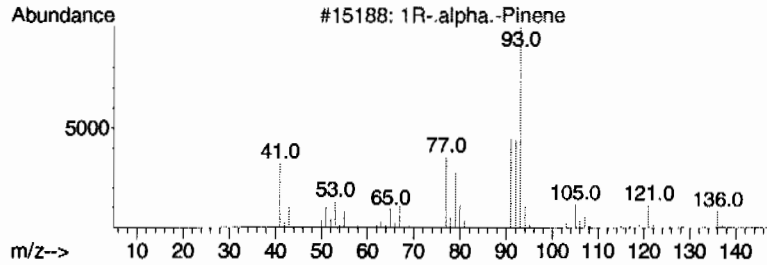
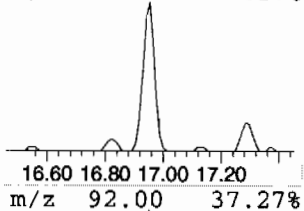
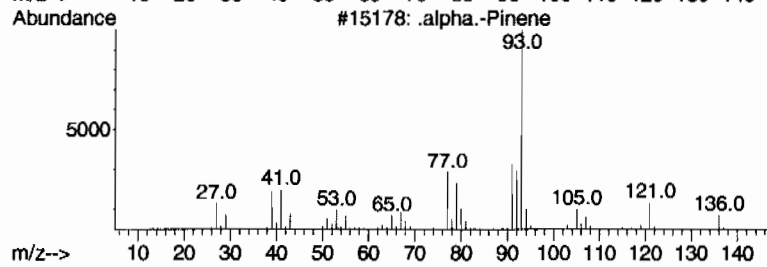
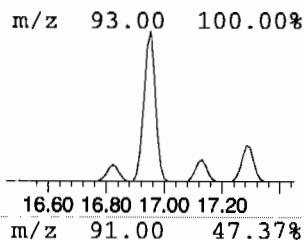
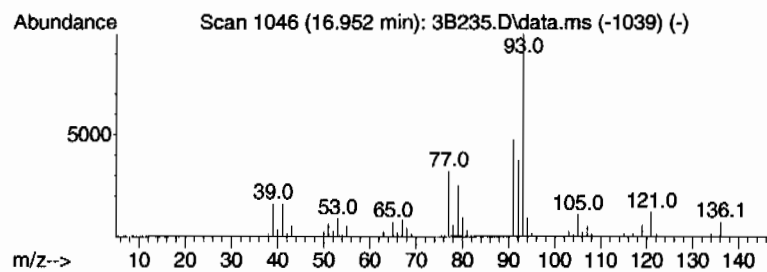
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M  
Quant Title : Volatile Organics 8260B SubList :

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

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

R.T.	EstConc	Area	Relative to ISTD	R.T.
16.952	9.70 ug/L	325221	B Chlorobenzene-d5	15.849

Hit#	of	Tentative ID	MW	MolForm	CAS#	Qual
1	5	.alpha.-Pinene	136	C10H16	000080-56-8	97
2		1R-.alpha.-Pinene	136	C10H16	007785-70-8	95
3		Bicyclo[3.1.1]hept-2-ene, 2,6,6-...	136	C10H16	002437-95-8	95
4		1R-.alpha.-Pinene	136	C10H16	007785-70-8	94
5		Bicyclo[3.1.1]hept-2-ene, 3,6,6-...	136	C10H16	004889-83-2	91





Tentatively Identified Compound (LSC) summary  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030210V3\  
Data File : 3B235.D  
Acq On : 3 Mar 2010 1:56 am  
Operator : CDS1  
Sample : |248012003|959900|1|VOA|1|VOA8260BS|  
Misc : LANL 5G - SOIL  
ALS Vial : 36 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M  
Quant Title : Volatile Organics 8260B SubList :

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

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--			
					#	RT	Resp	Conc
unknown hydroca...	16.952	9.7	ug/L	325221	4	15.849	1676940	50.0

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

SDG Number: 10-2027  
 Lab Sample ID: 248012004

Date Collected: 02/20/2010 12:00  
 Date Received: 02/25/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA3.I  
 Analyst: CDS1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 4.2  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

Client ID: RE36-10-8476  
 Batch ID: 959900  
 Run Date: 03/03/2010 02:26  
 Prep Date: 03/02/2010 17:03  
 Data File: 030210V3\3B236.D

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.04	ug/kg	0.355	1.04
74-87-3	Chloromethane	U	1.04	ug/kg	0.313	1.04
75-01-4	Vinyl chloride	U	1.04	ug/kg	0.313	1.04
74-83-9	Bromomethane	U	1.04	ug/kg	0.313	1.04
75-00-3	Chloroethane	U	1.04	ug/kg	0.313	1.04
75-69-4	Trichlorofluoromethane	U	1.04	ug/kg	0.313	1.04
67-64-1	Acetone	U	5.22	ug/kg	1.73	5.22
75-35-4	1,1-Dichloroethylene	U	1.04	ug/kg	0.313	1.04
74-88-4	Iodomethane	U	5.22	ug/kg	1.67	5.22
75-09-2	Methylene chloride	U	5.22	ug/kg	2.09	5.22
75-15-0	Carbon disulfide	U	5.22	ug/kg	1.30	5.22
156-60-5	trans-1,2-Dichloroethylene	U	1.04	ug/kg	0.313	1.04
75-34-3	1,1-Dichloroethane	U	1.04	ug/kg	0.313	1.04
78-93-3	2-Butanone	U	5.22	ug/kg	1.57	5.22
156-59-2	cis-1,2-Dichloroethylene	U	1.04	ug/kg	0.313	1.04
594-20-7	2,2-Dichloropropane	U	1.04	ug/kg	0.313	1.04
67-66-3	Chloroform	U	1.04	ug/kg	0.313	1.04
74-97-5	Bromochloromethane	U	1.04	ug/kg	0.344	1.04
71-55-6	1,1,1-Trichloroethane	U	1.04	ug/kg	0.313	1.04
563-58-6	1,1-Dichloropropene	U	1.04	ug/kg	0.313	1.04
56-23-5	Carbon tetrachloride	U	1.04	ug/kg	0.313	1.04
107-06-2	1,2-Dichloroethane	U	1.04	ug/kg	0.313	1.04
71-43-2	Benzene	U	1.04	ug/kg	0.313	1.04
79-01-6	Trichloroethylene	U	1.04	ug/kg	0.344	1.04
78-87-5	1,2-Dichloropropane	U	1.04	ug/kg	0.313	1.04
75-27-4	Bromodichloromethane	U	1.04	ug/kg	0.313	1.04
74-95-3	Dibromomethane	U	1.04	ug/kg	0.313	1.04
108-10-1	4-Methyl-2-pentanone	U	5.22	ug/kg	1.30	5.22
10061-01-5	cis-1,3-Dichloropropylene	U	1.04	ug/kg	0.313	1.04
108-88-3	Toluene	U	1.04	ug/kg	0.313	1.04
10061-02-6	trans-1,3-Dichloropropylene	U	1.04	ug/kg	0.313	1.04
79-00-5	1,1,2-Trichloroethane	U	1.04	ug/kg	0.313	1.04
591-78-6	2-Hexanone	U	5.22	ug/kg	1.57	5.22
142-28-9	1,3-Dichloropropane	U	1.04	ug/kg	0.313	1.04
127-18-4	Tetrachloroethylene	U	1.04	ug/kg	0.313	1.04
124-48-1	Dibromochloromethane	U	1.04	ug/kg	0.313	1.04
106-93-4	1,2-Dibromoethane	U	1.04	ug/kg	0.313	1.04
108-90-7	Chlorobenzene	U	1.04	ug/kg	0.313	1.04

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

SDG Number: 10-2027  
 Lab Sample ID: 248012004

Date Collected: 02/20/2010 12:00  
 Date Received: 02/25/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA3.I  
 Analyst: CDS1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 4.2  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

Client ID: RE36-10-8476  
 Batch ID: 959900  
 Run Date: 03/03/2010 02:26  
 Prep Date: 03/02/2010 17:03  
 Data File: 030210V33B236.D

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.04	ug/kg	0.313	1.04
179601-23-1	m,p-Xylenes	U	2.09	ug/kg	0.313	2.09
95-47-6	o-Xylene	U	1.04	ug/kg	0.313	1.04
100-42-5	Styrene	U	1.04	ug/kg	0.313	1.04
75-25-2	Bromoform	U	1.04	ug/kg	0.313	1.04
79-34-5	1,1,2,2-Tetrachloroethane	U	1.04	ug/kg	0.313	1.04
96-18-4	1,2,3-Trichloropropane	U	1.04	ug/kg	0.313	1.04
108-86-1	Bromobenzene	U	1.04	ug/kg	0.313	1.04
103-65-1	n-Propylbenzene	U	1.04	ug/kg	0.313	1.04
95-49-8	2-Chlorotoluene	U	1.04	ug/kg	0.313	1.04
98-82-8	Isopropylbenzene	U	1.04	ug/kg	0.313	1.04
108-67-8	1,3,5-Trimethylbenzene	U	1.04	ug/kg	0.313	1.04
106-43-4	4-Chlorotoluene	U	1.04	ug/kg	0.313	1.04
98-06-6	tert-Butylbenzene	U	1.04	ug/kg	0.313	1.04
95-63-6	1,2,4-Trimethylbenzene	U	1.04	ug/kg	0.313	1.04
135-98-8	sec-Butylbenzene	U	1.04	ug/kg	0.313	1.04
99-87-6	4-Isopropyltoluene	U	1.04	ug/kg	0.313	1.04
541-73-1	1,3-Dichlorobenzene	U	1.04	ug/kg	0.313	1.04
106-46-7	1,4-Dichlorobenzene	U	1.04	ug/kg	0.313	1.04
104-51-8	n-Butylbenzene	U	1.04	ug/kg	0.313	1.04
96-12-8	1,2-Dibromo-3-chloropropane	U	1.04	ug/kg	0.313	1.04
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	5.22	ug/kg	1.67	5.22
630-20-6	1,1,1,2-Tetrachloroethane	U	1.04	ug/kg	0.313	1.04
95-50-1	1,2-Dichlorobenzene	U	1.04	ug/kg	0.313	1.04

**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\030210V3\  
Data File : 3B236.D  
Acq On : 3 Mar 2010 2:26 am  
Operator : CDS1  
InstName : VOA3  
Sample : |248012004|959900|1|VOA|1|VOA8260BS|  
Misc : LANL 5G - SOIL  
ALS Vial : 37 Sample Multiplier: 1

Quant Time: Mar 04 17:33:51 2010  
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 01 09:52:36 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev (Min)
1) Fluorobenzene	12.232	12.232	1.000	96	829662	50.00	ug/L	0.00
41) Chlorobenzene-d5	15.849	15.849	1.000	117	624103	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	18.410	18.410	1.000	152	293402	50.00	ug/L	0.00
82) B Fluorobenzene	12.232	12.232	1.000	96	829470	50.00	ug/L	0.00
103) B Chlorobenzene-d5	15.849	15.849	1.000	117	624103	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	18.410	18.410	1.000	152	299603	50.00	ug/L	0.00
System Monitoring Compounds								Dev (Min)
29) 1,2-Dichloroethane-d4	11.793	11.793	0.964	65	250765	49.28	ug/L	0.00
Spiked Amount 50.000	Range 66	- 134	Recovery	=	98.56%			
43) Toluene-d8	14.165	14.165	0.894	98	860487	51.23	ug/L	0.00
Spiked Amount 50.000	Range 71	- 128	Recovery	=	102.46%			
61) Bromofluorobenzene	17.130	17.130	0.930	95	299429	50.61	ug/L	0.00
Spiked Amount 50.000	Range 65	- 130	Recovery	=	101.22%			
Target Compounds								QValue
2) Dichlorodifluoromethane	0.000	4.800	0.000		0	N.D.		
3) Chloromethane	0.000	5.216	0.000		0	N.D.		
4) Vinyl chloride	0.000	5.528	0.000		0	N.D.		
5) Bromomethane	0.000	6.291	0.000		0	N.D.		
6) Chloroethane	0.000	6.493	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	7.062	0.000		0	N.D.		
8) Ethyl ether	0.000	7.512	0.000		0	N.D.		
9) Acetone	7.999	7.987	0.654	43	793	N.D.		
10) 1,1-Dichloroethylene	0.000	7.987	0.000		0	N.D.		
11) Iodomethane	0.000	8.271	0.000		0	N.D.		
12) Acetonitrile	0.000	8.449	0.000		0	N.D.		
13) Methyl acetate	0.000	8.520	0.000		0	N.D.		
14) Carbon disulfide	8.437	8.449	0.690	76	412	N.D.		
15) Methylene chloride	8.746	8.746	0.715	84	6158	N.D.		
16) tert-Butyl methyl ether	0.000	9.173	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	9.208	0.000		0	N.D.		
18) Vinyl acetate	0.000	9.837	0.000		0	N.D.		
19) 1,1-Dichloroethane	0.000	9.860	0.000		0	N.D.		
20) 2-Butanone	0.000	10.643	0.000		0	N.D.		
21) cis-1,2-Dichloroethylene	0.000	10.691	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	10.714	0.000		0	N.D.		
23) Bromochloromethane	0.000	11.034	0.000		0	N.D.		
24) Chloroform	0.000	11.094	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	11.426	0.000		0	N.D.		
26) Cyclohexane	0.000	11.532	0.000		0	N.D.		
27) 1,1-Dichloropropene	0.000	11.627	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	11.663	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	11.888	0.000		0	N.D.		
31) Benzene	0.000	11.912	0.000		0	N.D.		
32) Cyclohexene	0.000	12.054	0.000		0	N.D.		
33) n-Butyl alcohol	0.000	12.398	0.000		0	N.D.		
34) Trichloroethylene	0.000	12.695	0.000		0	N.D.		
35) 1,2-Dichloropropane	0.000	12.979	0.000		0	N.D.		
36) Methylcyclohexane	0.000	12.991	0.000		0	N.D.		
37) Dibromomethane	0.000	13.133	0.000		0	N.D.		

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030210V3\  
Data File : 3B236.D  
Acq On : 3 Mar 2010 2:26 am  
Operator : CDS1  
InstName : VOA3  
Sample : |248012004|959900|1|VOA|1|VOA8260BS|  
Misc : LANL 5G - SOIL  
ALS Vial : 37 Sample Multiplier: 1

Quant Time: Mar 04 17:33:51 2010  
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 01 09:52:36 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
38) Bromodichloromethane	0.000	13.288	0.000		0	N.D.	
39) 2-Chloroethylvinyl ether	0.000	13.560	0.000		0	N.D.	
40) cis-1,3-Dichloropropylene	0.000	13.809	0.000		0	N.D.	
42) 4-Methyl-2-pentanone	0.000	13.928	0.000		0	N.D.	
44) Toluene	14.248	14.248	0.899	91	802	N.D.	
45) trans-1,3-Dichloroprop...	0.000	14.426	0.000		0	N.D.	
46) 1,1,2-Trichloroethane	0.000	14.675	0.000		0	N.D.	
47) 2-Hexanone	0.000	14.888	0.000		0	N.D.	
48) 1,3-Dichloropropane	0.000	14.888	0.000		0	N.D.	
49) Tetrachloroethylene	0.000	14.912	0.000		0	N.D.	
50) Dibromochloromethane	0.000	15.173	0.000		0	N.D.	
51) 1,2-Dibromoethane	0.000	15.351	0.000		0	N.D.	
52) Chlorobenzene	0.000	15.885	0.000		0	N.D.	
53) 1,1,1,2-Tetrachloroethane	0.000	15.956	0.000		0	N.D.	
54) Ethylbenzene	16.086	15.968	1.015	91	1263	N.D.	
55) m,p-Xylenes	0.000	16.086	0.000		0	N.D.	
56) o-Xylene	0.000	16.549	0.000		0	N.D.	
57) Styrene	0.000	16.549	0.000		0	N.D.	
59) Bromoform	0.000	16.821	0.000		0	N.D.	
60) Isopropylbenzene	0.000	16.928	0.000		0	N.D.	
62) 1,1,2,2-Tetrachloroethane	0.000	17.213	0.000		0	N.D.	
63) 1,2,3-Trichloropropane	0.000	17.308	0.000		0	N.D.	
64) Bromobenzene	0.000	17.343	0.000		0	N.D.	
65) n-Propylbenzene	0.000	17.367	0.000		0	N.D.	
66) 1,3,5-Trimethylbenzene	0.000	17.533	0.000		0	N.D.	
67) 2-Chlorotoluene	0.000	17.521	0.000		0	N.D.	
68) 4-Chlorotoluene	0.000	17.628	0.000		0	N.D.	
69) tert-Butylbenzene	0.000	17.912	0.000		0	N.D.	
70) 1,2,4-Trimethylbenzene	17.960	17.960	0.976	105	395	N.D.	
71) sec-Butylbenzene	0.000	18.150	0.000		0	N.D.	
72) 4-Isopropyltoluene	0.000	18.280	0.000		0	N.D.	
73) 1,3-Dichlorobenzene	0.000	18.351	0.000		0	N.D.	
74) 1,4-Dichlorobenzene	0.000	18.434	0.000		0	N.D.	
75) n-Butylbenzene	0.000	18.742	0.000		0	N.D.	
76) 1,2-Dichlorobenzene	0.000	18.885	0.000		0	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000	19.810	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	0.000	20.936	0.000		0	N.D.	
79) Hexachlorobutadiene	0.000	21.126	0.000		0	N.D.	
80) Naphthalene	21.339	21.351	1.159	128	1138	N.D.	
81) 1,2,3-Trichlorobenzene	0.000	21.719	0.000		0	N.D.	
83) Chlorotrifluoroethylene	0.000	4.711	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000	5.751	0.000		0	N.D.	
85) Acrolein	0.000	7.750	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000	7.975	0.000		0	N.D.	
87) Isopropyl Alcohol	0.000	8.141	0.000		0	N.D.	
88) Allyl chloride	0.000	8.556	0.000		0	N.D.	
89) tert-Butyl Alcohol	0.000	8.793	0.000		0	N.D.	
90) Acrylonitrile	0.000	9.090	0.000		0	N.D.	
91) Isopropyl ether	0.000	9.884	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	0.000	10.003	0.000		0	N.D.	
93) Ethyl tert-butyl ether	0.000	10.406	0.000		0	N.D.	
94) Ethyl acetate	0.000	10.679	0.000		0	N.D.	

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030210V3\  
Data File : 3B236.D  
Acq On : 3 Mar 2010 2:26 am  
Operator : CDS1  
InstName : VOA3  
Sample : |248012004|959900|1|VOA|1|VOA8260BS|  
Misc : LANL 5G - SOIL  
ALS Vial : 37 Sample Multiplier: 1

Quant Time: Mar 04 17:33:51 2010  
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 01 09:52:36 2010  
Response via : Initial Calibration  
Integrator: RTE

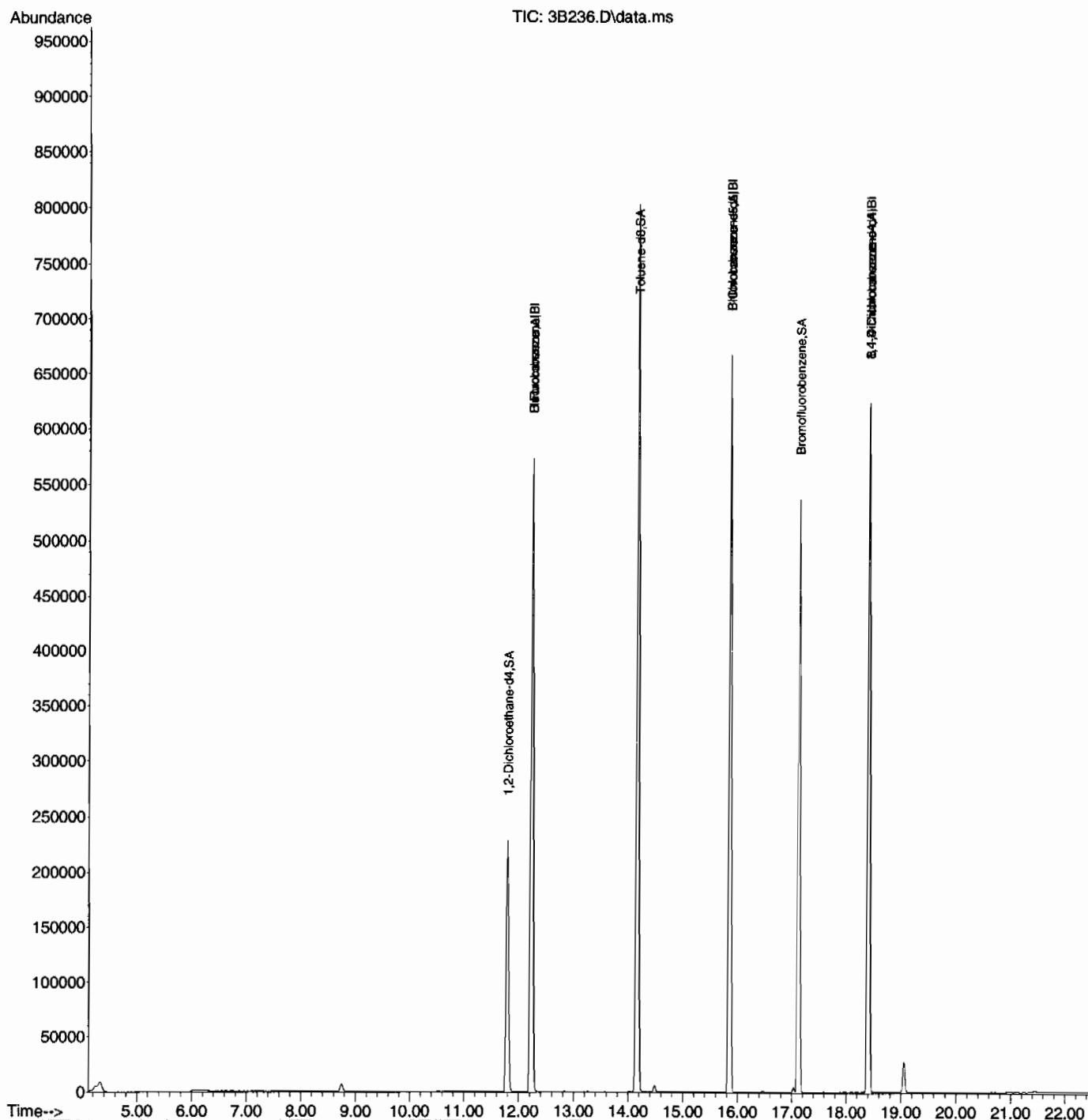
Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95) Propionitrile	0.000	10.726	0.000		0	N.D.	
96) Methacrylonitrile	0.000	10.951	0.000		0	N.D.	
97) Tetrahydrofuran	0.000	11.094	0.000		0	N.D.	
98) Isobutyl alcohol	0.000	11.556	0.000		0	N.D.	
99) Methyl tert-amyl ether	0.000	11.971	0.000		0	N.D.	
100) Methyl methacrylate	0.000	12.991	0.000		0	N.D.	
101) 1,4-Dioxane	0.000	13.098	0.000		0	N.D.	
102) 2-Nitropropane	0.000	13.525	0.000		0	N.D.	
104) Ethyl methacrylate	0.000	14.450	0.000		0	N.D.	
106) 1-Chlorohexane	0.000	15.754	0.000		0m	N.D.	d
107) cis-1,4-Dichloro-2-butene	0.000	16.964	0.000		0	N.D.	
108) Cyclohexanone	0.000	17.082	0.000		0	N.D.	
109) trans-1,4-Dichloro-2-b...	0.000	17.260	0.000		0	N.D.	
110) Pentachloroethane	0.000	17.983	0.000		0	N.D.	
111) Benzyl chloride	0.000	18.553	0.000		0m	N.D.	d
112) bis(2-Chloroisopropyl)...	19.051	18.980	1.035	45	1772	N.D.	

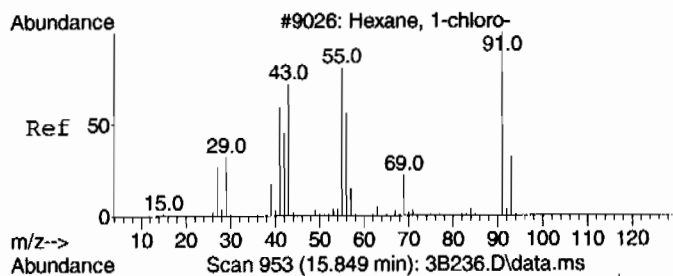
(#) = qualifier out of range (m) = manual integration (+) = signals summed  
(E) = Over the calibration range (d) = deleted

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030210V3\  
Data File : 3B236.D  
Acq On : 3 Mar 2010 2:26 am  
Operator : CDS1  
InstName : VOA3  
Sample : |248012004|959900|1|VOA|1|VOA8260BS|  
Misc : LANL 5G - SOIL  
ALS Vial : 37 Sample Multiplier: 1

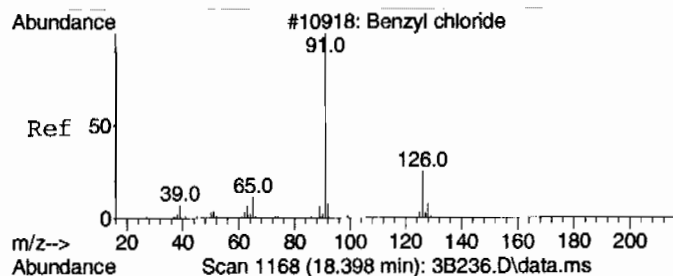
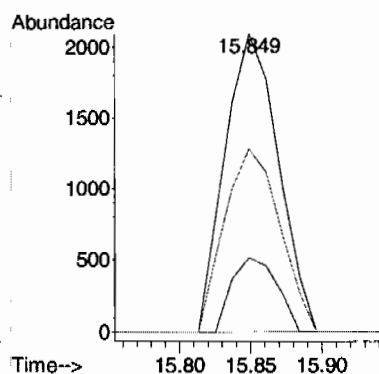
Quant Time: Mar 04 17:33:51 2010  
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 01 09:52:36 2010  
Response via : Initial Calibration  
Integrator: RTE





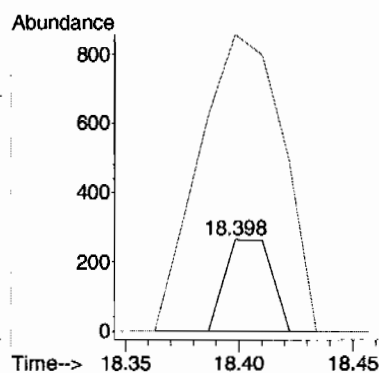
#106 BEFORE analyst DELETION  
1-Chlorohexane  
Concen: 2.01 ug/L  
RT: 15.849 min Scan# 953  
Delta R.T. 0.095 min  
Lab File: 3B236.D  
Acq: 3 Mar 2010 2:26 am

Tgt Ion: 55 Resp: 5444  
Ion Ratio Lower Upper  
55 100  
91 20.9 119.7 179.7#  
56 63.4 29.6 89.6



#111 BEFORE analyst DELETION  
Benzyl chloride  
Concen: 1.67 ug/L  
RT: 18.398 min Scan# 1168  
Delta R.T. -0.154 min  
Lab File: 3B236.D  
Acq: 3 Mar 2010 2:26 am

Tgt Ion: 91 Resp: 374  
Ion Ratio Lower Upper  
91 100  
126 0.0 0.0 51.8  
65 584.0 0.0 41.3#





Library Search Compound Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030210V3\  
Data File : 3B236.D  
Acq On : 3 Mar 2010 2:26 am  
Operator : CDS1  
Sample : |248012004|959900|1|VOA|1|VOA8260BS|  
Misc : LANL 5G - SOIL  
ALS Vial : 37 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.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\030210V3\  
Data File : 3B236.D  
Acq On : 3 Mar 2010 2:26 am  
Operator : CDS1  
Sample : |248012004|959900|1|VOA|1|VOA8260BS|  
Misc : LANL 5G - SOIL  
ALS Vial : 37 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.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: 10-2027  
 Lab Sample ID: 248012005

Date Collected: 02/20/2010 12:00  
 Date Received: 02/25/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA3.I  
 Analyst: CDS1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 10.8  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

Client ID: RE36-10-8480  
 Batch ID: 959900  
 Run Date: 03/03/2010 02:55  
 Prep Date: 03/02/2010 17:04  
 Data File: 030210V3\3B237.D

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.12	ug/kg	0.381	1.12
74-87-3	Chloromethane	U	1.12	ug/kg	0.336	1.12
75-01-4	Vinyl chloride	U	1.12	ug/kg	0.336	1.12
74-83-9	Bromomethane	U	1.12	ug/kg	0.336	1.12
75-00-3	Chloroethane	U	1.12	ug/kg	0.336	1.12
75-69-4	Trichlorofluoromethane	U	1.12	ug/kg	0.336	1.12
67-64-1	Acetone	U	5.61	ug/kg	1.86	5.61
75-35-4	1,1-Dichloroethylene	U	1.12	ug/kg	0.336	1.12
74-88-4	Iodomethane	U	5.61	ug/kg	1.79	5.61
75-09-2	Methylene chloride	U	5.61	ug/kg	2.24	5.61
75-15-0	Carbon disulfide	U	5.61	ug/kg	1.40	5.61
156-60-5	trans-1,2-Dichloroethylene	U	1.12	ug/kg	0.336	1.12
75-34-3	1,1-Dichloroethane	U	1.12	ug/kg	0.336	1.12
78-93-3	2-Butanone	U	5.61	ug/kg	1.68	5.61
156-59-2	cis-1,2-Dichloroethylene	U	1.12	ug/kg	0.336	1.12
594-20-7	2,2-Dichloropropane	U	1.12	ug/kg	0.336	1.12
67-66-3	Chloroform	U	1.12	ug/kg	0.336	1.12
74-97-5	Bromochloromethane	U	1.12	ug/kg	0.370	1.12
71-55-6	1,1,1-Trichloroethane	U	1.12	ug/kg	0.336	1.12
563-58-6	1,1-Dichloropropene	U	1.12	ug/kg	0.336	1.12
56-23-5	Carbon tetrachloride	U	1.12	ug/kg	0.336	1.12
107-06-2	1,2-Dichloroethane	U	1.12	ug/kg	0.336	1.12
71-43-2	Benzene	U	1.12	ug/kg	0.336	1.12
79-01-6	Trichloroethylene	U	1.12	ug/kg	0.370	1.12
78-87-5	1,2-Dichloropropane	U	1.12	ug/kg	0.336	1.12
75-27-4	Bromodichloromethane	U	1.12	ug/kg	0.336	1.12
74-95-3	Dibromomethane	U	1.12	ug/kg	0.336	1.12
108-10-1	4-Methyl-2-pentanone	U	5.61	ug/kg	1.40	5.61
10061-01-5	cis-1,3-Dichloropropylene	U	1.12	ug/kg	0.336	1.12
108-88-3	Toluene	U	1.12	ug/kg	0.336	1.12
10061-02-6	trans-1,3-Dichloropropylene	U	1.12	ug/kg	0.336	1.12
79-00-5	1,1,2-Trichloroethane	U	1.12	ug/kg	0.336	1.12
591-78-6	2-Hexanone	U	5.61	ug/kg	1.68	5.61
142-28-9	1,3-Dichloropropane	U	1.12	ug/kg	0.336	1.12
127-18-4	Tetrachloroethylene	U	1.12	ug/kg	0.336	1.12
124-48-1	Dibromochloromethane	U	1.12	ug/kg	0.336	1.12
106-93-4	1,2-Dibromoethane	U	1.12	ug/kg	0.336	1.12
108-90-7	Chlorobenzene	U	1.12	ug/kg	0.336	1.12

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

SDG Number: 10-2027  
 Lab Sample ID: 248012005

Client ID: RE36-10-8480  
 Batch ID: 959900  
 Run Date: 03/03/2010 02:55  
 Prep Date: 03/02/2010 17:04  
 Data File: 030210V3\3B237.D

Date Collected: 02/20/2010 12:00  
 Date Received: 02/25/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA3.I  
 Analyst: CDS1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 10.8  
 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	1.12	ug/kg	0.336	1.12
179601-23-1	m,p-Xylenes	U	2.24	ug/kg	0.336	2.24
95-47-6	o-Xylene	U	1.12	ug/kg	0.336	1.12
100-42-5	Styrene	U	1.12	ug/kg	0.336	1.12
75-25-2	Bromoform	U	1.12	ug/kg	0.336	1.12
79-34-5	1,1,2,2-Tetrachloroethane	U	1.12	ug/kg	0.336	1.12
96-18-4	1,2,3-Trichloropropane	U	1.12	ug/kg	0.336	1.12
108-86-1	Bromobenzene	U	1.12	ug/kg	0.336	1.12
103-65-1	n-Propylbenzene	U	1.12	ug/kg	0.336	1.12
95-49-8	2-Chlorotoluene	U	1.12	ug/kg	0.336	1.12
98-82-8	Isopropylbenzene	U	1.12	ug/kg	0.336	1.12
108-67-8	1,3,5-Trimethylbenzene	U	1.12	ug/kg	0.336	1.12
106-43-4	4-Chlorotoluene	U	1.12	ug/kg	0.336	1.12
98-06-6	tert-Butylbenzene	U	1.12	ug/kg	0.336	1.12
95-63-6	1,2,4-Trimethylbenzene	U	1.12	ug/kg	0.336	1.12
135-98-8	sec-Butylbenzene	U	1.12	ug/kg	0.336	1.12
99-87-6	4-Isopropyltoluene	U	1.12	ug/kg	0.336	1.12
541-73-1	1,3-Dichlorobenzene	U	1.12	ug/kg	0.336	1.12
106-46-7	1,4-Dichlorobenzene	U	1.12	ug/kg	0.336	1.12
104-51-8	n-Butylbenzene	U	1.12	ug/kg	0.336	1.12
96-12-8	1,2-Dibromo-3-chloropropane	U	1.12	ug/kg	0.336	1.12
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	5.61	ug/kg	1.79	5.61
630-20-6	1,1,1,2-Tetrachloroethane	U	1.12	ug/kg	0.336	1.12
95-50-1	1,2-Dichlorobenzene	U	1.12	ug/kg	0.336	1.12

**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\030210V3\  
Data File : 3B237.D  
Acq On : 3 Mar 2010 2:55 am  
Operator : CDS1  
InstName : VOA3  
Sample : |248012005|959900|1|VOA|1|VOA8260BS|  
Misc : LANL 5G - SOIL  
ALS Vial : 38 Sample Multiplier: 1

Quant Time: Mar 04 17:34:19 2010  
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 01 09:52:36 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	12.232	12.232	1.000	96	824285	50.00	ug/L	0.00
41) Chlorobenzene-d5	15.849	15.849	1.000	117	614579	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	18.411	18.410	1.000	152	292403	50.00	ug/L	0.00
82) B Fluorobenzene	12.232	12.232	1.000	96	824144	50.00	ug/L	0.00
103) B Chlorobenzene-d5	15.849	15.849	1.000	117	614579	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	18.411	18.410	1.000	152	298464	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	11.794	11.793	0.964	65	249962	49.45	ug/L	0.00
Spiked Amount	50.000	Range 66 - 134	Recovery	=	98.90%			
43) Toluene-d8	14.165	14.165	0.894	98	855635	51.73	ug/L	0.00
Spiked Amount	50.000	Range 71 - 128	Recovery	=	103.46%			
61) Bromofluorobenzene	17.130	17.130	0.930	95	298254	50.59	ug/L	0.00
Spiked Amount	50.000	Range 65 - 130	Recovery	=	101.18%			
Target Compounds								QValue
2) Dichlorodifluoromethane	0.000	4.800	0.000		0	N.D.		
3) Chloromethane	0.000	5.216	0.000		0	N.D.		
4) Vinyl chloride	0.000	5.528	0.000		0	N.D.		
5) Bromomethane	0.000	6.291	0.000		0	N.D.		
6) Chloroethane	0.000	6.493	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	7.062	0.000		0	N.D.		
8) Ethyl ether	0.000	7.512	0.000		0	N.D.		
9) Acetone	7.999	7.987	0.654	43	2585	N.D.		
10) 1,1-Dichloroethylene	0.000	7.987	0.000		0	N.D.		
11) Iodomethane	0.000	8.271	0.000		0	N.D.		
12) Acetonitrile	0.000	8.449	0.000		0	N.D.		
13) Methyl acetate	0.000	8.520	0.000		0	N.D.		
14) Carbon disulfide	8.426	8.449	0.689	76	594	N.D.		
15) Methylene chloride	8.746	8.746	0.715	84	6936	N.D.		
16) tert-Butyl methyl ether	0.000	9.173	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	9.208	0.000		0	N.D.		
18) Vinyl acetate	0.000	9.837	0.000		0	N.D.		
19) 1,1-Dichloroethane	0.000	9.860	0.000		0	N.D.		
20) 2-Butanone	0.000	10.643	0.000		0	N.D.		
21) cis-1,2-Dichloroethylene	0.000	10.691	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	10.714	0.000		0	N.D.		
23) Bromochloromethane	0.000	11.034	0.000		0	N.D.		
24) Chloroform	0.000	11.094	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	11.426	0.000		0	N.D.		
26) Cyclohexane	0.000	11.532	0.000		0	N.D.		
27) 1,1-Dichloropropene	0.000	11.627	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	11.663	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	11.888	0.000		0	N.D.		
31) Benzene	0.000	11.912	0.000		0	N.D.		
32) Cyclohexene	0.000	12.054	0.000		0	N.D.		
33) n-Butyl alcohol	0.000	12.398	0.000		0	N.D.		
34) Trichloroethylene	0.000	12.695	0.000		0	N.D.		
35) 1,2-Dichloropropane	0.000	12.979	0.000		0	N.D.		
36) Methylcyclohexane	0.000	12.991	0.000		0	N.D.		
37) Dibromomethane	0.000	13.133	0.000		0	N.D.		

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030210V3\  
Data File : 3B237.D  
Acq On : 3 Mar 2010 2:55 am  
Operator : CDS1  
InstName : VOA3  
Sample : |248012005|959900|1|VOA|1|VOA8260BS|  
Misc : LANL 5G - SOIL  
ALS Vial : 38 Sample Multiplier: 1

Quant Time: Mar 04 17:34:19 2010  
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 01 09:52:36 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
38) Bromodichloromethane	0.000	13.288	0.000		0	N.D.	
39) 2-Chloroethylvinyl ether	0.000	13.560	0.000		0	N.D.	
40) cis-1,3-Dichloropropylene	0.000	13.809	0.000		0	N.D.	
42) 4-Methyl-2-pentanone	0.000	13.928	0.000		0	N.D.	
44) Toluene	14.248	14.248	0.899	91	730	N.D.	
45) trans-1,3-Dichloroprop...	0.000	14.426	0.000		0	N.D.	
46) 1,1,2-Trichloroethane	0.000	14.675	0.000		0	N.D.	
47) 2-Hexanone	0.000	14.888	0.000		0	N.D.	
48) 1,3-Dichloropropane	0.000	14.888	0.000		0	N.D.	
49) Tetrachloroethylene	0.000	14.912	0.000		0	N.D.	
50) Dibromochloromethane	0.000	15.173	0.000		0	N.D.	
51) 1,2-Dibromoethane	0.000	15.351	0.000		0	N.D.	
52) Chlorobenzene	0.000	15.885	0.000		0	N.D.	
53) 1,1,1,2-Tetrachloroethane	0.000	15.956	0.000		0	N.D.	
54) Ethylbenzene	16.086	15.968	1.015	91	884	N.D.	
55) m,p-Xylenes	0.000	16.086	0.000		0	N.D.	
56) o-Xylene	0.000	16.549	0.000		0	N.D.	
57) Styrene	0.000	16.549	0.000		0	N.D.	
59) Bromoform	0.000	16.821	0.000		0	N.D.	
60) Isopropylbenzene	0.000	16.928	0.000		0	N.D.	
62) 1,1,2,2-Tetrachloroethane	0.000	17.213	0.000		0	N.D.	
63) 1,2,3-Trichloropropane	0.000	17.308	0.000		0	N.D.	
64) Bromobenzene	0.000	17.343	0.000		0	N.D.	
65) n-Propylbenzene	0.000	17.367	0.000		0	N.D.	
66) 1,3,5-Trimethylbenzene	0.000	17.533	0.000		0	N.D.	
67) 2-Chlorotoluene	0.000	17.521	0.000		0	N.D.	
68) 4-Chlorotoluene	0.000	17.628	0.000		0	N.D.	
69) tert-Butylbenzene	0.000	17.912	0.000		0	N.D.	
70) 1,2,4-Trimethylbenzene	0.000	17.960	0.000		0	N.D.	
71) sec-Butylbenzene	0.000	18.150	0.000		0	N.D.	
72) 4-Isopropyltoluene	0.000	18.280	0.000		0	N.D.	
73) 1,3-Dichlorobenzene	0.000	18.351	0.000		0	N.D.	
74) 1,4-Dichlorobenzene	0.000	18.434	0.000		0	N.D.	
75) n-Butylbenzene	0.000	18.742	0.000		0	N.D.	
76) 1,2-Dichlorobenzene	0.000	18.885	0.000		0	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000	19.810	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	0.000	20.936	0.000		0	N.D.	
79) Hexachlorobutadiene	0.000	21.126	0.000		0	N.D.	
80) Naphthalene	21.352	21.351	1.160	128	1015	N.D.	
81) 1,2,3-Trichlorobenzene	0.000	21.719	0.000		0	N.D.	
83) Chlorotrifluoroethylene	0.000	4.711	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000	5.751	0.000		0	N.D.	
85) Acrolein	0.000	7.750	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000	7.975	0.000		0	N.D.	
87) Isopropyl Alcohol	0.000	8.141	0.000		0	N.D.	
88) Allyl chloride	0.000	8.556	0.000		0	N.D.	
89) tert-Butyl Alcohol	0.000	8.793	0.000		0	N.D.	
90) Acrylonitrile	0.000	9.090	0.000		0	N.D.	
91) Isopropyl ether	0.000	9.884	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	0.000	10.003	0.000		0	N.D.	
93) Ethyl tert-butyl ether	0.000	10.406	0.000		0	N.D.	
94) Ethyl acetate	0.000	10.679	0.000		0	N.D.	

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030210V3\  
Data File : 3B237.D  
Acq On : 3 Mar 2010 2:55 am  
Operator : CDS1  
InstName : VOA3  
Sample : |248012005|959900|1|VOA|1|VOA8260BS|  
Misc : LANL 5G - SOIL  
ALS Vial : 38 Sample Multiplier: 1

Quant Time: Mar 04 17:34:19 2010  
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 01 09:52:36 2010  
Response via : Initial Calibration  
Integrator: RTE

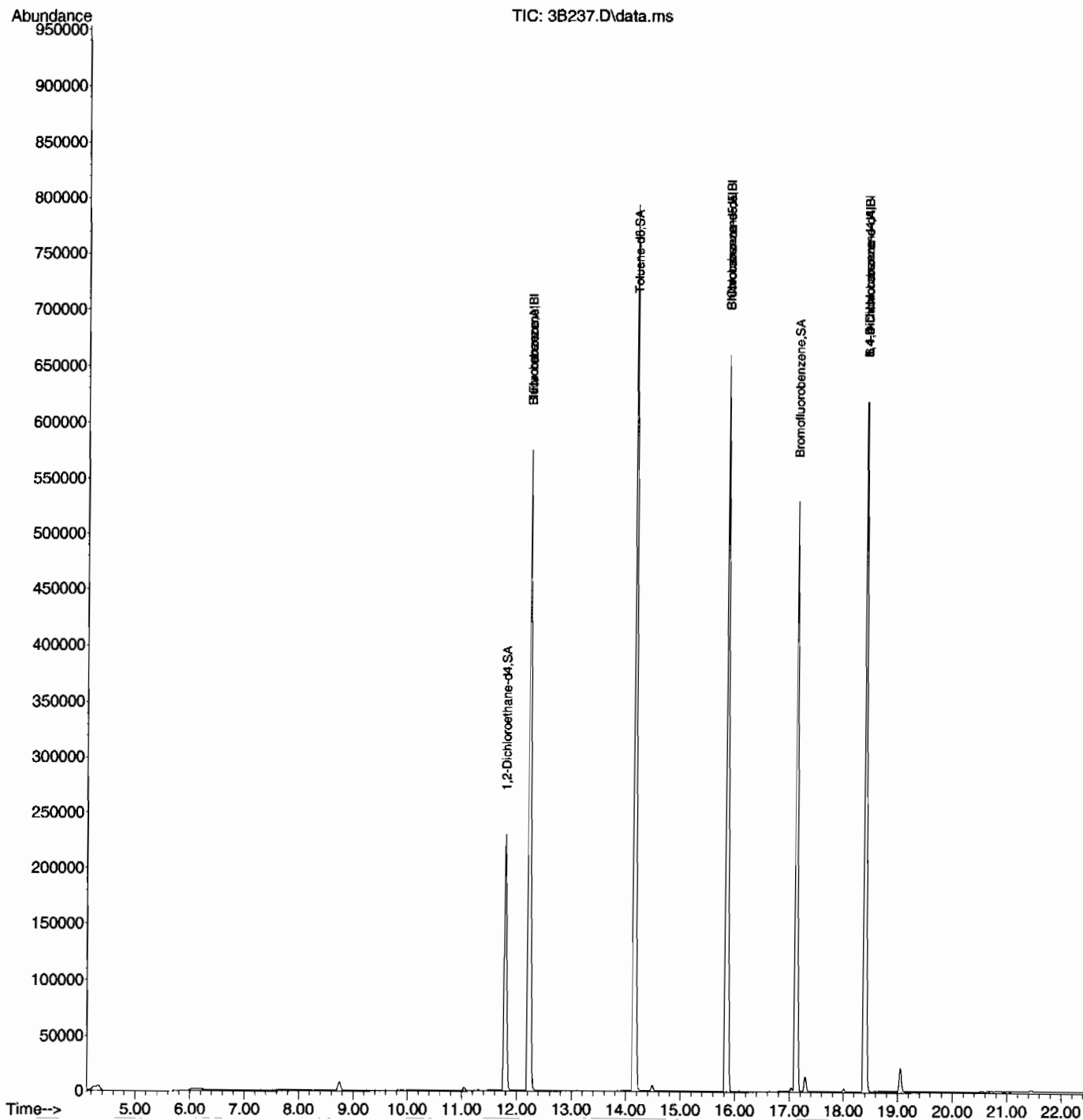
Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95) Propionitrile	0.000	10.726	0.000		0	N.D.	
96) Methacrylonitrile	0.000	10.951	0.000		0	N.D.	
97) Tetrahydrofuran	0.000	11.094	0.000		0	N.D.	
98) Isobutyl alcohol	0.000	11.556	0.000		0	N.D.	
99) Methyl tert-amyl ether	0.000	11.971	0.000		0	N.D.	
100) Methyl methacrylate	0.000	12.991	0.000		0	N.D.	
101) 1,4-Dioxane	0.000	13.098	0.000		0	N.D.	
102) 2-Nitropropane	0.000	13.525	0.000		0	N.D.	
104) Ethyl methacrylate	0.000	14.450	0.000		0	N.D.	
106) 1-Chlorohexane	0.000	15.754	0.000		0m	N.D.	d
107) cis-1,4-Dichloro-2-butene	0.000	16.964	0.000		0	N.D.	
108) Cyclohexanone	0.000	17.082	0.000		0	N.D.	
109) trans-1,4-Dichloro-2-b...	17.284	17.260	0.939	53	619	N.D.	
110) Pentachloroethane	0.000	17.983	0.000		0	N.D.	
111) Benzyl chloride	0.000	18.553	0.000		0m	N.D.	d
112) bis(2-Chloroisopropyl)...	19.051	18.980	1.035	45	1335	N.D.	

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

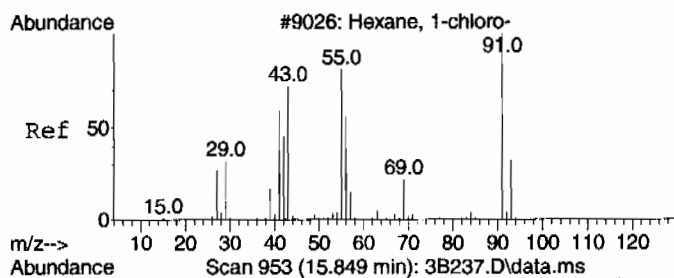
Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030210V3\  
Data File : 3B237.D  
Acq On : 3 Mar 2010 2:55 am  
Operator : CDS1  
InstName : VOA3  
Sample : |248012005|959900|1|VOA|1|VOA8260BS|  
Misc : LANL 5G - SOIL  
ALS Vial : 38 Sample Multiplier: 1

Quant Time: Mar 04 17:34:19 2010  
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 01 09:52:36 2010  
Response via : Initial Calibration  
Integrator: RTE

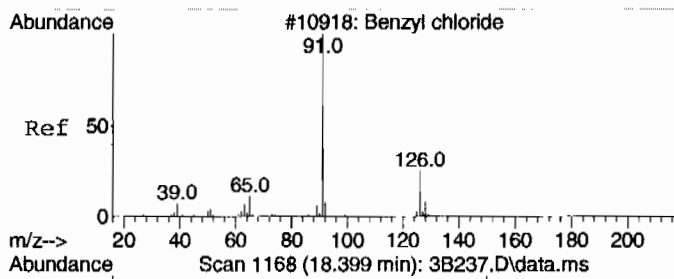
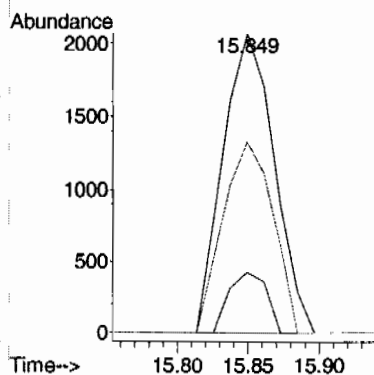
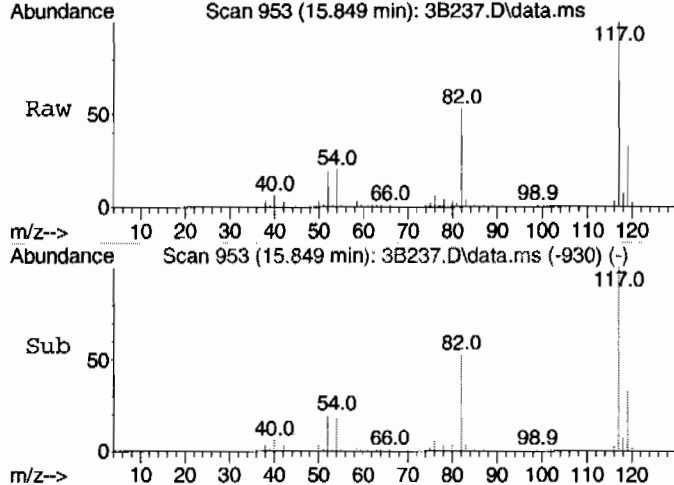






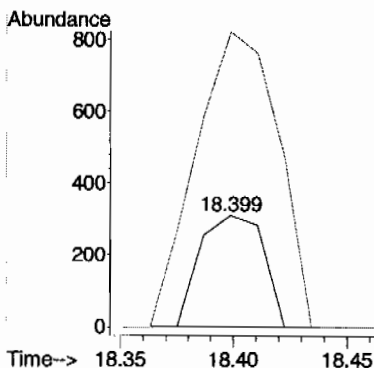
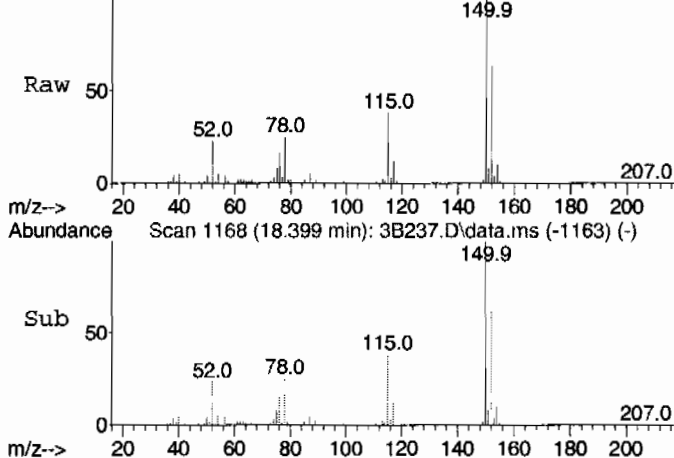
#106 BEFORE analyst DELETION  
1-Chlorohexane  
Concen: 1.93 ug/L  
RT: 15.849 min Scan# 953  
Delta R.T. 0.095 min  
Lab File: 3B237.D  
Acq: 3 Mar 2010 2:55 am

Tgt Ion: 55 Resp: 5213  
Ion Ratio Lower Upper  
55 100  
91 15.0 119.7 179.7#  
56 62.6 29.6 89.6



#111 BEFORE analyst DELETION  
Benzyl chloride  
Concen: 1.72 ug/L  
RT: 18.399 min Scan# 1168  
Delta R.T. -0.154 min  
Lab File: 3B237.D  
Acq: 3 Mar 2010 2:55 am

Tgt Ion: 91 Resp: 604  
Ion Ratio Lower Upper  
91 100  
126 0.0 0.0 51.8  
65 343.0 0.0 41.3#



Library Search Compound Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030210V3\

Data File : 3B237.D

Acq On : 3 Mar 2010 2:55 am

Operator : CDS1

Sample : |248012005|959900|1|VOA|1|VOA8260BS|

Misc : LANL 5G - SOIL

ALS Vial : 38 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.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\030210V3\  
Data File : 3B237.D  
Acq On : 3 Mar 2010 2:55 am  
Operator : CDS1  
Sample : |248012005|959900|1|VOA|1|VOA8260BS|  
Misc : LANL 5G - SOIL  
ALS Vial : 38 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.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: 10-2027  
 Lab Sample ID: 248012007  
  
 Client ID: RE36-10-8478  
 Batch ID: 959900  
 Run Date: 03/03/2010 03:24  
 Prep Date: 03/02/2010 17:05  
 Data File: 030210V3\3B238.D

Date Collected: 02/20/2010 12:00  
 Date Received: 02/25/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA3.I  
 Analyst: CDS1  
 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	5.25	ug/kg	1.74	5.25
75-35-4	1,1-Dichloroethylene	U	1.05	ug/kg	0.315	1.05
74-88-4	Iodomethane	U	5.25	ug/kg	1.68	5.25
75-09-2	Methylene chloride	U	5.25	ug/kg	2.10	5.25
75-15-0	Carbon disulfide	U	5.25	ug/kg	1.31	5.25
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	5.25	ug/kg	1.57	5.25
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	5.25	ug/kg	1.31	5.25
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	5.25	ug/kg	1.57	5.25
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

Page 2 of 2

SDG Number: 10-2027  
Lab Sample ID: 248012007

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8260B  
Inst: VOA3.1  
Analyst: CDS1  
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: RE36-10-8478  
Batch ID: 959900  
Run Date: 03/03/2010 03:24  
Prep Date: 03/02/2010 17:05  
Data File: 030210V33B238.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	5.25	ug/kg	1.68	5.25
	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\030210V3\  
Data File : 3B238.D  
Acq On : 3 Mar 2010 3:24 am  
Operator : CDS1  
InstName : VOA3  
Sample : |248012007|959900|1|VOA|1|VOA8260BS|  
Misc : LANL 5G - SOIL  
ALS Vial : 39 Sample Multiplier: 1

Quant Time: Mar 04 17:34:39 2010  
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 01 09:52:36 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	12.232	12.232	1.000	96	780870	50.00	ug/L	0.00
41) Chlorobenzene-d5	15.849	15.849	1.000	117	594860	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	18.410	18.410	1.000	152	285288	50.00	ug/L	0.00
82) B Fluorobenzene	12.232	12.232	1.000	96	780531	50.00	ug/L	0.00
103) B Chlorobenzene-d5	15.849	15.849	1.000	117	594860	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	18.410	18.410	1.000	152	290657	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	11.793	11.793	0.964	65	244883	51.13	ug/L	0.00
Spiked Amount 50.000	Range 66	- 134	Recovery	=	102.26%			
43) Toluene-d8	14.165	14.165	0.894	98	812474	50.75	ug/L	0.00
Spiked Amount 50.000	Range 71	- 128	Recovery	=	101.50%			
61) Bromofluorobenzene	17.130	17.130	0.930	95	288582	50.17	ug/L	0.00
Spiked Amount 50.000	Range 65	- 130	Recovery	=	100.34%			
Target Compounds								QValue
2) Dichlorodifluoromethane	0.000	4.800	0.000		0	N.D.		
3) Chloromethane	0.000	5.216	0.000		0	N.D.		
4) Vinyl chloride	0.000	5.528	0.000		0	N.D.		
5) Bromomethane	0.000	6.291	0.000		0	N.D.		
6) Chloroethane	0.000	6.493	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	7.062	0.000		0	N.D.		
8) Ethyl ether	0.000	7.512	0.000		0	N.D.		
9) Acetone	8.010	7.987	0.655	43	641	N.D.		
10) 1,1-Dichloroethylene	0.000	7.987	0.000		0	N.D.		
11) Iodomethane	0.000	8.271	0.000		0	N.D.		
12) Acetonitrile	0.000	8.449	0.000		0	N.D.		
13) Methyl acetate	0.000	8.520	0.000		0	N.D.		
14) Carbon disulfide	8.426	8.449	0.689	76	384	N.D.		
15) Methylene chloride	8.746	8.746	0.715	84	6703	N.D.		
16) tert-Butyl methyl ether	0.000	9.173	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	9.208	0.000		0	N.D.		
18) Vinyl acetate	0.000	9.837	0.000		0	N.D.		
19) 1,1-Dichloroethane	0.000	9.860	0.000		0	N.D.		
20) 2-Butanone	0.000	10.643	0.000		0	N.D.		
21) cis-1,2-Dichloroethylene	0.000	10.691	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	10.714	0.000		0	N.D.		
23) Bromochloromethane	0.000	11.034	0.000		0	N.D.		
24) Chloroform	0.000	11.094	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	11.426	0.000		0	N.D.		
26) Cyclohexane	0.000	11.532	0.000		0	N.D.		
27) 1,1-Dichloropropene	0.000	11.627	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	11.663	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	11.888	0.000		0	N.D.		
31) Benzene	0.000	11.912	0.000		0	N.D.		
32) Cyclohexene	0.000	12.054	0.000		0	N.D.		
33) n-Butyl alcohol	0.000	12.398	0.000		0	N.D.		
34) Trichloroethylene	0.000	12.695	0.000		0	N.D.		
35) 1,2-Dichloropropane	0.000	12.979	0.000		0	N.D.		
36) Methylcyclohexane	0.000	12.991	0.000		0	N.D.		
37) Dibromomethane	0.000	13.133	0.000		0	N.D.		

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030210V3\  
Data File : 3B238.D  
Acq On : 3 Mar 2010 3:24 am  
Operator : CDS1  
InstName : VOA3  
Sample : |248012007|959900|1|VOA|1|VOA8260BS|  
Misc : LANL 5G - SOIL  
ALS Vial : 39 Sample Multiplier: 1

Quant Time: Mar 04 17:34:39 2010  
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 01 09:52:36 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
38) Bromodichloromethane	0.000	13.288	0.000		0	N.D.	
39) 2-Chloroethylvinyl ether	0.000	13.560	0.000		0	N.D.	
40) cis-1,3-Dichloropropylene	0.000	13.809	0.000		0	N.D.	
42) 4-Methyl-2-pentanone	0.000	13.928	0.000		0	N.D.	
44) Toluene	14.248	14.248	0.899	91	658	N.D.	
45) trans-1,3-Dichloroprop...	0.000	14.426	0.000		0	N.D.	
46) 1,1,2-Trichloroethane	0.000	14.675	0.000		0	N.D.	
47) 2-Hexanone	0.000	14.888	0.000		0	N.D.	
48) 1,3-Dichloropropane	0.000	14.888	0.000		0	N.D.	
49) Tetrachloroethylene	0.000	14.912	0.000		0	N.D.	
50) Dibromochloromethane	0.000	15.173	0.000		0	N.D.	
51) 1,2-Dibromoethane	0.000	15.351	0.000		0	N.D.	
52) Chlorobenzene	0.000	15.885	0.000		0	N.D.	
53) 1,1,1,2-Tetrachloroethane	0.000	15.956	0.000		0	N.D.	
54) Ethylbenzene	16.086	15.968	1.015	91	1042	N.D.	
55) m,p-Xylenes	0.000	16.086	0.000		0	N.D.	
56) o-Xylene	0.000	16.549	0.000		0	N.D.	
57) Styrene	0.000	16.549	0.000		0	N.D.	
59) Bromoform	0.000	16.821	0.000		0	N.D.	
60) Isopropylbenzene	0.000	16.928	0.000		0	N.D.	
62) 1,1,2,2-Tetrachloroethane	0.000	17.213	0.000		0	N.D.	
63) 1,2,3-Trichloropropane	0.000	17.308	0.000		0	N.D.	
64) Bromobenzene	0.000	17.343	0.000		0	N.D.	
65) n-Propylbenzene	17.485	17.367	0.950	91	3539	N.D.	
66) 1,3,5-Trimethylbenzene	0.000	17.533	0.000		0	N.D.	
67) 2-Chlorotoluene	0.000	17.521	0.000		0	N.D.	
68) 4-Chlorotoluene	0.000	17.628	0.000		0	N.D.	
69) tert-Butylbenzene	0.000	17.912	0.000		0	N.D.	
70) 1,2,4-Trimethylbenzene	0.000	17.960	0.000		0	N.D.	
71) sec-Butylbenzene	0.000	18.150	0.000		0	N.D.	
72) 4-Isopropyltoluene	0.000	18.280	0.000		0	N.D.	
73) 1,3-Dichlorobenzene	0.000	18.351	0.000		0	N.D.	
74) 1,4-Dichlorobenzene	0.000	18.434	0.000		0	N.D.	
75) n-Butylbenzene	0.000	18.742	0.000		0	N.D.	
76) 1,2-Dichlorobenzene	0.000	18.885	0.000		0	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000	19.810	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	0.000	20.936	0.000		0	N.D.	
79) Hexachlorobutadiene	0.000	21.126	0.000		0	N.D.	
80) Naphthalene	21.351	21.351	1.160	128	1035	N.D.	
81) 1,2,3-Trichlorobenzene	0.000	21.719	0.000		0	N.D.	
83) Chlorotrifluoroethylene	0.000	4.711	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000	5.751	0.000		0	N.D.	
85) Acrolein	0.000	7.750	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000	7.975	0.000		0	N.D.	
87) Isopropyl Alcohol	0.000	8.141	0.000		0	N.D.	
88) Allyl chloride	0.000	8.556	0.000		0	N.D.	
89) tert-Butyl Alcohol	0.000	8.793	0.000		0	N.D.	
90) Acrylonitrile	0.000	9.090	0.000		0	N.D.	
91) Isopropyl ether	0.000	9.884	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	0.000	10.003	0.000		0	N.D.	
93) Ethyl tert-butyl ether	0.000	10.406	0.000		0	N.D.	
94) Ethyl acetate	0.000	10.679	0.000		0	N.D.	

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030210V3\  
Data File : 3B238.D  
Acq On : 3 Mar 2010 3:24 am  
Operator : CDS1  
InstName : VOA3  
Sample : |248012007|959900|1|VOA|1|VOA8260BS|  
Misc : LANL 5G - SOIL  
ALS Vial : 39 Sample Multiplier: 1

Quant Time: Mar 04 17:34:39 2010  
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 01 09:52:36 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95) Propionitrile	0.000	10.726	0.000		0	N.D.	
96) Methacrylonitrile	0.000	10.951	0.000		0	N.D.	
97) Tetrahydrofuran	0.000	11.094	0.000		0	N.D.	
98) Isobutyl alcohol	0.000	11.556	0.000		0	N.D.	
99) Methyl tert-amyl ether	0.000	11.971	0.000		0	N.D.	
100) Methyl methacrylate	0.000	12.991	0.000		0	N.D.	
101) 1,4-Dioxane	0.000	13.098	0.000		0	N.D.	
102) 2-Nitropropane	0.000	13.525	0.000		0	N.D.	
104) Ethyl methacrylate	0.000	14.450	0.000		0	N.D.	
106) 1-Chlorohexane	0.000	15.754	0.000		0m	N.D.	d
107) cis-1,4-Dichloro-2-butene	0.000	16.964	0.000		0	N.D.	
108) Cyclohexanone	0.000	17.082	0.000		0	N.D.	
109) trans-1,4-Dichloro-2-b...	0.000	17.260	0.000		0	N.D.	
110) Pentachloroethane	0.000	17.983	0.000		0	N.D.	
111) Benzyl chloride	0.000	18.553	0.000		0m	N.D.	d
112) bis(2-Chloroisopropyl)...	0.000	18.980	0.000		0m	N.D.	d

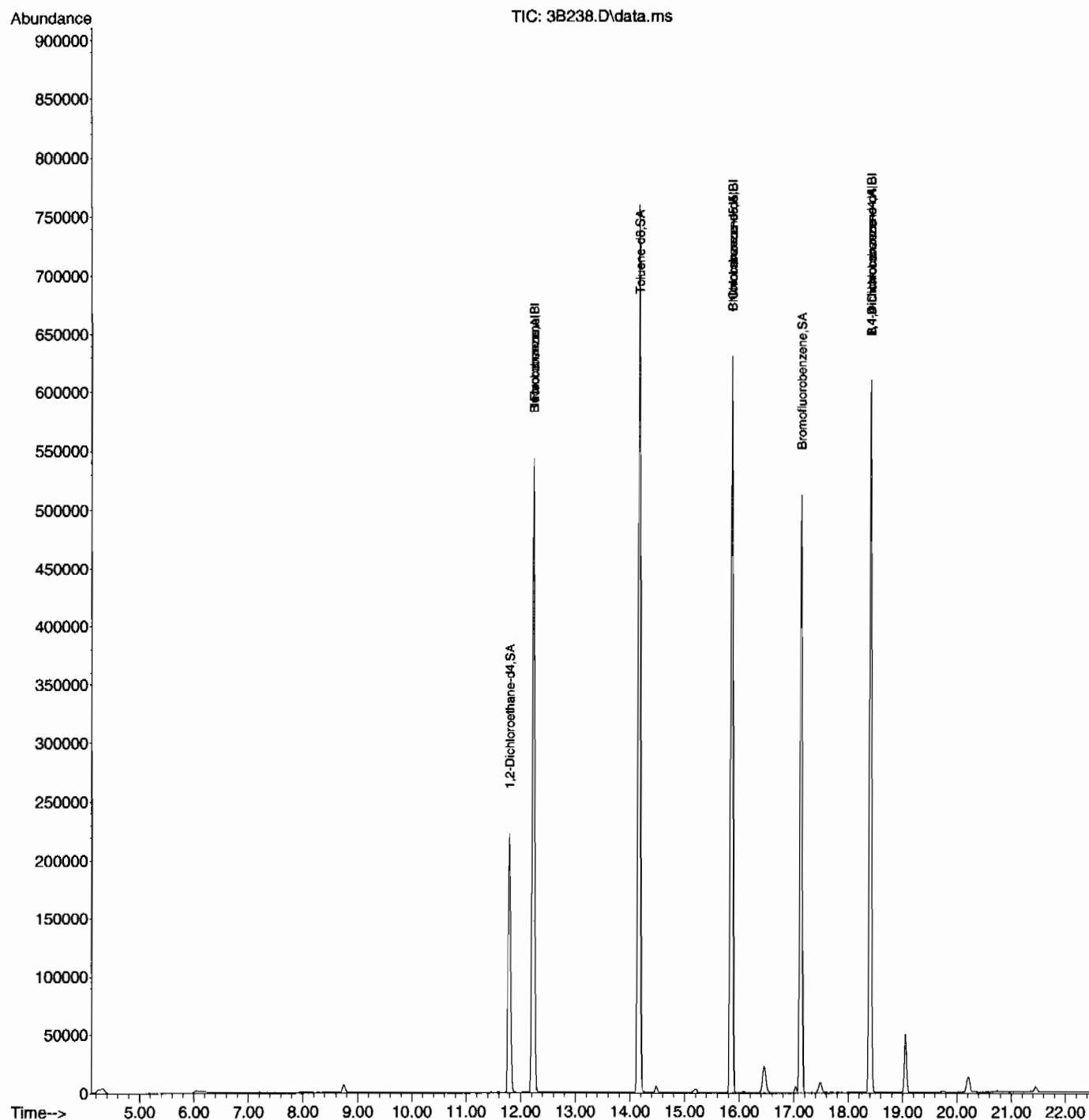
(#) = qualifier out of range (m) = manual integration (+) = signals summed  
(E) = Over the calibration range (d) = deleted

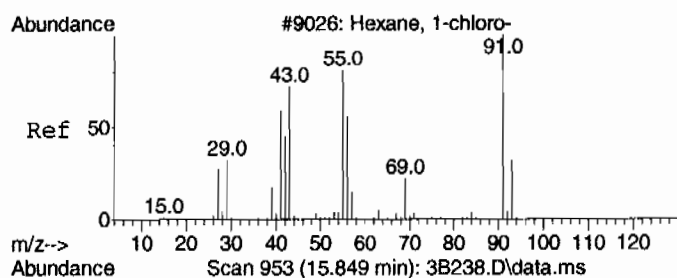


Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030210V3\  
Data File : 3B238.D  
Acq On : 3 Mar 2010 3:24 am  
Operator : CDS1  
InstName : VOA3  
Sample : |248012007|959900|1|VOA|1|VOA8260BS|  
Misc : LANL 5G - SOIL  
ALS Vial : 39 Sample Multiplier: 1

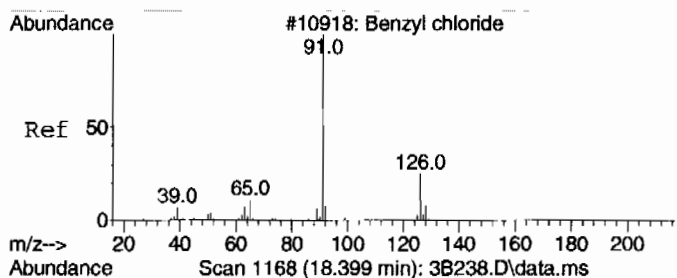
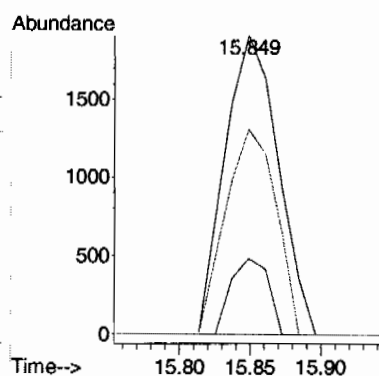
Quant Time: Mar 04 17:34:39 2010  
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 01 09:52:36 2010  
Response via : Initial Calibration  
Integrator: RTE





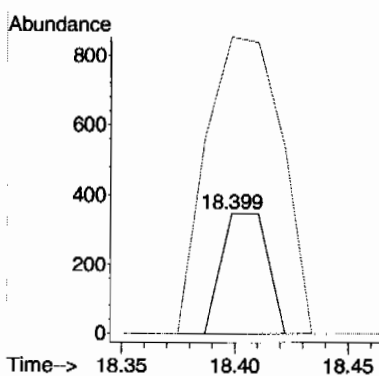
#106 BEFORE analyst DELETION  
1-Chlorohexane  
Concen: 1.90 ug/L  
RT: 15.849 min Scan# 953  
Delta R.T. 0.095 min  
Lab File: 3B238.D  
Acq: 3 Mar 2010 3:24 am

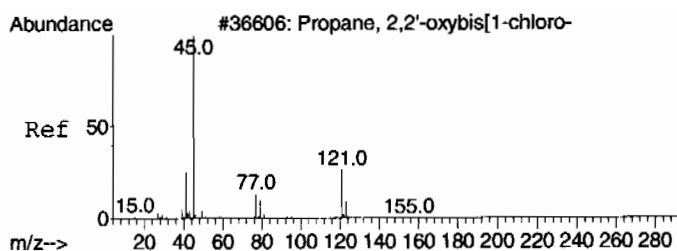
Tgt Ion: 55 Resp: 5010  
Ion Ratio Lower Upper  
55 100  
91 17.9 119.7 179.7#  
56 65.0 29.6 89.6



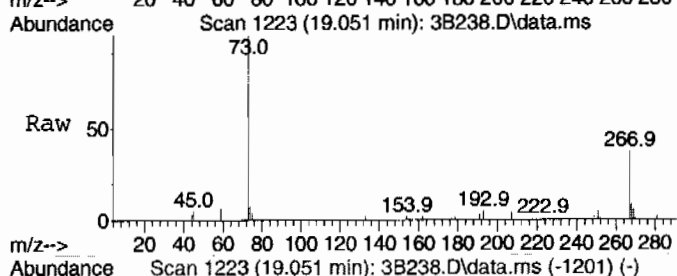
#111 BEFORE analyst DELETION  
Benzyl chloride  
Concen: 1.70 ug/L  
RT: 18.399 min Scan# 1168  
Delta R.T. -0.154 min  
Lab File: 3B238.D  
Acq: 3 Mar 2010 3:24 am

Tgt Ion: 91 Resp: 495  
Ion Ratio Lower Upper  
91 100  
126 0.0 0.0 51.8  
65 401.2 0.0 41.3#

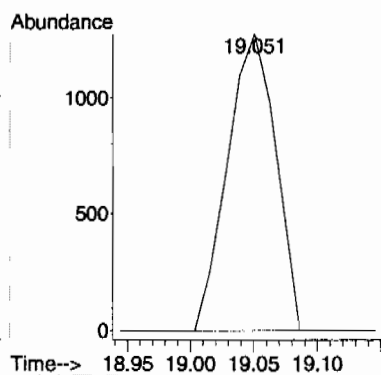
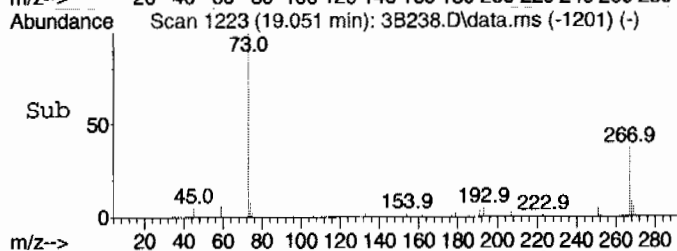




#112 BEFORE analyst DELETION  
 bis(2-Chloroisopropyl)ether  
 Concen: 1.79 ug/L  
 RT: 19.051 min Scan# 1223  
 Delta R.T. 0.071 min  
 Lab File: 3B238.D  
 Acq: 3 Mar 2010 3:24 am



Tgt Ion: 45 Resp: 3372  
 Ion Ratio Lower Upper  
 45 100  
 121 0.0 0.0 59.6



Library Search Compound Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030210V3\

Data File : 3B238.D

Acq On : 3 Mar 2010 3:24 am

Operator : CDS1

Sample : |248012007|959900|1|VOA|1|VOA8260BS|

Misc : LANL 5G - SOIL

ALS Vial : 39 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.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\030210V3\  
Data File : 3B238.D  
Acq On : 3 Mar 2010 3:24 am  
Operator : CDS1  
Sample : |248012007|959900|1|VOA|1|VOA8260BS|  
Misc : LANL 5G - SOIL  
ALS Vial : 39 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.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: 10-2027  
 Lab Sample ID: 248012009  
 Client ID: RE36-10-8482  
 Batch ID: 959900  
 Run Date: 03/03/2010 03:54  
 Prep Date: 03/02/2010 17:06  
 Data File: 030210V33B239.D

Date Collected: 02/20/2010 12:00  
 Date Received: 02/25/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA3.I  
 Analyst: CDS1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 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	1.05	ug/kg	0.358	1.05
74-87-3	Chloromethane	U	1.05	ug/kg	0.316	1.05
75-01-4	Vinyl chloride	U	1.05	ug/kg	0.316	1.05
74-83-9	Bromomethane	U	1.05	ug/kg	0.316	1.05
75-00-3	Chloroethane	U	1.05	ug/kg	0.316	1.05
75-69-4	Trichlorofluoromethane	U	1.05	ug/kg	0.316	1.05
67-64-1	Acetone	U	5.27	ug/kg	1.75	5.27
75-35-4	1,1-Dichloroethylene	U	1.05	ug/kg	0.316	1.05
74-88-4	Iodomethane	U	5.27	ug/kg	1.68	5.27
75-09-2	Methylene chloride	U	5.27	ug/kg	2.11	5.27
75-15-0	Carbon disulfide	U	5.27	ug/kg	1.32	5.27
156-60-5	trans-1,2-Dichloroethylene	U	1.05	ug/kg	0.316	1.05
75-34-3	1,1-Dichloroethane	U	1.05	ug/kg	0.316	1.05
78-93-3	2-Butanone	U	5.27	ug/kg	1.58	5.27
156-59-2	cis-1,2-Dichloroethylene	U	1.05	ug/kg	0.316	1.05
594-20-7	2,2-Dichloropropane	U	1.05	ug/kg	0.316	1.05
67-66-3	Chloroform	U	1.05	ug/kg	0.316	1.05
74-97-5	Bromochloromethane	U	1.05	ug/kg	0.348	1.05
71-55-6	1,1,1-Trichloroethane	U	1.05	ug/kg	0.316	1.05
563-58-6	1,1-Dichloropropene	U	1.05	ug/kg	0.316	1.05
56-23-5	Carbon tetrachloride	U	1.05	ug/kg	0.316	1.05
107-06-2	1,2-Dichloroethane	U	1.05	ug/kg	0.316	1.05
71-43-2	Benzene	U	1.05	ug/kg	0.316	1.05
79-01-6	Trichloroethylene	U	1.05	ug/kg	0.348	1.05
78-87-5	1,2-Dichloropropane	U	1.05	ug/kg	0.316	1.05
75-27-4	Bromodichloromethane	U	1.05	ug/kg	0.316	1.05
74-95-3	Dibromomethane	U	1.05	ug/kg	0.316	1.05
108-10-1	4-Methyl-2-pentanone	U	5.27	ug/kg	1.32	5.27
10061-01-5	cis-1,3-Dichloropropylene	U	1.05	ug/kg	0.316	1.05
108-88-3	Toluene	U	1.05	ug/kg	0.316	1.05
10061-02-6	trans-1,3-Dichloropropylene	U	1.05	ug/kg	0.316	1.05
79-00-5	1,1,2-Trichloroethane	U	1.05	ug/kg	0.316	1.05
591-78-6	2-Hexanone	U	5.27	ug/kg	1.58	5.27
142-28-9	1,3-Dichloropropane	U	1.05	ug/kg	0.316	1.05
127-18-4	Tetrachloroethylene	U	1.05	ug/kg	0.316	1.05
124-48-1	Dibromochloromethane	U	1.05	ug/kg	0.316	1.05
106-93-4	1,2-Dibromoethane	U	1.05	ug/kg	0.316	1.05
108-90-7	Chlorobenzene	U	1.05	ug/kg	0.316	1.05

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

SDG Number: 10-2027  
 Lab Sample ID: 248012009

Client ID: RE36-10-8482  
 Batch ID: 959900  
 Run Date: 03/03/2010 03:54  
 Prep Date: 03/02/2010 17:06  
 Data File: 030210V33B239.D

Date Collected: 02/20/2010 12:00  
 Date Received: 02/25/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA3.I  
 Analyst: CDS1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 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	1.05	ug/kg	0.316	1.05
179601-23-1	m,p-Xylenes	U	2.11	ug/kg	0.316	2.11
95-47-6	o-Xylene	U	1.05	ug/kg	0.316	1.05
100-42-5	Styrene	U	1.05	ug/kg	0.316	1.05
75-25-2	Bromoform	U	1.05	ug/kg	0.316	1.05
79-34-5	1,1,2,2-Tetrachloroethane	U	1.05	ug/kg	0.316	1.05
96-18-4	1,2,3-Trichloropropane	U	1.05	ug/kg	0.316	1.05
108-86-1	Bromobenzene	U	1.05	ug/kg	0.316	1.05
103-65-1	n-Propylbenzene	U	1.05	ug/kg	0.316	1.05
95-49-8	2-Chlorotoluene	U	1.05	ug/kg	0.316	1.05
98-82-8	Isopropylbenzene	U	1.05	ug/kg	0.316	1.05
108-67-8	1,3,5-Trimethylbenzene	U	1.05	ug/kg	0.316	1.05
106-43-4	4-Chlorotoluene	U	1.05	ug/kg	0.316	1.05
98-06-6	tert-Butylbenzene	U	1.05	ug/kg	0.316	1.05
95-63-6	1,2,4-Trimethylbenzene	U	1.05	ug/kg	0.316	1.05
135-98-8	sec-Butylbenzene	U	1.05	ug/kg	0.316	1.05
99-87-6	4-Isopropyltoluene	U	1.05	ug/kg	0.316	1.05
541-73-1	1,3-Dichlorobenzene	U	1.05	ug/kg	0.316	1.05
106-46-7	1,4-Dichlorobenzene	U	1.05	ug/kg	0.316	1.05
104-51-8	n-Butylbenzene	U	1.05	ug/kg	0.316	1.05
96-12-8	1,2-Dibromo-3-chloropropane	U	1.05	ug/kg	0.316	1.05
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	5.27	ug/kg	1.68	5.27
	Trichlorotrifluoroethane					
630-20-6	1,1,1,2-Tetrachloroethane	U	1.05	ug/kg	0.316	1.05
95-50-1	1,2-Dichlorobenzene	U	1.05	ug/kg	0.316	1.05

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown siloxane	19.05	11	ug/kg	0	J

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030210V3\  
Data File : 3B239.D  
Acq On : 3 Mar 2010 3:54 am  
Operator : CDS1  
InstName : VOA3  
Sample : |248012009|959900|1|VOA|1|VOA8260BS|  
Misc : LANL 5G - SOIL  
ALS Vial : 40 Sample Multiplier: 1

Quant Time: Mar 04 17:34:58 2010  
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 01 09:52:36 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	12.232	12.232	1.000	96	806010	50.00	ug/L	0.00
41) Chlorobenzene-d5	15.849	15.849	1.000	117	594168	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	18.411	18.410	1.000	152	270911	50.00	ug/L	0.00
82) B Fluorobenzene	12.232	12.232	1.000	96	805670	50.00	ug/L	0.00
103) B Chlorobenzene-d5	15.849	15.849	1.000	117	594168	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	18.411	18.410	1.000	152	276474	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	11.794	11.793	0.964	65	242041	48.97	ug/L	0.00
Spiked Amount 50.000	Range 66	- 134	Recovery	=	97.94%			
43) Toluene-d8	14.165	14.165	0.894	98	837837	52.40	ug/L	0.00
Spiked Amount 50.000	Range 71	- 128	Recovery	=	104.80%			
61) Bromofluorobenzene	17.130	17.130	0.930	95	285299	52.23	ug/L	0.00
Spiked Amount 50.000	Range 65	- 130	Recovery	=	104.46%			
Target Compounds								QValue
2) Dichlorodifluoromethane	0.000	4.800	0.000		0	N.D.		
3) Chloromethane	0.000	5.216	0.000		0	N.D.		
4) Vinyl chloride	0.000	5.528	0.000		0	N.D.		
5) Bromomethane	0.000	6.291	0.000		0	N.D.		
6) Chloroethane	0.000	6.493	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	7.062	0.000		0	N.D.		
8) Ethyl ether	0.000	7.512	0.000		0	N.D.		
9) Acetone	0.000	7.987	0.000		0	N.D.		
10) 1,1-Dichloroethylene	0.000	7.987	0.000		0	N.D.		
11) Iodomethane	0.000	8.271	0.000		0	N.D.		
12) Acetonitrile	0.000	8.449	0.000		0	N.D.		
13) Methyl acetate	0.000	8.520	0.000		0	N.D.		
14) Carbon disulfide	8.426	8.449	0.689	76	178	N.D.		
15) Methylene chloride	8.746	8.746	0.715	84	5747	N.D.		
16) tert-Butyl methyl ether	0.000	9.173	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	9.208	0.000		0	N.D.		
18) Vinyl acetate	0.000	9.837	0.000		0	N.D.		
19) 1,1-Dichloroethane	0.000	9.860	0.000		0	N.D.		
20) 2-Butanone	0.000	10.643	0.000		0	N.D.		
21) cis-1,2-Dichloroethylene	0.000	10.691	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	10.714	0.000		0	N.D.		
23) Bromochloromethane	0.000	11.034	0.000		0	N.D.		
24) Chloroform	0.000	11.094	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	11.426	0.000		0	N.D.		
26) Cyclohexane	0.000	11.532	0.000		0	N.D.		
27) 1,1-Dichloropropene	0.000	11.627	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	11.663	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	11.888	0.000		0	N.D.		
31) Benzene	0.000	11.912	0.000		0	N.D.		
32) Cyclohexene	0.000	12.054	0.000		0	N.D.		
33) n-Butyl alcohol	0.000	12.398	0.000		0	N.D.		
34) Trichloroethylene	0.000	12.695	0.000		0	N.D.		
35) 1,2-Dichloropropane	0.000	12.979	0.000		0	N.D.		
36) Methylcyclohexane	0.000	12.991	0.000		0	N.D.		
37) Dibromomethane	0.000	13.133	0.000		0	N.D.		



Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030210V3\  
Data File : 3B239.D  
Acq On : 3 Mar 2010 3:54 am  
Operator : CDS1  
InstName : VOA3  
Sample : |248012009|959900|1|VOA|1|VOA8260BS|  
Misc : LANL 5G - SOIL  
ALS Vial : 40 Sample Multiplier: 1

Quant Time: Mar 04 17:34:58 2010  
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 01 09:52:36 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
38) Bromodichloromethane	0.000	13.288	0.000		0	N.D.	
39) 2-Chloroethylvinyl ether	0.000	13.560	0.000		0	N.D.	
40) cis-1,3-Dichloropropylene	0.000	13.809	0.000		0	N.D.	
42) 4-Methyl-2-pentanone	0.000	13.928	0.000		0	N.D.	
44) Toluene	14.248	14.248	0.899	91	992	N.D.	
45) trans-1,3-Dichloroprop...	0.000	14.426	0.000		0	N.D.	
46) 1,1,2-Trichloroethane	0.000	14.675	0.000		0	N.D.	
47) 2-Hexanone	0.000	14.888	0.000		0	N.D.	
48) 1,3-Dichloropropane	0.000	14.888	0.000		0	N.D.	
49) Tetrachloroethylene	0.000	14.912	0.000		0	N.D.	
50) Dibromochloromethane	0.000	15.173	0.000		0	N.D.	
51) 1,2-Dibromoethane	0.000	15.351	0.000		0	N.D.	
52) Chlorobenzene	0.000	15.885	0.000		0	N.D.	
53) 1,1,1,2-Tetrachloroethane	0.000	15.956	0.000		0	N.D.	
54) Ethylbenzene	15.956	15.968	1.007	91	181	N.D.	
55) m,p-Xylenes	0.000	16.086	0.000		0	N.D.	
56) o-Xylene	0.000	16.549	0.000		0	N.D.	
57) Styrene	0.000	16.549	0.000		0	N.D.	
59) Bromoform	0.000	16.821	0.000		0	N.D.	
60) Isopropylbenzene	0.000	16.928	0.000		0	N.D.	
62) 1,1,2,2-Tetrachloroethane	0.000	17.213	0.000		0	N.D.	
63) 1,2,3-Trichloropropane	0.000	17.308	0.000		0	N.D.	
64) Bromobenzene	0.000	17.343	0.000		0	N.D.	
65) n-Propylbenzene	0.000	17.367	0.000		0	N.D.	
66) 1,3,5-Trimethylbenzene	0.000	17.533	0.000		0	N.D.	
67) 2-Chlorotoluene	0.000	17.521	0.000		0	N.D.	
68) 4-Chlorotoluene	0.000	17.628	0.000		0	N.D.	
69) tert-Butylbenzene	0.000	17.912	0.000		0	N.D.	
70) 1,2,4-Trimethylbenzene	17.960	17.960	0.976	105	432	N.D.	
71) sec-Butylbenzene	0.000	18.150	0.000		0	N.D.	
72) 4-Isopropyltoluene	0.000	18.280	0.000		0	N.D.	
73) 1,3-Dichlorobenzene	0.000	18.351	0.000		0	N.D.	
74) 1,4-Dichlorobenzene	0.000	18.434	0.000		0	N.D.	
75) n-Butylbenzene	0.000	18.742	0.000		0	N.D.	
76) 1,2-Dichlorobenzene	0.000	18.885	0.000		0	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000	19.810	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	0.000	20.936	0.000		0	N.D.	
79) Hexachlorobutadiene	0.000	21.126	0.000		0	N.D.	
80) Naphthalene	21.351	21.351	1.160	128	1103	N.D.	
81) 1,2,3-Trichlorobenzene	0.000	21.719	0.000		0	N.D.	
83) Chlorotrifluoroethylene	0.000	4.711	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000	5.751	0.000		0	N.D.	
85) Acrolein	0.000	7.750	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000	7.975	0.000		0	N.D.	
87) Isopropyl Alcohol	0.000	8.141	0.000		0	N.D.	
88) Allyl chloride	0.000	8.556	0.000		0	N.D.	
89) tert-Butyl Alcohol	0.000	8.793	0.000		0	N.D.	
90) Acrylonitrile	0.000	9.090	0.000		0	N.D.	
91) Isopropyl ether	0.000	9.884	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	0.000	10.003	0.000		0	N.D.	
93) Ethyl tert-butyl ether	0.000	10.406	0.000		0	N.D.	
94) Ethyl acetate	0.000	10.679	0.000		0	N.D.	

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030210V3\  
Data File : 3B239.D  
Acq On : 3 Mar 2010 3:54 am  
Operator : CDS1  
InstName : VOA3  
Sample : |248012009|959900|1|VOA|1|VOA8260BS|  
Misc : LANL 5G - SOIL  
ALS Vial : 40 Sample Multiplier: 1

Quant Time: Mar 04 17:34:58 2010  
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 01 09:52:36 2010  
Response via : Initial Calibration  
Integrator: RTE

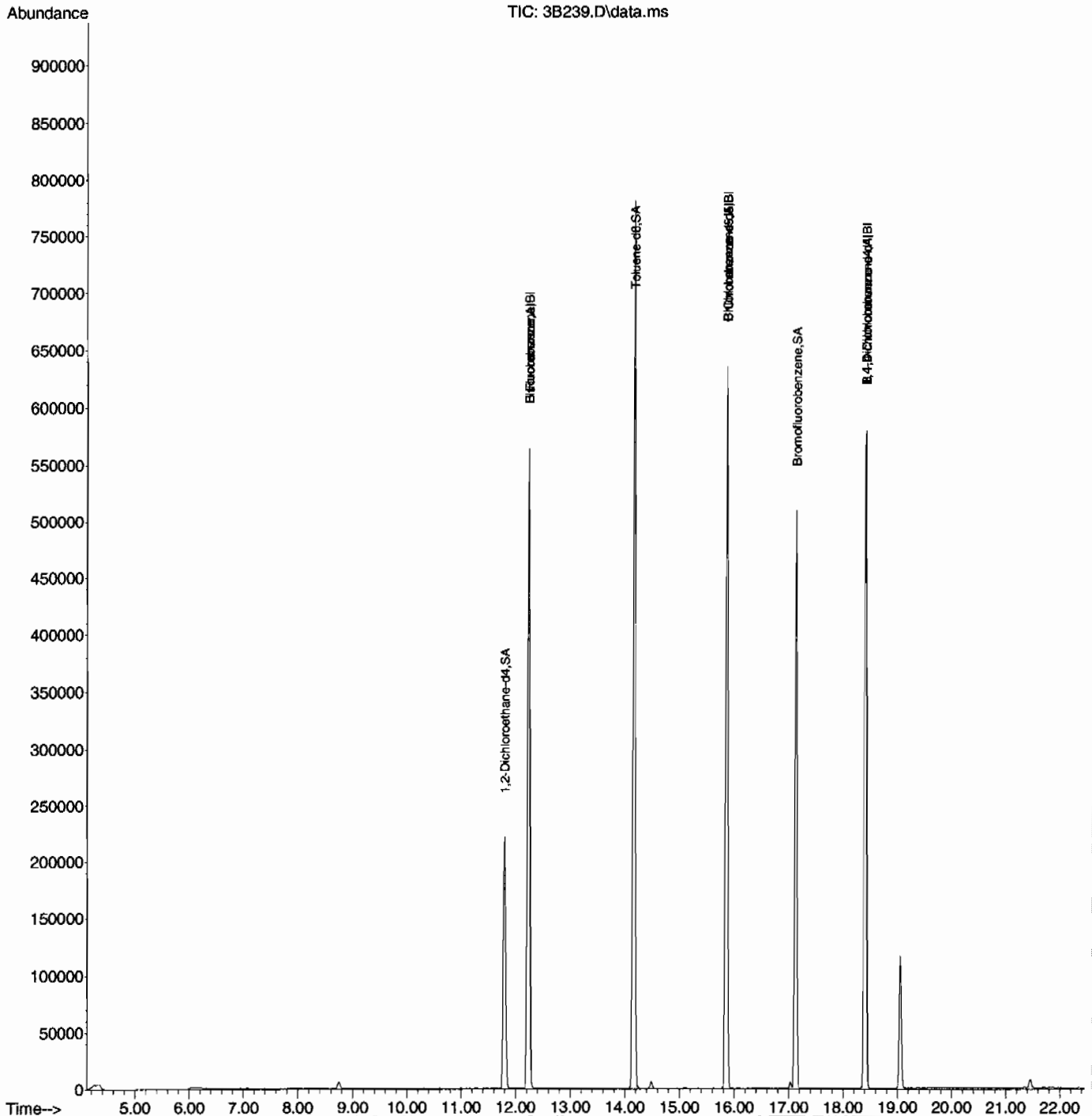
Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95) Propionitrile	0.000	10.726	0.000		0	N.D.	
96) Methacrylonitrile	0.000	10.951	0.000		0	N.D.	
97) Tetrahydrofuran	0.000	11.094	0.000		0	N.D.	
98) Isobutyl alcohol	0.000	11.556	0.000		0	N.D.	
99) Methyl tert-amyl ether	0.000	11.971	0.000		0	N.D.	
100) Methyl methacrylate	0.000	12.991	0.000		0	N.D.	
101) 1,4-Dioxane	0.000	13.098	0.000		0	N.D.	
102) 2-Nitropropane	0.000	13.525	0.000		0	N.D.	
104) Ethyl methacrylate	0.000	14.450	0.000		0	N.D.	
106) 1-Chlorohexane	0.000	15.754	0.000		0m	N.D.	d
107) cis-1,4-Dichloro-2-butene	0.000	16.964	0.000		0	N.D.	
108) Cyclohexanone	0.000	17.082	0.000		0	N.D.	
109) trans-1,4-Dichloro-2-b...	0.000	17.260	0.000		0	N.D.	
110) Pentachloroethane	0.000	17.983	0.000		0	N.D.	
111) Benzyl chloride	0.000	18.553	0.000		0m	N.D.	d
112) bis(2-Chloroisopropyl)...	0.000	18.980	0.000		0m	N.D.	d

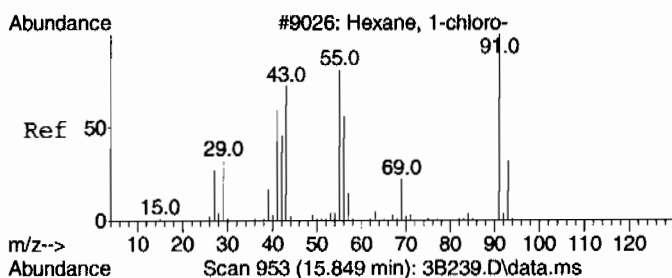
(#) = qualifier out of range (m) = manual integration (+) = signals summed  
(E) = Over the calibration range (d) = deleted

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030210V3\  
Data File : 3B239.D  
Acq On : 3 Mar 2010 3:54 am  
Operator : CDS1  
InstName : VOA3  
Sample : |248012009|959900|1|VOA|1|VOA8260BS|  
Misc : LANL 5G - SOIL  
ALS Vial : 40 Sample Multiplier: 1

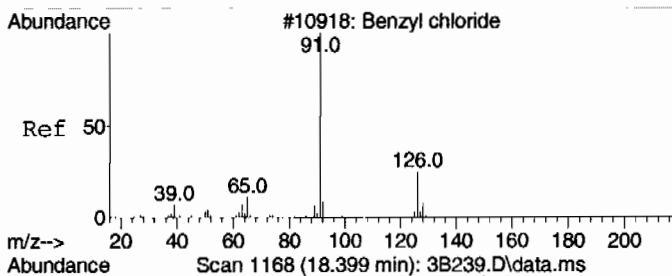
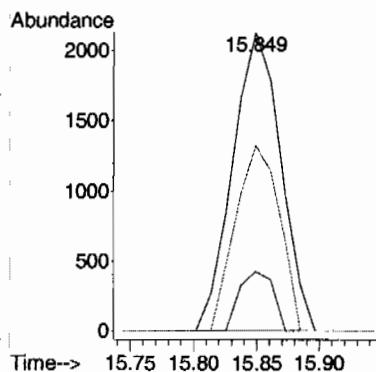
Quant Time: Mar 04 17:34:58 2010  
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 01 09:52:36 2010  
Response via : Initial Calibration  
Integrator: RTE





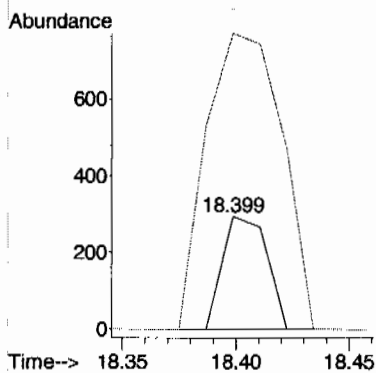
#106 BEFORE analyst DELETION  
1-Chlorohexane  
Concen: 2.27 ug/L  
RT: 15.849 min Scan# 953  
Delta R.T. 0.095 min  
Lab File: 3B239.D  
Acq: 3 Mar 2010 3:54 am

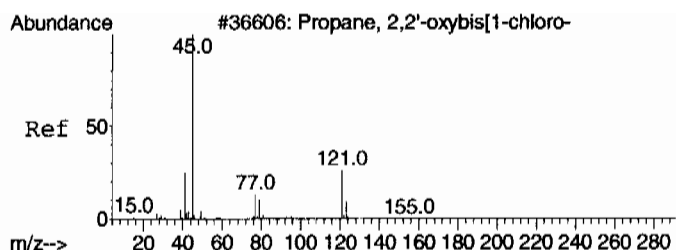
Tgt Ion: 55 Resp: 5680  
Ion Ratio Lower Upper  
55 100  
91 14.1 119.7 179.7#  
56 57.1 29.6 89.6



#111 BEFORE analyst DELETION  
Benzyl chloride  
Concen: 1.68 ug/L  
RT: 18.399 min Scan# 1168  
Delta R.T. -0.154 min  
Lab File: 3B239.D  
Acq: 3 Mar 2010 3:54 am

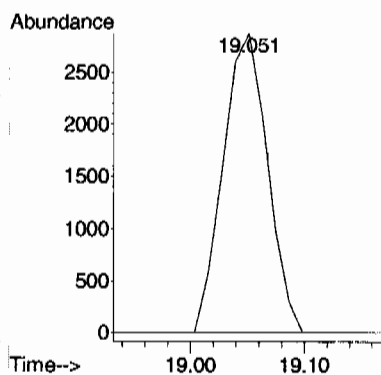
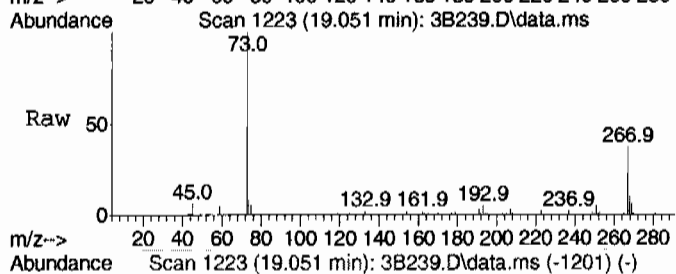
Tgt Ion: 91 Resp: 399  
Ion Ratio Lower Upper  
91 100  
126 0.0 0.0 51.8  
65 448.4 0.0 41.3#





#112 BEFORE analyst DELETION  
 bis(2-Chloroisopropyl)ether  
 Concen: 4.37 ug/L  
 RT: 19.051 min Scan# 1223  
 Delta R.T. 0.071 min  
 Lab File: 3B239.D  
 Acq: 3 Mar 2010 3:54 am

Tgt Ion: 45 Resp: 7801  
 Ion Ratio Lower Upper  
 45 100  
 121 0.0 0.0 59.6



Library Search Compound Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030210V3\  
Data File : 3B239.D  
Acq On : 3 Mar 2010 3:54 am  
Operator : CDS1  
Sample : |248012009|959900|1|VOA|1|VOA8260BS|  
Misc : LANL 5G - SOIL  
ALS Vial : 40 Sample Multiplier: 1

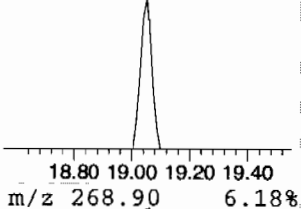
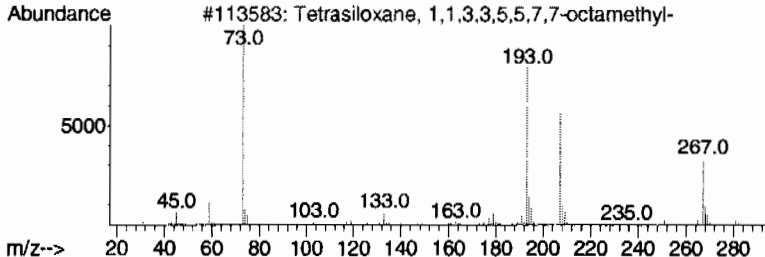
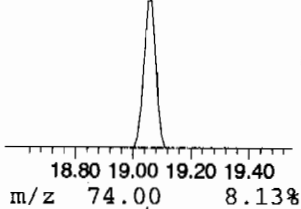
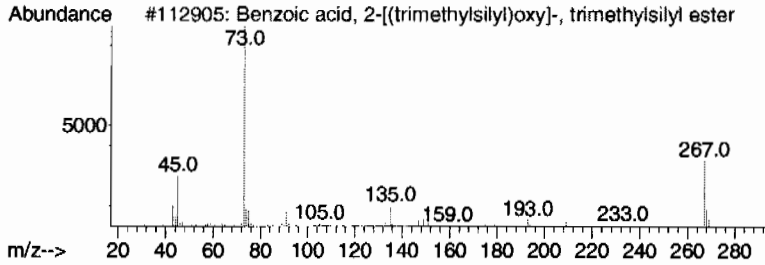
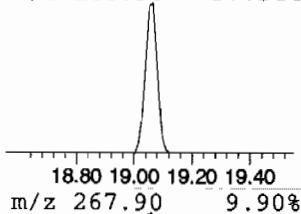
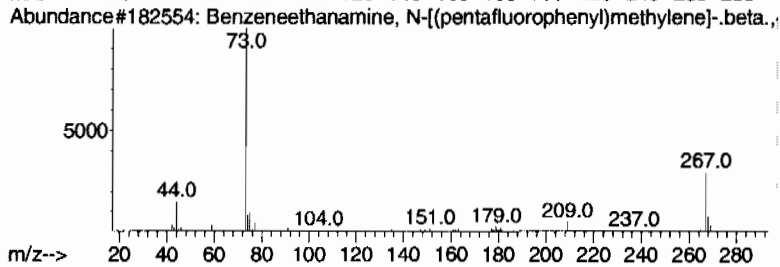
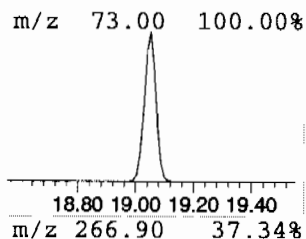
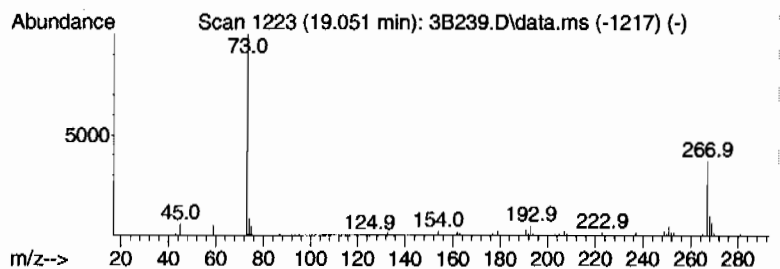
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M  
Quant Title : Volatile Organics 8260B SubList :

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.
19.051	10.42 ug/L	338902	B 1,4-Dichlorobenzene-d4	18.411

Hit#	of	5	Tentative ID	MW	MolForm	CAS#	Qual
1			Benzenethanamine, N-[(pentafluoro...	475	C21H26F5NO2Si2	055429-85-1	53
2			Benzoic acid, 2-[(trimethylsilyl)...	282	C13H22O3Si2	003789-85-3	39
3			Tetrasiloxane, 1,1,3,3,5,5,7,7-o...	282	C8H26O3Si4	001000-05-1	39
4			11H-Dibenzo[b,e][1,4]diazepin-11...	267	C16H17N3O	013450-73-2	27
5			Benzenecetic acid, 3-methoxy-4-...	268	C13H20O4Si	015964-84-8	10



Tentatively Identified Compound (LSC) summary  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030210V3\  
Data File : 3B239.D  
Acq On : 3 Mar 2010 3:54 am  
Operator : CDS1  
Sample : |248012009|959900|1|VOA|1|VOA8260BS|  
Misc : LANL 5G - SOIL  
ALS Vial : 40 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.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	19.051	10.4	ug/L	338902	6	18.411	1626670	50.0

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

SDG Number: 10-2027  
 Lab Sample ID: 248012006

Date Collected: 02/20/2010 12:00  
 Date Received: 02/25/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA3.I  
 Analyst: CDS1  
 Aliquot: 5 g  
 Column: DB-624

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

Client ID: RE36-10-8474  
 Batch ID: 959900  
 Run Date: 03/04/2010 12:43  
 Prep Date: 03/04/2010 07:02  
 Data File: 030410V33B410.D

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.15	ug/kg	0.390	1.15
74-87-3	Chloromethane	U	1.15	ug/kg	0.344	1.15
75-01-4	Vinyl chloride	U	1.15	ug/kg	0.344	1.15
74-83-9	Bromomethane	U	1.15	ug/kg	0.344	1.15
75-00-3	Chloroethane	U	1.15	ug/kg	0.344	1.15
75-69-4	Trichlorofluoromethane	U	1.15	ug/kg	0.344	1.15
67-64-1	Acetone	U	5.74	ug/kg	1.90	5.74
75-35-4	1,1-Dichloroethylene	U	1.15	ug/kg	0.344	1.15
74-88-4	Iodomethane	U	5.74	ug/kg	1.84	5.74
75-09-2	Methylene chloride	U	5.74	ug/kg	2.29	5.74
75-15-0	Carbon disulfide	U	5.74	ug/kg	1.43	5.74
156-60-5	trans-1,2-Dichloroethylene	U	1.15	ug/kg	0.344	1.15
75-34-3	1,1-Dichloroethane	U	1.15	ug/kg	0.344	1.15
78-93-3	2-Butanone	U	5.74	ug/kg	1.72	5.74
156-59-2	cis-1,2-Dichloroethylene	U	1.15	ug/kg	0.344	1.15
594-20-7	2,2-Dichloropropane	U	1.15	ug/kg	0.344	1.15
67-66-3	Chloroform	U	1.15	ug/kg	0.344	1.15
74-97-5	Bromochloromethane	U	1.15	ug/kg	0.379	1.15
71-55-6	1,1,1-Trichloroethane	U	1.15	ug/kg	0.344	1.15
563-58-6	1,1-Dichloropropene	U	1.15	ug/kg	0.344	1.15
56-23-5	Carbon tetrachloride	U	1.15	ug/kg	0.344	1.15
107-06-2	1,2-Dichloroethane	U	1.15	ug/kg	0.344	1.15
71-43-2	Benzene	U	1.15	ug/kg	0.344	1.15
79-01-6	Trichloroethylene	U	1.15	ug/kg	0.379	1.15
78-87-5	1,2-Dichloropropane	U	1.15	ug/kg	0.344	1.15
75-27-4	Bromodichloromethane	U	1.15	ug/kg	0.344	1.15
74-95-3	Dibromomethane	U	1.15	ug/kg	0.344	1.15
108-10-1	4-Methyl-2-pentanone	U	5.74	ug/kg	1.43	5.74
10061-01-5	cis-1,3-Dichloropropylene	U	1.15	ug/kg	0.344	1.15
108-88-3	Toluene	U	1.15	ug/kg	0.344	1.15
10061-02-6	trans-1,3-Dichloropropylene	U	1.15	ug/kg	0.344	1.15
79-00-5	1,1,2-Trichloroethane	U	1.15	ug/kg	0.344	1.15
591-78-6	2-Hexanone	U	5.74	ug/kg	1.72	5.74
142-28-9	1,3-Dichloropropane	U	1.15	ug/kg	0.344	1.15
127-18-4	Tetrachloroethylene	U	1.15	ug/kg	0.344	1.15
124-48-1	Dibromochloromethane	U	1.15	ug/kg	0.344	1.15
106-93-4	1,2-Dibromoethane	U	1.15	ug/kg	0.344	1.15
108-90-7	Chlorobenzene	U	1.15	ug/kg	0.344	1.15



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

SDG Number: 10-2027  
 Lab Sample ID: 248012006

Date Collected: 02/20/2010 12:00  
 Date Received: 02/25/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA3I  
 Analyst: CDS1  
 Aliquot: 5 g  
 Column: DB-624

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

Client ID: RE36-10-8474  
 Batch ID: 959900  
 Run Date: 03/04/2010 12:43  
 Prep Date: 03/04/2010 07:02  
 Data File: 030410V33B410.D

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.15	ug/kg	0.344	1.15
179601-23-1	m,p-Xylenes	U	2.29	ug/kg	0.344	2.29
95-47-6	o-Xylene	U	1.15	ug/kg	0.344	1.15
100-42-5	Styrene	U	1.15	ug/kg	0.344	1.15
75-25-2	Bromoform	U	1.15	ug/kg	0.344	1.15
79-34-5	1,1,2,2-Tetrachloroethane	U	1.15	ug/kg	0.344	1.15
96-18-4	1,2,3-Trichloropropane	U	1.15	ug/kg	0.344	1.15
108-86-1	Bromobenzene	U	1.15	ug/kg	0.344	1.15
103-65-1	n-Propylbenzene	U	1.15	ug/kg	0.344	1.15
95-49-8	2-Chlorotoluene	U	1.15	ug/kg	0.344	1.15
98-82-8	Isopropylbenzene	U	1.15	ug/kg	0.344	1.15
108-67-8	1,3,5-Trimethylbenzene	U	1.15	ug/kg	0.344	1.15
106-43-4	4-Chlorotoluene	U	1.15	ug/kg	0.344	1.15
98-06-6	tert-Butylbenzene	U	1.15	ug/kg	0.344	1.15
95-63-6	1,2,4-Trimethylbenzene	U	1.15	ug/kg	0.344	1.15
135-98-8	sec-Butylbenzene	U	1.15	ug/kg	0.344	1.15
99-87-6	4-Isopropyltoluene	U	1.15	ug/kg	0.344	1.15
541-73-1	1,3-Dichlorobenzene	U	1.15	ug/kg	0.344	1.15
106-46-7	1,4-Dichlorobenzene	U	1.15	ug/kg	0.344	1.15
104-51-8	n-Butylbenzene	U	1.15	ug/kg	0.344	1.15
96-12-8	1,2-Dibromo-3-chloropropane	U	1.15	ug/kg	0.344	1.15
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	5.74	ug/kg	1.84	5.74
630-20-6	1,1,1,2-Tetrachloroethane	U	1.15	ug/kg	0.344	1.15
95-50-1	1,2-Dichlorobenzene	U	1.15	ug/kg	0.344	1.15

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown siloxane	19.05	7.06	ug/kg	0	J

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V3\  
Data File : 3B410.D  
Acq On : 4 Mar 2010 12:43 pm  
Operator : CDS1  
InstName : VOA3  
Sample : |248012006|959900|1|VOA|1|VOA8260BS|  
Misc : LANL 5G - SOIL  
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 04 16:57:01 2010  
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 01 09:52:36 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	12.232	12.232	1.000	96	731522	50.00	ug/L	0.00
41) Chlorobenzene-d5	15.849	15.849	1.000	117	531268	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	18.411	18.410	1.000	152	231937	50.00	ug/L	0.00
82) B Fluorobenzene	12.232	12.232	1.000	96	731165	50.00	ug/L	0.00
103) B Chlorobenzene-d5	15.849	15.849	1.000	117	531268	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	18.411	18.410	1.000	152	234857	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	11.793	11.793	0.964	65	218142	48.62	ug/L	0.00
Spiked Amount 50.000	Range 66	- 134	Recovery	=	97.24%			
43) Toluene-d8	14.165	14.165	0.894	98	744946	52.10	ug/L	0.00
Spiked Amount 50.000	Range 71	- 128	Recovery	=	104.20%			
61) Bromofluorobenzene	17.130	17.130	0.930	95	245491	52.49	ug/L	0.00
Spiked Amount 50.000	Range 65	- 130	Recovery	=	104.98%			
Target Compounds								QValue
2) Dichlorodifluoromethane	0.000	4.800	0.000		0	N.D.		
3) Chloromethane	0.000	5.216	0.000		0	N.D.		
4) Vinyl chloride	0.000	5.528	0.000		0	N.D.		
5) Bromomethane	0.000	6.291	0.000		0	N.D.		
6) Chloroethane	0.000	6.493	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	7.062	0.000		0	N.D.		
8) Ethyl ether	0.000	7.512	0.000		0	N.D.		
9) Acetone	8.011	7.987	0.655	43	1387	N.D.		
10) 1,1-Dichloroethylene	0.000	7.987	0.000		0	N.D.		
11) Iodomethane	0.000	8.271	0.000		0	N.D.		
12) Acetonitrile	0.000	8.449	0.000		0	N.D.		
13) Methyl acetate	0.000	8.520	0.000		0	N.D.		
14) Carbon disulfide	8.426	8.449	0.689	76	182	N.D.		
15) Methylene chloride	8.746	8.746	0.715	84	2986	N.D.		
16) tert-Butyl methyl ether	0.000	9.173	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	9.208	0.000		0	N.D.		
18) Vinyl acetate	0.000	9.837	0.000		0	N.D.		
19) 1,1-Dichloroethane	0.000	9.860	0.000		0	N.D.		
20) 2-Butanone	0.000	10.643	0.000		0	N.D.		
21) cis-1,2-Dichloroethylene	0.000	10.691	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	10.714	0.000		0	N.D.		
23) Bromochloromethane	0.000	11.034	0.000		0	N.D.		
24) Chloroform	0.000	11.094	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	11.426	0.000		0	N.D.		
26) Cyclohexane	0.000	11.532	0.000		0	N.D.		
27) 1,1-Dichloropropene	0.000	11.627	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	11.663	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	11.888	0.000		0	N.D.		
31) Benzene	0.000	11.912	0.000		0	N.D.		
32) Cyclohexene	0.000	12.054	0.000		0	N.D.		
33) n-Butyl alcohol	0.000	12.398	0.000		0	N.D.		
34) Trichloroethylene	0.000	12.695	0.000		0	N.D.		
35) 1,2-Dichloropropane	0.000	12.979	0.000		0	N.D.		
36) Methylcyclohexane	0.000	12.991	0.000		0	N.D.		
37) Dibromomethane	0.000	13.133	0.000		0	N.D.		

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V3\  
Data File : 3B410.D  
Acq On : 4 Mar 2010 12:43 pm  
Operator : CDS1  
InstName : VOA3  
Sample : |248012006|959900|1|VOA|1|VOA8260BS|  
Misc : LANL 5G - SOIL  
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 04 16:57:01 2010  
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 01 09:52:36 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
38) Bromodichloromethane	0.000	13.288	0.000		0	N.D.	
39) 2-Chloroethylvinyl ether	0.000	13.560	0.000		0	N.D.	
40) cis-1,3-Dichloropropylene	0.000	13.809	0.000		0	N.D.	
42) 4-Methyl-2-pentanone	0.000	13.928	0.000		0	N.D.	
44) Toluene	0.000	14.248	0.000		0	N.D.	
45) trans-1,3-Dichloroprop...	0.000	14.426	0.000		0	N.D.	
46) 1,1,2-Trichloroethane	0.000	14.675	0.000		0	N.D.	
47) 2-Hexanone	0.000	14.888	0.000		0	N.D.	
48) 1,3-Dichloropropane	0.000	14.888	0.000		0	N.D.	
49) Tetrachloroethylene	0.000	14.912	0.000		0	N.D.	
50) Dibromochloromethane	0.000	15.173	0.000		0	N.D.	
51) 1,2-Dibromoethane	0.000	15.351	0.000		0	N.D.	
52) Chlorobenzene	0.000	15.885	0.000		0	N.D.	
53) 1,1,1,2-Tetrachloroethane	0.000	15.956	0.000		0	N.D.	
54) Ethylbenzene	16.074	15.968	1.014	91	883	N.D.	
55) m,p-Xylenes	0.000	16.086	0.000		0	N.D.	
56) o-Xylene	0.000	16.549	0.000		0	N.D.	
57) Styrene	0.000	16.549	0.000		0	N.D.	
59) Bromoform	0.000	16.821	0.000		0	N.D.	
60) Isopropylbenzene	0.000	16.928	0.000		0	N.D.	
62) 1,1,2,2-Tetrachloroethane	0.000	17.213	0.000		0	N.D.	
63) 1,2,3-Trichloropropane	0.000	17.308	0.000		0	N.D.	
64) Bromobenzene	0.000	17.343	0.000		0	N.D.	
65) n-Propylbenzene	0.000	17.367	0.000		0	N.D.	
66) 1,3,5-Trimethylbenzene	0.000	17.533	0.000		0	N.D.	
67) 2-Chlorotoluene	0.000	17.521	0.000		0	N.D.	
68) 4-Chlorotoluene	0.000	17.628	0.000		0	N.D.	
69) tert-Butylbenzene	0.000	17.912	0.000		0	N.D.	
70) 1,2,4-Trimethylbenzene	0.000	17.960	0.000		0	N.D.	
71) sec-Butylbenzene	0.000	18.150	0.000		0	N.D.	
72) 4-Isopropyltoluene	0.000	18.280	0.000		0	N.D.	
73) 1,3-Dichlorobenzene	18.434	18.351	1.001	146	190	N.D.	
74) 1,4-Dichlorobenzene	18.434	18.434	1.001	146	190	N.D.	
75) n-Butylbenzene	0.000	18.742	0.000		0	N.D.	
76) 1,2-Dichlorobenzene	0.000	18.885	0.000		0	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000	19.810	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	0.000	20.936	0.000		0	N.D.	
79) Hexachlorobutadiene	0.000	21.126	0.000		0	N.D.	
80) Naphthalene	21.351	21.351	1.160	128	1224	N.D.	
81) 1,2,3-Trichlorobenzene	0.000	21.719	0.000		0	N.D.	
83) Chlorotrifluoroethylene	0.000	4.711	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000	5.751	0.000		0	N.D.	
85) Acrolein	0.000	7.750	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000	7.975	0.000		0	N.D.	
87) Isopropyl Alcohol	0.000	8.141	0.000		0	N.D.	
88) Allyl chloride	0.000	8.556	0.000		0	N.D.	
89) tert-Butyl Alcohol	0.000	8.793	0.000		0	N.D.	
90) Acrylonitrile	0.000	9.090	0.000		0	N.D.	
91) Isopropyl ether	0.000	9.884	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	0.000	10.003	0.000		0	N.D.	
93) Ethyl tert-butyl ether	0.000	10.406	0.000		0	N.D.	
94) Ethyl acetate	0.000	10.679	0.000		0	N.D.	

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V3\  
Data File : 3B410.D  
Acq On : 4 Mar 2010 12:43 pm  
Operator : CDS1  
InstName : VOA3  
Sample : |248012006|959900|1|VOA|1|VOA8260BS|  
Misc : LANL 5G - SOIL  
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 04 16:57:01 2010  
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 01 09:52:36 2010  
Response via : Initial Calibration  
Integrator: RTE

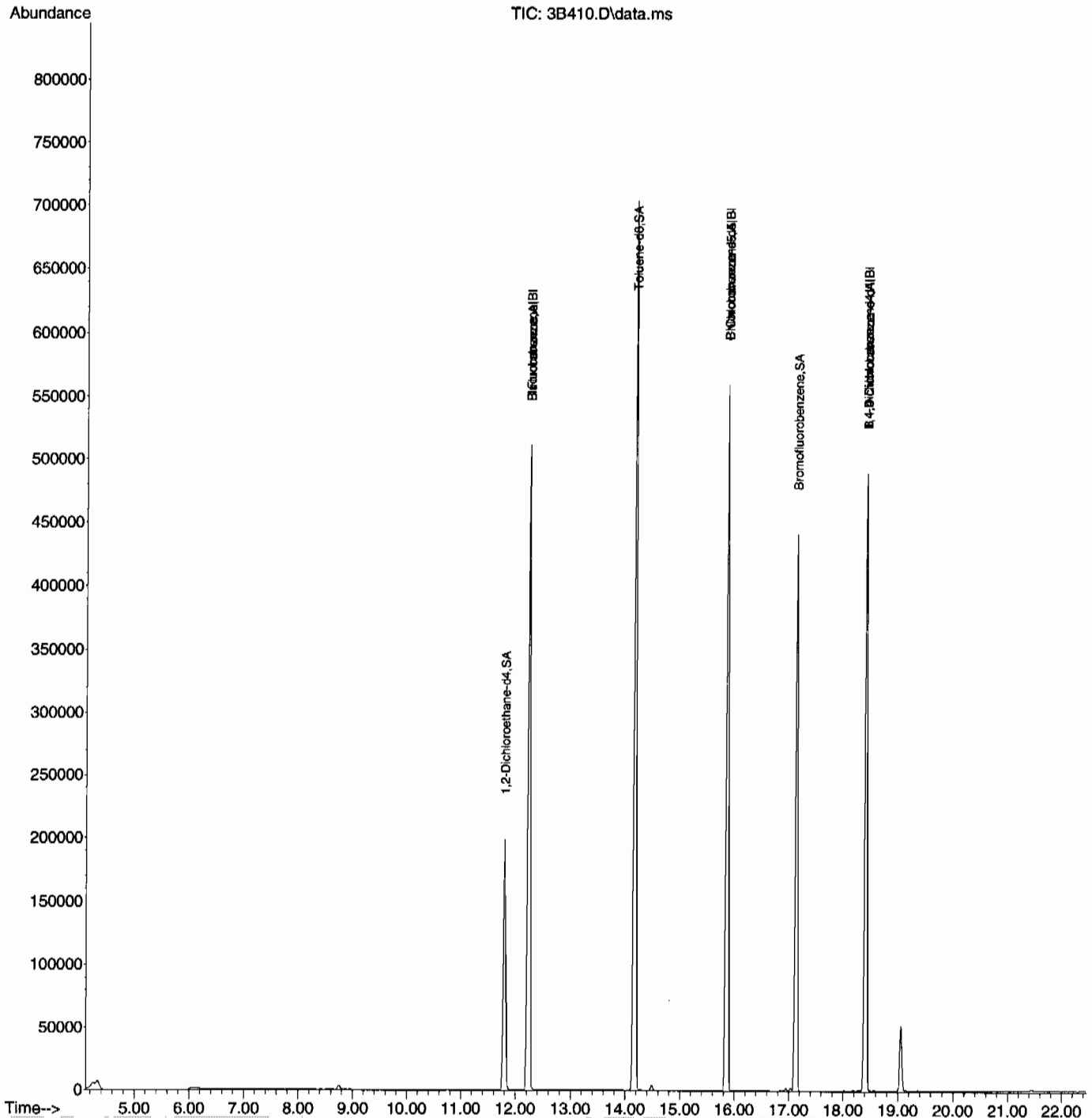
Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95) Propionitrile	0.000	10.726	0.000		0	N.D.	
96) Methacrylonitrile	0.000	10.951	0.000		0	N.D.	
97) Tetrahydrofuran	0.000	11.094	0.000		0	N.D.	
98) Isobutyl alcohol	0.000	11.556	0.000		0	N.D.	
99) Methyl tert-amyl ether	0.000	11.971	0.000		0	N.D.	
100) Methyl methacrylate	0.000	12.991	0.000		0	N.D.	
101) 1,4-Dioxane	0.000	13.098	0.000		0	N.D.	
102) 2-Nitropropane	0.000	13.525	0.000		0	N.D.	
104) Ethyl methacrylate	0.000	14.450	0.000		0	N.D.	
106) 1-Chlorohexane	0.000	15.754	0.000		0m	N.D.	d
107) cis-1,4-Dichloro-2-butene	0.000	16.964	0.000		0	N.D.	
108) Cyclohexanone	0.000	17.082	0.000		0	N.D.	
109) trans-1,4-Dichloro-2-b...	0.000	17.260	0.000		0	N.D.	
110) Pentachloroethane	0.000	17.983	0.000		0	N.D.	
111) Benzyl chloride	0.000	18.553	0.000		0m	N.D.	d
112) bis(2-Chloroisopropyl)...	0.000	18.980	0.000		0m	N.D.	d

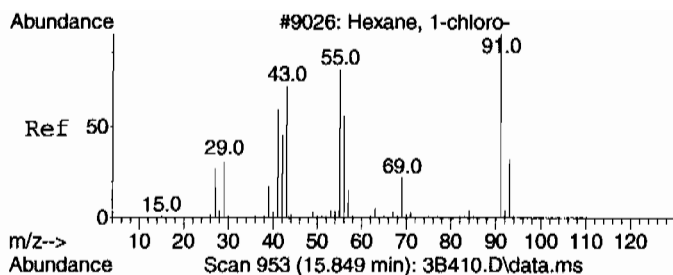
(#) = qualifier out of range (m) = manual integration (+) = signals summed  
(E) = Over the calibration range (d) = deleted

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V3\  
Data File : 3B410.D  
Acq On : 4 Mar 2010 12:43 pm  
Operator : CDS1  
InstName : VOA3  
Sample : |248012006|959900|1|VOA|1|VOA8260BS|  
Misc : LANL 5G - SOIL  
ALS Vial : 10 Sample Multiplier: 1

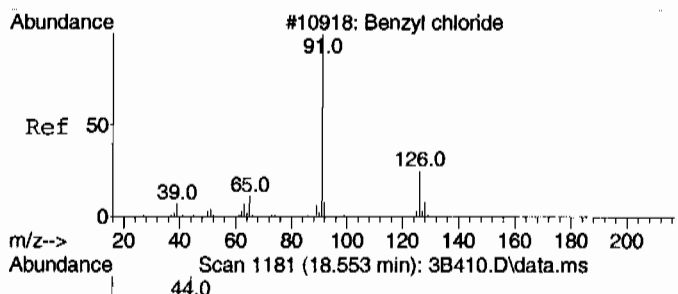
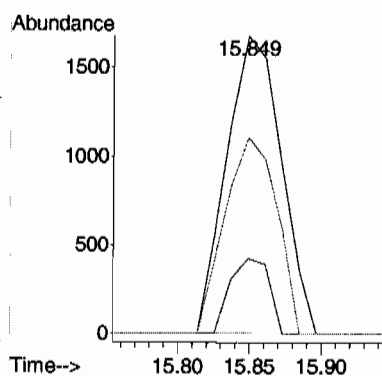
Quant Time: Mar 04 16:57:01 2010  
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 01 09:52:36 2010  
Response via : Initial Calibration  
Integrator: RTE





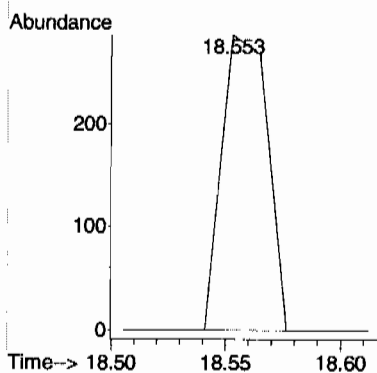
#106 BEFORE analyst DELETION  
1-Chlorohexane  
Concen: 2.09 ug/L  
RT: 15.849 min Scan# 953  
Delta R.T. 0.095 min  
Lab File: 3B410.D  
Acq: 4 Mar 2010 12:43 pm

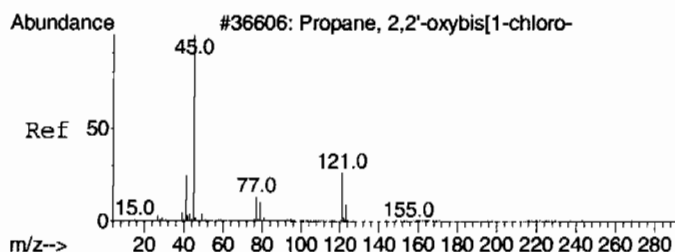
Tgt Ion: 55 Resp: 4443  
Ion Ratio Lower Upper  
55 100  
91 18.0 119.7 179.7#  
56 62.7 29.6 89.6



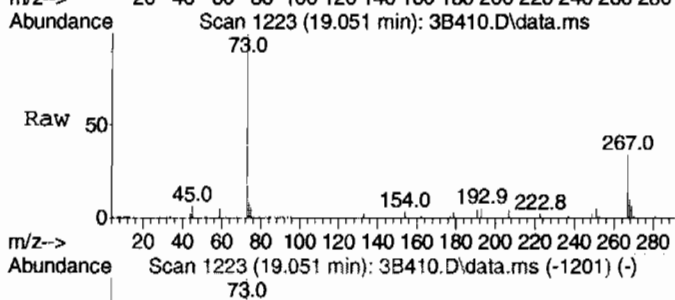
#111 BEFORE analyst DELETION  
Benzyl chloride  
Concen: 1.70 ug/L  
RT: 18.553 min Scan# 1181  
Delta R.T. 0.000 min  
Lab File: 3B410.D  
Acq: 4 Mar 2010 12:43 pm

Tgt Ion: 91 Resp: 396  
Ion Ratio Lower Upper  
91 100  
126 0.0 0.0 51.8  
65 0.0 0.0 41.3

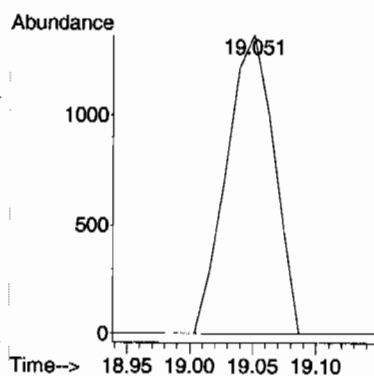
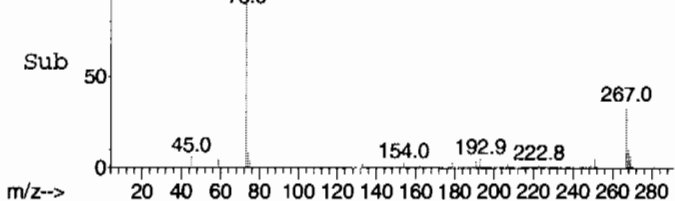




#112 BEFORE analyst DELETION  
 bis(2-Chloroisopropyl)ether  
 Concen: 2.36 ug/L  
 RT: 19.051 min Scan# 1223  
 Delta R.T. 0.071 min  
 Lab File: 3B410.D  
 Acq: 4 Mar 2010 12:43 pm



Tgt Ion: 45 Resp: 3584  
 Ion Ratio Lower Upper  
 45 100  
 121 0.0 0.0 59.6



Library Search Compound Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V3\  
Data File : 3B410.D  
Acq On : 4 Mar 2010 12:43 pm  
Operator : CDS1  
Sample : |248012006|959900|1|VOA|1|VOA8260BS|  
Misc : LANL 5G - SOIL  
ALS Vial : 10 Sample Multiplier: 1

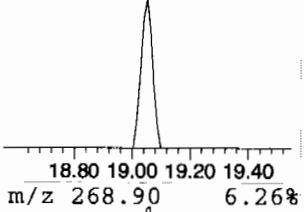
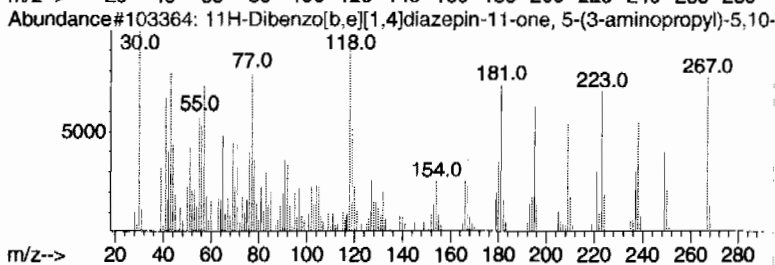
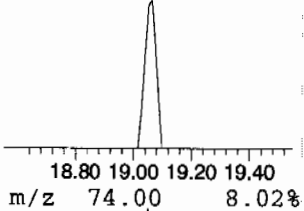
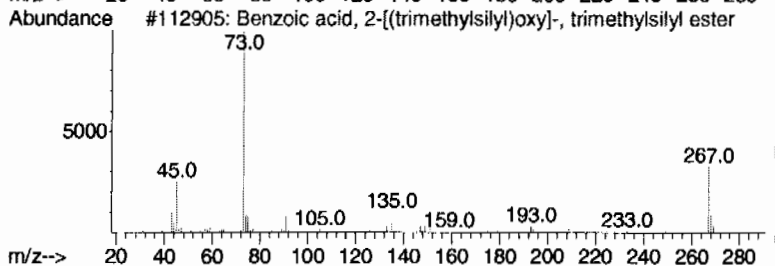
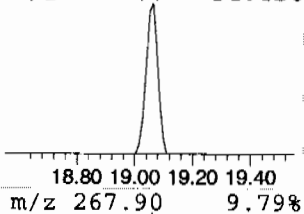
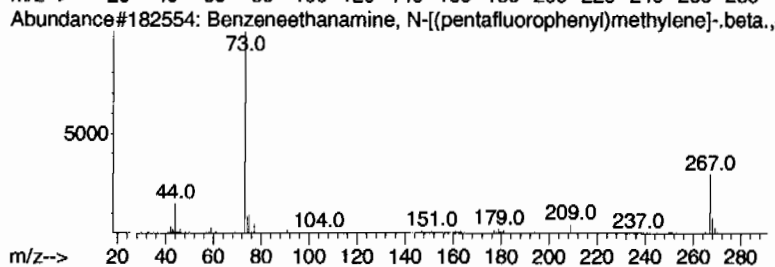
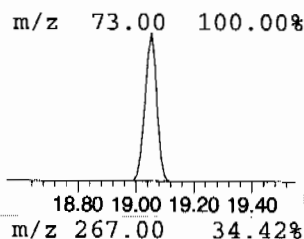
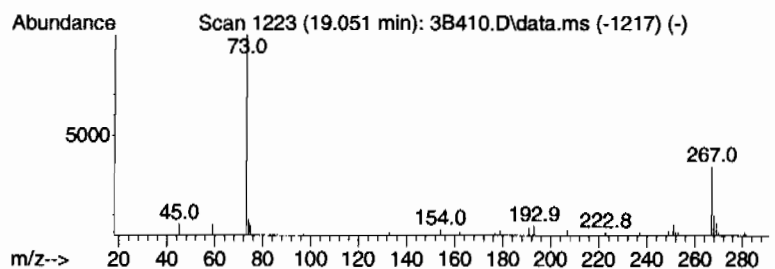
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M  
Quant Title : Volatile Organics 8260B SubList :

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.
19.051	6.15 ug/L	168034	B 1,4-Dichlorobenzene-d4	18.410

Hit#	of	5	Tentative ID	MW	MolForm	CAS#	Qual
1			Benzenethanamine, N-[(pentafluoro...]	475	C21H26F5NO2Si2	055429-85-1	42
2			Benzoic acid, 2-[(trimethylsilyl...]	282	C13H22O3Si2	003789-85-3	39
3			11H-Dibenzo[b,e][1,4]diazepin-11...	267	C16H17N3O	013450-73-2	27
4			Benzoic acid, 2-[(trimethylsilyl...]	282	C13H22O3Si2	003789-85-3	9
5			1,4-Cyclohexadiene, 1,3,6-tris(t...	296	C15H32Si3	1000150-10-8	9





Tentatively Identified Compound (LSC) summary  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V3\  
Data File : 3B410.D  
Acq On : 4 Mar 2010 12:43 pm  
Operator : CDS1  
Sample : |248012006|959900|1|VOA|1|VOA8260BS|  
Misc : LANL 5G - SOIL  
ALS Vial : 10 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.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	19.051	6.2	ug/L	168034	6	18.410	1366100	50.0

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

SDG Number: 10-2027  
 Lab Sample ID: 248012008

Date Collected: 02/20/2010 12:00  
 Date Received: 02/25/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA3.I  
 Analyst: CDS1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 2.3  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

Client ID: RE36-10-8483  
 Batch ID: 959900  
 Run Date: 03/04/2010 13:12  
 Prep Date: 03/04/2010 07:03  
 Data File: 030410V3\3B411.D

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.02	ug/kg	0.348	1.02
74-87-3	Chloromethane	U	1.02	ug/kg	0.307	1.02
75-01-4	Vinyl chloride	U	1.02	ug/kg	0.307	1.02
74-83-9	Bromomethane	U	1.02	ug/kg	0.307	1.02
75-00-3	Chloroethane	U	1.02	ug/kg	0.307	1.02
75-69-4	Trichlorofluoromethane	U	1.02	ug/kg	0.307	1.02
67-64-1	Acetone	U	5.12	ug/kg	1.70	5.12
75-35-4	1,1-Dichloroethylene	U	1.02	ug/kg	0.307	1.02
74-88-4	Iodomethane	U	5.12	ug/kg	1.64	5.12
75-09-2	Methylene chloride	U	5.12	ug/kg	2.05	5.12
75-15-0	Carbon disulfide	U	5.12	ug/kg	1.28	5.12
156-60-5	trans-1,2-Dichloroethylene	U	1.02	ug/kg	0.307	1.02
75-34-3	1,1-Dichloroethane	U	1.02	ug/kg	0.307	1.02
78-93-3	2-Butanone	U	5.12	ug/kg	1.54	5.12
156-59-2	cis-1,2-Dichloroethylene	U	1.02	ug/kg	0.307	1.02
594-20-7	2,2-Dichloropropane	U	1.02	ug/kg	0.307	1.02
67-66-3	Chloroform	U	1.02	ug/kg	0.307	1.02
74-97-5	Bromochloromethane	U	1.02	ug/kg	0.338	1.02
71-55-6	1,1,1-Trichloroethane	U	1.02	ug/kg	0.307	1.02
563-58-6	1,1-Dichloropropene	U	1.02	ug/kg	0.307	1.02
56-23-5	Carbon tetrachloride	U	1.02	ug/kg	0.307	1.02
107-06-2	1,2-Dichloroethane	U	1.02	ug/kg	0.307	1.02
71-43-2	Benzene	U	1.02	ug/kg	0.307	1.02
79-01-6	Trichloroethylene	U	1.02	ug/kg	0.338	1.02
78-87-5	1,2-Dichloropropane	U	1.02	ug/kg	0.307	1.02
75-27-4	Bromodichloromethane	U	1.02	ug/kg	0.307	1.02
74-95-3	Dibromomethane	U	1.02	ug/kg	0.307	1.02
108-10-1	4-Methyl-2-pentanone	U	5.12	ug/kg	1.28	5.12
10061-01-5	cis-1,3-Dichloropropylene	U	1.02	ug/kg	0.307	1.02
108-88-3	Toluene	U	1.02	ug/kg	0.307	1.02
10061-02-6	trans-1,3-Dichloropropylene	U	1.02	ug/kg	0.307	1.02
79-00-5	1,1,2-Trichloroethane	U	1.02	ug/kg	0.307	1.02
591-78-6	2-Hexanone	U	5.12	ug/kg	1.54	5.12
142-28-9	1,3-Dichloropropane	U	1.02	ug/kg	0.307	1.02
127-18-4	Tetrachloroethylene	U	1.02	ug/kg	0.307	1.02
124-48-1	Dibromochloromethane	U	1.02	ug/kg	0.307	1.02
106-93-4	1,2-Dibromoethane	U	1.02	ug/kg	0.307	1.02
108-90-7	Chlorobenzene	U	1.02	ug/kg	0.307	1.02

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

SDG Number: 10-2027  
 Lab Sample ID: 248012008

Date Collected: 02/20/2010 12:00  
 Date Received: 02/25/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA3.I  
 Analyst: CDS1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 2.3  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

Client ID: RE36-10-8483  
 Batch ID: 959900  
 Run Date: 03/04/2010 13:12  
 Prep Date: 03/04/2010 07:03  
 Data File: 030410V3\3B411.D

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.02	ug/kg	0.307	1.02
179601-23-1	m,p-Xylenes	U	2.05	ug/kg	0.307	2.05
95-47-6	o-Xylene	U	1.02	ug/kg	0.307	1.02
100-42-5	Styrene	U	1.02	ug/kg	0.307	1.02
75-25-2	Bromoform	U	1.02	ug/kg	0.307	1.02
79-34-5	1,1,2,2-Tetrachloroethane	U	1.02	ug/kg	0.307	1.02
96-18-4	1,2,3-Trichloropropane	U	1.02	ug/kg	0.307	1.02
108-86-1	Bromobenzene	U	1.02	ug/kg	0.307	1.02
103-65-1	n-Propylbenzene	U	1.02	ug/kg	0.307	1.02
95-49-8	2-Chlorotoluene	U	1.02	ug/kg	0.307	1.02
98-82-8	Isopropylbenzene	U	1.02	ug/kg	0.307	1.02
108-67-8	1,3,5-Trimethylbenzene	U	1.02	ug/kg	0.307	1.02
106-43-4	4-Chlorotoluene	U	1.02	ug/kg	0.307	1.02
98-06-6	tert-Butylbenzene	U	1.02	ug/kg	0.307	1.02
95-63-6	1,2,4-Trimethylbenzene	U	1.02	ug/kg	0.307	1.02
135-98-8	sec-Butylbenzene	U	1.02	ug/kg	0.307	1.02
99-87-6	4-Isopropyltoluene	U	1.02	ug/kg	0.307	1.02
541-73-1	1,3-Dichlorobenzene	U	1.02	ug/kg	0.307	1.02
106-46-7	1,4-Dichlorobenzene	U	1.02	ug/kg	0.307	1.02
104-51-8	n-Butylbenzene	U	1.02	ug/kg	0.307	1.02
96-12-8	1,2-Dibromo-3-chloropropane	U	1.02	ug/kg	0.307	1.02
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	5.12	ug/kg	1.64	5.12
	Trichlorotrifluoroethane					
630-20-6	1,1,1,2-Tetrachloroethane	U	1.02	ug/kg	0.307	1.02
95-50-1	1,2-Dichlorobenzene	U	1.02	ug/kg	0.307	1.02

**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\030410V3\  
Data File : 3B411.D  
Acq On : 4 Mar 2010 1:12 pm  
Operator : CDS1  
InstName : VOA3  
Sample : |248012008|959900|1|VOA|1|VOA8260BS|  
Misc : LANL 5G - SOIL  
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 04 16:57:44 2010  
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 01 09:52:36 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	12.232	12.232	1.000	96	720442	50.00	ug/L	0.00
41) Chlorobenzene-d5	15.849	15.849	1.000	117	534429	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	18.410	18.410	1.000	152	249015	50.00	ug/L	0.00
82) B Fluorobenzene	12.232	12.232	1.000	96	720226	50.00	ug/L	0.00
103) B Chlorobenzene-d5	15.849	15.849	1.000	117	534429	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	18.410	18.410	1.000	152	252259	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	11.793	11.793	0.964	65	216938	49.10	ug/L	0.00
Spiked Amount 50.000	Range 66	- 134	Recovery	=	98.20%			
43) Toluene-d8	14.165	14.165	0.894	98	721856	50.19	ug/L	0.00
Spiked Amount 50.000	Range 71	- 128	Recovery	=	100.38%			
61) Bromofluorobenzene	17.130	17.130	0.930	95	252656	50.32	ug/L	0.00
Spiked Amount 50.000	Range 65	- 130	Recovery	=	100.64%			
Target Compounds								QValue
2) Dichlorodifluoromethane	0.000	4.800	0.000		0	N.D.		
3) Chloromethane	0.000	5.216	0.000		0	N.D.		
4) Vinyl chloride	0.000	5.528	0.000		0	N.D.		
5) Bromomethane	0.000	6.291	0.000		0	N.D.		
6) Chloroethane	0.000	6.493	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	7.062	0.000		0	N.D.		
8) Ethyl ether	0.000	7.512	0.000		0	N.D.		
9) Acetone	7.999	7.987	0.654	43	2497	N.D.		
10) 1,1-Dichloroethylene	0.000	7.987	0.000		0	N.D.		
11) Iodomethane	0.000	8.271	0.000		0	N.D.		
12) Acetonitrile	0.000	8.449	0.000		0	N.D.		
13) Methyl acetate	0.000	8.520	0.000		0	N.D.		
14) Carbon disulfide	8.426	8.449	0.689	76	400	N.D.		
15) Methylene chloride	8.746	8.746	0.715	84	3191	N.D.		
16) tert-Butyl methyl ether	0.000	9.173	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	9.208	0.000		0	N.D.		
18) Vinyl acetate	0.000	9.837	0.000		0	N.D.		
19) 1,1-Dichloroethane	0.000	9.860	0.000		0	N.D.		
20) 2-Butanone	0.000	10.643	0.000		0	N.D.		
21) cis-1,2-Dichloroethylene	0.000	10.691	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	10.714	0.000		0	N.D.		
23) Bromochloromethane	0.000	11.034	0.000		0	N.D.		
24) Chloroform	0.000	11.094	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	11.426	0.000		0	N.D.		
26) Cyclohexane	0.000	11.532	0.000		0	N.D.		
27) 1,1-Dichloropropene	0.000	11.627	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	11.663	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	11.888	0.000		0	N.D.		
31) Benzene	0.000	11.912	0.000		0	N.D.		
32) Cyclohexene	0.000	12.054	0.000		0	N.D.		
33) n-Butyl alcohol	0.000	12.398	0.000		0	N.D.		
34) Trichloroethylene	0.000	12.695	0.000		0	N.D.		
35) 1,2-Dichloropropane	0.000	12.979	0.000		0	N.D.		
36) Methylcyclohexane	0.000	12.991	0.000		0	N.D.		
37) Dibromomethane	0.000	13.133	0.000		0	N.D.		

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V3\  
Data File : 3B411.D  
Acq On : 4 Mar 2010 1:12 pm  
Operator : CDS1  
InstName : VOA3  
Sample : |248012008|959900|1|VOA|1|VOA8260BS|  
Misc : LANL 5G - SOIL  
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 04 16:57:44 2010  
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 01 09:52:36 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
38) Bromodichloromethane	0.000	13.288	0.000		0	N.D.	
39) 2-Chloroethylvinyl ether	0.000	13.560	0.000		0	N.D.	
40) cis-1,3-Dichloropropylene	0.000	13.809	0.000		0	N.D.	
42) 4-Methyl-2-pentanone	0.000	13.928	0.000		0	N.D.	
44) Toluene	14.248	14.248	0.899	91	1036	N.D.	
45) trans-1,3-Dichloroprop...	0.000	14.426	0.000		0	N.D.	
46) 1,1,2-Trichloroethane	0.000	14.675	0.000		0	N.D.	
47) 2-Hexanone	0.000	14.888	0.000		0	N.D.	
48) 1,3-Dichloropropane	0.000	14.888	0.000		0	N.D.	
49) Tetrachloroethylene	0.000	14.912	0.000		0	N.D.	
50) Dibromochloromethane	0.000	15.173	0.000		0	N.D.	
51) 1,2-Dibromoethane	0.000	15.351	0.000		0	N.D.	
52) Chlorobenzene	0.000	15.885	0.000		0	N.D.	
53) 1,1,1,2-Tetrachloroethane	0.000	15.956	0.000		0	N.D.	
54) Ethylbenzene	16.086	15.968	1.015	91	1637	N.D.	
55) m,p-Xylenes	16.086	16.086	1.015	106	691	N.D.	
56) o-Xylene	0.000	16.549	0.000		0	N.D.	
57) Styrene	0.000	16.549	0.000		0	N.D.	
59) Bromoform	0.000	16.821	0.000		0	N.D.	
60) Isopropylbenzene	0.000	16.928	0.000		0	N.D.	
62) 1,1,2,2-Tetrachloroethane	0.000	17.213	0.000		0	N.D.	
63) 1,2,3-Trichloropropane	0.000	17.308	0.000		0	N.D.	
64) Bromobenzene	0.000	17.343	0.000		0	N.D.	
65) n-Propylbenzene	0.000	17.367	0.000		0	N.D.	
66) 1,3,5-Trimethylbenzene	0.000	17.533	0.000		0	N.D.	
67) 2-Chlorotoluene	0.000	17.521	0.000		0	N.D.	
68) 4-Chlorotoluene	0.000	17.628	0.000		0	N.D.	
69) tert-Butylbenzene	0.000	17.912	0.000		0	N.D.	
70) 1,2,4-Trimethylbenzene	17.960	17.960	0.976	105	1397	N.D.	
71) sec-Butylbenzene	0.000	18.150	0.000		0	N.D.	
72) 4-Isopropyltoluene	0.000	18.280	0.000		0	N.D.	
73) 1,3-Dichlorobenzene	0.000	18.351	0.000		0	N.D.	
74) 1,4-Dichlorobenzene	0.000	18.434	0.000		0	N.D.	
75) n-Butylbenzene	0.000	18.742	0.000		0	N.D.	
76) 1,2-Dichlorobenzene	0.000	18.885	0.000		0	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000	19.810	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	0.000	20.936	0.000		0	N.D.	
79) Hexachlorobutadiene	0.000	21.126	0.000		0	N.D.	
80) Naphthalene	21.351	21.351	1.160	128	1465	N.D.	
81) 1,2,3-Trichlorobenzene	0.000	21.719	0.000		0	N.D.	
83) Chlorotrifluoroethylene	0.000	4.711	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000	5.751	0.000		0	N.D.	
85) Acrolein	0.000	7.750	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000	7.975	0.000		0	N.D.	
87) Isopropyl Alcohol	0.000	8.141	0.000		0	N.D.	
88) Allyl chloride	0.000	8.556	0.000		0	N.D.	
89) tert-Butyl Alcohol	0.000	8.793	0.000		0	N.D.	
90) Acrylonitrile	0.000	9.090	0.000		0	N.D.	
91) Isopropyl ether	0.000	9.884	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	0.000	10.003	0.000		0	N.D.	
93) Ethyl tert-butyl ether	0.000	10.406	0.000		0	N.D.	
94) Ethyl acetate	0.000	10.679	0.000		0	N.D.	

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V3\  
Data File : 3B411.D  
Acq On : 4 Mar 2010 1:12 pm  
Operator : CDS1  
InstName : VOA3  
Sample : |248012008|959900|1|VOA|1|VOA8260BS|  
Misc : LANL 5G - SOIL  
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 04 16:57:44 2010  
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 01 09:52:36 2010  
Response via : Initial Calibration  
Integrator: RTE

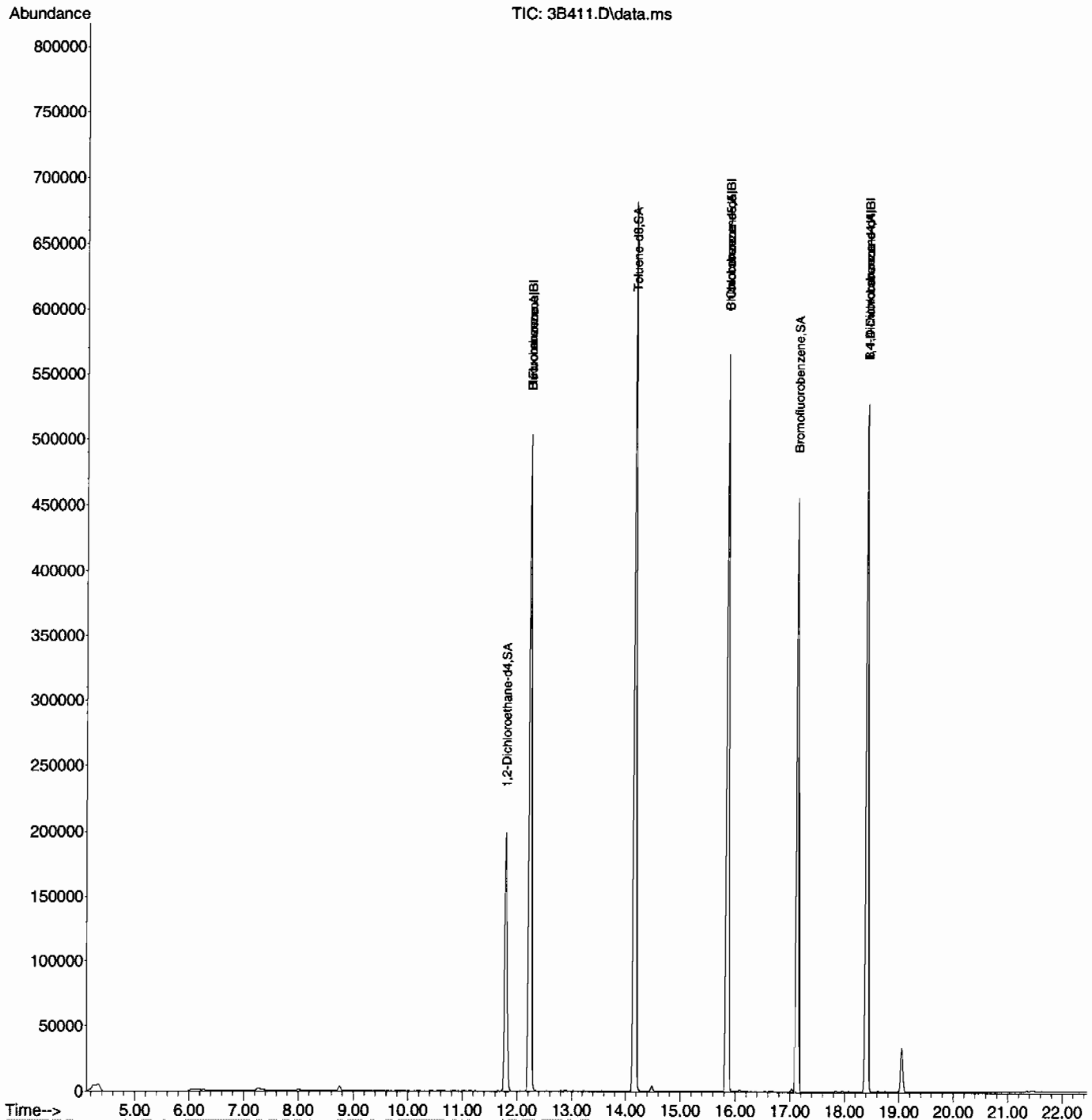
Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95) Propionitrile	0.000	10.726	0.000		0	N.D.	
96) Methacrylonitrile	0.000	10.951	0.000		0	N.D.	
97) Tetrahydrofuran	0.000	11.094	0.000		0	N.D.	
98) Isobutyl alcohol	0.000	11.556	0.000		0	N.D.	
99) Methyl tert-amyl ether	0.000	11.971	0.000		0	N.D.	
100) Methyl methacrylate	0.000	12.991	0.000		0	N.D.	
101) 1,4-Dioxane	0.000	13.098	0.000		0	N.D.	
102) 2-Nitropropane	0.000	13.525	0.000		0	N.D.	
104) Ethyl methacrylate	0.000	14.450	0.000		0	N.D.	
106) 1-Chlorohexane	0.000	15.754	0.000		0m	N.D.	d
107) cis-1,4-Dichloro-2-butene	0.000	16.964	0.000		0	N.D.	
108) Cyclohexanone	0.000	17.082	0.000		0	N.D.	
109) trans-1,4-Dichloro-2-b...	0.000	17.260	0.000		0	N.D.	
110) Pentachloroethane	0.000	17.983	0.000		0	N.D.	
111) Benzyl chloride	0.000	18.553	0.000		0m	N.D.	d
112) bis(2-Chloroisopropyl)...	19.051	18.980	1.035	45	2222	N.D.	

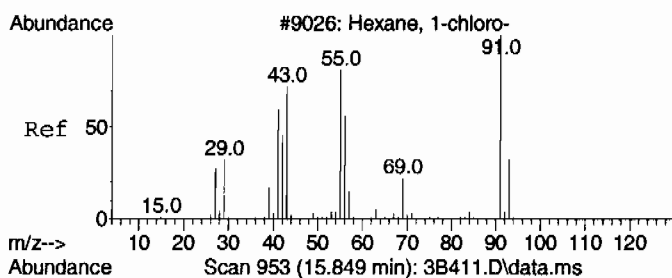
(#) = qualifier out of range (m) = manual integration (+) = signals summed  
(E) = Over the calibration range (d) = deleted

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V3\  
Data File : 3B411.D  
Acq On : 4 Mar 2010 1:12 pm  
Operator : CDS1  
InstName : VOA3  
Sample : |248012008|959900|1|VOA|1|VOA8260BS|  
Misc : LANL 5G - SOIL  
ALS Vial : 11 Sample Multiplier: 1

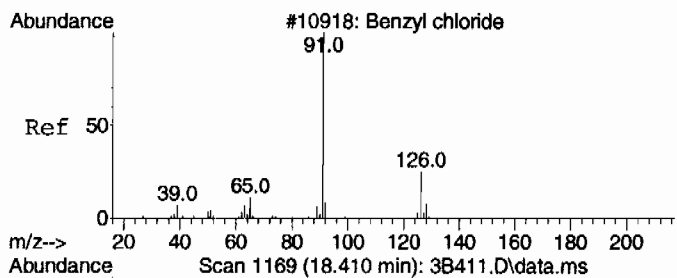
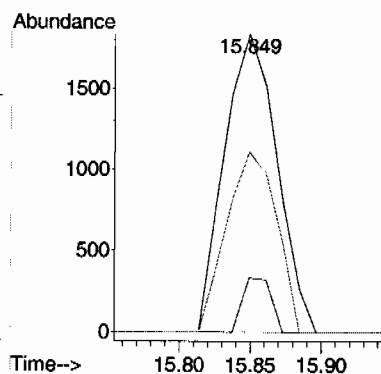
Quant Time: Mar 04 16:57:44 2010  
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 01 09:52:36 2010  
Response via : Initial Calibration  
Integrator: RTE





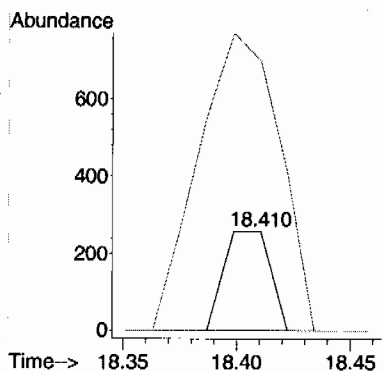
#106 BEFORE analyst DELETION  
1-Chlorohexane  
Concen: 2.07 ug/L  
RT: 15.849 min Scan# 953  
Delta R.T. 0.095 min  
Lab File: 3B411.D  
Acq: 4 Mar 2010 1:12 pm

Tgt Ion: 55 Resp: 4723  
Ion Ratio Lower Upper  
55 100  
91 9.8 119.7 179.7#  
56 57.6 29.6 89.6



#111 BEFORE analyst DELETION  
Benzyl chloride  
Concen: 1.68 ug/L  
RT: 18.410 min Scan# 1169  
Delta R.T. -0.142 min  
Lab File: 3B411.D  
Acq: 4 Mar 2010 1:12 pm

Tgt Ion: 91 Resp: 369  
Ion Ratio Lower Upper  
91 100  
126 0.0 0.0 51.8  
65 521.1 0.0 41.3#





Library Search Compound Report

GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V3\

Data File : 3B411.D

Acq On : 4 Mar 2010 1:12 pm

Operator : CDS1

Sample : |248012008|959900|1|VOA|1|VOA8260BS|

Misc : LANL 5G - SOIL

ALS Vial : 11 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.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\030410V3\  
Data File : 3B411.D  
Acq On : 4 Mar 2010 1:12 pm  
Operator : CDS1  
Sample : |248012008|959900|1|VOA|1|VOA8260BS|  
Misc : LANL 5G - SOIL  
ALS Vial : 11 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M  
Quant Title : Volatile Organics 8260B SubList :

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

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--
				#	RT Resp Conc

# Standards

EPA 524.2/Low level SW846 8260B and Regular level 8260B and EPA 624  
Calibration Standard Concentration Levels

	Level 1	Level 1a	Level 2	Level 3	Level 4 #	Level 5	Level 6	Level 7 !	Level 7a
Fluorobenzene (IS)									
1,2-Dichloroethane-d4(surr)		0.5	1	2	5	10	20	50	100
Dichlorodifluoromethane		0.5	1	2	5	10	20	50	100
Chloromethane		0.5	1	2	5	10	20	50	100
Vinyl chloride		0.5	1	2	5	10	20	50	100
Bromomethane		0.5	1	2	5	10	20	50	100
Chloroethane		0.5	1	2	5	10	20	50	100
Trichlorofluoromethane		0.5	1	2	5	10	20	50	100
1,1-Dichloroethene		0.5	1	2	5	10	20	50	100
Acetone	1	2.5	5	10	25	50	100	250	500
Iodomethane	1	2.5	5	10	25	50	100	250	500
Carbon disulfide	1	2.5	5	10	25	50	100	250	500
Methylene chloride		0.5	1	2	5	10	20	50	100
trans-1,2-Dichloroethene		0.5	1	2	5	10	20	50	100
1,1-Dichloroethane		0.5	1	2	5	10	20	50	100
Ethyl ether		0.5	1	2	5	10	20	50	100
Vinyl acetate	1	2.5	5	10	25	50	100	250	500
cis-1,2-Dichloroethene		0.5	1	2	5	10	20	50	100
1,2-Dichloroethene (total)		1	2	4	10	20	40	100	200
Cyclohexene		0.5	1	2	5	10	20	50	100
2-Chloroethylvinyl ether			5	10	25	50	100	250	500
2,2-Dichloropropane		0.5	1	2	5	10	20	50	100
2-Butanone	1	2.5	5	10	25	50	100	250	500
Bromochloromethane		0.5	1	2	5	10	20	50	100
Chloroform		0.5	1	2	5	10	20	50	100
1,1,1-Trichloroethane		0.5	1	2	5	10	20	50	100
1,1-Dichloropropene		0.5	1	2	5	10	20	50	100
Carbon tetrachloride		0.5	1	2	5	10	20	50	100
Benzene		0.5	1	2	5	10	20	50	100
1,2-Dichloroethane		0.5	1	2	5	10	20	50	100
Trichloroethene		0.5	1	2	5	10	20	50	100
1,2-Dichloropropane		0.5	1	2	5	10	20	50	100
Dibromomethane		0.5	1	2	5	10	20	50	100
Bromodichloromethane		0.5	1	2	5	10	20	50	100
cis-1,3-Dichloropropene		0.5	1	2	5	10	20	50	100
tert-Butylmethylether		0.5	1	2	5	10	20	50	100
Ethyl Ether			1	2	5	10	20	50	100
Acetonitrile			25	50	125	250	500	1250	2500
Methyl acetate			5	10	25	50	100	250	500
Cyclohexane			1	2	5	10	20	50	100
Methylcyclohexane			1	2	5	10	20	50	100
n-Butyl alcohol			50	100	250	500	1000	2500	5000
2-Nitropropane			5	10	25	50	100	250	500
Ethyl acetate			5	10	25	50	100	250	500
Acrolein			5	10	25	50	100	250	500
Trichlorotrifluoroethane			5	10	25	50	100	250	500
Allyl chloride			5	10	25	50	100	250	500
Acrylonitrile			5	10	25	50	100	250	500
1,4-Dioxane			50	100	250	500	1000	2500	5000
Isobutyl alcohol			50	100	250	500	1000	2500	5000
Methacrylonitrile			5	10	25	50	100	250	500
Propionitrile			5	10	25	50	100	250	500
Methyl methacrylate			5	10	25	50	100	250	500
Chlorotrifluoroethylene			5	10	25	50	100	250	500
2-Chloro-1,1,1-trifluoroethane			5	10	25	50	100	250	500

tert-Butyl alcohol			50	100	250	500	1000	2500	5000
Isopropyl ether			1	2	5	10	20	50	100
Ethyl tert-butyl ether			1	2	5	10	20	50	100
Isopropyl alcohol			50	100	250	500	1000	2500	5000
Methyl tert-amyl ether			1	2	5	10	20	50	100
1-Chlorohexane			1	2	5	10	20	50	100
2-Chloro-1,3-butadiene(chloroprene)			1	2	5	10	20	50	100
Chlorobenzene-d5 (IS)									
Toluene-d8 (surr)		0.5	1	2	5	10	20	50	100
4-Methyl-2-pentanone	1	2.5	5	10	25	50	100	250	500
Toluene		0.5	1	2	5	10	20	50	100
trans-1,3-Dichloropropene		0.5	1	2	5	10	20	50	100
1,1,2-Trichloroethane		0.5	1	2	5	10	20	50	100
Tetrachloroethene		0.5	1	2	5	10	20	50	100
1,3-Dichloropropane		0.5	1	2	5	10	20	50	100
2-Hexanone	1	2.5	5	10	25	50	20	250	500
Dibromochloromethane		0.5	1	2	5	10	20	50	100
1,2-Dibromoethane		0.5	1	2	5	10	20	50	100
Chlorobenzene		0.5	1	2	5	10	20	50	100
1,1,1,2-Tetrachloroethane		0.5	1	2	5	10	20	50	100
Ethylbenzene		0.5	1	2	5	10	20	50	100
m,p-Xylene		1	2	4	10	20	20	100	200
o-Xylene		0.5	1	2	5	10	20	50	100
Xylenes (total)		1.5	3	6	15	30	60	150	300
Stryene		0.5	1	2	5	10	20	50	100
Cyclohexanone			50	100	250	500	1000	2500	5000
Ethyl methacrylate			5	10	25	50	100	250	500
1,4-Dichlorobenzene-d4 (IS)									
Bromofluorobenzene (surr)		0.5	1	2	5	10	20	50	100
Bromoform		0.5	1	2	5	10	20	50	100
Isopropylbenzene		0.5	1	2	5	10	20	50	100
1,1,2,2-Tetrachloroethane		0.5	1	2	5	10	20	50	100
Bromobenzene		0.5	1	2	5	10	20	50	100
1,2,3-Trichloropropane		0.5	1	2	5	10	20	50	100
n-Propylbenzene		0.5	1	2	5	10	20	50	100
2-Chlorotoluene		0.5	1	2	5	10	20	50	100
1,3,5-Trimethylbenzene		0.5	1	2	5	10	20	50	100
4-Chlorotoluene		0.5	1	2	5	10	20	50	100
1,2,4-Trimethylbenzene		0.5	1	2	5	10	20	50	100
sec-Butylbenzene		0.5	1	2	5	10	20	50	100
1,3-Dichlorobenzene		0.5	1	2	5	10	20	50	100
tert-Butylbenzene		0.5	1	2	5	10	20	50	100
Isopropyltoluene		0.5	1	2	5	10	20	50	100
1,4-Dichlorobenzene		0.5	1	2	5	10	20	50	100
n-Butylbenzene		0.5	1	2	5	10	20	50	100
1,2-Dichlorobenzene		0.5	1	2	5	10	20	50	100
1,2-Dibromo-3-chloropropa		0.5	1	2	5	10	20	50	100
1,2,4-Trichlorobenzene		0.5	1	2	5	10	20	50	100
Hexachlorobutadiene		0.5	1	2	5	10	20	50	100
Naphthalene		0.5	1	2	5	10	20	50	100
1,2,3-Trichlorobenzene		0.5	1	2	5	10	20	50	100
cis-1,4-Dichloro-2-butene			5	10	25	50	100	250	500
trans-1,4-Dichloro-2-butene			5	10	25	50	100	250	500
Tetrahydrofuran			5	10	25	50	100	250	500
Pentachloroethane			5	10	25	50	100	250	500
Benzyl chloride			5	10	25	50	100	250	500
bis(2-Chloro-isopropyl)ether			5	10	25	50	100	250	500

Method	PQL	Concentration range
EPA 524.2	Level 1a	Levels 1a -> 7a
SW 846 8260B low level	Level 1a	Levels 1-> 7a
EPA 624	Level 2	Levels 2-> 7a
SW846 8260B	Level 2	Levels 2-> 7a

#: Indicates calibration verification concentration level used for low level analysis

!: Indicates calibration verification concentration level used for regular level analysis

# Calibration History Report VOA3

GEL Laboratories, LLC

Method File : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M

Last Update : Mon Mar 01 09:52:36 2010

Integrator : (RTE Integrator)

Response via : Initial Calibration

Cal Lvl:8 Amt:-1 Last Updated with: C:\msdchem\1\DATA\022610V3\3A511.D

Injection Date	Mix	Calibration File
26 Feb 2010 2:20 pm	A	C:\msdchem\1\DATA\022610V3\3A511.D

Cal Lvl:1 Amt:1 Last Updated with: C:\msdchem\1\DATA\022610V3\3A515.D

Injection Date	Mix	Calibration File
26 Feb 2010 10:23 am	A	C:\msdchem\1\DATA\022610V3\3A503.D
26 Feb 2010 4:17 pm	B	C:\msdchem\1\DATA\022610V3\3A515.D

Cal Lvl:2 Amt:2 Last Updated with: C:\msdchem\1\DATA\022610V3\3A516.D

Injection Date	Mix	Calibration File
26 Feb 2010 10:53 am	A	C:\msdchem\1\DATA\022610V3\3A504.D
26 Feb 2010 4:46 pm	B	C:\msdchem\1\DATA\022610V3\3A516.D

Cal Lvl:3 Amt:5 Last Updated with: C:\msdchem\1\DATA\022610V3\3A517.D

Injection Date	Mix	Calibration File
26 Feb 2010 11:23 am	A	C:\msdchem\1\DATA\022610V3\3A505.D
26 Feb 2010 5:15 pm	B	C:\msdchem\1\DATA\022610V3\3A517.D

Cal Lvl:4 Amt:10 Last Updated with: C:\msdchem\1\DATA\022610V3\3A518.D

Injection Date	Mix	Calibration File
26 Feb 2010 11:52 am	A	C:\msdchem\1\DATA\022610V3\3A506.D
26 Feb 2010 5:45 pm	B	C:\msdchem\1\DATA\022610V3\3A518.D

Cal Lvl:5 Amt:20 Last Updated with: C:\msdchem\1\DATA\022610V3\3A519.D

Injection Date	Mix	Calibration File
26 Feb 2010 12:22 pm	A	C:\msdchem\1\DATA\022610V3\3A507.D
26 Feb 2010 6:14 pm	B	C:\msdchem\1\DATA\022610V3\3A519.D

Cal Lvl:6 Amt:50 Last Updated with: C:\msdchem\1\DATA\022610V3\3A520.D

Injection Date	Mix	Calibration File
26 Feb 2010 12:52 pm	A	C:\msdchem\1\DATA\022610V3\3A508.D
26 Feb 2010 6:43 pm	B	C:\msdchem\1\DATA\022610V3\3A520.D

Cal Lvl:7 Amt:100 Last Updated with: C:\msdchem\1\DATA\022610V3\3A521.D

Injection Date	Mix	Calibration File
26 Feb 2010 1:21 pm	A	C:\msdchem\1\DATA\022610V3\3A509.D
26 Feb 2010 7:14 pm	B	C:\msdchem\1\DATA\022610V3\3A521.D

VOA3-8260-022610.M Tue Mar 16 10:08:14 2010

VOA3-8260-022610.M Tue Mar 16 10:08:06 2010

Page: 1

Response Factor Report VOA3  
GEL Laboratories, LLC

Method File : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M

Last Update : Mon Mar 01 09:52:36 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	1	2	3	4	5	Avg	Curve	Exp	%RSD/ $r^2$
		m1	m2	6	7								
2)MA	Dichlorodifluoromethane				2277	5491	18101	26429	54755		LINR		0.9995
	0.0023   0.1374   0.00				265306								
3)MPA	Chloromethane				0.2616031	0.2323936	0.2502915	0.2201181	0.2227574	0.2352	AVRG		7.2040
					0.2242101								
4)MCA	Vinyl chloride				0.2541011	0.2352067	0.2551214	0.2262592	0.2268934	0.2397	AVRG		5.3131
					0.2406996								
5)MA	Bromomethane				0.2072141	0.1833422	0.1967047	0.1853018	0.1905574	0.1935	AVRG		4.5923
					0.1976563								
6)MA	Chloroethane				0.1439835	0.1515516	0.1635666	0.1519987	0.1571248	0.1549	AVRG		4.6177
					0.1609703								
7)MA	Trichlorofluoromethane				0.3275129	0.3205552	0.3526688	0.3230757	0.3256797	0.3298	AVRG		3.5251
					0.3295311								
8)MA	Ethyl ether				0.1632206	0.1588711	0.1698610	0.1702956	0.1792069	0.1705	AVRG		5.1616
					0.1815809								
9)MA	Acetone				0.2512718	0.2223648	0.2033793	0.2013304	0.1941089	0.2108	AVRG		10.6879
					0.1922869								
10)MCA	1,1-Dichloroethylene				0.3242442	0.3114878	0.3387494	0.3630812	0.3504022	0.3390	AVRG		5.4902
					0.3458620								
11)MA	Iodomethane				0.4294534	0.4178005	0.4292890	0.4418386	0.4343625	0.4286	AVRG		2.1314
					0.4190581								
12)MA	Acetonitrile				0.0402682	0.0382372	0.0366367	0.0366463	0.0346505	0.0365	AVRG		7.2968
					0.0326505								
13)MA	Methyl acetate				0.2076535	0.1923167	0.1885164	0.1826725	0.1780487	0.1881	AVRG		5.8454
					0.1795084								
14)MA	Carbon disulfide				0.7600850	0.7160095	0.7724256	0.7803354	0.7507584	0.7478	AVRG		4.0011
					0.7072909								
15)MA	Methylene chloride				0.2643832	0.3707264	0.3129119	0.2978783	0.2772388	0.3046	AVRG		13.5875
16)MA	tert-Butyl methyl ether				0.6294121	0.7724787	0.6242810	0.6481214	0.6521856	0.6625	AVRG		8.3090
					0.6487595								



Response Factor Report VOA3  
GEL Laboratories, LLC

Method File : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M

Last Update : Mon Mar 01 09:52:36 2010

Integrator : (RTE Integrator)

Response via : Initial Calibration

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

b	Compound	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/ $r^2$
17)MA	trans-1,2-Dichloroethylene	0.2879134 0.3121953	0.3205825	0.3159418	0.3271093	0.3199899	0.3140	AVRG	---	---	4.3640
18)MA	Vinyl acetate	0.3708955 0.3676321	0.3562677	0.3763507	0.3961861	0.3992501	0.3778	AVRG	---	---	4.4531
19)MPA	1,1-Dichloroethane	0.3891895 0.3840108	0.3951156	0.3902567	0.4064048	0.4023760	0.3946	AVRG	---	---	2.1516
20)MA	2-Butanone	0.2176096 0.2243453	0.2073927	0.2035761	0.2041258	0.2025725	0.2099	AVRG	---	---	4.2679
21)MA	cis-1,2-Dichloroethylene	0.3148132 0.3490691	0.3479486	0.3487669	0.3618816	0.3617607	0.3474	AVRG	---	---	4.9575
22)MA	2,2-Dichloropropane	0.2273085 0.2579670	0.2285154	0.2406765	0.2548518	0.2523942	0.2436	AVRG	---	---	5.5433
23)MA	Bromochloromethane	0.1225494 0.1324406	0.1224921	0.1286731	0.1292831	0.1318949	0.1279	AVRG	---	---	3.4433
24)MCA	Chloroform	0.3924582 0.4048216	0.3828801	0.4055065	0.4179002	0.4123718	0.4027	AVRG	---	---	3.2088
25)MA	1,1,1-Trichloroethane	0.3013633 0.3457650	0.3029120	0.3266748	0.3385056	0.3468985	0.3270	AVRG	---	---	6.2937
26)MA	Cyclohexane	0.3569848 0.3650756	0.3431964	0.3658950	0.3821484	0.3830406	0.3661	AVRG	---	---	4.1489
27)MA	1,1-Dichloropropene	0.2585487 0.2772380	0.2705751	0.2830943	0.2924361	0.2851494	0.2778	AVRG	---	---	4.3171
28)MA	Carbon tetrachloride	0.2621925 0.3083052	0.2521945	0.2910993	0.2979444	0.3040173	0.2860	AVRG	---	---	8.1269
29)SA	1,2-Dichloroethane-d4	0.3048163 0.3054923	0.3038023	0.3043099	0.3120712	0.3093640	0.3066	AVRG	---	---	1.0820
30)MA	1,2-Dichloroethane	0.3206540 0.3078525	0.3189165	0.3150473	0.3121416	0.3149056	0.3149	AVRG	---	---	1.4658
31)MA	Benzene	0.8925155 0.8492594	0.8667581	0.8810794	0.9114586	0.8881848	0.8815	AVRG	---	---	2.4438

Method File : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M  
Last Update : Mon Mar 01 09:52:36 2010  
Integrator : (RTE Integrator)

Response via : Initial Calibration

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

b	Compound	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/ $r^2$
32)MA	Cyclohexene		0.3909578 0.4052279	0.4007418	0.4027450	0.4153084	0.4060418	0.4035	AVRG		1.9651
33)MA	n-Butyl alcohol -0.0153   0.0095   0.00	6147	13646 1801412	26068	68644	152277	327782		LINR	#	0.9998
34)MA	Trichloroethylene		0.2185741 0.2296824	0.2169080	0.2293622	0.2366375	0.2345330	0.2276	AVRG		3.5852
35)MA	1,2-Dichloropropane		0.2132156 0.2142021	0.2089330	0.2127484	0.2202776	0.2222368	0.2153	AVRG		2.3272
36)MA	Methylcyclohexane		0.3768113 0.3724753	0.3477301	0.3812230	0.3983542	0.3842014	0.3768	AVRG		4.4451
37)MA	Dibromomethane		0.1343382 0.1494473	0.1372676	0.1528224	0.1446250	0.1484067	0.1445	AVRG		5.0347
38)MA	Bromodichloromethane		0.2494928 0.3062115	0.2501461	0.2659550	0.2845010	0.2930440	0.2749	AVRG		8.5160
39)MA	2-Chloroethylvinyl ether -0.0077   0.0716   0.00		4198 681672	8783	24673	52943	116501		LINR		0.9993
40)MA	cis-1,3-Dichloropropylene		0.2842160 0.3552871	0.2817182	0.2936149	0.3215129	0.3379201	0.3124	AVRG		9.7753
42)MA	4-Methyl-2-pentanone		0.1126917 0.1280754	0.1194132	0.1148631	0.1259371	0.1238311	0.1208	AVRG		5.1220
43)SA	Toluene-d8		1.3518916 1.3270201	1.3510408	1.3495094	1.3589702	1.3350480	1.3456	AVRG		0.8917
44)MA	Toluene		1.2887421 1.1259558	1.1909009	1.1756455	1.2234448	1.1780655	1.1971	AVRG		4.5776
45)MA	trans-1,3-Dichloropropyl		0.3431112 0.4100913	0.3410400	0.3336466	0.3709023	0.3844142	0.3639	AVRG		8.2205
46)MA	1,1,2-Trichloroethane		0.2078616 0.2076847	0.2077071	0.1987867	0.2114831	0.2074057	0.2068	AVRG		2.0427
47)MA	2-Hexanone		0.3084722 0.3216425	0.3020269	0.2974837	0.3127201	0.3081516	0.3084	AVRG		2.7277

Response Factor Report VOA3  
GEL Laboratories, LLC

Method File : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M  
Last Update : Mon Mar 01 09:52:36 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>
48)MA	1,3-Dichloropropane	0.4572956 0.4094379	0.4237014	0.4156022	0.4398228	0.4312282	0.4295	AVRG	4.0479		
49)MA	Tetrachloroethylene	0.2354138 0.2179223	0.2323932	0.2334344	0.2470356	0.2330730	0.2332	AVRG	3.9786		
50)MA	Dibromochloromethane	0.2494340 0.3164834	0.2429278	0.2628701	0.2793324	0.2903839	0.2736	AVRG	10.0684		
51)MA	1,2-Dibromoethane	0.2700109 0.2763561	0.2529708	0.2593241	0.2696286	0.2675353	0.2660	AVRG	3.1600		
52)MPA	Chlorobenzene	0.8011741 0.7610658	0.8025255	0.7738711	0.7949044	0.7811634	0.7858	AVRG	2.1101		
53)MA	1,1,1,2-Tetrachloroethane	0.2596875 0.2989609	0.2347810	0.2665300	0.2764643	0.2846701	0.2702	AVRG	8.2002		
54)MCA	Ethylbenzene	1.2936945 1.1837419	1.2319507	1.2102932	1.2614568	1.2410204	1.2370	AVRG	3.1107		
55)MA	m,p-Xylenes	0.4932529 0.4920194	0.4670689	0.4844705	0.5068089	0.5057304	0.4916	AVRG	2.9988		
56)MA	o-Xylene	0.4360212 0.5137219	0.4710369	0.4978140	0.5103853	0.5178328	0.4911	AVRG	6.4898		
57)MA	Styrene	0.7238189 0.8665230	0.7084516	0.7473548	0.8145164	0.8437693	0.7841	AVRG	8.4573		
59)MPA	Bromoform	1705 319914	3889	10263	22941	51759		LINR	0.9991		
60)MA	Isopropylbenzene	2.4693419 2.4666939	2.3478839	2.4305203	2.6280982	2.5248171	2.4779	AVRG	3.7905		
61)SA	Bromofluorobenzene	1.0117596 1.0073171	1.0079856	1.0046478	1.0271820	0.9900732	1.0082	AVRG	1.1861		
62)MPA	1,1,2,2-Tetrachloroethane	0.7433905 0.6532974	0.6459507	0.6400614	0.6862034	0.6503548	0.6699	AVRG	5.8917		
63)MA	1,2,3-Trichloropropane	0.1757257 0.1837154	0.1959634	0.1795787	0.1879136	0.1821393	0.1842	AVRG	3.8379		

Response Factor Report VOA3  
GEL Laboratories, LLC

Method File : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M  
Last Update : Mon Mar 01 09:52:36 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	1	2	3	4	5	Avg	Curve	Exp	%RSD/r <sup>2</sup>
		m1	m2	6	7								
64)MA	Bromobenzene				0.6990069 0.6475703	0.6629458	0.6426559	0.6822975	0.6563265	0.6651	AVRG		3.2511
65)MA	n-Propylbenzene				2.9422568 2.7493829	2.7629100	2.8065839	3.0179028	2.9094149	2.8647	AVRG		3.7765
66)MA	1,3,5-Trimethylbenzene				2.0469325 2.0860717	1.9298056	2.0787279	2.1864852	2.1459569	2.0790	AVRG		4.2684
67)MA	2-Chlorotoluene				0.6347272 0.6139231	0.5819245	0.6222625	0.6463357	0.6062180	0.6176	AVRG		3.6616
68)MA	4-Chlorotoluene				1.8471368 1.7388256	1.7078987	1.7755335	1.8322518	1.7621182	1.7773	AVRG		3.0224
69)MA	tert-Butylbenzene				0.4350706 0.4655259	0.4117658	0.4362952	0.4645460	0.4550383	0.4447	AVRG		4.6980
70)MA	1,2,4-Trimethylbenzene				2.0659938 2.1467458	1.9676109	2.0841121	2.2405674	2.1433822	2.1081	AVRG		4.3668
71)MA	sec-Butylbenzene				2.7144952 2.7936401	2.6279901	2.7422793	2.9803647	2.8483307	2.7845	AVRG		4.3601
72)MA	4-Isopropyltoluene				2.0910379 2.2836300	2.0254634	2.1899010	2.3425800	2.3301522	2.2105	AVRG		5.9346
73)MA	1,3-Dichlorobenzene				1.1816611 1.1098192	1.0951751	1.1217743	1.1796527	1.1299381	1.1363	AVRG		3.1927
74)MA	1,4-Dichlorobenzene				1.3881352 1.2545517	1.2944681	1.2955782	1.3126890	1.2684404	1.3023	AVRG		3.6030
75)MA	n-Butylbenzene				2.0697504 2.1295339	1.9510321	2.1190961	2.2016901	2.1409973	2.1020	AVRG		4.0558
76)MA	1,2-Dichlorobenzene				1.4165185 1.2532868	1.2799703	1.2581950	1.2909697	1.2572560	1.2927	AVRG		4.8305
77)MA	1,2-Dibromo-3-chloroprop -0.0053   0.1663   0.00				781 133971	1316	4274	9282	21730		LINR		0.9992
78)MA	1,2,4-Trichlorobenzene				0.9378991 0.8776912	0.8250578	0.8776677	0.8575450	0.8402688	0.8694	AVRG		4.5388

Response Factor Report VOA3  
GEL Laboratories, LLC

Method File : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M  
Last Update : Mon Mar 01 09:52:36 2010  
Integrator : (RTE Integrator)

Response via : Initial Calibration

For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

b	Compound	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
79)MA	Hexachlorobutadiene		0.4091917 0.4355717	0.4158585	0.4369926	0.4600403	0.4549497	0.4354	AVRG		4.6622
80)MA	Naphthalene		2.2751115 2.3480964	2.1617013	2.1746687	2.2434688	2.2115010	2.2358	AVRG		3.1009
81)MA	1,2,3-Trichlorobenzene		0.9335860 0.7911532	0.8654297	0.8480960	0.8344446	0.8213539	0.8490	AVRG		5.7093
83)B	Chlorotrifluoroethylene	0.1190819	0.1377014	0.1479953	0.1454693	0.1461092	0.1375422	0.1390	AVRG		7.7082
84)B	2-Chloro-1,1,1-trifluoro		0.2744057 0.2773425	0.2713970	0.2898784	0.2919948	0.2691515	0.2812	AVRG		3.7411
85)B	Acrolein -0.0015   0.0265   0.00		1403	3279	9512	24236	47814		LINR		0.9980
86)B	Trichlorotrifluoroethane	0.0734506	0.0898388 0.0724274	0.0811825	0.0933924	0.0875572	0.0810551	0.0827	AVRG		9.6856
87)B	Isopropyl Alcohol	0.0206065	0.0174188 0.0200712	0.0174588	0.0177164	0.0190216	0.0189562	0.0187	AVRG		6.8216
88)B	Allyl chloride	0.2938643	0.3045021 0.2697421	0.2795530	0.3208515	0.3079574	0.2971171	0.2962	AVRG		5.8443
89)B	tert-Butyl Alcohol	0.0349488	0.0300975 0.0331829	0.0289918	0.0293445	0.0310667	0.0319348	0.0314	AVRG		6.8727
90)B	Acrylonitrile	0.0926929	0.0889918 0.0836840	0.0785965	0.0934529	0.0907204	0.0916199	0.0885	AVRG		6.1568
91)B	Isopropyl ether	0.7305681	0.6865236 0.7509827	0.6893026	0.6900478	0.7296397	0.6892134	0.7095	AVRG		3.7716
92)B	2-Chloro-1,3-butadiene	0.2761391	0.2345953 0.2553679	0.2329521	0.2695636	0.2673914	0.2659065	0.2574	AVRG		6.7158
93)B	Ethyl tert-butyl ether	0.7134150	0.6338255 0.7361818	0.6463766	0.6459686	0.7027133	0.6637324	0.6775	AVRG		5.8516
94)B	Ethyl acetate	0.2226895	0.2406210 0.1965077	0.2049246	0.2259259	0.2193049	0.2193727	0.2185	AVRG		6.5572

Response Factor Report VOA3  
GEL Laboratories, LLC

Method File : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M

Last Update : Mon Mar 01 09:52:36 2010

Integrator : (RTE Integrator)

Response via : Initial Calibration

For Linear Calibration: y = concentration ratio, x = 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>
95)B	Propionitrile	0.0366098	0.0354359 0.0331975	0.0304722	0.0353374	0.0357550	0.0362016	0.0347	AVRG		6.2330
96)B	Methacrylonitrile	0.1390662	0.1322547 0.1243633	0.1231819	0.1389465	0.1368367	0.1375294	0.1332	AVRG		5.1183
97)B	Tetrahydrofuran	0.0756568	0.0752463 0.0677925	0.0706133	0.0751958	0.0749912	0.0750971	0.0735	AVRG		4.1654
98)B	Isobutyl alcohol	0.0108529	0.0091276 0.0089532	0.0080827	0.0096923	0.0095609	0.0099136	0.0095	AVRG	#	9.1336
99)B	Methyl tert-amyl ether	0.6618921	0.6223530 0.6872022	0.5817259	0.6074483	0.6202135	0.5992109	0.6257	AVRG		5.8728
100)B	Methyl methacrylate	0.1563346	0.1333805 0.1427461	0.1253282	0.1490333	0.1503818	0.1513841	0.1441	AVRG		7.6851
101)B	1,4-Dioxane	0.0032585	0.0028392 0.0028687	0.0029697	0.0031861	0.0031487	0.0031801	0.0031	AVRG	#	5.5087
102)B	2-Nitropropane	309988	3847 607260	6920	21607	47943	108855		LINR		0.9989
104)B	Ethyl methacrylate	0.3689686	0.2946797 0.3358201	0.2932699	0.3534190	0.3617355	0.3690872	0.3396	AVRG		9.7609
106)B	1-Chlorohexane	0.4681816	0.4130883 0.4784814	0.4136660	0.4742347	0.4785112	0.4453676	0.4531	AVRG		6.4850
107)B	cis-1,4-Dichloro-2-buten	0.1861930	0.1509128 0.1732163	0.1467436	0.1638729	0.1731162	0.1801043	0.1677	AVRG		8.7458
108)B	Cyclohexanone		0.0187731	0.0165114	0.0196026	0.0193252	0.0220481	0.0193	AVRG		10.2864
109)B	trans-1,4-Dichloro-2-but		0.1519917 0.1661826	0.1386168	0.1673497	0.1662643	0.1735759	0.1636	AVRG		8.6349
110)B	Pentachloroethane	415588	5968	11742	24680	71270	130274		LINR		0.9942
111)B	Benzyl chloride	1588109	20461 3095519	40373	116221	266770	576558		LINR		0.9988

Response via : Initial Calibration

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

b	Compound	8	1	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
	m1	6	7								
m2											
(12)B	bis(2-Chloroisopropyl)et		0.3201400	0.3187359	0.3223401	0.3177936	0.3358707				
		0.3429568	0.3045391					0.3232	AVRG		3.9104

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 #) = Out of Range

## Continuing Calibration Summary

Client SDG: 10-2027

Instrument ID: VOA3.I

Injection Date 26-FEB-10 15:19

Data File: 022610V3\3A513.D

Init. Cal. Date(s) 26-FEB-10 10:23 - 26-FEB-10 19:14

Lab Sample ID W3VM100226-10 Quant Type ISTD

Method: 022610V3\VOA3-8260-022610.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
S 1,2-Dichloroethane-d4	0.3066	0.3003		.01		-2.05479	30		Averaged	
S Toluene-d8	1.3456	1.32808		.01		-1.30202	30		Averaged	
S Bromofluorobenzene	1.0082	0.98895		.01		-1.90934	30		Averaged	
Dichlorodifluoromethane	50	54.65	50			9.3	30		Linear	
Chloromethane	0.2352	0.22356		.1		-4.94898	30		Averaged	spcc
Vinyl chloride	0.2397	0.25527		.01		6.49562	20		Averaged	ccc
Bromomethane	0.1935	0.20362		.01		5.22997	30		Averaged	
Chloroethane	0.1549	0.1638		.01		5.74564	30		Averaged	
Trichlorofluoromethane	0.3298	0.35359		.01		7.21346	30		Averaged	
Ethyl ether	0.1705	0.17805		.01		4.42815	30		Averaged	
Acetone	0.2108	0.15587		.01		-26.05787	40		Averaged	
1,1-Dichloroethylene	0.339	0.33566		.01		-0.98525	20		Averaged	ccc
Iodomethane	0.4286	0.405		.01		-5.5063	30		Averaged	
Carbon disulfide	0.7478	0.73439		.01		-1.79326	30		Averaged	
Acetonitrile	0.0365	0.03221		.01		-11.75342	30		Averaged	
Methyl acetate	0.1881	0.16656		.01		-11.45136	40		Averaged	
Methylene chloride	0.3046	0.26555		.01		-12.82009	30		Averaged	
tert-Butyl methyl ether	0.6625	0.62916		.01		-5.03245	30		Averaged	
trans-1,2-Dichloroethylene	0.314	0.30972		.01		-1.36306	30		Averaged	
Vinyl acetate	0.3778	0.41502		.01		9.85177	40		Averaged	
1,1-Dichloroethane	0.3946	0.38617		.1		-2.13634	30		Averaged	spcc
2-Butanone	0.2099	0.1738		.01		-17.19867	40		Averaged	
cis-1,2-Dichloroethylene	0.3474	0.34931		.01		0.5498	30		Averaged	
2,2-Dichloropropane	0.2436	0.25483		.01		4.61002	30		Averaged	
Bromochloromethane	0.1279	0.12754		.01		-0.28147	30		Averaged	
Chloroform	0.4027	0.40211		.01		-0.14651	20		Averaged	ccc
1,1,1-Trichloroethane	0.327	0.34021		.01		4.03976	30		Averaged	
Cyclohexane	0.3661	0.3763		.01		2.78612	30		Averaged	
1,1-Dichloropropene	0.2778	0.28616		.01		3.00936	30		Averaged	
Carbon tetrachloride	0.286	0.31003		.01		8.4021	30		Averaged	
1,2-Dichloroethane	0.3149	0.30336		.01		-3.66466	30		Averaged	
Benzene	0.8815	0.86018		.01		-2.4186	30		Averaged	
Cyclohexene	0.4035	0.39817		.01		-1.32094	30		Averaged	
n-Butyl alcohol	5000	4762.41	5000			-4.7518	40		Linear	
Trichloroethylene	0.2276	0.22899		.01		0.61072	30		Averaged	
1,2-Dichloropropane	0.2153	0.2176		.01		1.06828	20		Averaged	ccc
Methylcyclohexane	0.3768	0.38727		.01		2.77866	30		Averaged	



## Continuing Calibration Summary

Instrument ID: VOA3.I

Injection Date 26-FEB-10 15:19

Data File: 022610V3\3A513.D

Init. Cal. Date(s) 26-FEB-10 10:23 26-FEB-10 19:14

Lab Sample ID W3VM100226-10 Quant Type ISTD

Method: 022610V3\VOA3-8260-022610.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
Dibromomethane	0.1445	0.14557		.01		0.74048	30		Averaged	
Bromodichloromethane	0.2749	0.30159		.01		9.70899	30		Averaged	
2-Chloroethylvinyl ether	250	250.97	250			0.388	30		Linear	
cis-1,3-Dichloropropylene	0.3124	0.33552		.01		7.40077	30		Averaged	
4-Methyl-2-pentanone	0.1208	0.11733		.01		-2.87252	40		Averaged	
Toluene	1.1971	1.13336		.01		-5.32453	20		Averaged	ccc
trans-1,3-Dichloropropylene	0.3639	0.39665		.01		8.99973	30		Averaged	
1,1,2-Trichloroethane	0.2068	0.20353		.01		-1.58124	30		Averaged	
1,3-Dichloropropane	0.4295	0.41333		.01		-3.76484	30		Averaged	
2-Hexanone	0.3084	0.26421		.01		-14.32879	40		Averaged	
Tetrachloroethylene	0.2332	0.22732		.01		-2.52144	30		Averaged	
Dibromochloromethane	0.2736	0.30228		.01		10.48246	30		Averaged	
1,2-Dibromoethane	0.266	0.26681		.01		0.30451	30		Averaged	
Chlorobenzene	0.7858	0.77084		.3		-1.90379	30		Averaged	spcc
1,1,1,2-Tetrachloroethane	0.2702	0.28898		.01		6.95041	30		Averaged	
Ethylbenzene	1.237	1.21385		.01		-1.87146	20		Averaged	ccc
m,p-Xylenes	0.4916	0.49098		.01		-0.12612	30		Averaged	
o-Xylene	0.4911	0.51577		.01		5.02342	30		Averaged	
Styrene	0.7841	0.86736		.01		10.61854	30		Averaged	
Bromoform	50	46.48	50			-7.04	30		Linear	spcc
Isopropylbenzene	2.4779	2.50374		.01		1.04282	30		Averaged	
1,1,2,2-Tetrachloroethane	0.6699	0.64527		.3		-3.67667	30		Averaged	spcc
1,2,3-Trichloropropane	0.1842	0.18044		.01		-2.04126	30		Averaged	
Bromobenzene	0.6651	0.65372		.01		-1.71102	30		Averaged	
n-Propylbenzene	2.8647	2.836		.01		-1.00185	30		Averaged	
2-Chlorotoluene	0.6176	0.6121		.01		-0.89054	30		Averaged	
1,3,5-Trimethylbenzene	2.079	2.11644		.01		1.80087	30		Averaged	
4-Chlorotoluene	1.7773	1.77993		.01		0.14798	30		Averaged	
tert-Butylbenzene	0.4447	0.4734		.01		6.45379	30		Averaged	
1,2,4-Trimethylbenzene	2.1081	2.12508		.01		0.80546	30		Averaged	
sec-Butylbenzene	2.7845	2.84065		.01		2.01652	30		Averaged	
4-Isopropyltoluene	2.2105	2.33061		.01		5.43361	30		Averaged	
1,3-Dichlorobenzene	1.1363	1.12222		.01		-1.23911	30		Averaged	
1,4-Dichlorobenzene	1.3023	1.27042		.01		-2.44798	30		Averaged	
n-Butylbenzene	2.102	2.16723		.01		3.10324	30		Averaged	
1,2-Dichlorobenzene	1.2927	1.25397		.01		-2.99605	30		Averaged	
1,2-Dibromo-3-chloropropane	50	46.4	50			-7.2	30		Linear	

## Continuing Calibration Summary

Instrument ID: VOA3.I

Injection Date: 26-FEB-10 15:19

Data File: 022610V3\3A513.D

Init. Cal. Date(s) 26-FEB-10 10:23 26-FEB-10 19:14

Lab Sample ID W3VM100226-10 Quant Type ISTD

Method:022610V3\VOA3-8260-022610.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
1,2,4-Trichlorobenzene	0.8694	0.86027		.01		-1.05015	30		Averaged
Hexachlorobutadiene	0.4354	0.44974		.01		3.29352	30		Averaged
Naphthalene	2.2358	2.24989		.01		0.6302	30		Averaged
1,2,3-Trichlorobenzene	0.849	0.81257		.01		-4.29093	30		Averaged

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\022610V3\  
Data File : 3A513.D  
Acq On : 26 Feb 2010 3:19 pm  
Operator : CDS1  
InstName : VOA3  
Sample : |W3VM100226-10|ICV|1|VOA|1|  
Misc : ICV 5mL - MIX[A]ULT 0220-01B+0224-01  
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Mar 01 09:53:10 2010  
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 01 09:52:36 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	12.232	12.232	1.000	96	936508	50.00	ug/L	0.00
41) Chlorobenzene-d5	15.849	15.849	1.000	117	752375	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	18.411	18.410	1.000	152	394353	50.00	ug/L	0.00
82) B Fluorobenzene	12.232	12.232	1.000	96	936346	50.00	ug/L	0.00
103) B Chlorobenzene-d5	15.849	15.849	1.000	117	752423	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	18.411	18.410	1.000	152	402226	50.00	ug/L	0.00
System Monitoring Compounds								
29) 1,2-Dichloroethane-d4	11.794	11.793	0.964	65	281232	48.97	ug/L	0.00
43) Toluene-d8	14.165	14.165	0.894	98	999214	49.35	ug/L	0.00
61) Bromofluorobenzene	17.130	17.130	0.930	95	389997	49.05	ug/L	0.00
Target Compounds								
2) Dichlorodifluoromethane	4.800	4.800	0.392	85	142729	54.65	ug/L	99
3) Chloromethane	5.216	5.216	0.426	50	209362	47.52	ug/L	100
4) Vinyl chloride	5.528	5.528	0.452	62	239062	53.24	ug/L	99
5) Bromomethane	6.291	6.291	0.514	94	190692	52.63	ug/L	99
6) Chloroethane	6.493	6.493	0.531	64	153397	52.88	ug/L	100
7) Trichlorofluoromethane	7.062	7.062	0.577	101	331143	53.60	ug/L	99
8) Ethyl ether	7.501	7.512	0.613	59	166741	52.21	ug/L	98
9) Acetone	7.987	7.987	0.653	43	729886	184.87	ug/L	100
10) 1,1-Dichloroethylene	7.987	7.987	0.653	61	314346	49.51	ug/L	100
11) Iodomethane	8.272	8.271	0.676	142	1896419	236.21	ug/L	100
12) Acetonitrile	8.450	8.449	0.691	41	754198	1102.74	ug/L	99
13) Methyl acetate	8.521	8.520	0.697	43	779924	221.35	ug/L	99
14) Carbon disulfide	8.438	8.449	0.690	76	3438823	245.51	ug/L	100
15) Methylene chloride	8.746	8.746	0.715	84	248687	43.59	ug/L	100
16) tert-Butyl methyl ether	9.173	9.173	0.750	73	589212	47.48	ug/L	100
17) trans-1,2-Dichloroethy...	9.208	9.208	0.753	61	290052	49.32	ug/L	100
18) Vinyl acetate	9.837	9.837	0.804	43	1943338	274.65	ug/L	100
19) 1,1-Dichloroethane	9.861	9.860	0.806	63	361653	48.94	ug/L	100
20) 2-Butanone	10.643	10.643	0.870	43	813812	206.96	ug/L	100
21) cis-1,2-Dichloroethylene	10.691	10.691	0.874	61	327129	50.28	ug/L	100
22) 2,2-Dichloropropane	10.714	10.714	0.876	77	238652	52.30	ug/L	99
23) Bromochloromethane	11.035	11.034	0.902	128	119446	49.87	ug/L	98
24) Chloroform	11.094	11.094	0.907	83	376583	49.93	ug/L	100
25) 1,1,1-Trichloroethane	11.426	11.426	0.934	97	318612	52.02	ug/L	99
26) Cyclohexane	11.533	11.532	0.943	56	352411	51.40	ug/L	100
27) 1,1-Dichloropropene	11.628	11.627	0.951	75	267994	51.50	ug/L	100
28) Carbon tetrachloride	11.663	11.663	0.953	117	290345	54.21	ug/L	100
30) 1,2-Dichloroethane	11.888	11.888	0.972	62	284097	48.16	ug/L	99
31) Benzene	11.912	11.912	0.974	78	805562	48.79	ug/L	100
32) Cyclohexene	12.054	12.054	0.985	67	372888	49.34	ug/L	100
33) n-Butyl alcohol	12.398	12.398	1.014	56	828859	4762.41	ug/L	100
34) Trichloroethylene	12.695	12.695	1.038	95	214451	50.30	ug/L	100
35) 1,2-Dichloropropane	12.979	12.979	1.061	63	203783	50.54	ug/L	99
36) Methylcyclohexane	12.991	12.991	1.062	83	362681	51.39	ug/L	100
37) Dibromomethane	13.134	13.133	1.074	93	136326	50.38	ug/L	99
38) Bromodichloromethane	13.288	13.288	1.086	83	282443	54.86	ug/L	100
39) 2-Chloroethylvinyl ether	13.560	13.560	1.109	63	329400	250.97	ug/L	99
40) cis-1,3-Dichloropropylene	13.810	13.809	1.129	75	314220	53.70	ug/L	99

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\022610V3\  
Data File : 3A513.D  
Acq On : 26 Feb 2010 3:19 pm  
Operator : CDS1  
InstName : VOA3  
Sample : |W3VM100226-10|ICV|1|VOA|1|  
Misc : ICV 5mL - MIX[A]ULT 0220-01B+0224-01  
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Mar 01 09:53:10 2010  
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 01 09:52:36 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
42) 4-Methyl-2-pentanone	13.928	13.928	0.879	58	441398	242.82	ug/L	100
44) Toluene	14.248	14.248	0.899	91	852708	47.34	ug/L	100
45) trans-1,3-Dichloroprop...	14.426	14.426	0.910	75	298433	54.51	ug/L	99
46) 1,1,2-Trichloroethane	14.675	14.675	0.926	83	153130	49.20	ug/L	100
47) 2-Hexanone	14.889	14.888	0.939	43	993918	214.17	ug/L	99
48) 1,3-Dichloropropane	14.877	14.888	0.939	76	310982	48.12	ug/L	95
49) Tetrachloroethylene	14.912	14.912	0.941	164	171028	48.74	ug/L	99
50) Dibromochloromethane	15.173	15.173	0.957	129	227430	55.25	ug/L	100
51) 1,2-Dibromoethane	15.351	15.351	0.969	107	200741	50.16	ug/L	99
52) Chlorobenzene	15.885	15.885	1.002	112	579962	49.05	ug/L	99
53) 1,1,1,2-Tetrachloroethane	15.956	15.956	1.007	131	217421	53.48	ug/L	99
54) Ethylbenzene	15.968	15.968	1.007	91	913268	49.06	ug/L	100
55) m,p-Xylenes	16.086	16.086	1.015	106	738806	99.88	ug/L	99
56) o-Xylene	16.549	16.549	1.044	106	388050	52.51	ug/L	99
57) Styrene	16.549	16.549	1.044	104	652578	55.31	ug/L	99
59) Bromoform	16.810	16.821	0.913	173	140794	46.48	ug/L	99
60) Isopropylbenzene	16.928	16.928	0.919	105	987356	50.52	ug/L	100
62) 1,1,2,2-Tetrachloroethane	17.213	17.213	0.935	83	254466	48.16	ug/L	100
63) 1,2,3-Trichloropropane	17.296	17.308	0.939	110	71156	48.99	ug/L	95
64) Bromobenzene	17.343	17.343	0.942	156	257796	49.14	ug/L	99
65) n-Propylbenzene	17.367	17.367	0.943	91	1118385	49.50	ug/L	99
66) 1,3,5-Trimethylbenzene	17.533	17.533	0.952	105	834626	50.90	ug/L	100
67) 2-Chlorotoluene	17.521	17.521	0.952	126	241382	49.56	ug/L	98
68) 4-Chlorotoluene	17.628	17.628	0.957	91	701921	50.07	ug/L	100
69) tert-Butylbenzene	17.913	17.912	0.973	134	186686	53.23	ug/L	99
70) 1,2,4-Trimethylbenzene	17.960	17.960	0.976	105	838030	50.40	ug/L	99
71) sec-Butylbenzene	18.150	18.150	0.986	105	1120217	51.01	ug/L	100
72) 4-Isopropyltoluene	18.280	18.280	0.993	119	919082	52.72	ug/L	100
73) 1,3-Dichlorobenzene	18.351	18.351	0.997	146	442549	49.38	ug/L	100
74) 1,4-Dichlorobenzene	18.434	18.434	1.001	146	500995	48.78	ug/L	100
75) n-Butylbenzene	18.743	18.742	1.018	91	854654	51.55	ug/L	99
76) 1,2-Dichlorobenzene	18.885	18.885	1.026	146	494507	48.50	ug/L	99
77) 1,2-Dibromo-3-chloropr...	19.810	19.810	1.076	157	58785	46.40	ug/L	97
78) 1,2,4-Trichlorobenzene	20.936	20.936	1.137	180	339251	49.48	ug/L	99
79) Hexachlorobutadiene	21.126	21.126	1.148	225	177358	51.64	ug/L	100
80) Naphthalene	21.352	21.351	1.160	128	887252	50.32	ug/L	100
81) 1,2,3-Trichlorobenzene	21.719	21.719	1.180	180	320439	47.85	ug/L	99
83) Chlorotrifluoroethylene	0.000	4.711	0.000		0	N.D.		
84) 2-Chloro-1,1,1-trifluo...	0.000	5.751	0.000		0	N.D.		
85) Acrolein	0.000	7.750	0.000		0	N.D.		
86) Trichlorotrifluoroethane	0.000	7.975	0.000		0	N.D.		
87) Isopropyl Alcohol	0.000	8.141	0.000		0	N.D.		
88) Allyl chloride	8.450	8.556	0.691		0m	N.D.	d	
89) tert-Butyl Alcohol	0.000	8.793	0.000		0	N.D.		
90) Acrylonitrile	9.173	9.090	0.750		0m	N.D.	d	
91) Isopropyl ether	9.837	9.884	0.804		0m	N.D.	d	
92) 2-Chloro-1,3-butadiene	0.000	10.003	0.000		0	N.D.		
93) Ethyl tert-butyl ether	0.000	10.406	0.000		0	N.D.		
94) Ethyl acetate	10.643	10.679	0.870		0m	N.D.	d	
95) Propionitrile	10.643	10.726	0.870		0m	N.D.	d	
96) Methacrylonitrile	0.000	10.951	0.000		0	N.D.		
97) Tetrahydrofuran	11.106	11.094	0.908		0m	N.D.	d	

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\022610V3\  
Data File : 3A513.D  
Acq On : 26 Feb 2010 3:19 pm  
Operator : CDS1  
InstName : VOA3  
Sample : |W3VM100226-10|ICV|1|VOA|1|  
Misc : ICV 5mL - MIX[A]ULT 0220-01B+0224-01  
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Mar 01 09:53:10 2010  
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 01 09:52:36 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
98) Isobutyl alcohol	11.533	11.556	0.943		0m	N.D.	d
99) Methyl tert-amyl ether	11.912	11.971	0.974		0m	N.D.	d
100) Methyl methacrylate	12.991	12.991	1.062		0m	N.D.	d
101) 1,4-Dioxane	0.000	13.098	0.000		0	N.D.	
102) 2-Nitropropane	13.560	13.525	1.109		0m	N.D.	d
104) Ethyl methacrylate	0.000	14.450	0.000		0	N.D.	
106) 1-Chlorohexane	15.849	15.754	0.861		0m	N.D.	d
107) cis-1,4-Dichloro-2-butene	16.928	16.964	0.919		0m	N.D.	d
108) Cyclohexanone	16.928	17.082	0.919		0m	N.D.	d
109) trans-1,4-Dichloro-2-b...	17.367	17.260	0.943		0m	N.D.	d
110) Pentachloroethane	17.984	17.983	0.977		0m	N.D.	d
111) Benzyl chloride	18.399	18.553	0.999		0m	N.D.	d
112) bis(2-Chloroisopropyl)...	19.051	18.980	1.035		0m	N.D.	d

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



## Continuing Calibration Summary

Client SDG: 10-2027

Instrument ID: VOA3.I

Injection Date 26-FEB-10 20:12

Data File: 022610V3\3A523.D

Init. Cal. Date(s) 26-FEB-10 10:23 - 26-FEB-10 19:14

Lab Sample ID W3VM100226-18 Quant Type ISTD

Method: 022610V3\VOA3-8260-022610.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
S1,2-Dichloroethane-d4	0.3066	0.29676		.01		-3.20939	30		Averaged
SToluene-d8	1.3456	1.38683		.01		3.06406	30		Averaged
SBromofluorobenzene	1.0082	1.01858		.01		1.02956	30		Averaged
Chlorotrifluoroethylene	0.139	0.1017		.01		-26.83453	30		Averaged
2-Chloro-1,1,1-trifluoroethane	0.2812	0.26227		.01		-6.73186	30		Averaged
Acrolein	250	371.65	250			48.66	30	*	Linear
Trichlorotrifluoroethane	0.0827	0.08123		.01		-1.77751	30		Averaged
Isopropyl Alcohol	0.0187	0.01839		.01		-1.65775	40		Averaged
Allyl chloride	0.2962	0.29625		.01		0.01688	30		Averaged
tert-Butyl Alcohol	0.0314	0.02994		.01		-4.64968	40		Averaged
Acrylonitrile	0.0885	0.08974		.01		1.40113	30		Averaged
Isopropyl ether	0.7095	0.67398		.01		-5.00634	30		Averaged
2-Chloro-1,3-butadiene	0.2574	0.29403		.01		14.23077	30		Averaged
Ethyl tert-butyl ether	0.6775	0.64733		.01		-4.45314	30		Averaged
Ethyl acetate	0.2185	0.20232		.01		-7.40503	40		Averaged
Propionitrile	0.0347	0.03535		.01		1.8732	30		Averaged
Methacrylonitrile	0.1332	0.13306		.01		-0.10511	30		Averaged
Tetrahydrofuran	0.0735	0.07446		.01		1.30612	30		Averaged
Isobutyl alcohol	0.0095	0.00964		.01		1.47368	40		Averaged
Methyl tert-amyl ether	0.6257	0.59791		.01		-4.44143	30		Averaged
Methyl methacrylate	0.1441	0.15252		.01		5.84316	30		Averaged
1,4-Dioxane	0.0031	0.00297		.01		-4.19355	40		Averaged
2-Nitropropane	250	261.34	250			4.536	30		Linear
Ethyl methacrylate	0.3396	0.37143		.01		9.37279	30		Averaged
1-Chlorohexane	0.4531	0.43436		.01		-4.13595	30		Averaged
cis-1,4-Dichloro-2-butene	0.1677	0.19341		.01		15.33095	30		Averaged
Cyclohexanone	0.0193	0.04804		.01		148.91192	40	*	Averaged
trans-1,4-Dichloro-2-butene	0.1636	0.18335		.01		12.07213	30		Averaged
Pentachloroethane	250	256.05	250			2.42	30		Linear
Benzyl chloride	250	251.22	250			0.488	30		Linear
bis(2-Chloroisopropyl)ether	0.3232	0.31962		.01		-1.10767	30		Averaged

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\022610V3\  
Data File : 3A523.D  
Acq On : 26 Feb 2010 8:12 pm  
Operator : CDS1  
InstName : VOA3  
Sample : |W3VM100226-18|ICV|1|VOA|1|  
Misc : GEL 5mL - MIX[B] 215-08A+125-08D  
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Mar 01 09:53:34 2010  
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 01 09:52:36 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	12.232	12.232	1.000	96	950148	50.00	ug/L	0.00
41) Chlorobenzene-d5	15.849	15.849	1.000	117	727148	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	18.410	18.410	1.000	152	372193	50.00	ug/L	0.00
82) B Fluorobenzene	12.232	12.232	1.000	96	949803	50.00	ug/L	0.00
103) B Chlorobenzene-d5	15.849	15.849	1.000	117	727332	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	18.410	18.410	1.000	152	379636	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	11.793	11.793	0.964	65	281968	48.39	ug/L	0.00
43) Toluene-d8	14.165	14.165	0.894	98	1008431	51.53	ug/L	0.00
61) Bromofluorobenzene	17.130	17.130	0.930	95	379109	50.52	ug/L	0.00
Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.800	0.000		0	N.D.		
3) Chloromethane	0.000	5.216	0.000		0	N.D.		
4) Vinyl chloride	5.736	5.528	0.469		0m	N.D.	d	
5) Bromomethane	0.000	6.291	0.000		0	N.D.		
6) Chloroethane	0.000	6.493	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	7.062	0.000		0	N.D.		
8) Ethyl ether	0.000	7.512	0.000		0	N.D.		
9) Acetone	7.987	7.987	0.653		0m	N.D.	d	
10) 1,1-Dichloroethylene	7.975	7.987	0.652		0m	N.D.	d	
11) Iodomethane	8.260	8.271	0.675		0m	N.D.	d	
12) Acetonitrile	8.556	8.449	0.699		0m	N.D.	d	
13) Methyl acetate	8.532	8.520	0.698		0m	N.D.	d	
14) Carbon disulfide	8.556	8.449	0.699		0m	N.D.	d	
15) Methylene chloride	8.746	8.746	0.715		0m	N.D.	d	
16) tert-Butyl methyl ether	9.173	9.173	0.750		0m	N.D.	d	
17) trans-1,2-Dichloroethy...	0.000	9.208	0.000		0	N.D.		
18) Vinyl acetate	9.884	9.837	0.808		0m	N.D.	d	
19) 1,1-Dichloroethane	10.003	9.860	0.818		0m	N.D.	d	
20) 2-Butanone	10.679	10.643	0.873		0m	N.D.	d	
21) cis-1,2-Dichloroethylene	10.679	10.691	0.873		0m	N.D.	d	
22) 2,2-Dichloropropane	0.000	10.714	0.000		0	N.D.		
23) Bromochloromethane	0.000	11.034	0.000		0	N.D.		
24) Chloroform	0.000	11.094	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	11.426	0.000		0	N.D.		
26) Cyclohexane	11.556	11.532	0.945		0m	N.D.	d	
27) 1,1-Dichloropropene	11.556	11.627	0.945		0m	N.D.	d	
28) Carbon tetrachloride	0.000	11.663	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	11.888	0.000		0	N.D.		
31) Benzene	11.912	11.912	0.974		0m	N.D.	d	
32) Cyclohexene	0.000	12.054	0.000		0	N.D.		
33) n-Butyl alcohol	0.000	12.398	0.000		0	N.D.		
34) Trichloroethylene	12.706	12.695	1.039		0m	N.D.	d	
35) 1,2-Dichloropropane	0.000	12.979	0.000		0	N.D.		
36) Methylcyclohexane	12.991	12.991	1.062		0m	N.D.	d	
37) Dibromomethane	0.000	13.133	0.000		0	N.D.		
38) Bromodichloromethane	0.000	13.288	0.000		0	N.D.		
39) 2-Chloroethylvinyl ether	0.000	13.560	0.000		0	N.D.		
40) cis-1,3-Dichloropropylene	0.000	13.809	0.000		0	N.D.		



Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\022610V3\  
Data File : 3A523.D  
Acq On : 26 Feb 2010 8:12 pm  
Operator : CDS1  
InstName : VOA3  
Sample : |W3VM100226-18|ICV|1|VOA|1|  
Misc : GEL 5mL - MIX[B] 215-08A+125-08D  
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Mar 01 09:53:34 2010  
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 01 09:52:36 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
42) 4-Methyl-2-pentanone	0.000	13.928	0.000		0	N.D.	
44) Toluene	14.248	14.248	0.899		0m	N.D.	d
45) trans-1,3-Dichloroprop...	0.000	14.426	0.000		0	N.D.	
46) 1,1,2-Trichloroethane	0.000	14.675	0.000		0	N.D.	
47) 2-Hexanone	14.888	14.888	0.939		0m	N.D.	d
48) 1,3-Dichloropropane	14.924	14.888	0.942		0m	N.D.	d
49) Tetrachloroethylene	14.912	14.912	0.941		0m	N.D.	d
50) Dibromochloromethane	0.000	15.173	0.000		0	N.D.	
51) 1,2-Dibromoethane	0.000	15.351	0.000		0	N.D.	
52) Chlorobenzene	0.000	15.885	0.000		0	N.D.	
53) 1,1,1,2-Tetrachloroethane	0.000	15.956	0.000		0	N.D.	
54) Ethylbenzene	15.968	15.968	1.007		0m	N.D.	d
55) m,p-Xylenes	0.000	16.086	0.000		0	N.D.	
56) o-Xylene	0.000	16.549	0.000		0	N.D.	
57) Styrene	16.549	16.549	1.044		0m	N.D.	d
59) Bromoform	0.000	16.821	0.000		0	N.D.	
60) Isopropylbenzene	0.000	16.928	0.000		0	N.D.	
62) 1,1,2,2-Tetrachloroethane	17.260	17.213	0.938		0m	N.D.	d
63) 1,2,3-Trichloropropane	0.000	17.308	0.000		0	N.D.	
64) Bromobenzene	0.000	17.343	0.000		0	N.D.	
65) n-Propylbenzene	17.367	17.367	0.943		0m	N.D.	d
66) 1,3,5-Trimethylbenzene	17.533	17.533	0.952		0m	N.D.	d
67) 2-Chlorotoluene	17.521	17.521	0.952		0m	N.D.	d
68) 4-Chlorotoluene	17.628	17.628	0.957		0m	N.D.	d
69) tert-Butylbenzene	17.983	17.912	0.977		0m	N.D.	d
70) 1,2,4-Trimethylbenzene	17.960	17.960	0.976		0m	N.D.	d
71) sec-Butylbenzene	0.000	18.150	0.000		0	N.D.	
72) 4-Isopropyltoluene	18.280	18.280	0.993		0m	N.D.	d
73) 1,3-Dichlorobenzene	18.339	18.351	0.996		0m	N.D.	d
74) 1,4-Dichlorobenzene	18.434	18.434	1.001		0m	N.D.	d
75) n-Butylbenzene	0.000	18.742	0.000		0	N.D.	
76) 1,2-Dichlorobenzene	18.885	18.885	1.026		0m	N.D.	d
77) 1,2-Dibromo-3-chloropr...	0.000	19.810	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	20.936	20.936	1.137		0m	N.D.	d
79) Hexachlorobutadiene	0.000	21.126	0.000		0	N.D.	
80) Naphthalene	21.351	21.351	1.160		0m	N.D.	d
81) 1,2,3-Trichlorobenzene	0.000	21.719	0.000		0	N.D.	
83) Chlorotrifluoroethylene	4.711	4.711	0.385	116	289790	109.76	ug/L 100
84) 2-Chloro-1,1,1-trifluo...	5.751	5.751	0.470	118	747303	139.90	ug/L 100
85) Acrolein	7.750	7.750	0.634	56	185578	371.65	ug/L 99 E
86) Trichlorotrifluoroethane	7.975	7.975	0.652	85	385754	245.55	ug/L 99
87) Isopropyl Alcohol	8.141	8.141	0.666	45	873506	2452.46	ug/L 99
88) Allyl chloride	8.556	8.556	0.699	41	1406915	250.02	ug/L 100
89) tert-Butyl Alcohol	8.793	8.793	0.719	59	1422034	2386.59	ug/L 99
90) Acrylonitrile	9.090	9.090	0.743	53	426191	253.41	ug/L 100
91) Isopropyl ether	9.884	9.884	0.808	45	640147	47.50	ug/L 99
92) 2-Chloro-1,3-butadiene	10.003	10.003	0.818	53	279268	57.11	ug/L 100
93) Ethyl tert-butyl ether	10.406	10.406	0.851	59	614840	47.78	ug/L 100
94) Ethyl acetate	10.679	10.679	0.873	43	960817	231.51	ug/L 100
95) Propionitrile	10.726	10.726	0.877	54	167873	254.56	ug/L 99
96) Methacrylonitrile	10.951	10.951	0.895	41	631884	249.79	ug/L 99
97) Tetrahydrofuran	11.094	11.094	0.907	42	353594	253.21	ug/L 99

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\022610V3\  
Data File : 3A523.D  
Acq On : 26 Feb 2010 8:12 pm  
Operator : CDS1  
InstName : VOA3  
Sample : |W3VM100226-18|ICV|1|VOA|1|  
Misc : GEL 5mL - MIX[B] 215-08A+125-08D  
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Mar 01 09:53:34 2010  
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 01 09:52:36 2010  
Response via : Initial Calibration  
Integrator: RTE

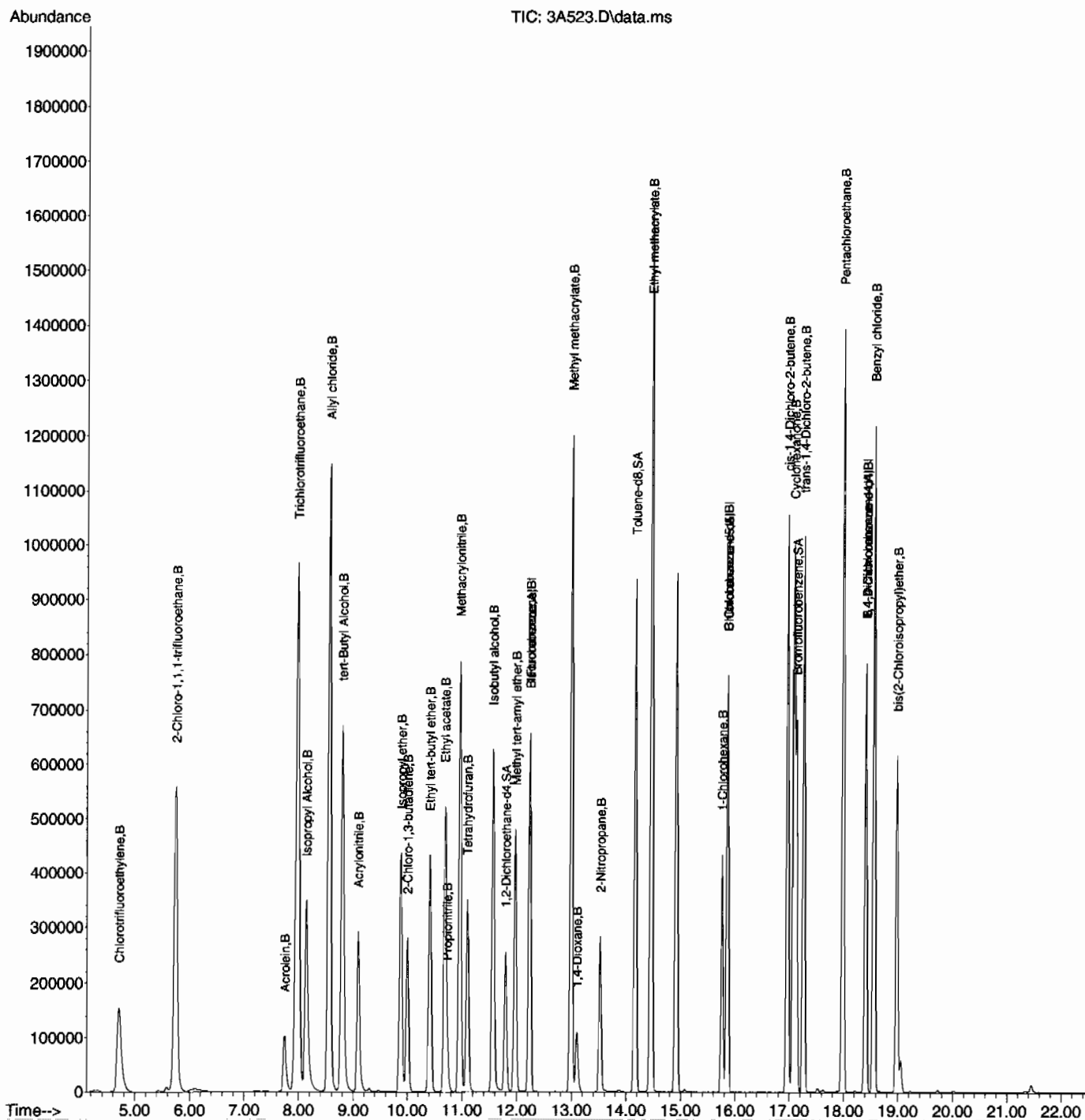
Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
98) Isobutyl alcohol	11.556	11.556	0.945	41	457824	2549.09	ug/L	99
99) Methyl tert-amyl ether	11.971	11.971	0.979	73	567900	47.78	ug/L	99
100) Methyl methacrylate	12.991	12.991	1.062	69	724331	264.64	ug/L	100
101) 1,4-Dioxane	13.098	13.098	1.071	88	141128	2424.39	ug/L	100
102) 2-Nitropropane	13.525	13.525	1.106	43	317134	261.34	ug/L	100
104) Ethyl methacrylate	14.450	14.450	0.912	69	1350775	273.46	ug/L	100
106) 1-Chlorohexane	15.754	15.754	0.856	55	164899	47.93	ug/L	100
107) cis-1,4-Dichloro-2-butene	16.964	16.964	0.921	53	367128	288.26	ug/L	99
108) Cyclohexanone	17.082	17.082	0.928	42	455921	3119.00	ug/L	99 E
109) trans-1,4-Dichloro-2-b...	17.260	17.260	0.938	53	348032	280.18	ug/L	100
110) Pentachloroethane	17.983	17.983	0.977	167	421398	256.05	ug/L	100 E
111) Benzyl chloride	18.553	18.553	1.008	91	1528395	251.22	ug/L	100
112) bis(2-Chloroisopropyl)...	18.980	18.980	1.031	45	606689	247.23	ug/L	100

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

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\022610V3\  
Data File : 3A523.D  
Acq On : 26 Feb 2010 8:12 pm  
Operator : CDS1  
InstName : VOA3  
Sample : |W3VM100226-18|ICV|1|VOA|1|  
Misc : GEL 5mL - MIX[B] 215-08A+125-08D  
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Mar 01 09:53:34 2010  
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 01 09:52:36 2010  
Response via : Initial Calibration  
Integrator: RTE



## Continuing Calibration Summary

Client SDG: 10-2027

Instrument ID: VOA3.I

Injection Date 02-MAR-10 21:02

Data File: 030210V3\3B225.D

Init. Cal. Date(s) 26-FEB-10 10:23 - 26-FEB-10 19:14

Lab Sample ID W3VM100302-06 Quant Type ISTD

Method:022610V3\VOA3-8260-022610.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
S1,2-Dichloroethane-d4	0.3066	0.30559		.01		-0.32942	30		Averaged	
SToluene-d8	1.3456	1.37155		.01		1.92851	30		Averaged	
SBromofluorobenzene	1.0082	1.00686		.01		-0.13291	30		Averaged	
Dichlorodifluoromethane	50	57.11	50			14.22	30		Linear	
Chloromethane	0.2352	0.23295		.1		-0.95663	30		Averaged	spcc
Vinyl chloride	0.2397	0.23574		.01		-1.65207	20		Averaged	ccc
Bromomethane	0.1935	0.19495		.01		0.74935	30		Averaged	
Chloroethane	0.1549	0.15808		.01		2.05294	30		Averaged	
Trichlorofluoromethane	0.3298	0.32974		.01		-0.01819	30		Averaged	
Ethyl ether	0.1705	0.17385		.01		1.96481	30		Averaged	
Acetone	0.2108	0.1655		.01		-21.48956	40		Averaged	
1,1-Dichloroethylene	0.339	0.32479		.01		-4.19174	20		Averaged	ccc
Iodomethane	0.4286	0.40047		.01		-6.56323	30		Averaged	
Acetonitrile	0.0365	0.0286		.01		-21.64384	30		Averaged	
Carbon disulfide	0.7478	0.67294		.01		-10.0107	30		Averaged	
Methyl acetate	0.1881	0.15783		.01		-16.0925	40		Averaged	
Methylene chloride	0.3046	0.26321		.01		-13.58831	30		Averaged	
tert-Butyl methyl ether	0.6625	0.61091		.01		-7.78717	30		Averaged	
trans-1,2-Dichloroethylene	0.314	0.30158		.01		-3.95541	30		Averaged	
Vinyl acetate	0.3778	0.38093		.01		0.82848	40		Averaged	
1,1-Dichloroethane	0.3946	0.3781		.1		-4.18145	30		Averaged	spcc
2-Butanone	0.2099	0.18536		.01		-11.69128	40		Averaged	
cis-1,2-Dichloroethylene	0.3474	0.34216		.01		-1.50835	30		Averaged	
2,2-Dichloropropane	0.2436	0.24285		.01		-0.30788	30		Averaged	
Bromochloromethane	0.1279	0.12651		.01		-1.08679	30		Averaged	
Chloroform	0.4027	0.39371		.01		-2.23243	20		Averaged	ccc
1,1,1-Trichloroethane	0.327	0.32199		.01		-1.53211	30		Averaged	
Cyclohexane	0.3661	0.3433		.01		-6.22781	30		Averaged	
1,1-Dichloropropene	0.2778	0.27005		.01		-2.78978	30		Averaged	
Carbon tetrachloride	0.286	0.28109		.01		-1.71678	30		Averaged	
1,2-Dichloroethane	0.3149	0.29739		.01		-5.5605	30		Averaged	
Benzene	0.8815	0.83211		.01		-5.60295	30		Averaged	
Cyclohexene	0.4035	0.39218		.01		-2.80545	30		Averaged	
n-Butyl alcohol	5000	3997.21	5000			-20.0558	40		Linear	
Trichloroethylene	0.2276	0.22316		.01		-1.95079	30		Averaged	
1,2-Dichloropropane	0.2153	0.21337		.01		-0.89642	20		Averaged	ccc
Methylcyclohexane	0.3768	0.35846		.01		-4.8673	30		Averaged	

## Continuing Calibration Summary

Instrument ID: VOA3.I

Injection Date 02-MAR-10 21:02

Data File: 030210V3\3B225.D

Init. Cal. Date(s) 26-FEB-10 10:23 26-FEB-10 19:14

Lab Sample ID W3VM100302-06 Quant Type ISTD

Method: 022610V3\VOA3-8260-022610.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
Dibromomethane	0.1445	0.14247		.01		-1.40484	30		Averaged	
Bromodichloromethane	0.2749	0.28748		.01		4.57621	30		Averaged	
2-Chloroethylvinyl ether	250	294.67	250			17.868	30		Linear	
cis-1,3-Dichloropropylene	0.3124	0.33704		.01		7.88732	30		Averaged	
4-Methyl-2-pentanone	0.1208	0.11661		.01		-3.46854	40		Averaged	
Toluene	1.1971	1.16309		.01		-2.84103	20		Averaged	ccc
trans-1,3-Dichloropropylene	0.3639	0.39209		.01		7.74663	30		Averaged	
1,1,2-Trichloroethane	0.2068	0.20784		.01		0.5029	30		Averaged	
1,3-Dichloropropane	0.4295	0.41513		.01		-3.34575	30		Averaged	
2-Hexanone	0.3084	0.29087		.01		-5.68418	40		Averaged	
Tetrachloroethylene	0.2332	0.22403		.01		-3.93225	30		Averaged	
Dibromochloromethane	0.2736	0.2907		.01		6.25	30		Averaged	
1,2-Dibromoethane	0.266	0.26412		.01		-0.70677	30		Averaged	
Chlorobenzene	0.7858	0.76545		.3		-2.58972	30		Averaged	spcc
1,1,1,2-Tetrachloroethane	0.2702	0.28297		.01		4.72613	30		Averaged	
Ethylbenzene	1.237	1.21325		.01		-1.91997	20		Averaged	ccc
m,p-Xylenes	0.4916	0.49394		.01		0.476	30		Averaged	
o-Xylene	0.4911	0.51481		.01		4.82794	30		Averaged	
Styrene	0.7841	0.85948		.01		9.61357	30		Averaged	
Bromoform	50	44.5	50			-11	30		Linear	spcc
Isopropylbenzene	2.4779	2.55305		.01		3.03281	30		Averaged	
1,1,2,2-Tetrachloroethane	0.6699	0.64273		.3		-4.05583	30		Averaged	spcc
1,2,3-Trichloropropane	0.1842	0.17607		.01		-4.41368	30		Averaged	
Bromobenzene	0.6651	0.67279		.01		1.15622	30		Averaged	
n-Propylbenzene	2.8647	2.91855		.01		1.87978	30		Averaged	
2-Chlorotoluene	0.6176	0.62309		.01		0.88892	30		Averaged	
1,3,5-Trimethylbenzene	2.079	2.17784		.01		4.75421	30		Averaged	
4-Chlorotoluene	1.7773	1.8038		.01		1.49103	30		Averaged	
tert-Butylbenzene	0.4447	0.46966		.01		5.61277	30		Averaged	
1,2,4-Trimethylbenzene	2.1081	2.19896		.01		4.31004	30		Averaged	
sec-Butylbenzene	2.7845	2.8808		.01		3.45843	30		Averaged	
4-Isopropyltoluene	2.2105	2.33871		.01		5.80005	30		Averaged	
1,3-Dichlorobenzene	1.1363	1.13491		.01		-0.12233	30		Averaged	
1,4-Dichlorobenzene	1.3023	1.3064		.01		0.31483	30		Averaged	
n-Butylbenzene	2.102	2.23491		.01		6.32303	30		Averaged	
1,2-Dichlorobenzene	1.2927	1.26989		.01		-1.76452	30		Averaged	
1,2-Dibromo-3-chloropropane	50	38.79	50			-22.42	30		Linear	

## Continuing Calibration Summary

Instrument ID: VOA3.I

Injection Date 02-MAR-10 21:02

Data File: 030210V3\3B225.D

Init. Cal. Date(s) 26-FEB-10 10:23 26-FEB-10 19:14

Lab Sample ID W3VM100302-06 Quant Type ISTD

Method:022610V3\VOA3-8260-022610.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
1,2,4-Trichlorobenzene	0.8694	0.87329		.01		0.44744	30		Averaged
Hexachlorobutadiene	0.4354	0.44117		.01		1.32522	30		Averaged
Naphthalene	2.2358	2.10088		.01		-6.03453	30		Averaged
1,2,3-Trichlorobenzene	0.849	0.78141		.01		-7.96113	30		Averaged

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030210V3\  
Data File : 3B225.D  
Acq On : 2 Mar 2010 9:02 pm  
Operator : CDS1  
InstName : VOA3  
Sample : |W3VM100302-06|CCV|1|VOA|1|  
Misc : CCV 5mL - MIX[A] 222-07A+106-07D  
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Mar 03 08:29:54 2010  
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 01 09:52:36 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev (Min)
Internal Standards								
1) Fluorobenzene	12.232	12.232	1.000	96	1014948	50.00	ug/L	0.00
41) Chlorobenzene-d5	15.849	15.849	1.000	117	786163	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	18.411	18.410	1.000	152	401278	50.00	ug/L	0.00
82) B Fluorobenzene	12.232	12.232	1.000	96	1014657	50.00	ug/L	0.00
103) B Chlorobenzene-d5	15.849	15.849	1.000	117	786113	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	18.411	18.410	1.000	152	409402	50.00	ug/L	0.00
System Monitoring Compounds								
29) 1,2-Dichloroethane-d4	11.794	11.793	0.964	65	310163	49.83	ug/L	0.00
43) Toluene-d8	14.165	14.165	0.894	98	1078265	50.97	ug/L	0.00
61) Bromofluorobenzene	17.130	17.130	0.930	95	404032	49.94	ug/L	0.00
Target Compounds								
2) Dichlorodifluoromethane	4.800	4.800	0.392	85	161525	57.11	ug/L	97
3) Chloromethane	5.201	5.216	0.425	50	236429	49.51	ug/L	99
4) Vinyl chloride	5.528	5.528	0.452	62	239260	49.17	ug/L	99
5) Bromomethane	6.279	6.291	0.513	94	197867	50.39	ug/L	99
6) Chloroethane	6.493	6.493	0.531	64	160440	51.04	ug/L	100
7) Trichlorofluoromethane	7.050	7.062	0.576	101	334673	49.99	ug/L	100
8) Ethyl ether	7.501	7.512	0.613	59	176444	50.98	ug/L	98
9) Acetone	7.975	7.987	0.652	43	839845	196.28	ug/L	99
10) 1,1-Dichloroethylene	7.975	7.987	0.652	61	329650	47.91	ug/L	100
11) Iodomethane	8.272	8.271	0.676	142	2032300	233.58	ug/L	100
12) Acetonitrile	8.438	8.449	0.690	41	725670	979.03	ug/L	99
13) Methyl acetate	8.509	8.520	0.696	43	800949	209.75	ug/L	99
14) Carbon disulfide	8.438	8.449	0.690	76	3414983	224.97	ug/L	100
15) Methylene chloride	8.746	8.746	0.715	84	267145	43.20	ug/L	97
16) tert-Butyl methyl ether	9.173	9.173	0.750	73	620042	46.10	ug/L	98
17) trans-1,2-Dichloroethy...	9.197	9.208	0.752	61	306090	48.03	ug/L	100
18) Vinyl acetate	9.837	9.837	0.804	43	1933111	252.09	ug/L	99
19) 1,1-Dichloroethane	9.849	9.860	0.805	63	383749	47.91	ug/L	100
20) 2-Butanone	10.631	10.643	0.869	43	940677	220.74	ug/L	99
21) cis-1,2-Dichloroethylene	10.691	10.691	0.874	61	347277	49.25	ug/L	100
22) 2,2-Dichloropropane	10.714	10.714	0.876	77	246485	49.84	ug/L	98
23) Bromochloromethane	11.023	11.034	0.901	128	128401	49.46	ug/L	100
24) Chloroform	11.094	11.094	0.907	83	399597	48.89	ug/L	99
25) 1,1,1-Trichloroethane	11.426	11.426	0.934	97	326801	49.23	ug/L	99
26) Cyclohexane	11.533	11.532	0.943	56	348431	46.89	ug/L	98
27) 1,1-Dichloropropene	11.616	11.627	0.950	75	274086	48.60	ug/L	99
28) Carbon tetrachloride	11.663	11.663	0.953	117	285296	49.15	ug/L	99
30) 1,2-Dichloroethane	11.888	11.888	0.972	62	301831	47.22	ug/L	99
31) Benzene	11.912	11.912	0.974	78	844553	47.20	ug/L	99
32) Cyclohexene	12.054	12.054	0.985	67	398041	48.60	ug/L	98
33) n-Butyl alcohol	12.398	12.398	1.014	56	751461	3997.21	ug/L	100
34) Trichloroethylene	12.695	12.695	1.038	95	226493	49.02	ug/L	99
35) 1,2-Dichloropropane	12.979	12.979	1.061	63	216557	49.56	ug/L	99
36) Methylcyclohexane	12.979	12.991	1.061	83	363814	47.57	ug/L	99
37) Dibromomethane	13.134	13.133	1.074	93	144600	49.30	ug/L	99
38) Bromodichloromethane	13.276	13.288	1.085	83	291774	52.29	ug/L	100
39) 2-Chloroethylvinyl ether	13.560	13.560	1.109	63	420518	294.67	ug/L	99
40) cis-1,3-Dichloropropylene	13.810	13.809	1.129	75	342081	53.95	ug/L	98

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030210V3\  
Data File : 3B225.D  
Acq On : 2 Mar 2010 9:02 pm  
Operator : CDS1  
InstName : VOA3  
Sample : |W3VM100302-06|CCV|1|VOA|1|  
Misc : CCV 5mL - MIX[A] 222-07A+106-07D  
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Mar 03 08:29:54 2010  
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 01 09:52:36 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
42) 4-Methyl-2-pentanone	13.928	13.928	0.879	58	458356	241.32	ug/L	99
44) Toluene	14.248	14.248	0.899	91	914380	48.58	ug/L	100
45) trans-1,3-Dichloroprop...	14.426	14.426	0.910	75	308249	53.88	ug/L	100
46) 1,1,2-Trichloroethane	14.675	14.675	0.926	83	163394	50.25	ug/L	99
47) 2-Hexanone	14.889	14.888	0.939	43	1143345	235.77	ug/L	100
48) 1,3-Dichloropropane	14.877	14.888	0.939	76	326358	48.33	ug/L	97
49) Tetrachloroethylene	14.912	14.912	0.941	164	176125	48.03	ug/L	99
50) Dibromochloromethane	15.173	15.173	0.957	129	228540	53.13	ug/L	100
51) 1,2-Dibromoethane	15.351	15.351	0.969	107	207643	49.65	ug/L	99
52) Chlorobenzene	15.885	15.885	1.002	112	601770	48.71	ug/L	99
53) 1,1,1,2-Tetrachloroethane	15.944	15.956	1.006	131	222463	52.37	ug/L	99
54) Ethylbenzene	15.968	15.968	1.007	91	953813	49.04	ug/L	99
55) m,p-Xylenes	16.086	16.086	1.015	106	776633	100.48	ug/L	100
56) o-Xylene	16.549	16.549	1.044	106	404726	52.41	ug/L	99
57) Styrene	16.549	16.549	1.044	104	675694	54.81	ug/L	99
59) Bromoform	16.810	16.821	0.913	173	136949	44.50	ug/L	99
60) Isopropylbenzene	16.928	16.928	0.919	105	1024484	51.52	ug/L	100
62) 1,1,2,2-Tetrachloroethane	17.213	17.213	0.935	83	257913	47.97	ug/L	99
63) 1,2,3-Trichloropropane	17.296	17.308	0.939	110	70652	47.80	ug/L #	88
64) Bromobenzene	17.343	17.343	0.942	156	269976	50.58	ug/L	100
65) n-Propylbenzene	17.367	17.367	0.943	91	1171148	50.94	ug/L	100
66) 1,3,5-Trimethylbenzene	17.533	17.533	0.952	105	873921	52.38	ug/L	100
67) 2-Chlorotoluene	17.521	17.521	0.952	126	250032	50.45	ug/L	99
68) 4-Chlorotoluene	17.628	17.628	0.957	91	723826	50.75	ug/L	99
69) tert-Butylbenzene	17.913	17.912	0.973	134	188463	52.81	ug/L	96
70) 1,2,4-Trimethylbenzene	17.960	17.960	0.976	105	882395	52.16	ug/L	99
71) sec-Butylbenzene	18.150	18.150	0.986	105	1156001	51.73	ug/L	99
72) 4-Isopropyltoluene	18.280	18.280	0.993	119	938473	52.90	ug/L	100
73) 1,3-Dichlorobenzene	18.339	18.351	0.996	146	455414	49.94	ug/L	99
74) 1,4-Dichlorobenzene	18.434	18.434	1.001	146	524228	50.16	ug/L	99
75) n-Butylbenzene	18.743	18.742	1.018	91	896821	53.16	ug/L	99
76) 1,2-Dichlorobenzene	18.885	18.885	1.026	146	509578	49.12	ug/L	99
77) 1,2-Dibromo-3-chloropr...	19.810	19.810	1.076	157	49655	38.79	ug/L	97
78) 1,2,4-Trichlorobenzene	20.936	20.936	1.137	180	350432	50.23	ug/L	99
79) Hexachlorobutadiene	21.126	21.126	1.148	225	177031	50.66	ug/L	99
80) Naphthalene	21.352	21.351	1.160	128	843035	46.98	ug/L	100
81) 1,2,3-Trichlorobenzene	21.719	21.719	1.180	180	313562	46.02	ug/L	99
83) Chlorotrifluoroethylene	0.000	4.711	0.000		0	N.D.		
84) 2-Chloro-1,1,1-trifluo...	0.000	5.751	0.000		0	N.D.		
85) Acrolein	0.000	7.750	0.000		0	N.D.		
86) Trichlorotrifluoroethane	7.963	7.975	0.651		0m	N.D. d		
87) Isopropyl Alcohol	0.000	8.141	0.000		0	N.D.		
88) Allyl chloride	8.438	8.556	0.690		0m	N.D. d		
89) tert-Butyl Alcohol	0.000	8.793	0.000		0	N.D.		
90) Acrylonitrile	9.161	9.090	0.749		0m	N.D. d		
91) Isopropyl ether	9.837	9.884	0.804		0m	N.D. d		
92) 2-Chloro-1,3-butadiene	0.000	10.003	0.000		0	N.D.		
93) Ethyl tert-butyl ether	0.000	10.406	0.000		0	N.D.		
94) Ethyl acetate	10.631	10.679	0.869		0m	N.D. d		
95) Propionitrile	10.631	10.726	0.869		0m	N.D. d		
96) Methacrylonitrile	10.963	10.951	0.896		0m	N.D. d		
97) Tetrahydrofuran	11.094	11.094	0.907		0m	N.D. d		



Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030210V3\  
Data File : 3B225.D  
Acq On : 2 Mar 2010 9:02 pm  
Operator : CDS1  
InstName : VOA3  
Sample : |W3VM100302-06|CCV|1|VOA|1|  
Misc : CCV 5mL - MIX[A] 222-07A+106-07D  
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Mar 03 08:29:54 2010  
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 01 09:52:36 2010  
Response via : Initial Calibration  
Integrator: RTE

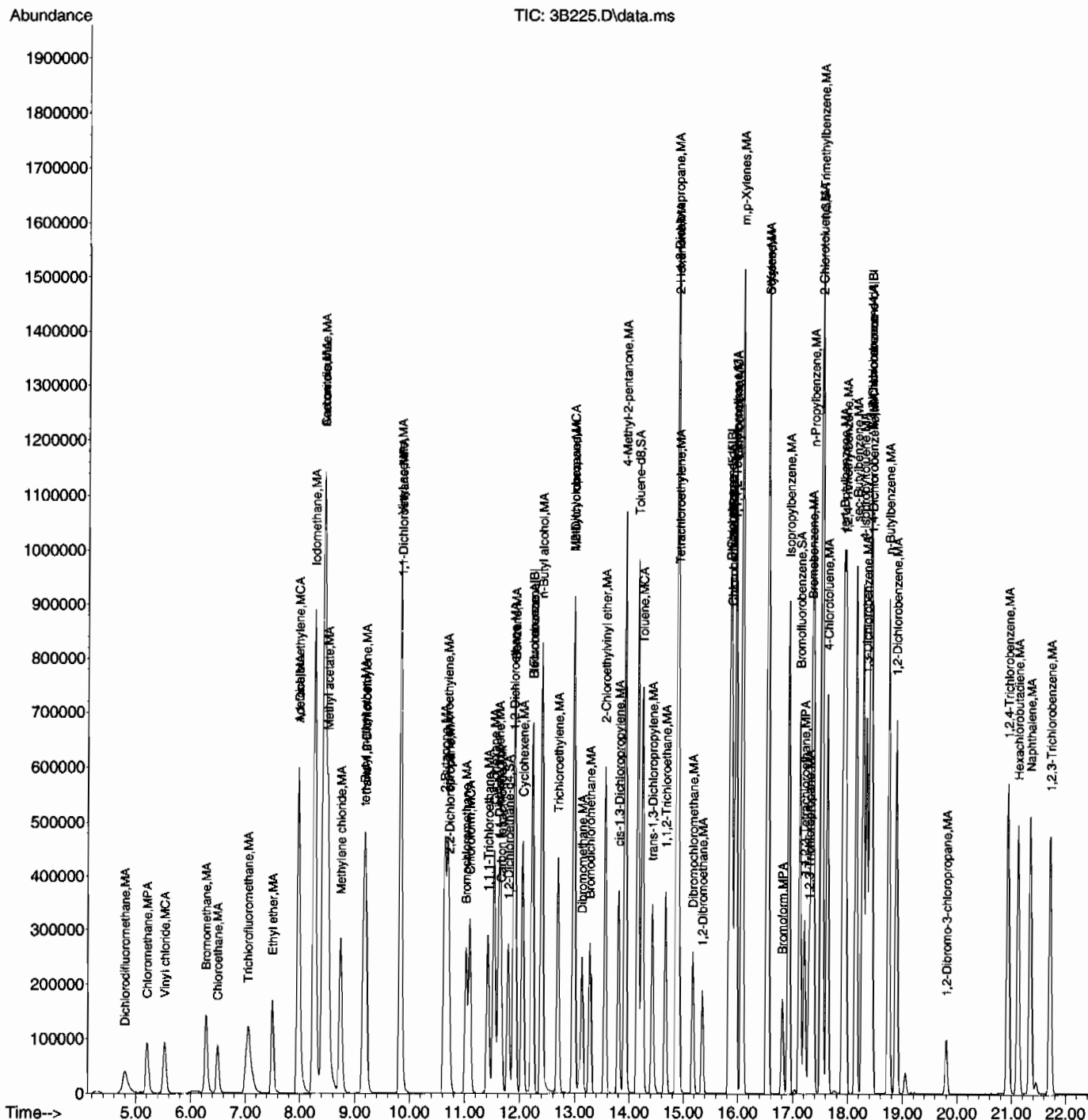
Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
98) Isobutyl alcohol	11.533	11.556	0.943		0m	N.D.	d
99) Methyl tert-amyl ether	11.912	11.971	0.974		0m	N.D.	d
100) Methyl methacrylate	12.979	12.991	1.061		0m	N.D.	d
101) 1,4-Dioxane	13.122	13.098	1.073		0m	N.D.	d
102) 2-Nitropropane	13.560	13.525	1.109		0m	N.D.	d
104) Ethyl methacrylate	14.450	14.450	0.912		0m	N.D.	d
106) 1-Chlorohexane	15.849	15.754	0.861		0m	N.D.	d
107) cis-1,4-Dichloro-2-butene	16.928	16.964	0.919		0m	N.D.	d
108) Cyclohexanone	16.928	17.082	0.919		0m	N.D.	d
109) trans-1,4-Dichloro-2-b...	17.367	17.260	0.943		0m	N.D.	d
110) Pentachloroethane	17.984	17.983	0.977		0m	N.D.	d
111) Benzyl chloride	18.553	18.553	1.008		0m	N.D.	d
112) bis(2-Chloroisopropyl)...	18.980	18.980	1.031		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\030210V3\  
Data File : 3B225.D  
Acq On : 2 Mar 2010 9:02 pm  
Operator : CDS1  
InstName : VOA3  
Sample : |W3VM100302-06|CCV|1|VOA|1|  
Misc : CCV 5mL - MIX[A] 222-07A+106-07D  
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Mar 03 08:29:54 2010  
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 01 09:52:36 2010  
Response via : Initial Calibration  
Integrator: RTE



## Continuing Calibration Summary

Client SDG: 10-2027

Instrument ID: VOA3.I

Injection Date 02-MAR-10 22:31

Data File: 030210V3\3B228.D

Init. Cal. Date(s) 26-FEB-10 10:23 - 26-FEB-10 19:14

Lab Sample ID W3VM100302-09 Quant Type ISTD

Method: 022610V3\VOA3-8260-022610.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
S1,2-Dichloroethane-d4	0.3066	0.30396		.01		-0.86106	30		Averaged
S Toluene-d8	1.3456	1.38017		.01		2.56911	30		Averaged
S Bromofluorobenzene	1.0082	1.05449		.01		4.59135	30		Averaged
Acrolein	250	315.45	250			26.18	30		Linear
Trichlorotrifluoroethane	0.0827	0.06577		.01		-20.47158	30		Averaged
Allyl chloride	0.2962	0.26192		.01		-11.57326	30		Averaged
Acrylonitrile	0.0885	0.07894		.01		-10.80226	30		Averaged
2-Chloro-1,3-butadiene	0.2574	0.24587		.01		-4.47941	30		Averaged
Ethyl acetate	0.2185	0.19253		.01		-11.88558	40		Averaged
Propionitrile	0.0347	0.03087		.01		-11.03746	30		Averaged
Methacrylonitrile	0.1332	0.11894		.01		-10.70571	30		Averaged
Tetrahydrofuran	0.0735	0.0634		.01		-13.7415	30		Averaged
Isobutyl alcohol	0.0095	0.009		.01		-5.26316	40		Averaged
Methyl methacrylate	0.1441	0.1396		.01		-3.12283	30		Averaged
1,4-Dioxane	0.0031	0.00265		.01		-14.51613	40		Averaged
2-Nitropropane	250	229.85	250			-8.06	30		Linear
Ethyl methacrylate	0.3396	0.34707		.01		2.19965	30		Averaged
cis-1,4-Dichloro-2-butene	0.1677	0.18498		.01		10.30411	30		Averaged
Cyclohexanone	0.0193	0.03706		.01		92.02073	40	*	Averaged
trans-1,4-Dichloro-2-butene	0.1636	0.1781		.01		8.86308	30		Averaged
Pentachloroethane	250	331.46	250			32.584	30	*	Linear
Benzyl chloride	250	323.02	250			29.208	30		Linear
bis(2-Chloroisopropyl)ether	0.3232	0.30919		.01		-4.33478	30		Averaged

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030210V3\  
Data File : 3B228.D  
Acq On : 2 Mar 2010 10:31 pm  
Operator : CDS1  
InstName : VOA3  
Sample : |W3VM100302-09|CCV|1|VOA|1|VOA8260BL|  
Misc : CCV 5mL - MIX[B] UVM100215-06  
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Mar 03 12:29:14 2010  
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 01 09:52:36 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	12.232	12.232	1.000	96	995428	50.00	ug/L	0.00
41) Chlorobenzene-d5	15.849	15.849	1.000	117	744715	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	18.410	18.410	1.000	152	371110	50.00	ug/L	0.00
82) B Fluorobenzene	12.232	12.232	1.000	96	995087	50.00	ug/L	0.00
103) B Chlorobenzene-d5	15.849	15.849	1.000	117	744829	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	18.410	18.410	1.000	152	378482	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	11.793	11.793	0.964	65	302571	49.56	ug/L	0.00
43) Toluene-d8	14.165	14.165	0.894	98	1027830	51.29	ug/L	0.00
61) Bromofluorobenzene	17.130	17.130	0.930	95	391333	52.30	ug/L	0.00
Target Compounds								QValue
2) Dichlorodifluoromethane	0.000	4.800	0.000		0	N.D.		
3) Chloromethane	0.000	5.216	0.000		0	N.D.		
4) Vinyl chloride	0.000	5.528	0.000		0	N.D.		
5) Bromomethane	0.000	6.291	0.000		0	N.D.		
6) Chloroethane	0.000	6.493	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	7.062	0.000		0	N.D.		
8) Ethyl ether	0.000	7.512	0.000		0	N.D.		
9) Acetone	7.987	7.987	0.653		0m	N.D.	d	
10) 1,1-Dichloroethylene	7.975	7.987	0.652		0m	N.D.	d	
11) Iodomethane	8.260	8.271	0.675		0m	N.D.	d	
12) Acetonitrile	8.544	8.449	0.698		0m	N.D.	d	
13) Methyl acetate	8.532	8.520	0.698		0m	N.D.	d	
14) Carbon disulfide	8.556	8.449	0.699		0m	N.D.	d	
15) Methylene chloride	8.746	8.746	0.715		0m	N.D.	d	
16) tert-Butyl methyl ether	0.000	9.173	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	9.208	0.000		0	N.D.		
18) Vinyl acetate	9.849	9.837	0.805		0m	N.D.	d	
19) 1,1-Dichloroethane	10.003	9.860	0.818		0m	N.D.	d	
20) 2-Butanone	10.679	10.643	0.873		0m	N.D.	d	
21) cis-1,2-Dichloroethylene	10.679	10.691	0.873		0m	N.D.	d	
22) 2,2-Dichloropropane	0.000	10.714	0.000		0	N.D.		
23) Bromochloromethane	0.000	11.034	0.000		0	N.D.		
24) Chloroform	0.000	11.094	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	11.426	0.000		0	N.D.		
26) Cyclohexane	11.556	11.532	0.945		0m	N.D.	d	
27) 1,1-Dichloropropene	11.556	11.627	0.945		0m	N.D.	d	
28) Carbon tetrachloride	0.000	11.663	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	11.888	0.000		0	N.D.		
31) Benzene	11.912	11.912	0.974		0m	N.D.	d	
32) Cyclohexene	0.000	12.054	0.000		0	N.D.		
33) n-Butyl alcohol	12.410	12.398	1.015		0m	N.D.	d	
34) Trichloroethylene	12.695	12.695	1.038		0m	N.D.	d	
35) 1,2-Dichloropropane	0.000	12.979	0.000		0	N.D.		
36) Methylcyclohexane	12.991	12.991	1.062		0m	N.D.	d	
37) Dibromomethane	0.000	13.133	0.000		0	N.D.		
38) Bromodichloromethane	0.000	13.288	0.000		0	N.D.		
39) 2-Chloroethylvinyl ether	0.000	13.560	0.000		0	N.D.		
40) cis-1,3-Dichloropropylene	0.000	13.809	0.000		0	N.D.		

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030210V3\  
Data File : 3B228.D  
Acq On : 2 Mar 2010 10:31 pm  
Operator : CDS1  
InstName : VOA3  
Sample : |W3VM100302-09|CCV|1|VOA|1|VOA8260BL|  
Misc : CCV 5mL - MIX[B] UVM100215-06  
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Mar 03 12:29:14 2010  
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 01 09:52:36 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
42) 4-Methyl-2-pentanone	13.928	13.928	0.879		0m	N.D.	d
44) Toluene	14.248	14.248	0.899		0m	N.D.	d
45) trans-1,3-Dichloroprop...	14.438	14.426	0.911		0m	N.D.	d
46) 1,1,2-Trichloroethane	0.000	14.675	0.000		0	N.D.	
47) 2-Hexanone	14.888	14.888	0.939		0m	N.D.	d
48) 1,3-Dichloropropane	0.000	14.888	0.000		0	N.D.	
49) Tetrachloroethylene	14.912	14.912	0.941		0m	N.D.	d
50) Dibromochloromethane	0.000	15.173	0.000		0	N.D.	
51) 1,2-Dibromoethane	15.351	15.351	0.969		0m	N.D.	d
52) Chlorobenzene	15.885	15.885	1.002		0m	N.D.	d
53) 1,1,1,2-Tetrachloroethane	0.000	15.956	0.000		0	N.D.	
54) Ethylbenzene	15.968	15.968	1.007		0m	N.D.	d
55) m,p-Xylenes	16.086	16.086	1.015		0m	N.D.	d
56) o-Xylene	16.549	16.549	1.044		0m	N.D.	d
57) Styrene	16.549	16.549	1.044		0m	N.D.	d
59) Bromoform	0.000	16.821	0.000		0	N.D.	
60) Isopropylbenzene	16.928	16.928	0.919		0m	N.D.	d
62) 1,1,2,2-Tetrachloroethane	17.260	17.213	0.938		0m	N.D.	d
63) 1,2,3-Trichloropropane	0.000	17.308	0.000		0	N.D.	
64) Bromobenzene	17.343	17.343	0.942		0m	N.D.	d
65) n-Propylbenzene	17.367	17.367	0.943		0m	N.D.	d
66) 1,3,5-Trimethylbenzene	17.533	17.533	0.952		0m	N.D.	d
67) 2-Chlorotoluene	17.628	17.521	0.957		0m	N.D.	d
68) 4-Chlorotoluene	17.628	17.628	0.957		0m	N.D.	d
69) tert-Butylbenzene	17.983	17.912	0.977		0m	N.D.	d
70) 1,2,4-Trimethylbenzene	17.960	17.960	0.976		0m	N.D.	d
71) sec-Butylbenzene	18.150	18.150	0.986		0m	N.D.	d
72) 4-Isopropyltoluene	18.280	18.280	0.993		0m	N.D.	d
73) 1,3-Dichlorobenzene	18.339	18.351	0.996		0m	N.D.	d
74) 1,4-Dichlorobenzene	18.434	18.434	1.001		0m	N.D.	d
75) n-Butylbenzene	18.742	18.742	1.018		0m	N.D.	d
76) 1,2-Dichlorobenzene	18.885	18.885	1.026		0m	N.D.	d
77) 1,2-Dibromo-3-chloropr...	0.000	19.810	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	20.936	20.936	1.137		0m	N.D.	d
79) Hexachlorobutadiene	21.126	21.126	1.148		0m	N.D.	d
80) Naphthalene	21.351	21.351	1.160		0m	N.D.	d
81) 1,2,3-Trichlorobenzene	21.719	21.719	1.180		0m	N.D.	d
83) Chlorotrifluoroethylene	0.000	4.711	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000	5.751	0.000		0	N.D.	
85) Acrolein	7.738	7.750	0.633	56	164790	315.45 ug/L	95 E
86) Trichlorotrifluoroethane	7.975	7.975	0.652	85	327252	198.83 ug/L	99
87) Isopropyl Alcohol	8.129	8.141	0.665	45	1615	N.D.	
88) Allyl chloride	8.544	8.556	0.698	41	1303164	221.05 ug/L	99
89) tert-Butyl Alcohol	0.000	8.793	0.000		0	N.D.	
90) Acrylonitrile	9.090	9.090	0.743	53	392776	222.91 ug/L	99
91) Isopropyl ether	0.000	9.884	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	10.003	10.003	0.818	53	244660	47.76 ug/L	99
93) Ethyl tert-butyl ether	0.000	10.406	0.000		0	N.D.	
94) Ethyl acetate	10.679	10.679	0.873	43	957934	220.31 ug/L	100
95) Propionitrile	10.726	10.726	0.877	54	153611	222.33 ug/L	99
96) Methacrylonitrile	10.951	10.951	0.895	41	591769	223.29 ug/L	99
97) Tetrahydrofuran	11.094	11.094	0.907	42	315440	215.61 ug/L	99

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030210V3\  
Data File : 3B228.D  
Acq On : 2 Mar 2010 10:31 pm  
Operator : CDS1  
InstName : VOA3  
Sample : |W3VM100302-09|CCV|1|VOA|1|VOA8260BL|  
Misc : CCV 5mL - MIX[B] UVM100215-06  
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Mar 03 12:29:14 2010  
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 01 09:52:36 2010  
Response via : Initial Calibration  
Integrator: RTE

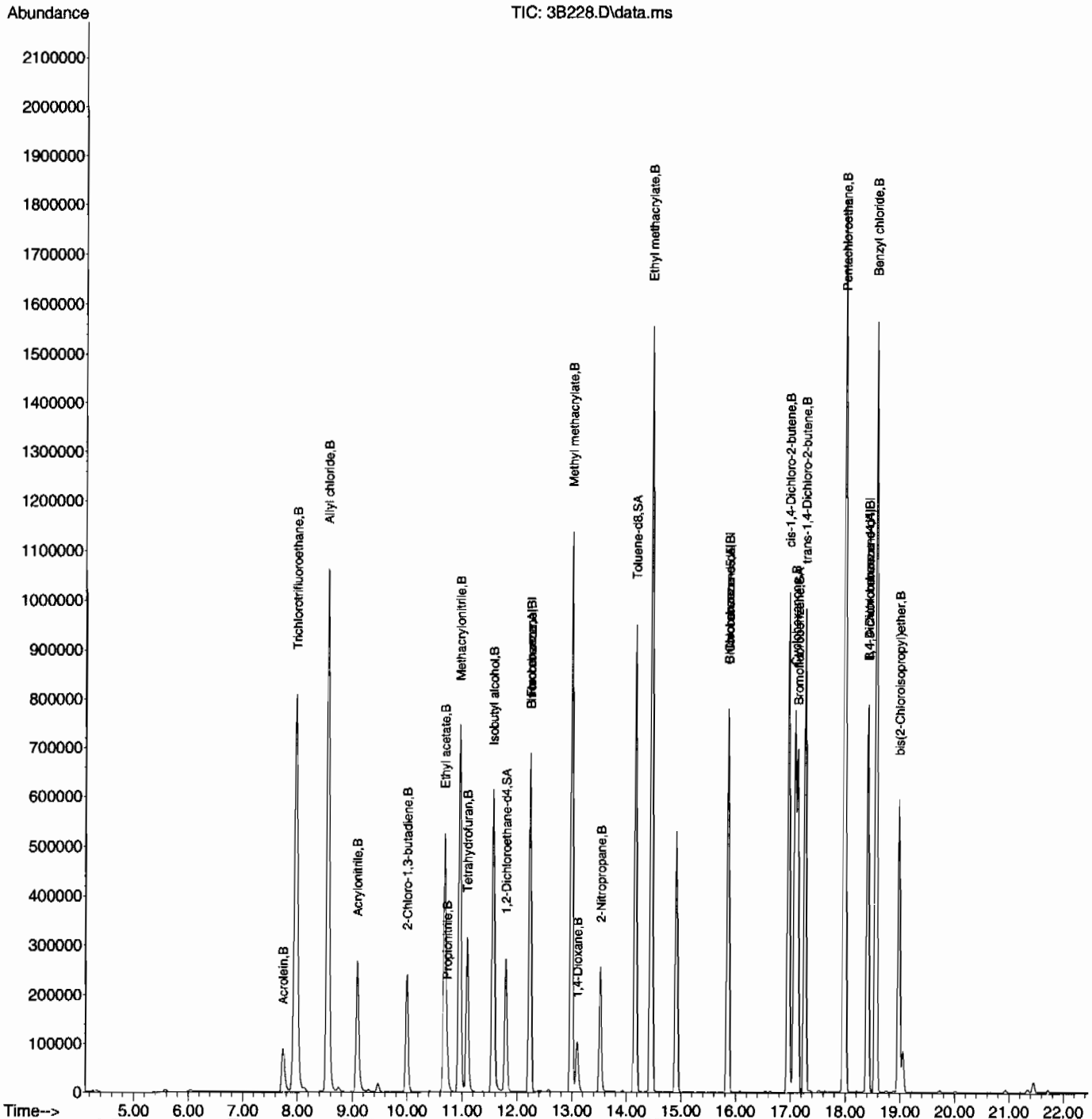
Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
98) Isobutyl alcohol	11.556	11.556	0.945	41	447756	2379.58	ug/L	100
99) Methyl tert-amyl ether	0.000	11.971	0.000		0	N.D.		
100) Methyl methacrylate	12.991	12.991	1.062	69	694552	242.21	ug/L	97
101) 1,4-Dioxane	13.098	13.098	1.071	88	132089	2165.85	ug/L	100
102) 2-Nitropropane	13.525	13.525	1.106	43	291393	229.85	ug/L	99
104) Ethyl methacrylate	14.450	14.450	0.912	69	1292528	255.52	ug/L	99
106) 1-Chlorohexane	0.000	15.754	0.000		0m	N.D.	d	
107) cis-1,4-Dichloro-2-butene	16.964	16.964	0.921	53	350050	275.69	ug/L	99
108) Cyclohexanone	17.082	17.082	0.928	42	350623	2405.96	ug/L	99 E
109) trans-1,4-Dichloro-2-b...	17.260	17.260	0.938	53	337030	272.15	ug/L	99
110) Pentachloroethane	17.983	17.983	0.977	167	547202	331.46	ug/L	99 E
111) Benzyl chloride	18.553	18.553	1.008	91	1962025	323.02	ug/L	99
112) bis(2-Chloroisopropyl)...	18.980	18.980	1.031	45	585106	239.16	ug/L	99

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

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030210V3\  
Data File : 3B228.D  
Acq On : 2 Mar 2010 10:31 pm  
Operator : CDS1  
InstName : VOA3  
Sample : |W3VM100302-09|CCV|1|VOA|1|VOA8260BL|  
Misc : CCV 5mL - MIX[B] UVM100215-06  
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Mar 03 12:29:14 2010  
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 01 09:52:36 2010  
Response via : Initial Calibration  
Integrator: RTE



## Continuing Calibration Summary

Client SDG: 10-2027

Instrument ID: VOA3.1

Injection Date: 04-MAR-10 08:23

Data File: 030410V3\3B402.D

Init. Cal. Date(s) 26-FEB-10 10:23 - 26-FEB-10 19:14

Lab Sample ID W3VM100304-01

Quant Type ISTD

Method: 022610V3\VOA3-8260-022610.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
S1,2-Dichloroethane-d4	0.3066	0.28477		.01		-7.12003	30		Averaged	
SToluene-d8	1.3456	1.36638		.01		1.54429	30		Averaged	
SBromofluorobenzene	1.0082	0.96033		.01		-4.74807	30		Averaged	
Dichlorodifluoromethane	50	55.8	50			11.6	30		Linear	
Chloromethane	0.2352	0.25633		.1		8.98384	30		Averaged	spcc
Vinyl chloride	0.2397	0.2621		.01		9.34501	20		Averaged	ccc
Bromomethane	0.1935	0.21742		.01		12.36176	30		Averaged	
Chloroethane	0.1549	0.1667		.01		7.61782	30		Averaged	
Trichlorofluoromethane	0.3298	0.33167		.01		0.56701	30		Averaged	
Ethyl ether	0.1705	0.17923		.01		5.12023	30		Averaged	
Acetone	0.2108	0.19085		.01		-9.46395	40		Averaged	
1,1-Dichloroethylene	0.339	0.33453		.01		-1.31858	20		Averaged	ccc
Iodomethane	0.4286	0.41231		.01		-3.80075	30		Averaged	
Carbon disulfide	0.7478	0.7174		.01		-4.06526	30		Averaged	
Acetonitrile	0.0365	0.03084		.01		-15.50685	30		Averaged	
Methyl acetate	0.1881	0.1733		.01		-7.86816	40		Averaged	
Methylene chloride	0.3046	0.26593		.01		-12.69534	30		Averaged	
tert-Butyl methyl ether	0.6625	0.5717		.01		-13.70566	30		Averaged	
trans-1,2-Dichloroethylene	0.314	0.29901		.01		-4.77389	30		Averaged	
Vinyl acetate	0.3778	0.41414		.01		9.61885	40		Averaged	
1,1-Dichloroethane	0.3946	0.38891		.1		-1.44197	30		Averaged	spcc
2-Butanone	0.2099	0.21676		.01		3.26822	40		Averaged	
cis-1,2-Dichloroethylene	0.3474	0.34857		.01		0.33679	30		Averaged	
2,2-Dichloropropane	0.2436	0.25191		.01		3.41133	30		Averaged	
Bromochloromethane	0.1279	0.12985		.01		1.52463	30		Averaged	
Chloroform	0.4027	0.39669		.01		-1.49243	20		Averaged	ccc
1,1,1-Trichloroethane	0.327	0.32428		.01		-0.8318	30		Averaged	
Cyclohexane	0.3661	0.36434		.01		-0.48074	30		Averaged	
1,1-Dichloropropene	0.2778	0.28036		.01		0.92153	30		Averaged	
Carbon tetrachloride	0.286	0.29244		.01		2.25175	30		Averaged	
1,2-Dichloroethane	0.3149	0.29119		.01		-7.52937	30		Averaged	
Benzene	0.8815	0.86216		.01		-2.19399	30		Averaged	
Cyclohexene	0.4035	0.40647		.01		0.73606	30		Averaged	
n-Butyl alcohol	5000	4703.35	5000			-5.933	40		Linear	
Trichloroethylene	0.2276	0.22835		.01		0.32953	30		Averaged	
1,2-Dichloropropane	0.2153	0.22477		.01		4.39851	20		Averaged	ccc
Methylcyclohexane	0.3768	0.38214		.01		1.4172	30		Averaged	



## Continuing Calibration Summary

Instrument ID: VOA3.I

Injection Date 04-MAR-10 08:23

Data File: 030410V3\3B402.D

Init. Cal. Date(s) 26-FEB-10 10:23 26-FEB-10 19:14

Lab Sample ID W3VM100304-01

Quant Type ISTD

Method:022610V3\VOA3-8260-022610.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
Dibromomethane	0.1445	0.14562		.01		0.77509	30		Averaged	
Bromodichloromethane	0.2749	0.29333		.01		6.70426	30		Averaged	
2-Chloroethylvinyl ether	250	332.59	250			33.036	30	*	Linear	
cis-1,3-Dichloropropylene	0.3124	0.34466		.01		10.3265	30		Averaged	
4-Methyl-2-pentanone	0.1208	0.13354		.01		10.54636	40		Averaged	
Toluene	1.1971	1.20928		.01		1.01746	20		Averaged	ccc
trans-1,3-Dichloropropylene	0.3639	0.39826		.01		9.44215	30		Averaged	
1,1,2-Trichloroethane	0.2068	0.2077		.01		0.4352	30		Averaged	
1,3-Dichloropropane	0.4295	0.42537		.01		-0.96158	30		Averaged	
2-Hexanone	0.3084	0.34501		.01		11.87095	40		Averaged	
Tetrachloroethylene	0.2332	0.23495		.01		0.75043	30		Averaged	
Dibromochloromethane	0.2736	0.30306		.01		10.76754	30		Averaged	
1,2-Dibromoethane	0.266	0.26425		.01		-0.65789	30		Averaged	
Chlorobenzene	0.7858	0.79865		.3		1.63528	30		Averaged	spcc
1,1,1,2-Tetrachloroethane	0.2702	0.29896		.01		10.64397	30		Averaged	
Ethylbenzene	1.237	1.26229		.01		2.04446	20		Averaged	ccc
m,p-Xylenes	0.4916	0.5312		.01		8.05533	30		Averaged	
o-Xylene	0.4911	0.53986		.01		9.92873	30		Averaged	
Styrene	0.7841	0.89398		.01		14.01352	30		Averaged	
Bromoform	50	50.1	50			0.2	30		Linear	spcc
Isopropylbenzene	2.4779	2.66177		.01		7.4204	30		Averaged	
1,1,2,2-Tetrachloroethane	0.6699	0.70092		.3		4.63054	30		Averaged	spcc
1,2,3-Trichloropropane	0.1842	0.18061		.01		-1.94897	30		Averaged	
Bromobenzene	0.6651	0.68688		.01		3.2747	30		Averaged	
n-Propylbenzene	2.8647	3.09166		.01		7.92264	30		Averaged	
2-Chlorotoluene	0.6176	0.64673		.01		4.71665	30		Averaged	
1,3,5-Trimethylbenzene	2.079	2.26181		.01		8.79317	30		Averaged	
4-Chlorotoluene	1.7773	1.82412		.01		2.63433	30		Averaged	
tert-Butylbenzene	0.4447	0.48914		.01		9.99325	30		Averaged	
1,2,4-Trimethylbenzene	2.1081	2.2761		.01		7.96926	30		Averaged	
sec-Butylbenzene	2.7845	3.04315		.01		9.28892	30		Averaged	
4-Isopropyltoluene	2.2105	2.45633		.01		11.12101	30		Averaged	
1,3-Dichlorobenzene	1.1363	1.18046		.01		3.8863	30		Averaged	
1,4-Dichlorobenzene	1.3023	1.358		.01		4.27705	30		Averaged	
n-Butylbenzene	2.102	2.37907		.01		13.18126	30		Averaged	
1,2-Dichlorobenzene	1.2927	1.31354		.01		1.61213	30		Averaged	
1,2-Dibromo-3-chloropropane	50	44.21	50			-11.58	30		Linear	

## Continuing Calibration Summary

Instrument ID: VOA3.I

Injection Date 04-MAR-10 08:23

Data File: 030410V3\3B402.D

Init. Cal. Date(s) 26-FEB-10 10:23 26-FEB-10 19:14

Lab Sample ID W3VM100304-01 Quant Type ISTD

Method:022610V3\VOA3-8260-022610.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
1,2,4-Trichlorobenzene	0.8694	0.87521		.01		0.66828	30		Averaged
Hexachlorobutadiene	0.4354	0.45264		.01		3.95958	30		Averaged
Naphthalene	2.2358	2.15449		.01		-3.63673	30		Averaged
1,2,3-Trichlorobenzene	0.849	0.78726		.01		-7.27208	30		Averaged

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V3\  
Data File : 3B402.D  
Acq On : 4 Mar 2010 8:23 am  
Operator : CDS1  
InstName : VOA3  
Sample : |W3VM100304-01|CCV|1|VOA|1|  
Misc : CCV 5ML - MIX[A] 222-07A+106-07D  
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 04 09:09:08 2010  
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 01 09:52:36 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	12.232	12.232	1.000	96	784397	50.00	ug/L	0.00
41) Chlorobenzene-d5	15.849	15.849	1.000	117	604534	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	18.410	18.410	1.000	152	310347	50.00	ug/L	0.00
82) B Fluorobenzene	12.232	12.232	1.000	96	784183	50.00	ug/L	0.00
103) B Chlorobenzene-d5	15.849	15.849	1.000	117	604495	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	18.410	18.410	1.000	152	316586	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	11.793	11.793	0.964	65	223374	46.43	ug/L	0.00
43) Toluene-d8	14.165	14.165	0.894	98	826022	50.77	ug/L	0.00
61) Bromofluorobenzene	17.130	17.130	0.930	95	298036	47.63	ug/L	0.00
Target Compounds								QValue
2) Dichlorodifluoromethane	4.800	4.800	0.392	85	122020	55.80	ug/L	96
3) Chloromethane	5.201	5.216	0.425	50	201068	54.49	ug/L	98
4) Vinyl chloride	5.528	5.528	0.452	62	205589	54.67	ug/L	99
5) Bromomethane	6.279	6.291	0.513	94	170545	56.19	ug/L	99
6) Chloroethane	6.493	6.493	0.531	64	130762	53.82	ug/L	100
7) Trichlorofluoromethane	7.050	7.062	0.576	101	260162	50.28	ug/L	99
8) Ethyl ether	7.501	7.512	0.613	59	140584	52.56	ug/L	99
9) Acetone	7.975	7.987	0.652	43	748506	226.35	ug/L	100
10) 1,1-Dichloroethylene	7.975	7.987	0.652	61	262406	49.35	ug/L	99
11) Iodomethane	8.271	8.271	0.676	142	1617081	240.48	ug/L	99
12) Acetonitrile	8.449	8.449	0.691	41	604788	1055.76	ug/L	99
13) Methyl acetate	8.508	8.520	0.696	43	679663	230.30	ug/L	99
14) Carbon disulfide	8.437	8.449	0.690	76	2813613	239.83	ug/L	100
15) Methylene chloride	8.746	8.746	0.715	84	208597	43.65	ug/L	99
16) tert-Butyl methyl ether	9.173	9.173	0.750	73	448438	43.14	ug/L	99
17) trans-1,2-Dichloroethy...	9.196	9.208	0.752	61	234539	47.62	ug/L	100
18) Vinyl acetate	9.837	9.837	0.804	43	1624268	274.08	ug/L	99
19) 1,1-Dichloroethane	9.849	9.860	0.805	63	305059	49.28	ug/L	99
20) 2-Butanone	10.631	10.643	0.869	43	850147	258.13	ug/L	100
21) cis-1,2-Dichloroethylene	10.679	10.691	0.873	61	273418	50.17	ug/L	100
22) 2,2-Dichloropropane	10.714	10.714	0.876	77	197600	51.70	ug/L	97
23) Bromochloromethane	11.023	11.034	0.901	128	101851	50.77	ug/L	98
24) Chloroform	11.094	11.094	0.907	83	311160	49.26	ug/L	100
25) 1,1,1-Trichloroethane	11.426	11.426	0.934	97	254367	49.58	ug/L	98
26) Cyclohexane	11.532	11.532	0.943	56	285788	49.77	ug/L	100
27) 1,1-Dichloropropene	11.615	11.627	0.950	75	219911	50.45	ug/L	98
28) Carbon tetrachloride	11.651	11.663	0.952	117	229392	51.13	ug/L	99
30) 1,2-Dichloroethane	11.888	11.888	0.972	62	228408	46.23	ug/L	99
31) Benzene	11.912	11.912	0.974	78	676279	48.90	ug/L	99
32) Cyclohexene	12.054	12.054	0.985	67	318837	50.37	ug/L	99
33) n-Butyl alcohol	12.398	12.398	1.014	56	685474	4703.35	ug/L	99
34) Trichloroethylene	12.695	12.695	1.038	95	179117	50.16	ug/L	99
35) 1,2-Dichloropropane	12.979	12.979	1.061	63	176305	52.21	ug/L	99
36) Methylcyclohexane	12.979	12.991	1.061	83	299752	50.71	ug/L	99
37) Dibromomethane	13.133	13.133	1.074	93	114225	50.39	ug/L	99
38) Bromodichloromethane	13.276	13.288	1.085	83	230091	53.35	ug/L	100
39) 2-Chloroethylvinyl ether	13.560	13.560	1.109	63	367599	332.59	ug/L	99
40) cis-1,3-Dichloropropylene	13.809	13.809	1.129	75	270348	55.17	ug/L	99

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V3\  
Data File : 3B402.D  
Acq On : 4 Mar 2010 8:23 am  
Operator : CDS1  
InstName : VOA3  
Sample : |W3VM100304-01|CCV|1|VOA|1|  
Misc : CCV 5ML - MIX[A] 222-07A+106-07D  
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 04 09:09:08 2010  
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 01 09:52:36 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
42) 4-Methyl-2-pentanone	13.928	13.928	0.879	58	403651	276.36	ug/L	97
44) Toluene	14.248	14.248	0.899	91	731050	50.51	ug/L	99
45) trans-1,3-Dichloroprop...	14.426	14.426	0.910	75	240760	54.73	ug/L	99
46) 1,1,2-Trichloroethane	14.675	14.675	0.926	83	125563	50.21	ug/L	100
47) 2-Hexanone	14.888	14.888	0.939	43	1042851	279.66	ug/L	98
48) 1,3-Dichloropropane	14.877	14.888	0.939	76	257153	49.52	ug/L	95
49) Tetrachloroethylene	14.912	14.912	0.941	164	142034	50.37	ug/L	99
50) Dibromochloromethane	15.173	15.173	0.957	129	183211	55.39	ug/L	99
51) 1,2-Dibromoethane	15.351	15.351	0.969	107	159750	49.68	ug/L	99
52) Chlorobenzene	15.884	15.885	1.002	112	482813	50.82	ug/L	100
53) 1,1,1,2-Tetrachloroethane	15.944	15.956	1.006	131	180733	55.33	ug/L	100
54) Ethylbenzene	15.967	15.968	1.007	91	763097	51.02	ug/L	99
55) m,p-Xylenes	16.086	16.086	1.015	106	642254	108.06	ug/L	98
56) o-Xylene	16.537	16.549	1.043	106	326363	54.96	ug/L	100
57) Styrene	16.549	16.549	1.044	104	540441	57.01	ug/L	99
59) Bromoform	16.809	16.821	0.913	173	119705	50.10	ug/L	98
60) Isopropylbenzene	16.928	16.928	0.919	105	826071	53.71	ug/L	99
62) 1,1,2,2-Tetrachloroethane	17.213	17.213	0.935	83	217527	52.32	ug/L	100
63) 1,2,3-Trichloropropane	17.296	17.308	0.939	110	56053	49.03	ug/L #	88
64) Bromobenzene	17.343	17.343	0.942	156	213171	51.63	ug/L	100
65) n-Propylbenzene	17.367	17.367	0.943	91	959487	53.96	ug/L	100
66) 1,3,5-Trimethylbenzene	17.533	17.533	0.952	105	701947	54.40	ug/L	99
67) 2-Chlorotoluene	17.521	17.521	0.952	126	200710	52.36	ug/L	97
68) 4-Chlorotoluene	17.628	17.628	0.957	91	566109	51.32	ug/L	99
69) tert-Butylbenzene	17.912	17.912	0.973	134	151802	55.00	ug/L	99
70) 1,2,4-Trimethylbenzene	17.960	17.960	0.976	105	706382	53.99	ug/L	100
71) sec-Butylbenzene	18.149	18.150	0.986	105	944434	54.64	ug/L	100
72) 4-Isopropyltoluene	18.280	18.280	0.993	119	762316	55.56	ug/L	99
73) 1,3-Dichlorobenzene	18.339	18.351	0.996	146	366351	51.94	ug/L	100
74) 1,4-Dichlorobenzene	18.434	18.434	1.001	146	421451	52.14	ug/L	99
75) n-Butylbenzene	18.742	18.742	1.018	91	738336	56.59	ug/L	100
76) 1,2-Dichlorobenzene	18.885	18.885	1.026	146	407653	50.81	ug/L	99
77) 1,2-Dibromo-3-chloropr...	19.810	19.810	1.076	157	44001	44.21	ug/L	98
78) 1,2,4-Trichlorobenzene	20.936	20.936	1.137	180	271619	50.34	ug/L	98
79) Hexachlorobutadiene	21.126	21.126	1.148	225	140477	51.98	ug/L	99
80) Naphthalene	21.351	21.351	1.160	128	668641	48.18	ug/L	100
81) 1,2,3-Trichlorobenzene	21.719	21.719	1.180	180	244325	46.36	ug/L	99
83) Chlorotrifluoroethylene	0.000	4.711	0.000		0	N.D.		
84) 2-Chloro-1,1,1-trifluo...	0.000	5.751	0.000		0	N.D.		
85) Acrolein	0.000	7.750	0.000		0	N.D.		
86) Trichlorotrifluoroethane	0.000	7.975	0.000		0	N.D.		
87) Isopropyl Alcohol	0.000	8.141	0.000		0	N.D.		
88) Allyl chloride	8.449	8.556	0.691		0m	N.D.	d	
89) tert-Butyl Alcohol	0.000	8.793	0.000		0	N.D.		
90) Acrylonitrile	9.161	9.090	0.749		0m	N.D.	d	
91) Isopropyl ether	9.837	9.884	0.804		0m	N.D.	d	
92) 2-Chloro-1,3-butadiene	0.000	10.003	0.000		0	N.D.		
93) Ethyl tert-butyl ether	0.000	10.406	0.000		0	N.D.		
94) Ethyl acetate	10.631	10.679	0.869		0m	N.D.	d	
95) Propionitrile	10.631	10.726	0.869		0m	N.D.	d	
96) Methacrylonitrile	0.000	10.951	0.000		0	N.D.		
97) Tetrahydrofuran	11.094	11.094	0.907		0m	N.D.	d	

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V3\  
Data File : 3B402.D  
Acq On : 4 Mar 2010 8:23 am  
Operator : CDS1  
InstName : VOA3  
Sample : |W3VM100304-01|CCV|1|VOA|1|  
Misc : CCV 5ML - MIX[A] 222-07A+106-07D  
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 04 09:09:08 2010  
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 01 09:52:36 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
98) Isobutyl alcohol	11.532	11.556	0.943		0m	N.D.	d
99) Methyl tert-amyl ether	11.912	11.971	0.974		0m	N.D.	d
100) Methyl methacrylate	12.979	12.991	1.061		0m	N.D.	d
101) 1,4-Dioxane	0.000	13.098	0.000		0	N.D.	
102) 2-Nitropropane	13.560	13.525	1.109		0m	N.D.	d
104) Ethyl methacrylate	0.000	14.450	0.000		0	N.D.	
106) 1-Chlorohexane	15.849	15.754	0.861		0m	N.D.	d
107) cis-1,4-Dichloro-2-butene	16.928	16.964	0.919		0m	N.D.	d
108) Cyclohexanone	16.916	17.082	0.919		0m	N.D.	d
109) trans-1,4-Dichloro-2-b...	17.367	17.260	0.943		0m	N.D.	d
110) Pentachloroethane	17.983	17.983	0.977		0m	N.D.	d
111) Benzyl chloride	18.398	18.553	0.999		0m	N.D.	d
112) bis(2-Chloroisopropyl)...	19.051	18.980	1.035		0m	N.D.	d

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

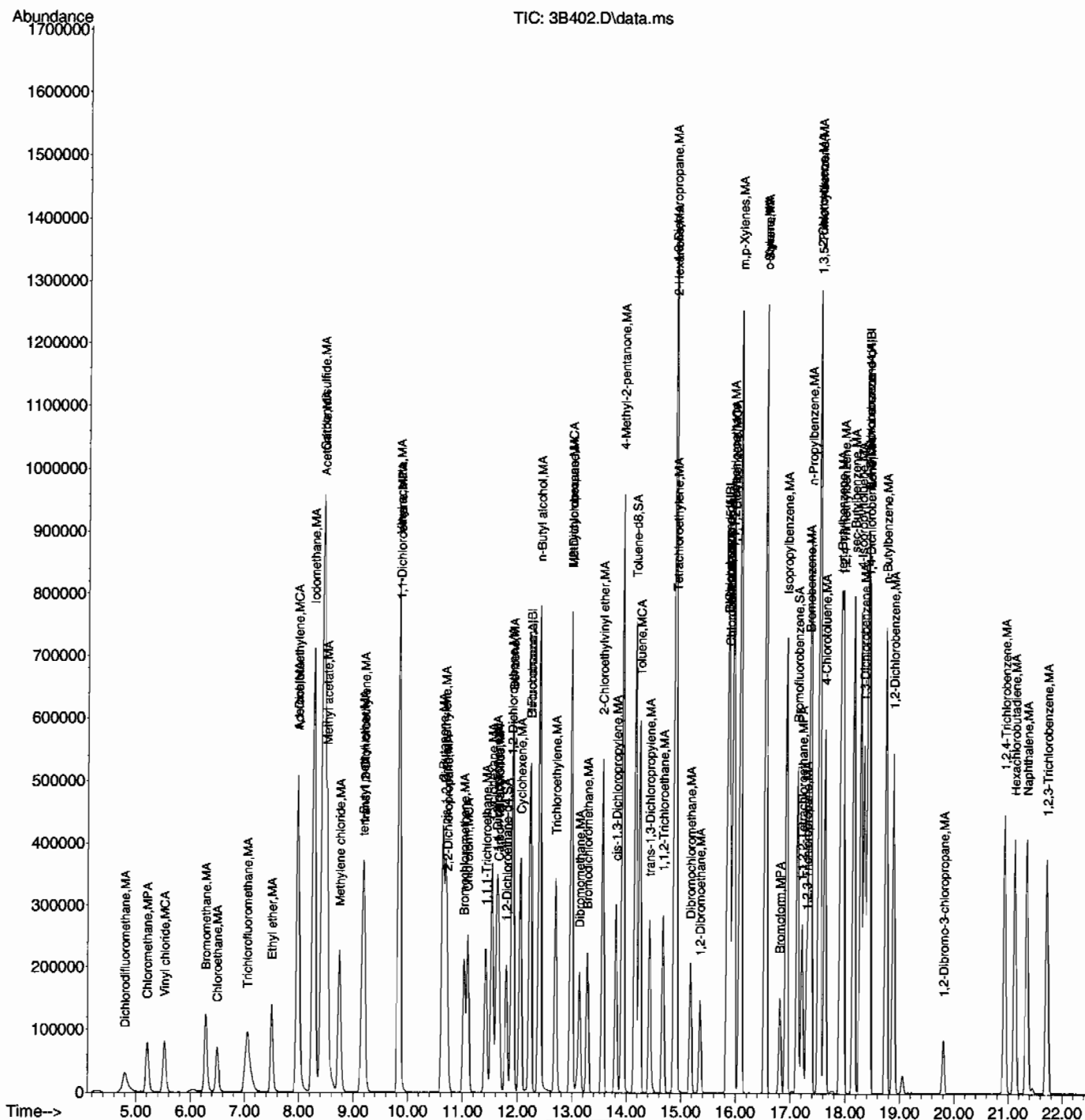
GEL Laboratories, LLC

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Data Path   : C:\msdchem\1\DATA\030410V3\
Data File   : 3B402.D
Acq On      : 4 Mar 2010    8:23 am
Operator    : CDS1
InstName    : VOA3
Sample      : |W3VM100304-01|CCV|1|VOA|1|
Misc        : CCV 5ML - MIX[A] 222-07A+106-07D
ALS Vial    : 2      Sample Multiplier: 1

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Quant Time: Mar 04 09:09:08 2010  
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 01 09:52:36 2010  
Response via : Initial Calibration  
Integrator: RTE



## Continuing Calibration Summary

Client SDG: 10-2027

Instrument ID: VOA3.I

Injection Date 04-MAR-10 10:20

Data File: 030410V3\3B406.D

Init. Cal. Date(s) 26-FEB-10 10:23 - 26-FEB-10 19:14

Lab Sample ID W3VM100304-05 Quant Type ISTD

Method: 022610V3\VOA3-8260-022610.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
S 1,2-Dichloroethane-d4	0.3066	0.29584		.01		-3.50946	30		Averaged
S Toluene-d8	1.3456	1.38519		.01		2.94218	30		Averaged
S Bromofluorobenzene	1.0082	1.04553		.01		3.70264	30		Averaged
Acrolein	250	321.41	250			28.564	30		Linear
Trichlorotrifluoroethane	0.0827	0.07048		.01		-14.7763	30		Averaged
Allyl chloride	0.2962	0.28273		.01		-4.5476	30		Averaged
Acrylonitrile	0.0885	0.07816		.01		-11.68362	30		Averaged
2-Chloro-1,3-butadiene	0.2574	0.24091		.01		-6.40637	30		Averaged
Ethyl acetate	0.2185	0.19636		.01		-10.13272	40		Averaged
Propionitrile	0.0347	0.03101		.01		-10.63401	30		Averaged
Methacrylonitrile	0.1332	0.12199		.01		-8.41592	30		Averaged
Tetrahydrofuran	0.0735	0.0638		.01		-13.19728	30		Averaged
Isobutyl alcohol	0.0095	0.0091		.01		-4.21053	40		Averaged
Methyl methacrylate	0.1441	0.14325		.01		-0.58987	30		Averaged
1,4-Dioxane	0.0031	0.00241		.01		-22.25806	40		Averaged
2-Nitropropane	250	229.21	250			-8.316	30		Linear
Ethyl methacrylate	0.3396	0.35451		.01		4.39046	30		Averaged
cis-1,4-Dichloro-2-butene	0.1677	0.19521		.01		16.40429	30		Averaged
Cyclohexanone	0.0193	0.03607		.01		86.89119	40	*	Averaged
trans-1,4-Dichloro-2-butene	0.1636	0.18477		.01		12.9401	30		Averaged
Pentachloroethane	250	369.67	250			47.868	30	*	Linear
Benzyl chloride	250	350.06	250			40.024	30	*	Linear
bis(2-Chloroisopropyl)ether	0.3232	0.30277		.01		-6.32116	30		Averaged

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V3\  
Data File : 3B406.D  
Acq On : 4 Mar 2010 10:20 am  
Operator : CDS1  
InstName : VOA3  
Sample : |W3VM100304-05|CCV|1|VOA|1|VOA8260BL|  
Misc : CCV 5mL - MIX[B] UVM100215-06  
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 04 11:06:47 2010  
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 01 09:52:36 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev (Min)
1) Fluorobenzene	12.232	12.232	1.000	96	813569	50.00	ug/L	0.00
41) Chlorobenzene-d5	15.849	15.849	1.000	117	607806	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	18.411	18.410	1.000	152	299094	50.00	ug/L	0.00
82) B Fluorobenzene	12.232	12.232	1.000	96	813343	50.00	ug/L	0.00
103) B Chlorobenzene-d5	15.849	15.849	1.000	117	608063	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	18.411	18.410	1.000	152	305403	50.00	ug/L	0.00
System Monitoring Compounds								Dev (Min)
29) 1,2-Dichloroethane-d4	11.793	11.793	0.964	65	240685	48.24	ug/L	0.00
43) Toluene-d8	14.165	14.165	0.894	98	841925	51.47	ug/L	0.00
61) Bromofluorobenzene	17.130	17.130	0.930	95	312712	51.85	ug/L	0.00
Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.800	0.000		0	N.D.		
3) Chloromethane	0.000	5.216	0.000		0	N.D.		
4) Vinyl chloride	0.000	5.528	0.000		0	N.D.		
5) Bromomethane	0.000	6.291	0.000		0	N.D.		
6) Chloroethane	0.000	6.493	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	7.062	0.000		0	N.D.		
8) Ethyl ether	0.000	7.512	0.000		0	N.D.		
9) Acetone	7.987	7.987	0.653		0m	N.D.	d	
10) 1,1-Dichloroethylene	7.975	7.987	0.652		0m	N.D.	d	
11) Iodomethane	8.271	8.271	0.676		0m	N.D.	d	
12) Acetonitrile	8.544	8.449	0.699		0m	N.D.	d	
13) Methyl acetate	8.532	8.520	0.698		0m	N.D.	d	
14) Carbon disulfide	8.438	8.449	0.690		0m	N.D.	d	
15) Methylene chloride	8.746	8.746	0.715		0m	N.D.	d	
16) tert-Butyl methyl ether	9.173	9.173	0.750		0m	N.D.	d	
17) trans-1,2-Dichloroethy...	9.208	9.208	0.753		0m	N.D.	d	
18) Vinyl acetate	9.849	9.837	0.805		0m	N.D.	d	
19) 1,1-Dichloroethane	9.849	9.860	0.805		0m	N.D.	d	
20) 2-Butanone	10.679	10.643	0.873		0m	N.D.	d	
21) cis-1,2-Dichloroethylene	10.679	10.691	0.873		0m	N.D.	d	
22) 2,2-Dichloropropane	10.714	10.714	0.876		0m	N.D.	d	
23) Bromochloromethane	11.035	11.034	0.902		0m	N.D.	d	
24) Chloroform	11.094	11.094	0.907		0m	N.D.	d	
25) 1,1,1-Trichloroethane	11.426	11.426	0.934		0m	N.D.	d	
26) Cyclohexane	11.556	11.532	0.945		0m	N.D.	d	
27) 1,1-Dichloropropene	11.556	11.627	0.945		0m	N.D.	d	
28) Carbon tetrachloride	11.663	11.663	0.953		0m	N.D.	d	
30) 1,2-Dichloroethane	11.888	11.888	0.972		0m	N.D.	d	
31) Benzene	11.912	11.912	0.974		0m	N.D.	d	
32) Cyclohexene	12.054	12.054	0.985		0m	N.D.	d	
33) n-Butyl alcohol	12.410	12.398	1.015		0m	N.D.	d	
34) Trichloroethylene	12.695	12.695	1.038		0m	N.D.	d	
35) 1,2-Dichloropropane	12.979	12.979	1.061		0m	N.D.	d	
36) Methylcyclohexane	12.991	12.991	1.062		0m	N.D.	d	
37) Dibromomethane	13.133	13.133	1.074		0m	N.D.	d	
38) Bromodichloromethane	13.276	13.288	1.085		0m	N.D.	d	
39) 2-Chloroethylvinyl ether	0.000	13.560	0.000		0	N.D.		
40) cis-1,3-Dichloropropylene	13.809	13.809	1.129		0m	N.D.	d	



Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V3\  
Data File : 3B406.D  
Acq On : 4 Mar 2010 10:20 am  
Operator : CDS1  
InstName : VOA3  
Sample : |W3VM100304-05|CCV|1|VOA|1|VOA8260BL|  
Misc : CCV 5mL - MIX[B] UVM100215-06  
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 04 11:06:47 2010  
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 01 09:52:36 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
42) 4-Methyl-2-pentanone	13.928	13.928	0.879		0m	N.D.	d	
44) Toluene	14.248	14.248	0.899		0m	N.D.	d	
45) trans-1,3-Dichloroprop...	14.438	14.426	0.911		0m	N.D.	d	
46) 1,1,2-Trichloroethane	14.675	14.675	0.926		0m	N.D.	d	
47) 2-Hexanone	14.889	14.888	0.939		0m	N.D.	d	
48) 1,3-Dichloropropane	14.877	14.888	0.939		0m	N.D.	d	
49) Tetrachloroethylene	14.912	14.912	0.941		0m	N.D.	d	
50) Dibromochloromethane	15.173	15.173	0.957		0m	N.D.	d	
51) 1,2-Dibromoethane	15.351	15.351	0.969		0m	N.D.	d	
52) Chlorobenzene	15.885	15.885	1.002		0m	N.D.	d	
53) 1,1,1,2-Tetrachloroethane	15.956	15.956	1.007		0m	N.D.	d	
54) Ethylbenzene	15.968	15.968	1.007		0m	N.D.	d	
55) m,p-Xylenes	16.086	16.086	1.015		0m	N.D.	d	
56) o-Xylene	16.549	16.549	1.044		0m	N.D.	d	
57) Styrene	16.549	16.549	1.044		0m	N.D.	d	
59) Bromoform	16.810	16.821	0.913		0m	N.D.	d	
60) Isopropylbenzene	16.928	16.928	0.919		0m	N.D.	d	
62) 1,1,2,2-Tetrachloroethane	17.213	17.213	0.935		0m	N.D.	d	
63) 1,2,3-Trichloropropane	17.296	17.308	0.939		0m	N.D.	d	
64) Bromobenzene	17.343	17.343	0.942		0m	N.D.	d	
65) n-Propylbenzene	17.367	17.367	0.943		0m	N.D.	d	
66) 1,3,5-Trimethylbenzene	17.533	17.533	0.952		0m	N.D.	d	
67) 2-Chlorotoluene	17.521	17.521	0.952		0m	N.D.	d	
68) 4-Chlorotoluene	17.628	17.628	0.957		0m	N.D.	d	
69) tert-Butylbenzene	17.984	17.912	0.977		0m	N.D.	d	
70) 1,2,4-Trimethylbenzene	17.960	17.960	0.976		0m	N.D.	d	
71) sec-Butylbenzene	18.150	18.150	0.986		0m	N.D.	d	
72) 4-Isopropyltoluene	18.280	18.280	0.993		0m	N.D.	d	
73) 1,3-Dichlorobenzene	18.339	18.351	0.996		0m	N.D.	d	
74) 1,4-Dichlorobenzene	18.434	18.434	1.001		0m	N.D.	d	
75) n-Butylbenzene	18.743	18.742	1.018		0m	N.D.	d	
76) 1,2-Dichlorobenzene	18.885	18.885	1.026		0m	N.D.	d	
77) 1,2-Dibromo-3-chloropr...	19.810	19.810	1.076		0m	N.D.	d	
78) 1,2,4-Trichlorobenzene	20.936	20.936	1.137		0m	N.D.	d	
79) Hexachlorobutadiene	21.126	21.126	1.148		0m	N.D.	d	
80) Naphthalene	21.351	21.351	1.160		0m	N.D.	d	
81) 1,2,3-Trichlorobenzene	21.719	21.719	1.180		0m	N.D.	d	
83) Chlorotrifluoroethylene	0.000	4.711	0.000		0	N.D.		
84) 2-Chloro-1,1,1-trifluo...	0.000	5.751	0.000		0	N.D.		
85) Acrolein	7.738	7.750	0.633	56	137264	321.41	ug/L	95 E
86) Trichlorotrifluoroethane	7.975	7.975	0.652	85	286638	213.07	ug/L	98
87) Isopropyl Alcohol	8.129	8.141	0.665	45	1108	N.D.		
88) Allyl chloride	8.544	8.556	0.699	41	1149762	238.61	ug/L	99
89) tert-Butyl Alcohol	0.000	8.793	0.000		0	N.D.		
90) Acrylonitrile	9.090	9.090	0.743	53	317858	220.70	ug/L	99
91) Isopropyl ether	0.000	9.884	0.000		0	N.D.		
92) 2-Chloro-1,3-butadiene	10.003	10.003	0.818	53	195942	46.79	ug/L	99
93) Ethyl tert-butyl ether	0.000	10.406	0.000		0	N.D.		
94) Ethyl acetate	10.679	10.679	0.873	43	798547	224.69	ug/L	99
95) Propionitrile	10.726	10.726	0.877	54	126106	223.31	ug/L	98
96) Methacrylonitrile	10.952	10.951	0.895	41	496080	229.01	ug/L	100
97) Tetrahydrofuran	11.094	11.094	0.907	42	259443	216.96	ug/L	99

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V3\  
Data File : 3B406.D  
Acq On : 4 Mar 2010 10:20 am  
Operator : CDS1  
InstName : VOA3  
Sample : |W3VM100304-05|CCV|1|VOA|1|VOA8260BL|  
Misc : CCV 5mL - MIX[B] UVM100215-06  
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 04 11:06:47 2010  
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 01 09:52:36 2010  
Response via : Initial Calibration  
Integrator: RTE

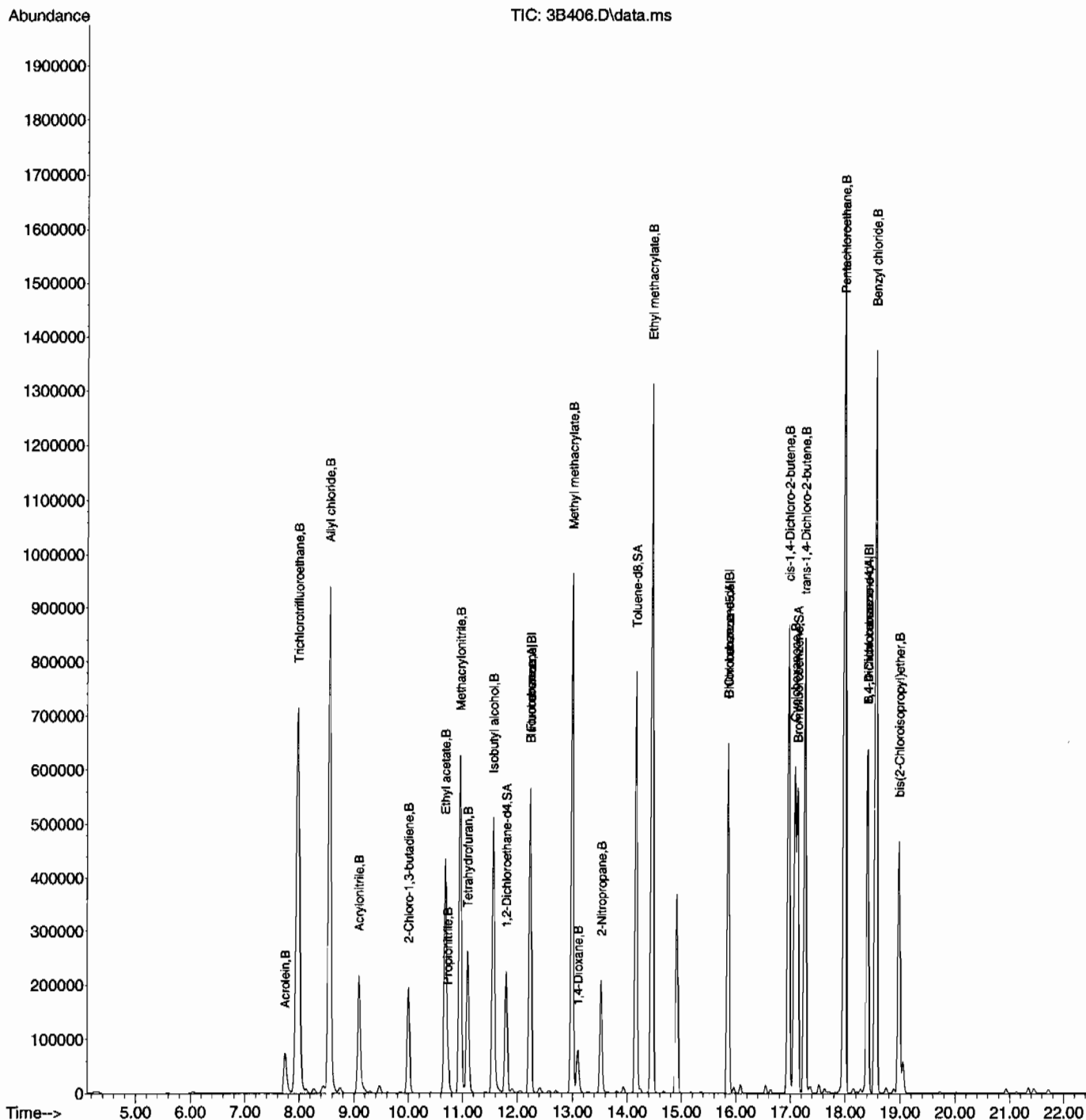
Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
98) Isobutyl alcohol	11.556	11.556	0.945	41	370226	2407.21	ug/L	100
99) Methyl tert-amyl ether	0.000	11.971	0.000		0	N.D.		
100) Methyl methacrylate	12.991	12.991	1.062	69	582563	248.56	ug/L	97
101) 1,4-Dioxane	13.098	13.098	1.071	88	98109	1968.15	ug/L	100
102) 2-Nitropropane	13.525	13.525	1.106	43	237495	229.21	ug/L	99
104) Ethyl methacrylate	14.450	14.450	0.912	69	1077813	261.00	ug/L	99
106) 1-Chlorohexane	0.000	15.754	0.000		0m	N.D.	d	
107) cis-1,4-Dichloro-2-butene	16.964	16.964	0.921	53	298082	290.94	ug/L	98
108) Cyclohexanone	17.082	17.082	0.928	42	275392	2341.91	ug/L	99 E
109) trans-1,4-Dichloro-2-b...	17.260	17.260	0.938	53	282146	282.34	ug/L	96
110) Pentachloroethane	17.984	17.983	0.977	167	493510	369.67	ug/L	97 E
111) Benzyl chloride	18.553	18.553	1.008	91	1716362	350.06	ug/L	100
112) bis(2-Chloroisopropyl)...	18.980	18.980	1.031	45	462341	234.20	ug/L	97

(#) = 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\030410V3\  
Data File : 3B406.D  
Acq On : 4 Mar 2010 10:20 am  
Operator : CDS1  
InstName : VOA3  
Sample : |W3VM100304-05|CCV|1|VOA|1|VOA8260BL|  
Misc : CCV 5mL - MIX[B] UVM100215-06  
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 04 11:06:47 2010  
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 01 09:52:36 2010  
Response via : Initial Calibration  
Integrator: RTE



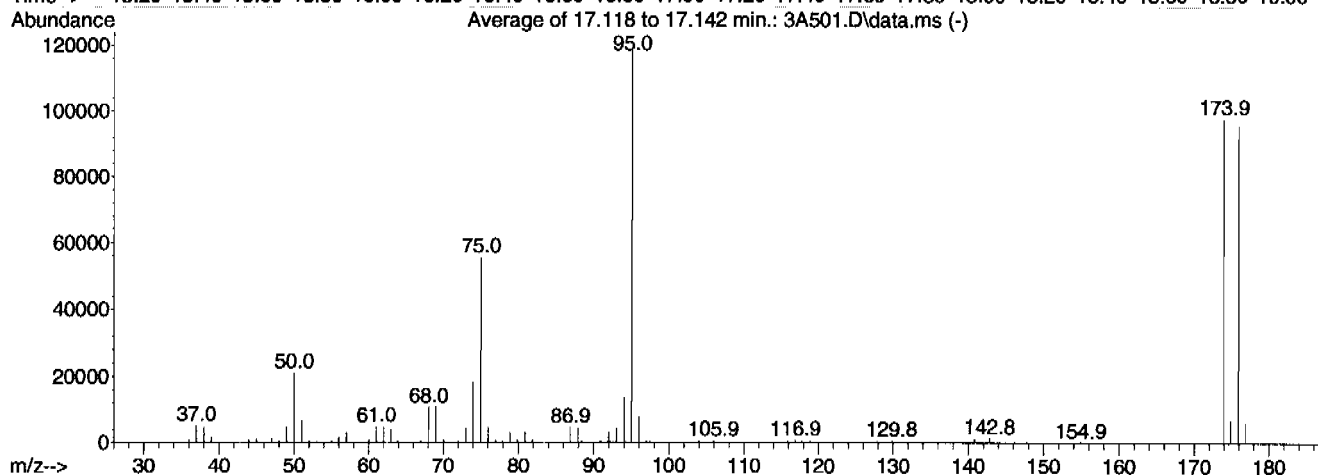
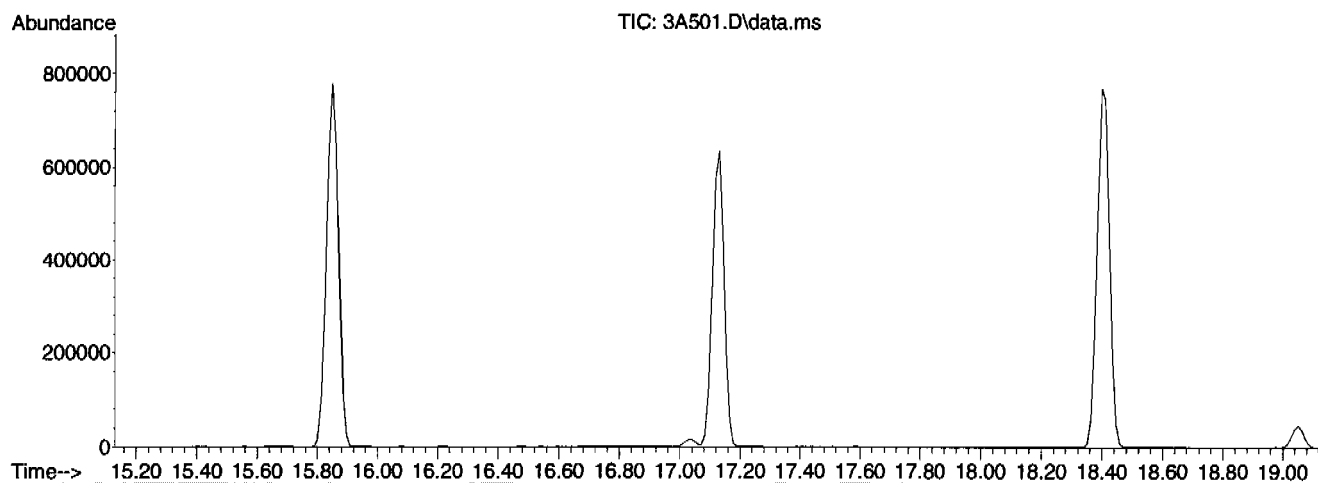
# Quality Control Data

Tune Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\022610V3\  
Data File : 3A501.D  
Acq On : 26 Feb 2010 9:25 am  
Operator : CDS1  
Sample : |UVM100203-02|BFB|1|VOA|1|  
Misc : BFB 5mL N/A  
ALS Vial : 1 Sample Multiplier: 1

Integration File: ron.P

Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M  
Title : Volatile Organics 8260B SubList :  
Last Update : Sat Feb 27 06:30:11 2010



Spectrum Information: Average of 17.118 to 17.142 min.

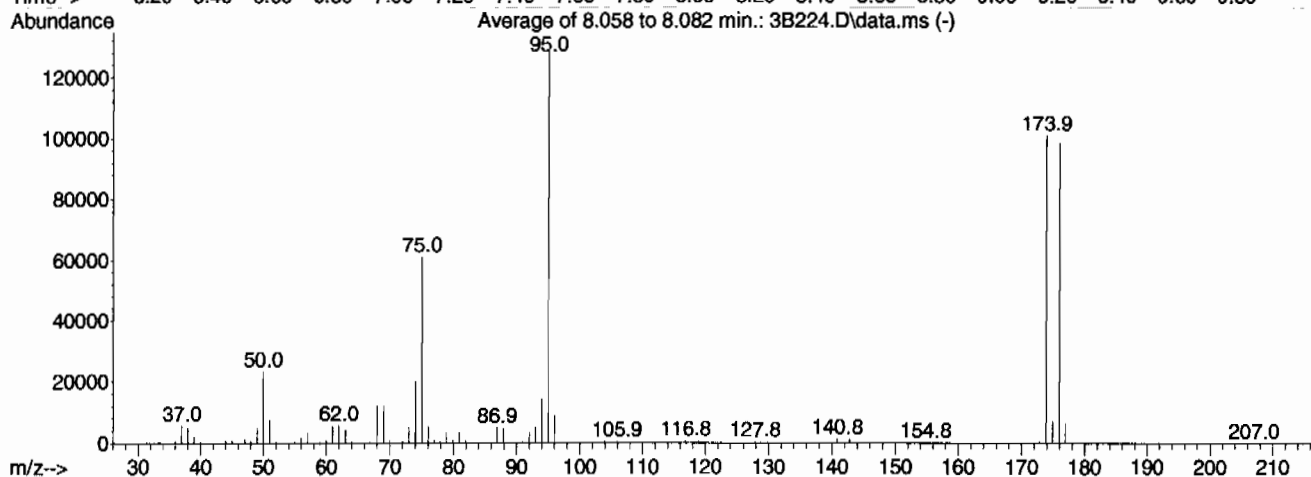
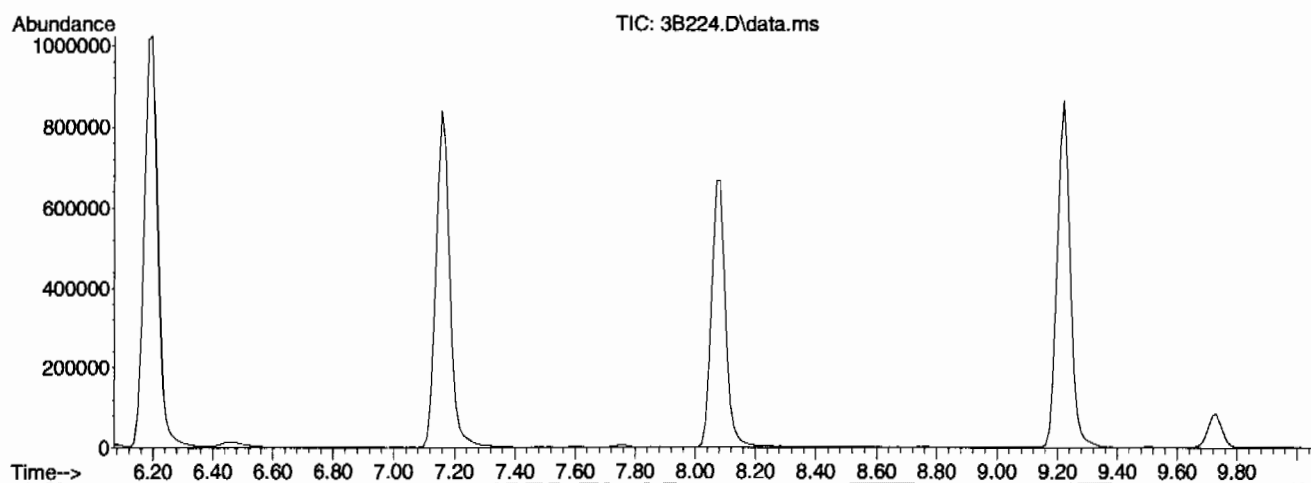
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	17.8	20991	PASS
75	95	30	60	47.0	55499	PASS
95	95	100	100	100.0	118061	PASS
96	95	5	9	6.7	7933	PASS
173	174	0.00	2	0.5	458	PASS
174	95	50	100	82.6	97544	PASS
175	174	5	9	7.1	6941	PASS
176	174	95	101	97.7	95341	PASS
177	176	5	9	6.4	6099	PASS

Tune Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030210V3\  
Data File : 3B224.D  
Acq On : 2 Mar 2010 8:36 pm  
Operator : CDS1  
Sample : |UVM100217-02|BFB2|1|VOA|1|  
Misc : BFB 5mL N/A  
ALS Vial : 25 Sample Multiplier: 1

Integration File: ron.P

Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M  
Title : Volatile Organics 8260B SubList :  
Last Update : Mon Mar 01 09:52:36 2010



Spectrum Information: Average of 8.058 to 8.082 min.

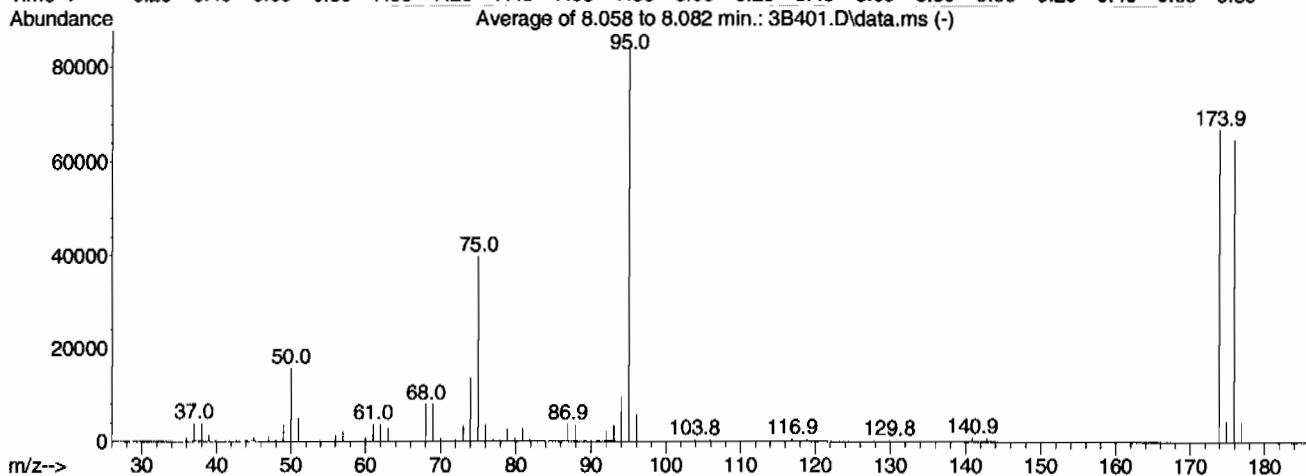
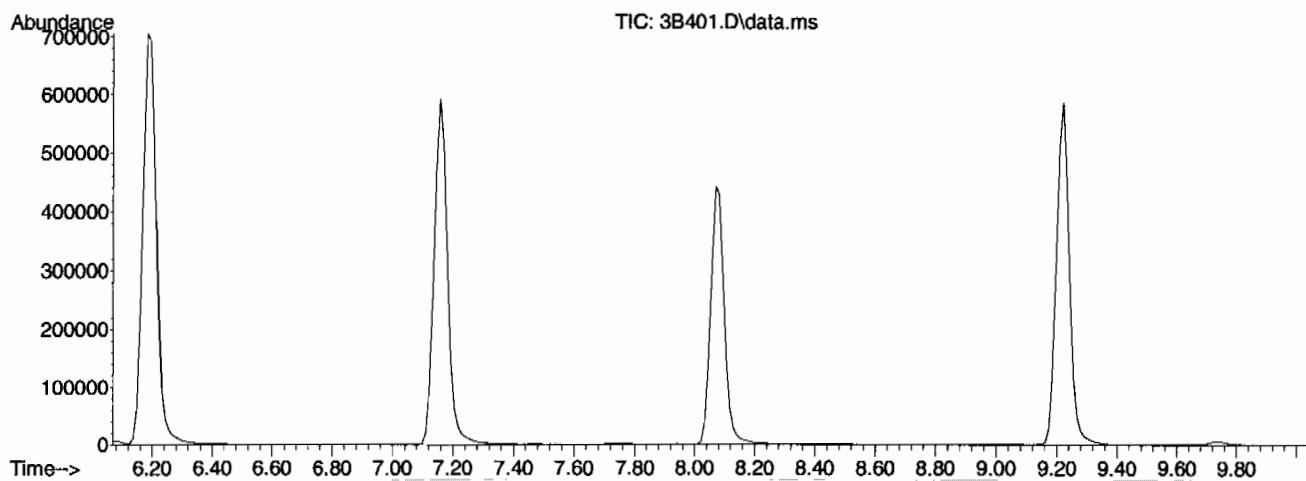
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	18.1	23256	PASS
75	95	30	60	47.7	61128	PASS
95	95	100	100	100.0	128232	PASS
96	95	5	9	7.1	9121	PASS
173	174	0.00	2	0.5	484	PASS
174	95	50	100	78.9	101176	PASS
175	174	5	9	7.0	7043	PASS
176	174	95	101	97.6	98787	PASS
177	176	5	9	6.4	6301	PASS

Tune Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V3\  
Data File : 3B401.D  
Acq On : 4 Mar 2010 7:57 am  
Operator : CDS1  
Sample : |UVM100217-02|BFB|1|VOA|1|  
Misc : BFB 5mL N/A  
ALS Vial : 1 Sample Multiplier: 1

Integration File: ron.P

Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M  
Title : Volatile Organics 8260B SubList :  
Last Update : Mon Mar 01 09:52:36 2010



Spectrum Information: Average of 8.058 to 8.082 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	18.7	15667	PASS
75	95	30	60	47.8	39939	PASS
95	95	100	100	100.0	83571	PASS
96	95	5	9	6.9	5756	PASS
173	174	0.00	2	0.3	218	PASS
174	95	50	100	80.2	67016	PASS
175	174	5	9	6.8	4577	PASS
176	174	95	101	97.0	64976	PASS
177	176	5	9	6.5	4235	PASS

Volatile  
Certificate of Analysis  
Sample Summary

Page 1 of 2

SDG Number: 10-2027

Matrix: MISC SOLID

Lab Sample ID: 1202070215

Client Sample: QC for batch 959898

Client: LANL010

Project: QC

Client ID: MB for batch 959898

Method: SW846 8260B

SOP Ref: GL-OA-E-038

Batch ID: 959900

Inst: VOA3.I

Dilution: 1

Run Date: 03/02/2010 23:59

Analyst: CDS1

Purge Vol: 5 mL

Prep Date: 03/02/2010 15:00

Aliquot: 5 g

Final Volume: 5 mL

Data File: 030210V3\3B231.D

Column: DB-624

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



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

SDG Number: 10-2027  
 Lab Sample ID: 1202070215  
 Client Sample: QC for batch 959898  
 Client ID: MB for batch 959898  
 Batch ID: 959900  
 Run Date: 03/02/2010 23:59  
 Prep Date: 03/02/2010 15:00  
 Data File: 030210V3\3B231.D

Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA3.1  
 Analyst: CDS1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: MISC SOLID  
 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\030210V3\  
Data File : 3B231.D  
Acq On : 2 Mar 2010 11:59 pm  
Operator : CDS1  
InstName : VOA3  
Sample : |1202070215|959900|1|VOA|1|VOA8260BS|  
Misc : BLANK 5G - SOIL  
ALS Vial : 32 Sample Multiplier: 1

Quant Time: Mar 03 13:30:10 2010  
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 01 09:52:36 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	12.232	12.232	1.000	96	892988	50.00	ug/L	0.00
41) Chlorobenzene-d5	15.849	15.849	1.000	117	674996	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	18.411	18.410	1.000	152	329164	50.00	ug/L	0.00
82) B Fluorobenzene	12.232	12.232	1.000	96	892774	50.00	ug/L	0.00
103) B Chlorobenzene-d5	15.849	15.849	1.000	117	674996	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	18.411	18.410	1.000	152	335975	50.00	ug/L	0.00

System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	11.794	11.793	0.964	65	279865	51.10	ug/L	0.00
Spiked Amount	50.000	Range	66 - 134	Recovery	= 102.20%			
43) Toluene-d8	14.165	14.165	0.894	98	933929	51.41	ug/L	0.00
Spiked Amount	50.000	Range	71 - 128	Recovery	= 102.82%			
61) Bromofluorobenzene	17.130	17.130	0.930	95	344984	51.98	ug/L	0.00
Spiked Amount	50.000	Range	65 - 130	Recovery	= 103.96%			

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.800	0.000		0	N.D.		
3) Chloromethane	0.000	5.216	0.000		0	N.D.		
4) Vinyl chloride	0.000	5.528	0.000		0	N.D.		
5) Bromomethane	0.000	6.291	0.000		0	N.D.		
6) Chloroethane	0.000	6.493	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	7.062	0.000		0	N.D.		
8) Ethyl ether	0.000	7.512	0.000		0	N.D.		
9) Acetone	7.999	7.987	0.654	43	991	N.D.		
10) 1,1-Dichloroethylene	0.000	7.987	0.000		0	N.D.		
11) Iodomethane	0.000	8.271	0.000		0	N.D.		
12) Acetonitrile	0.000	8.449	0.000		0	N.D.		
13) Methyl acetate	0.000	8.520	0.000		0	N.D.		
14) Carbon disulfide	8.426	8.449	0.689	76	1178	N.D.		
15) Methylene chloride	8.746	8.746	0.715	84	5943	N.D.		
16) tert-Butyl methyl ether	0.000	9.173	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	9.208	0.000		0	N.D.		
18) Vinyl acetate	0.000	9.837	0.000		0	N.D.		
19) 1,1-Dichloroethane	0.000	9.860	0.000		0	N.D.		
20) 2-Butanone	10.679	10.643	0.873	43	375	N.D.		
21) cis-1,2-Dichloroethylene	0.000	10.691	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	10.714	0.000		0	N.D.		
23) Bromochloromethane	0.000	11.034	0.000		0	N.D.		
24) Chloroform	0.000	11.094	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	11.426	0.000		0	N.D.		
26) Cyclohexane	0.000	11.532	0.000		0	N.D.		
27) 1,1-Dichloropropene	0.000	11.627	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	11.663	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	11.888	0.000		0	N.D.		
31) Benzene	0.000	11.912	0.000		0	N.D.		
32) Cyclohexene	0.000	12.054	0.000		0	N.D.		
33) n-Butyl alcohol	0.000	12.398	0.000		0	N.D.		
34) Trichloroethylene	0.000	12.695	0.000		0	N.D.		
35) 1,2-Dichloropropane	0.000	12.979	0.000		0	N.D.		
36) Methylcyclohexane	0.000	12.991	0.000		0	N.D.		
37) Dibromomethane	0.000	13.133	0.000		0	N.D.		

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030210V3\  
Data File : 3B231.D  
Acq On : 2 Mar 2010 11:59 pm  
Operator : CDS1  
InstName : VOA3  
Sample : |1202070215|959900|1|VOA|1|VOA8260BS|  
Misc : BLANK 5G - SOIL  
ALS Vial : 32 Sample Multiplier: 1

Quant Time: Mar 03 13:30:10 2010  
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 01 09:52:36 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
38) Bromodichloromethane	0.000	13.288	0.000		0	N.D.	
39) 2-Chloroethylvinyl ether	0.000	13.560	0.000		0	N.D.	
40) cis-1,3-Dichloropropylene	0.000	13.809	0.000		0	N.D.	
42) 4-Methyl-2-pentanone	0.000	13.928	0.000		0	N.D.	
44) Toluene	14.248	14.248	0.899	91	662	N.D.	
45) trans-1,3-Dichloroprop...	0.000	14.426	0.000		0	N.D.	
46) 1,1,2-Trichloroethane	0.000	14.675	0.000		0	N.D.	
47) 2-Hexanone	14.889	14.888	0.939	43	399	N.D.	
48) 1,3-Dichloropropane	0.000	14.888	0.000		0	N.D.	
49) Tetrachloroethylene	0.000	14.912	0.000		0	N.D.	
50) Dibromochloromethane	0.000	15.173	0.000		0	N.D.	
51) 1,2-Dibromoethane	0.000	15.351	0.000		0	N.D.	
52) Chlorobenzene	0.000	15.885	0.000		0	N.D.	
53) 1,1,1,2-Tetrachloroethane	0.000	15.956	0.000		0	N.D.	
54) Ethylbenzene	16.086	15.968	1.015	91	702	N.D.	
55) m,p-Xylenes	0.000	16.086	0.000		0	N.D.	
56) o-Xylene	0.000	16.549	0.000		0	N.D.	
57) Styrene	0.000	16.549	0.000		0	N.D.	
59) Bromoform	0.000	16.821	0.000		0	N.D.	
60) Isopropylbenzene	0.000	16.928	0.000		0	N.D.	
62) 1,1,2,2-Tetrachloroethane	0.000	17.213	0.000		0	N.D.	
63) 1,2,3-Trichloropropane	0.000	17.308	0.000		0	N.D.	
64) Bromobenzene	0.000	17.343	0.000		0	N.D.	
65) n-Propylbenzene	17.367	17.367	0.943	91	421	N.D.	
66) 1,3,5-Trimethylbenzene	0.000	17.533	0.000		0	N.D.	
67) 2-Chlorotoluene	0.000	17.521	0.000		0	N.D.	
68) 4-Chlorotoluene	17.628	17.628	0.957	91	684	N.D.	
69) tert-Butylbenzene	0.000	17.912	0.000		0	N.D.	
70) 1,2,4-Trimethylbenzene	17.960	17.960	0.976	105	199	N.D.	
71) sec-Butylbenzene	0.000	18.150	0.000		0	N.D.	
72) 4-Isopropyltoluene	0.000	18.280	0.000		0	N.D.	
73) 1,3-Dichlorobenzene	18.339	18.351	0.996	146	386	N.D.	
74) 1,4-Dichlorobenzene	18.434	18.434	1.001	146	765	N.D.	
75) n-Butylbenzene	18.743	18.742	1.018	91	460	N.D.	
76) 1,2-Dichlorobenzene	18.885	18.885	1.026	146	194	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000	19.810	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	20.936	20.936	1.137	180	667	N.D.	
79) Hexachlorobutadiene	0.000	21.126	0.000		0	N.D.	
80) Naphthalene	21.351	21.351	1.160	128	2568	N.D.	
81) 1,2,3-Trichlorobenzene	21.707	21.719	1.179	180	178	N.D.	
83) Chlorotrifluoroethylene	0.000	4.711	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000	5.751	0.000		0	N.D.	
85) Acrolein	0.000	7.750	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000	7.975	0.000		0	N.D.	
87) Isopropyl Alcohol	0.000	8.141	0.000		0	N.D.	
88) Allyl chloride	0.000	8.556	0.000		0	N.D.	
89) tert-Butyl Alcohol	0.000	8.793	0.000		0	N.D.	
90) Acrylonitrile	0.000	9.090	0.000		0	N.D.	
91) Isopropyl ether	0.000	9.884	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	0.000	10.003	0.000		0	N.D.	
93) Ethyl tert-butyl ether	0.000	10.406	0.000		0	N.D.	
94) Ethyl acetate	10.679	10.679	0.873	43	375	N.D.	

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030210V3\  
Data File : 3B231.D  
Acq On : 2 Mar 2010 11:59 pm  
Operator : CDS1  
InstName : VOA3  
Sample : |1202070215|959900|1|VOA|1|VOA8260BS|  
Misc : BLANK 5G - SOIL  
ALS Vial : 32 Sample Multiplier: 1

Quant Time: Mar 03 13:30:10 2010  
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 01 09:52:36 2010  
Response via : Initial Calibration  
Integrator: RTE

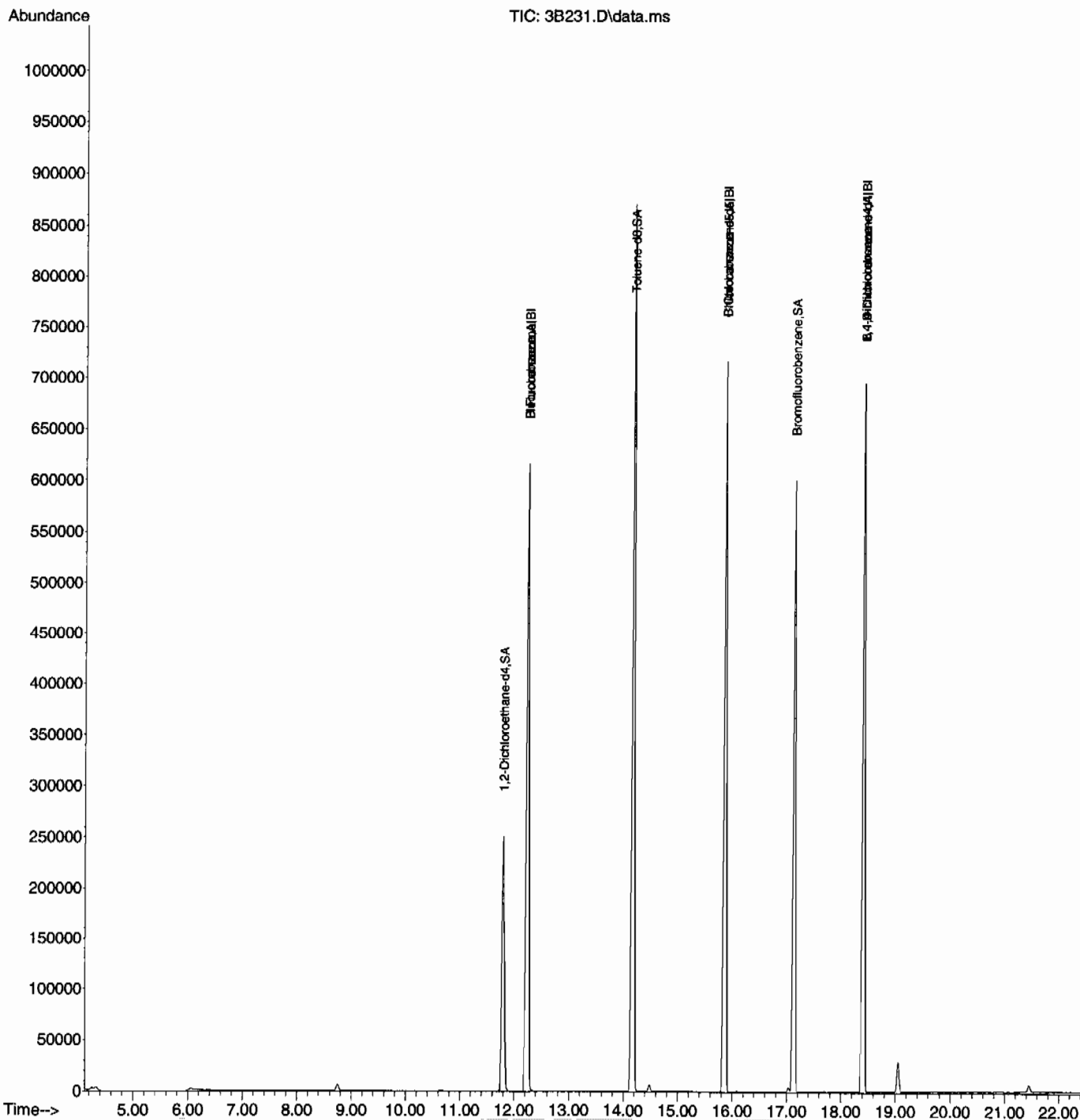
Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95) Propionitrile	0.000	10.726	0.000		0	N.D.	
96) Methacrylonitrile	0.000	10.951	0.000		0	N.D.	
97) Tetrahydrofuran	0.000	11.094	0.000		0	N.D.	
98) Isobutyl alcohol	0.000	11.556	0.000		0	N.D.	
99) Methyl tert-amyl ether	0.000	11.971	0.000		0	N.D.	
100) Methyl methacrylate	0.000	12.991	0.000		0	N.D.	
101) 1,4-Dioxane	0.000	13.098	0.000		0	N.D.	
102) 2-Nitropropane	0.000	13.525	0.000		0	N.D.	
104) Ethyl methacrylate	14.450	14.450	0.912	69	198	N.D.	
106) 1-Chlorohexane	0.000	15.754	0.000		0m	N.D.	d
107) cis-1,4-Dichloro-2-butene	0.000	16.964	0.000		0	N.D.	
108) Cyclohexanone	0.000	17.082	0.000		0	N.D.	
109) trans-1,4-Dichloro-2-b...	0.000	17.260	0.000		0	N.D.	
110) Pentachloroethane	0.000	17.983	0.000		0	N.D.	
111) Benzyl chloride	0.000	18.553	0.000		0m	N.D.	d
112) bis(2-Chloroisopropyl)...	19.051	18.980	1.035	45	1922	N.D.	

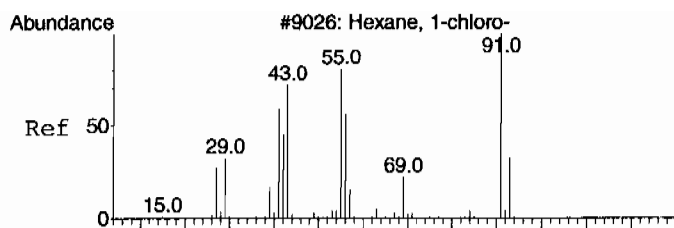
(#) = qualifier out of range (m) = manual integration (+) = signals summed  
(E) = Over the calibration range (d) = deleted

Quantitation Report  
GEL Laboratories, LLC

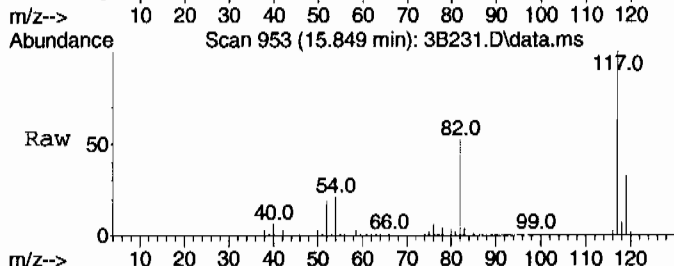
Data Path : C:\msdchem\1\DATA\030210V3\  
Data File : 3B231.D  
Acq On : 2 Mar 2010 11:59 pm  
Operator : CDS1  
InstName : VOA3  
Sample : |1202070215|959900|1|VOA|1|VOA8260BS|  
Misc : BLANK 5G - SOIL  
ALS Vial : 32 Sample Multiplier: 1

Quant Time: Mar 03 13:30:10 2010  
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 01 09:52:36 2010  
Response via : Initial Calibration  
Integrator: RTE

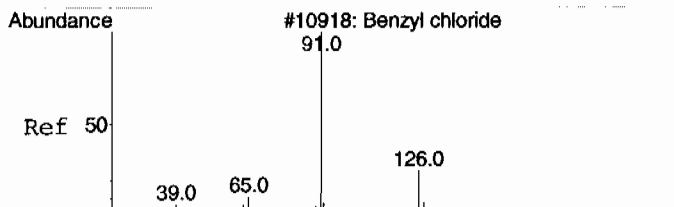
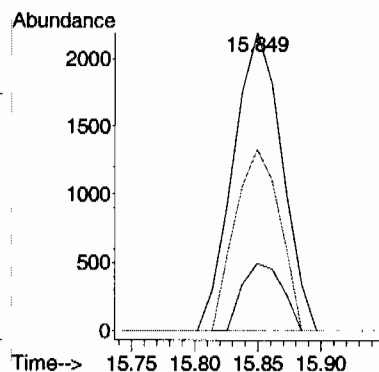
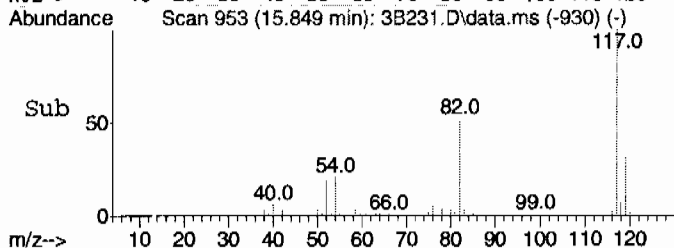




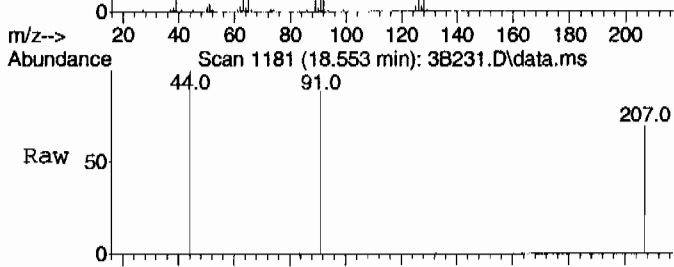
#106 BEFORE analyst DELETION  
1-Chlorohexane  
Concen: 1.94 ug/L  
RT: 15.849 min Scan# 953  
Delta R.T. 0.095 min  
Lab File: 3B231.D  
Acq: 2 Mar 2010 11:59 pm



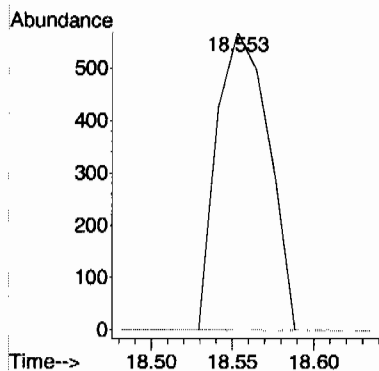
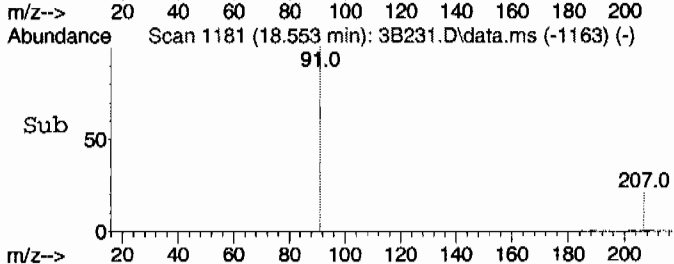
Tgt Ion: 55 Resp: 5915  
Ion Ratio Lower Upper  
55 100  
91 18.7 119.7 179.7#  
56 55.7 29.6 89.6



#111 BEFORE analyst DELETION  
Benzyl chloride  
Concen: 1.83 ug/L  
RT: 18.553 min Scan# 1181  
Delta R.T. 0.000 min  
Lab File: 3B231.D  
Acq: 2 Mar 2010 11:59 pm



Tgt Ion: 91 Resp: 1265  
Ion Ratio Lower Upper  
91 100  
126 0.0 0.0 51.8  
65 0.0 0.0 41.3



Library Search Compound Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030210V3\  
Data File : 3B231.D  
Acq On : 2 Mar 2010 11:59 pm  
Operator : CDS1  
Sample : |1202070215|959900|1|VOA|1|VOA8260BS|  
Misc : BLANK 5G - SOIL  
ALS Vial : 32 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.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\030210V3\  
Data File : 3B231.D  
Acq On : 2 Mar 2010 11:59 pm  
Operator : CDS1  
Sample : |1202070215|959900|1|VOA|1|VOA8260BS|  
Misc : BLANK 5G - SOIL  
ALS Vial : 32 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.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: 10-2027

Matrix: MISC SOLID

Lab Sample ID: 1202070218

Client Sample: QC for batch 959898

Client: LANL010

Project: QC

Client ID: MB for batch 959898

Method: SW846 8260B

SOP Ref: GL-OA-E-038

Batch ID: 959900

Inst: VOA3.I

Dilution: 1

Run Date: 03/04/2010 12:13

Analyst: CDS1

Purge Vol: 5 mL

Prep Date: 03/04/2010 06:00

Aliquot: 5 g

Final Volume: 5 mL

Data File: 030410V3\3B409BJ.D

Column: DB-624

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

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

Page 2 of 2

SDG Number: 10-2027  
 Lab Sample ID: 1202070218  
 Client Sample: QC for batch 959898  
 Client ID: MB for batch 959898  
 Batch ID: 959900  
 Run Date: 03/04/2010 12:13  
 Prep Date: 03/04/2010 06:00  
 Data File: 030410V3\3B409BJ.D

Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA3.I  
 Analyst: CDS1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: MISC SOLID  
 Project: QC  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

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

**Tentatively Identified Compound Summary**

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

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V3\  
Data File : 3B409BJ.D  
Acq On : 4 Mar 2010 12:13 pm  
Operator : CDS1  
InstName : VOA3  
Sample : |1202070218|959900|1|VOA|1|VOA8260BS|  
Misc : BLANK 5G - SOIL  
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 04 15:01:56 2010  
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 01 09:52:36 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	12.232	12.232	1.000	96	776577	50.00	ug/L	0.00
41) Chlorobenzene-d5	15.849	15.849	1.000	117	580730	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	18.411	18.410	1.000	152	280443	50.00	ug/L	0.00
82) B Fluorobenzene	12.232	12.232	1.000	96	776280	50.00	ug/L	0.00
103) B Chlorobenzene-d5	15.849	15.849	1.000	117	580730	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	18.411	18.410	1.000	152	284295	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	11.794	11.793	0.964	65	240768	50.55	ug/L	0.00
Spiked Amount 50.000	Range 66	- 134	Recovery	=	101.10%			
43) Toluene-d8	14.165	14.165	0.894	98	808823	51.75	ug/L	0.00
Spiked Amount 50.000	Range 71	- 128	Recovery	=	103.50%			
61) Bromofluorobenzene	17.130	17.130	0.930	95	279103	49.36	ug/L	0.00
Spiked Amount 50.000	Range 65	- 130	Recovery	=	98.72%			
Target Compounds								QValue
2) Dichlorodifluoromethane	0.000	4.800	0.000		0	N.D.		
3) Chloromethane	0.000	5.216	0.000		0	N.D.		
4) Vinyl chloride	0.000	5.528	0.000		0	N.D.		
5) Bromomethane	0.000	6.291	0.000		0	N.D.		
6) Chloroethane	0.000	6.493	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	7.062	0.000		0	N.D.		
8) Ethyl ether	0.000	7.512	0.000		0	N.D.		
9) Acetone	0.000	7.987	0.000		0	N.D.		
10) 1,1-Dichloroethylene	0.000	7.987	0.000		0	N.D.		
11) Iodomethane	0.000	8.271	0.000		0	N.D.		
12) Acetonitrile	0.000	8.449	0.000		0	N.D.		
13) Methyl acetate	0.000	8.520	0.000		0	N.D.		
14) Carbon disulfide	8.414	8.449	0.688	76	862	N.D.		
15) Methylene chloride	8.746	8.746	0.715	84	3244	N.D.		
16) tert-Butyl methyl ether	0.000	9.173	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	9.208	0.000		0	N.D.		
18) Vinyl acetate	0.000	9.837	0.000		0	N.D.		
19) 1,1-Dichloroethane	0.000	9.860	0.000		0	N.D.		
20) 2-Butanone	0.000	10.643	0.000		0	N.D.		
21) cis-1,2-Dichloroethylene	0.000	10.691	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	10.714	0.000		0	N.D.		
23) Bromochloromethane	0.000	11.034	0.000		0	N.D.		
24) Chloroform	0.000	11.094	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	11.426	0.000		0	N.D.		
26) Cyclohexane	0.000	11.532	0.000		0	N.D.		
27) 1,1-Dichloropropene	0.000	11.627	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	11.663	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	11.888	0.000		0	N.D.		
31) Benzene	0.000	11.912	0.000		0	N.D.		
32) Cyclohexene	0.000	12.054	0.000		0	N.D.		
33) n-Butyl alcohol	0.000	12.398	0.000		0	N.D.		
34) Trichloroethylene	0.000	12.695	0.000		0	N.D.		
35) 1,2-Dichloropropane	0.000	12.979	0.000		0	N.D.		
36) Methylcyclohexane	0.000	12.991	0.000		0	N.D.		
37) Dibromomethane	0.000	13.133	0.000		0	N.D.		

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V3\  
Data File : 3B409BJ.D  
Acq On : 4 Mar 2010 12:13 pm  
Operator : CDS1  
InstName : VOA3  
Sample : |1202070218|959900|1|VOA|1|VOA8260BS|  
Misc : BLANK 5G - SOIL  
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 04 15:01:56 2010  
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 01 09:52:36 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
38) Bromodichloromethane	0.000	13.288	0.000		0	N.D.	
39) 2-Chloroethylvinyl ether	0.000	13.560	0.000		0	N.D.	
40) cis-1,3-Dichloropropylene	0.000	13.809	0.000		0	N.D.	
42) 4-Methyl-2-pentanone	0.000	13.928	0.000		0	N.D.	
44) Toluene	14.248	14.248	0.899	91	397	N.D.	
45) trans-1,3-Dichloroprop...	0.000	14.426	0.000		0	N.D.	
46) 1,1,2-Trichloroethane	0.000	14.675	0.000		0	N.D.	
47) 2-Hexanone	0.000	14.888	0.000		0	N.D.	
48) 1,3-Dichloropropane	0.000	14.888	0.000		0	N.D.	
49) Tetrachloroethylene	0.000	14.912	0.000		0	N.D.	
50) Dibromochloromethane	0.000	15.173	0.000		0	N.D.	
51) 1,2-Dibromoethane	0.000	15.351	0.000		0	N.D.	
52) Chlorobenzene	0.000	15.885	0.000		0	N.D.	
53) 1,1,1,2-Tetrachloroethane	0.000	15.956	0.000		0	N.D.	
54) Ethylbenzene	0.000	15.968	0.000		0	N.D.	
55) m,p-Xylenes	0.000	16.086	0.000		0	N.D.	
56) o-Xylene	0.000	16.549	0.000		0	N.D.	
57) Styrene	0.000	16.549	0.000		0	N.D.	
59) Bromoform	0.000	16.821	0.000		0	N.D.	
60) Isopropylbenzene	0.000	16.928	0.000		0	N.D.	
62) 1,1,2,2-Tetrachloroethane	0.000	17.213	0.000		0	N.D.	
63) 1,2,3-Trichloropropane	0.000	17.308	0.000		0	N.D.	
64) Bromobenzene	0.000	17.343	0.000		0	N.D.	
65) n-Propylbenzene	0.000	17.367	0.000		0	N.D.	
66) 1,3,5-Trimethylbenzene	0.000	17.533	0.000		0	N.D.	
67) 2-Chlorotoluene	0.000	17.521	0.000		0	N.D.	
68) 4-Chlorotoluene	17.628	17.628	0.957	91	188	N.D.	
69) tert-Butylbenzene	0.000	17.912	0.000		0	N.D.	
70) 1,2,4-Trimethylbenzene	0.000	17.960	0.000		0	N.D.	
71) sec-Butylbenzene	0.000	18.150	0.000		0	N.D.	
72) 4-Isopropyltoluene	0.000	18.280	0.000		0	N.D.	
73) 1,3-Dichlorobenzene	18.434	18.351	1.001	146	685	N.D.	
74) 1,4-Dichlorobenzene	18.434	18.434	1.001	146	685	N.D.	
75) n-Butylbenzene	0.000	18.742	0.000		0	N.D.	
76) 1,2-Dichlorobenzene	0.000	18.885	0.000		0	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000	19.810	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	0.000	20.936	0.000		0	N.D.	
79) Hexachlorobutadiene	0.000	21.126	0.000		0	N.D.	
80) Naphthalene	21.352	21.351	1.160	128	1756	N.D.	
81) 1,2,3-Trichlorobenzene	0.000	21.719	0.000		0	N.D.	
83) Chlorotrifluoroethylene	0.000	4.711	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000	5.751	0.000		0	N.D.	
85) Acrolein	0.000	7.750	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000	7.975	0.000		0	N.D.	
87) Isopropyl Alcohol	0.000	8.141	0.000		0	N.D.	
88) Allyl chloride	0.000	8.556	0.000		0	N.D.	
89) tert-Butyl Alcohol	0.000	8.793	0.000		0	N.D.	
90) Acrylonitrile	0.000	9.090	0.000		0	N.D.	
91) Isopropyl ether	0.000	9.884	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	0.000	10.003	0.000		0	N.D.	
93) Ethyl tert-butyl ether	0.000	10.406	0.000		0	N.D.	
94) Ethyl acetate	0.000	10.679	0.000		0	N.D.	

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V3\  
Data File : 3B409BJ.D  
Acq On : 4 Mar 2010 12:13 pm  
Operator : CDS1  
InstName : VOA3  
Sample : |1202070218|959900|1|VOA|1|VOA8260BS|  
Misc : BLANK 5G - SOIL  
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 04 15:01:56 2010  
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 01 09:52:36 2010  
Response via : Initial Calibration  
Integrator: RTE

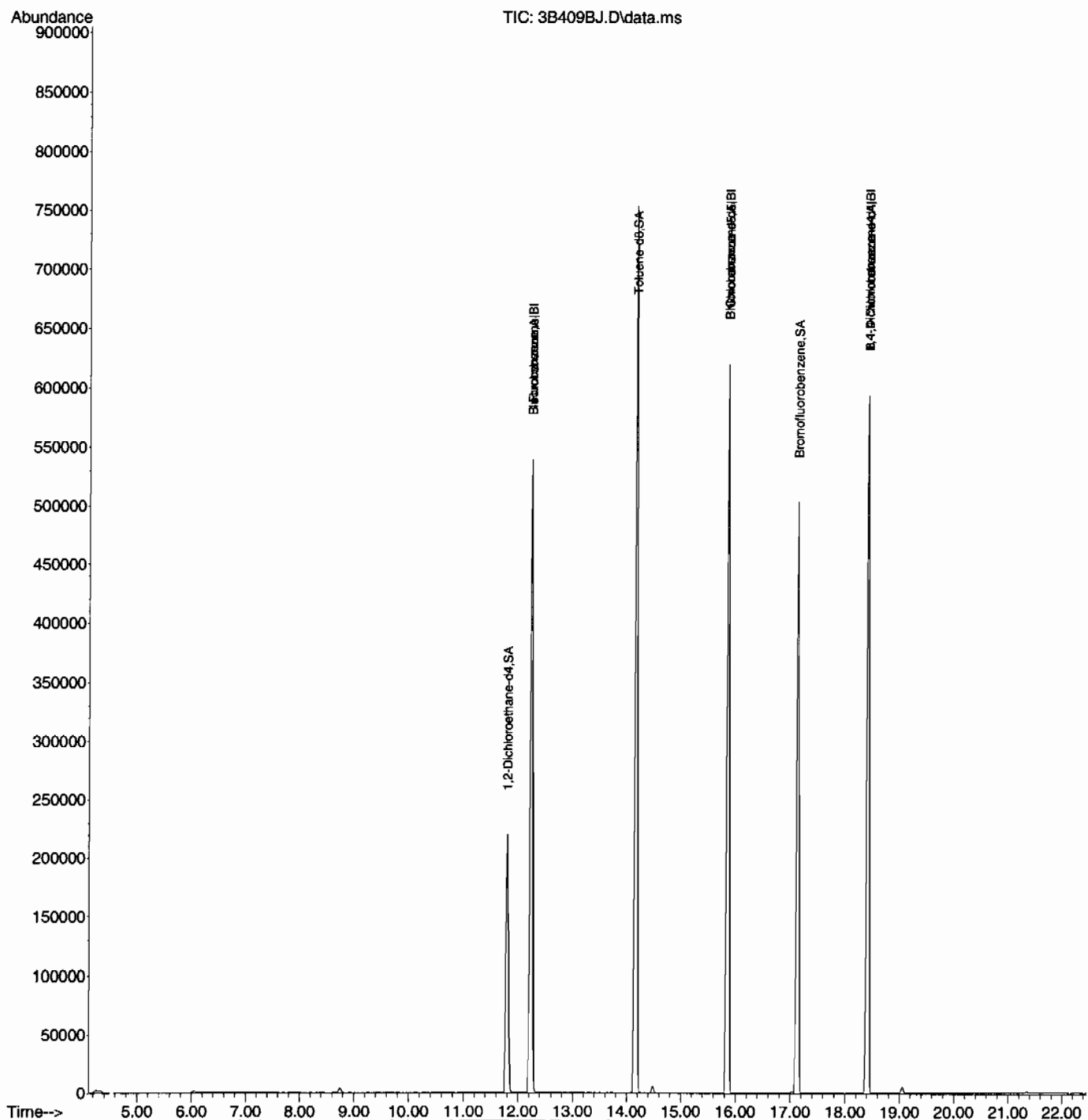
Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95) Propionitrile	0.000	10.726	0.000		0	N.D.	
96) Methacrylonitrile	0.000	10.951	0.000		0	N.D.	
97) Tetrahydrofuran	0.000	11.094	0.000		0	N.D.	
98) Isobutyl alcohol	0.000	11.556	0.000		0	N.D.	
99) Methyl tert-amyl ether	0.000	11.971	0.000		0	N.D.	
100) Methyl methacrylate	0.000	12.991	0.000		0	N.D.	
101) 1,4-Dioxane	0.000	13.098	0.000		0	N.D.	
102) 2-Nitropropane	0.000	13.525	0.000		0	N.D.	
104) Ethyl methacrylate	0.000	14.450	0.000		0	N.D.	
106) 1-Chlorohexane	0.000	15.754	0.000		0m	N.D.	d
107) cis-1,4-Dichloro-2-butene	0.000	16.964	0.000		0	N.D.	
108) Cyclohexanone	0.000	17.082	0.000		0	N.D.	
109) trans-1,4-Dichloro-2-b...	0.000	17.260	0.000		0	N.D.	
110) Pentachloroethane	0.000	17.983	0.000		0	N.D.	
111) Benzyl chloride	0.000	18.553	0.000		0m	N.D.	d
112) bis(2-Chloroisopropyl)...	0.000	18.980	0.000		0	N.D.	

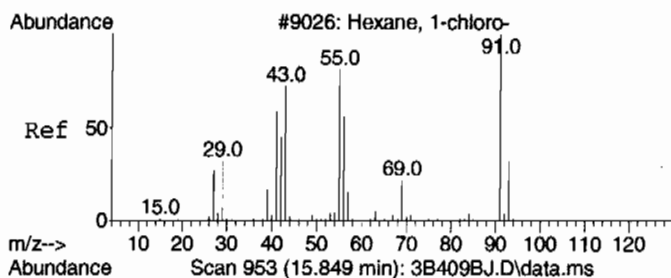
(#) = qualifier out of range (m) = manual integration (+) = signals summed  
(E) = Over the calibration range (d) = deleted

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V3\  
Data File : 3B409BJ.D  
Acq On : 4 Mar 2010 12:13 pm  
Operator : CDS1  
InstName : VOA3  
Sample : |1202070218|959900|1|VOA|1|VOA8260BS|  
Misc : BLANK 5G - SOIL  
ALS Vial : 9 Sample Multiplier: 1

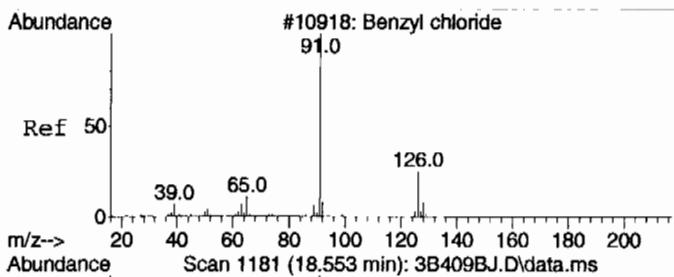
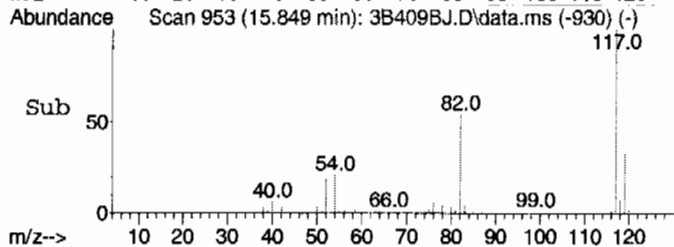
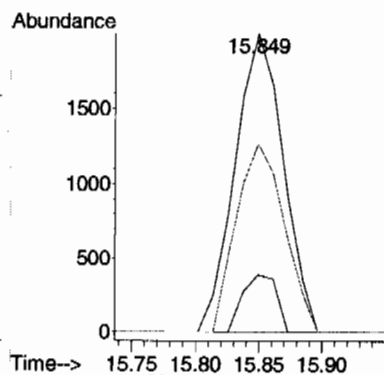
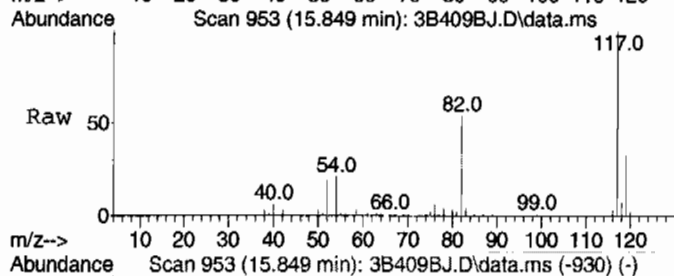
Quant Time: Mar 04 15:01:56 2010  
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 01 09:52:36 2010  
Response via : Initial Calibration  
Integrator: RTE





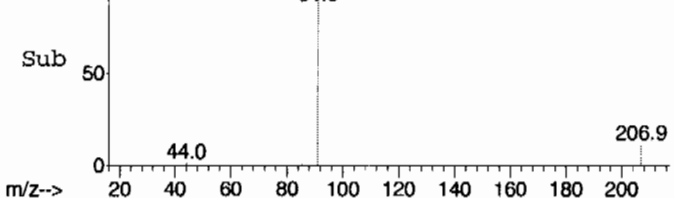
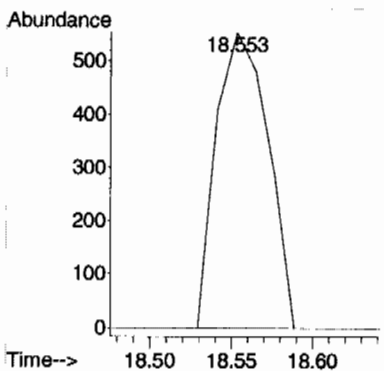
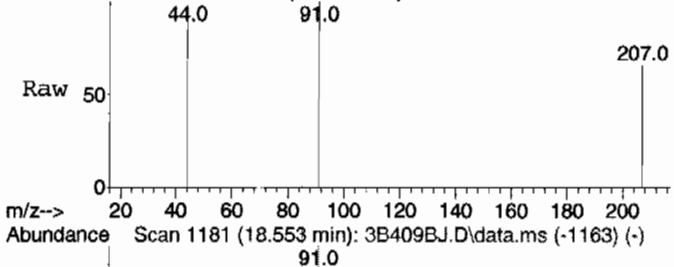
#106 BEFORE analyst DELETION  
1-Chlorohexane  
Concen: 2.08 ug/L  
RT: 15.849 min Scan# 953  
Delta R.T. 0.095 min  
Lab File: 3B409BJ.D  
Acq: 4 Mar 2010 12:13 pm

Tgt Ion: 55 Resp: 5365  
Ion Ratio Lower Upper  
55 100  
91 13.6 119.7 179.7#  
56 63.0 29.6 89.6



#111 BEFORE analyst DELETION  
Benzyl chloride  
Concen: 1.86 ug/L  
RT: 18.553 min Scan# 1181  
Delta R.T. 0.000 min  
Lab File: 3B409BJ.D  
Acq: 4 Mar 2010 12:13 pm

Tgt Ion: 91 Resp: 1229  
Ion Ratio Lower Upper  
91 100  
126 0.0 0.0 51.8  
65 0.0 0.0 41.3



Library Search Compound Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V3\  
Data File : 3B409BJ.D  
Acq On : 4 Mar 2010 12:13 pm  
Operator : CDS1  
Sample : |1202070218|959900|1|VOA|1|VOA8260BS|  
Misc : BLANK 5G - SOIL  
ALS Vial : 9 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.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\030410V3\  
Data File : 3B409BJ.D  
Acq On : 4 Mar 2010 12:13 pm  
Operator : CDS1  
Sample : |1202070218|959900|1|VOA|1|VOA8260BS|  
Misc : BLANK 5G - SOIL  
ALS Vial : 9 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.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**

Page 1 of 2

SDG Number: 10-2027

Lab Sample ID: 1202070216

Client Sample: QC for batch 959898

Client ID: LCS for batch 959898

Batch ID: 959900

Run Date: 03/02/2010 22:02

Prep Date: 03/02/2010 15:00

Data File: 030210V3\3B227.D

Client: LANL010

Method: SW846 8260B

Inst: VOA3.I

Analyst: CDS1

Aliquot: 5 g

Column: DB-624

Matrix: MISC SOLID

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		53.1	ug/kg	0.340	1.00
74-87-3	Chloromethane		45.1	ug/kg	0.300	1.00
75-01-4	Vinyl chloride		50.0	ug/kg	0.300	1.00
74-83-9	Bromomethane		49.0	ug/kg	0.300	1.00
75-00-3	Chloroethane		48.9	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane		49.9	ug/kg	0.300	1.00
67-64-1	Acetone		186	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene		44.3	ug/kg	0.300	1.00
74-88-4	Iodomethane		214	ug/kg	1.60	5.00
75-09-2	Methylene chloride		40.7	ug/kg	2.00	5.00
75-15-0	Carbon disulfide		227	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene		44.6	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane		45.6	ug/kg	0.300	1.00
78-93-3	2-Butanone		204	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene		46.4	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane		49.4	ug/kg	0.300	1.00
67-66-3	Chloroform		46.5	ug/kg	0.300	1.00
74-97-5	Bromochloromethane		47.1	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane		48.3	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene		47.5	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride		49.2	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane		44.7	ug/kg	0.300	1.00
71-43-2	Benzene		44.3	ug/kg	0.300	1.00
79-01-6	Trichloroethylene		45.8	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane		45.8	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane		49.8	ug/kg	0.300	1.00
74-95-3	Dibromomethane		47.5	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone		237	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene		50.4	ug/kg	0.300	1.00
108-88-3	Toluene		44.9	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		47.4	ug/kg	0.300	1.00
591-78-6	2-Hexanone		219	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane		46.8	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene		45.6	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane		51.7	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane		48.4	ug/kg	0.300	1.00
108-90-7	Chlorobenzene		46.2	ug/kg	0.300	1.00

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

SDG Number: 10-2027  
 Lab Sample ID: 1202070216  
 Client Sample: QC for batch 959898  
 Client ID: LCS for batch 959898  
 Batch ID: 959900  
 Run Date: 03/02/2010 22:02  
 Prep Date: 03/02/2010 15:00  
 Data File: 030210V3\3B227.D

Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA3I  
 Analyst: CDS1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: MISC SOLID  
 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		45.3	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes		93.5	ug/kg	0.300	2.00
95-47-6	o-Xylene		49.2	ug/kg	0.300	1.00
100-42-5	Styrene		50.9	ug/kg	0.300	1.00
75-25-2	Bromoform		43.5	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane		45.7	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane		46.4	ug/kg	0.300	1.00
108-86-1	Bromobenzene		46.7	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene		46.1	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene		46.0	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene		46.8	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene		47.2	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene		47.0	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene		48.7	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene		47.1	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene		46.9	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene		48.4	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene		46.0	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene		45.7	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene		47.1	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane		41.5	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		49.9	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene		45.3	ug/kg	0.300	1.00

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030210V3\  
Data File : 3B227.D  
Acq On : 2 Mar 2010 10:02 pm  
Operator : CDS1  
InstName : VOA3  
Sample : |1202070216|959900|1|VOA|1|VOA8260BS|  
Misc : LCS 5G - MIX[A] SOIL 0220-01C+0301-01  
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Mar 03 09:30:00 2010  
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 01 09:52:36 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
<b>Internal Standards</b>								
1) Fluorobenzene	12.232	12.232	1.000	96	1009990	50.00	ug/L	0.00
41) Chlorobenzene-d5	15.849	15.849	1.000	117	779868	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	18.410	18.410	1.000	152	407060	50.00	ug/L	0.00
82) B Fluorobenzene	12.232	12.232	1.000	96	1009753	50.00	ug/L	0.00
103) B Chlorobenzene-d5	15.849	15.849	1.000	117	779818	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	18.410	18.410	1.000	152	415542	50.00	ug/L	0.00
<b>System Monitoring Compounds</b>								
29) 1,2-Dichloroethane-d4	11.793	11.793	0.964	65	311880	50.35	ug/L	0.00
Spiked Amount 50.000	Range 66	- 134	Recovery	=	100.70%			
43) Toluene-d8	14.165	14.165	0.894	98	1042106	49.65	ug/L	0.00
Spiked Amount 50.000	Range 71	- 128	Recovery	=	99.30%			
61) Bromofluorobenzene	17.130	17.130	0.930	95	397853	48.47	ug/L	0.00
Spiked Amount 50.000	Range 65	- 130	Recovery	=	96.94%			
<b>Target Compounds</b>								
2) Dichlorodifluoromethane	4.800	4.800	0.392	85	149486	53.05	ug/L	99
3) Chloromethane	5.216	5.216	0.426	50	214377	45.12	ug/L	100
4) Vinyl chloride	5.528	5.528	0.452	62	241996	49.98	ug/L	100
5) Bromomethane	6.291	6.291	0.514	94	191329	48.96	ug/L	98
6) Chloroethane	6.493	6.493	0.531	64	153008	48.91	ug/L	99
7) Trichlorofluoromethane	7.050	7.062	0.576	101	332651	49.93	ug/L	99
8) Ethyl ether	7.501	7.512	0.613	59	162940	47.31	ug/L	100
9) Acetone	7.987	7.987	0.653	43	791195	185.82	ug/L	99
10) 1,1-Dichloroethylene	7.987	7.987	0.653	61	303283	44.29	ug/L	99
11) Iodomethane	8.271	8.271	0.676	142	1855671	214.32	ug/L	99
12) Acetonitrile	8.449	8.449	0.691	41	719467	975.42	ug/L	100
13) Methyl acetate	8.520	8.520	0.697	43	768801	202.32	ug/L	99
14) Carbon disulfide	8.437	8.449	0.690	76	3423988	226.67	ug/L	100
15) Methylene chloride	8.746	8.746	0.715	84	250402	40.69	ug/L	97
16) tert-Butyl methyl ether	9.173	9.173	0.750	73	578811	43.25	ug/L	100
17) trans-1,2-Dichloroethy...	9.208	9.208	0.753	61	283124	44.64	ug/L	100
18) Vinyl acetate	9.837	9.837	0.804	43	2011588	263.62	ug/L	99
19) 1,1-Dichloroethane	9.849	9.860	0.805	63	363152	45.56	ug/L	100
20) 2-Butanone	10.643	10.643	0.870	43	863902	203.72	ug/L	99
21) cis-1,2-Dichloroethylene	10.691	10.691	0.874	61	325386	46.37	ug/L	100
22) 2,2-Dichloropropane	10.714	10.714	0.876	77	243081	49.40	ug/L	99
23) Bromochloromethane	11.034	11.034	0.902	128	121544	47.05	ug/L	99
24) Chloroform	11.094	11.094	0.907	83	377962	46.47	ug/L	100
25) 1,1,1-Trichloroethane	11.426	11.426	0.934	97	319298	48.34	ug/L	100
26) Cyclohexane	11.532	11.532	0.943	56	333269	45.07	ug/L	99
27) 1,1-Dichloropropene	11.627	11.627	0.951	75	266318	47.45	ug/L	99
28) Carbon tetrachloride	11.663	11.663	0.953	117	284362	49.23	ug/L	99
30) 1,2-Dichloroethane	11.888	11.888	0.972	62	284215	44.68	ug/L	99
31) Benzene	11.912	11.912	0.974	78	788311	44.27	ug/L	99
32) Cyclohexene	12.054	12.054	0.985	67	370417	45.45	ug/L	99
33) n-Butyl alcohol	12.398	12.398	1.014	56	800419	4272.84	ug/L	99
34) Trichloroethylene	12.695	12.695	1.038	95	210395	45.76	ug/L	100
35) 1,2-Dichloropropane	12.979	12.979	1.061	63	199315	45.84	ug/L	99
36) Methylcyclohexane	12.991	12.991	1.062	83	344392	45.25	ug/L	99
37) Dibromomethane	13.133	13.133	1.074	93	138537	47.47	ug/L	99

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030210V3\  
Data File : 3B227.D  
Acq On : 2 Mar 2010 10:02 pm  
Operator : CDS1  
InstName : VOA3  
Sample : |1202070216|959900|1|VOA|1|VOA8260BS|  
Misc : LCS 5G - MIX[A] SOIL 0220-01C+0301-01  
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Mar 03 09:30:00 2010  
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 01 09:52:36 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
38) Bromodichloromethane	13.288	13.288	1.086	83	276635	49.82	ug/L	100
39) 2-Chloroethylvinyl ether	13.560	13.560	1.109	63	419662	295.50	ug/L	99
40) cis-1,3-Dichloropropylene	13.809	13.809	1.129	75	318230	50.43	ug/L	99
42) 4-Methyl-2-pentanone	13.928	13.928	0.879	58	447161	237.32	ug/L	99
44) Toluene	14.248	14.248	0.899	91	837944	44.88	ug/L	100
45) trans-1,3-Dichloroprop...	14.426	14.426	0.910	75	291186	51.31	ug/L	99
46) 1,1,2-Trichloroethane	14.675	14.675	0.926	83	152808	47.37	ug/L	98
47) 2-Hexanone	14.888	14.888	0.939	43	1052624	218.82	ug/L	100
48) 1,3-Dichloropropane	14.877	14.888	0.939	76	313363	46.78	ug/L	96
49) Tetrachloroethylene	14.912	14.912	0.941	164	165673	45.55	ug/L	99
50) Dibromochloromethane	15.173	15.173	0.957	129	220568	51.69	ug/L	99
51) 1,2-Dibromoethane	15.351	15.351	0.969	107	200955	48.44	ug/L	100
52) Chlorobenzene	15.885	15.885	1.002	112	566394	46.21	ug/L	100
53) 1,1,1,2-Tetrachloroethane	15.956	15.956	1.007	131	210404	49.93	ug/L	100
54) Ethylbenzene	15.968	15.968	1.007	91	873483	45.27	ug/L	99
55) m,p-Xylenes	16.086	16.086	1.015	106	716899	93.50	ug/L	100
56) o-Xylene	16.549	16.549	1.044	106	376788	49.19	ug/L	100
57) Styrene	16.549	16.549	1.044	104	621892	50.85	ug/L	100
59) Bromoform	16.809	16.821	0.913	173	135652	43.49	ug/L	99
60) Isopropylbenzene	16.928	16.928	0.919	105	944306	46.81	ug/L	100
62) 1,1,2,2-Tetrachloroethane	17.213	17.213	0.935	83	249451	45.74	ug/L	99
63) 1,2,3-Trichloropropane	17.296	17.308	0.939	110	69594	46.41	ug/L	93
64) Bromobenzene	17.343	17.343	0.942	156	252887	46.70	ug/L	98
65) n-Propylbenzene	17.367	17.367	0.943	91	1075569	46.12	ug/L	100
66) 1,3,5-Trimethylbenzene	17.533	17.533	0.952	105	798997	47.21	ug/L	99
67) 2-Chlorotoluene	17.521	17.521	0.952	126	231051	45.96	ug/L	97
68) 4-Chlorotoluene	17.628	17.628	0.957	91	680431	47.03	ug/L	99
69) tert-Butylbenzene	17.912	17.912	0.973	134	176144	48.65	ug/L	100
70) 1,2,4-Trimethylbenzene	17.960	17.960	0.976	105	808295	47.10	ug/L	99
71) sec-Butylbenzene	18.150	18.150	0.986	105	1063411	46.91	ug/L	100
72) 4-Isopropyltoluene	18.280	18.280	0.993	119	870431	48.37	ug/L	100
73) 1,3-Dichlorobenzene	18.339	18.351	0.996	146	425113	45.95	ug/L	100
74) 1,4-Dichlorobenzene	18.434	18.434	1.001	146	484473	45.69	ug/L	100
75) n-Butylbenzene	18.742	18.742	1.018	91	805292	47.06	ug/L	99
76) 1,2-Dichlorobenzene	18.885	18.885	1.026	146	476377	45.27	ug/L	99
77) 1,2-Dibromo-3-chloropr...	19.810	19.810	1.076	157	54085	41.53	ug/L	98
78) 1,2,4-Trichlorobenzene	20.936	20.936	1.137	180	325106	45.93	ug/L	98
79) Hexachlorobutadiene	21.126	21.126	1.148	225	160672	45.32	ug/L	99
80) Naphthalene	21.351	21.351	1.160	128	838568	46.07	ug/L	100
81) 1,2,3-Trichlorobenzene	21.719	21.719	1.180	180	310505	44.92	ug/L	100
83) Chlorotrifluoroethylene	0.000	4.711	0.000		0	N.D.		
84) 2-Chloro-1,1,1-trifluo...	0.000	5.751	0.000		0	N.D.		
85) Acrolein	0.000	7.750	0.000		0	N.D.		
86) Trichlorotrifluoroethane	0.000	7.975	0.000		0	N.D.		
87) Isopropyl Alcohol	0.000	8.141	0.000		0	N.D.		
88) Allyl chloride	8.449	8.556	0.691		0m	N.D.	d	
89) tert-Butyl Alcohol	0.000	8.793	0.000		0	N.D.		
90) Acrylonitrile	9.173	9.090	0.750		0m	N.D.	d	
91) Isopropyl ether	9.837	9.884	0.804		0m	N.D.	d	
92) 2-Chloro-1,3-butadiene	0.000	10.003	0.000		0	N.D.		
93) Ethyl tert-butyl ether	0.000	10.406	0.000		0	N.D.		
94) Ethyl acetate	10.643	10.679	0.870		0m	N.D.	d	

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030210V3\  
Data File : 3B227.D  
Acq On : 2 Mar 2010 10:02 pm  
Operator : CDS1  
InstName : VOA3  
Sample : |1202070216|959900|1|VOA|1|VOA8260BS|  
Misc : LCS 5G - MIX[A] SOIL 0220-01C+0301-01  
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Mar 03 09:30:00 2010  
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 01 09:52:36 2010  
Response via : Initial Calibration  
Integrator: RTE

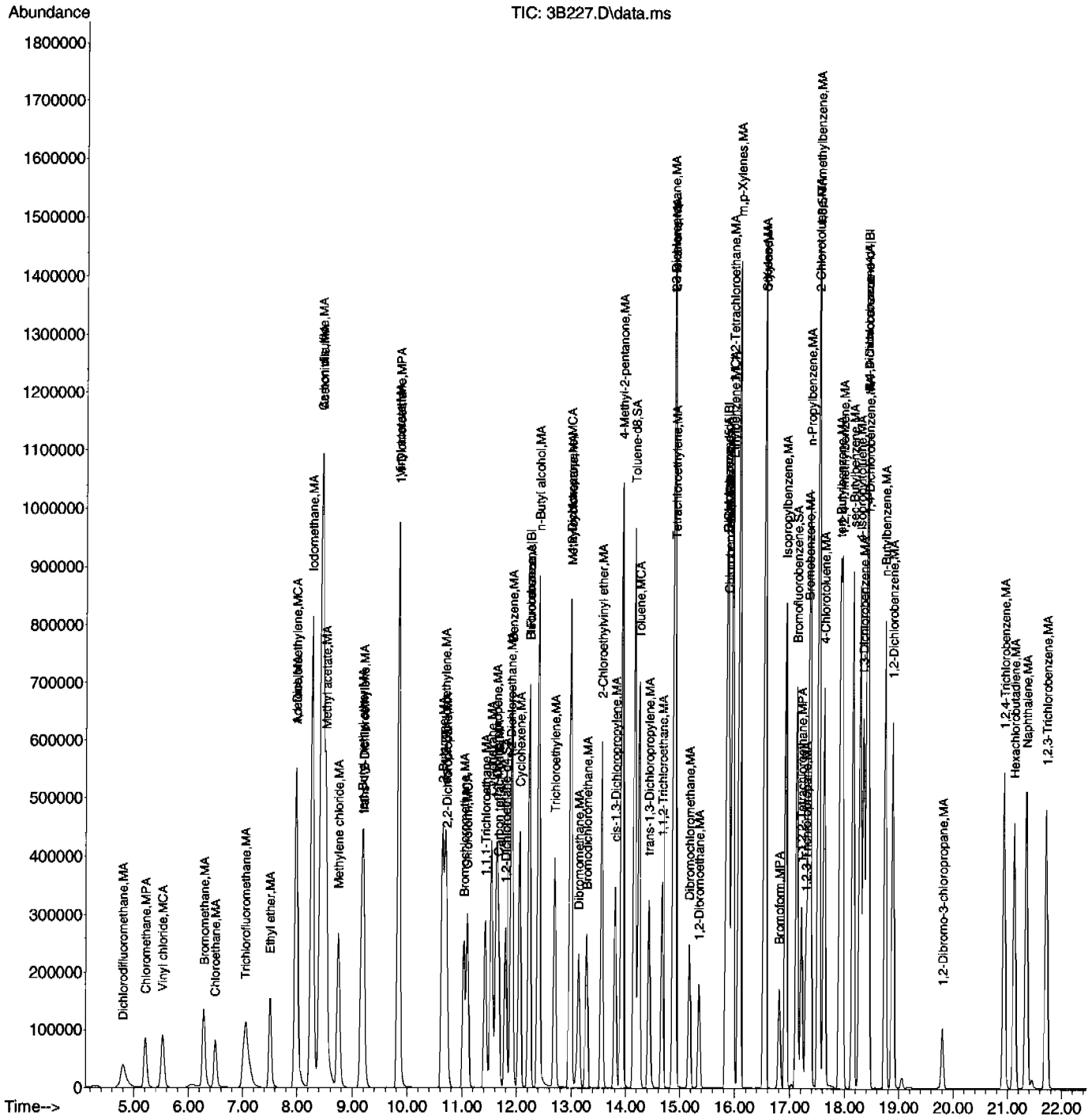
Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95) Propionitrile	10.643	10.726	0.870		0m	N.D.	d
96) Methacrylonitrile	0.000	10.951	0.000		0	N.D.	
97) Tetrahydrofuran	11.106	11.094	0.908		0m	N.D.	d
98) Isobutyl alcohol	11.532	11.556	0.943		0m	N.D.	d
99) Methyl tert-amyl ether	11.912	11.971	0.974		0m	N.D.	d
100) Methyl methacrylate	12.991	12.991	1.062		0m	N.D.	d
101) 1,4-Dioxane	0.000	13.098	0.000		0	N.D.	
102) 2-Nitropropane	13.560	13.525	1.109		0m	N.D.	d
104) Ethyl methacrylate	0.000	14.450	0.000		0	N.D.	
106) 1-Chlorohexane	15.849	15.754	0.861		0m	N.D.	d
107) cis-1,4-Dichloro-2-butene	16.928	16.964	0.919		0m	N.D.	d
108) Cyclohexanone	16.928	17.082	0.919		0m	N.D.	d
109) trans-1,4-Dichloro-2-b...	17.367	17.260	0.943		0m	N.D.	d
110) Pentachloroethane	17.983	17.983	0.977		0m	N.D.	d
111) Benzyl chloride	18.553	18.553	1.008		0m	N.D.	d
112) bis(2-Chloroisopropyl)...	19.051	18.980	1.035		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\030210V3\  
Data File : 3B227.D  
Acq On : 2 Mar 2010 10:02 pm  
Operator : CDS1  
InstName : VOA3  
Sample : |1202070216|959900|1|VOA|1|VOA8260BS|  
Misc : LCS 5G - MIX[A] SOIL 0220-01C+0301-01  
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Mar 03 09:30:00 2010  
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 01 09:52:36 2010  
Response via : Initial Calibration  
Integrator: RTE



**Volatiles**  
**Certificate of Analysis**  
**Sample Summary**

Page 1 of 2

SDG Number: 10-2027

Matrix: MISC SOLID

Lab Sample ID: 1202070217

Client Sample: QC for batch 959898

Client: LANL010

Project: QC

Client ID: LCS for batch 959898

Method: SW846 8260B

SOP Ref: GL-OA-E-038

Batch ID: 959900

Inst: VOA3.I

Dilution: 1

Run Date: 03/02/2010 23:00

Analyst: CDS1

Purge Vol: 5 mL

Prep Date: 03/02/2010 15:00

Aliquot: 5 g

Final Volume: 5 mL

Data File: 030210V33B229.D

Column: DB-624

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



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

SDG Number: 10-2027  
 Lab Sample ID: 1202070217  
 Client Sample: QC for batch 959898  
 Client ID: LCS for batch 959898  
 Batch ID: 959900  
 Run Date: 03/02/2010 23:00  
 Prep Date: 03/02/2010 15:00  
 Data File: 030210V3\3B229.D

Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA3.1  
 Analyst: CDS1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: MISC SOLID  
 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		213	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\030210V3\  
Data File : 3B229.D  
Acq On : 2 Mar 2010 11:00 pm  
Operator : CDS1  
InstName : VOA3  
Sample : |1202070217|959900|1|VOA|1|VOA8260BS|  
Misc : LCS 5G - MIX[B] SOIL UVM10215-08A  
ALS Vial : 30 Sample Multiplier: 1

Quant Time: Mar 03 12:29:33 2010  
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 01 09:52:36 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev (Min)
1) Fluorobenzene	12.232	12.232	1.000	96	961291	50.00	ug/L	0.00
41) Chlorobenzene-d5	15.849	15.849	1.000	117	741736	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	18.411	18.410	1.000	152	372303	50.00	ug/L	0.00
82) B Fluorobenzene	12.232	12.232	1.000	96	961039	50.00	ug/L	0.00
103) B Chlorobenzene-d5	15.849	15.849	1.000	117	741731	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	18.411	18.410	1.000	152	380480	50.00	ug/L	0.00
System Monitoring Compounds								Dev (Min)
29) 1,2-Dichloroethane-d4	11.794	11.793	0.964	65	311221	52.79	ug/L	0.00
Spiked Amount 50.000	Range 66	- 134	Recovery	=	105.58%			
43) Toluene-d8	14.165	14.165	0.894	98	1036923	51.95	ug/L	0.00
Spiked Amount 50.000	Range 71	- 128	Recovery	=	103.90%			
61) Bromofluorobenzene	17.130	17.130	0.930	95	391102	52.10	ug/L	0.00
Spiked Amount 50.000	Range 65	- 130	Recovery	=	104.20%			
Target Compounds								QValue
2) Dichlorodifluoromethane	0.000	4.800	0.000		0	N.D.		
3) Chloromethane	0.000	5.216	0.000		0	N.D.		
4) Vinyl chloride	0.000	5.528	0.000		0	N.D.		
5) Bromomethane	0.000	6.291	0.000		0	N.D.		
6) Chloroethane	0.000	6.493	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	7.062	0.000		0	N.D.		
8) Ethyl ether	0.000	7.512	0.000		0	N.D.		
9) Acetone	7.975	7.987	0.652		0m	N.D.	d	
10) 1,1-Dichloroethylene	7.975	7.987	0.652		0m	N.D.	d	
11) Iodomethane	8.260	8.271	0.675		0m	N.D.	d	
12) Acetonitrile	8.556	8.449	0.699		0m	N.D.	d	
13) Methyl acetate	8.521	8.520	0.697		0m	N.D.	d	
14) Carbon disulfide	8.556	8.449	0.699		0m	N.D.	d	
15) Methylene chloride	8.746	8.746	0.715		0m	N.D.	d	
16) tert-Butyl methyl ether	9.173	9.173	0.750		0m	N.D.	d	
17) trans-1,2-Dichloroethy...	0.000	9.208	0.000		0	N.D.		
18) Vinyl acetate	9.849	9.837	0.805		0m	N.D.	d	
19) 1,1-Dichloroethane	10.003	9.860	0.818		0m	N.D.	d	
20) 2-Butanone	10.679	10.643	0.873		0m	N.D.	d	
21) cis-1,2-Dichloroethylene	10.679	10.691	0.873		0m	N.D.	d	
22) 2,2-Dichloropropane	0.000	10.714	0.000		0	N.D.		
23) Bromochloromethane	0.000	11.034	0.000		0	N.D.		
24) Chloroform	0.000	11.094	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	11.426	0.000		0	N.D.		
26) Cyclohexane	11.556	11.532	0.945		0m	N.D.	d	
27) 1,1-Dichloropropene	11.556	11.627	0.945		0m	N.D.	d	
28) Carbon tetrachloride	0.000	11.663	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	11.888	0.000		0	N.D.		
31) Benzene	11.912	11.912	0.974		0m	N.D.	d	
32) Cyclohexene	0.000	12.054	0.000		0	N.D.		
33) n-Butyl alcohol	12.410	12.398	1.015		0m	N.D.	d	
34) Trichloroethylene	12.695	12.695	1.038		0m	N.D.	d	
35) 1,2-Dichloropropane	0.000	12.979	0.000		0	N.D.		
36) Methylcyclohexane	12.991	12.991	1.062		0m	N.D.	d	
37) Dibromomethane	0.000	13.133	0.000		0	N.D.		

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030210V3\  
Data File : 3B229.D  
Acq On : 2 Mar 2010 11:00 pm  
Operator : CDS1  
InstName : VOA3  
Sample : |1202070217|959900|1|VOA|1|VOA8260BS|  
Misc : LCS 5G - MIX[B] SOIL UVM10215-08A  
ALS Vial : 30 Sample Multiplier: 1

Quant Time: Mar 03 12:29:33 2010  
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 01 09:52:36 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
38) Bromodichloromethane	0.000	13.288	0.000		0	N.D.	
39) 2-Chloroethylvinyl ether	0.000	13.560	0.000		0	N.D.	
40) cis-1,3-Dichloropropylene	0.000	13.809	0.000		0	N.D.	
42) 4-Methyl-2-pentanone	13.928	13.928	0.879		0m	N.D.	d
44) Toluene	14.248	14.248	0.899		0m	N.D.	d
45) trans-1,3-Dichloroprop...	14.438	14.426	0.911		0m	N.D.	d
46) 1,1,2-Trichloroethane	0.000	14.675	0.000		0	N.D.	
47) 2-Hexanone	14.889	14.888	0.939		0m	N.D.	d
48) 1,3-Dichloropropane	14.924	14.888	0.942		0m	N.D.	d
49) Tetrachloroethylene	14.912	14.912	0.941		0m	N.D.	d
50) Dibromochloromethane	0.000	15.173	0.000		0	N.D.	
51) 1,2-Dibromoethane	0.000	15.351	0.000		0	N.D.	
52) Chlorobenzene	15.885	15.885	1.002		0m	N.D.	d
53) 1,1,1,2-Tetrachloroethane	0.000	15.956	0.000		0	N.D.	
54) Ethylbenzene	16.086	15.968	1.015		0m	N.D.	d
55) m,p-Xylenes	16.086	16.086	1.015		0m	N.D.	d
56) o-Xylene	16.549	16.549	1.044		0m	N.D.	d
57) Styrene	16.549	16.549	1.044		0m	N.D.	d
59) Bromoform	0.000	16.821	0.000		0	N.D.	
60) Isopropylbenzene	16.928	16.928	0.919		0m	N.D.	d
62) 1,1,2,2-Tetrachloroethane	17.260	17.213	0.938		0m	N.D.	d
63) 1,2,3-Trichloropropane	0.000	17.308	0.000		0	N.D.	
64) Bromobenzene	17.343	17.343	0.942		0m	N.D.	d
65) n-Propylbenzene	17.367	17.367	0.943		0m	N.D.	d
66) 1,3,5-Trimethylbenzene	17.533	17.533	0.952		0m	N.D.	d
67) 2-Chlorotoluene	17.521	17.521	0.952		0m	N.D.	d
68) 4-Chlorotoluene	17.628	17.628	0.957		0m	N.D.	d
69) tert-Butylbenzene	17.984	17.912	0.977		0m	N.D.	d
70) 1,2,4-Trimethylbenzene	17.960	17.960	0.976		0m	N.D.	d
71) sec-Butylbenzene	18.150	18.150	0.986		0m	N.D.	d
72) 4-Isopropyltoluene	18.280	18.280	0.993		0m	N.D.	d
73) 1,3-Dichlorobenzene	18.339	18.351	0.996		0m	N.D.	d
74) 1,4-Dichlorobenzene	18.434	18.434	1.001		0m	N.D.	d
75) n-Butylbenzene	0.000	18.742	0.000		0	N.D.	
76) 1,2-Dichlorobenzene	18.885	18.885	1.026		0m	N.D.	d
77) 1,2-Dibromo-3-chloropr...	0.000	19.810	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	20.936	20.936	1.137		0m	N.D.	d
79) Hexachlorobutadiene	0.000	21.126	0.000		0	N.D.	
80) Naphthalene	21.352	21.351	1.160		0m	N.D.	d
81) 1,2,3-Trichlorobenzene	21.719	21.719	1.180		0m	N.D.	d
83) Chlorotrifluoroethylene	0.000	4.711	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000	5.751	0.000		0	N.D.	
85) Acrolein	7.738	7.750	0.633	56	164003	324.97 ug/L	93 E
86) Trichlorotrifluoroethane	7.975	7.975	0.652	85	338316	212.83 ug/L	99
87) Isopropyl Alcohol	8.141	8.141	0.666	45	10569	N.D.	
88) Allyl chloride	8.556	8.556	0.699	41	1217621	213.85 ug/L	99
89) tert-Butyl Alcohol	0.000	8.793	0.000		0	N.D.	
90) Acrylonitrile	9.090	9.090	0.743	53	363806	213.78 ug/L	100
91) Isopropyl ether	0.000	9.884	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	10.003	10.003	0.818	53	243018	49.12 ug/L	99
93) Ethyl tert-butyl ether	0.000	10.406	0.000		0	N.D.	
94) Ethyl acetate	10.679	10.679	0.873	43	847366	201.79 ug/L	100

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030210V3\  
Data File : 3B229.D  
Acq On : 2 Mar 2010 11:00 pm  
Operator : CDS1  
InstName : VOA3  
Sample : |1202070217|959900|1|VOA|1|VOA8260BS|  
Misc : LCS 5G - MIX[B] SOIL UVM10215-08A  
ALS Vial : 30 Sample Multiplier: 1

Quant Time: Mar 03 12:29:33 2010  
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 01 09:52:36 2010  
Response via : Initial Calibration  
Integrator: RTE

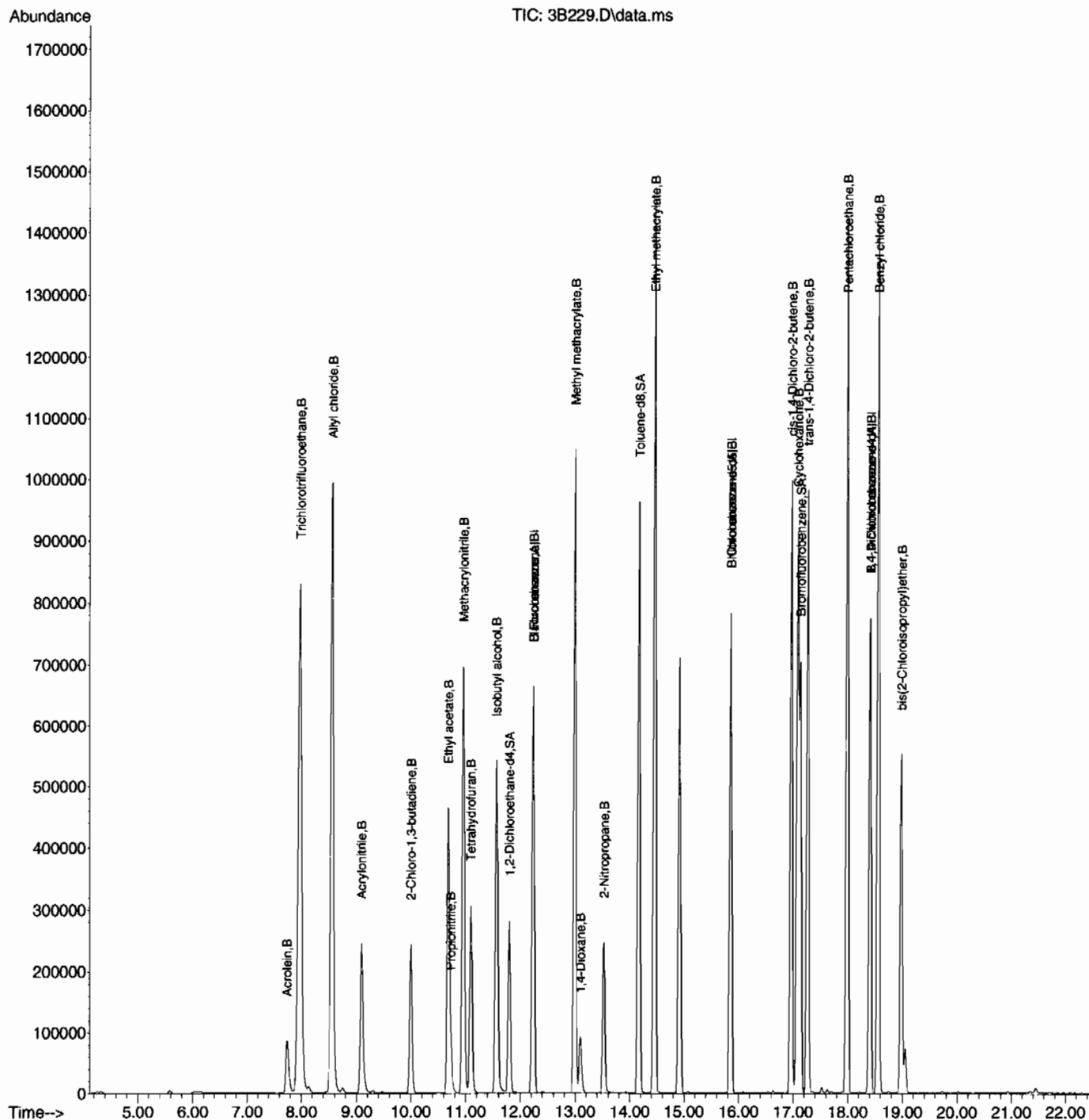
Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
95) Propionitrile	10.726	10.726	0.877	54	144772	216.96	ug/L	99
96) Methacrylonitrile	10.952	10.951	0.895	41	547757	214.00	ug/L	99
97) Tetrahydrofuran	11.094	11.094	0.907	42	304280	215.35	ug/L	99
98) Isobutyl alcohol	11.556	11.556	0.945	41	398835	2194.69	ug/L	99
99) Methyl tert-amyl ether	0.000	11.971	0.000		0	N.D.		
100) Methyl methacrylate	12.991	12.991	1.062	69	642433	231.97	ug/L	98
101) 1,4-Dioxane	13.098	13.098	1.071	88	116550	1978.76	ug/L	98
102) 2-Nitropropane	13.525	13.525	1.106	43	282277	230.53	ug/L	100
104) Ethyl methacrylate	14.450	14.450	0.912	69	1203100	238.83	ug/L	99
106) 1-Chlorohexane	0.000	15.754	0.000		0m	N.D.	d	
107) cis-1,4-Dichloro-2-butene	16.964	16.964	0.921	53	343703	269.27	ug/L	99
108) Cyclohexanone	17.082	17.082	0.928	42	416234	2841.18	ug/L	99 E
109) trans-1,4-Dichloro-2-b...	17.260	17.260	0.938	53	330129	265.17	ug/L	98
110) Pentachloroethane	17.984	17.983	0.977	167	427872	259.31	ug/L	99 E
111) Benzyl chloride	18.553	18.553	1.008	91	1758895	288.23	ug/L	99
112) bis(2-Chloroisopropyl)...	18.980	18.980	1.031	45	543418	220.96	ug/L	100

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

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030210V3\  
Data File : 3B229.D  
Acq On : 2 Mar 2010 11:00 pm  
Operator : CDS1  
InstName : VOA3  
Sample : |1202070217|959900|1|VOA|1|VOA8260BS|  
Misc : LCS 5G - MIX[B] SOIL UVM10215-08A  
ALS Vial : 30 Sample Multiplier: 1

Quant Time: Mar 03 12:29:33 2010  
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 01 09:52:36 2010  
Response via : Initial Calibration  
Integrator: RTE



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

Page 1 of 2

SDG Number: 10-2027

Matrix: MISC SOLID

Lab Sample ID: 1202070219

Client Sample: QC for batch 959898

Client: LANL010

Project: QC

Client ID: LCS for batch 959898

Method: SW846 8260B

SOP Ref: GL-OA-E-038

Batch ID: 959900

Inst: VOA3.I

Dilution: 1

Run Date: 03/04/2010 09:22

Analyst: CDS1

Purge Vol: 5 mL

Prep Date: 03/04/2010 06:00

Aliquot: 5 g

Final Volume: 5 mL

Data File: 030410V3\3B404LJD

Column: DB-624

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane		47.2	ug/kg	0.340	1.00
74-87-3	Chloromethane		45.8	ug/kg	0.300	1.00
75-01-4	Vinyl chloride		50.8	ug/kg	0.300	1.00
74-83-9	Bromomethane		50.5	ug/kg	0.300	1.00
75-00-3	Chloroethane		49.3	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane		47.5	ug/kg	0.300	1.00
67-64-1	Acetone		197	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene		44.2	ug/kg	0.300	1.00
74-88-4	Iodomethane		215	ug/kg	1.60	5.00
75-09-2	Methylene chloride		40.8	ug/kg	2.00	5.00
75-15-0	Carbon disulfide		230	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene		45.2	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane		43.7	ug/kg	0.300	1.00
78-93-3	2-Butanone		205	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene		44.0	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane		45.6	ug/kg	0.300	1.00
67-66-3	Chloroform		44.4	ug/kg	0.300	1.00
74-97-5	Bromochloromethane		45.3	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane		45.7	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene		45.8	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride		47.5	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane		41.9	ug/kg	0.300	1.00
71-43-2	Benzene		43.6	ug/kg	0.300	1.00
79-01-6	Trichloroethylene		44.2	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane		46.7	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane		47.6	ug/kg	0.300	1.00
74-95-3	Dibromomethane		45.1	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone		243	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene		48.4	ug/kg	0.300	1.00
108-88-3	Toluene		45.7	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene		51.5	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane		47.9	ug/kg	0.300	1.00
591-78-6	2-Hexanone		235	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane		47.6	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene		46.6	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane		51.6	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane		47.5	ug/kg	0.300	1.00
108-90-7	Chlorobenzene		44.7	ug/kg	0.300	1.00

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

SDG Number: 10-2027  
 Lab Sample ID: 1202070219  
 Client Sample: QC for batch 959898  
 Client ID: LCS for batch 959898  
 Batch ID: 959900  
 Run Date: 03/04/2010 09:22  
 Prep Date: 03/04/2010 06:00  
 Data File: 030410V3\3B404L.JD

Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA3.I  
 Analyst: CDS1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: MISC SOLID  
 Project: QC  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene		44.8	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes		90.8	ug/kg	0.300	2.00
95-47-6	o-Xylene		47.9	ug/kg	0.300	1.00
100-42-5	Styrene		49.8	ug/kg	0.300	1.00
75-25-2	Bromoform		42.1	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane		43.9	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane		43.8	ug/kg	0.300	1.00
108-86-1	Bromobenzene		43.7	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene		45.2	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene		45.4	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene		44.3	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene		46.0	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene		44.8	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene		46.3	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene		45.6	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene		45.6	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene		46.7	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene		44.2	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene		43.7	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene		46.5	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane		39.7	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	5.00	ug/kg	1.60	5.00
	Trichlorotrifluoroethane					
630-20-6	1,1,1,2-Tetrachloroethane		49.0	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene		43.1	ug/kg	0.300	1.00

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V3\  
Data File : 3B404LJ.D  
Acq On : 4 Mar 2010 9:22 am  
Operator : CDS1  
InstName : VOA3  
Sample : |1202070219|959900|1|VOA|1|VOA8260BS|  
Misc : LCS 5G - MIX[A] SOIL 0220-01C+0301-01  
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 04 11:25:06 2010  
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 01 09:52:36 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev (Min)
Internal Standards								
1) Fluorobenzene	12.232	12.232	1.000	96	803800	50.00	ug/L	0.00
41) Chlorobenzene-d5	15.849	15.849	1.000	117	601566	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	18.411	18.410	1.000	152	326197	50.00	ug/L	0.00
82) B Fluorobenzene	12.232	12.232	1.000	96	803684	50.00	ug/L	0.00
103) B Chlorobenzene-d5	15.849	15.849	1.000	117	601528	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	18.411	18.410	1.000	152	332524	50.00	ug/L	0.00
System Monitoring Compounds								
29) 1,2-Dichloroethane-d4	11.794	11.793	0.964	65	242614	49.22	ug/L	0.00
Spiked Amount 50.000	Range 66	- 134	Recovery	=	98.44%			
43) Toluene-d8	14.165	14.165	0.894	98	863920	53.36	ug/L	0.00
Spiked Amount 50.000	Range 71	- 128	Recovery	=	106.72%			
61) Bromofluorobenzene	17.130	17.130	0.930	95	323001	49.11	ug/L	0.00
Spiked Amount 50.000	Range 65	- 130	Recovery	=	98.22%			
Target Compounds								
2) Dichlorodifluoromethane	4.800	4.800	0.392	85	106073	47.21	ug/L	100
3) Chloromethane	5.216	5.216	0.426	50	173095	45.77	ug/L	100
4) Vinyl chloride	5.528	5.528	0.452	62	195786	50.81	ug/L	99
5) Bromomethane	6.279	6.291	0.513	94	156983	50.48	ug/L	100
6) Chloroethane	6.493	6.493	0.531	64	122694	49.28	ug/L	99
7) Trichlorofluoromethane	7.062	7.062	0.577	101	251890	47.50	ug/L	99
8) Ethyl ether	7.501	7.512	0.613	59	124789	45.53	ug/L	99
9) Acetone	7.975	7.987	0.652	43	665921	196.51	ug/L	99
10) 1,1-Dichloroethylene	7.987	7.987	0.653	61	240699	44.17	ug/L	100
11) Iodomethane	8.272	8.271	0.676	142	1479898	214.77	ug/L	100
12) Acetonitrile	8.449	8.449	0.691	41	591242	1007.20	ug/L	99
13) Methyl acetate	8.521	8.520	0.697	43	616357	203.81	ug/L	100
14) Carbon disulfide	8.438	8.449	0.690	76	2762395	229.78	ug/L	100
15) Methylene chloride	8.746	8.746	0.715	84	200001	40.84	ug/L	99
16) tert-Butyl methyl ether	9.173	9.173	0.750	73	441454	41.45	ug/L	100
17) trans-1,2-Dichloroethy...	9.208	9.208	0.753	61	228243	45.22	ug/L	99
18) Vinyl acetate	9.837	9.837	0.804	43	1532924	252.42	ug/L	100
19) 1,1-Dichloroethane	9.849	9.860	0.805	63	277295	43.72	ug/L	100
20) 2-Butanone	10.643	10.643	0.870	43	690304	204.54	ug/L	99
21) cis-1,2-Dichloroethylene	10.691	10.691	0.874	61	245433	43.95	ug/L	99
22) 2,2-Dichloropropane	10.714	10.714	0.876	77	178706	45.63	ug/L	97
23) Bromochloromethane	11.035	11.034	0.902	128	93150	45.31	ug/L	98
24) Chloroform	11.094	11.094	0.907	83	287344	44.39	ug/L	99
25) 1,1,1-Trichloroethane	11.426	11.426	0.934	97	240286	45.71	ug/L	99
26) Cyclohexane	11.533	11.532	0.943	56	268947	45.70	ug/L	100
27) 1,1-Dichloropropene	11.627	11.627	0.951	75	204414	45.77	ug/L	99
28) Carbon tetrachloride	11.663	11.663	0.953	117	218330	47.49	ug/L	98
30) 1,2-Dichloroethane	11.888	11.888	0.972	62	212144	41.90	ug/L	100
31) Benzene	11.912	11.912	0.974	78	617213	43.55	ug/L	100
32) Cyclohexene	12.054	12.054	0.985	67	284605	43.87	ug/L	99
33) n-Butyl alcohol	12.398	12.398	1.014	56	625491	4197.02	ug/L	99
34) Trichloroethylene	12.695	12.695	1.038	95	161884	44.24	ug/L	100
35) 1,2-Dichloropropane	12.979	12.979	1.061	63	161477	46.66	ug/L	99
36) Methylcyclohexane	12.991	12.991	1.062	83	277540	45.82	ug/L	100
37) Dibromomethane	13.134	13.133	1.074	93	104694	45.07	ug/L	99



Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V3\  
Data File : 3B404LJ.D  
Acq On : 4 Mar 2010 9:22 am  
Operator : CDS1  
InstName : VOA3  
Sample : |1202070219|959900|1|VOA|1|VOA8260BS|  
Misc : LCS 5G - MIX[A] SOIL 0220-01C+0301-01  
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 04 11:25:06 2010  
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 01 09:52:36 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
38) Bromodichloromethane	13.288	13.288	1.086	83	210407	47.61	ug/L	100
39) 2-Chloroethylvinyl ether	13.560	13.560	1.109	63	339330	300.14	ug/L	98
40) cis-1,3-Dichloropropylene	13.809	13.809	1.129	75	243143	48.42	ug/L	99
42) 4-Methyl-2-pentanone	13.928	13.928	0.879	58	353872	243.48	ug/L	98
44) Toluene	14.248	14.248	0.899	91	658570	45.72	ug/L	99
45) trans-1,3-Dichloroprop...	14.426	14.426	0.910	75	225481	51.51	ug/L	99
46) 1,1,2-Trichloroethane	14.675	14.675	0.926	83	119191	47.90	ug/L	99
47) 2-Hexanone	14.889	14.888	0.939	43	872438	235.12	ug/L	99
48) 1,3-Dichloropropane	14.877	14.888	0.939	76	245916	47.59	ug/L	97
49) Tetrachloroethylene	14.912	14.912	0.941	164	130753	46.60	ug/L	98
50) Dibromochloromethane	15.173	15.173	0.957	129	169842	51.60	ug/L	100
51) 1,2-Dibromoethane	15.351	15.351	0.969	107	151977	47.49	ug/L	100
52) Chlorobenzene	15.885	15.885	1.002	112	422253	44.66	ug/L	99
53) 1,1,1,2-Tetrachloroethane	15.956	15.956	1.007	131	159310	49.01	ug/L	99
54) Ethylbenzene	15.968	15.968	1.007	91	666446	44.78	ug/L	100
55) m,p-Xylenes	16.086	16.086	1.015	106	536867	90.78	ug/L	100
56) o-Xylene	16.549	16.549	1.044	106	283161	47.92	ug/L	99
57) Styrene	16.549	16.549	1.044	104	470040	49.83	ug/L	99
59) Bromoform	16.810	16.821	0.913	173	105205	42.13	ug/L	99
60) Isopropylbenzene	16.928	16.928	0.919	105	716399	44.32	ug/L	99
62) 1,1,2,2-Tetrachloroethane	17.213	17.213	0.935	83	191960	43.92	ug/L	99
63) 1,2,3-Trichloropropane	17.296	17.308	0.939	110	52566	43.75	ug/L	95
64) Bromobenzene	17.343	17.343	0.942	156	189771	43.73	ug/L	98
65) n-Propylbenzene	17.367	17.367	0.943	91	844587	45.19	ug/L	100
66) 1,3,5-Trimethylbenzene	17.533	17.533	0.952	105	624236	46.02	ug/L	100
67) 2-Chlorotoluene	17.521	17.521	0.952	126	183094	45.44	ug/L	99
68) 4-Chlorotoluene	17.628	17.628	0.957	91	519227	44.78	ug/L	99
69) tert-Butylbenzene	17.913	17.912	0.973	134	134209	46.26	ug/L	97
70) 1,2,4-Trimethylbenzene	17.960	17.960	0.976	105	626583	45.56	ug/L	98
71) sec-Butylbenzene	18.150	18.150	0.986	105	828920	45.63	ug/L	100
72) 4-Isopropyltoluene	18.280	18.280	0.993	119	672937	46.66	ug/L	99
73) 1,3-Dichlorobenzene	18.339	18.351	0.996	146	327542	44.18	ug/L	99
74) 1,4-Dichlorobenzene	18.434	18.434	1.001	146	371274	43.70	ug/L	100
75) n-Butylbenzene	18.743	18.742	1.018	91	637294	46.47	ug/L	100
76) 1,2-Dichlorobenzene	18.885	18.885	1.026	146	363487	43.10	ug/L	99
77) 1,2-Dibromo-3-chloropr...	19.810	19.810	1.076	157	41347	39.69	ug/L	99
78) 1,2,4-Trichlorobenzene	20.936	20.936	1.137	180	250831	44.23	ug/L	99
79) Hexachlorobutadiene	21.126	21.126	1.148	225	120440	42.40	ug/L	98
80) Naphthalene	21.351	21.351	1.160	128	622400	42.67	ug/L	100
81) 1,2,3-Trichlorobenzene	21.719	21.719	1.180	180	232573	41.99	ug/L	98
83) Chlorotrifluoroethylene	0.000	4.711	0.000		0	N.D.		
84) 2-Chloro-1,1,1-trifluo...	0.000	5.751	0.000		0	N.D.		
85) Acrolein	0.000	7.750	0.000		0	N.D.		
86) Trichlorotrifluoroethane	7.975	7.975	0.652		0m	N.D.	d	
87) Isopropyl Alcohol	0.000	8.141	0.000		0	N.D.		
88) Allyl chloride	8.449	8.556	0.691		0m	N.D.	d	
89) tert-Butyl Alcohol	0.000	8.793	0.000		0	N.D.		
90) Acrylonitrile	9.173	9.090	0.750		0m	N.D.	d	
91) Isopropyl ether	9.837	9.884	0.804		0m	N.D.	d	
92) 2-Chloro-1,3-butadiene	0.000	10.003	0.000		0	N.D.		
93) Ethyl tert-butyl ether	0.000	10.406	0.000		0	N.D.		
94) Ethyl acetate	10.643	10.679	0.870		0m	N.D.	d	

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V3\  
Data File : 3B404LJ.D  
Acq On : 4 Mar 2010 9:22 am  
Operator : CDS1  
InstName : VOA3  
Sample : |1202070219|959900|1|VOA|1|VOA8260BS|  
Misc : LCS 5G - MIX[A] SOIL 0220-01C+0301-01  
ALS Vial : 4 Sample Multiplier: 1

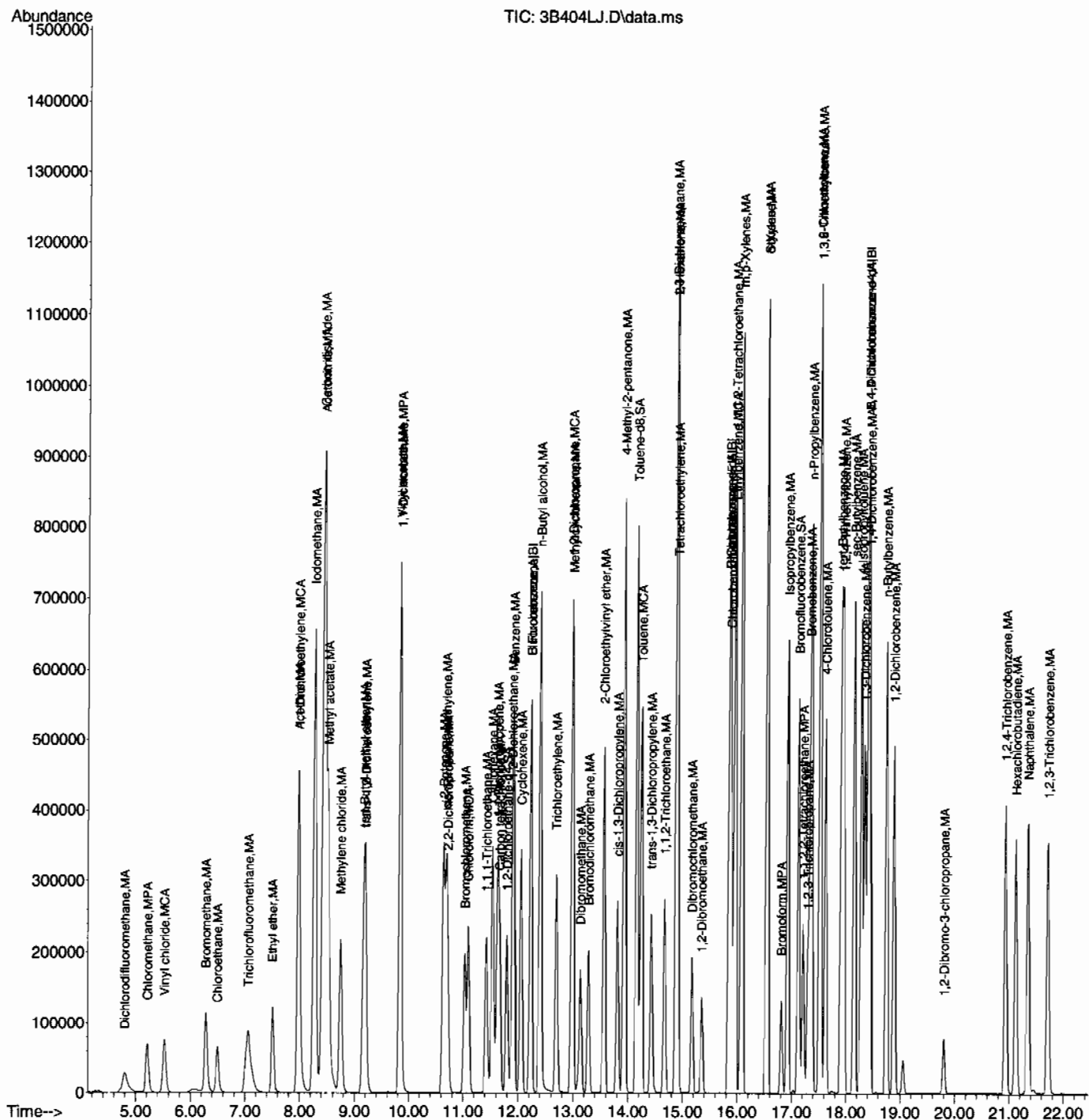
Quant Time: Mar 04 11:25:06 2010  
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 01 09:52:36 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95) Propionitrile	10.631	10.726	0.869		0m	N.D.	d
96) Methacrylonitrile	10.963	10.951	0.896		0m	N.D.	d
97) Tetrahydrofuran	11.094	11.094	0.907		0m	N.D.	d
98) Isobutyl alcohol	11.533	11.556	0.943		0m	N.D.	d
99) Methyl tert-amyl ether	11.912	11.971	0.974		0m	N.D.	d
100) Methyl methacrylate	12.991	12.991	1.062		0m	N.D.	d
101) 1,4-Dioxane	0.000	13.098	0.000		0	N.D.	
102) 2-Nitropropane	13.560	13.525	1.109		0m	N.D.	d
104) Ethyl methacrylate	14.450	14.450	0.912		0m	N.D.	d
106) 1-Chlorohexane	15.849	15.754	0.861		0m	N.D.	d
107) cis-1,4-Dichloro-2-butene	16.928	16.964	0.919		0m	N.D.	d
108) Cyclohexanone	17.082	17.082	0.928		0m	N.D.	d
109) trans-1,4-Dichloro-2-b...	17.260	17.260	0.938		0m	N.D.	d
110) Pentachloroethane	17.984	17.983	0.977		0m	N.D.	d
111) Benzyl chloride	18.553	18.553	1.008		0m	N.D.	d
112) bis(2-Chloroisopropyl)...	18.980	18.980	1.031		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\030410V3\
Data File : 3B404LJ.D
Acq On    : 4 Mar 2010 9:22 am
Operator  : CDS1
InstName  : VOA3
Sample    : |1202070219|959900|1|VOA|1|VOA8260BS|
Misc      : LCS 5G - MIX[A] SOIL 0220-01C+0301-01
ALS Vial  : 4 Sample Multiplier: 1
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Quant Time: Mar 04 11:25:06 2010  
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 01 09:52:36 2010  
Response via : Initial Calibration  
Integrator: RTE



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

SDG Number: 10-2027

Matrix: MISC SOLID

Lab Sample ID: 1202070220

Client Sample: QC for batch 959898

Client: LANL010

Project: QC

Client ID: LCS for batch 959898

Method: SW846 8260B

SOP Ref: GL-OA-E-038

Batch ID: 959900

Inst: VOA3.I

Dilution: 1

Run Date: 03/04/2010 11:15

Analyst: CDS1

Purge Vol: 5 mL

Prep Date: 03/04/2010 06:00

Aliquot: 5 g

Final Volume: 5 mL

Data File: 030410V3\3B407SLSJ.D

Column: DB-624

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

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

SDG Number: 10-2027

Lab Sample ID: 1202070220

Client Sample: QC for batch 959898

Client ID: LCS for batch 959898

Batch ID: 959900

Run Date: 03/04/2010 11:15

Prep Date: 03/04/2010 06:00

Data File: 030410V3\3B407SLSJ.D

Client: LANL010

Method: SW846 8260B

Inst: VOA3.I

Analyst: CDS1

Aliquot: 5 g

Column: DB-624

Matrix: MISC SOLID

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		194	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\030410V3\  
Data File : 3B407SLSJ.D  
Acq On : 4 Mar 2010 11:15 am  
Operator : CDS1  
InstName : VOA3  
Sample : |1202070220|959900|1|VOA|1|VOA8260BS|  
Misc : LCS 5G - MIX[B] SOIL UVM10215-08A  
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 04 12:18:06 2010  
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 01 09:52:36 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	12.220	12.232	1.000	96	870520	50.00	ug/L	-0.01
41) Chlorobenzene-d5	15.849	15.849	1.000	117	655293	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	18.410	18.410	1.000	152	323037	50.00	ug/L	0.00
82) B Fluorobenzene	12.220	12.232	1.000	96	870265	50.00	ug/L	-0.01
103) B Chlorobenzene-d5	15.849	15.849	1.000	117	655227	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	18.410	18.410	1.000	152	329996	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	11.782	11.793	0.964	65	274803	51.47	ug/L	-0.01
Spiked Amount	50.000	Range 66 - 134	Recovery	=	102.94%			
43) Toluene-d8	14.153	14.165	0.893	98	914023	51.83	ug/L	-0.01
Spiked Amount	50.000	Range 71 - 128	Recovery	=	103.66%			
61) Bromofluorobenzene	17.130	17.130	0.930	95	329750	50.63	ug/L	0.00
Spiked Amount	50.000	Range 65 - 130	Recovery	=	101.26%			
Target Compounds								QValue
2) Dichlorodifluoromethane	0.000	4.800	0.000		0	N.D.		
3) Chloromethane	0.000	5.216	0.000		0	N.D.		
4) Vinyl chloride	0.000	5.528	0.000		0	N.D.		
5) Bromomethane	0.000	6.291	0.000		0	N.D.		
6) Chloroethane	0.000	6.493	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	7.062	0.000		0	N.D.		
8) Ethyl ether	0.000	7.512	0.000		0	N.D.		
9) Acetone	7.975	7.987	0.653		0m	N.D.	d	
10) 1,1-Dichloroethylene	7.963	7.987	0.652		0m	N.D.	d	
11) Iodomethane	8.260	8.271	0.676		0m	N.D.	d	
12) Acetonitrile	8.544	8.449	0.699		0m	N.D.	d	
13) Methyl acetate	8.520	8.520	0.697		0m	N.D.	d	
14) Carbon disulfide	8.544	8.449	0.699		0m	N.D.	d	
15) Methylene chloride	8.746	8.746	0.716		0m	N.D.	d	
16) tert-Butyl methyl ether	9.161	9.173	0.750		0m	N.D.	d	
17) trans-1,2-Dichloroethy...	0.000	9.208	0.000		0	N.D.		
18) Vinyl acetate	9.837	9.837	0.805		0m	N.D.	d	
19) 1,1-Dichloroethane	9.991	9.860	0.818		0m	N.D.	d	
20) 2-Butanone	10.679	10.643	0.874		0m	N.D.	d	
21) cis-1,2-Dichloroethylene	10.679	10.691	0.874		0m	N.D.	d	
22) 2,2-Dichloropropane	0.000	10.714	0.000		0	N.D.		
23) Bromochloromethane	0.000	11.034	0.000		0	N.D.		
24) Chloroform	11.082	11.094	0.907		0m	N.D.	d	
25) 1,1,1-Trichloroethane	0.000	11.426	0.000		0	N.D.		
26) Cyclohexane	11.556	11.532	0.946		0m	N.D.	d	
27) 1,1-Dichloropropene	11.556	11.627	0.946		0m	N.D.	d	
28) Carbon tetrachloride	0.000	11.663	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	11.888	0.000		0	N.D.		
31) Benzene	11.900	11.912	0.974		0m	N.D.	d	
32) Cyclohexene	0.000	12.054	0.000		0	N.D.		
33) n-Butyl alcohol	12.410	12.398	1.016		0m	N.D.	d	
34) Trichloroethylene	0.000	12.695	0.000		0	N.D.		
35) 1,2-Dichloropropane	0.000	12.979	0.000		0	N.D.		
36) Methylcyclohexane	12.979	12.991	1.062		0m	N.D.	d	
37) Dibromomethane	0.000	13.133	0.000		0	N.D.		

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V3\  
Data File : 3B407SLSJ.D  
Acq On : 4 Mar 2010 11:15 am  
Operator : CDS1  
InstName : VOA3  
Sample : |1202070220|959900|1|VOA|1|VOA8260BS|  
Misc : LCS 5G - MIX[B] SOIL UVM10215-08A  
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 04 12:18:06 2010  
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 01 09:52:36 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
38) Bromodichloromethane	0.000	13.288	0.000		0	N.D.	
39) 2-Chloroethylvinyl ether	0.000	13.560	0.000		0	N.D.	
40) cis-1,3-Dichloropropylene	0.000	13.809	0.000		0	N.D.	
42) 4-Methyl-2-pentanone	13.928	13.928	0.879		0m	N.D.	d
44) Toluene	14.236	14.248	0.898		0m	N.D.	d
45) trans-1,3-Dichloroprop...	14.438	14.426	0.911		0m	N.D.	d
46) 1,1,2-Trichloroethane	0.000	14.675	0.000		0	N.D.	
47) 2-Hexanone	14.888	14.888	0.939		0m	N.D.	d
48) 1,3-Dichloropropane	14.924	14.888	0.942		0m	N.D.	d
49) Tetrachloroethylene	14.912	14.912	0.941		0m	N.D.	d
50) Dibromochloromethane	0.000	15.173	0.000		0	N.D.	
51) 1,2-Dibromoethane	0.000	15.351	0.000		0	N.D.	
52) Chlorobenzene	15.885	15.885	1.002		0m	N.D.	d
53) 1,1,1,2-Tetrachloroethane	0.000	15.956	0.000		0	N.D.	
54) Ethylbenzene	16.074	15.968	1.014		0m	N.D.	d
55) m,p-Xylenes	16.086	16.086	1.015		0m	N.D.	d
56) o-Xylene	0.000	16.549	0.000		0	N.D.	
57) Styrene	16.549	16.549	1.044		0m	N.D.	d
59) Bromoform	0.000	16.821	0.000		0	N.D.	
60) Isopropylbenzene	16.928	16.928	0.919		0m	N.D.	d
62) 1,1,2,2-Tetrachloroethane	17.260	17.213	0.938		0m	N.D.	d
63) 1,2,3-Trichloropropane	0.000	17.308	0.000		0	N.D.	
64) Bromobenzene	17.343	17.343	0.942		0m	N.D.	d
65) n-Propylbenzene	17.367	17.367	0.943		0m	N.D.	d
66) 1,3,5-Trimethylbenzene	17.533	17.533	0.952		0m	N.D.	d
67) 2-Chlorotoluene	17.521	17.521	0.952		0m	N.D.	d
68) 4-Chlorotoluene	17.628	17.628	0.957		0m	N.D.	d
69) tert-Butylbenzene	17.984	17.912	0.977		0m	N.D.	d
70) 1,2,4-Trimethylbenzene	17.960	17.960	0.976		0m	N.D.	d
71) sec-Butylbenzene	18.150	18.150	0.986		0m	N.D.	d
72) 4-Isopropyltoluene	18.280	18.280	0.993		0m	N.D.	d
73) 1,3-Dichlorobenzene	18.339	18.351	0.996		0m	N.D.	d
74) 1,4-Dichlorobenzene	18.434	18.434	1.001		0m	N.D.	d
75) n-Butylbenzene	0.000	18.742	0.000		0	N.D.	
76) 1,2-Dichlorobenzene	18.885	18.885	1.026		0m	N.D.	d
77) 1,2-Dibromo-3-chloropr...	0.000	19.810	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	20.936	20.936	1.137		0m	N.D.	d
79) Hexachlorobutadiene	0.000	21.126	0.000		0	N.D.	
80) Naphthalene	21.351	21.351	1.160		0m	N.D.	d
81) 1,2,3-Trichlorobenzene	21.719	21.719	1.180		0m	N.D.	d
83) Chlorotrifluoroethylene	0.000	4.711	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000	5.751	0.000		0	N.D.	
85) Acrolein	7.738	7.750	0.633	56	153027	334.76 ug/L	94 E
86) Trichlorotrifluoroethane	7.963	7.975	0.652	85	279719	194.33 ug/L	99
87) Isopropyl Alcohol	0.000	8.141	0.000		0m	N.D.	d
88) Allyl chloride	8.544	8.556	0.699	41	1047479	203.16 ug/L	98
89) tert-Butyl Alcohol	0.000	8.793	0.000		0	N.D.	
90) Acrylonitrile	9.090	9.090	0.744	53	351345	228.00 ug/L	99
91) Isopropyl ether	0.000	9.884	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	9.991	10.003	0.818	53	199751	44.58 ug/L	99
93) Ethyl tert-butyl ether	0.000	10.406	0.000		0	N.D.	
94) Ethyl acetate	10.679	10.679	0.874	43	796241	209.39 ug/L	100

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V3\  
Data File : 3B407SLSJ.D  
Acq On : 4 Mar 2010 11:15 am  
Operator : CDS1  
InstName : VOA3  
Sample : |1202070220|959900|1|VOA|1|VOA8260BS|  
Misc : LCS 5G - MIX[B] SOIL UVM10215-08A  
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 04 12:18:06 2010  
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 01 09:52:36 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
95) Propionitrile	10.714	10.726	0.877	54	138220	228.75	ug/L	99
96) Methacrylonitrile	10.951	10.951	0.896	41	518484	223.69	ug/L	100
97) Tetrahydrofuran	11.082	11.094	0.907	42	294201	229.93	ug/L	99
98) Isobutyl alcohol	11.556	11.556	0.946	41	409305	2487.23	ug/L	99
99) Methyl tert-amyl ether	0.000	11.971	0.000		0	N.D.		
100) Methyl methacrylate	12.979	12.991	1.062	69	601722	239.94	ug/L	98
101) 1,4-Dioxane	13.086	13.098	1.071	88	120861	2265.98	ug/L	99
102) 2-Nitropropane	13.513	13.525	1.106	43	257211	231.94	ug/L	99
104) Ethyl methacrylate	14.450	14.450	0.912	69	1115063	250.58	ug/L	99
106) 1-Chlorohexane	0.000	15.754	0.000		0m	N.D.	d	
107) cis-1,4-Dichloro-2-butene	16.964	16.964	0.921	53	312783	282.54	ug/L	98
108) Cyclohexanone	17.070	17.082	0.927	42	414709	3263.83	ug/L	99 E
109) trans-1,4-Dichloro-2-b...	17.260	17.260	0.938	53	300396	278.20	ug/L	99
110) Pentachloroethane	17.984	17.983	0.977	167	383822	267.97	ug/L	97 E
111) Benzyl chloride	18.553	18.553	1.008	91	1617271	305.47	ug/L	100
112) bis(2-Chloroisopropyl)...	18.980	18.980	1.031	45	529926	248.43	ug/L	98

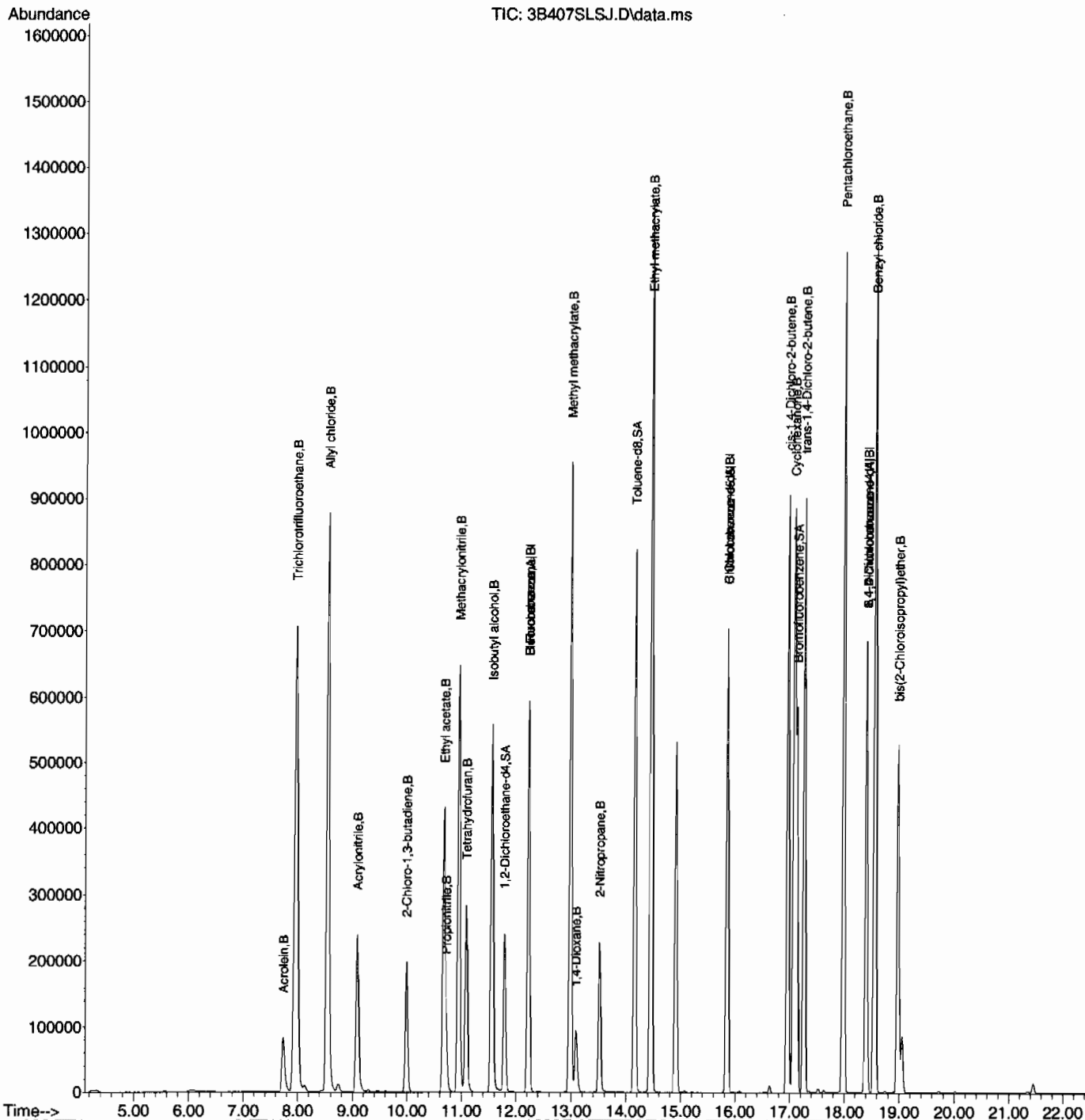
(#) = qualifier out of range (m) = manual integration (+) = signals summed  
(E) = Over the calibration range (d) = deleted



Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V3\  
Data File : 3B407SLSJ.D  
Acq On : 4 Mar 2010 11:15 am  
Operator : CDS1  
InstName : VOA3  
Sample : |1202070220|959900|1|VOA|1|VOA8260BS|  
Misc : LCS 5G - MIX[B] SOIL UVM10215-08A  
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 04 12:18:06 2010  
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 01 09:52:36 2010  
Response via : Initial Calibration  
Integrator: RTE



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

Page 1 of 2

SDG Number: 10-2027	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 1202058832	Date Received: 02/25/2010 08:45	%Moisture: 5
Client Sample: QC for batch 959898	Client: LANL010	Project: QC
Client ID: RE36-10-8482PS	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Batch ID: 959900	Inst: VOA3.I	Dilution: 1
Run Date: 03/03/2010 04:23	Analyst: CDS1	Purge Vol: 5 mL
Prep Date: 03/02/2010 17:07	Aliquot: 5 g	Final Volume: 5 mL
Data File: 030210V3\3B240.D	Column: DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane		44.6	ug/kg	0.358	1.05
74-87-3	Chloromethane		45.4	ug/kg	0.316	1.05
75-01-4	Vinyl chloride		49.7	ug/kg	0.316	1.05
74-83-9	Bromomethane		46.8	ug/kg	0.316	1.05
75-00-3	Chloroethane		48.2	ug/kg	0.316	1.05
75-69-4	Trichlorofluoromethane		44.5	ug/kg	0.316	1.05
67-64-1	Acetone		111	ug/kg	1.75	5.27
75-35-4	1,1-Dichloroethylene		42.4	ug/kg	0.316	1.05
74-88-4	Iodomethane		185	ug/kg	1.68	5.27
75-09-2	Methylene chloride		41.1	ug/kg	2.11	5.27
75-15-0	Carbon disulfide		209	ug/kg	1.32	5.27
156-60-5	trans-1,2-Dichloroethylene		42.7	ug/kg	0.316	1.05
75-34-3	1,1-Dichloroethane		43.0	ug/kg	0.316	1.05
78-93-3	2-Butanone		134	ug/kg	1.58	5.27
156-59-2	cis-1,2-Dichloroethylene		44.1	ug/kg	0.316	1.05
594-20-7	2,2-Dichloropropane		40.5	ug/kg	0.316	1.05
67-66-3	Chloroform		43.7	ug/kg	0.316	1.05
74-97-5	Bromochloromethane		44.3	ug/kg	0.348	1.05
71-55-6	1,1,1-Trichloroethane		43.1	ug/kg	0.316	1.05
563-58-6	1,1-Dichloropropene		42.1	ug/kg	0.316	1.05
56-23-5	Carbon tetrachloride		44.4	ug/kg	0.316	1.05
107-06-2	1,2-Dichloroethane		42.1	ug/kg	0.316	1.05
71-43-2	Benzene		42.5	ug/kg	0.316	1.05
79-01-6	Trichloroethylene		42.0	ug/kg	0.348	1.05
78-87-5	1,2-Dichloropropane		45.6	ug/kg	0.316	1.05
75-27-4	Bromodichloromethane		48.1	ug/kg	0.316	1.05
74-95-3	Dibromomethane		45.5	ug/kg	0.316	1.05
108-10-1	4-Methyl-2-pentanone		206	ug/kg	1.32	5.27
10061-01-5	cis-1,3-Dichloropropylene		42.3	ug/kg	0.316	1.05
108-88-3	Toluene		41.8	ug/kg	0.316	1.05
10061-02-6	trans-1,3-Dichloropropylene		43.6	ug/kg	0.316	1.05
79-00-5	1,1,2-Trichloroethane		46.3	ug/kg	0.316	1.05
591-78-6	2-Hexanone		104	ug/kg	1.58	5.27
142-28-9	1,3-Dichloropropane		45.0	ug/kg	0.316	1.05
127-18-4	Tetrachloroethylene		40.2	ug/kg	0.316	1.05
124-48-1	Dibromochloromethane		49.6	ug/kg	0.316	1.05
106-93-4	1,2-Dibromoethane		43.8	ug/kg	0.316	1.05
108-90-7	Chlorobenzene		41.1	ug/kg	0.316	1.05

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

SDG Number: 10-2027  
 Lab Sample ID: 1202058832  
 Client Sample: QC for batch 959898  
 Client ID: RE36-10-8482PS  
 Batch ID: 959900  
 Run Date: 03/03/2010 04:23  
 Prep Date: 03/02/2010 17:07  
 Data File: 030210V33B240.D

Date Collected: 02/20/2010 12:00  
 Date Received: 02/25/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA3.I  
 Analyst: CDS1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 5  
 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		40.3	ug/kg	0.316	1.05
179601-23-1	m,p-Xylenes		80.9	ug/kg	0.316	2.11
95-47-6	o-Xylene		44.0	ug/kg	0.316	1.05
100-42-5	Styrene		40.9	ug/kg	0.316	1.05
75-25-2	Bromoform		42.1	ug/kg	0.316	1.05
79-34-5	1,1,2,2-Tetrachloroethane		43.7	ug/kg	0.316	1.05
96-18-4	1,2,3-Trichloropropane		43.6	ug/kg	0.316	1.05
108-86-1	Bromobenzene		40.6	ug/kg	0.316	1.05
103-65-1	n-Propylbenzene		38.2	ug/kg	0.316	1.05
95-49-8	2-Chlorotoluene		39.8	ug/kg	0.316	1.05
98-82-8	Isopropylbenzene		40.3	ug/kg	0.316	1.05
108-67-8	1,3,5-Trimethylbenzene		40.3	ug/kg	0.316	1.05
106-43-4	4-Chlorotoluene		38.0	ug/kg	0.316	1.05
98-06-6	tert-Butylbenzene		41.2	ug/kg	0.316	1.05
95-63-6	1,2,4-Trimethylbenzene		38.5	ug/kg	0.316	1.05
135-98-8	sec-Butylbenzene		38.0	ug/kg	0.316	1.05
99-87-6	4-Isopropyltoluene		31.1	ug/kg	0.316	1.05
541-73-1	1,3-Dichlorobenzene		36.3	ug/kg	0.316	1.05
106-46-7	1,4-Dichlorobenzene		36.4	ug/kg	0.316	1.05
104-51-8	n-Butylbenzene		34.8	ug/kg	0.316	1.05
96-12-8	1,2-Dibromo-3-chloropropane		37.2	ug/kg	0.316	1.05
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	5.27	ug/kg	1.68	5.27
	Trichlorotrifluoroethane					
630-20-6	1,1,1,2-Tetrachloroethane		47.5	ug/kg	0.316	1.05
95-50-1	1,2-Dichlorobenzene		37.2	ug/kg	0.316	1.05

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030210V3\  
Data File : 3B240.D  
Acq On : 3 Mar 2010 4:23 am  
Operator : CDS1  
InstName : VOA3  
Sample : |1202058832|959900|1|VOA|1|VOA8260BS|  
Misc : LANL 5G - SOIL MS 248012009 MIX[A]  
ALS Vial : 41 Sample Multiplier: 1

Quant Time: Mar 03 08:30:39 2010  
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 01 09:52:36 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev (Min)
Internal Standards								
1) Fluorobenzene	12.232	12.232	1.000	96	845734	50.00	ug/L	0.00
41) Chlorobenzene-d5	15.849	15.849	1.000	117	651206	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	18.411	18.410	1.000	152	332121	50.00	ug/L	0.00
82) B Fluorobenzene	12.232	12.232	1.000	96	845585	50.00	ug/L	0.00
103) B Chlorobenzene-d5	15.849	15.849	1.000	117	651164	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	18.411	18.410	1.000	152	338841	50.00	ug/L	0.00
System Monitoring Compounds								
29) 1,2-Dichloroethane-d4	11.794	11.793	0.964	65	255396	49.24	ug/L	0.00
Spiked Amount 50.000	Range 66	- 134	Recovery	=	98.48%			
43) Toluene-d8	14.165	14.165	0.894	98	882383	50.35	ug/L	0.00
Spiked Amount 50.000	Range 71	- 128	Recovery	=	100.70%			
61) Bromofluorobenzene	17.130	17.130	0.930	95	325332	48.58	ug/L	0.00
Spiked Amount 50.000	Range 65	- 130	Recovery	=	97.16%			
Target Compounds								
2) Dichlorodifluoromethane	4.800	4.800	0.392	85	100294	42.35	ug/L	99
3) Chloromethane	5.216	5.216	0.426	50	171623	43.13	ug/L	99
4) Vinyl chloride	5.528	5.528	0.452	62	191342	47.19	ug/L	99
5) Bromomethane	6.279	6.291	0.513	94	145424	44.44	ug/L	99
6) Chloroethane	6.493	6.493	0.531	64	119853	45.75	ug/L	99
7) Trichlorofluoromethane	7.050	7.062	0.576	101	235598	42.23	ug/L	100
8) Ethyl ether	7.501	7.512	0.613	59	124857	43.29	ug/L	99
9) Acetone	7.987	7.987	0.653	43	374783	105.12	ug/L	100
10) 1,1-Dichloroethylene	7.987	7.987	0.653	61	230614	40.22	ug/L	99
11) Iodomethane	8.272	8.271	0.676	142	1272542	175.52	ug/L	100
12) Acetonitrile	8.449	8.449	0.691	41	570893	924.32	ug/L	99
13) Methyl acetate	8.521	8.520	0.697	43	473115	148.69	ug/L	99
14) Carbon disulfide	8.438	8.449	0.690	76	2511828	198.58	ug/L	100
15) Methylene chloride	8.746	8.746	0.715	84	201240	39.06	ug/L	97
16) tert-Butyl methyl ether	9.173	9.173	0.750	73	431013	38.46	ug/L	99
17) trans-1,2-Dichloroethy...	9.208	9.208	0.753	61	215283	40.54	ug/L	99
18) Vinyl acetate	0.000	9.837	0.000		0	N.D.		
19) 1,1-Dichloroethane	9.849	9.860	0.805	63	272306	40.80	ug/L	100
20) 2-Butanone	10.643	10.643	0.870	43	451037	127.02	ug/L	99
21) cis-1,2-Dichloroethylene	10.691	10.691	0.874	61	246261	41.91	ug/L	99
22) 2,2-Dichloropropane	10.714	10.714	0.876	77	158458	38.45	ug/L	98
23) Bromochloromethane	11.035	11.034	0.902	128	91052	42.09	ug/L	97
24) Chloroform	11.094	11.094	0.907	83	282411	41.47	ug/L	100
25) 1,1,1-Trichloroethane	11.426	11.426	0.934	97	226603	40.97	ug/L	98
26) Cyclohexane	11.533	11.532	0.943	56	241080	38.94	ug/L	99
27) 1,1-Dichloropropene	11.628	11.627	0.951	75	187928	39.99	ug/L	99
28) Carbon tetrachloride	11.663	11.663	0.953	117	203728	42.12	ug/L	99
30) 1,2-Dichloroethane	11.888	11.888	0.972	62	212751	39.94	ug/L	99
31) Benzene	11.912	11.912	0.974	78	601227	40.32	ug/L	99
32) Cyclohexene	12.054	12.054	0.985	67	267295	39.16	ug/L	99
33) n-Butyl alcohol	12.398	12.398	1.014	56	513295	3291.18	ug/L	97
34) Trichloroethylene	12.695	12.695	1.038	95	153387	39.84	ug/L	98
35) 1,2-Dichloropropane	12.979	12.979	1.061	63	157815	43.34	ug/L	100
36) Methylcyclohexane	12.991	12.991	1.062	83	237844	37.32	ug/L	100
37) Dibromomethane	13.134	13.133	1.074	93	105560	43.19	ug/L	98

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030210V3\  
Data File : 3B240.D  
Acq On : 3 Mar 2010 4:23 am  
Operator : CDS1  
InstName : VOA3  
Sample : |1202058832|959900|1|VOA|1|VOA8260BS|  
Misc : LANL 5G - SOIL MS 248012009 MIX[A]  
ALS Vial : 41 Sample Multiplier: 1

Quant Time: Mar 03 08:30:39 2010  
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 01 09:52:36 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
38) Bromodichloromethane	13.288	13.288	1.086	83	212272	45.65	ug/L	100
39) 2-Chloroethylvinyl ether	13.560	13.560	1.109	63	300476	253.45	ug/L	98
40) cis-1,3-Dichloropropylene	13.809	13.809	1.129	75	212105	40.14	ug/L	99
42) 4-Methyl-2-pentanone	13.928	13.928	0.879	58	308261	195.93	ug/L	99
44) Toluene	14.248	14.248	0.899	91	618247	39.65	ug/L	98
45) trans-1,3-Dichloroprop...	14.426	14.426	0.910	75	196066	41.37	ug/L	99
46) 1,1,2-Trichloroethane	14.675	14.675	0.926	83	118333	43.93	ug/L	99
47) 2-Hexanone	14.889	14.888	0.939	43	397316	98.91	ug/L	98
48) 1,3-Dichloropropane	14.877	14.888	0.939	76	239314	42.78	ug/L #	75
49) Tetrachloroethylene	14.912	14.912	0.941	164	115997	38.19	ug/L	98
50) Dibromochloromethane	15.173	15.173	0.957	129	167694	47.06	ug/L	99
51) 1,2-Dibromoethane	15.351	15.351	0.969	107	144023	41.58	ug/L	98
52) Chlorobenzene	15.885	15.885	1.002	112	399446	39.03	ug/L	100
53) 1,1,1,2-Tetrachloroethane	15.956	15.956	1.007	131	158587	45.07	ug/L	99
54) Ethylbenzene	15.968	15.968	1.007	91	617122	38.30	ug/L	99
55) m,p-Xylenes	16.086	16.086	1.015	106	491549	76.78	ug/L	99
56) o-Xylene	16.549	16.549	1.044	106	267032	41.75	ug/L	98
57) Styrene	16.549	16.549	1.044	104	396582	38.84	ug/L	100
59) Bromoform	16.810	16.821	0.913	173	101334	39.94	ug/L	99
60) Isopropylbenzene	16.928	16.928	0.919	105	630195	38.29	ug/L	99
62) 1,1,2,2-Tetrachloroethane	17.213	17.213	0.935	83	184763	41.52	ug/L	99
63) 1,2,3-Trichloropropane	17.296	17.308	0.939	110	50650	41.40	ug/L #	93
64) Bromobenzene	17.343	17.343	0.942	156	170239	38.53	ug/L	100
65) n-Propylbenzene	17.367	17.367	0.943	91	689637	36.24	ug/L	100
66) 1,3,5-Trimethylbenzene	17.533	17.533	0.952	105	528321	38.26	ug/L	99
67) 2-Chlorotoluene	17.521	17.521	0.952	126	154953	37.77	ug/L	97
68) 4-Chlorotoluene	17.628	17.628	0.957	91	425900	36.08	ug/L	100
69) tert-Butylbenzene	17.913	17.912	0.973	134	115690	39.16	ug/L	100
70) 1,2,4-Trimethylbenzene	17.960	17.960	0.976	105	511594	36.54	ug/L	100
71) sec-Butylbenzene	18.150	18.150	0.986	105	667208	36.07	ug/L	99
72) 4-Isopropyltoluene	18.280	18.280	0.993	119	433422	29.52	ug/L	99
73) 1,3-Dichlorobenzene	18.339	18.351	0.996	146	260087	34.46	ug/L	100
74) 1,4-Dichlorobenzene	18.434	18.434	1.001	146	299071	34.57	ug/L	100
75) n-Butylbenzene	18.743	18.742	1.018	91	461918	33.08	ug/L	99
76) 1,2-Dichlorobenzene	18.885	18.885	1.026	146	303061	35.29	ug/L	99
77) 1,2-Dibromo-3-chloropr...	19.810	19.810	1.076	157	37252	35.31	ug/L	96
78) 1,2,4-Trichlorobenzene	20.936	20.936	1.137	180	161525	27.97	ug/L	99
79) Hexachlorobutadiene	21.126	21.126	1.148	225	77698	26.86	ug/L	99
80) Naphthalene	21.351	21.351	1.160	128	444250	29.91	ug/L	100
81) 1,2,3-Trichlorobenzene	21.719	21.719	1.180	180	155319	27.54	ug/L	100
83) Chlorotrifluoroethylene	0.000	4.711	0.000		0	N.D.		
84) 2-Chloro-1,1,1-trifluo...	0.000	5.751	0.000		0	N.D.		
85) Acrolein	0.000	7.750	0.000		0	N.D.		
86) Trichlorotrifluoroethane	0.000	7.975	0.000		0	N.D.		
87) Isopropyl Alcohol	8.153	8.141	0.667		0m	N.D.	d	
88) Allyl chloride	8.449	8.556	0.691		0m	N.D.	d	
89) tert-Butyl Alcohol	0.000	8.793	0.000		0	N.D.		
90) Acrylonitrile	9.173	9.090	0.750		0m	N.D.	d	
91) Isopropyl ether	0.000	9.884	0.000		0	N.D.		
92) 2-Chloro-1,3-butadiene	0.000	10.003	0.000		0	N.D.		
93) Ethyl tert-butyl ether	0.000	10.406	0.000		0	N.D.		
94) Ethyl acetate	10.643	10.679	0.870		0m	N.D.	d	

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030210V3\  
Data File : 3B240.D  
Acq On : 3 Mar 2010 4:23 am  
Operator : CDS1  
InstName : VOA3  
Sample : |1202058832|959900|1|VOA|1|VOA8260BS|  
Misc : LANL 5G - SOIL MS 248012009 MIX[A]  
ALS Vial : 41 Sample Multiplier: 1

Quant Time: Mar 03 08:30:39 2010  
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 01 09:52:36 2010  
Response via : Initial Calibration  
Integrator: RTE

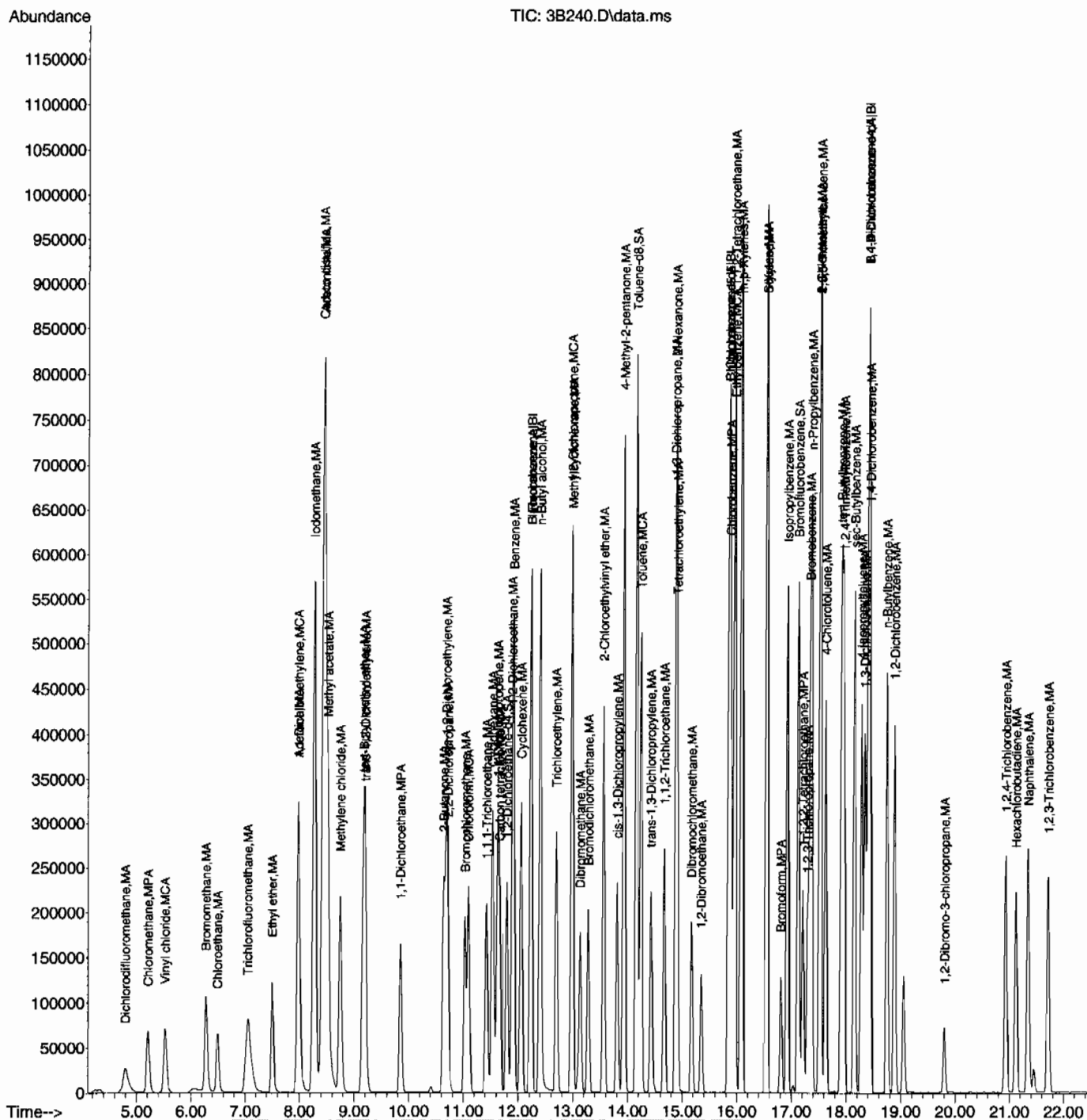
Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95) Propionitrile	10.643	10.726	0.870		0m	N.D.	d
96) Methacrylonitrile	0.000	10.951	0.000		0	N.D.	
97) Tetrahydrofuran	11.094	11.094	0.907		0m	N.D.	d
98) Isobutyl alcohol	11.533	11.556	0.943		0m	N.D.	d
99) Methyl tert-amyl ether	11.912	11.971	0.974		0m	N.D.	d
100) Methyl methacrylate	12.991	12.991	1.062		0m	N.D.	d
101) 1,4-Dioxane	0.000	13.098	0.000		0	N.D.	
102) 2-Nitropropane	13.560	13.525	1.109		0m	N.D.	d
104) Ethyl methacrylate	0.000	14.450	0.000		0	N.D.	
106) 1-Chlorohexane	15.849	15.754	0.861		0m	N.D.	d
107) cis-1,4-Dichloro-2-butene	16.928	16.964	0.919		0m	N.D.	d
108) Cyclohexanone	16.916	17.082	0.919		0m	N.D.	d
109) trans-1,4-Dichloro-2-b...	17.367	17.260	0.943		0m	N.D.	d
110) Pentachloroethane	17.984	17.983	0.977		0m	N.D.	d
111) Benzyl chloride	18.411	18.553	1.000		0m	N.D.	d
112) bis(2-Chloroisopropyl)...	19.051	18.980	1.035		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\030210V3\  
Data File : 3B240.D  
Acq On : 3 Mar 2010 4:23 am  
Operator : CDS1  
InstName : VOA3  
Sample : |1202058832|959900|1|VOA|1|VOA8260BS|  
Misc : LANL 5G - SOIL MS 248012009 MIX[A]  
ALS Vial : 41 Sample Multiplier: 1

Quant Time: Mar 03 08:30:39 2010  
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 01 09:52:36 2010  
Response via : Initial Calibration  
Integrator: RTE



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

SDG Number: 10-2027	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 1202058833	Date Received: 02/25/2010 08:45	%Moisture: 5
Client Sample: QC for batch 959898	Client: LANL010	Project: QC
Client ID: RE36-10-8482PSD	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Batch ID: 959900	Inst: VOA3.I	Dilution: 1
Run Date: 03/03/2010 04:52	Analyst: CDS1	Purge Vol: 5 mL
Prep Date: 03/02/2010 17:08	Aliquot: 5 g	Final Volume: 5 mL
Data File: 030210V3\3B241.D	Column: DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane		48.7	ug/kg	0.358	1.05
74-87-3	Chloromethane		48.2	ug/kg	0.316	1.05
75-01-4	Vinyl chloride		52.7	ug/kg	0.316	1.05
74-83-9	Bromomethane		48.4	ug/kg	0.316	1.05
75-00-3	Chloroethane		50.2	ug/kg	0.316	1.05
75-69-4	Trichlorofluoromethane		46.9	ug/kg	0.316	1.05
67-64-1	Acetone		101	ug/kg	1.75	5.27
75-35-4	1,1-Dichloroethylene		44.7	ug/kg	0.316	1.05
74-88-4	Iodomethane		195	ug/kg	1.68	5.27
75-09-2	Methylene chloride		42.0	ug/kg	2.11	5.27
75-15-0	Carbon disulfide		216	ug/kg	1.32	5.27
156-60-5	trans-1,2-Dichloroethylene		44.8	ug/kg	0.316	1.05
75-34-3	1,1-Dichloroethane		45.3	ug/kg	0.316	1.05
78-93-3	2-Butanone		129	ug/kg	1.58	5.27
156-59-2	cis-1,2-Dichloroethylene		46.1	ug/kg	0.316	1.05
594-20-7	2,2-Dichloropropane		42.3	ug/kg	0.316	1.05
67-66-3	Chloroform		46.5	ug/kg	0.316	1.05
74-97-5	Bromochloromethane		47.2	ug/kg	0.348	1.05
71-55-6	1,1,1-Trichloroethane		45.0	ug/kg	0.316	1.05
563-58-6	1,1-Dichloropropene		45.0	ug/kg	0.316	1.05
56-23-5	Carbon tetrachloride		46.7	ug/kg	0.316	1.05
107-06-2	1,2-Dichloroethane		44.5	ug/kg	0.316	1.05
71-43-2	Benzene		44.9	ug/kg	0.316	1.05
79-01-6	Trichloroethylene		44.3	ug/kg	0.348	1.05
78-87-5	1,2-Dichloropropane		47.7	ug/kg	0.316	1.05
75-27-4	Bromodichloromethane		50.2	ug/kg	0.316	1.05
74-95-3	Dibromomethane		46.7	ug/kg	0.316	1.05
108-10-1	4-Methyl-2-pentanone		211	ug/kg	1.32	5.27
10061-01-5	cis-1,3-Dichloropropylene		43.7	ug/kg	0.316	1.05
108-88-3	Toluene		44.0	ug/kg	0.316	1.05
10061-02-6	trans-1,3-Dichloropropylene		45.1	ug/kg	0.316	1.05
79-00-5	1,1,2-Trichloroethane		47.4	ug/kg	0.316	1.05
591-78-6	2-Hexanone		89.6	ug/kg	1.58	5.27
142-28-9	1,3-Dichloropropane		46.3	ug/kg	0.316	1.05
127-18-4	Tetrachloroethylene		42.6	ug/kg	0.316	1.05
124-48-1	Dibromochloromethane		50.9	ug/kg	0.316	1.05
106-93-4	1,2-Dibromoethane		45.8	ug/kg	0.316	1.05
108-90-7	Chlorobenzene		43.4	ug/kg	0.316	1.05



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

SDG Number: 10-2027	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 1202058833	Date Received: 02/25/2010 08:45	%Moisture: 5
Client Sample: QC for batch 959898	Client: LANL010	Project: QC
Client ID: RE36-10-8482PSD	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Batch ID: 959900	Inst: VOA3.I	Dilution: 1
Run Date: 03/03/2010 04:52	Analyst: CDS1	Purge Vol: 5 mL
Prep Date: 03/02/2010 17:08	Aliquot: 5 g	Final Volume: 5 mL
Data File: 030210V3\3B241.D	Column: DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene		42.6	ug/kg	0.316	1.05
179601-23-1	m,p-Xylenes		85.6	ug/kg	0.316	2.11
95-47-6	o-Xylene		45.8	ug/kg	0.316	1.05
100-42-5	Styrene		41.0	ug/kg	0.316	1.05
75-25-2	Bromoform		44.1	ug/kg	0.316	1.05
79-34-5	1,1,2,2-Tetrachloroethane		46.1	ug/kg	0.316	1.05
96-18-4	1,2,3-Trichloropropane		45.7	ug/kg	0.316	1.05
108-86-1	Bromobenzene		43.5	ug/kg	0.316	1.05
103-65-1	n-Propylbenzene		41.7	ug/kg	0.316	1.05
95-49-8	2-Chlorotoluene		43.4	ug/kg	0.316	1.05
98-82-8	Isopropylbenzene		43.5	ug/kg	0.316	1.05
108-67-8	1,3,5-Trimethylbenzene		43.5	ug/kg	0.316	1.05
106-43-4	4-Chlorotoluene		41.7	ug/kg	0.316	1.05
98-06-6	tert-Butylbenzene		44.8	ug/kg	0.316	1.05
95-63-6	1,2,4-Trimethylbenzene		42.3	ug/kg	0.316	1.05
135-98-8	sec-Butylbenzene		41.0	ug/kg	0.316	1.05
99-87-6	4-Isopropyltoluene		33.7	ug/kg	0.316	1.05
541-73-1	1,3-Dichlorobenzene		39.7	ug/kg	0.316	1.05
106-46-7	1,4-Dichlorobenzene		39.1	ug/kg	0.316	1.05
104-51-8	n-Butylbenzene		38.6	ug/kg	0.316	1.05
96-12-8	1,2-Dibromo-3-chloropropane		39.7	ug/kg	0.316	1.05
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	5.27	ug/kg	1.68	5.27
	Trichlorotrifluoroethane					
630-20-6	1,1,1,2-Tetrachloroethane		48.8	ug/kg	0.316	1.05
95-50-1	1,2-Dichlorobenzene		39.6	ug/kg	0.316	1.05

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030210V3\  
Data File : 3B241.D  
Acq On : 3 Mar 2010 4:52 am  
Operator : CDS1  
InstName : VOA3  
Sample : |1202058833|959900|1|VOA|1|VOA8260BS|  
Misc : LANL 5G - SOIL MSD 248012009 MIX[A]  
ALS Vial : 42 Sample Multiplier: 1

Quant Time: Mar 04 17:36:59 2010  
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 01 09:52:36 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	12.232	12.232	1.000	96	868873	50.00	ug/L	0.00
41) Chlorobenzene-d5	15.849	15.849	1.000	117	675321	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	18.410	18.410	1.000	152	333383	50.00	ug/L	0.00
82) B Fluorobenzene	12.232	12.232	1.000	96	868565	50.00	ug/L	0.00
103) B Chlorobenzene-d5	15.849	15.849	1.000	117	675278	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	18.410	18.410	1.000	152	340923	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	11.793	11.793	0.964	65	263177	49.39	ug/L	0.00
Spiked Amount	50.000	Range 66 - 134	Recovery	=	98.78%			
43) Toluene-d8	14.165	14.165	0.894	98	917976	50.51	ug/L	0.00
Spiked Amount	50.000	Range 71 - 128	Recovery	=	101.02%			
61) Bromofluorobenzene	17.130	17.130	0.930	95	335027	49.84	ug/L	0.00
Spiked Amount	50.000	Range 65 - 130	Recovery	=	99.68%			
Target Compounds								QValue
2) Dichlorodifluoromethane	4.800	4.800	0.392	85	112251	46.21	ug/L	99
3) Chloromethane	5.216	5.216	0.426	50	186927	45.73	ug/L	99
4) Vinyl chloride	5.528	5.528	0.452	62	208623	50.08	ug/L	100
5) Bromomethane	6.291	6.291	0.514	94	154587	45.98	ug/L	99
6) Chloroethane	6.505	6.493	0.532	64	128292	47.67	ug/L	100
7) Trichlorofluoromethane	7.062	7.062	0.577	101	255165	44.52	ug/L	100
8) Ethyl ether	7.501	7.512	0.613	59	134999	45.56	ug/L	100
9) Acetone	7.987	7.987	0.653	43	349607	95.44	ug/L	99
10) 1,1-Dichloroethylene	7.987	7.987	0.653	61	250009	42.44	ug/L	99
11) Iodomethane	8.271	8.271	0.676	142	1378484	185.07	ug/L	100
12) Acetonitrile	8.449	8.449	0.691	41	583842	920.11	ug/L	98
13) Methyl acetate	8.521	8.520	0.697	43	484854	148.32	ug/L	100
14) Carbon disulfide	8.449	8.449	0.691	76	2661907	204.84	ug/L	100
15) Methylene chloride	8.746	8.746	0.715	84	211214	39.90	ug/L	98
16) tert-Butyl methyl ether	9.173	9.173	0.750	73	470760	40.89	ug/L	100
17) trans-1,2-Dichloroethy...	9.208	9.208	0.753	61	232116	42.55	ug/L	98
18) Vinyl acetate	0.000	9.837	0.000		0	N.D.		
19) 1,1-Dichloroethane	9.849	9.860	0.805	63	294682	42.98	ug/L	100
20) 2-Butanone	10.643	10.643	0.870	43	445900	122.23	ug/L	99
21) cis-1,2-Dichloroethylene	10.691	10.691	0.874	61	264334	43.79	ug/L	100
22) 2,2-Dichloropropane	10.714	10.714	0.876	77	170066	40.17	ug/L	98
23) Bromochloromethane	11.035	11.034	0.902	128	99508	44.78	ug/L	98
24) Chloroform	11.094	11.094	0.907	83	308695	44.12	ug/L	99
25) 1,1,1-Trichloroethane	11.426	11.426	0.934	97	242927	42.75	ug/L	99
26) Cyclohexane	11.533	11.532	0.943	56	262841	41.32	ug/L	98
27) 1,1-Dichloropropene	11.627	11.627	0.951	75	206109	42.69	ug/L	99
28) Carbon tetrachloride	11.663	11.663	0.953	117	220458	44.36	ug/L	100
30) 1,2-Dichloroethane	11.888	11.888	0.972	62	231456	42.29	ug/L	99
31) Benzene	11.912	11.912	0.974	78	652716	42.61	ug/L	100
32) Cyclohexene	12.054	12.054	0.985	67	287289	40.97	ug/L	99
33) n-Butyl alcohol	12.398	12.398	1.014	56	518273	3235.99	ug/L	98
34) Trichloroethylene	12.695	12.695	1.038	95	166230	42.03	ug/L	99
35) 1,2-Dichloropropane	12.979	12.979	1.061	63	169529	45.32	ug/L	100
36) Methylcyclohexane	12.991	12.991	1.062	83	262990	40.16	ug/L	99
37) Dibromomethane	13.133	13.133	1.074	93	111350	44.35	ug/L	99

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030210V3\  
Data File : 3B241.D  
Acq On : 3 Mar 2010 4:52 am  
Operator : CDS1  
InstName : VOA3  
Sample : |1202058833|959900|1|VOA|1|VOA8260BS|  
Misc : LANL 5G - SOIL MSD 248012009 MIX[A]  
ALS Vial : 42 Sample Multiplier: 1

Quant Time: Mar 04 17:36:59 2010  
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 01 09:52:36 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
38) Bromodichloromethane	13.288	13.288	1.086	83	227583	47.64	ug/L	99
39) 2-Chloroethylvinyl ether	13.560	13.560	1.109	63	302712	248.64	ug/L	98
40) cis-1,3-Dichloropropylene	13.809	13.809	1.129	75	225360	41.52	ug/L	99
42) 4-Methyl-2-pentanone	13.928	13.928	0.879	58	326833	200.31	ug/L	100
44) Toluene	14.248	14.248	0.899	91	675952	41.81	ug/L	99
45) trans-1,3-Dichloroprop...	14.426	14.426	0.910	75	210348	42.80	ug/L	98
46) 1,1,2-Trichloroethane	14.675	14.675	0.926	83	125850	45.05	ug/L	99
47) 2-Hexanone	14.889	14.888	0.939	43	354565	85.12	ug/L	98
48) 1,3-Dichloropropane	14.877	14.888	0.939	76	255081	43.97	ug/L #	72
49) Tetrachloroethylene	14.912	14.912	0.941	164	127292	40.41	ug/L	98
50) Dibromochloromethane	15.173	15.173	0.957	129	178517	48.31	ug/L	100
51) 1,2-Dibromoethane	15.351	15.351	0.969	107	156084	43.45	ug/L	99
52) Chlorobenzene	15.885	15.885	1.002	112	437101	41.18	ug/L	100
53) 1,1,1,2-Tetrachloroethane	15.956	15.956	1.007	131	169054	46.33	ug/L	99
54) Ethylbenzene	15.968	15.968	1.007	91	676289	40.48	ug/L	100
55) m,p-Xylenes	16.086	16.086	1.015	106	539699	81.29	ug/L	99
56) o-Xylene	16.549	16.549	1.044	106	288593	43.51	ug/L	98
57) Styrene	16.549	16.549	1.044	104	411898	38.89	ug/L	99
59) Bromoform	16.810	16.821	0.913	173	106965	41.92	ug/L	98
60) Isopropylbenzene	16.928	16.928	0.919	105	681837	41.27	ug/L	99
62) 1,1,2,2-Tetrachloroethane	17.213	17.213	0.935	83	195654	43.80	ug/L	99
63) 1,2,3-Trichloropropane	17.296	17.308	0.939	110	53268	43.38	ug/L	98
64) Bromobenzene	17.343	17.343	0.942	156	183286	41.33	ug/L	99
65) n-Propylbenzene	17.367	17.367	0.943	91	756397	39.60	ug/L	98
66) 1,3,5-Trimethylbenzene	17.533	17.533	0.952	105	572782	41.32	ug/L	99
67) 2-Chlorotoluene	17.521	17.521	0.952	126	169533	41.17	ug/L	97
68) 4-Chlorotoluene	17.628	17.628	0.957	91	469507	39.62	ug/L	100
69) tert-Butylbenzene	17.912	17.912	0.973	134	126165	42.55	ug/L	99
70) 1,2,4-Trimethylbenzene	17.960	17.960	0.976	105	564757	40.18	ug/L	99
71) sec-Butylbenzene	18.150	18.150	0.986	105	722375	38.91	ug/L	99
72) 4-Isopropyltoluene	18.280	18.280	0.993	119	471477	31.99	ug/L	100
73) 1,3-Dichlorobenzene	18.339	18.351	0.996	146	285369	37.66	ug/L	100
74) 1,4-Dichlorobenzene	18.434	18.434	1.001	146	322710	37.16	ug/L	99
75) n-Butylbenzene	18.743	18.742	1.018	91	513941	36.67	ug/L	100
76) 1,2-Dichlorobenzene	18.885	18.885	1.026	146	323858	37.57	ug/L	99
77) 1,2-Dibromo-3-chloropr...	19.810	19.810	1.076	157	40031	37.68	ug/L	99
78) 1,2,4-Trichlorobenzene	20.936	20.936	1.137	180	169676	29.27	ug/L	99
79) Hexachlorobutadiene	21.126	21.126	1.148	225	84570	29.13	ug/L	98
80) Naphthalene	21.351	21.351	1.160	128	463598	31.10	ug/L	100
81) 1,2,3-Trichlorobenzene	21.719	21.719	1.180	180	161167	28.47	ug/L	100
83) Chlorotrifluoroethylene	0.000	4.711	0.000		0	N.D.		
84) 2-Chloro-1,1,1-trifluo...	0.000	5.751	0.000		0	N.D.		
85) Acrolein	0.000	7.750	0.000		0	N.D.		
86) Trichlorotrifluoroethane	0.000	7.975	0.000		0	N.D.		
87) Isopropyl Alcohol	8.153	8.141	0.667		0m	N.D.	d	
88) Allyl chloride	8.449	8.556	0.691		0m	N.D.	d	
89) tert-Butyl Alcohol	0.000	8.793	0.000		0	N.D.		
90) Acrylonitrile	9.173	9.090	0.750		0m	N.D.	d	
91) Isopropyl ether	0.000	9.884	0.000		0	N.D.		
92) 2-Chloro-1,3-butadiene	0.000	10.003	0.000		0	N.D.		
93) Ethyl tert-butyl ether	0.000	10.406	0.000		0	N.D.		
94) Ethyl acetate	10.643	10.679	0.870		0m	N.D.	d	

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030210V3\  
Data File : 3B241.D  
Acq On : 3 Mar 2010 4:52 am  
Operator : CDS1  
InstName : VOA3  
Sample : |1202058833|959900|1|VOA|1|VOA8260BS|  
Misc : LANL 5G - SOIL MSD 248012009 MIX[A]  
ALS Vial : 42 Sample Multiplier: 1

Quant Time: Mar 04 17:36:59 2010  
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 01 09:52:36 2010  
Response via : Initial Calibration  
Integrator: RTE

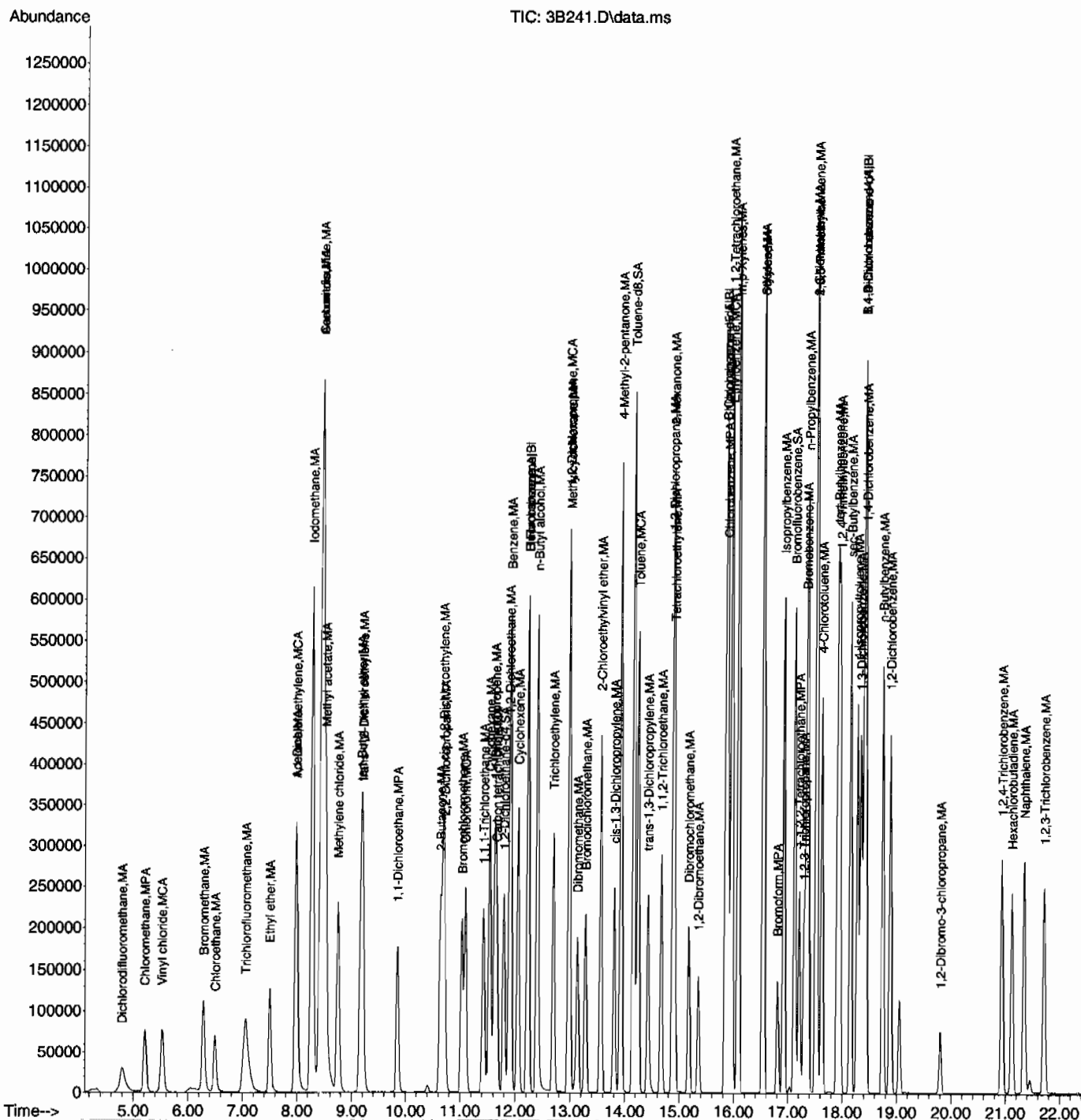
Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95) Propionitrile	10.643	10.726	0.870		0m	N.D.	d
96) Methacrylonitrile	0.000	10.951	0.000		0	N.D.	
97) Tetrahydrofuran	11.106	11.094	0.908		0m	N.D.	d
98) Isobutyl alcohol	11.533	11.556	0.943		0m	N.D.	d
99) Methyl tert-amyl ether	11.912	11.971	0.974		0m	N.D.	d
100) Methyl methacrylate	12.991	12.991	1.062		0m	N.D.	d
101) 1,4-Dioxane	0.000	13.098	0.000		0	N.D.	
102) 2-Nitropropane	13.560	13.525	1.109		0m	N.D.	d
104) Ethyl methacrylate	0.000	14.450	0.000		0	N.D.	
106) 1-Chlorohexane	15.849	15.754	0.861		0m	N.D.	d
107) cis-1,4-Dichloro-2-butene	16.928	16.964	0.919		0m	N.D.	d
108) Cyclohexanone	16.916	17.082	0.919		0m	N.D.	d
109) trans-1,4-Dichloro-2-b...	17.367	17.260	0.943		0m	N.D.	d
110) Pentachloroethane	0.000	17.983	0.000		0	N.D.	
111) Benzyl chloride	18.410	18.553	1.000		0m	N.D.	d
112) bis(2-Chloroisopropyl)...	19.051	18.980	1.035		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\030210V3\  
Data File : 3B241.D  
Acq On : 3 Mar 2010 4:52 am  
Operator : CDS1  
InstName : VOA3  
Sample : |1202058833|959900|1|VOA|1|VOA8260BS|  
Misc : LANL 5G - SOIL MSD 248012009 MIX[A]  
ALS Vial : 42 Sample Multiplier: 1

Quant Time: Mar 04 17:36:59 2010  
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 01 09:52:36 2010  
Response via : Initial Calibration  
Integrator: RTE



# Miscellaneous

# Prep Logbook

## Volatile Organic Compounds (VOC) by Gas Chromatograph/Mass Spectrometer

**Batch ID:** 959898  
**Analyst:** Crystal Stacey  
**Method:** SW846 5030  
**Lab SOP:** GL-OA-E-038 REV# 14  
**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
1202058831 MB	02-MAR-2010 06:00:00	Misc Solid	5	5	1							
1202058834 LCS	02-MAR-2010 06:00:00	Misc Solid	5	5	1							
1202058835 LCS	02-MAR-2010 06:00:00	Misc Solid	5	5	1							
248059001	02-MAR-2010 12:00:00	Soil	5	5	1							
248059002	02-MAR-2010 12:01:00	Soil	5	5	1							
248059003	02-MAR-2010 12:02:00	Soil	5	5	1							
248059004	02-MAR-2010 12:03:00	Soil	5	5	1							
248059005	02-MAR-2010 12:04:00	Soil	5	5	1							
248059006	02-MAR-2010 12:05:00	Soil	5	5	1							
248059007	02-MAR-2010 12:06:00	Soil	5	5	1							
248059008	02-MAR-2010 12:07:00	Soil	5	5	1							
248059009	02-MAR-2010 12:08:00	Soil	5	5	1							
1202070215 MB	02-MAR-2010 15:00:00	Misc Solid	5	5	1							
1202070216 LCS	02-MAR-2010 15:00:00	Misc Solid	5	5	1							
1202070217 LCS	02-MAR-2010 15:00:00	Misc Solid	5	5	1							
248012001	02-MAR-2010 17:00:00	Misc Solid	5	5	1							
248012002	02-MAR-2010 17:01:00	Soil	5	5	1							
248012003	02-MAR-2010 17:02:00	Soil	5	5	1							
248012004	02-MAR-2010 17:03:00	Soil	5	5	1							
248012005	02-MAR-2010 17:04:00	Soil	5	5	1							
248012007	02-MAR-2010 17:05:00	Soil	5	5	1							
248012009	02-MAR-2010 17:06:00	Soil	5	5	1							
1202058832 PS (248012009)	02-MAR-2010 17:07:00	Soil	5	5	1							
1202058833 PSD (248012009)	02-MAR-2010 17:08:00	Soil	5	5	1							
1202070218 MB	04-MAR-2010 06:00:00	Misc Solid	5	5	1							
1202070219 LCS	04-MAR-2010 06:00:00	Misc Solid	5	5	1							

Analytical Logbook version 1 11-04-2002

GEL Laboratories LLC

Prep Logbook

Batch ID: 959898

Analyst: Crystal Stacey

Method: SW846 5030

Lab SOP: GL-OA-E-038 REV# 14

Instrument: Sartorius Balance B-001

Verified by: \_\_\_\_\_

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
------	-----------	-------------	---------------	--------------	-------------

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
1202070220 LCS	04-MAR-2010 06:00:00	Misc Solid	5	5	1	
248012006	04-MAR-2010 07:02:00	Soil	5	5	1	
248012008	04-MAR-2010 07:03:00	Soil	5	5	1	
Reagent/Solvent Lot ID	Description	Amount	Comments:			



Date: 2/26/2010 Method 8260/624 Operator: CDS1  
REVIEWED BY: \_\_\_\_\_  
DATE: \_\_\_\_\_  
Daily Instrument Readings: \_\_\_\_\_  
Multiplier Voltage: 1435

## CALIBRATION &amp; CC INFORMATION:

Initial Calibration Date: \_\_\_\_\_  
NaHSO4 lot #: N/A  
CI test lot #: N/A  
Sequence Number: 022610V3

Daily Standard: \_\_\_\_\_  
Solution ID# \_\_\_\_\_  
Volume Added for Purge (ul) \_\_\_\_\_  
MS/ Bk/ LCS BFB

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		Wt.(g) or		Dil.		AS		Matrix		Analyst		CI test		Accepta		Comments	
Date	Time	Data File	Lab Sample ID	Client	Batch #	Factor	pH	Slot #	w or s			(Y/N)	blef(O/X)				
2/26/2010	9:25	3A501.D	UVM100203-02	-----	BFB	5ml	1	N/A	1	W	CDS1	N/A	O			clean-up blank	
2/26/2010	9:54	3A502.D	1202---	-----	BLANK	5ml	1	N/A	2	W	CDS1	N/A	X			UVM100106-02D+UVM100202-02D	
2/26/2010	10:23	3A503.D	W3VM100226-01	VSTD001	ICAL	5uL ea.	1	N/A	3	W	CDS1	N/A	O			UVM100106-03D+UVM100202-03D	
2/26/2010	10:53	3A504.D	W3VM100226-02	VSTD002	ICAL	5uL ea.	1	N/A	4	W	CDS1	N/A	O			UVM100106-04D+UVM100202-04D	
2/26/2010	11:23	3A505.D	W3VM100226-03	VSTD005	ICAL	5uL ea.	1	N/A	5	W	CDS1	N/A	O			UVM100106-05D+UVM100202-05D	
2/26/2010	11:52	3A506.D	W3VM100226-04	VSTD010	ICAL	5uL ea.	1	N/A	6	W	CDS1	N/A	O			UVM100106-06D+UVM100202-06D	
2/26/2010	12:22	3A507.D	W3VM100226-05	VSTD020	ICAL	5uL ea.	1	N/A	7	W	CDS1	N/A	O			UVM100106-07D+UVM100202-07D gases	
2/26/2010	12:52	3A508.D	W3VM100226-06	VSTD050	ICAL	5uL ea.	1	N/A	8	W	CDS1	N/A	X			low	
2/26/2010	13:21	3A509.D	W3VM100226-07	VSTD100	ICAL	5uL ea.	1	N/A	9	W	CDS1	N/A	O			UVM100106-08D+UVM100202-08D	
2/26/2010	13:50	3A510.D	1202---	GEL	BLANK	5ml	1	N/A	10	W	CDS1	N/A	X			clean-up blank	
2/26/2010	14:20	3A511.D	W3VM100226-08	VSTD0005	ICAL	5uL ea.	1	N/A	11	W	CDS1	N/A	O			UVM100106-01D+UVM100202-01D	
2/26/2010	14:49	3A512.D	W3VM100226-09	-----	ICV	5uL ea.	1	N/A	12	W	CDS1	N/A	X			high	
2/26/2010	15:19	3A513.D	W3VM100226-10	-----	ICV	5uL ea.	1	N/A	13	W	CDS1	N/A	O			UVM100220-01B+UVM100224-01	
2/26/2010	15:48	3A514.D	1202---	-----	BLANK	5ml	1	N/A	14	W	CDS1	N/A	X				
2/26/2010	16:17	3A515.D	W3VM100226-11	VSTD0005	ICAL	5uL ea.	1	N/A	15	W	CDS1	N/A	O			UVM100125-01E+UVM100215-01	
2/26/2010	16:46	3A516.D	W3VM100226-12	VSTD010S	ICAL	5uL ea.	1	N/A	16	W	CDS1	N/A	O			UVM100125-02E+UVM100215-02	
2/26/2010	17:15	3A517.D	W3VM100226-13	VSTD025S	ICAL	5uL ea.	1	N/A	17	W	CDS1	N/A	O			UVM100125-03E+UVM100215-03	
2/26/2010	17:45	3A518.D	W3VM100226-14	VSTD050S	ICAL	5uL ea.	1	N/A	18	W	CDS1	N/A	O			UVM100125-04E+UVM100215-04	
2/26/2010	18:14	3A519.D	W3VM100226-15	VSTD100S	ICAL	5uL ea.	1	N/A	19	W	CDS1	N/A	O			UVM100125-05E+UVM100215-05	
2/26/2010	18:43	3A520.D	W3VM100226-16	VSTD250S	ICAL	5uL ea.	1	N/A	20	W	CDS1	N/A	O			UVM100125-06E+UVM100215-06	
2/26/2010	19:14	3A521.D	W3VM100226-17	VSTD500S	ICAL	5uL ea.	1	N/A	21	W	CDS1	N/A	O			UVM100125-07E+UVM100215-07	
2/26/2010	19:43	3A522.D	1202---	-----	BLANK	5ml	1	N/A	22	W	CDS1	N/A	X			clean-up blank	
2/26/2010	20:12	3A523.D	W3VM100226-18	-----	ICV	5uL ea.	1	N/A	23	W	CDS1	N/A	O			UVM100215-08A+UVM100125-08D	

Date: 3/2/2010 Method 8260/624 Operator: CDS1  
REVIEWED BY: \_\_\_\_\_  
DATE: \_\_\_\_\_  
Daily Instrument Readings: \_\_\_\_\_  
Multiplier Voltage: 1435

## HARDWARE CONFIGURATION &amp; METHOD CONDITIONS SUMMARY No# 1

## CALIBRATION &amp; CC INFORMATION:

Initial Calibration Date 2/26/2010  
(See pg. 26 for ICAL Std. Sci. Ids)  
Solution ID# CCV W3VM100302-06  
IS UVM100217-01 1 1 1  
SS UVM100217-02 1 1 1  
LCS/MS W3VM100302-07/08 5+5  
BFB UVM100217-02 1  
SHORT W3VM100302-09 5  
Short LCS W3VM100302-10 5  
Sequence Number: 030210V3pm  
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		Wt.(g) or Dil.		AS		Matrix Analyst		CI test		Accepta		Comments
Date	Time	Data File	Lab Sample ID	Client	Batch #	Vol.(ml/ul)	Factor pH	Slot #	w or s	(Y/N)	ble(O/X)	
2 Mar 2010	20:36	3B224.D	UVM100217-02	-----	BFB2	5ml	1	N/A	25	N/A	O	
2 Mar 2010	21:02	3B225.D	W3VM100302-06	-----	CCV	5ml	1	N/A	26	N/A	O	UVM100222-07A+UVM100106-07D
2 Mar 2010	21:32	3B226.D	W3VM100302-07	-----	LCS	5ml	1	N/A	27	N/A	O	UVM100220-01C+UVM100301-01
2 Mar 2010	22:02	3B227.D	W3VM100302-08	-----	LCS	5G	1	N/A	28	N/A	O	UVM100220-01C+UVM100301-01
2 Mar 2010	22:31	3B228.D	W3VM100302-09	-----	CCV	5ml	1	N/A	29	N/A	O	UVM100215-06
2 Mar 2010	23:00	3B229.D	W3VM100302-10	-----	LCS	5G	1	N/A	30	N/A	O	UVM10215-08A
2 Mar 2010	23:29	3B230.D	1220205-----	-----	BLANK	5ML	1	N/A	31	N/A	O	
2 Mar 2010	23:59	3B231.D	1220205-----	-----	BLANK	5G	1	N/A	32	N/A	O	
3 Mar 2010	00:28	3B232.D	247467004	LANL	959179	5G	1	N/A	33	N/A	O	
3 Mar 2010	00:57	3B233.D	248012001	LANL	959900	5G	1	N/A	34	N/A	O	
3 Mar 2010	01:27	3B234.D	248012002	LANL	959900	5G	1	N/A	35	N/A	O	
3 Mar 2010	01:56	3B235.D	248012003	LANL	959900	5G	1	N/A	36	N/A	O	
3 Mar 2010	02:26	3B236.D	248012004	LANL	959900	5G	1	N/A	37	N/A	O	
3 Mar 2010	02:55	3B237.D	248012005	LANL	959900	5G	1	N/A	38	N/A	O	
3 Mar 2010	03:24	3B238.D	248012007	LANL	959900	5G	1	N/A	39	N/A	O	
3 Mar 2010	03:54	3B239.D	248012009	LANL	959900	5G	1	N/A	40	N/A	O	
3 Mar 2010	04:23	3B240.D	1202058832	LANL	959900	5G	1	N/A	41	N/A	O	MS 248012009 MIX[A]
3 Mar 2010	04:52	3B241.D	1202058833	LANL	959900	5G	1	N/A	42	N/A	O	MSD 248012009 MIX[A]

Date: 3/4/2010 Method 8260/624 Operator: CDS1  
REVIEWED BY: \_\_\_\_\_  
DATE: \_\_\_\_\_  
Daily Instrument Readings: \_\_\_\_\_  
Multiplier Voltage: 1435

## CALIBRATION &amp; CC INFORMATION:

Initial Calibration Date 2/26/2010  
(See pg. 26 for ICAL Std. Sci. Ids)  
Solution ID# Volume Added for Purge (ul) MS/  
CCV W3VM100304-01 1 1 1  
IS UVM100217-01 1 1 1  
SS UVM100217-02 1 1 1  
LCS/MS W3VM100304-02/03/04 5+5  
BFB UVM100217-02 1  
SHORT W3VM100304-05  
Sequence Number: 030410V3 Short LCS W3VM100304-06 5

Purge Amount

5 Water Purge Vol:  
5 Soil Purge Wt.  
varied Mid level ext. MeOH Vol:  
100 ul  
DA057 Methanol Lot #  
x Heated Purge

Analysis		Wt.(g) or Dil.		AS		Matrix Analyst		CI test		Accepta		Comments
Date	Time	Data File	Lab Sample ID	Client	Batch #	Vol(ml/ul)	Factor pH	Slot #	w or s	(Y/N)	ble(O/X)	
4 Mar 2010	07:57	3B401.D	UVM100217-02	-----	BFB	5ml	1	N/A	1	N/A	O	
4 Mar 2010	08:23	3B402.D	W3VM100304-01	-----	CCV	5ml	1	N/A	2	N/A	O	UVM100222-07A+UVM100106-07D
4 Mar 2010	08:53	3B403.D	W3VM100304-02	-----	LCS	5ml	1	N/A	3	N/A	O	UVM100220-01C+IVM100301-01
4 Mar 2010	09:22	3B404.D	W3VM100304-03	-----	LCS	5G	1	N/A	4	N/A	O	UVM100220-01C+IVM100301-01
4 Mar 2010	09:51	3B405.D	W3VM100304-04	-----	LCSD	5G	1	N/A	5	N/A	O	UVM100220-01C+IVM100301-01
4 Mar 2010	10:20	3B406.D	W3VM100304-05	-----	CCV	5ML	1	N/A	6	N/A	O	UVM100215-06
4 Mar 2010	11:15	3B407.D	W3VM100304-06	-----	LCS	5G	1	N/A	7	N/A	O	UVM10215-08A
4 Mar 2010	11:44	3B408.D	120206-----	-----	BLANK	5ML	1	N/A	8	N/A	O	
4 Mar 2010	12:13	3B409.D	120206-----	-----	BLANK	5G	1	N/A	9	N/A	O	
4 Mar 2010	12:43	3B410.D	248012006	LANL	959900	5G	1	N/A	10	N/A	O	
4 Mar 2010	13:12	3B411.D	248012008	LANL	959900	5G	1	N/A	11	N/A	O	
4 Mar 2010	13:41	3B412.D	1202060135	CARE	960430	100UL	50	N/A	12	N/A	O	HB
4 Mar 2010	14:11	3B413.D	247827001	CARE	960430	100UL	50	N/A	13	N/A	O	5.2g/9ml
4 Mar 2010	14:40	3B414.D	247827002	CARE	960430	100UL	50	N/A	14	N/A	O	5.0g/9ml
4 Mar 2010	15:09	3B415.D	248211002	ESES	960478	7.2G	1	N/A	15	N/A	O	
4 Mar 2010	15:38	3B416.D	247799006	LANL	960166	5G	1	N/A	16	N/A	O	
4 Mar 2010	16:07	3B417.D	248052015	LANL	960519	5G	1	N/A	17	N/A	X	IS Low-conf. of 3B345
4 Mar 2010	16:37	3B418.D	247811001	LANL	960615	5G	1	N/A	17	N/A	O	
4 Mar 2010	17:07	3B419.D	247811002	LANL	960615	100UL	50	N/A	19	N/A	O	5G/10ML see 3B510
4 Mar 2010	17:36	3B420.D	1202062138	LANL	960615	100UL	50	N/A	20	N/A	X	HB rep c/o
4 Mar 2010	18:05	3B421.D	1202060132	CARE	960430	100UL	50	N/A	21	N/A	X	MS 247827001 not spiked
4 Mar 2010	18:34	3B422.D	1202060133	CARE	960430	100UL	50	N/A	22	N/A	X	MS 247827001 not spiked
4 Mar 2010	19:03	3B423.D	1202060284	LANL	960519	5G	1	N/A	23	N/A	O	MS 248052020
4 Mar 2010	19:32	3B424.D	1202060285	LANL	960519	5G	1	N/A	24	N/A	O	MSD 248052020

# **GC/MS Semivolatile Analysis**

**Semi-Volatile Case Narrative  
Los Alamos National Laboratory (LANL)  
SDG 10-2027**

**Method/Analysis Information**

<b>Procedure:</b>	<b>Analysis of Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry</b>
Analytical Method:	SW846 8270C
Prep Method:	SW846 3550B
Analytical Batch Number:	959457
Prep Batch Number:	959456

**Sample Analysis**

The following samples were analyzed using the analytical protocol as established in SW846 8270C:

<b>Sample ID</b>	<b>Client ID</b>
248012002	RE36-10-8490
248012003	RE36-10-8470
248012004	RE36-10-8476
248012005	RE36-10-8480
248012006	RE36-10-8474
248012007	RE36-10-8478
248012008	RE36-10-8483
248012009	RE36-10-8482
1202057823	Method Blank (MB)
1202057824	Laboratory Control Sample (LCS)
1202057825	248013001(RE46-10-13332) Matrix Spike (MS)
1202057826	248013001(RE46-10-13332) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on a "dry weight" basis.

**Preparation/Analytical Method Verification**

**SOP Reference**

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-009 REV# 23.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 18.2.

**Calibration Information**

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the Target processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the Target software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

Due to software limitations, the Calibration Summary Form 6 may not indicate all the calibration files comprising the initial calibration. A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package. Please note that the second level of the initial calibration (5 mg/L) is only used for n-Nitrosodipropylamine. The various calibration mixes may not be calibrated using all of the calibration levels. In addition, not all of the mixes are calibrated using the same levels.

Diphenylamine has now superseded N-Nitroso-diphenylamine as a CCC on Quantitation Reports, Initial Calibration Reports, Calibration Check Standard Reports, etc. Previous versions of EPA Method 8270 (prior to 8270C) listed N-Nitroso-diphenylamine as a CCC. However, as stated in EPA Method 8270C, Revision 3, December, 1996, Section 1.4.5, "N-Nitroso-diphenylamine decomposes in the gas chromatographic inlet and cannot be separated from Diphenylamine." Studies of these two compounds at GEL, both independent of each other and together, show that they not only co-elute, but also have similar mass spectra. N-Nitroso-diphenylamine and Diphenylamine will be reported as Diphenylamine on all reports and forms. 2,4-Toluene diisocyanate rapidly hydrolyzes in water (half-life less than 30 minutes). Therefore, recoveries of this compound from aqueous matrices should not be expected. In addition, in solid matrices, 2,4-Toluene diisocyanate often reacts with alcohols and amines to produce urethane and ureas and consequently cannot usually coexist in a solution containing these materials. 2,4-Toluene diisocyanate is reported as an estimated value.

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

#### **Initial Calibration**

All initial calibration requirements have been met for this sample delivery group (SDG). A second source initial calibration verification (ICV) was included in the standard section directly behind the initial calibration.

#### **CCV Requirements**

All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

#### **Quality Control (QC) Information**

##### **Method Blank (MB) Statement**

The MB analyzed with this SDG met the acceptance criteria.

##### **Surrogate Recoveries**

All the surrogate recoveries were within the established acceptance criteria for this SDG.

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

The LCS spike recoveries met the acceptance limits.

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

Sample 248013001 (RE46-10-13332) not associated with this SDG, was selected for analysis as the matrix spike and matrix spike duplicate. Please see the associated raw data files located in the Miscellaneous Section of the data report.

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

The MS and MSD recovered Benzyl alcohol at 17% and 16%, respectively (limits: 19%-112%). As the MS and MSD displayed similar recoveries, the failures were attributed to sample matrix interference and the data have been reported.

**Matrix Spike Duplicate (MSD) Recovery Statement**

The MS and MSD recovered Benzyl alcohol at 17% and 16%, respectively (limits: 19%-112%). As the MS and MSD displayed similar recoveries, the failures were attributed to sample matrix interference and the data have been reported.

**MS/MSD Relative Percent Difference (RPD) Statement**

The MS/MSD RPD for 4-Nitrophenol was 38% (limit: 30%). Since 4-Nitrophenol was individually within the acceptance limits for the MS and MSD, the data results have been reported un-qualified for the RPD value failure.

**Internal Standard (ISTD) Acceptance**

The internal standard responses were within the required acceptance criteria for all samples and QC.

**Technical Information****Holding Time Specifications**

All samples in this SDG met the specified holding time. GEL assigns holding times based on the associated methodology that assigns the date and time from sample collection or sample receipt. Those holding times expressed in hours are calculated in the ALPHALIMS system. Those holding times expressed as days expire at midnight on the day of expiration.

**Preparation/Analytical Method Verification**

All procedures were performed as stated in the SOP.

**Sample Dilutions**

The samples in this SDG did not require dilutions.

**Sample Re-extraction/Re-analysis**

Re-extractions or re-analyses were not required in this SDG except for confirmations and/or dilutions.

**Miscellaneous Information****Data Exception (DER) Documentation**

A DER was not required for the samples in this SDG.

**Manual Integrations**

Some initial calibration standards, continuing calibration standards, and/or samples may require manual integrations due to software limitations. Please see the raw data in the Miscellaneous Section.

**Additional Comments**

Additional comments were not required for this SDG.

**Electronic Package Comment**

The following package was generated using an electronic data processing program referred to as "virtual packaging". In an effort to increase quality and efficiency, the laboratory is developing systems to eventually generate all data packages electronically. The following change from "traditional" packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative of each electronic package will indicate the analyst, reviewer, and report specialist names associated with the generation of the data and package. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

**System Configuration**

The samples reported in this SDG were analyzed on one or more of the following instrument systems. Instrument systems are referenced in the raw data and individual form headers by the Instrument ID designations listed below:

<b>Instrument ID</b>	<b>Instrument</b>	<b>System Configuration</b>	<b>Column ID</b>	<b>Column Description</b>
MSD8.I	HP Mass Spectrometer	HP6890/HP5973	DB-5MS	25m x 0.2mm, 0.33um (5% Phenylmethylpolysiloxane)


**Certification Statement**

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.



**Review Validation:**

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

Reviewer:  Date: 3-23-10

## Roadmap for LANL 10-2027 SVOA

This roadmap was analyzed by nat00999 on 03-09-2010, 14:19.

This roadmap was reviewed by bar00895 on 03-10-2010, 10:59.

This roadmap was packaged by CHA01131 on 03-19-2010, 19:26.

Sample

exclude	manual	datafile	smpid	injdate	injtime	sublist	clientid	dilution	batchid	comment
<input type="checkbox"/>	N	/chem/MSD8.i/s030610.b/s8c0610.d	248012002	06-MAR-2010	12:02	10-2027.sub	RE36-10-8490	1	959457	<input type="checkbox"/>
<input type="checkbox"/>	N	/chem/MSD8.i/s030610.b/s8c0611.d	248012003	06-MAR-2010	12:31	10-2027.sub	RE36-10-8470	1	959457	<input type="checkbox"/>
<input type="checkbox"/>	N	/chem/MSD8.i/s030610.b/s8c0612.d	248012004	06-MAR-2010	13:00	10-2027.sub	RE36-10-8476	1	959457	<input type="checkbox"/>
<input type="checkbox"/>	N	/chem/MSD8.i/s030610.b/s8c0613.d	248012005	06-MAR-2010	13:30	10-2027.sub	RE36-10-8480	1	959457	<input type="checkbox"/>
<input type="checkbox"/>	N	/chem/MSD8.i/s030610.b/s8c0614.d	248012006	06-MAR-2010	13:58	10-2027.sub	RE36-10-8474	1	959457	<input type="checkbox"/>
<input type="checkbox"/>	N	/chem/MSD8.i/s030610.b/s8c0615.d	248012007	06-MAR-2010	14:28	10-2027.sub	RE36-10-8478	1	959457	<input type="checkbox"/>
<input type="checkbox"/>	N	/chem/MSD8.i/s030610.b/s8c0616.d	248012008	06-MAR-2010	14:57	10-2027.sub	RE36-10-8483	1	959457	<input type="checkbox"/>
<input type="checkbox"/>	N	/chem/MSD8.i/s030610.b/s8c0620.d	248012009	06-MAR-2010	16:56	10-2027.sub	RE36-10-8482	1	959457	<input type="checkbox"/>

QC Sample

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	batchid	comment
<input type="checkbox"/>	N	/chem/MSD8.i/s030610.b/s8c0606-2.d	1202057823	mb	06-MAR-2010	10:05	10-2027.sub	SBLK01	1	959457	<input type="checkbox"/>
<input type="checkbox"/>	N	/chem/MSD8.i/s030610.b/s8c0607-2.d	1202057824	lcs	06-MAR-2010	10:34	10-2027.sub	SBLK01LCS	1	959457	<input type="checkbox"/>

# **Sample Data Summary**

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

SDG Number: 10-2027  
Lab Sample ID: 248012003

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD8.I  
Analyst: NAG1  
Aliquot: 30.01 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 6.2  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

Client ID: RE36-10-8470  
Batch ID: 959457  
Run Date: 03/06/2010 12:31  
Prep Date: 03/01/2010 23:22  
Data File: s8c0611.d

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	355	ug/kg	71.0	355
108-95-2	Phenol	U	355	ug/kg	71.0	355
95-57-8	2-Chlorophenol	U	355	ug/kg	71.0	355
106-46-7	1,4-Dichlorobenzene	U	355	ug/kg	71.0	355
621-64-7	N-Nitrosodipropylamine	U	355	ug/kg	71.0	355
59-50-7	4-Chloro-3-methylphenol	U	355	ug/kg	71.0	355
83-32-9	Acenaphthene	U	35.5	ug/kg	11.7	35.5
121-14-2	2,4-Dinitrotoluene	U	355	ug/kg	35.5	355
100-02-7	4-Nitrophenol	U	355	ug/kg	117	355
87-86-5	Pentachlorophenol	U	355	ug/kg	88.8	355
129-00-0	Pyrene	J	12.3	ug/kg	10.7	35.5
110-86-1	Pyridine	U	355	ug/kg	71.0	355
62-53-3	Aniline	U	355	ug/kg	107	355
111-44-4	bis(2-Chloroethyl) ether	U	355	ug/kg	71.0	355
541-73-1	1,3-Dichlorobenzene	U	355	ug/kg	71.0	355
100-51-6	Benzyl alcohol	U	355	ug/kg	107	355
95-50-1	1,2-Dichlorobenzene	U	355	ug/kg	71.0	355
108-60-1	bis(2-Chloroisopropyl)ether	U	355	ug/kg	71.0	355
95-48-7	o-Cresol	U	355	ug/kg	71.0	355
65794-96-9	m,p-Cresols	U	355	ug/kg	107	355
67-72-1	Hexachloroethane	U	355	ug/kg	71.0	355
98-95-3	Nitrobenzene	U	355	ug/kg	71.0	355
78-59-1	Isophorone	U	355	ug/kg	71.0	355
88-75-5	2-Nitrophenol	U	355	ug/kg	71.0	355
105-67-9	2,4-Dimethylphenol	U	355	ug/kg	124	355
111-91-1	bis(2-Chloroethoxy)methane	U	355	ug/kg	71.0	355
120-83-2	2,4-Dichlorophenol	U	355	ug/kg	71.0	355
65-85-0	Benzoic acid	U	710	ug/kg	178	710
91-20-3	Naphthalene	U	35.5	ug/kg	10.7	35.5
106-47-8	4-Chloroaniline	U	355	ug/kg	71.0	355
87-68-3	Hexachlorobutadiene	U	355	ug/kg	71.0	355
91-57-6	2-Methylnaphthalene	U	35.5	ug/kg	7.10	35.5
77-47-4	Hexachlorocyclopentadiene	U	355	ug/kg	71.0	355
88-06-2	2,4,6-Trichlorophenol	U	355	ug/kg	71.0	355
95-95-4	2,4,5-Trichlorophenol	U	355	ug/kg	71.0	355
91-58-7	2-Chloronaphthalene	U	35.5	ug/kg	11.7	35.5
88-74-4	2-Nitroaniline	U	355	ug/kg	71.0	355
	<i>o</i> -Nitroaniline					
99-09-2	3-Nitroaniline	U	355	ug/kg	71.0	355

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

SDG Number: 10-2027  
Lab Sample ID: 248012003

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD8.I  
Analyst: NAG1  
Aliquot: 30.01 g  
Column: J&W DB-5MS

Matrix: R  
% Moisture: 6.2  
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	355	ug/kg	71.0	355
606-20-2	2,6-Dinitrotoluene	U	355	ug/kg	35.5	355
208-96-8	Acenaphthylene	U	35.5	ug/kg	10.7	35.5
51-28-5	2,4-Dinitrophenol	U	710	ug/kg	135	710
132-64-9	Dibenzofuran	U	355	ug/kg	71.0	355
84-66-2	Diethylphthalate	U	355	ug/kg	71.0	355
86-73-7	Fluorene	U	35.5	ug/kg	10.7	35.5
7005-72-3	4-Chlorophenylphenylether	U	355	ug/kg	71.0	355
534-52-1	2-Methyl-4,6-dinitrophenol	U	355	ug/kg	71.0	355
100-01-6	4-Nitroaniline	U	355	ug/kg	107	355
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	355	ug/kg	71.0	355
122-66-7	Azobenzene	U	355	ug/kg	71.0	355
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	355	ug/kg	71.0	355
118-74-1	Hexachlorobenzene	U	355	ug/kg	71.0	355
85-01-8	Phenanthrene		80.0	ug/kg	10.7	35.5
120-12-7	Anthracene	U	35.5	ug/kg	7.10	35.5
84-74-2	Di-n-butylphthalate	U	355	ug/kg	71.0	355
206-44-0	Fluoranthene	J	15.1	ug/kg	10.7	35.5
85-68-7	Butylbenzylphthalate	U	355	ug/kg	71.0	355
56-55-3	Benzo(a)anthracene	U	35.5	ug/kg	10.7	35.5
91-94-1	3,3'-Dichlorobenzidine	U	355	ug/kg	107	355
218-01-9	Chrysene	U	35.5	ug/kg	10.7	35.5
117-81-7	bis(2-Ethylhexyl)phthalate	U	355	ug/kg	71.0	355
117-84-0	Di-n-octylphthalate	U	355	ug/kg	71.0	355
205-99-2	Benzo(b)fluoranthene	U	35.5	ug/kg	10.7	35.5
207-08-9	Benzo(k)fluoranthene	U	35.5	ug/kg	10.7	35.5
50-32-8	Benzo(a)pyrene	U	35.5	ug/kg	10.7	35.5
193-39-5	Indeno(1,2,3-cd)pyrene	U	35.5	ug/kg	10.7	35.5
53-70-3	Dibenzo(a,h)anthracene	U	35.5	ug/kg	10.7	35.5
191-24-2	Benzo(ghi)perylene	U	35.5	ug/kg	10.7	35.5
120-82-1	1,2,4-Trichlorobenzene	U	355	ug/kg	71.0	355

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Flt	Qual
	Unknown Aldol Condensate	3.08	429	ug/kg		JA
1000140-07-7	1,4-Dimethyl-8-isopropylidenetricyclo[5.	16.27	277	ug/kg	83	NJ

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

SDG Number: 10-2027  
Lab Sample ID: 248012006

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD8.I  
Analyst: NAG1  
Aliquot: 30.14 g  
Column: J&W DB-5MS

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

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	381	ug/kg	76.1	381
108-95-2	Phenol	U	381	ug/kg	76.1	381
95-57-8	2-Chlorophenol	U	381	ug/kg	76.1	381
106-46-7	1,4-Dichlorobenzene	U	381	ug/kg	76.1	381
621-64-7	N-Nitrosodipropylamine	U	381	ug/kg	76.1	381
59-50-7	4-Chloro-3-methylphenol	U	381	ug/kg	76.1	381
83-32-9	Acenaphthene	U	38.1	ug/kg	12.6	38.1
121-14-2	2,4-Dinitrotoluene	U	381	ug/kg	38.1	381
100-02-7	4-Nitrophenol	U	381	ug/kg	126	381
87-86-5	Pentachlorophenol	U	381	ug/kg	95.2	381
129-00-0	Pyrene	U	38.1	ug/kg	11.4	38.1
110-86-1	Pyridine	U	381	ug/kg	76.1	381
62-53-3	Aniline	U	381	ug/kg	114	381
111-44-4	bis(2-Chloroethyl) ether	U	381	ug/kg	76.1	381
541-73-1	1,3-Dichlorobenzene	U	381	ug/kg	76.1	381
100-51-6	Benzyl alcohol	U	381	ug/kg	114	381
95-50-1	1,2-Dichlorobenzene	U	381	ug/kg	76.1	381
108-60-1	bis(2-Chloroisopropyl)ether	U	381	ug/kg	76.1	381
95-48-7	o-Cresol	U	381	ug/kg	76.1	381
65794-96-9	m,p-Cresols	U	381	ug/kg	114	381
67-72-1	Hexachloroethane	U	381	ug/kg	76.1	381
98-95-3	Nitrobenzene	U	381	ug/kg	76.1	381
78-59-1	Isophorone	U	381	ug/kg	76.1	381
88-75-5	2-Nitrophenol	U	381	ug/kg	76.1	381
105-67-9	2,4-Dimethylphenol	U	381	ug/kg	133	381
111-91-1	bis(2-Chloroethoxy)methane	U	381	ug/kg	76.1	381
120-83-2	2,4-Dichlorophenol	U	381	ug/kg	76.1	381
65-85-0	Benzoic acid	U	761	ug/kg	190	761
91-20-3	Naphthalene	U	38.1	ug/kg	11.4	38.1
106-47-8	4-Chloroaniline	U	381	ug/kg	76.1	381
87-68-3	Hexachlorobutadiene	U	381	ug/kg	76.1	381
91-57-6	2-Methylnaphthalene	U	38.1	ug/kg	7.61	38.1
77-47-4	Hexachlorocyclopentadiene	U	381	ug/kg	76.1	381
88-06-2	2,4,6-Trichlorophenol	U	381	ug/kg	76.1	381
95-95-4	2,4,5-Trichlorophenol	U	381	ug/kg	76.1	381
91-58-7	2-Chloronaphthalene	U	38.1	ug/kg	12.6	38.1
88-74-4	2-Nitroaniline	U	381	ug/kg	76.1	381
	o-Nitroaniline					
99-09-2	3-Nitroaniline	U	381	ug/kg	76.1	381

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

SDG Number: 10-2027  
Lab Sample ID: 248012006

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD8.I  
Analyst: NAG1  
Aliquot: 30.14 g  
Column: J&W DB-5MS

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

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	<i>m</i> -Nitroaniline					
131-11-3	Dimethylphthalate	U	381	ug/kg	76.1	381
606-20-2	2,6-Dinitrotoluene	U	381	ug/kg	38.1	381
208-96-8	Acenaphthylene	U	38.1	ug/kg	11.4	38.1
51-28-5	2,4-Dinitrophenol	U	761	ug/kg	145	761
132-64-9	Dibenzofuran	U	381	ug/kg	76.1	381
84-66-2	Diethylphthalate	U	381	ug/kg	76.1	381
86-73-7	Fluorene	U	38.1	ug/kg	11.4	38.1
7005-72-3	4-Chlorophenylphenylether	U	381	ug/kg	76.1	381
534-52-1	2-Methyl-4,6-dinitrophenol	U	381	ug/kg	76.1	381
100-01-6	4-Nitroaniline	U	381	ug/kg	114	381
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	381	ug/kg	76.1	381
122-66-7	Azobenzene	U	381	ug/kg	76.1	381
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	381	ug/kg	76.1	381
118-74-1	Hexachlorobenzene	U	381	ug/kg	76.1	381
85-01-8	Phenanthrene	U	38.1	ug/kg	11.4	38.1
120-12-7	Anthracene	U	38.1	ug/kg	7.61	38.1
84-74-2	Di-n-butylphthalate	U	381	ug/kg	76.1	381
206-44-0	Fluoranthene	U	38.1	ug/kg	11.4	38.1
85-68-7	Butylbenzylphthalate	U	381	ug/kg	76.1	381
56-55-3	Benzo(a)anthracene	U	38.1	ug/kg	11.4	38.1
91-94-1	3,3'-Dichlorobenzidine	U	381	ug/kg	114	381
218-01-9	Chrysene	U	38.1	ug/kg	11.4	38.1
117-81-7	bis(2-Ethylhexyl)phthalate	U	381	ug/kg	76.1	381
117-84-0	Di-n-octylphthalate	U	381	ug/kg	76.1	381
205-99-2	Benzo(b)fluoranthene	U	38.1	ug/kg	11.4	38.1
207-08-9	Benzo(k)fluoranthene	U	38.1	ug/kg	11.4	38.1
50-32-8	Benzo(a)pyrene	U	38.1	ug/kg	11.4	38.1
193-39-5	Indeno(1,2,3-cd)pyrene	U	38.1	ug/kg	11.4	38.1
53-70-3	Dibenzo(a,h)anthracene	U	38.1	ug/kg	11.4	38.1
191-24-2	Benzo(ghi)perylene	U	38.1	ug/kg	11.4	38.1
120-82-1	1,2,4-Trichlorobenzene	U	381	ug/kg	76.1	381

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	1.89	1250	ug/kg		J
	Unknown Aldol Condensate	3.08	443	ug/kg		JA

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

SDG Number: 10-2027  
Lab Sample ID: 248012006

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD8.I  
Analyst: NAG1  
Aliquot: 30.14 g  
Column: J&W DB-5MS

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

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
<b>Tentatively Identified Compound Summary</b>						
CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	11.5	327	ug/kg		J
25491-20-7	1H-3a,7-Methanoazulene, octahydro-1,4,9,	11.52	212	ug/kg	80	NJ



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

SDG Number: 10-2027  
Lab Sample ID: 248012004

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD8.I  
Analyst: NAG1  
Aliquot: 30.19 g  
Column: J&W DB-5MS

Matrix: R  
% Moisture: 4.2  
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	346	ug/kg	69.1	346
108-95-2	Phenol	U	346	ug/kg	69.1	346
95-57-8	2-Chlorophenol	U	346	ug/kg	69.1	346
106-46-7	1,4-Dichlorobenzene	U	346	ug/kg	69.1	346
621-64-7	N-Nitrosodipropylamine	U	346	ug/kg	69.1	346
59-50-7	4-Chloro-3-methylphenol	U	346	ug/kg	69.1	346
83-32-9	Acenaphthene	U	34.6	ug/kg	11.4	34.6
121-14-2	2,4-Dinitrotoluene	U	346	ug/kg	34.6	346
100-02-7	4-Nitrophenol	U	346	ug/kg	114	346
87-86-5	Pentachlorophenol	U	346	ug/kg	86.4	346
129-00-0	Pyrene	U	34.6	ug/kg	10.4	34.6
110-86-1	Pyridine	U	346	ug/kg	69.1	346
62-53-3	Aniline	U	346	ug/kg	104	346
111-44-4	bis(2-Chloroethyl) ether	U	346	ug/kg	69.1	346
541-73-1	1,3-Dichlorobenzene	U	346	ug/kg	69.1	346
100-51-6	Benzyl alcohol	U	346	ug/kg	104	346
95-50-1	1,2-Dichlorobenzene	U	346	ug/kg	69.1	346
108-60-1	bis(2-Chloroisopropyl)ether	U	346	ug/kg	69.1	346
95-48-7	o-Cresol	U	346	ug/kg	69.1	346
65794-96-9	m,p-Cresols	U	346	ug/kg	104	346
67-72-1	Hexachloroethane	U	346	ug/kg	69.1	346
98-95-3	Nitrobenzene	U	346	ug/kg	69.1	346
78-59-1	Isophorone	U	346	ug/kg	69.1	346
88-75-5	2-Nitrophenol	U	346	ug/kg	69.1	346
105-67-9	2,4-Dimethylphenol	U	346	ug/kg	121	346
111-91-1	bis(2-Chloroethoxy)methane	U	346	ug/kg	69.1	346
120-83-2	2,4-Dichlorophenol	U	346	ug/kg	69.1	346
65-85-0	Benzoic acid	U	691	ug/kg	173	691
91-20-3	Naphthalene	U	34.6	ug/kg	10.4	34.6
106-47-8	4-Chloroaniline	U	346	ug/kg	69.1	346
87-68-3	Hexachlorobutadiene	U	346	ug/kg	69.1	346
91-57-6	2-Methylnaphthalene	U	34.6	ug/kg	6.91	34.6
77-47-4	Hexachlorocyclopentadiene	U	346	ug/kg	69.1	346
88-06-2	2,4,6-Trichlorophenol	U	346	ug/kg	69.1	346
95-95-4	2,4,5-Trichlorophenol	U	346	ug/kg	69.1	346
91-58-7	2-Chloronaphthalene	U	34.6	ug/kg	11.4	34.6
88-74-4	2-Nitroaniline	U	346	ug/kg	69.1	346
99-09-2	<i>o</i> -Nitroaniline	U	346	ug/kg	69.1	346
	3-Nitroaniline					

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

SDG Number: 10-2027	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 248012004	Date Received: 02/25/2010 08:45	%Moisture: 4.2
Client ID: RE36-10-8476	Client: LANL010	Project: LANL01004
Batch ID: 959457	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Run Date: 03/06/2010 13:00	Inst: MSD8.1	Dilution: 1
Prep Date: 03/01/2010 23:22	Analyst: NAG1	Inj. Vol: .5 uL
Data File: s8c0612.d	Aliquot: 30.19 g	Final Volume: 1 mL
	Column: J&W DB-5MS	Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	<i>m</i> -Nitroaniline					
131-11-3	Dimethylphthalate	U	346	ug/kg	69.1	346
606-20-2	2,6-Dinitrotoluene	U	346	ug/kg	34.6	346
208-96-8	Acenaphthylene	U	34.6	ug/kg	10.4	34.6
51-28-5	2,4-Dinitrophenol	U	691	ug/kg	131	691
132-64-9	Dibenzofuran	U	346	ug/kg	69.1	346
84-66-2	Diethylphthalate	U	346	ug/kg	69.1	346
86-73-7	Fluorene	U	34.6	ug/kg	10.4	34.6
7005-72-3	4-Chlorophenylphenylether	U	346	ug/kg	69.1	346
534-52-1	2-Methyl-4,6-dinitrophenol	U	346	ug/kg	69.1	346
100-01-6	4-Nitroaniline	U	346	ug/kg	104	346
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	346	ug/kg	69.1	346
122-66-7	Azobenzene	U	346	ug/kg	69.1	346
	<i>1,2</i> -Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	346	ug/kg	69.1	346
118-74-1	Hexachlorobenzene	U	346	ug/kg	69.1	346
85-01-8	Phenanthrene	U	34.6	ug/kg	10.4	34.6
120-12-7	Anthracene	U	34.6	ug/kg	6.91	34.6
84-74-2	Di-n-butylphthalate	U	346	ug/kg	69.1	346
206-44-0	Fluoranthene	U	34.6	ug/kg	10.4	34.6
85-68-7	Butylbenzylphthalate	U	346	ug/kg	69.1	346
56-55-3	Benzo(a)anthracene	U	34.6	ug/kg	10.4	34.6
91-94-1	3,3'-Dichlorobenzidine	U	346	ug/kg	104	346
218-01-9	Chrysene	U	34.6	ug/kg	10.4	34.6
117-81-7	bis(2-Ethylhexyl)phthalate	U	346	ug/kg	69.1	346
117-84-0	Di-n-octylphthalate	U	346	ug/kg	69.1	346
205-99-2	Benzo(b)fluoranthene	U	34.6	ug/kg	10.4	34.6
207-08-9	Benzo(k)fluoranthene	U	34.6	ug/kg	10.4	34.6
50-32-8	Benzo(a)pyrene	U	34.6	ug/kg	10.4	34.6
193-39-5	Indeno(1,2,3-cd)pyrene	U	34.6	ug/kg	10.4	34.6
53-70-3	Dibenzo(a,h)anthracene	U	34.6	ug/kg	10.4	34.6
191-24-2	Benzo(ghi)perylene	U	34.6	ug/kg	10.4	34.6
120-82-1	1,2,4-Trichlorobenzene	U	346	ug/kg	69.1	346

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	1.9	223	ug/kg		J
	Unknown Aldol Condensate	3.08	434	ug/kg		JA

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

SDG Number: 10-2027	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 248012004	Date Received: 02/25/2010 08:45	%Moisture: 4.2
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-8476	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 959457	Inst: MSD8.I	Dilution: 1
Run Date: 03/06/2010 13:00	Analyst: NAG1	Inj. Vol: .5 uL
Prep Date: 03/01/2010 23:22	Aliquot: 30.19 g	Final Volume: 1 mL
Data File: s8c0612.d	Column: J&W DB-5MS	Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
<b>Tentatively Identified Compound Summary</b>						
CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
475-20-7	1,4-Methanoazulene, decahydro-4,8,8-trim	7.18	182	ug/kg	97	NJ
511-15-9	2-Phenanthrenol, 4b,5,6,7,8,8a,9,10-octa	11.36	238	ug/kg	97	NJ
301-02-0	9-Octadecenamide, (Z)-	11.41	174	ug/kg	94	NJ
559-74-0	Friedelan-3-one	11.52	141	ug/kg	99	NJ
	Unknown	16.27	155	ug/kg		J

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

SDG Number: 10-2027  
Lab Sample ID: 248012007

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD8.I  
Analyst: NAG1  
Aliquot: 30.12 g  
Column: J&W DB-5MS

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

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	349	ug/kg	69.7	349
108-95-2	Phenol	U	349	ug/kg	69.7	349
95-57-8	2-Chlorophenol	U	349	ug/kg	69.7	349
106-46-7	1,4-Dichlorobenzene	U	349	ug/kg	69.7	349
621-64-7	N-Nitrosodipropylamine	U	349	ug/kg	69.7	349
59-50-7	4-Chloro-3-methylphenol	U	349	ug/kg	69.7	349
83-32-9	Acenaphthene	U	34.9	ug/kg	11.5	34.9
121-14-2	2,4-Dinitrotoluene	U	349	ug/kg	34.9	349
100-02-7	4-Nitrophenol	U	349	ug/kg	115	349
87-86-5	Pentachlorophenol	U	349	ug/kg	87.1	349
129-00-0	Pyrene	U	34.9	ug/kg	10.5	34.9
110-86-1	Pyridine	U	349	ug/kg	69.7	349
62-53-3	Aniline	U	349	ug/kg	105	349
111-44-4	bis(2-Chloroethyl) ether	U	349	ug/kg	69.7	349
541-73-1	1,3-Dichlorobenzene	U	349	ug/kg	69.7	349
100-51-6	Benzyl alcohol	U	349	ug/kg	105	349
95-50-1	1,2-Dichlorobenzene	U	349	ug/kg	69.7	349
108-60-1	bis(2-Chloroisopropyl)ether	U	349	ug/kg	69.7	349
95-48-7	o-Cresol	U	349	ug/kg	69.7	349
65794-96-9	m,p-Cresols	U	349	ug/kg	105	349
67-72-1	Hexachloroethane	U	349	ug/kg	69.7	349
98-95-3	Nitrobenzene	U	349	ug/kg	69.7	349
78-59-1	Isophorone	U	349	ug/kg	69.7	349
88-75-5	2-Nitrophenol	U	349	ug/kg	69.7	349
105-67-9	2,4-Dimethylphenol	U	349	ug/kg	122	349
111-91-1	bis(2-Chloroethoxy)methane	U	349	ug/kg	69.7	349
120-83-2	2,4-Dichlorophenol	U	349	ug/kg	69.7	349
65-85-0	Benzoic acid	U	697	ug/kg	174	697
91-20-3	Naphthalene	U	34.9	ug/kg	10.5	34.9
106-47-8	4-Chloroaniline	U	349	ug/kg	69.7	349
87-68-3	Hexachlorobutadiene	U	349	ug/kg	69.7	349
91-57-6	2-Methylnaphthalene	U	34.9	ug/kg	6.97	34.9
77-47-4	Hexachlorocyclopentadiene	U	349	ug/kg	69.7	349
88-06-2	2,4,6-Trichlorophenol	U	349	ug/kg	69.7	349
95-95-4	2,4,5-Trichlorophenol	U	349	ug/kg	69.7	349
91-58-7	2-Chloronaphthalene	U	34.9	ug/kg	11.5	34.9
88-74-4	2-Nitroaniline	U	349	ug/kg	69.7	349
	<i>o</i> -Nitroaniline					
99-09-2	3-Nitroaniline	U	349	ug/kg	69.7	349

Semi-Volatile  
Certificate of Analysis  
Sample Summary

SDG Number: 10-2027  
Lab Sample ID: 248012007

Client ID: RE36-10-8478  
Batch ID: 959457  
Run Date: 03/06/2010 14:28  
Prep Date: 03/01/2010 23:22  
Data File: s8c0615.d

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD8.I  
Analyst: NAG1  
Aliquot: 30.12 g  
Column: J&W DB-5MS

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

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	<i>m</i> -Nitroaniline					
131-11-3	Dimethylphthalate	U	349	ug/kg	69.7	349
606-20-2	2,6-Dinitrotoluene	U	349	ug/kg	34.9	349
208-96-8	Acenaphthylene	U	34.9	ug/kg	10.5	34.9
51-28-5	2,4-Dinitrophenol	U	697	ug/kg	132	697
132-64-9	Dibenzofuran	U	349	ug/kg	69.7	349
84-66-2	Diethylphthalate	U	349	ug/kg	69.7	349
86-73-7	Fluorene	U	34.9	ug/kg	10.5	34.9
7005-72-3	4-Chlorophenylphenylether	U	349	ug/kg	69.7	349
534-52-1	2-Methyl-4,6-dinitrophenol	U	349	ug/kg	69.7	349
100-01-6	4-Nitroaniline	U	349	ug/kg	105	349
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	349	ug/kg	69.7	349
122-66-7	Azobenzene	U	349	ug/kg	69.7	349
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	349	ug/kg	69.7	349
118-74-1	Hexachlorobenzene	U	349	ug/kg	69.7	349
85-01-8	Phenanthrene	U	34.9	ug/kg	10.5	34.9
120-12-7	Anthracene	U	34.9	ug/kg	6.97	34.9
84-74-2	Di-n-butylphthalate	U	349	ug/kg	69.7	349
206-44-0	Fluoranthene	U	34.9	ug/kg	10.5	34.9
85-68-7	Butylbenzylphthalate	U	349	ug/kg	69.7	349
56-55-3	Benzo(a)anthracene	U	34.9	ug/kg	10.5	34.9
91-94-1	3,3'-Dichlorobenzidine	U	349	ug/kg	105	349
218-01-9	Chrysene	U	34.9	ug/kg	10.5	34.9
117-81-7	bis(2-Ethylhexyl)phthalate	U	349	ug/kg	69.7	349
117-84-0	Di-n-octylphthalate	U	349	ug/kg	69.7	349
205-99-2	Benzo(b)fluoranthene	U	34.9	ug/kg	10.5	34.9
207-08-9	Benzo(k)fluoranthene	U	34.9	ug/kg	10.5	34.9
50-32-8	Benzo(a)pyrene	U	34.9	ug/kg	10.5	34.9
193-39-5	Indeno(1,2,3-cd)pyrene	U	34.9	ug/kg	10.5	34.9
53-70-3	Dibenzo(a,h)anthracene	U	34.9	ug/kg	10.5	34.9
191-24-2	Benzo(ghi)perylene	U	34.9	ug/kg	10.5	34.9
120-82-1	1,2,4-Trichlorobenzene	U	349	ug/kg	69.7	349

## Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	1.89	222	ug/kg		J
	Unknown Aldol Condensate	3.08	479	ug/kg		JA

Semi-Volatile  
Certificate of Analysis  
Sample Summary

Page 3 of 3

SDG Number: 10-2027  
Lab Sample ID: 248012007Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD8.I  
Analyst: NAG1  
Aliquot: 30.12 g  
Column: J&W DB-5MSMatrix: R  
%Moisture: 4.7  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
Tentatively Identified Compound Summary						
CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
559-74-0	Friedelan-3-one	11.52	186	ug/kg	98	NJ
1000140-07-7	1,4-Dimethyl-8-isopropylidenetricyclo[5.	16.27	158	ug/kg	83	NJ

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

SDG Number: 10-2027  
Lab Sample ID: 248012005

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD8.I  
Analyst: NAG1  
Aliquot: 3018 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 10.8  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

Client ID: RE36-10-8480  
Batch ID: 959457  
Run Date: 03/06/2010 13:30  
Prep Date: 03/01/2010 23:22  
Data File: s8c0613.d

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	3.71	ug/kg	0.743	3.71
108-95-2	Phenol	U	3.71	ug/kg	0.743	3.71
95-57-8	2-Chlorophenol	U	3.71	ug/kg	0.743	3.71
106-46-7	1,4-Dichlorobenzene	U	3.71	ug/kg	0.743	3.71
621-64-7	N-Nitrosodipropylamine	U	3.71	ug/kg	0.743	3.71
59-50-7	4-Chloro-3-methylphenol	U	3.71	ug/kg	0.743	3.71
83-32-9	Acenaphthene	U	0.371	ug/kg	0.123	0.371
121-14-2	2,4-Dinitrotoluene	U	3.71	ug/kg	0.371	3.71
100-02-7	4-Nitrophenol	U	3.71	ug/kg	1.23	3.71
87-86-5	Pentachlorophenol	U	3.71	ug/kg	0.929	3.71
129-00-0	Pyrene	U	0.371	ug/kg	0.111	0.371
110-86-1	Pyridine	U	3.71	ug/kg	0.743	3.71
62-53-3	Aniline	U	3.71	ug/kg	1.11	3.71
111-44-4	bis(2-Chloroethyl) ether	U	3.71	ug/kg	0.743	3.71
541-73-1	1,3-Dichlorobenzene	U	3.71	ug/kg	0.743	3.71
100-51-6	Benzyl alcohol	U	3.71	ug/kg	1.11	3.71
95-50-1	1,2-Dichlorobenzene	U	3.71	ug/kg	0.743	3.71
108-60-1	bis(2-Chloroisopropyl) ether	U	3.71	ug/kg	0.743	3.71
95-48-7	o-Cresol	U	3.71	ug/kg	0.743	3.71
65794-96-9	m,p-Cresols	U	3.71	ug/kg	1.11	3.71
67-72-1	Hexachloroethane	U	3.71	ug/kg	0.743	3.71
98-95-3	Nitrobenzene	U	3.71	ug/kg	0.743	3.71
78-59-1	Isophorone	U	3.71	ug/kg	0.743	3.71
88-75-5	2-Nitrophenol	U	3.71	ug/kg	0.743	3.71
105-67-9	2,4-Dimethylphenol	U	3.71	ug/kg	1.30	3.71
111-91-1	bis(2-Chloroethoxy)methane	U	3.71	ug/kg	0.743	3.71
120-83-2	2,4-Dichlorophenol	U	3.71	ug/kg	0.743	3.71
65-85-0	Benzoic acid	U	7.43	ug/kg	1.86	7.43
91-20-3	Naphthalene	U	0.371	ug/kg	0.111	0.371
106-47-8	4-Chloroaniline	U	3.71	ug/kg	0.743	3.71
87-68-3	Hexachlorobutadiene	U	3.71	ug/kg	0.743	3.71
91-57-6	2-Methylnaphthalene	U	0.371	ug/kg	0.0743	0.371
77-47-4	Hexachlorocyclopentadiene	U	3.71	ug/kg	0.743	3.71
88-06-2	2,4,6-Trichlorophenol	U	3.71	ug/kg	0.743	3.71
95-95-4	2,4,5-Trichlorophenol	U	3.71	ug/kg	0.743	3.71
91-58-7	2-Chloronaphthalene	U	0.371	ug/kg	0.123	0.371
88-74-4	2-Nitroaniline	U	3.71	ug/kg	0.743	3.71
	<i>o</i> -Nitroaniline					
99-09-2	3-Nitroaniline	U	3.71	ug/kg	0.743	3.71

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

SDG Number: 10-2027  
Lab Sample ID: 248012005

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD8J  
Analyst: NAG1  
Aliquot: 3018 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 10.8  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
131-11-3	<i>m</i> -Nitroaniline					
	Dimethylphthalate	U	3.71	ug/kg	0.743	3.71
606-20-2	2,6-Dinitrotoluene	U	3.71	ug/kg	0.371	3.71
208-96-8	Acenaphthylene	U	0.371	ug/kg	0.111	0.371
51-28-5	2,4-Dinitrophenol	U	7.43	ug/kg	1.41	7.43
132-64-9	Dibenzofuran	U	3.71	ug/kg	0.743	3.71
84-66-2	Diethylphthalate	U	3.71	ug/kg	0.743	3.71
86-73-7	Fluorene	U	0.371	ug/kg	0.111	0.371
7005-72-3	4-Chlorophenylphenylether	U	3.71	ug/kg	0.743	3.71
534-52-1	2-Methyl-4,6-dinitrophenol	U	3.71	ug/kg	0.743	3.71
100-01-6	4-Nitroaniline	U	3.71	ug/kg	1.11	3.71
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	3.71	ug/kg	0.743	3.71
122-66-7	Azobenzene	U	3.71	ug/kg	0.743	3.71
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	3.71	ug/kg	0.743	3.71
118-74-1	Hexachlorobenzene	U	3.71	ug/kg	0.743	3.71
85-01-8	Phenanthrene	U	0.371	ug/kg	0.111	0.371
120-12-7	Anthracene	U	0.371	ug/kg	0.0743	0.371
84-74-2	Di-n-butylphthalate	U	3.71	ug/kg	0.743	3.71
206-44-0	Fluoranthene	U	0.371	ug/kg	0.111	0.371
85-68-7	Butylbenzylphthalate	U	3.71	ug/kg	0.743	3.71
56-55-3	Benzo(a)anthracene	U	0.371	ug/kg	0.111	0.371
91-94-1	3,3'-Dichlorobenzidine	U	3.71	ug/kg	1.11	3.71
218-01-9	Chrysene	U	0.371	ug/kg	0.111	0.371
117-81-7	bis(2-Ethylhexyl)phthalate	U	3.71	ug/kg	0.743	3.71
117-84-0	Di-n-octylphthalate	U	3.71	ug/kg	0.743	3.71
205-99-2	Benzo(b)fluoranthene	U	0.371	ug/kg	0.111	0.371
207-08-9	Benzo(k)fluoranthene	U	0.371	ug/kg	0.111	0.371
50-32-8	Benzo(a)pyrene	U	0.371	ug/kg	0.111	0.371
193-39-5	Indeno(1,2,3-cd)pyrene	U	0.371	ug/kg	0.111	0.371
53-70-3	Dibenzo(a,h)anthracene	U	0.371	ug/kg	0.111	0.371
191-24-2	Benzo(ghi)perylene	U	0.371	ug/kg	0.111	0.371
120-82-1	1,2,4-Trichlorobenzene	U	3.71	ug/kg	0.743	3.71

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.08	4.05	ug/kg		JA
301-02-0	9-Octadecenamide, (Z)-	13.22	1.6	ug/kg	94	NJ



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

SDG Number: 10-2027  
Lab Sample ID: 248012009

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD8.I  
Analyst: NAG1  
Aliquot: 30.17 g  
Column: J&W DB-5MS

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

Client ID: RE36-10-8482  
Batch ID: 959457  
Run Date: 03/06/2010 16:56  
Prep Date: 03/01/2010 23:22  
Data File: s8c0620.d

CAS No.	Parinname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	349	ug/kg	69.8	349
108-95-2	Phenol	U	349	ug/kg	69.8	349
95-57-8	2-Chlorophenol	U	349	ug/kg	69.8	349
106-46-7	1,4-Dichlorobenzene	U	349	ug/kg	69.8	349
621-64-7	N-Nitrosodipropylamine	U	349	ug/kg	69.8	349
59-50-7	4-Chloro-3-methylphenol	U	349	ug/kg	69.8	349
83-32-9	Acenaphthene	U	34.9	ug/kg	11.5	34.9
121-14-2	2,4-Dinitrotoluene	U	349	ug/kg	34.9	349
100-02-7	4-Nitrophenol	U	349	ug/kg	115	349
87-86-5	Pentachlorophenol	U	349	ug/kg	87.3	349
129-00-0	Pyrene		151	ug/kg	10.5	34.9
110-86-1	Pyridine	U	349	ug/kg	69.8	349
62-53-3	Aniline	U	349	ug/kg	105	349
111-44-4	bis(2-Chloroethyl) ether	U	349	ug/kg	69.8	349
541-73-1	1,3-Dichlorobenzene	U	349	ug/kg	69.8	349
100-51-6	Benzyl alcohol	U	349	ug/kg	105	349
95-50-1	1,2-Dichlorobenzene	U	349	ug/kg	69.8	349
108-60-1	bis(2-Chloroisopropyl)ether	U	349	ug/kg	69.8	349
95-48-7	o-Cresol	U	349	ug/kg	69.8	349
65794-96-9	m,p-Cresols	U	349	ug/kg	105	349
67-72-1	Hexachloroethane	U	349	ug/kg	69.8	349
98-95-3	Nitrobenzene	U	349	ug/kg	69.8	349
78-59-1	Isophorone	U	349	ug/kg	69.8	349
88-75-5	2-Nitrophenol	U	349	ug/kg	69.8	349
105-67-9	2,4-Dimethylphenol	U	349	ug/kg	122	349
111-91-1	bis(2-Chloroethoxy)methane	U	349	ug/kg	69.8	349
120-83-2	2,4-Dichlorophenol	U	349	ug/kg	69.8	349
65-85-0	Benzoic acid	U	698	ug/kg	175	698
91-20-3	Naphthalene	U	34.9	ug/kg	10.5	34.9
106-47-8	4-Chloroaniline	U	349	ug/kg	69.8	349
87-68-3	Hexachlorobutadiene	U	349	ug/kg	69.8	349
91-57-6	2-Methylnaphthalene	U	34.9	ug/kg	6.98	34.9
77-47-4	Hexachlorocyclopentadiene	U	349	ug/kg	69.8	349
88-06-2	2,4,6-Trichlorophenol	U	349	ug/kg	69.8	349
95-95-4	2,4,5-Trichlorophenol	U	349	ug/kg	69.8	349
91-58-7	2-Chloronaphthalene	U	34.9	ug/kg	11.5	34.9
88-74-4	2-Nitroaniline	U	349	ug/kg	69.8	349
	<i>o</i> -Nitroaniline					
99-09-2	3-Nitroaniline	U	349	ug/kg	69.8	349

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

SDG Number: 10-2027  
Lab Sample ID: 248012009

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD8.I  
Analyst: NAG1  
Aliquot: 30.17 g  
Column: J&W DB-5MS

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

Client ID: RE36-10-8482  
Batch ID: 959457  
Run Date: 03/06/2010 16:56  
Prep Date: 03/01/2010 23:22  
Data File: s8c0620.d

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
131-11-3	<i>m</i> -Nitroaniline					
	Dimethylphthalate	U	349	ug/kg	69.8	349
606-20-2	2,6-Dinitrotoluene	U	349	ug/kg	34.9	349
208-96-8	Acenaphthylene	U	34.9	ug/kg	10.5	34.9
51-28-5	2,4-Dinitrophenol	U	698	ug/kg	133	698
132-64-9	Dibenzofuran	U	349	ug/kg	69.8	349
84-66-2	Diethylphthalate	U	349	ug/kg	69.8	349
86-73-7	Fluorene	U	34.9	ug/kg	10.5	34.9
7005-72-3	4-Chlorophenylphenylether	U	349	ug/kg	69.8	349
534-52-1	2-Methyl-4,6-dinitrophenol	U	349	ug/kg	69.8	349
100-01-6	4-Nitroaniline	U	349	ug/kg	105	349
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	349	ug/kg	69.8	349
122-66-7	Azobenzene	U	349	ug/kg	69.8	349
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	349	ug/kg	69.8	349
118-74-1	Hexachlorobenzene	U	349	ug/kg	69.8	349
85-01-8	Phenanthrene		125	ug/kg	10.5	34.9
120-12-7	Anthracene	J	11.0	ug/kg	6.98	34.9
84-74-2	Di-n-butylphthalate	U	349	ug/kg	69.8	349
206-44-0	Fluoranthene		148	ug/kg	10.5	34.9
85-68-7	Butylbenzylphthalate	U	349	ug/kg	69.8	349
56-55-3	Benzo(a)anthracene		106	ug/kg	10.5	34.9
91-94-1	3,3'-Dichlorobenzidine	U	349	ug/kg	105	349
218-01-9	Chrysene		145	ug/kg	10.5	34.9
117-81-7	bis(2-Ethylhexyl)phthalate	U	349	ug/kg	69.8	349
117-84-0	Di-n-octylphthalate	U	349	ug/kg	69.8	349
205-99-2	Benzo(b)fluoranthene		176	ug/kg	10.5	34.9
207-08-9	Benzo(k)fluoranthene		68.4	ug/kg	10.5	34.9
50-32-8	Benzo(a)pyrene		106	ug/kg	10.5	34.9
193-39-5	Indeno(1,2,3-cd)pyrene		52.5	ug/kg	10.5	34.9
53-70-3	Dibenzo(a,h)anthracene	U	34.9	ug/kg	10.5	34.9
191-24-2	Benzo(ghi)perylene		50.9	ug/kg	10.5	34.9
120-82-1	1,2,4-Trichlorobenzene	U	349	ug/kg	69.8	349

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	1.88	793	ug/kg		J
	Unknown Aldol Condensate	3.08	411	ug/kg		JA

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

Page 3 of 3

SDG Number: 10-2027  
Lab Sample ID: 248012009

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD8.I  
Analyst: NAG1  
Aliquot: 30.17 g  
Column: J&W DB-5MS

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

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
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Tentatively Identified Compound Summary			Estimated			
CAS No.	Tentatively Identified Compound (TIC)	RT		Units	Fit	Qual
	Unknown	4.33	193	ug/kg		J
	Unknown	11.52	379	ug/kg		J
5155-70-4	1-Phenanthrenecarboxylic acid, 1,2,3,4,4	11.84	149	ug/kg	93	NJ
112-95-8	Eicosane	13.81	168	ug/kg	96	NJ
58-22-0	Androst-4-en-3-one, 17-hydroxy-, (17.bet	17.7	167	ug/kg	80	NJ

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

SDG Number: 10-2027  
Lab Sample ID: 248012008

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD8.I  
Analyst: NAG1  
Aliquot: 30.01 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 2.3  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	341	ug/kg	68.2	341
108-95-2	Phenol	U	341	ug/kg	68.2	341
95-57-8	2-Chlorophenol	U	341	ug/kg	68.2	341
106-46-7	1,4-Dichlorobenzene	U	341	ug/kg	68.2	341
621-64-7	N-Nitrosodipropylamine	U	341	ug/kg	68.2	341
59-50-7	4-Chloro-3-methylphenol	U	341	ug/kg	68.2	341
83-32-9	Acenaphthene	U	34.1	ug/kg	11.3	34.1
121-14-2	2,4-Dinitrotoluene	U	341	ug/kg	34.1	341
100-02-7	4-Nitrophenol	U	341	ug/kg	113	341
87-86-5	Pentachlorophenol	U	341	ug/kg	85.3	341
129-00-0	Pyrene	U	34.1	ug/kg	10.2	34.1
110-86-1	Pyridine	U	341	ug/kg	68.2	341
62-53-3	Aniline	U	341	ug/kg	102	341
111-44-4	bis(2-Chloroethyl) ether	U	341	ug/kg	68.2	341
541-73-1	1,3-Dichlorobenzene	U	341	ug/kg	68.2	341
100-51-6	Benzyl alcohol	U	341	ug/kg	102	341
95-50-1	1,2-Dichlorobenzene	U	341	ug/kg	68.2	341
108-60-1	bis(2-Chloroisopropyl)ether	U	341	ug/kg	68.2	341
95-48-7	o-Cresol	U	341	ug/kg	68.2	341
65794-96-9	m,p-Cresols	U	341	ug/kg	102	341
67-72-1	Hexachloroethane	U	341	ug/kg	68.2	341
98-95-3	Nitrobenzene	U	341	ug/kg	68.2	341
78-59-1	Isophorone	U	341	ug/kg	68.2	341
88-75-5	2-Nitrophenol	U	341	ug/kg	68.2	341
105-67-9	2,4-Dimethylphenol	U	341	ug/kg	119	341
111-91-1	bis(2-Chloroethoxy)methane	U	341	ug/kg	68.2	341
120-83-2	2,4-Dichlorophenol	U	341	ug/kg	68.2	341
65-85-0	Benzoic acid	U	682	ug/kg	171	682
91-20-3	Naphthalene	U	34.1	ug/kg	10.2	34.1
106-47-8	4-Chloroaniline	U	341	ug/kg	68.2	341
87-68-3	Hexachlorobutadiene	U	341	ug/kg	68.2	341
91-57-6	2-Methylnaphthalene	U	34.1	ug/kg	6.82	34.1
77-47-4	Hexachlorocyclopentadiene	U	341	ug/kg	68.2	341
88-06-2	2,4,6-Trichlorophenol	U	341	ug/kg	68.2	341
95-95-4	2,4,5-Trichlorophenol	U	341	ug/kg	68.2	341
91-58-7	2-Chloronaphthalene	U	34.1	ug/kg	11.3	34.1
88-74-4	2-Nitroaniline	U	341	ug/kg	68.2	341
	<i>o</i> -Nitroaniline					
99-09-2	3-Nitroaniline	U	341	ug/kg	68.2	341

Semi-Volatile  
Certificate of Analysis  
Sample Summary

Page 2 of 3

SDG Number: 10-2027  
Lab Sample ID: 248012008

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD8.I  
Analyst: NAG1  
Aliquot: 30.01 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 2.3  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

Client ID: RE36-10-8483  
Batch ID: 959457  
Run Date: 03/06/2010 14:57  
Prep Date: 03/01/2010 23:22  
Data File: s8c0616.d

CAS No.	Parimname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
131-11-3	<i>m</i> -Nitroaniline Dimethylphthalate	U	341	ug/kg	68.2	341
606-20-2	2,6-Dinitrotoluene	U	341	ug/kg	34.1	341
208-96-8	Acenaphthylene	U	34.1	ug/kg	10.2	34.1
51-28-5	2,4-Dinitrophenol	U	682	ug/kg	130	682
132-64-9	Dibenzofuran	U	341	ug/kg	68.2	341
84-66-2	Diethylphthalate	U	341	ug/kg	68.2	341
86-73-7	Fluorene	U	34.1	ug/kg	10.2	34.1
7005-72-3	4-Chlorophenylphenylether	U	341	ug/kg	68.2	341
534-52-1	2-Methyl-4,6-dinitrophenol	U	341	ug/kg	68.2	341
100-01-6	4-Nitroaniline	U	341	ug/kg	102	341
122-39-4	<i>p</i> -Nitroaniline Diphenylamine	U	341	ug/kg	68.2	341
122-66-7	Azobenzene	U	341	ug/kg	68.2	341
101-55-3	<i>1,2</i> -Diphenylhydrazine 4-Bromophenylphenylether	U	341	ug/kg	68.2	341
118-74-1	Hexachlorobenzene	U	341	ug/kg	68.2	341
85-01-8	Phenanthrene	U	34.1	ug/kg	10.2	34.1
120-12-7	Anthracene	U	34.1	ug/kg	6.82	34.1
84-74-2	Di-n-butylphthalate	U	341	ug/kg	68.2	341
206-44-0	Fluoranthene	U	34.1	ug/kg	10.2	34.1
85-68-7	Butylbenzylphthalate	U	341	ug/kg	68.2	341
56-55-3	Benzo(a)anthracene	U	34.1	ug/kg	10.2	34.1
91-94-1	3,3'-Dichlorobenzidine	U	341	ug/kg	102	341
218-01-9	Chrysene	U	34.1	ug/kg	10.2	34.1
117-81-7	bis(2-Ethylhexyl)phthalate	U	341	ug/kg	68.2	341
117-84-0	Di-n-octylphthalate	U	341	ug/kg	68.2	341
205-99-2	Benzo(b)fluoranthene	U	34.1	ug/kg	10.2	34.1
207-08-9	Benzo(k)fluoranthene	U	34.1	ug/kg	10.2	34.1
50-32-8	Benzo(a)pyrene	U	34.1	ug/kg	10.2	34.1
193-39-5	Indeno(1,2,3-cd)pyrene	U	34.1	ug/kg	10.2	34.1
53-70-3	Dibenzo(a,h)anthracene	U	34.1	ug/kg	10.2	34.1
191-24-2	Benzo(ghi)perylene	U	34.1	ug/kg	10.2	34.1
120-82-1	1,2,4-Trichlorobenzene	U	341	ug/kg	68.2	341

## Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	1.89	723	ug/kg		J
	Unknown Aldol Condensate	3.08	577	ug/kg		JA

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

SDG Number: 10-2027  
Lab Sample ID: 248012008

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD8.I  
Analyst: NAG1  
Aliquot: 30.01 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 2.3  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

Client ID: RE36-10-8483  
Batch ID: 959457  
Run Date: 03/06/2010 14:57  
Prep Date: 03/01/2010 23:22  
Data File: s8c0616.d

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
Tentatively Identified Compound Summary							
CAS No.	Tentatively Identified Compound (TIC)		RT	Estimated	Units	Fit	Qual
112-95-8	Eicosane		13.81	171	ug/kg	98	NJ

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

SDG Number: 10-2027  
Lab Sample ID: 248012002

Client ID: RE36-10-8490  
Batch ID: 959457  
Run Date: 03/06/2010 12:02  
Prep Date: 03/01/2010 23:22  
Data File: s8c0610.d

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD8.J  
Analyst: NAG1  
Aliquot: 30.13 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 5.1  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	350	ug/kg	70.0	350
108-95-2	Phenol	U	350	ug/kg	70.0	350
95-57-8	2-Chlorophenol	U	350	ug/kg	70.0	350
106-46-7	1,4-Dichlorobenzene	U	350	ug/kg	70.0	350
621-64-7	N-Nitrosodipropylamine	U	350	ug/kg	70.0	350
59-50-7	4-Chloro-3-methylphenol	U	350	ug/kg	70.0	350
83-32-9	Acenaphthene	U	35.0	ug/kg	11.5	35.0
121-14-2	2,4-Dinitrotoluene	U	350	ug/kg	35.0	350
100-02-7	4-Nitrophenol	U	350	ug/kg	115	350
87-86-5	Pentachlorophenol	U	350	ug/kg	87.5	350
129-00-0	Pyrene	U	35.0	ug/kg	10.5	35.0
110-86-1	Pyridine	U	350	ug/kg	70.0	350
62-53-3	Aniline	U	350	ug/kg	105	350
111-44-4	bis(2-Chloroethyl) ether	U	350	ug/kg	70.0	350
541-73-1	1,3-Dichlorobenzene	U	350	ug/kg	70.0	350
100-51-6	Benzyl alcohol	U	350	ug/kg	105	350
95-50-1	1,2-Dichlorobenzene	U	350	ug/kg	70.0	350
108-60-1	bis(2-Chloroisopropyl) ether	U	350	ug/kg	70.0	350
95-48-7	o-Cresol	U	350	ug/kg	70.0	350
65794-96-9	m,p-Cresols	U	350	ug/kg	105	350
67-72-1	Hexachloroethane	U	350	ug/kg	70.0	350
98-95-3	Nitrobenzene	U	350	ug/kg	70.0	350
78-59-1	Isophorone	U	350	ug/kg	70.0	350
88-75-5	2-Nitrophenol	U	350	ug/kg	70.0	350
105-67-9	2,4-Dimethylphenol	U	350	ug/kg	122	350
111-91-1	bis(2-Chloroethoxy)methane	U	350	ug/kg	70.0	350
120-83-2	2,4-Dichlorophenol	U	350	ug/kg	70.0	350
65-85-0	Benzoic acid	U	700	ug/kg	175	700
91-20-3	Naphthalene	U	35.0	ug/kg	10.5	35.0
106-47-8	4-Chloroaniline	U	350	ug/kg	70.0	350
87-68-3	Hexachlorobutadiene	U	350	ug/kg	70.0	350
91-57-6	2-Methylnaphthalene	U	35.0	ug/kg	7.00	35.0
77-47-4	Hexachlorocyclopentadiene	U	350	ug/kg	70.0	350
88-06-2	2,4,6-Trichlorophenol	U	350	ug/kg	70.0	350
95-95-4	2,4,5-Trichlorophenol	U	350	ug/kg	70.0	350
91-58-7	2-Chloronaphthalene	U	35.0	ug/kg	11.5	35.0
88-74-4	2-Nitroaniline	U	350	ug/kg	70.0	350
	<i>o</i> -Nitroaniline					
99-09-2	3-Nitroaniline	U	350	ug/kg	70.0	350

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

SDG Number: 10-2027	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 248012002	Date Received: 02/25/2010 08:45	%Moisture: 5.1
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-8490	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 959457	Inst: MSD8.I	Dilution: 1
Run Date: 03/06/2010 12:02	Analyst: NAG1	Inj. Vol: .5 uL
Prep Date: 03/01/2010 23:22	Aliquot: 30.13 g	Final Volume: 1 mL
Data File: s8c0610.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	350	ug/kg	70.0	350
606-20-2	2,6-Dinitrotoluene	U	350	ug/kg	35.0	350
208-96-8	Acenaphthylene	U	35.0	ug/kg	10.5	35.0
51-28-5	2,4-Dinitrophenol	U	700	ug/kg	133	700
132-64-9	Dibenzofuran	U	350	ug/kg	70.0	350
84-66-2	Diethylphthalate	U	350	ug/kg	70.0	350
86-73-7	Fluorene	U	35.0	ug/kg	10.5	35.0
7005-72-3	4-Chlorophenylphenylether	U	350	ug/kg	70.0	350
534-52-1	2-Methyl-4,6-dinitrophenol	U	350	ug/kg	70.0	350
100-01-6	4-Nitroaniline	U	350	ug/kg	105	350
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	350	ug/kg	70.0	350
122-66-7	Azobenzene	U	350	ug/kg	70.0	350
	<i>1,2</i> -Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	350	ug/kg	70.0	350
118-74-1	Hexachlorobenzene	U	350	ug/kg	70.0	350
85-01-8	Phenanthrene	U	35.0	ug/kg	10.5	35.0
120-12-7	Anthracene	U	35.0	ug/kg	7.00	35.0
84-74-2	Di-n-butylphthalate	U	350	ug/kg	70.0	350
206-44-0	Fluoranthene	U	35.0	ug/kg	10.5	35.0
85-68-7	Butylbenzylphthalate	U	350	ug/kg	70.0	350
56-55-3	Benzo(a)anthracene	U	35.0	ug/kg	10.5	35.0
91-94-1	3,3'-Dichlorobenzidine	U	350	ug/kg	105	350
218-01-9	Chrysene	U	35.0	ug/kg	10.5	35.0
117-81-7	bis(2-Ethylhexyl)phthalate	U	350	ug/kg	70.0	350
117-84-0	Di-n-octylphthalate	U	350	ug/kg	70.0	350
205-99-2	Benzo(b)fluoranthene	U	35.0	ug/kg	10.5	35.0
207-08-9	Benzo(k)fluoranthene	U	35.0	ug/kg	10.5	35.0
50-32-8	Benzo(a)pyrene	U	35.0	ug/kg	10.5	35.0
193-39-5	Indeno(1,2,3-cd)pyrene	U	35.0	ug/kg	10.5	35.0
53-70-3	Dibenzo(a,h)anthracene	U	35.0	ug/kg	10.5	35.0
191-24-2	Benzo(ghi)perylene	U	35.0	ug/kg	10.5	35.0
120-82-1	1,2,4-Trichlorobenzene	U	350	ug/kg	70.0	350

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	1.89	148	ug/kg		J
	Unknown Aldol Condensate	3.08	443	ug/kg		JA



# QC Summary

Semi-Volatile  
Surrogate Recovery Report

Page 1 of 1

SDG Number: 10-2027

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
1202057823	MB for batch 959456	72	67	66	67	73	91
1202057824	LCS for batch 959456	70	67	63	63	72	68
248012002	RE36-10-8490	75	73	69	71	76	85
248012003	RE36-10-8470	70	68	65	67	75	82
248012004	RE36-10-8476	69	69	63	66	76	79
248012005	RE36-10-8480	69	68	63	65	76	79
248012006	RE36-10-8474	63	63	63	56	58	66
248012007	RE36-10-8478	67	68	65	59	62	83
248012008	RE36-10-8483	71	71	69	62	58	80
248012009	RE36-10-8482	57	58	56	50	50	63

**Surrogate****Acceptance Limits**

2FP	= 2-Fluorophenol	(29%-99%)
PHL	= Phenol-d5	(33%-98%)
NBZ	= Nitrobenzene-d5	(31%-105%)
FBP	= 2-Fluorobiphenyl	(25%-109%)
TBP	= 2,4,6-Tribromophenol	(37%-106%)
TPH	= p-Terphenyl-d14	(13%-150%)

\* Recovery outside Acceptance Limits

# Column to be used to flag recovery values

D Sample Diluted

Semi-Volatile  
Quality Control Summary  
Spike Recovery Report

Page 1 of 4

SDG Number: 10-2027

Sample Type: Laboratory Control Sample

Client ID: LCS for batch 959456

Matrix: SOIL

Lab Sample ID: 1202057824

Instrument: MSD8.I

Analysis Date: 03/06/2010 10:34

Dilution: 1

Analyst: NAG1

Prep Batch ID: 959456

Inj. Vol: .5 uL

Batch ID: 959457

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
62-75-9	LCS N-Methyl-N-nitrosomethylam	1670	0.0	887	53	22-114
108-95-2	LCS Phenol	1670	0.0	1140	69	39-104
95-57-8	LCS 2-Chlorophenol	1670	0.0	1190	71	40-107
106-46-7	LCS 1,4-Dichlorobenzene	1670	0.0	1080	65	33-108
621-64-7	LCS N-Nitrosodipropylamine	1670	0.0	1070	64	34-113
59-50-7	LCS 4-Chloro-3-methylphenol	1670	0.0	1230	74	42-114
83-32-9	LCS Acenaphthene	1670	0.0	1000	60	40-105
121-14-2	LCS 2,4-Dinitrotoluene	1670	0.0	1210	73	49-112
100-02-7	LCS 4-Nitrophenol	1670	0.0	1330	80	24-113
87-86-5	LCS Pentachlorophenol	1670	0.0	1340	81	27-116
129-00-0	LCS Pyrene	1670	0.0	926	56	42-113
110-86-1	LCS Pyridine	1670	0.0	919	55	8-125
62-53-3	LCS Aniline	1670	0.0	857	51	18-126
111-44-4	LCS bis(2-Chloroethyl) ether	1670	0.0	943	57	32-103
541-73-1	LCS 1,3-Dichlorobenzene	1670	0.0	1080	65	32-108
100-51-6	LCS Benzyl alcohol	1670	0.0	810	49	27-108
95-50-1	LCS 1,2-Dichlorobenzene	1670	0.0	1090	65	35-111
108-60-1	LCS bis(2-Chloroisopropyl)ether	1670	0.0	782	47	28-117
95-48-7	LCS o-Cresol	1670	0.0	1150	69	39-111
65794-96-9	LCS m,p-Cresols	1670	0.0	1320	79	45-121
67-72-1	LCS Hexachloroethane	1670	0.0	1010	61	30-109
98-95-3	LCS Nitrobenzene	1670	0.0	1050	63	33-116

Semi-Volatile  
Quality Control Summary  
Spike Recovery Report

Page 2 of 4

SDG Number: 10-2027

Sample Type: Laboratory Control Sample

Client ID: LCS for batch 959456

Matrix: SOIL

Lab Sample ID: 1202057824

Instrument: MSD8.I

Analysis Date: 03/06/2010 10:34

Dilution: 1

Analyst: NAG1

Pren Batch II 959456

Inj. Vol: .5 uL

Batch ID: 959457

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	1040	62	35-113
88-75-5	LCS 2-Nitrophenol	1670	0.0	1250	75	31-117
105-67-9	LCS 2,4-Dimethylphenol	1670	0.0	1010	61	32-112
111-91-1	LCS bis(2-Chloroethoxy)methane	1670	0.0	1090	66	34-110
120-83-2	LCS 2,4-Dichlorophenol	1670	0.0	1220	73	34-116
65-85-0	LCS Benzoic acid	3330	0.0	2730	82	22-138
91-20-3	LCS Naphthalene	1670	0.0	1130	68	35-103
106-47-8	LCS 4-Chloroaniline	1670	0.0	882	53	20-118
87-68-3	LCS Hexachlorobutadiene	1670	0.0	1030	62	31-117
91-57-6	LCS 2-Methylnaphthalene	1670	0.0	1230	74	38-115
77-47-4	LCS Hexachlorocyclopentadiene	1670	0.0	1010	61	22-140
88-06-2	LCS 2,4,6-Trichlorophenol	1670	0.0	1150	69	40-110
95-95-4	LCS 2,4,5-Trichlorophenol	1670	0.0	1140	68	43-113
91-58-7	LCS 2-Chloronaphthalene	1670	0.0	1090	65	37-111
88-74-4	LCS 2-Nitroaniline <i>o</i> -Nitroaniline	1670	0.0	1240	74	41-113
99-09-2	LCS 3-Nitroaniline <i>m</i> -Nitroaniline	1670	0.0	1150	69	34-125
131-11-3	LCS Dimethylphthalate	1670	0.0	1200	72	48-122
606-20-2	LCS 2,6-Dinitrotoluene	1670	0.0	1180	71	47-107
208-96-8	LCS Acenaphthylene	1670	0.0	1100	66	44-110
51-28-5	LCS 2,4-Dinitrophenol	1670	0.0	1560	93	18-127
132-64-9	LCS Dibenzofuran	1670	0.0	1120	67	49-115
84-66-2	LCS Diethylphthalate	1670	0.0	1210	72	51-126

Semi-Volatile  
Quality Control Summary  
Spike Recovery Report

Page 3 of 4

SDG Number: 10-2027

Sample Type: Laboratory Control Sample

Client ID: LCS for batch 959456

Matrix: SOIL

Lab Sample ID: 1202057824

Instrument: MSD8.I

Analysis Date: 03/06/2010 10:34

Dilution: 1

Analyst: NAG1

Pren Batch II 959456

Inj. Vol: .5 uL

Batch ID: 959457

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	1070	64	43-109
7005-72-3	LCS 4-Chlorophenylphenylether	1670	0.0	1070	64	45-115
534-52-1	LCS 2-Methyl-4,6-dinitrophenol	1670	0.0	1390	84	32-117
100-01-6	LCS 4-Nitroaniline <i>p</i> -Nitroaniline	1670	0.0	1520	91	33-148
122-39-4	LCS Diphenylamine	1670	0.0	1330	80	46-114
122-66-7	LCS Azobenzene <i>1,2</i> -Diphenylhydrazine	1670	0.0	1330	80	38-123
101-55-3	LCS 4-Bromophenylphenylether	1670	0.0	1120	67	40-119
118-74-1	LCS Hexachlorobenzene	1670	0.0	1040	63	43-111
85-01-8	LCS Phenanthrene	1670	0.0	1140	68	46-107
120-12-7	LCS Anthracene	1670	0.0	1090	66	46-110
84-74-2	LCS Di-n-butylphthalate	1670	0.0	1300	78	52-132
206-44-0	LCS Fluoranthene	1670	0.0	1120	67	51-115
85-68-7	LCS Butylbenzylphthalate	1670	0.0	1220	73	47-137
56-55-3	LCS Benzo(a)anthracene	1670	0.0	1060	64	50-108
91-94-1	LCS 3,3'-Dichlorobenzidine	1670	0.0	1060	64	36-103
218-01-9	LCS Chrysene	1670	0.0	1090	65	48-111
117-81-7	LCS bis(2-Ethylhexyl)phthalate	1670	0.0	1310	78	48-139
117-84-0	LCS Di-n-octylphthalate	1670	0.0	1290	77	42-141
205-99-2	LCS Benzo(b)fluoranthene	1670	0.0	1110	67	49-114
207-08-9	LCS Benzo(k)fluoranthene	1670	0.0	1050	63	50-116
50-32-8	LCS Benzo(a)pyrene	1670	0.0	1160	69	54-114
193-39-5	LCS Indeno(1,2,3-cd)pyrene	1670	0.0	1100	66	53-120

Quality Control Summary  
Spike Recovery Report

SDG Number: 10-2027

Sample Type: Laboratory Control Sample

Client ID: LCS for batch 959456

Matrix: SOIL

Lab Sample ID:1202057824

Instrument: MSD8.I

Analysis Date: 03/06/2010 10:34

Dilution: 1

Analyst: NAG1

Prep Batch ID: 959456

Inj. Vol: .5 uL

Batch ID: 959457

CAS No	Parname	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	1310	79	53-121
191-24-2	LCS Benzo(ghi)perylene	1670	0.0	1110	67	50-121
120-82-1	LCS 1,2,4-Trichlorobenzene	1670	0.0	1070	64	32-114

Semi-Volatile  
Quality Control Summary  
Spike Recovery Report

Page 1 of 8

SDG Number: 10-2027

Client ID: RE46-10-13332MS

Lab Sample ID: 1202057825

Instrument: MSD8.I

Analyst: NAG1

Inj. Vol: .5 uL

Sample Type: Matrix Spike

Matrix: S

%Moisture: 5.3

Analysis Date: 03/06/2010 17:55

Dilution: 1

Pren Batch II 959456

Batch ID: 959457

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	1750	0.00 U	988	56	27-98
108-95-2	MS Phenol	1750	0.00 U	1270	73	33-94
95-57-8	MS 2-Chlorophenol	1750	0.00 U	1220	70	29-96
106-46-7	MS 1,4-Dichlorobenzene	1750	0.00 U	1030	59	27-96
621-64-7	MS N-Nitrosodipropylamine	1750	0.00 U	1300	74	29-102
59-50-7	MS 4-Chloro-3-methylphenol	1750	0.00 U	1250	71	29-110
83-32-9	MS Acenaphthene	1750	707	1080	21	17-109
121-14-2	MS 2,4-Dinitrotoluene	1750	0.00 U	1230	70	33-107
100-02-7	MS 4-Nitrophenol	1750	0.00 U	690	39	15-110
87-86-5	MS Pentachlorophenol	1750	0.00 U	1150	66	23-110
129-00-0	MS Pyrene	1750	47.6	1120	61	24-118
110-86-1	MS Pyridine	1750	0.00 U	849	48	25-102
62-53-3	MS Aniline	1750	0.00 U	1220	69	18-109
111-44-4	MS bis(2-Chloroethyl) ether	1750	0.00 U	1240	71	29-96
541-73-1	MS 1,3-Dichlorobenzene	1750	0.00 U	1030	59	26-97
100-51-6	MS Benzyl alcohol	1750	0.00 U	294	17 *	19-112
95-50-1	MS 1,2-Dichlorobenzene	1750	0.00 U	1060	61	30-97
108-60-1	MS bis(2-Chloroisopropyl)ether	1750	0.00 U	1340	77	28-103
95-48-7	MS o-Cresol	1750	0.00 U	1160	66	32-107
65794-96-9	MS m,p-Cresols	1750	0.00 U	1490	85	33-115
67-72-1	MS Hexachloroethane	1750	0.00 U	1040	59	25-100
98-95-3	MS Nitrobenzene	1750	0.00 U	1210	69	27-106

Semi-Volatile  
Quality Control Summary  
Spike Recovery Report

Page 2 of 8

SDG Number: 10-2027

Sample Type: Matrix Spike

Client ID: RE46-10-13332MS

Matrix: S

Lab Sample ID: 1202057825

%Moisture: 5.3

Instrument: MSD8.I

Analysis Date: 03/06/2010 17:55

Dilution: 1

Analyst: NAG1

Pren Batch II 959456

Inj. Vol: .5 uL

Batch ID: 959457

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
78-59-1	MS Isophorone	1750	0.00 U	1230	70	29-104
88-75-5	MS 2-Nitrophenol	1750	0.00 U	1200	68	26-102
105-67-9	MS 2,4-Dimethylphenol	1750	0.00 U	1260	72	22-104
111-91-1	MS bis(2-Chloroethoxy)methane	1750	0.00 U	1220	70	27-101
120-83-2	MS 2,4-Dichlorophenol	1750	0.00 U	1210	69	26-103
65-85-0	MS Benzoic acid	3510	0.00 U	1960	56	13-131
91-20-3	MS Naphthalene	1750	0.00 U	1150	65	23-103
106-47-8	MS 4-Chloroaniline	1750	0.00 U	1120	64	26-103
87-68-3	MS Hexachlorobutadiene	1750	0.00 U	958	55	28-101
91-57-6	MS 2-Methylnaphthalene	1750	0.00 U	1200	68	27-106
77-47-4	MS Hexachlorocyclopentadiene	1750	0.00 U	721	41	24-117
88-06-2	MS 2,4,6-Trichlorophenol	1750	0.00 U	1110	63	26-105
95-95-4	MS 2,4,5-Trichlorophenol	1750	0.00 U	1240	71	30-110
91-58-7	MS 2-Chloronaphthalene	1750	0.00 U	1110	63	28-102
88-74-4	MS 2-Nitroaniline o-Nitroaniline	1750	0.00 U	1370	78	33-106
99-09-2	MS 3-Nitroaniline m-Nitroaniline	1750	0.00 U	1230	70	33-116
131-11-3	MS Dimethylphthalate	1750	0.00 U	1240	71	38-113
606-20-2	MS 2,6-Dinitrotoluene	1750	0.00 U	1200	68	29-107
208-96-8	MS Acenaphthylene	1750	0.00 U	1120	64	25-108
51-28-5	MS 2,4-Dinitrophenol	1750	0.00 U	1060	60	14-102
132-64-9	MS Dibenzofuran	1750	0.00 U	1160	66	35-112
84-66-2	MS Diethylphthalate	1750	0.00 U	1280	73	36-122



## Semi-Volatile

Page 3 of 8

Quality Control Summary  
Spike Recovery Report

SDG Number: 10-2027

Client ID: RE46-10-13332MS

Lab Sample ID: 1202057825

Instrument: MSD8.I

Analyst: NAG1

Inj. Vol: .5 uL

Sample Type: Matrix Spike

Matrix: S

%Moisture: 5.3

Analysis Date: 03/06/2010 17:55

Dilution: 1

Prep Batch ID: 959456

Batch ID: 959457

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
86-73-7	MS Fluorene	1750	0.00 U	1130	65	33-105
7005-72-3	MS 4-Chlorophenylphenylether	1750	0.00 U	1130	65	30-110
534-52-1	MS 2-Methyl-4,6-dinitrophenol	1750	0.00 U	1040	59	26-97
100-01-6	MS 4-Nitroaniline <i>p</i> -Nitroaniline	1750	0.00 U	1490	85	28-135
122-39-4	MS Diphenylamine	1750	0.00 U	1460	83	33-109
122-66-7	MS Azobenzene <i>1,2-Diphenylhydrazine</i>	1750	0.00 U	1510	86	31-113
101-55-3	MS 4-Bromophenylphenylether	1750	0.00 U	1200	68	31-109
118-74-1	MS Hexachlorobenzene	1750	0.00 U	1100	63	37-99
85-01-8	MS Phenanthrene	1750	104	1220	64	29-109
120-12-7	MS Anthracene	1750	9.27 J	1160	66	19-118
84-74-2	MS Di-n-butylphthalate	1750	0.00 U	1490	85	39-123
206-44-0	MS Fluoranthene	1750	44.6	1130	62	33-114
85-68-7	MS Butylbenzylphthalate	1750	0.00 U	1580	90	35-131
56-55-3	MS Benzo(a)anthracene	1750	0.00 U	1160	66	30-111
91-94-1	MS 3,3'-Dichlorobenzidine	1750	0.00 U	1120	64	30-124
218-01-9	MS Chrysene	1750	37.0	1160	64	32-108
117-81-7	MS bis(2-Ethylhexyl)phthalate	1750	0.00 U	1760	101	37-129
117-84-0	MS Di-n-octylphthalate	1750	0.00 U	2030	116	31-143
205-99-2	MS Benzo(b)fluoranthene	1750	27.3 J	1330	74	29-118
207-08-9	MS Benzo(k)fluoranthene	1750	11.7 J	1280	72	32-118
50-32-8	MS Benzo(a)pyrene	1750	21.7 J	1290	72	33-115
193-39-5	MS Indeno(1,2,3-cd)pyrene	1750	15.2 J	1200	68	29-114

Semi-Volatile  
Quality Control Summary  
Spike Recovery Report

Page 4 of 8

SDG Number: 10-2027

Client ID: RE46-10-13332MS

Lab Sample ID: 1202057825

Instrument: MSD8.I

Analyst: NAG1

Inj. Vol: .5 uL

Sample Type: Matrix Spike

Matrix: S

%Moisture: 5.3

Analysis Date: 03/06/2010 17:55

Dilution: 1

Prep Batch ID: 959456

Batch ID: 959457

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	1750	0.00 U	1290	73	27-119
191-24-2	MS Benzo(ghi)perylene	1750	16.5 J	1080	61	28-112
120-82-1	MS 1,2,4-Trichlorobenzene	1750	0.00 U	1020	58	28-99

Semi-Volatile  
Quality Control Summary  
Spike Recovery Report

Page 5 of 8

SDG Number: 10-2027

Sample Type: Matrix Spike Duplicate

Client ID: RE46-10-13332MSD

Matrix: S

Lab Sample ID: 1202057826

%Moisture: 5.3

Instrument: MSD8.I

Analysis Date: 03/06/2010 18:24

Dilution: 1

Analyst: NAG1

Prep Batch II 959456

Inj. Vol: .5 uL

Batch ID: 959457

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	1750	0.00 U	1100	63	27-98	10	0-30
108-95-2	MSD Phenol	1750	0.00 U	1350	77	33-94	6	0-30
95-57-8	MSD 2-Chlorophenol	1750	0.00 U	1300	74	29-96	6	0-30
106-46-7	MSD 1,4-Dichlorobenzene	1750	0.00 U	1150	65	27-96	10	0-30
621-64-7	MSD N-Nitrosodipropylamine	1750	0.00 U	1380	79	29-102	6	0-30
59-50-7	MSD 4-Chloro-3-methylphenol	1750	0.00 U	1270	73	29-110	2	0-30
83-32-9	MSD Acenaphthene	1750	707	1070	21	17-109	1	0-30
121-14-2	MSD 2,4-Dinitrotoluene	1750	0.00 U	1280	73	33-107	3	0-30
100-02-7	MSD 4-Nitrophenol	1750	0.00 U	468	27	15-110	38 *	0-30
87-86-5	MSD Pentachlorophenol	1750	0.00 U	1110	64	23-110	4	0-30
129-00-0	MSD Pyrene	1750	47.6	1160	64	24-118	4	0-30
110-86-1	MSD Pyridine	1750	0.00 U	967	55	25-102	13	0-30
62-53-3	MSD Aniline	1750	0.00 U	1290	73	18-109	6	0-30
111-44-4	MSD bis(2-Chloroethyl) ether	1750	0.00 U	1340	76	29-96	7	0-30
541-73-1	MSD 1,3-Dichlorobenzene	1750	0.00 U	1140	65	26-97	10	0-30
100-51-6	MSD Benzyl alcohol	1750	0.00 U	278	16 *	19-112	6	0-30
95-50-1	MSD 1,2-Dichlorobenzene	1750	0.00 U	1160	66	30-97	9	0-30
108-60-1	MSD bis(2-Chloroisopropyl)ether	1750	0.00 U	1420	81	28-103	5	0-30
95-48-7	MSD o-Cresol	1750	0.00 U	1340	76	32-107	14	0-30
65794-96-9	MSD m,p-Cresols	1750	0.00 U	1580	90	33-115	6	0-30
67-72-1	MSD Hexachloroethane	1750	0.00 U	1140	65	25-100	9	0-30
98-95-3	MSD Nitrobenzene	1750	0.00 U	1310	75	27-106	8	0-30

Semi-Volatile  
Quality Control Summary  
Spike Recovery Report

Page 6 of 8

SDG Number: 10-2027

Sample Type: Matrix Spike Duplicate

Client ID: RE46-10-13332MSD

Matrix: S

Lab Sample ID: 1202057826

%Moisture: 5.3

Instrument: MSD8.I

Analysis Date: 03/06/2010 18:24

Dilution: 1

Analyst: NAG1

Pre Batch II 959456

Inj. Vol: .5 uL

Batch ID: 959457

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	U	Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
78-59-1	MSD Isophorone	1750	0.00	U	1290	73	29-104	5	0-30
88-75-5	MSD 2-Nitrophenol	1750	0.00	U	1300	74	26-102	8	0-30
105-67-9	MSD 2,4-Dimethylphenol	1750	0.00	U	1310	75	22-104	4	0-30
111-91-1	MSD bis(2-Chloroethoxy)methane	1750	0.00	U	1300	74	27-101	6	0-30
120-83-2	MSD 2,4-Dichlorophenol	1750	0.00	U	1260	72	26-103	5	0-30
65-85-0	MSD Benzoic acid	3500	0.00	U	2200	63	13-131	12	0-30
91-20-3	MSD Naphthalene	1750	0.00	U	1230	70	23-103	7	0-30
106-47-8	MSD 4-Chloroaniline	1750	0.00	U	1190	68	26-103	6	0-30
87-68-3	MSD Hexachlorobutadiene	1750	0.00	U	1030	59	28-101	7	0-30
91-57-6	MSD 2-Methylnaphthalene	1750	0.00	U	1260	72	27-106	5	0-30
77-47-4	MSD Hexachlorocyclopentadiene	1750	0.00	U	803	46	24-117	11	0-30
88-06-2	MSD 2,4,6-Trichlorophenol	1750	0.00	U	1130	65	26-105	2	0-30
95-95-4	MSD 2,4,5-Trichlorophenol	1750	0.00	U	1260	72	30-110	2	0-30
91-58-7	MSD 2-Chloronaphthalene	1750	0.00	U	1140	65	28-102	3	0-30
88-74-4	MSD 2-Nitroaniline <i>o</i> -Nitroaniline	1750	0.00	U	1400	80	33-106	3	0-30
99-09-2	MSD 3-Nitroaniline <i>m</i> -Nitroaniline	1750	0.00	U	1280	73	33-116	4	0-30
131-11-3	MSD Dimethylphthalate	1750	0.00	U	1280	73	38-113	3	0-30
606-20-2	MSD 2,6-Dinitrotoluene	1750	0.00	U	1240	71	29-107	3	0-30
208-96-8	MSD Acenaphthylene	1750	0.00	U	1170	67	25-108	4	0-30
51-28-5	MSD 2,4-Dinitrophenol	1750	0.00	U	1060	60	14-102	0	0-30
132-64-9	MSD Dibenzofuran	1750	0.00	U	1200	68	35-112	4	0-30
84-66-2	MSD Diethylphthalate	1750	0.00	U	1310	75	36-122	2	0-30

Semi-Volatile  
Quality Control Summary  
Spike Recovery Report

Page 7 of 8

SDG Number: 10-2027

Sample Type: Matrix Spike Duplicate

Client ID: RE46-10-13332MSD

Matrix: S

Lab Sample ID: 1202057826

%Moisture: 5.3

Instrument: MSD8.I

Analysis Date: 03/06/2010 18:24

Dilution: 1

Analyst: NAG1

Pre Batch ID: 959456

Inj. Vol: .5 uL

Batch ID: 959457

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	1750	0.00 U	1160	66	33-105	2	0-30
7005-72-3	MSD 4-Chlorophenylphenylether	1750	0.00 U	1160	66	30-110	2	0-30
534-52-1	MSD 2-Methyl-4,6-dinitrophenol	1750	0.00 U	1100	63	26-97	6	0-30
100-01-6	MSD 4-Nitroaniline <i>p-Nitroaniline</i>	1750	0.00 U	1570	90	28-135	5	0-30
122-39-4	MSD Diphenylamine	1750	0.00 U	1470	84	33-109	1	0-30
122-66-7	MSD Azobenzene <i>1,2-Diphenylhydrazine</i>	1750	0.00 U	1550	88	31-113	3	0-30
101-55-3	MSD 4-Bromophenylphenylether	1750	0.00 U	1230	70	31-109	2	0-30
118-74-1	MSD Hexachlorobenzene	1750	0.00 U	1130	64	37-99	2	0-30
85-01-8	MSD Phenanthrene	1750	104	1250	65	29-109	2	0-30
120-12-7	MSD Anthracene	1750	9.27 J	1170	67	19-118	1	0-30
84-74-2	MSD Di-n-butylphthalate	1750	0.00 U	1500	86	39-123	1	0-30
206-44-0	MSD Fluoranthene	1750	44.6	1170	64	33-114	3	0-30
85-68-7	MSD Butylbenzylphthalate	1750	0.00 U	1660	95	35-131	5	0-30
56-55-3	MSD Benzo(a)anthracene	1750	0.00 U	1170	67	30-111	0	0-30
91-94-1	MSD 3,3'-Dichlorobenzidine	1750	0.00 U	1110	63	30-124	0	0-30
218-01-9	MSD Chrysene	1750	37.0	1170	65	32-108	1	0-30
117-81-7	MSD bis(2-Ethylhexyl)phthalate	1750	0.00 U	1810	103	37-129	3	0-30
117-84-0	MSD Di-n-octylphthalate	1750	0.00 U	2250	128	31-143	10	0-30
205-99-2	MSD Benzo(b)fluoranthene	1750	27.3 J	1380	77	29-118	4	0-30
207-08-9	MSD Benzo(k)fluoranthene	1750	11.7 J	1310	74	32-118	3	0-30
50-32-8	MSD Benzo(a)pyrene	1750	21.7 J	1320	74	33-115	2	0-30
193-39-5	MSD Indeno(1,2,3-cd)pyrene	1750	15.2 J	1250	71	29-114	4	0-30

Semi-Volatile  
Quality Control Summary  
Spike Recovery Report

Page 8 of 8

SDG Number: 10-2027

Client ID: RE46-10-13332MSD

Lab Sample ID: 1202057826

Instrument: MSD8.I

Analyst: NAG1

Inj. Vol: .5 uL

Sample Type: Matrix Spike Duplicate

Matrix: S

%Moisture: 5.3

Analysis Date: 03/06/2010 18:24

Dilution: 1

Pren Batch II 959456

Batch ID: 959457

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
53-70-3	MSD Dibenzo(a,h)anthracene	1750	0.00 U	1330	76	27-119	3	0-30
191-24-2	MSD Benzo(ghi)perylene	1750	16.5 J	1150	65	28-112	6	0-30
120-82-1	MSD 1,2,4-Trichlorobenzene	1750	0.00 U	1100	63	28-99	7	0-30

## Method Blank Summary

Page 1 of 1

SDG Number:	10-2027	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 959456	Instrument ID:	MSD8.I	Data File:	s8c0606-1.d
Lab Sample ID:	1202057823	Prep Date:	03/01/2010 23:22	Analyzed:	03/06/10 10:05
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 959456	1202057824	s8c0607-1.d	03/06/10	1034
02 RE36-10-8490	248012002	s8c0610.d	03/06/10	1202
03 RE36-10-8470	248012003	s8c0611.d	03/06/10	1231
04 RE36-10-8476	248012004	s8c0612.d	03/06/10	1300
05 RE36-10-8480	248012005	s8c0613.d	03/06/10	1330
06 RE36-10-8474	248012006	s8c0614.d	03/06/10	1358
07 RE36-10-8478	248012007	s8c0615.d	03/06/10	1428
08 RE36-10-8483	248012008	s8c0616.d	03/06/10	1457
09 RE36-10-8482	248012009	s8c0620.d	03/06/10	1656

## Instrument Performance Check

## DFTPP

Lab Name GEL Laboratories LLC

Client SDG: 10-2027

Instrument ID: MSD8.I

Injection Date/Time: 06-MAR-10 08:50

Column Description: J &amp; W DB-5MS

Lab File ID /chem/MSD8.i/s030610.b/s8c0603.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	31.7
68	Less than 2% of mass 69	0
69	Mass 69 Relative Abundance	36.7
70	Less than 2% of mass 69	0.6
127	40 - 60% of mass 198	49.2
197	0 - 1% of mass 198	0
199	5 - 9% of mass 198	6.7
275	10 - 30% of mass 198	27.4
365	Greater than 1% of mass 198	3
441	Present, but less than mass 443	82.5
442	Greater than 40% of mass 198	74
443	17 - 23% of mass 442	19

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	WBN100225-05.5	s8c0604.d	06-MAR-10 09:06
API2CVS	WBN100218-03.4	s8c0605.d	06-MAR-10 09:37
SBLK01	1202057823	s8c0606-1.d	06-MAR-10 10:05
SBLK01LCS	1202057824	s8c0607-1.d	06-MAR-10 10:34
RE36-10-8490	248012002	s8c0610.d	06-MAR-10 12:02
RE36-10-8470	248012003	s8c0611.d	06-MAR-10 12:31
RE36-10-8476	248012004	s8c0612.d	06-MAR-10 13:00
RE36-10-8480	248012005	s8c0613.d	06-MAR-10 13:30
RE36-10-8474	248012006	s8c0614.d	06-MAR-10 13:58
RE36-10-8478	248012007	s8c0615.d	06-MAR-10 14:28
RE36-10-8483	248012008	s8c0616.d	06-MAR-10 14:57
RE36-10-8482	248012009	s8c0620.d	06-MAR-10 16:56



## Instrument Performance Check

## DFTPP

Lab Name GEL Laboratories LLC

Client SDG: 10-2027

Instrument ID: MSD8.I

Injection Date/Time: 20-FEB-10 12:04

Column Description: J &amp; W DB-5MS

Lab File ID /chem/MSD8.i/s022010.b/s8b2001.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	41.9
68	Less than 2% of mass 69	1.9
69	Mass 69 Relative Abundance	40.3
70	Less than 2% of mass 69	0.6
127	40 - 60% of mass 198	49.9
197	0 - 1% of mass 198	0
199	5 - 9% of mass 198	6.8
275	10 - 30% of mass 198	24.3
365	Greater than 1% of mass 198	2.6
441	Present, but less than mass 443	76.5
442	Greater than 40% of mass 198	61.7
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
MEGAICAL	WBN100215-08	s8b2003.d	20-FEB-10 12:55
MEGAICAL	WBN100215-07	s8b2004.d	20-FEB-10 13:30
MEGAICAL	WBN100215-06	s8b2005.d	20-FEB-10 14:05
MEGAICAL	WBN100215-05.1	s8b2006.d	20-FEB-10 14:40
MEGAICAL	WBN100215-04	s8b2007.d	20-FEB-10 15:14
MEGAICAL	WBN100215-03	s8b2008.d	20-FEB-10 15:50
MEGAICAL	WBN100215-02	s8b2009.d	20-FEB-10 16:25
MEGAICAL	WBN100215-01	s8b2010.d	20-FEB-10 16:59
MEGAICV	WBN100215-05.1	s8b2012.d	20-FEB-10 18:09

## Instrument Performance Check

## DFTPP

Lab Name GEL Laboratories LLC

Client SDG: 10-2027

Instrument ID: MSD8.I

Injection Date/Time: 21-FEB-10 08:35

Column Description: J &amp; W DB-5MS

Lab File ID /chem/MSD8.i/s022010.b/s8b2013.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	40.5
68	Less than 2% of mass 69	1.8
69	Mass 69 Relative Abundance	38.9
70	Less than 2% of mass 69	0.6
127	40 - 60% of mass 198	48.8
197	0 - 1% of mass 198	0
199	5 - 9% of mass 198	6.8
275	10 - 30% of mass 198	25.3
365	Greater than 1% of mass 198	2.8
441	Present, but less than mass 443	76.6
442	Greater than 40% of mass 198	61.7
443	17 - 23% of mass 442	19.7

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

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
APICAL	WBN100218-01	s8b2015.d	21-FEB-10 09:21
APICAL	WBN100218-02	s8b2016.d	21-FEB-10 09:52
APICAL	WBN100218-03.1	s8b2017.d	21-FEB-10 10:23
APICAL	WBN100218-04	s8b2018.d	21-FEB-10 10:54
APICAL	WBN100218-05	s8b2019.d	21-FEB-10 11:26
APICAL	WBN100218-06	s8b2020.d	21-FEB-10 11:59
APICAL	WBN100218-07	s8b2021.d	21-FEB-10 12:30
APICV	WBN100218-08.1	s8b2035.d	21-FEB-10 19:53

### Internal Standard Area and RT Summary

Lab Name : GEL Laboratories LLC

Client SDG: 10-2027

Instrument: MSD8.I

STD Analysis Time: 06-MAR-10 09:06

GC Column: J&amp;W DB-5MS

Data File: s8c0604.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	697454		4.46	2792494		5.72	1623127		7.58	2784872		9.18	2409647		12.1	1657771		14.2
Upper Limit	1394908		4.96	5584988		6.22	3246254		8.08	5569744		9.68	4819294		12.6	3315542		14.7
Lower Limit	348727		3.96	1396247		5.22	811564		7.08	1392436		8.68	1204824		11.6	828886		13.7
Sample ID																		
BLK01	629614		4.46	2421232		5.72	1422917		7.57	2471418		9.17	1787815		12.1	1287417		14.2
BLK01 LCS	722221		4.46	2822954		5.72	1718350		7.58	3063318		9.18	3108823		12.1	2261043		14.2
RE36-10-8490	692436		4.46	2663365		5.72	1582130		7.57	2796556		9.17	2341342		12.1	1866405		14.2
RE36-10-8470	698760		4.46	2672234		5.72	1578570		7.57	2848439		9.17	2409277		12.1	1599442		14.2
RE36-10-8476	733206		4.46	2858962		5.72	1675945		7.57	3074622		9.17	2725185		12.1	2054830		14.2
RE36-10-8480	714575		4.46	2761572		5.72	1643699		7.57	2986237		9.17	2589603		12.1	1917216		14.2
RE36-10-8474	696361		4.46	2721968		5.72	1591690		7.57	2816282		9.17	2357903		12.1	1681290		14.2
RE36-10-8478	759165		4.46	3024416		5.72	1739458		7.57	3007632		9.17	2192790		12.1	1528366		14.2
RE36-10-8483	737360		4.46	2920400		5.72	1711774		7.57	2900403		9.17	2212119		12.1	1551238		14.2
RE36-10-8482	733871		4.46	2945138		5.72	1728192		7.57	3011668		9.18	2240876		12.1	1137665		14.2

Area Upper Limit = +100% of internal standard area

Area Lower Limit = - 50% of internal standard area

RT Upper Limit = + 0.50 minutes of internal standard RT

RT Lower Limit = - 0.50 minutes of internal standard RT

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

\* Value outside of QC Limits

# Sample Data

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

SDG Number: 10-2027  
Lab Sample ID: 248012003

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD8.I  
Analyst: NAG1  
Aliquot: 30.01 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 6.2  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

Client ID: RE36-10-8470  
Batch ID: 959457  
Run Date: 03/06/2010 12:31  
Prep Date: 03/01/2010 23:22  
Data File: s8c0611.d

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	355	ug/kg	71.0	355
108-95-2	Phenol	U	355	ug/kg	71.0	355
95-57-8	2-Chlorophenol	U	355	ug/kg	71.0	355
106-46-7	1,4-Dichlorobenzene	U	355	ug/kg	71.0	355
621-64-7	N-Nitrosodipropylamine	U	355	ug/kg	71.0	355
59-50-7	4-Chloro-3-methylphenol	U	355	ug/kg	71.0	355
83-32-9	Acenaphthene	U	35.5	ug/kg	11.7	35.5
121-14-2	2,4-Dinitrotoluene	U	355	ug/kg	35.5	355
100-02-7	4-Nitrophenol	U	355	ug/kg	117	355
87-86-5	Pentachlorophenol	U	355	ug/kg	88.8	355
129-00-0	Pyrene	J	12.3	ug/kg	10.7	35.5
110-86-1	Pyridine	U	355	ug/kg	71.0	355
62-53-3	Aniline	U	355	ug/kg	107	355
111-44-4	bis(2-Chloroethyl) ether	U	355	ug/kg	71.0	355
541-73-1	1,3-Dichlorobenzene	U	355	ug/kg	71.0	355
100-51-6	Benzyl alcohol	U	355	ug/kg	107	355
95-50-1	1,2-Dichlorobenzene	U	355	ug/kg	71.0	355
108-60-1	bis(2-Chloroisopropyl)ether	U	355	ug/kg	71.0	355
95-48-7	o-Cresol	U	355	ug/kg	71.0	355
65794-96-9	m,p-Cresols	U	355	ug/kg	107	355
67-72-1	Hexachloroethane	U	355	ug/kg	71.0	355
98-95-3	Nitrobenzene	U	355	ug/kg	71.0	355
78-59-1	Isophorone	U	355	ug/kg	71.0	355
88-75-5	2-Nitrophenol	U	355	ug/kg	71.0	355
105-67-9	2,4-Dimethylphenol	U	355	ug/kg	124	355
111-91-1	bis(2-Chloroethoxy)methane	U	355	ug/kg	71.0	355
120-83-2	2,4-Dichlorophenol	U	355	ug/kg	71.0	355
65-85-0	Benzoic acid	U	710	ug/kg	178	710
91-20-3	Naphthalene	U	35.5	ug/kg	10.7	35.5
106-47-8	4-Chloroaniline	U	355	ug/kg	71.0	355
87-68-3	Hexachlorobutadiene	U	355	ug/kg	71.0	355
91-57-6	2-Methylnaphthalene	U	35.5	ug/kg	7.10	35.5
77-47-4	Hexachlorocyclopentadiene	U	355	ug/kg	71.0	355
88-06-2	2,4,6-Trichlorophenol	U	355	ug/kg	71.0	355
95-95-4	2,4,5-Trichlorophenol	U	355	ug/kg	71.0	355
91-58-7	2-Chloronaphthalene	U	35.5	ug/kg	11.7	35.5
88-74-4	2-Nitroaniline	U	355	ug/kg	71.0	355
	<i>o</i> -Nitroaniline					
99-09-2	3-Nitroaniline	U	355	ug/kg	71.0	355

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

SDG Number: 10-2027  
Lab Sample ID: 248012003

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD8.I  
Analyst: NAG1  
Aliquot: 30.01 g  
Column: J&W DB-5MS

Matrix: R  
% Moisture: 6.2  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

Client ID: RE36-10-8470  
Batch ID: 959457  
Run Date: 03/06/2010 12:31  
Prep Date: 03/01/2010 23:22  
Data File: s8c0611.d

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
131-11-3	<i>m</i> -Nitroaniline					
	Dimethylphthalate	U	355	ug/kg	71.0	355
606-20-2	2,6-Dinitrotoluene	U	355	ug/kg	35.5	355
208-96-8	Acenaphthylene	U	35.5	ug/kg	10.7	35.5
51-28-5	2,4-Dinitrophenol	U	710	ug/kg	135	710
132-64-9	Dibenzofuran	U	355	ug/kg	71.0	355
84-66-2	Diethylphthalate	U	355	ug/kg	71.0	355
86-73-7	Fluorene	U	35.5	ug/kg	10.7	35.5
7005-72-3	4-Chlorophenylphenylether	U	355	ug/kg	71.0	355
534-52-1	2-Methyl-4,6-dinitrophenol	U	355	ug/kg	71.0	355
100-01-6	4-Nitroaniline	U	355	ug/kg	107	355
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	355	ug/kg	71.0	355
122-66-7	Azobenzene	U	355	ug/kg	71.0	355
	<i>1,2</i> -Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	355	ug/kg	71.0	355
118-74-1	Hexachlorobenzene	U	355	ug/kg	71.0	355
85-01-8	Phenanthrene		80.0	ug/kg	10.7	35.5
120-12-7	Anthracene	U	35.5	ug/kg	7.10	35.5
84-74-2	Di-n-butylphthalate	U	355	ug/kg	71.0	355
206-44-0	Fluoranthene	J	15.1	ug/kg	10.7	35.5
85-68-7	Butylbenzylphthalate	U	355	ug/kg	71.0	355
56-55-3	Benzo(a)anthracene	U	35.5	ug/kg	10.7	35.5
91-94-1	3,3'-Dichlorobenzidine	U	355	ug/kg	107	355
218-01-9	Chrysene	U	35.5	ug/kg	10.7	35.5
117-81-7	bis(2-Ethylhexyl)phthalate	U	355	ug/kg	71.0	355
117-84-0	Di-n-octylphthalate	U	355	ug/kg	71.0	355
205-99-2	Benzo(b)fluoranthene	U	35.5	ug/kg	10.7	35.5
207-08-9	Benzo(k)fluoranthene	U	35.5	ug/kg	10.7	35.5
50-32-8	Benzo(a)pyrene	U	35.5	ug/kg	10.7	35.5
193-39-5	Indeno(1,2,3-cd)pyrene	U	35.5	ug/kg	10.7	35.5
53-70-3	Dibenzo(a,h)anthracene	U	35.5	ug/kg	10.7	35.5
191-24-2	Benzo(ghi)perylene	U	35.5	ug/kg	10.7	35.5
120-82-1	1,2,4-Trichlorobenzene	U	355	ug/kg	71.0	355

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.08	429	ug/kg		JA
1000140-07-7	1,4-Dimethyl-8-isopropylidenetricyclo[5.1.0]dec-5-ene	16.27	277	ug/kg	83	NJ

GEL Laboratories LLC

Data file : /chem/MSD8.i/s030610.b/s8c0611.d  
Lab Smp Id: 248012003 Client Smp ID: RE36-10-8470  
Inj Date : 06-MAR-2010 12:31  
Operator : nag1 Inst ID: MSD8.i  
Smp Info : |248012003|959457|1|SVM|1|LANL  
Misc Info : |MSD8270\_S|WBN100227-01  
Comment : Column: J & W DB-5MS, 25m x 0.20 mm x 0.33 micron film  
Method : /chem/MSD8.i/s030610.b/MSD8-8270AQA-022010.m  
Meth Date : 07-Mar-2010 11:27 nat00999 Quant Type: ISTD  
Cal Date : 21-FEB-2010 23:15 Cal File: s8b2042.d  
Als bottle: 9  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: 10-2027.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	6.19530	% 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	4.458	4.458	(1.000)	698760	40.0000	
* 29 Naphthalene-d8		136	5.716	5.720	(1.000)	2672234	40.0000	
* 46 Acenaphthene-d10		164	7.573	7.577	(1.000)	1578570	40.0000	
* 67 Phenanthrene-d10		188	9.173	9.177	(1.000)	2848439	40.0000	
* 91 Chrysene-d12		240	12.078	12.082	(1.000)	2409277	40.0000	
* 98 Perylene-d12		264	14.187	14.187	(1.000)	1599442	40.0000	
\$ 3 2-Fluorophenol		112	3.320	3.306	(0.745)	1150233	69.7248	2480
\$ 5 Phenol-d5		99	4.077	4.082	(0.915)	1401964	68.1447	2420
\$ 20 Nitrobenzene-d5		82	4.982	4.992	(0.872)	619082	32.5902	1160
\$ 39 2-Fluorobiphenyl		172	6.844	6.849	(0.904)	1555583	33.4786	1190
\$ 60 2,4,6-Tribromophenol		329	8.416	8.420	(1.111)	388794	74.5076	2650
\$ 81 p-Terphenyl-d14		244	10.887	10.882	(0.901)	1785714	41.1684	1460

Compounds	QUANT SIG					CONCENTRATIONS	
	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ng/ul)	FINAL (ug/Kg)
=====	=====	==	=====	=====	=====	=====	=====
79 Pyrene	202	10.720	10.730	(0.888)	26070	0.34657	12.3 (a)
68 Phenanthrene	178	9.197	9.201	(1.003)	20225	2.25315	80.0
76 Fluoranthene	202	10.473	10.482	(1.142)	30773	0.42456	15.1 (a)

#### QC Flag Legend

a - Target compound detected but, quantitated amount  
Below Limit Of Quantitation (BLOQ).



## ION RATIO REPORT

## SV REPORT

Data file: s8c0611.d

Report Date: 03/07/2010 11:34

Lab. ID: 248012003

SampleType: SAMPLE

Injection Date: 06-MAR-2010 12:31

Operator: nagl

Instrument: MSD8.i

Sample Info: |248012003|959457|1|SVM|1|LANL

Miscellaneous Info: |MSD8270\_S|WBN100227-01

Comment:

Method used: /chem/MSD8.i/s030610.b/MSD8-8270AQA-022010.m

Dilution Factor= 1.0

Integrator: HP RTE

Compound Sublist: 10-2027

Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
4	Aniline		CAS#: 62-53-3			
66	64151	4.08	4.15	80-120	100	(T)
93	139	4.08	4.15	235-295	0	(QT)
-----						
17	N-Nitrosodipropylamine		CAS#: 621-64-7			
70	84777	4.98	4.84	80-120	100	(T)
42	39534	4.98	4.84	31- 91	47	(T)
-----						
27	Benzoic acid		CAS#: 65-85-0			
105	825	5.52	5.46	80-120	100	(T)
122	594	5.42	5.46	51-111	72	( )
77	443	5.56	5.46	47-107	54	(T)
-----						
30	Naphthalene		CAS#: 91-20-3			
128	858	5.73	5.74	80-120	100	( )
129	273	5.72	5.74	0- 41	32	( )
127	0	0.00	5.74	0- 43	0	(T)
-----						
34	2-Methylnaphthalene		CAS#: 91-57-6			
142	292	6.45	6.46	80-120	100	( )
141	230	6.45	6.46	56-116	79	( )
-----						
44	2,6-Dinitrotoluene		CAS#: 606-20-2			
165	202734	7.57	7.35	80-120	100	(T)
63	2097	7.57	7.35	34- 94	1	(QT)
-----						

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
<hr/>						
50 2,4-Dinitrotoluene		CAS#: 121-14-2				
165	202734	7.57	7.78	80-120	100	(T)
89	2253	7.57	7.78	48-108	1	(QT)
63	2097	7.57	7.78	24- 84	1	(QT)
<hr/>						
55 2-Methyl-4,6-dinitrophenol		CAS#: 534-52-1				
198	1033	8.42	8.22	80-120	100	(T)
105	2171	8.42	8.21	12- 72	210	(QT)
51	1725	8.42	8.21	26- 86	167	(QT)
<hr/>						
68 Phenanthrene		CAS#: 85-01-8				
178	20225	9.20	9.20	80-120	100	( )
179	3456	9.19	9.20	0- 45	17	( )
176	3580	9.19	9.20	0- 48	18	( )
<hr/>						
69 Anthracene		CAS#: 120-12-7				
178	20225	9.20	9.26	80-120	100	(T)
179	3456	9.19	9.26	0- 45	17	(T)
176	3580	9.19	9.26	0- 48	18	(T)
<hr/>						
76 Fluoranthene		CAS#: 206-44-0				
202	30773	10.47	10.48	80-120	100	( )
203	5019	10.47	10.48	0- 47	16	( )
101	3728	10.47	10.48	0- 42	12	( )
<hr/>						
79 Pyrene		CAS#: 129-00-0				
202	26070	10.72	10.73	80-120	100	( )
200	5573	10.72	10.73	0- 50	21	( )
101	4170	10.72	10.72	0- 44	16	( )
<hr/>						
92 Chrysene		CAS#: 218-01-9				
228	10367	12.11	12.12	80-120	100	( )
229	2754	12.10	12.12	0- 49	27	( )
226	3288	12.10	12.12	0- 59	32	( )
<hr/>						
94 Di-n-octylphthalate		CAS#: 117-84-0				
149	676	12.97	12.97	80-120	100	( )
43	655	13.02	12.96	0- 38	97	(Q)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD8.i/s030610.b/s8c0611.d  
Lab Smp Id: 248012003 Client Smp ID: RE36-10-8470  
Inj Date : 06-MAR-2010 12:31  
Operator : nag1 Inst ID: MSD8.i  
Smp Info : |248012003|959457|1|SVM|1|LANL  
Misc Info : |MSD8270 S|WBN100227-01  
Comment : Column: J & W DB-5MS, 25m x 0.20 mm x 0.33 micron film  
Method : /chem/MSD8.i/s030610.b/MSD8-8270AQA-022010.m  
Meth Date : 07-Mar-2010 11:27 nat00999 Quant Type: ISTD  
Cal Date : 21-FEB-2010 23:15 Cal File: s8b2042.d  
Als bottle: 9  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: 10-2027.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	6.19530	% moisture

Cpnd Variable Local Compound Variable

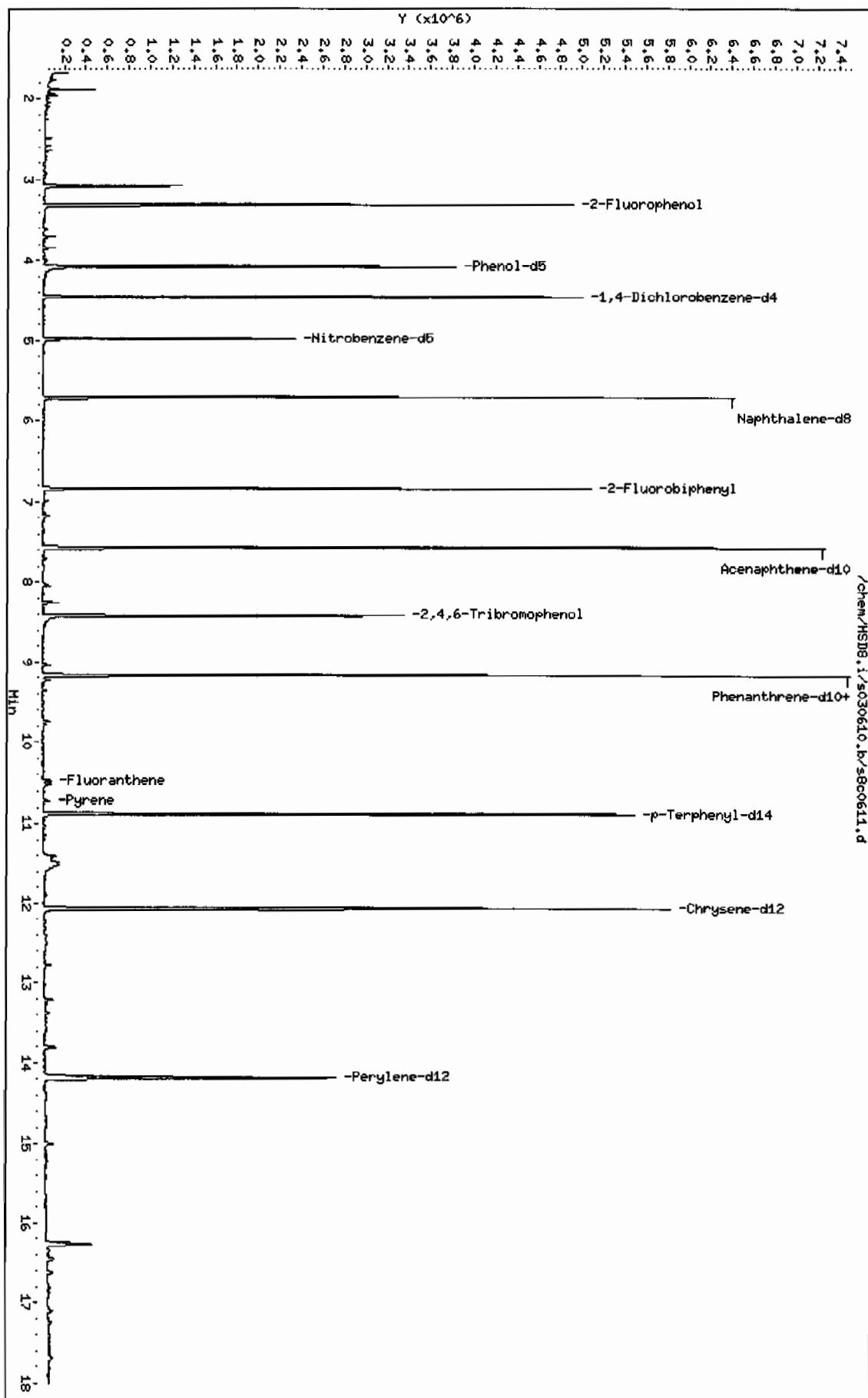
ISTD	RT	AREA	AMOUNT
=====	=====	=====	=====
* 10 1,4-Dichlorobenzene-d4	4.458	3860143	40.000
* 98 Perylene-d12	14.187	4609757	40.000

CONCENTRATIONS					QUANT		
RT	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
----	----	-----	-----	----	-----	-----	-----
Unknown Aldol Condensate					CAS #:		
3.082	1164423	12.0661136	429	0		0	10

RT	CONCENTRATIONS			QUAL	QUANT		CPND #
	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)		LIBRARY	LIB ENTRY	
====	====	=====	=====	====	=====	=====	=====
1,4-Dimethyl-8-isopropylidenetetracyclo[5.					CAS #: 1000140-07-7		
16.273	900218	7.81141282	277	83	NIST05.L	59920	98

Data File: /chem/MSD8.1/s030610.b/s80611.d  
 Date: 06-MAR-2010 12:31  
 Client ID: RE36-10-8470  
 Sample Info: 1248012003196945711|SVH111LNL  
 Volume Injected (uL): 0.5  
 Column phase: J&W DB-SMS

Instrument: MSD8.1  
 Operator: nag1  
 Column diameter: 0.20



Date : 06-MAR-2010 12:31

Client ID: RE36-10-8470

Instrument: HSD8.i

Sample Info: 1248012003195945711SVMI11LANL

Volume Injected (uL): 0.5

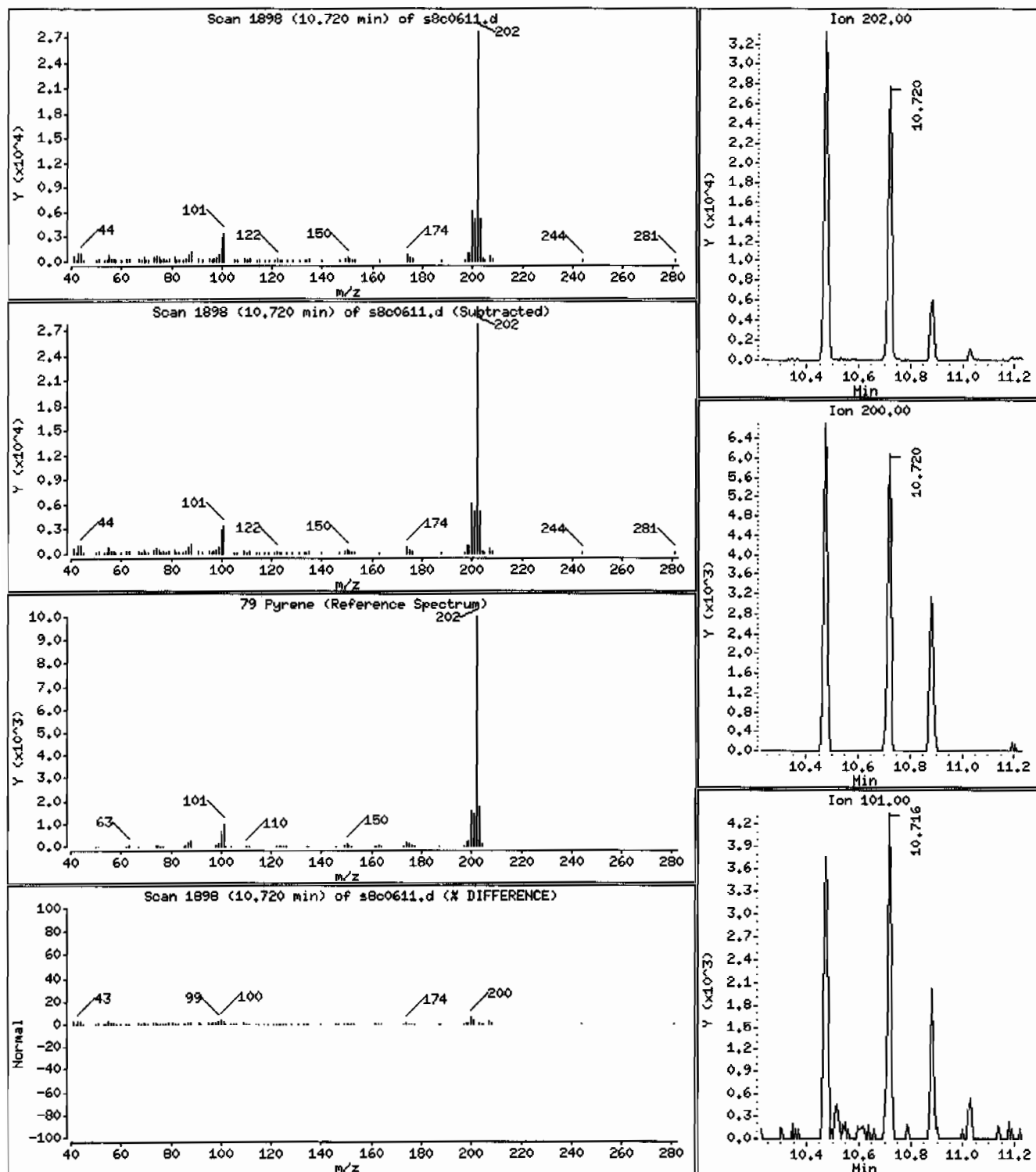
Operator: nag1

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

79 Pyrene

Concentration: 12.3 ug/Kg



Date : 06-MAR-2010 12:31

Client ID: RE36-10-8470

Instrument: MSD8.i

Sample Info: 1248012003195945711SVH11ILANL

Volume Injected (uL): 0.5

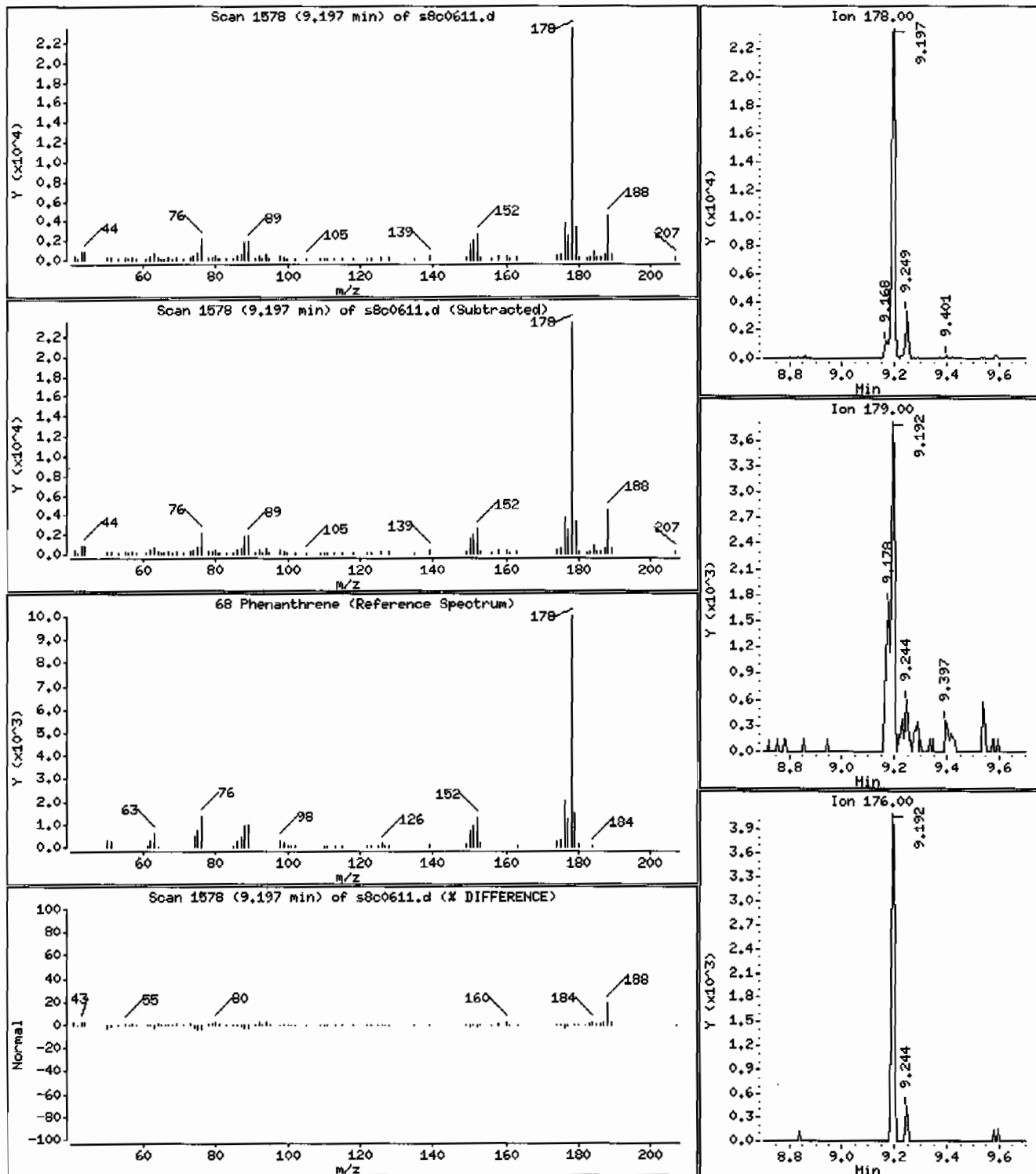
Operator: nag1

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

68 Phenanthrene

Concentration: 80.0 ug/Kg



Date : 06-MAR-2010 12:31

Client ID: RE36-10-8470

Instrument: MSD8.i

Sample Info: 1248012003195945711|SVH11|LANL

Volume Injected (uL): 0.5

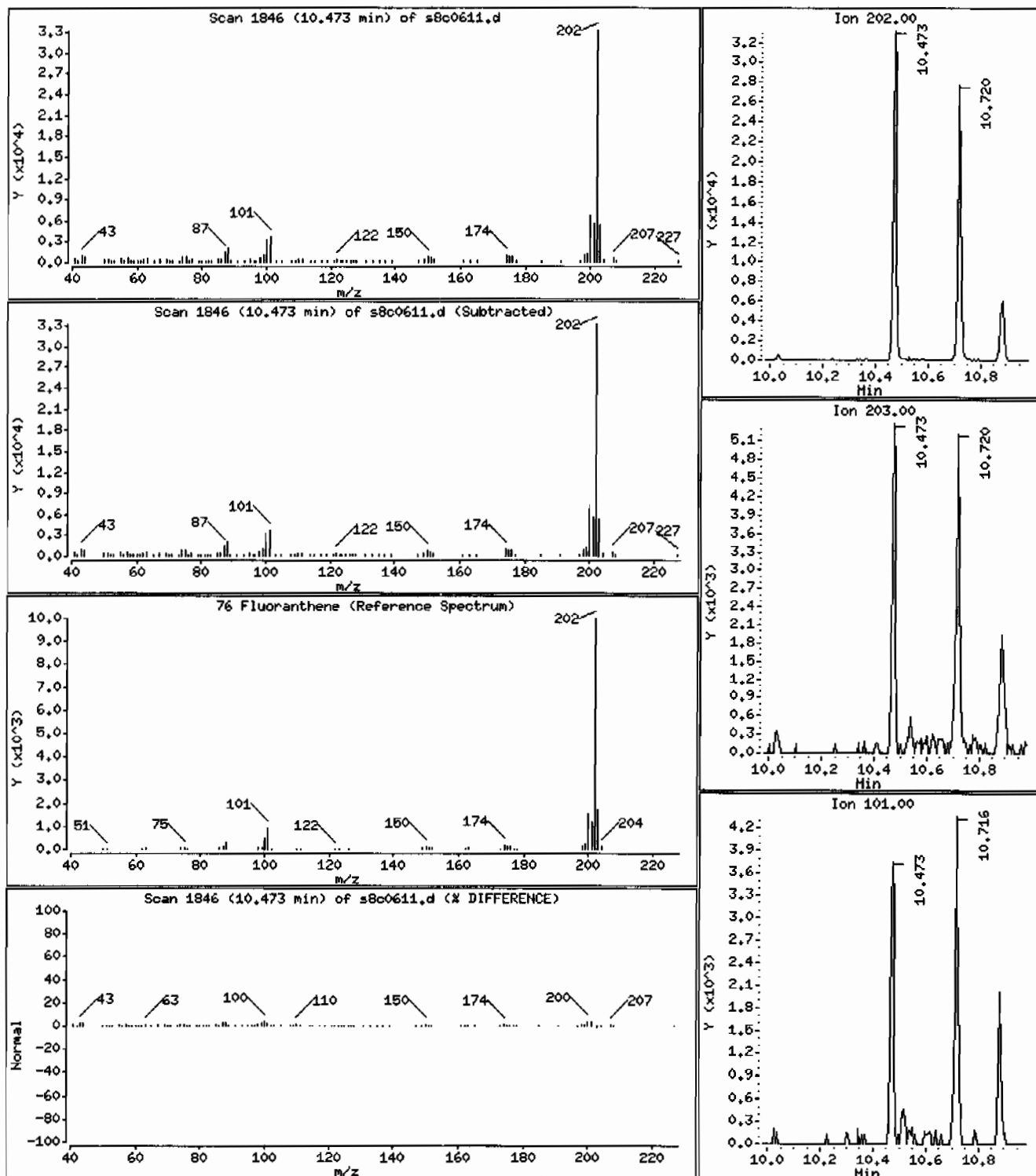
Operator: nag1

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

76 Fluoranthene

Concentration: 15.1 ug/Kg





Date : 06-MAR-2010 12:31

Client ID: RE36-10-8470

Instrument: HSD8.i

Sample Info: 12480120031959457111SVH111LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&amp;W DB-6MS

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

7961

53

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

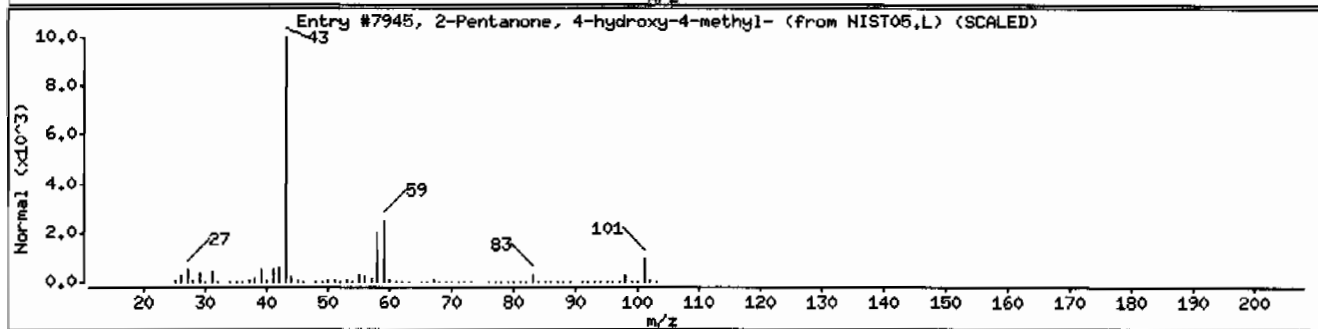
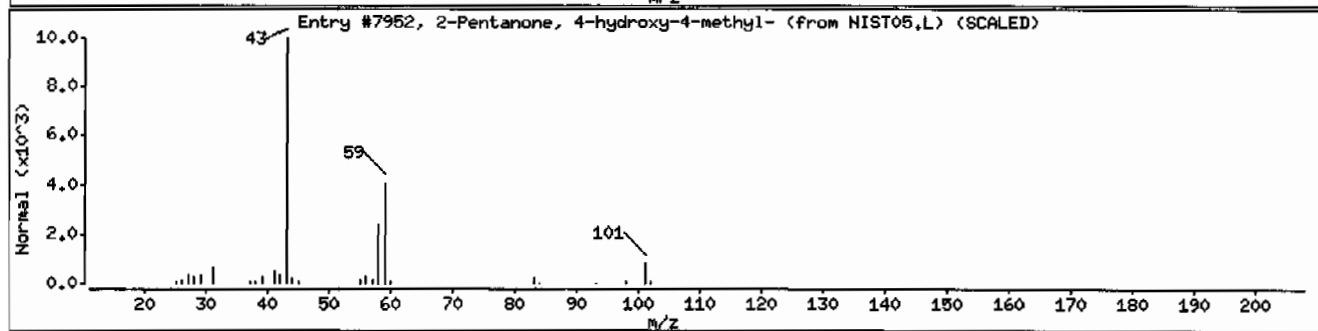
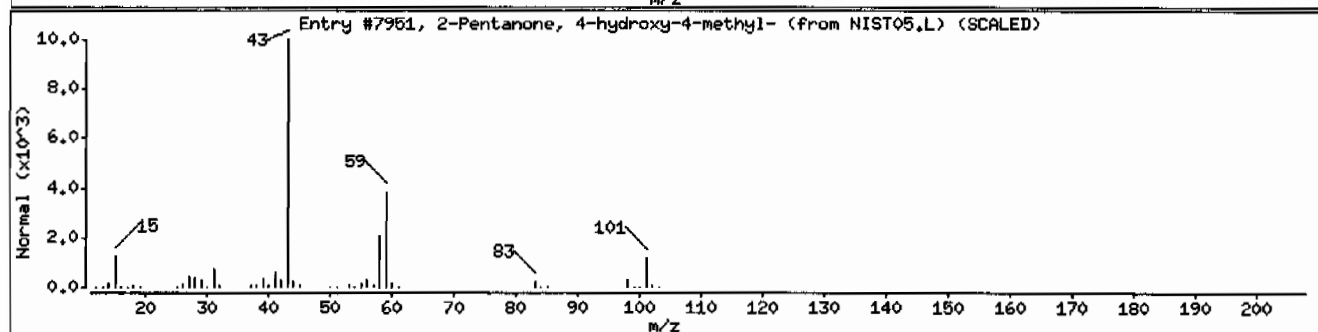
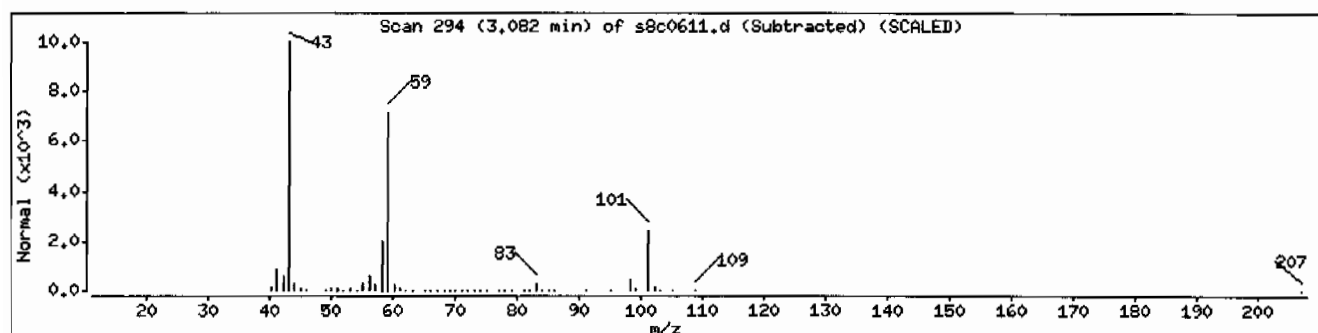
NIST05.L

7945

45

C6H12O2

116



Date : 06-MAR-2010 12:31

Client ID: RE36-10-8470

Instrument: HSD8.i

Sample Info: 12480120031959457111SVH111LANL

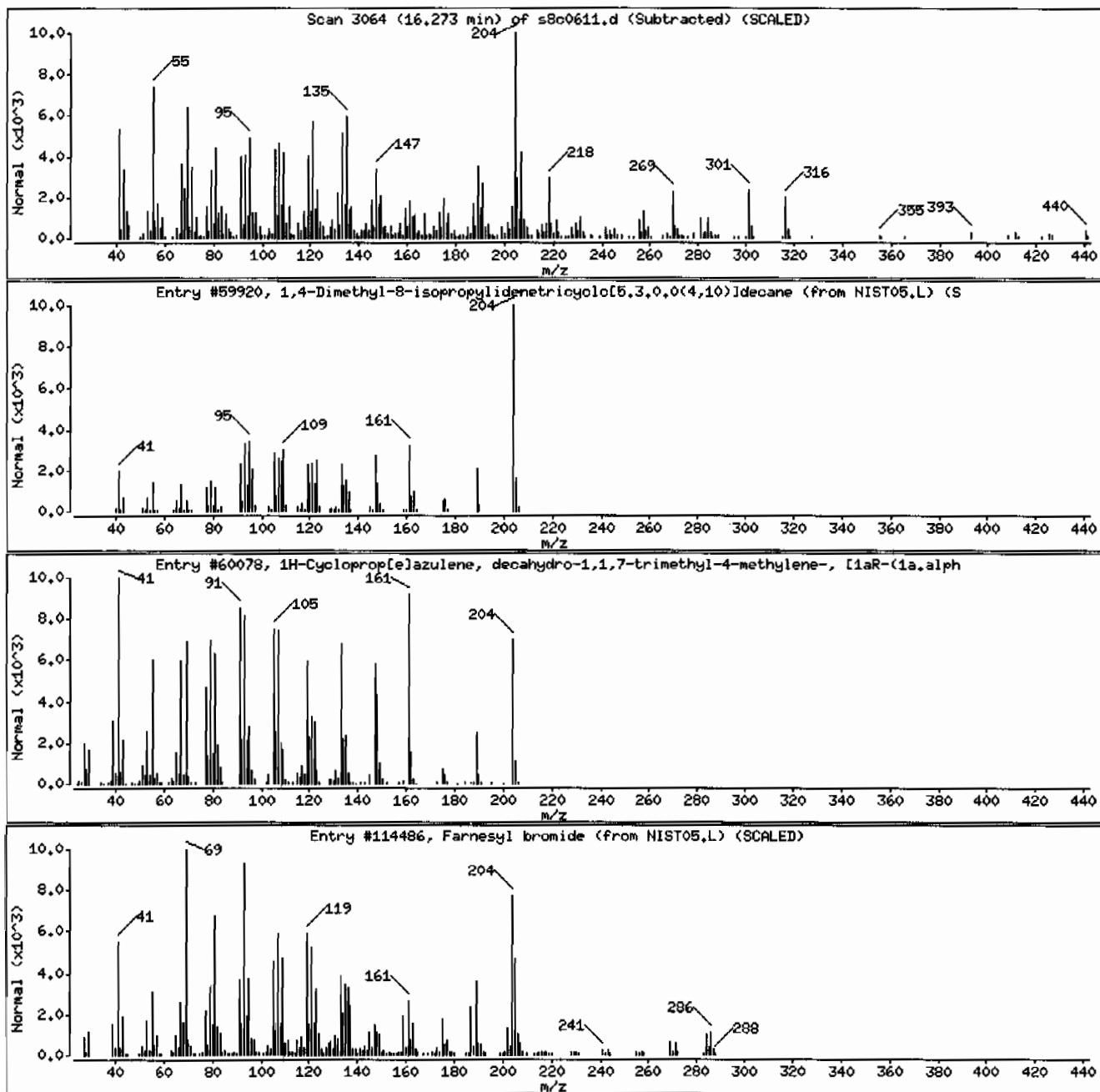
Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1,4-Dimethyl-8-isopropylidenetricyclo[5.3.0.0(4,10)]decane	1000140-07-7	NIST05.L	59920	83	C15H24	204
1H-Cycloprop[elazulene, decahydro-1,1,7-	489-39-4	NIST05.L	60078	55	C15H24	204
Farnesyl bromide	6874-67-5	NIST05.L	114486	55	C15H25Br	284



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

SDG Number: 10-2027	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 248012006	Date Received: 02/25/2010 08:45	%Moisture: 12.8
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-8474	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 959457	Inst: MSD8.1	Dilution: 1
Run Date: 03/06/2010 13:58	Analyst: NAG1	Inj. Vol: .5 uL
Prep Date: 03/01/2010 23:22	Aliquot: 30.14 g	Final Volume: 1 mL
Data File: s8c0614.d	Column: J&W DB-5MS	Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	381	ug/kg	76.1	381
108-95-2	Phenol	U	381	ug/kg	76.1	381
95-57-8	2-Chlorophenol	U	381	ug/kg	76.1	381
106-46-7	1,4-Dichlorobenzene	U	381	ug/kg	76.1	381
621-64-7	N-Nitrosodipropylamine	U	381	ug/kg	76.1	381
59-50-7	4-Chloro-3-methylphenol	U	381	ug/kg	76.1	381
83-32-9	Acenaphthene	U	38.1	ug/kg	12.6	38.1
121-14-2	2,4-Dinitrotoluene	U	381	ug/kg	38.1	381
100-02-7	4-Nitrophenol	U	381	ug/kg	126	381
87-86-5	Pentachlorophenol	U	381	ug/kg	95.2	381
129-00-0	Pyrene	U	38.1	ug/kg	11.4	38.1
110-86-1	Pyridine	U	381	ug/kg	76.1	381
62-53-3	Aniline	U	381	ug/kg	114	381
111-44-4	bis(2-Chloroethyl) ether	U	381	ug/kg	76.1	381
541-73-1	1,3-Dichlorobenzene	U	381	ug/kg	76.1	381
100-51-6	Benzyl alcohol	U	381	ug/kg	114	381
95-50-1	1,2-Dichlorobenzene	U	381	ug/kg	76.1	381
108-60-1	bis(2-Chloroisopropyl)ether	U	381	ug/kg	76.1	381
95-48-7	o-Cresol	U	381	ug/kg	76.1	381
65794-96-9	m,p-Cresols	U	381	ug/kg	114	381
67-72-1	Hexachloroethane	U	381	ug/kg	76.1	381
98-95-3	Nitrobenzene	U	381	ug/kg	76.1	381
78-59-1	Isophorone	U	381	ug/kg	76.1	381
88-75-5	2-Nitrophenol	U	381	ug/kg	76.1	381
105-67-9	2,4-Dimethylphenol	U	381	ug/kg	133	381
111-91-1	bis(2-Chloroethoxy)methane	U	381	ug/kg	76.1	381
120-83-2	2,4-Dichlorophenol	U	381	ug/kg	76.1	381
65-85-0	Benzoic acid	U	761	ug/kg	190	761
91-20-3	Naphthalene	U	38.1	ug/kg	11.4	38.1
106-47-8	4-Chloroaniline	U	381	ug/kg	76.1	381
87-68-3	Hexachlorobutadiene	U	381	ug/kg	76.1	381
91-57-6	2-Methylnaphthalene	U	38.1	ug/kg	7.61	38.1
77-47-4	Hexachlorocyclopentadiene	U	381	ug/kg	76.1	381
88-06-2	2,4,6-Trichlorophenol	U	381	ug/kg	76.1	381
95-95-4	2,4,5-Trichlorophenol	U	381	ug/kg	76.1	381
91-58-7	2-Chloronaphthalene	U	38.1	ug/kg	12.6	38.1
88-74-4	2-Nitroaniline	U	381	ug/kg	76.1	381
	<i>o</i> -Nitroaniline					
99-09-2	3-Nitroaniline	U	381	ug/kg	76.1	381

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

SDG Number: 10-2027	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 248012006	Date Received: 02/25/2010 08:45	%Moisture: 12.8
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-8474	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 959457	Inst: MSD8.I	Dilution: 1
Run Date: 03/06/2010 13:58	Analyst: NAG1	Inj. Vol: .5 uL
Prep Date: 03/01/2010 23:22	Aliquot: 30.14 g	Final Volume: 1 mL
Data File: s8c0614.d	Column: J&W DB-5MS	Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
131-11-3	<i>m</i> -Nitroaniline					
	Dimethylphthalate	U	381	ug/kg	76.1	381
606-20-2	2,6-Dinitrotoluene	U	381	ug/kg	38.1	381
208-96-8	Acenaphthylene	U	38.1	ug/kg	11.4	38.1
51-28-5	2,4-Dinitrophenol	U	761	ug/kg	145	761
132-64-9	Dibenzofuran	U	381	ug/kg	76.1	381
84-66-2	Diethylphthalate	U	381	ug/kg	76.1	381
86-73-7	Fluorene	U	38.1	ug/kg	11.4	38.1
7005-72-3	4-Chlorophenylphenylether	U	381	ug/kg	76.1	381
534-52-1	2-Methyl-4,6-dinitrophenol	U	381	ug/kg	76.1	381
100-01-6	4-Nitroaniline	U	381	ug/kg	114	381
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	381	ug/kg	76.1	381
122-66-7	Azobenzene	U	381	ug/kg	76.1	381
	<i>1,2</i> -Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	381	ug/kg	76.1	381
118-74-1	Hexachlorobenzene	U	381	ug/kg	76.1	381
85-01-8	Phenanthrene	U	38.1	ug/kg	11.4	38.1
120-12-7	Anthracene	U	38.1	ug/kg	7.61	38.1
84-74-2	Di-n-butylphthalate	U	381	ug/kg	76.1	381
206-44-0	Fluoranthene	U	38.1	ug/kg	11.4	38.1
85-68-7	Butylbenzylphthalate	U	381	ug/kg	76.1	381
56-55-3	Benzo(a)anthracene	U	38.1	ug/kg	11.4	38.1
91-94-1	3,3'-Dichlorobenzidine	U	381	ug/kg	114	381
218-01-9	Chrysene	U	38.1	ug/kg	11.4	38.1
117-81-7	bis(2-Ethylhexyl)phthalate	U	381	ug/kg	76.1	381
117-84-0	Di-n-octylphthalate	U	381	ug/kg	76.1	381
205-99-2	Benzo(b)fluoranthene	U	38.1	ug/kg	11.4	38.1
207-08-9	Benzo(k)fluoranthene	U	38.1	ug/kg	11.4	38.1
50-32-8	Benzo(a)pyrene	U	38.1	ug/kg	11.4	38.1
193-39-5	Indeno(1,2,3-cd)pyrene	U	38.1	ug/kg	11.4	38.1
53-70-3	Dibenzo(a,h)anthracene	U	38.1	ug/kg	11.4	38.1
191-24-2	Benzo(ghi)perylene	U	38.1	ug/kg	11.4	38.1
120-82-1	1,2,4-Trichlorobenzene	U	381	ug/kg	76.1	381

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	1.89	1250	ug/kg		J
	Unknown Aldol Condensate	3.08	443	ug/kg		JA

Semi-Volatile  
Certificate of Analysis  
Sample Summary

SDG Number: 10-2027	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 248012006	Date Received: 02/25/2010 08:45	%Moisture: 12.8
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-8474	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 959457	Inst: MSD8.I	Dilution: 1
Run Date: 03/06/2010 13:58	Analyst: NAG1	Inj. Vol: .5 uL
Prep Date: 03/01/2010 23:22	Aliquot: 30.14 g	Final Volume: 1 mL
Data File: s8c0614.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	11.5	327	ug/kg		J
25491-20-7	1H-3a,7-Methanoazulene, octahydro-1,4,9,	11.52	212	ug/kg	80	NJ

GEL Laboratories LLC

Data file : /chem/MSD8.i/s030610.b/s8c0614.d  
Lab Smp Id: 248012006 Client Smp ID: RE36-10-8474  
Inj Date : 06-MAR-2010 13:58  
Operator : nagl Inst ID: MSD8.i  
Smp Info : |248012006|959457|1|SVM|1|LANL  
Misc Info : |MSD8270\_S|WBN100227-01  
Comment : Column: J & W DB-5MS, 25m x 0.20 mm x 0.33 micron film  
Method : /chem/MSD8.i/s030610.b/MSD8-8270AQA-022010.m  
Meth Date : 07-Mar-2010 11:27 nat00999 Quant Type: ISTD  
Cal Date : 21-FEB-2010 23:15 Cal File: s8b2042.d  
Als bottle: 12  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: 10-2027.sub  
Target Version: 3.50  
Processing Host: hpcplp1

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	30.14000	weight of sample
M	12.82850	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN	FINAL
	MASS					(ng/ul)	(ug/Kg)
=====	=====	==	=====	=====	=====	=====	=====
* 10 1,4-Dichlorobenzene-d4	152	4.458	4.458	(1.000)	696361	40.0000	
* 29 Naphthalene-d8	136	5.715	5.720	(1.000)	2721968	40.0000	
* 46 Acenaphthene-d10	164	7.573	7.577	(1.000)	1591690	40.0000	
* 67 Phenanthrene-d10	188	9.173	9.177	(1.000)	2816282	40.0000	
* 91 Chrysene-d12	240	12.077	12.082	(1.000)	2357903	40.0000	
* 98 Perylene-d12	264	14.192	14.187	(1.000)	1681290	40.0000	
\$ 3 2-Fluorophenol	112	3.315	3.306	(0.744)	1038755	63.1841	2400
\$ 5 Phenol-d5	99	4.077	4.082	(0.915)	1299641	63.3887	2410
\$ 20 Nitrobenzene-d5	82	4.982	4.992	(0.872)	609329	31.4907	1200
\$ 39 2-Fluorobiphenyl	172	6.844	6.849	(0.904)	1311949	28.0025	1060
\$ 60 2,4,6-Tribromophenol	329	8.415	8.420	(1.111)	304852	57.9396	2200
\$ 81 p-Terphenyl-d14	244	10.887	10.882	(0.901)	1401785	33.0213	1260

## ION RATIO REPORT

## SV REPORT

Data file: s8c0614.d

Report Date: 03/07/2010 11:35

Lab. ID: 248012006

SampleType: SAMPLE

Injection Date: 06-MAR-2010 13:58

Operator: nag1

Instrument: MSD8.i

Sample Info: |248012006|959457|1|SVM|1|LANL

Miscellaneous Info: |MSD8270\_S|WBN100227-01

Comment:

Method used: /chem/MSD8.i/s030610.b/MSD8-8270AQA-022010.m

Dilution Factor= 1.0

Integrator: HP RTE

Compound Sublist: 10-2027

Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
-----						
4	Aniline	CAS#: 62-53-3				
66	68483	4.08	4.15	80-120	100	(T)
93	1628	4.13	4.15	235-295	2	(Q)
-----						
17	N-Nitrosodipropylamine	CAS#: 621-64-7				
70	83293	4.98	4.84	80-120	100	(T)
42	44955	4.98	4.84	31- 91	54	(T)
-----						
27	Benzoic acid	CAS#: 65-85-0				
105	1257	5.50	5.46	80-120	100	( )
122	293	5.50	5.46	51-111	23	(Q)
77	408	5.49	5.46	47-107	33	(Q)
-----						
30	Naphthalene	CAS#: 91-20-3				
128	596	5.73	5.74	80-120	100	( )
129	331	5.72	5.74	0- 41	56	(Q)
127	0	0.00	5.74	0- 43	0	(T)
-----						
40	2-Chloronaphthalene	CAS#: 91-58-7				
162	148	7.00	6.98	80-120	100	( )
164	1354	6.99	6.98	3- 63	915	(Q)
127	590	6.91	6.98	7- 67	399	(QT)
-----						
44	2,6-Dinitrotoluene	CAS#: 606-20-2				
165	204077	7.57	7.35	80-120	100	(T)
63	3292	7.57	7.35	34- 94	2	(QT)
-----						

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
<hr/>						
50	2,4-Dinitrotoluene			CAS#: 121-14-2		
165	204077	7.57	7.78	80-120	100	(T)
89	2844	7.57	7.78	48-108	1	(QT)
63	3292	7.57	7.78	24- 84	2	(QT)
<hr/>						
55	2-Methyl-4,6-dinitrophenol			CAS#: 534-52-1		
198	1012	8.41	8.22	80-120	100	(T)
105	2140	8.42	8.21	12- 72	211	(QT)
51	2007	8.42	8.21	26- 86	198	(QT)
<hr/>						
68	Phenanthrene			CAS#: 85-01-8		
178	2364	9.19	9.20	80-120	100	( )
179	515	9.19	9.20	0- 45	22	( )
176	499	9.19	9.20	0- 48	21	( )
<hr/>						
92	Chrysene			CAS#: 218-01-9		
228	1296	12.11	12.12	80-120	100	( )
229	328	12.11	12.12	0- 49	25	( )
226	453	12.10	12.12	0- 59	35	( )
<hr/>						
94	Di-n-octylphthalate			CAS#: 117-84-0		
149	496	12.96	12.97	80-120	100	( )
43	582	12.92	12.96	0- 38	117	(Q)

Q qualifier indicates ion failed ratio requirement



GEL Laboratories LLC

Data file : /chem/MSD8.i/s030610.b/s8c0614.d  
 Lab Smp Id: 248012006 Client Smp ID: RE36-10-8474  
 Inj Date : 06-MAR-2010 13:58  
 Operator : nagl Inst ID: MSD8.i  
 Smp Info : |248012006|959457|1|SVM|1|LANL  
 Misc Info : |MSD8270 S|WBN100227-01  
 Comment : Column: J & W DB-5MS, 25m x 0.20 mm x 0.33 micron film  
 Method : /chem/MSD8.i/s030610.b/MSD8-8270AQA-022010.m  
 Meth Date : 07-Mar-2010 11:27 nat00999 Quant Type: ISTD  
 Cal Date : 21-FEB-2010 23:15 Cal File: s8b2042.d  
 Als bottle: 12  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: 10-2027.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	30.14000	weight of sample
M	12.82850	% moisture

Cpnd Variable Local Compound Variable

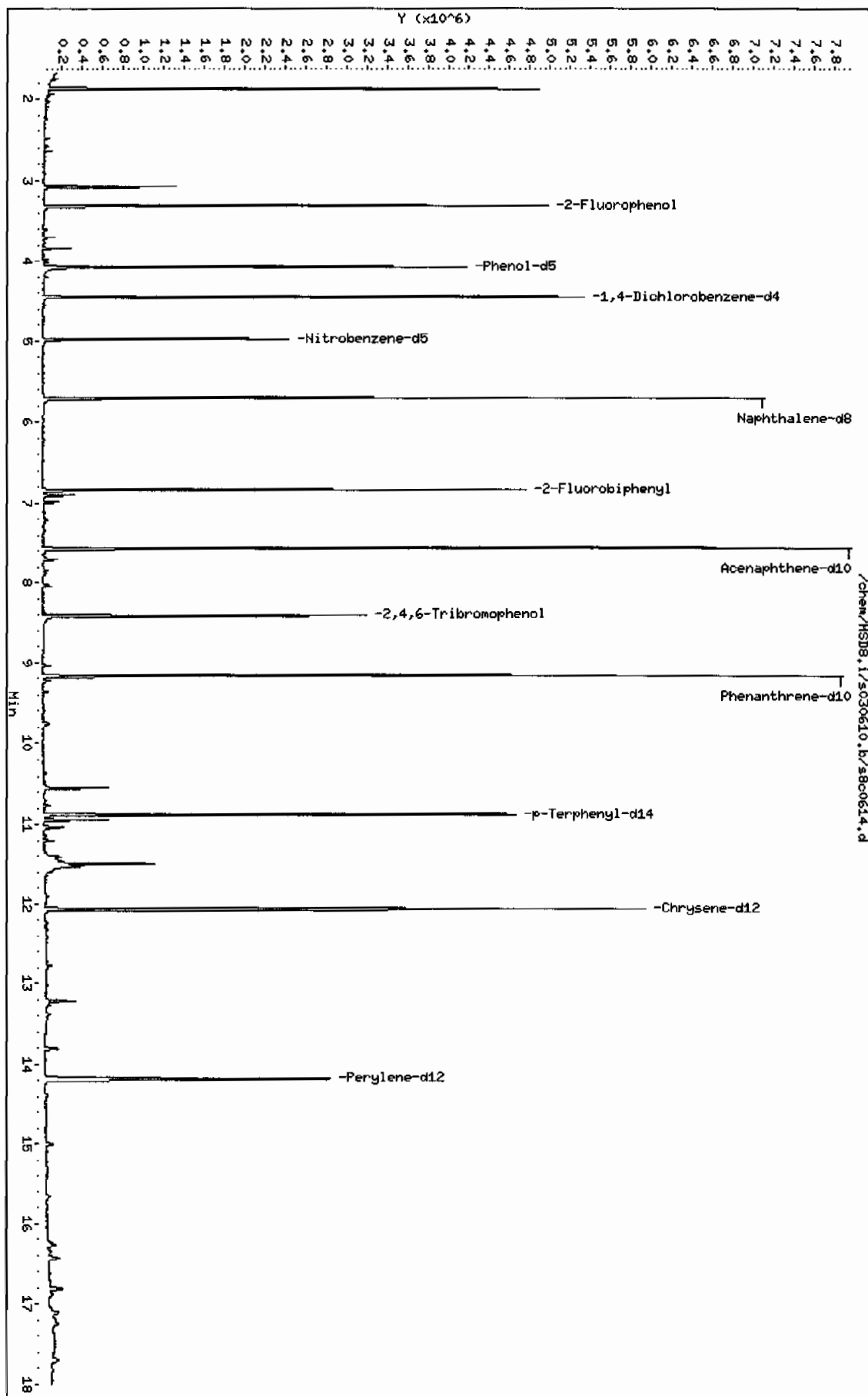
ISTD	RT	AREA	AMOUNT
=====	=====	=====	=====
* 10 1,4-Dichlorobenzene-d4	4.458	4159958	40.000
* 91 Chrysene-d12	12.077	6451682	40.000

CONCENTRATIONS					QUANT		
RT	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
=====	=====	=====	=====	=====	=====	=====	=====
Unknown				CAS #:			
1.887	3418545	32.8709461	1250	0		0	10

RT	CONCENTRATIONS			QUAL	QUANT		CPND #
	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)		LIBRARY	LIB ENTRY	
=====	=====	=====	=====	=====	=====	=====	=====
Unknown Aldol Condensate					CAS #:		
3.082	1210633	11.6408200	443	0		0	10
Unknown					CAS #:		
11.496	1384482	8.58369303	327	0		0	91
1H-3a,7-Methanoazulene, octahydro-1,4,9,					CAS #: 25491-20-7		
11.525	900251	5.58149646	212	80	NIST05.L	61560	91

Data File: /chem/MSDB.1/s030610.b/s800614.d  
Date: 06-MAR-2010 13:58  
Client ID: RE36-10-8474  
Sample Info: 1248012006195945711SVH11LNL  
Volume Injected (uL): 0.5  
Column Phase: J&W DB-SMS

Instrument: MSDB.1  
Operator: nag1  
Column diameter: 0.20



Date : 06-MAR-2010 13:58

Client ID: RE36-10-8474

Instrument: MSD8.i

Sample Info: 12480120061989457111SVH111LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

## Library Search Compound Match

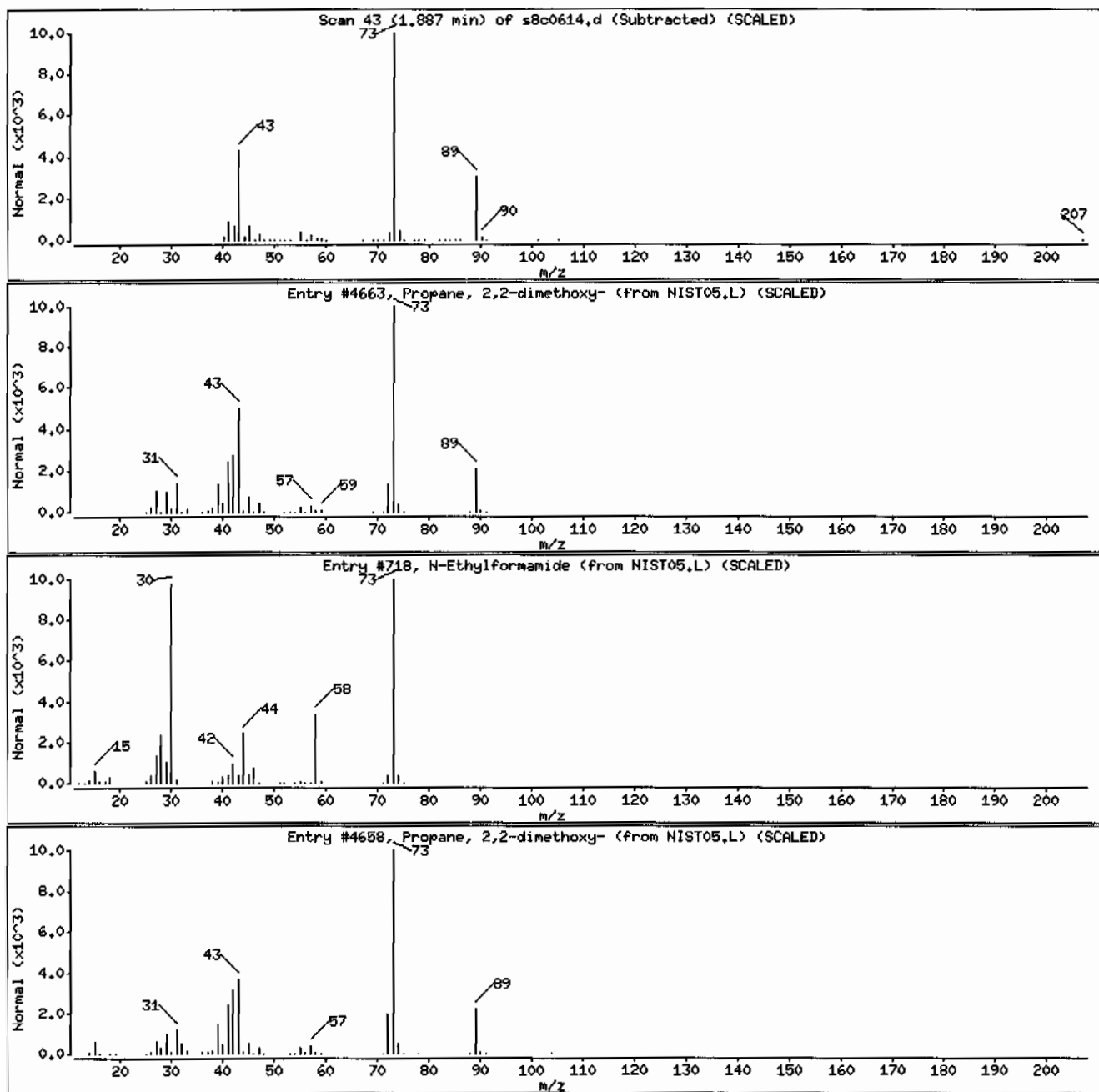
Unknown

Propane, 2,2-dimethoxy-

N-Ethylformamide

Propane, 2,2-dimethoxy-

CAS Number	Library	Entry	Quality	Formula	Weight
77-76-9	NIST05.L	4663	38	C5H12O2	104
627-45-2	NIST05.L	718	25	C3H7NO	73
77-76-9	NIST05.L	4658	9	C5H12O2	104



Date : 06-MAR-2010 13:58

Client ID: RE36-10-8474

Instrument: MSD8.i

Sample Info: 12480120061959457111SVMI11LANL

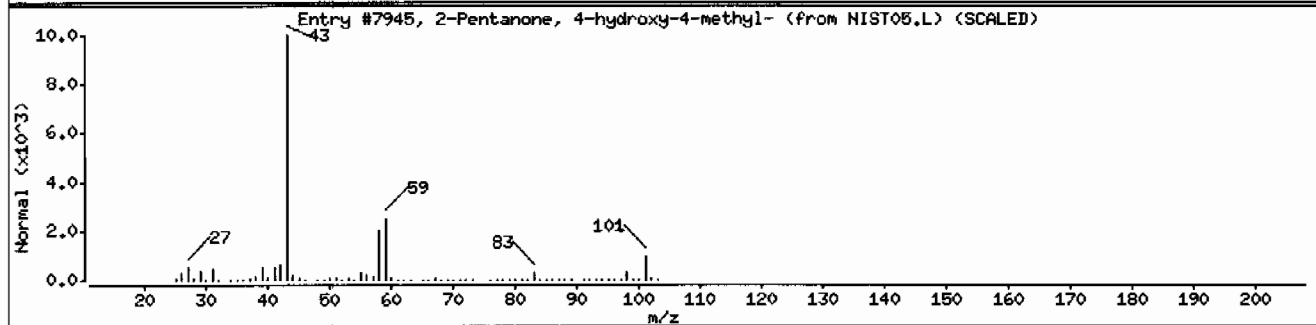
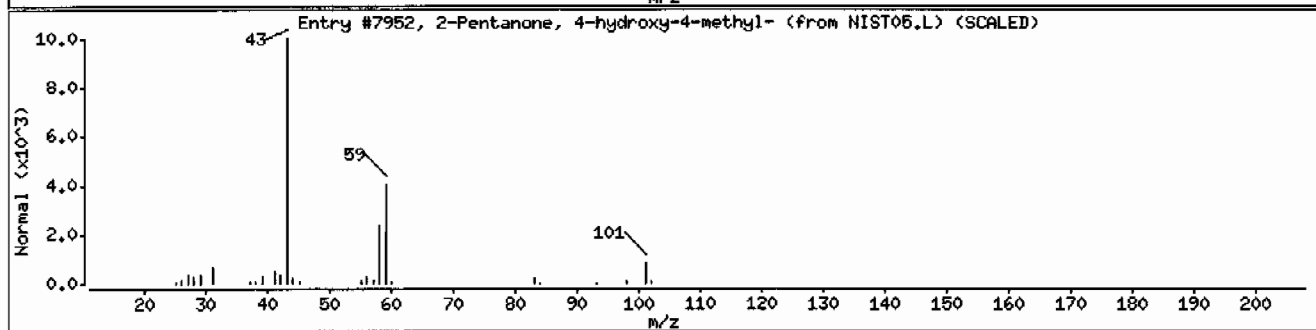
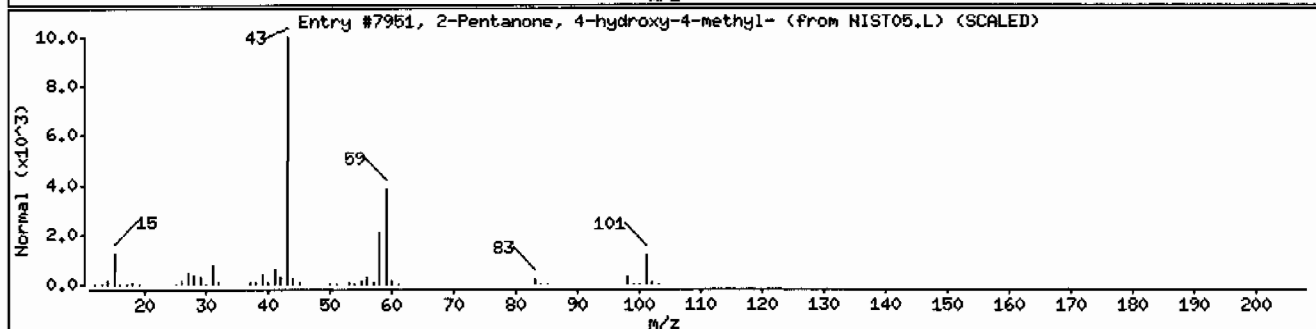
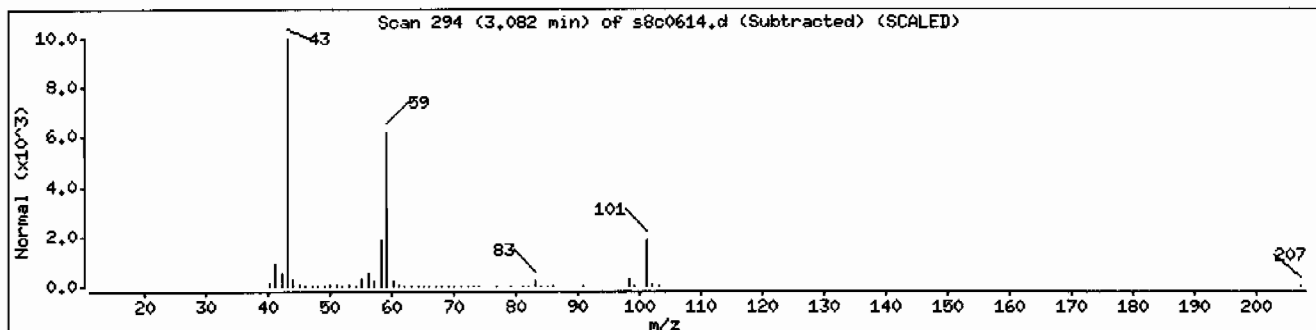
Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	59	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	40	C6H12O2	116



Date : 06-MAR-2010 13:58

Client ID: RE36-10-8474

Instrument: MSD8.i

Sample Info: I248012006195945711SVH11ILANL

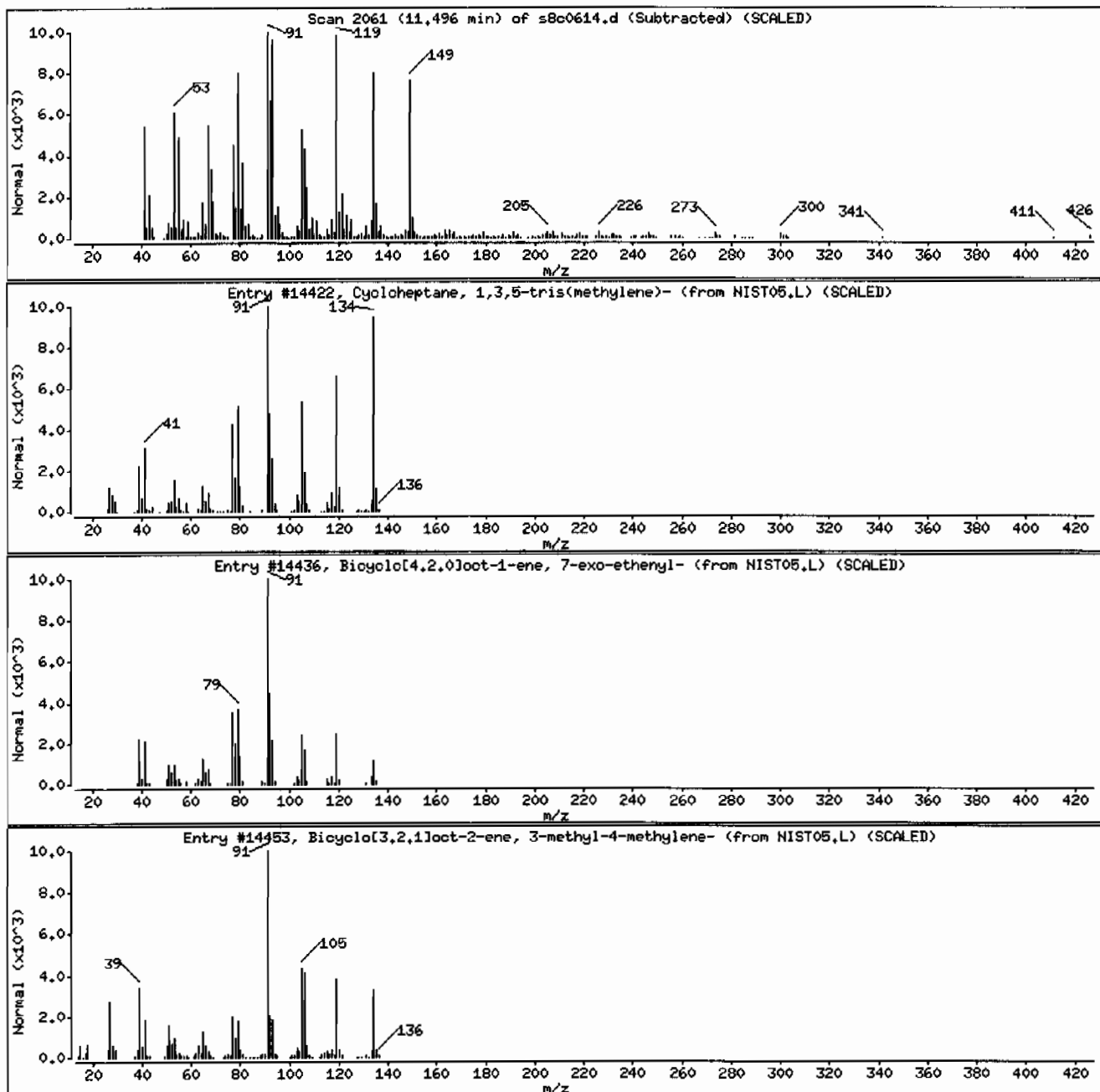
Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Cycloheptane, 1,3,5-tris(methylene)-	68284-24-2	NIST05.L	14422	42	C10H14	134
Bicyclo[4.2.0]oct-1-ene, 7-exo-ethenyl-	1000142-18-2	NIST05.L	14436	38	C10H14	134
Bicyclo[3.2.1]oct-2-ene, 3-methyl-4-meth	49826-53-1	NIST05.L	14453	38	C10H14	134



Date : 06-MAR-2010 13:58

Client ID: RE36-10-8474

Instrument: MSD8.i

Sample Info: I248012006195945711ISVH11ILANL

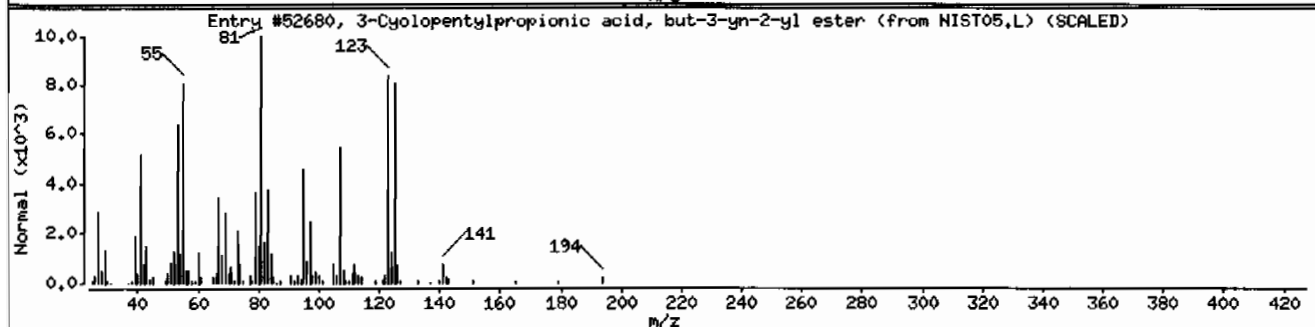
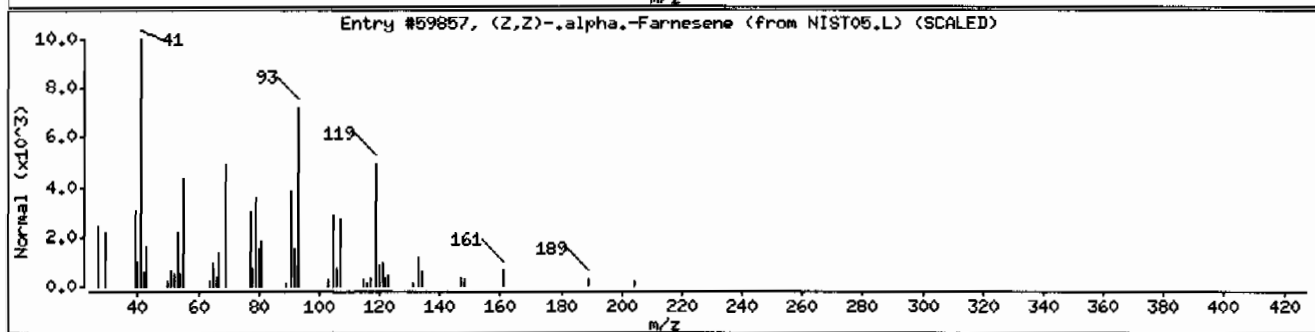
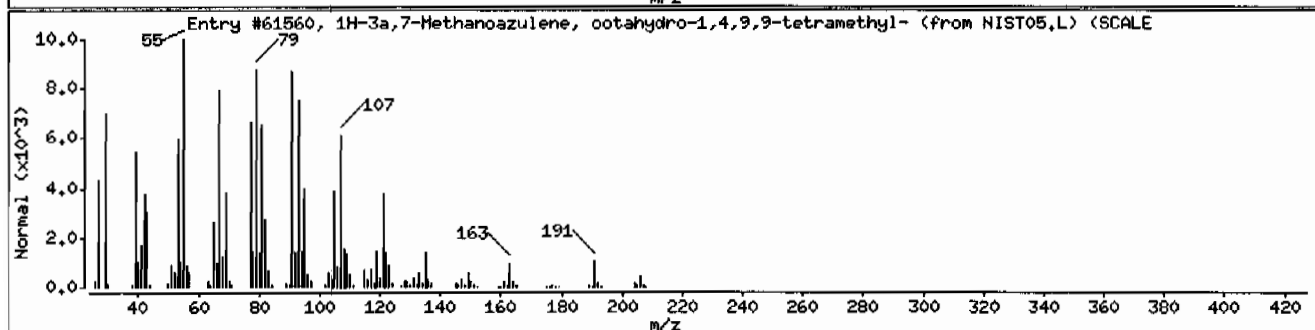
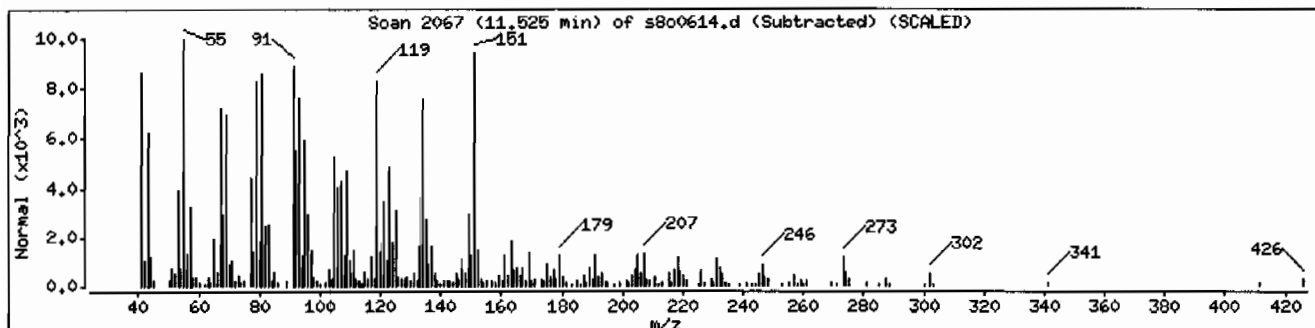
Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1H-3a,7-Methanoazulene, ootahydro-1,4,9,	25491-20-7	NIST05.L	61560	80	C15H26	206
(Z,Z)-.alpha.-Farnesene	1000293-03-1	NIST05.L	59857	50	C15H24	204
3-Cyclopentylpropionic acid, but-3-yn-2-	1000292-46-4	NIST05.L	52680	38	C12H18O2	194



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

SDG Number: 10-2027  
Lab Sample ID: 248012004

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD8.I  
Analyst: NAG1  
Aliquot: 30.19 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 4.2  
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	346	ug/kg	69.1	346
108-95-2	Phenol	U	346	ug/kg	69.1	346
95-57-8	2-Chlorophenol	U	346	ug/kg	69.1	346
106-46-7	1,4-Dichlorobenzene	U	346	ug/kg	69.1	346
621-64-7	N-Nitrosodipropylamine	U	346	ug/kg	69.1	346
59-50-7	4-Chloro-3-methylphenol	U	346	ug/kg	69.1	346
83-32-9	Acenaphthene	U	34.6	ug/kg	11.4	34.6
121-14-2	2,4-Dinitrotoluene	U	346	ug/kg	34.6	346
100-02-7	4-Nitrophenol	U	346	ug/kg	114	346
87-86-5	Pentachlorophenol	U	346	ug/kg	86.4	346
129-00-0	Pyrene	U	34.6	ug/kg	10.4	34.6
110-86-1	Pyridine	U	346	ug/kg	69.1	346
62-53-3	Aniline	U	346	ug/kg	104	346
111-44-4	bis(2-Chloroethyl) ether	U	346	ug/kg	69.1	346
541-73-1	1,3-Dichlorobenzene	U	346	ug/kg	69.1	346
100-51-6	Benzyl alcohol	U	346	ug/kg	104	346
95-50-1	1,2-Dichlorobenzene	U	346	ug/kg	69.1	346
108-60-1	bis(2-Chloroisopropyl)ether	U	346	ug/kg	69.1	346
95-48-7	o-Cresol	U	346	ug/kg	69.1	346
65794-96-9	m,p-Cresols	U	346	ug/kg	104	346
67-72-1	Hexachloroethane	U	346	ug/kg	69.1	346
98-95-3	Nitrobenzene	U	346	ug/kg	69.1	346
78-59-1	Isophorone	U	346	ug/kg	69.1	346
88-75-5	2-Nitrophenol	U	346	ug/kg	69.1	346
105-67-9	2,4-Dimethylphenol	U	346	ug/kg	121	346
111-91-1	bis(2-Chloroethoxy)methane	U	346	ug/kg	69.1	346
120-83-2	2,4-Dichlorophenol	U	346	ug/kg	69.1	346
65-85-0	Benzoic acid	U	691	ug/kg	173	691
91-20-3	Naphthalene	U	34.6	ug/kg	10.4	34.6
106-47-8	4-Chloroaniline	U	346	ug/kg	69.1	346
87-68-3	Hexachlorobutadiene	U	346	ug/kg	69.1	346
91-57-6	2-Methylnaphthalene	U	34.6	ug/kg	6.91	34.6
77-47-4	Hexachlorocyclopentadiene	U	346	ug/kg	69.1	346
88-06-2	2,4,6-Trichlorophenol	U	346	ug/kg	69.1	346
95-95-4	2,4,5-Trichlorophenol	U	346	ug/kg	69.1	346
91-58-7	2-Chloronaphthalene	U	34.6	ug/kg	11.4	34.6
88-74-4	2-Nitroaniline	U	346	ug/kg	69.1	346
	<i>o</i> -Nitroaniline					
99-09-2	3-Nitroaniline	U	346	ug/kg	69.1	346



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

SDG Number: 10-2027  
Lab Sample ID: 248012004

Client ID: RE36-10-8476  
Batch ID: 959457  
Run Date: 03/06/2010 13:00  
Prep Date: 03/01/2010 23:22  
Data File: s8c0612.d

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD8.I  
Analyst: NAG1  
Aliquot: 30.19 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 4.2  
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	346	ug/kg	69.1	346
606-20-2	2,6-Dinitrotoluene	U	346	ug/kg	34.6	346
208-96-8	Acenaphthylene	U	34.6	ug/kg	10.4	34.6
51-28-5	2,4-Dinitrophenol	U	691	ug/kg	131	691
132-64-9	Dibenzofuran	U	346	ug/kg	69.1	346
84-66-2	Diethylphthalate	U	346	ug/kg	69.1	346
86-73-7	Fluorene	U	34.6	ug/kg	10.4	34.6
7005-72-3	4-Chlorophenylphenylether	U	346	ug/kg	69.1	346
534-52-1	2-Methyl-4,6-dinitrophenol	U	346	ug/kg	69.1	346
100-01-6	4-Nitroaniline	U	346	ug/kg	104	346
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	346	ug/kg	69.1	346
122-66-7	Azobenzene	U	346	ug/kg	69.1	346
	<i>1,2</i> -Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	346	ug/kg	69.1	346
118-74-1	Hexachlorobenzene	U	346	ug/kg	69.1	346
85-01-8	Phenanthrene	U	34.6	ug/kg	10.4	34.6
120-12-7	Anthracene	U	34.6	ug/kg	6.91	34.6
84-74-2	Di-n-butylphthalate	U	346	ug/kg	69.1	346
206-44-0	Fluoranthene	U	34.6	ug/kg	10.4	34.6
85-68-7	Butylbenzylphthalate	U	346	ug/kg	69.1	346
56-55-3	Benzo(a)anthracene	U	34.6	ug/kg	10.4	34.6
91-94-1	3,3'-Dichlorobenzidine	U	346	ug/kg	104	346
218-01-9	Chrysene	U	34.6	ug/kg	10.4	34.6
117-81-7	bis(2-Ethylhexyl)phthalate	U	346	ug/kg	69.1	346
117-84-0	Di-n-octylphthalate	U	346	ug/kg	69.1	346
205-99-2	Benzo(b)fluoranthene	U	34.6	ug/kg	10.4	34.6
207-08-9	Benzo(k)fluoranthene	U	34.6	ug/kg	10.4	34.6
50-32-8	Benzo(a)pyrene	U	34.6	ug/kg	10.4	34.6
193-39-5	Indeno(1,2,3-cd)pyrene	U	34.6	ug/kg	10.4	34.6
53-70-3	Dibenzo(a,h)anthracene	U	34.6	ug/kg	10.4	34.6
191-24-2	Benzo(ghi)perylene	U	34.6	ug/kg	10.4	34.6
120-82-1	1,2,4-Trichlorobenzene	U	346	ug/kg	69.1	346

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	1.9	223	ug/kg		J
	Unknown Aldol Condensate	3.08	434	ug/kg		JA

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

Page 3 of 3

SDG Number: 10-2027  
Lab Sample ID: 248012004

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD8.I  
Analyst: NAG1  
Aliquot: 30.19 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 4.2  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
<b>Tentatively Identified Compound Summary</b>						
CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
475-20-7	1,4-Methanoazulene, decahydro-4,8,8-trim	7.18	182	ug/kg	97	NJ
511-15-9	2-Phenanthrenol, 4b,5,6,7,8,8a,9,10-octa	11.36	238	ug/kg	97	NJ
301-02-0	9-Octadecenamide, (Z)-	11.41	174	ug/kg	94	NJ
559-74-0	Friedelan-3-one	11.52	141	ug/kg	99	NJ
	Unknown	16.27	155	ug/kg		J

GEL Laboratories LLC

Data file : /chem/MSD8.i/s030610.b/s8c0612.d  
Lab Smp Id: 248012004 Client Smp ID: RE36-10-8476  
Inj Date : 06-MAR-2010 13:00  
Operator : nagl Inst ID: MSD8.i  
Smp Info : |248012004|959457|1|SVM|1|LANL  
Misc Info : |MSD8270\_S|WBN100227-01  
Comment : Column: J & W DB-5MS, 25m x 0.20 mm x 0.33 micron film  
Method : /chem/MSD8.i/s030610.b/MSD8-8270AQA-022010.m  
Meth Date : 07-Mar-2010 11:27 nat00999 Quant Type: ISTD  
Cal Date : 21-FEB-2010 23:15 Cal File: s8b2042.d  
Als bottle: 10  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: 10-2027.sub  
Target Version: 3.50  
Processing Host: hpc1p1

Concentration Formula:  $\text{Amt} * \text{DF} * \text{Uf} * \text{Vt} / (\text{Vi} * \text{Ws} * (100 - \text{M}) / 100) * \text{CpndVariable}$

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.19000	weight of sample
M	4.16840	% 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	4.458	4.458	(1.000)	733206	40.0000	
* 29 Naphthalene-d8	136	5.716	5.720	(1.000)	2858962	40.0000	
* 46 Acenaphthene-d10	164	7.573	7.577	(1.000)	1675945	40.0000	
* 67 Phenanthrene-d10	188	9.173	9.177	(1.000)	3074622	40.0000	
* 91 Chrysene-d12	240	12.078	12.082	(1.000)	2725185	40.0000	
* 98 Perylene-d12	264	14.192	14.187	(1.000)	2054830	40.0000	
\$ 3 2-Fluorophenol	112	3.320	3.306	(0.745)	1191102	68.8101	2380
\$ 5 Phenol-d5	99	4.078	4.082	(0.915)	1483356	68.7136	2380
\$ 20 Nitrobenzene-d5	82	4.982	4.992	(0.872)	640019	31.4918	1090
\$ 39 2-Fluorobiphenyl	172	6.844	6.849	(0.904)	1634146	33.1260	1140
\$ 60 2,4,6-Tribromophenol	329	8.420	8.420	(1.112)	420509	75.9033	2620
\$ 81 p-Terphenyl-d14	244	10.887	10.882	(0.901)	1940989	39.5609	1370

## ION RATIO REPORT

## SV REPORT

Data file: s8c0612.d

Report Date: 03/07/2010 11:35

Lab. ID: 248012004

SampleType: SAMPLE

Injection Date: 06-MAR-2010 13:00

Operator: nag1

Instrument: MSD8.i

Sample Info: |248012004|959457|1|SVM|1|LANL

Miscellaneous Info: |MSD8270\_S|WBN100227-01

Comment:

Method used: /chem/MSD8.i/s030610.b/MSD8-8270AQA-022010.m

Dilution Factor= 1.0

Integrator: HP RTE

Compound Sublist: 10-2027

Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
4 Aniline		CAS#: 62-53-3				
66	67164	4.08	4.15	80-120	100	(T)
93	247	4.08	4.15	235-295	0	(QT)
-----						
17 N-Nitrosodipropylamine		CAS#: 621-64-7				
70	86980	4.98	4.84	80-120	100	(T)
42	41328	4.98	4.84	31- 91	48	(T)
-----						
27 Benzoic acid		CAS#: 65-85-0				
105	337	5.50	5.46	80-120	100	( )
122	634	5.46	5.46	51-111	188	(Q)
77	328	5.53	5.46	47-107	97	(T)
-----						
30 Naphthalene		CAS#: 91-20-3				
128	743	5.73	5.74	80-120	100	( )
129	323	5.72	5.74	0- 41	44	(Q)
127	0	0.00	5.74	0- 43	0	(T)
-----						
34 2-Methylnaphthalene		CAS#: 91-57-6				
142	159	6.45	6.46	80-120	100	( )
141	244	6.45	6.46	56-116	153	(Q)
-----						
40 2-Chloronaphthalene		CAS#: 91-58-7				
162	120	6.97	6.98	80-120	100	( )
164	579	7.18	6.98	3- 63	480	(QT)
127	5192	6.84	6.98	7- 67	4306	(QT)
-----						

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
44	2,6-Dinitrotoluene			CAS#: 606-20-2		
165	218099	7.57	7.35	80-120	100	(T)
63	4043	7.57	7.35	34- 94	2	(QT)
-----						
50	2,4-Dinitrotoluene			CAS#: 121-14-2		
165	218099	7.57	7.78	80-120	100	(T)
89	3182	7.57	7.78	48-108	1	(QT)
63	4043	7.57	7.78	24- 84	2	(QT)
-----						
55	2-Methyl-4,6-dinitrophenol			CAS#: 534-52-1		
198	1089	8.42	8.22	80-120	100	(T)
105	2502	8.42	8.21	12- 72	230	(QT)
51	1783	8.42	8.21	26- 86	164	(QT)
-----						
68	Phenanthrene			CAS#: 85-01-8		
178	2060	9.20	9.20	80-120	100	( )
179	265	9.19	9.20	0- 45	13	( )
176	372	9.19	9.20	0- 48	18	( )
-----						
92	Chrysene			CAS#: 218-01-9		
228	1736	12.11	12.12	80-120	100	( )
229	2154	12.10	12.12	0- 49	124	(Q)
226	436	12.10	12.12	0- 59	25	( )
-----						
94	Di-n-octylphthalate			CAS#: 117-84-0		
149	408	12.96	12.97	80-120	100	( )
43	587	12.97	12.96	0- 38	144	(Q)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD8.i/s030610.b/s8c0612.d  
 Lab Smp Id: 248012004 Client Smp ID: RE36-10-8476  
 Inj Date : 06-MAR-2010 13:00  
 Operator : nagl Inst ID: MSD8.i  
 Smp Info : |248012004|959457|1|SVM|1|LANL  
 Misc Info : |MSD8270\_S|WBN100227-01  
 Comment : Column: J & W DB-5MS, 25m x 0.20 mm x 0.33 micron film  
 Method : /chem/MSD8.i/s030610.b/MSD8-8270AQA-022010.m  
 Meth Date : 07-Mar-2010 11:27 nat00999 Quant Type: ISTD  
 Cal Date : 21-FEB-2010 23:15 Cal File: s8b2042.d  
 Als bottle: 10  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: 10-2027.sub  
 Target Version: 3.50  
 Processing Host: hpc1p1

Concentration Formula:  $\text{Amt} * \text{DF} * \text{Uf} * \text{Vt} / (\text{Vi} * \text{Ws} * (100 - \text{M}) / 100) * \text{CpndVariable}$

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.19000	weight of sample
M	4.16840	% moisture

Cpnd Variable Local Compound Variable

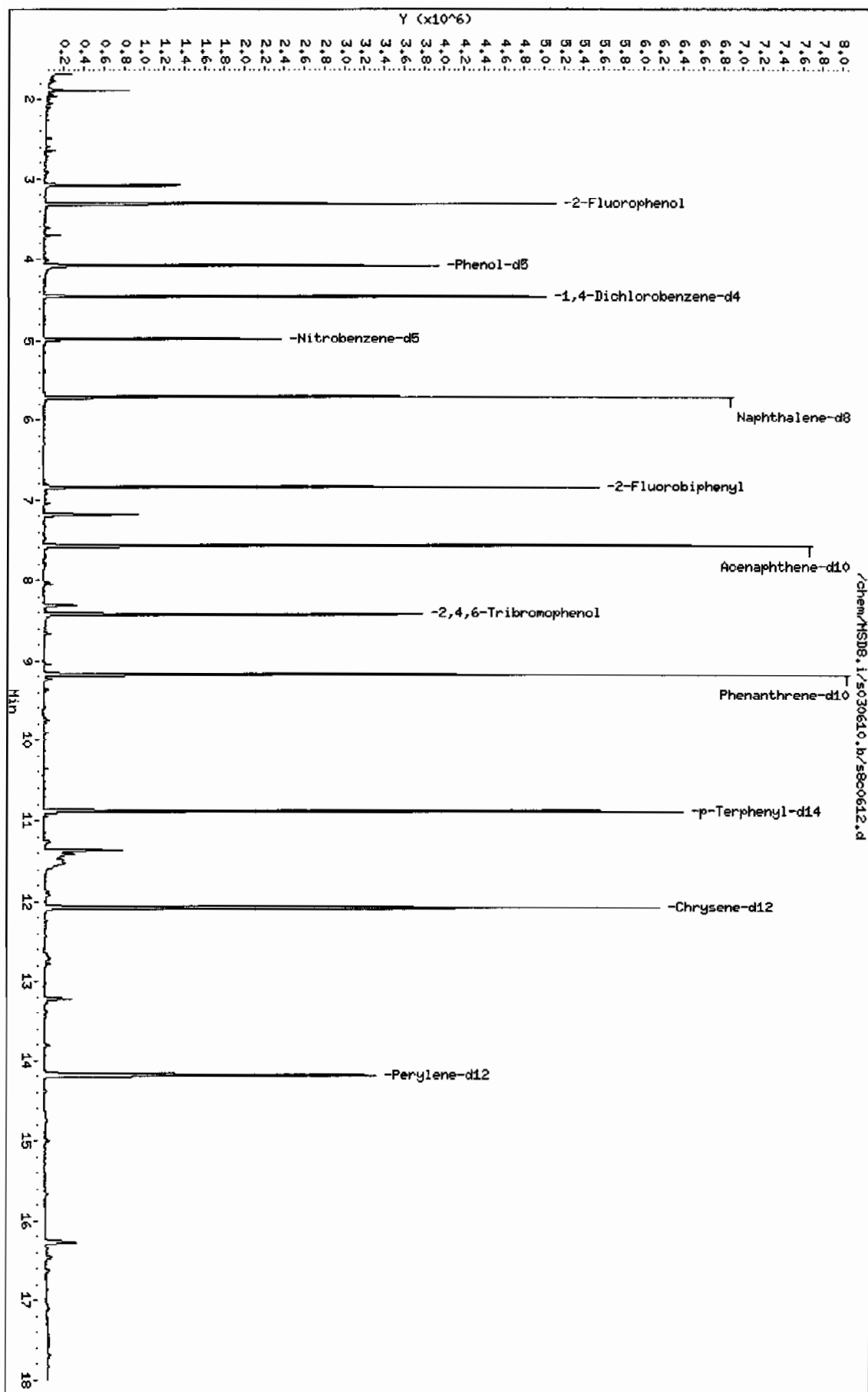
ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	4.458	4054633	40.000
* 46 Acenaphthene-d10	7.573	6873629	40.000
* 91 Chrysene-d12	12.078	7215493	40.000
* 98 Perylene-d12	14.192	5680860	40.000

CONCENTRATIONS				QUANT			
RT	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
====	====	=====	=====	====	=====	=====	=====

RT	CONCENTRATIONS			QUAL	QUANT		CPND #
	ARFA	ON-COL (ng/ul)	FINAL (ug/Kg)		LIBRARY	LIB ENTRY	
=====	=====	=====	=====	=====	=====	=====	=====
Unknown					CAS #:		
1.897	653553	6.44746994	223	0		0	10
Unknown Aldol Condensate					CAS #:		
3.082	1271871	12.5473343	434	0		0	10
1,4-Methanoazulene, decahydro-4,8,8-trim					CAS #: 475-20-7		
7.178	902604	5.25255875	182	97	NIST05.L	60018	46
2-Phenanthrenol, 4b,5,6,7,8,8a,9,10-octa					CAS #: 511-15-9		
11.363	1242743	6.88930289	238	97	NIST05.L	116239	91
9-Octadecenamide, (Z)-					CAS #: 301-02-0		
11.411	908000	5.03361107	174	94	NIST05.L	112657	91
Friedelan-3-one					CAS #: 559-74-0		
11.521	734493	4.07175543	141	99	NIST05.L	176566	91
Unknown					CAS #:		
16.273	634836	4.47000088	154	0		0	98

Data File: /chem/MSDB.i/s030610.b/s8c0612.d  
Date: 06-MAR-2010 13:00  
Client ID: RE36-10-8476  
Sample Info: 12480120041959457111SVH111LNL  
Volume Injected (uL): 0.5  
Column phase: 3M DB-SHS

Instrument: MSDB.i  
Operator: nag1  
Column diameter: 0.20





Date : 06-MAR-2010 13:00

Client ID: RE36-10-8476

Instrument: MSD8.i

Sample Info: 1248012004195945711ISVH11ILANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

## Library Search Compound Match

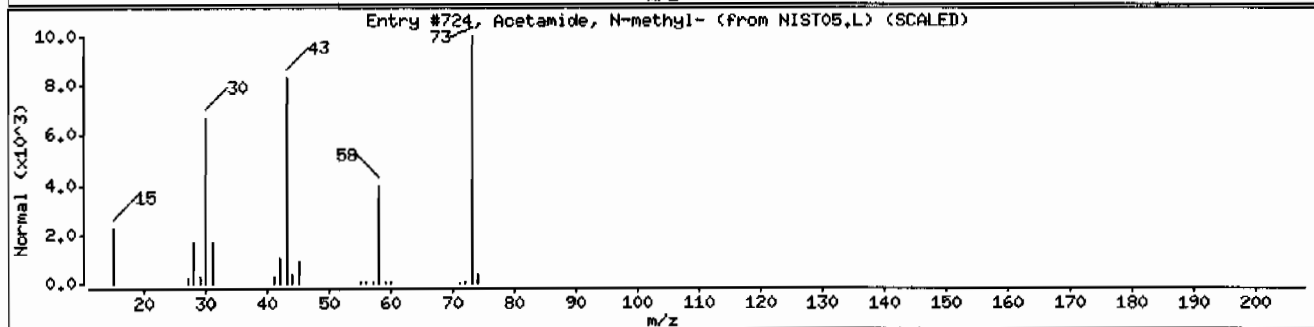
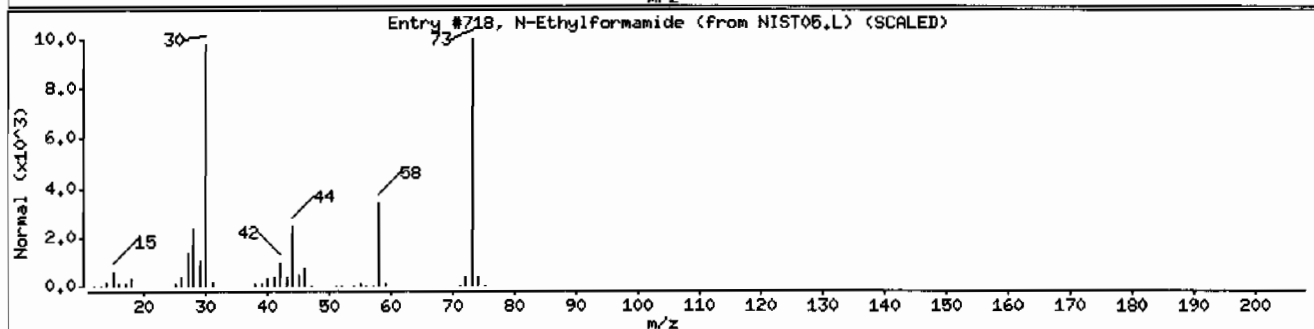
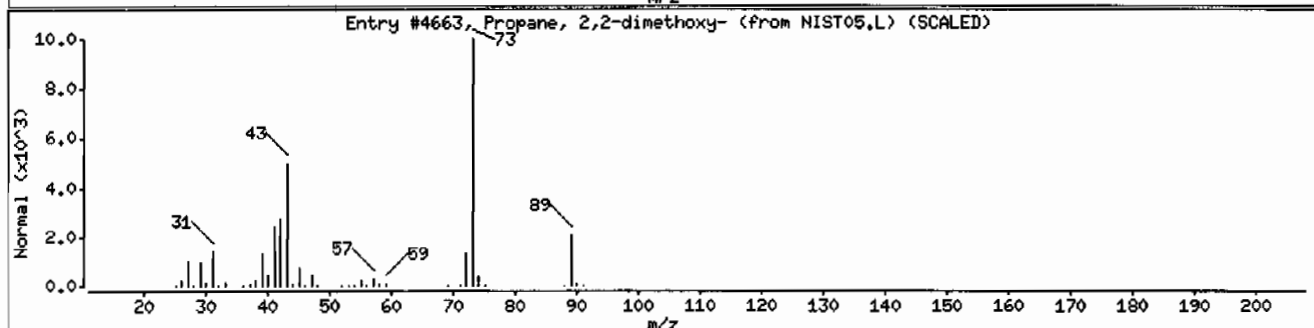
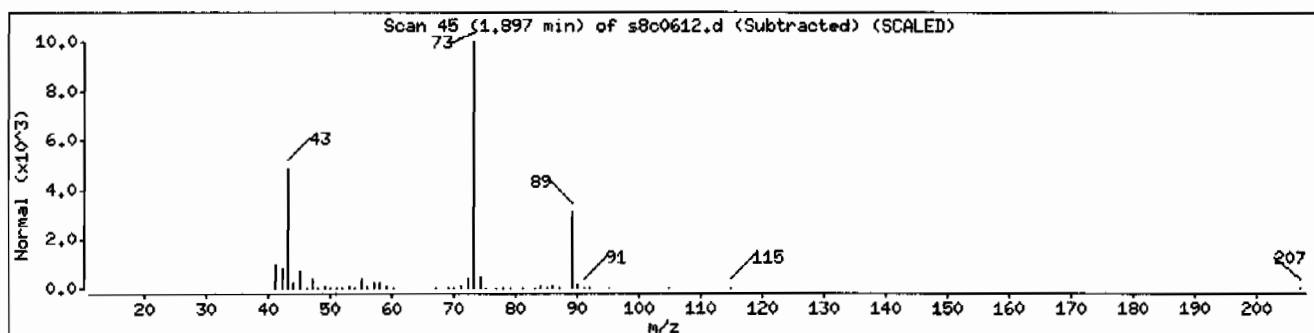
Unknown

Propane, 2,2-dimethoxy-

N-Ethylformamide

Acetamide, N-methyl-

CAS Number	Library	Entry	Quality	Formula	Weight
77-76-9	NIST05.L	4663	36	C5H12O2	104
627-45-2	NIST05.L	718	25	C3H7NO	73
79-16-3	NIST05.L	724	9	C3H7NO	73



Date : 06-MAR-2010 13:00

Client ID: RE36-10-8476

Instrument: HSD8.i

Sample Info: 1248012004195945711SVMI1ILANL

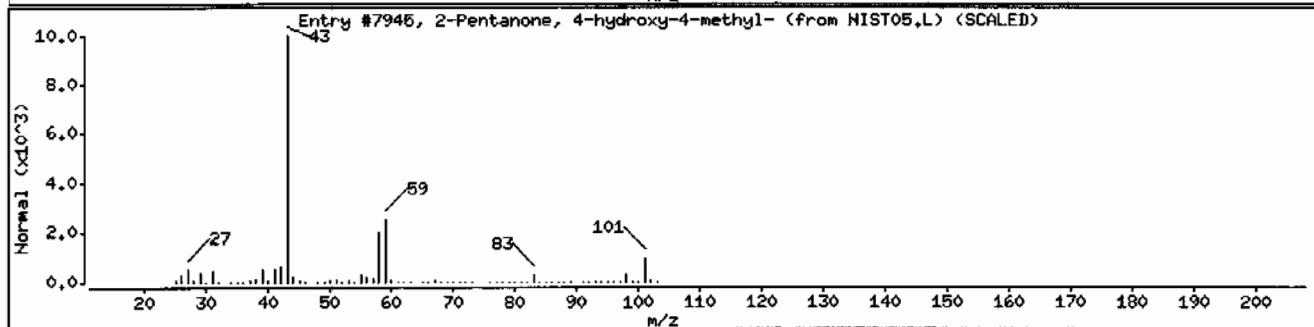
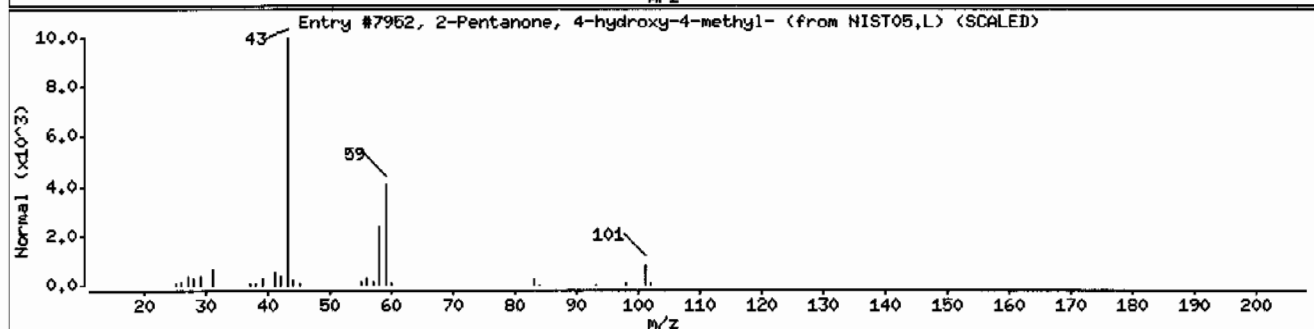
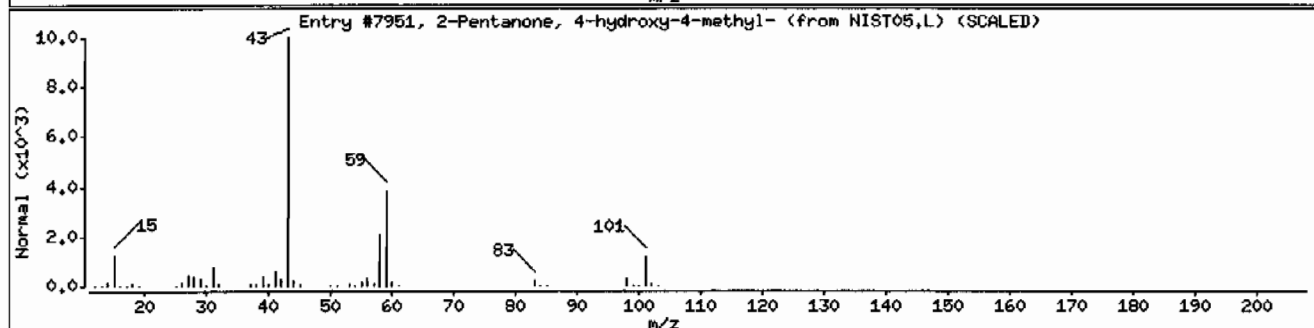
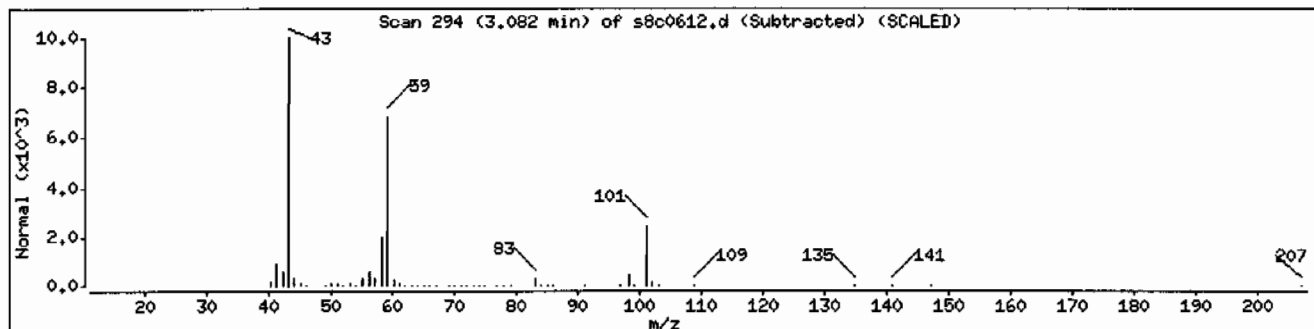
Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	53	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	7945	40	C6H12O2	116



Date : 06-MAR-2010 13:00

Client ID: RE36-10-8476

Instrument: MSD8.i

Sample Info: I248012004195945711SVH11ILANL

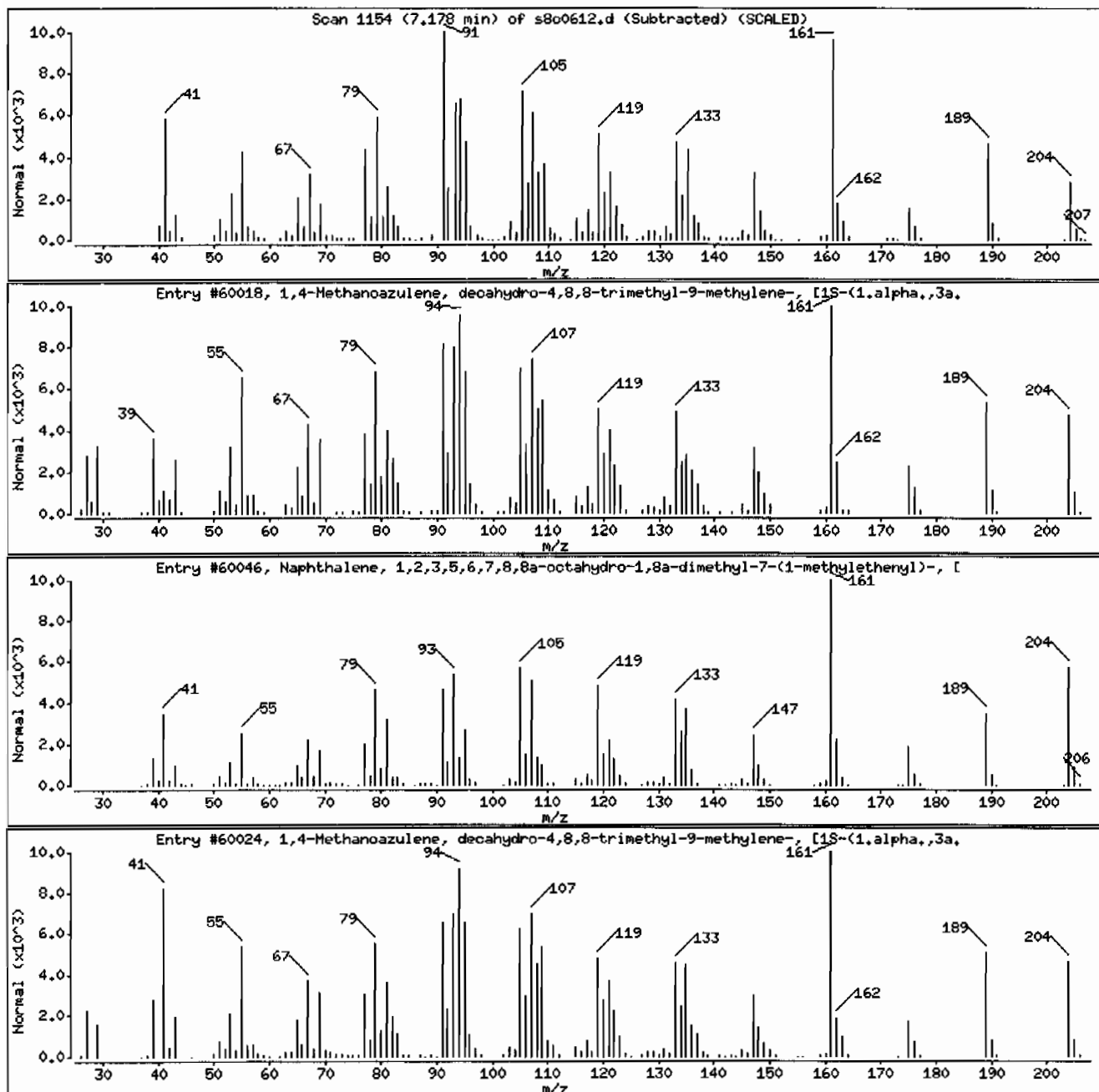
Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1,4-Methanoazulene, decahydro-4,8,8-trimethyl-9-methylene-, [1S-(1.alpha.,3a.	475-20-7	NIST05.L	60018	97	C15H24	204
Naphthalene, 1,2,3,5,6,7,8,8a-octahydro-1,8a-dimethyl-7-(1-methylethenyl)-, [1S-(1.alpha.,3a.	4630-07-3	NIST05.L	60046	96	C15H24	204
1,4-Methanoazulene, decahydro-4,8,8-trimethyl-9-methylene-, [1S-(1.alpha.,3a.	475-20-7	NIST05.L	60024	96	C15H24	204



Date : 06-MAR-2010 13:00

Client ID: RE36-10-8476

Instrument: HSD8,i

Sample Info: I248012004I959457I1ISVH11ILANL

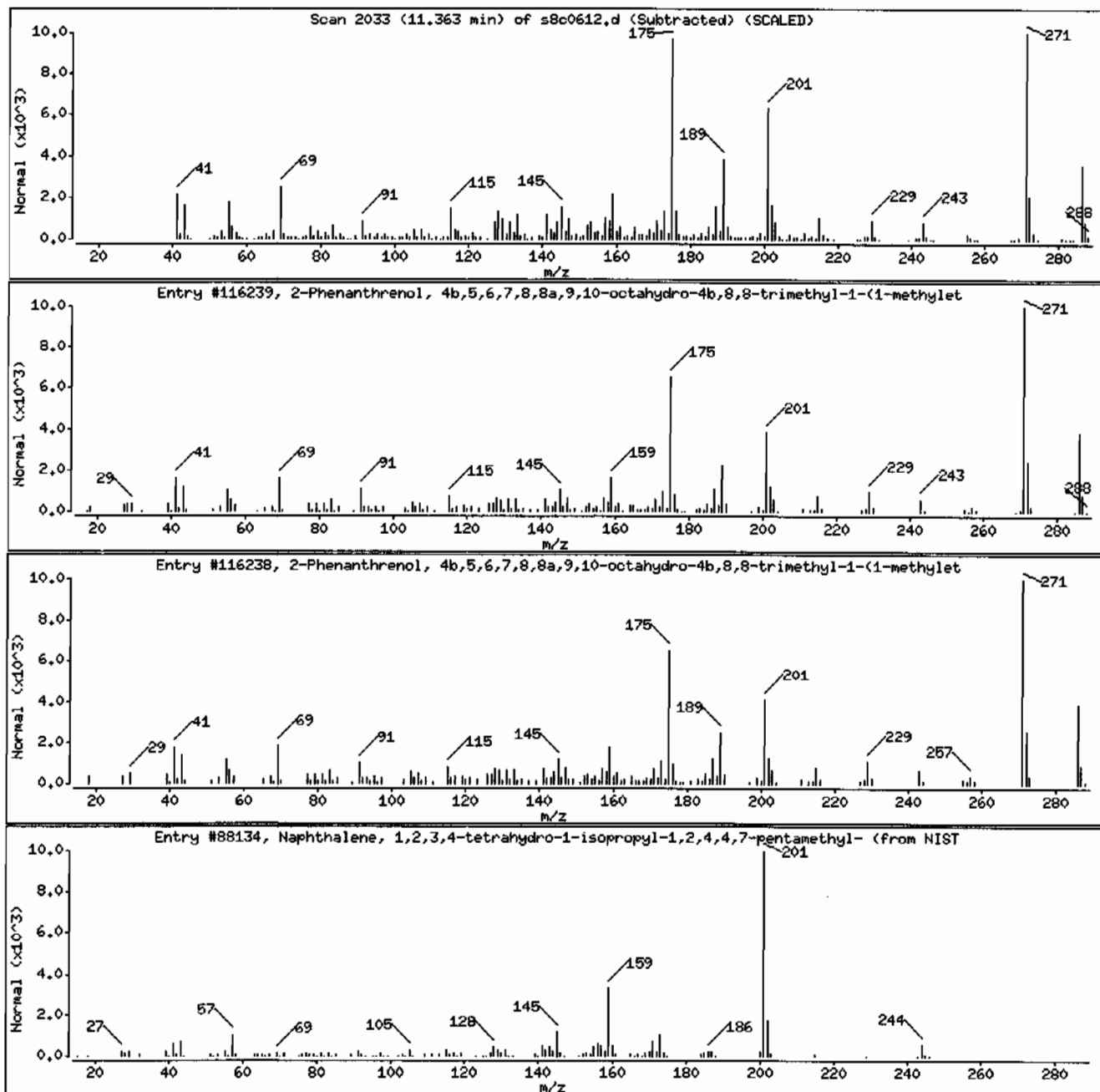
Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
2-Phenanthrenol, 4b,5,6,7,8,8a,9,10-octa	511-15-9	NIST05.L	116239	97	C20H30O	286
2-Phenanthrenol, 4b,5,6,7,8,8a,9,10-octa	511-15-9	NIST05.L	116238	92	C20H30O	286
Naphthalene, 1,2,3,4-tetrahydro-1-isopro	29577-17-1	NIST05.L	88134	25	C18H28	244



Date : 06-MAR-2010 13:00

Client ID: RE36-10-8476

Instrument: MSD8.i

Sample Info: 1248012004195945711ISVH111LANL

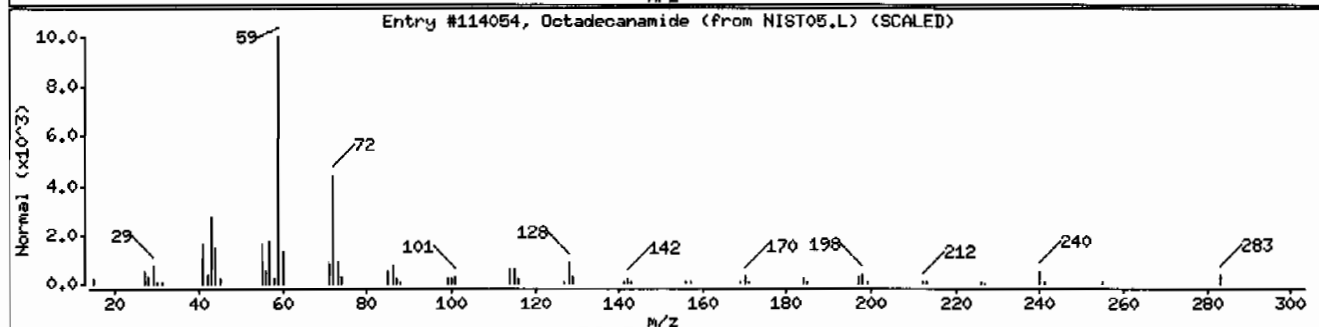
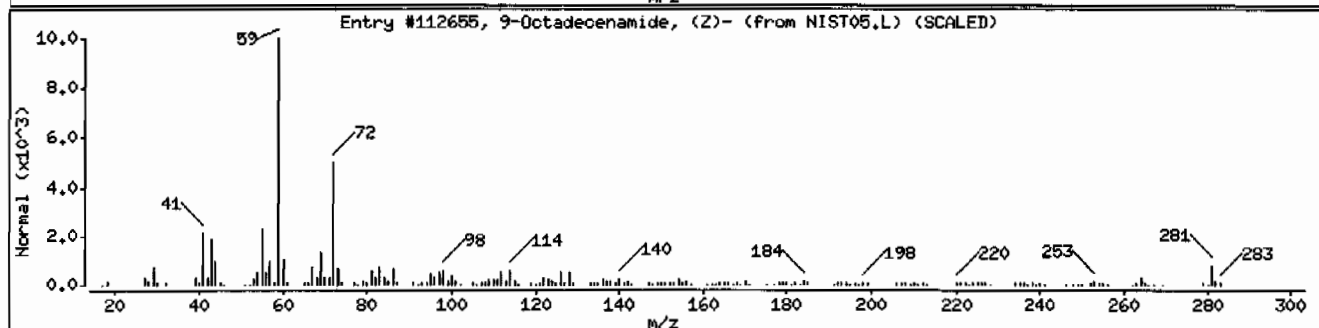
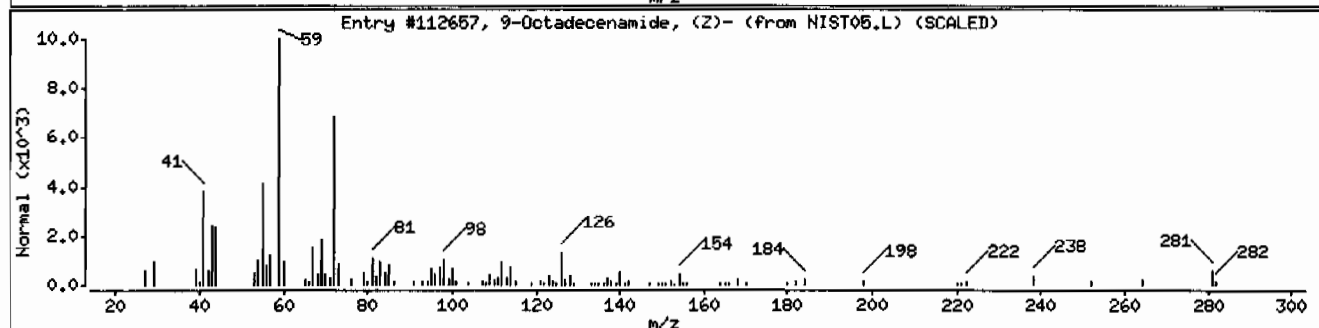
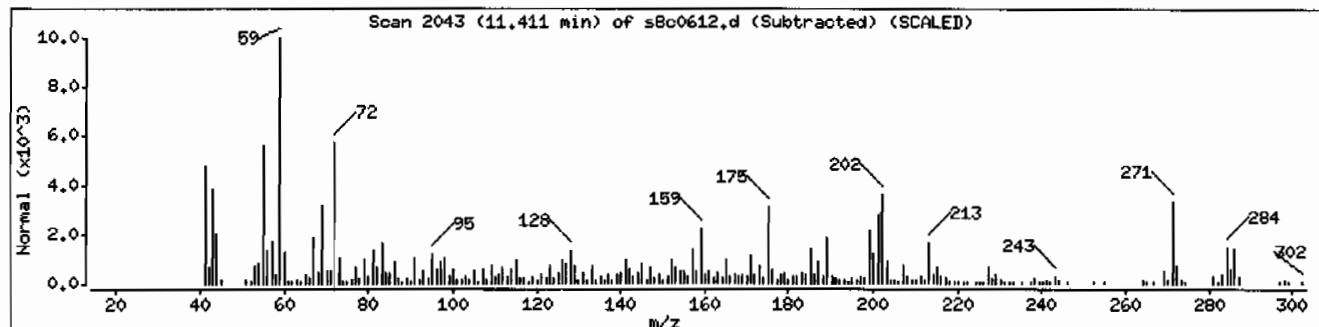
Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
9-Octadecenamide, (Z)-	301-02-0	NIST05.L	112657	94	C18H35NO	281
9-Octadecenamide, (Z)-	301-02-0	NIST05.L	112655	59	C18H35NO	281
Octadecanamide	124-26-5	NIST05.L	114054	52	C18H37NO	283



Date : 06-MAR-2010 13:00

Client ID: RE36-10-8476

Instrument: MSD8.i

Sample Info: 12480120041959457111SVH111LANL

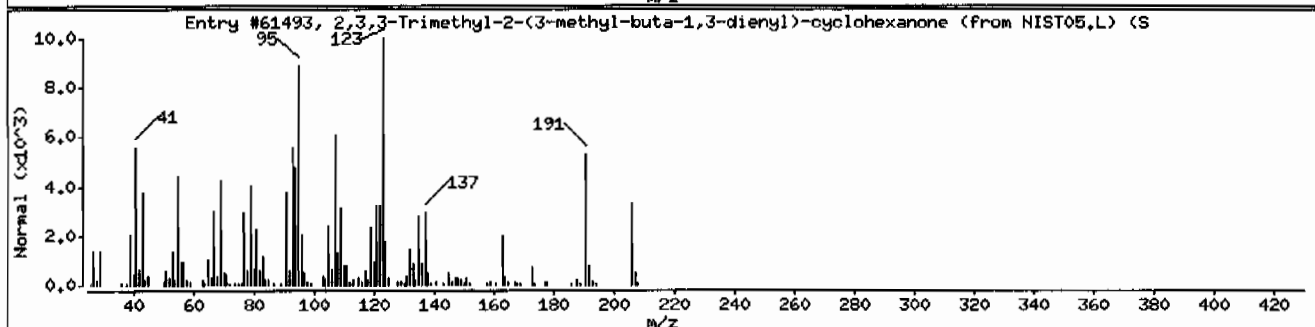
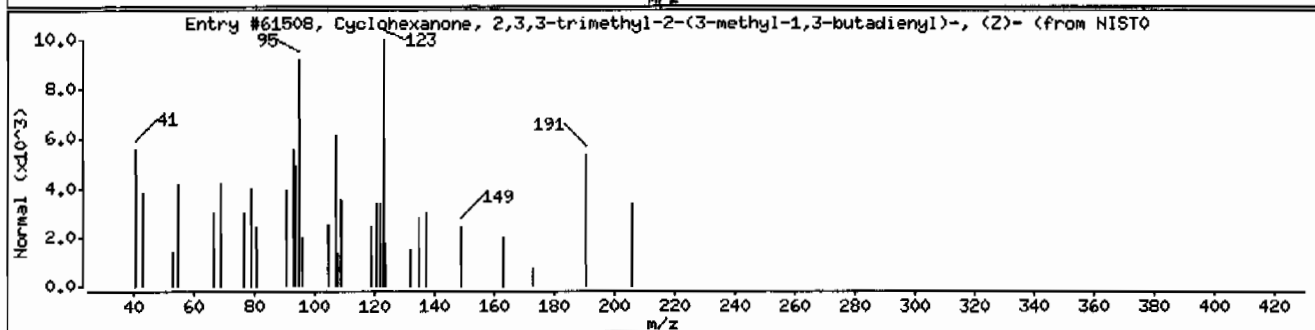
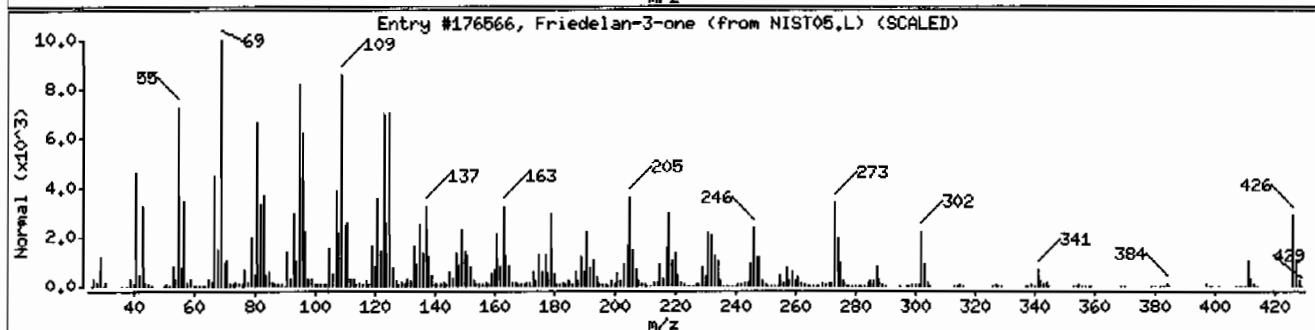
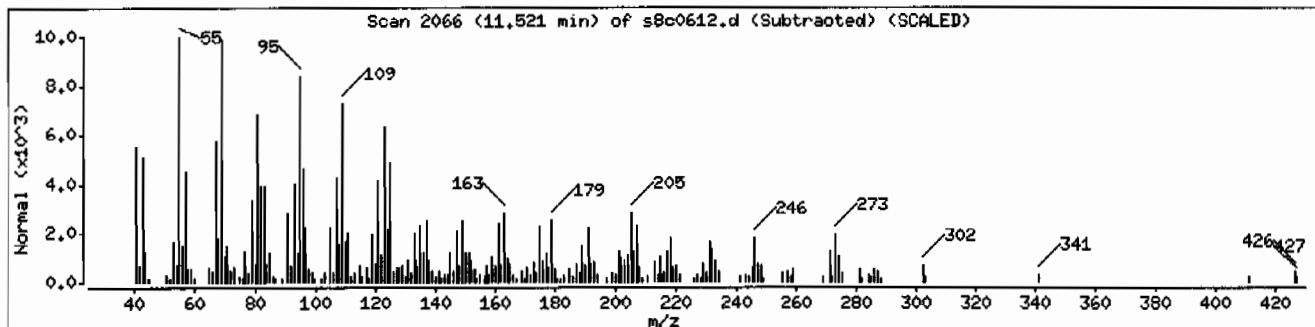
Volume Injected (UL): 0.5

Operator: nag1

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Friedelan-3-one	559-74-0	NIST05.L	176566	99	C30H50O	426
Cyclohexanone, 2,3,3-trimethyl-2-(3-meth	69296-90-8	NIST05.L	61508	66	C14H22O	206
2,3,3-Trimethyl-2-(3-methyl-buta-1,3-die	1000193-60-6	NIST05.L	61493	66	C14H22O	206



Date : 06-MAR-2010 13:00

Client ID: RE36-10-8476

Instrument: MSD8.i

Sample Info: 12480120041959457111SVH111LANL

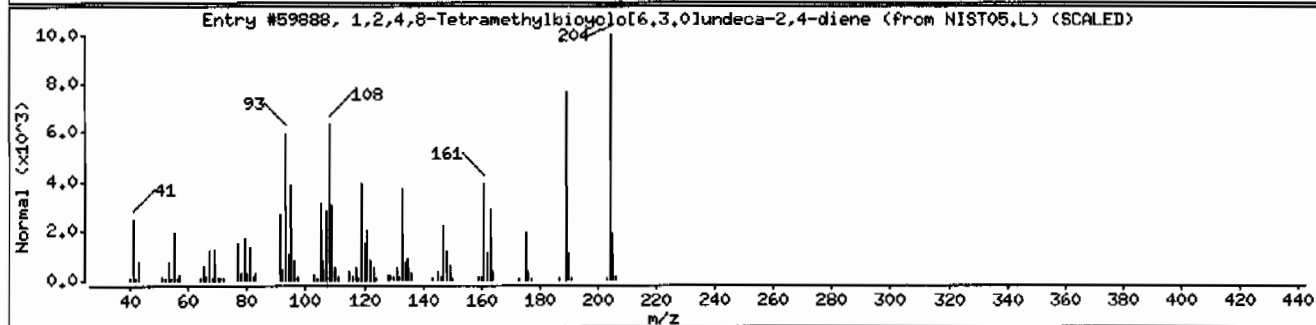
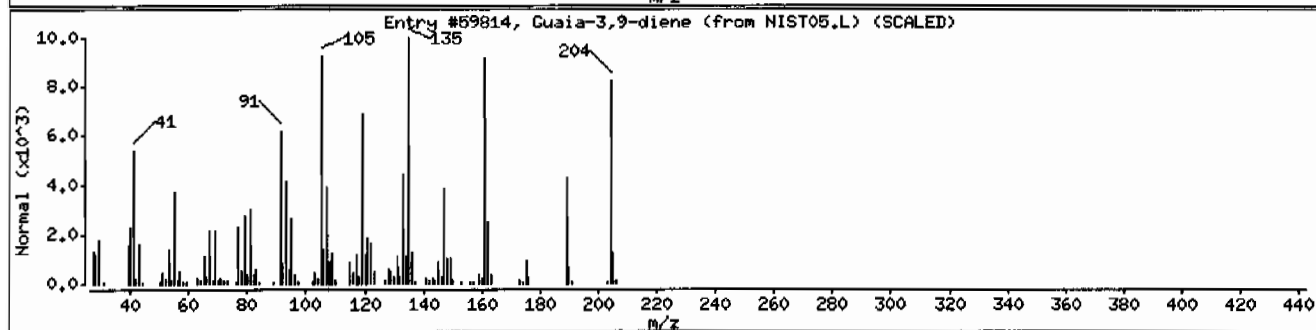
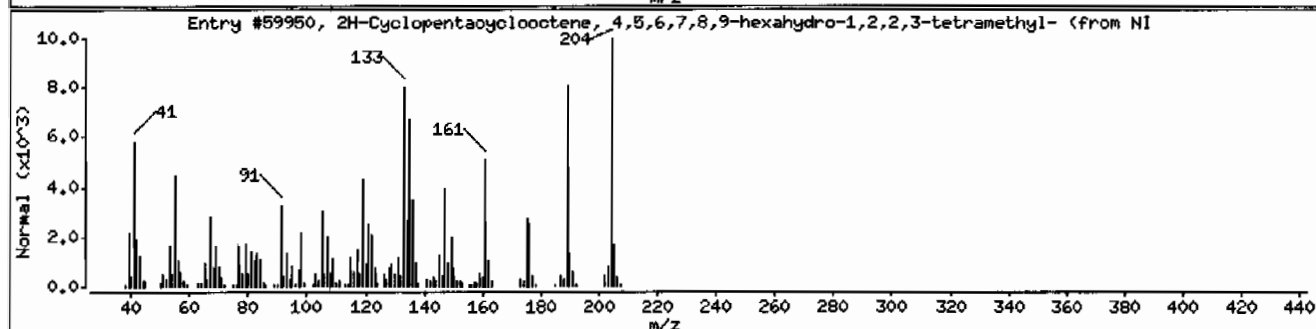
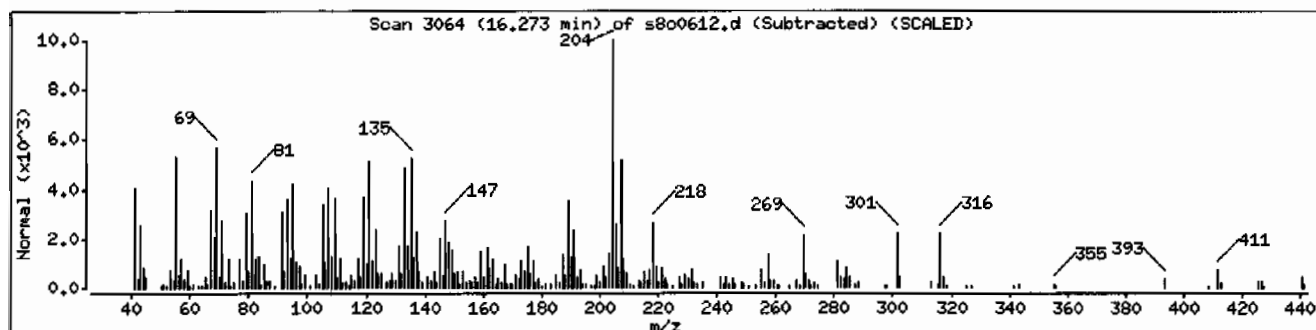
Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
2H-Cyclopentacyclooctene, 4,5,6,7,8,9-he	1000221-85-8	NIST05.L	59950	55	C15H24	204
Guaiac-3,9-diene	489-83-8	NIST05.L	59814	55	C15H24	204
1,2,4,8-Tetramethylbicyclo[6.3.0]undeca-	137236-51-9	NIST05.L	59888	55	C15H24	204



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

SDG Number: 10-2027  
Lab Sample ID: 248012007

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD8.I  
Analyst: NAG1  
Aliquot: 30.12 g  
Column: J&W DB-5MS

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

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	349	ug/kg	69.7	349
108-95-2	Phenol	U	349	ug/kg	69.7	349
95-57-8	2-Chlorophenol	U	349	ug/kg	69.7	349
106-46-7	1,4-Dichlorobenzene	U	349	ug/kg	69.7	349
621-64-7	N-Nitrosodipropylamine	U	349	ug/kg	69.7	349
59-50-7	4-Chloro-3-methylphenol	U	349	ug/kg	69.7	349
83-32-9	Acenaphthene	U	34.9	ug/kg	11.5	34.9
121-14-2	2,4-Dinitrotoluene	U	349	ug/kg	34.9	349
100-02-7	4-Nitrophenol	U	349	ug/kg	115	349
87-86-5	Pentachlorophenol	U	349	ug/kg	87.1	349
129-00-0	Pyrene	U	34.9	ug/kg	10.5	34.9
110-86-1	Pyridine	U	349	ug/kg	69.7	349
62-53-3	Aniline	U	349	ug/kg	105	349
111-44-4	bis(2-Chloroethyl) ether	U	349	ug/kg	69.7	349
541-73-1	1,3-Dichlorobenzene	U	349	ug/kg	69.7	349
100-51-6	Benzyl alcohol	U	349	ug/kg	105	349
95-50-1	1,2-Dichlorobenzene	U	349	ug/kg	69.7	349
108-60-1	bis(2-Chloroisopropyl)ether	U	349	ug/kg	69.7	349
95-48-7	o-Cresol	U	349	ug/kg	69.7	349
65794-96-9	m,p-Cresols	U	349	ug/kg	105	349
67-72-1	Hexachloroethane	U	349	ug/kg	69.7	349
98-95-3	Nitrobenzene	U	349	ug/kg	69.7	349
78-59-1	Isophorone	U	349	ug/kg	69.7	349
88-75-5	2-Nitrophenol	U	349	ug/kg	69.7	349
105-67-9	2,4-Dimethylphenol	U	349	ug/kg	122	349
111-91-1	bis(2-Chloroethoxy)methane	U	349	ug/kg	69.7	349
120-83-2	2,4-Dichlorophenol	U	349	ug/kg	69.7	349
65-85-0	Benzoic acid	U	697	ug/kg	174	697
91-20-3	Naphthalene	U	34.9	ug/kg	10.5	34.9
106-47-8	4-Chloroaniline	U	349	ug/kg	69.7	349
87-68-3	Hexachlorobutadiene	U	349	ug/kg	69.7	349
91-57-6	2-Methylnaphthalene	U	34.9	ug/kg	6.97	34.9
77-47-4	Hexachlorocyclopentadiene	U	349	ug/kg	69.7	349
88-06-2	2,4,6-Trichlorophenol	U	349	ug/kg	69.7	349
95-95-4	2,4,5-Trichlorophenol	U	349	ug/kg	69.7	349
91-58-7	2-Chloronaphthalene	U	34.9	ug/kg	11.5	34.9
88-74-4	2-Nitroaniline	U	349	ug/kg	69.7	349
	<i>o</i> -Nitroaniline					
99-09-2	3-Nitroaniline	U	349	ug/kg	69.7	349



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

SDG Number: 10-2027  
Lab Sample ID: 248012007

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD8.I  
Analyst: NAG1  
Aliquot: 30.12 g  
Column: J&W DB-5MS

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

Client ID: RE36-10-8478  
Batch ID: 959457  
Run Date: 03/06/2010 14:28  
Prep Date: 03/01/2010 23:22  
Data File: s8c0615.d

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	<i>m</i> -Nitroaniline					
131-11-3	Dimethylphthalate	U	349	ug/kg	69.7	349
606-20-2	2,6-Dinitrotoluene	U	349	ug/kg	34.9	349
208-96-8	Acenaphthylene	U	34.9	ug/kg	10.5	34.9
51-28-5	2,4-Dinitrophenol	U	697	ug/kg	132	697
132-64-9	Dibenzofuran	U	349	ug/kg	69.7	349
84-66-2	Diethylphthalate	U	349	ug/kg	69.7	349
86-73-7	Fluorene	U	34.9	ug/kg	10.5	34.9
7005-72-3	4-Chlorophenylphenylether	U	349	ug/kg	69.7	349
534-52-1	2-Methyl-4,6-dinitrophenol	U	349	ug/kg	69.7	349
100-01-6	4-Nitroaniline	U	349	ug/kg	105	349
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	349	ug/kg	69.7	349
122-66-7	Azobenzene	U	349	ug/kg	69.7	349
	<i>1,2</i> -Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	349	ug/kg	69.7	349
118-74-1	Hexachlorobenzene	U	349	ug/kg	69.7	349
85-01-8	Phenanthrene	U	34.9	ug/kg	10.5	34.9
120-12-7	Anthracene	U	34.9	ug/kg	6.97	34.9
84-74-2	Di-n-butylphthalate	U	349	ug/kg	69.7	349
206-44-0	Fluoranthene	U	34.9	ug/kg	10.5	34.9
85-68-7	Butylbenzylphthalate	U	349	ug/kg	69.7	349
56-55-3	Benzo(a)anthracene	U	34.9	ug/kg	10.5	34.9
91-94-1	3,3'-Dichlorobenzidine	U	349	ug/kg	105	349
218-01-9	Chrysene	U	34.9	ug/kg	10.5	34.9
117-81-7	bis(2-Ethylhexyl)phthalate	U	349	ug/kg	69.7	349
117-84-0	Di-n-octylphthalate	U	349	ug/kg	69.7	349
205-99-2	Benzo(b)fluoranthene	U	34.9	ug/kg	10.5	34.9
207-08-9	Benzo(k)fluoranthene	U	34.9	ug/kg	10.5	34.9
50-32-8	Benzo(a)pyrene	U	34.9	ug/kg	10.5	34.9
193-39-5	Indeno(1,2,3-cd)pyrene	U	34.9	ug/kg	10.5	34.9
53-70-3	Dibenzo(a,h)anthracene	U	34.9	ug/kg	10.5	34.9
191-24-2	Benzo(ghi)perylene	U	34.9	ug/kg	10.5	34.9
120-82-1	1,2,4-Trichlorobenzene	U	349	ug/kg	69.7	349

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	1.89	222	ug/kg		J
	Unknown Aldol Condensate	3.08	479	ug/kg		JA

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

SDG Number: 10-2027	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 248012007	Date Received: 02/25/2010 08:45	%Moisture: 4.7
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-8478	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 959457	Inst: MSD8.I	Dilution: 1
Run Date: 03/06/2010 14:28	Analyst: NAG1	Inj. Vol: .5 uL
Prep Date: 03/01/2010 23:22	Aliquot: 30.12 g	Final Volume: 1 mL
Data File: s8c0615.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
559-74-0	Friedelan-3-one	11.52	186	ug/kg	98	NJ
1000140-07-7	1,4-Dimethyl-8-isopropylidenetricyclo[5.	16.27	158	ug/kg	83	NJ

GEL Laboratories LLC

Data file : /chem/MSD8.i/s030610.b/s8c0615.d  
Lab Smp Id: 248012007 Client Smp ID: RE36-10-8478  
Inj Date : 06-MAR-2010 14:28  
Operator : nagl Inst ID: MSD8.i  
Smp Info : |248012007|959457|1|SVM|1|LANL  
Misc Info : |MSD8270\_S|WBN100227-01  
Comment : Column: J & W DB-5MS, 25m x 0.20 mm x 0.33 micron film  
Method : /chem/MSD8.i/s030610.b/MSD8-8270AQA-022010.m  
Meth Date : 07-Mar-2010 11:27 nat00999 Quant Type: ISTD  
Cal Date : 21-FEB-2010 23:15 Cal File: s8b2042.d  
Als bottle: 13  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: 10-2027.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	30.12000	weight of sample
M	4.74490	% 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	4.458	4.458	(1.000)	759165	40.0000		
* 29 Naphthalene-d8	136	5.716	5.720	(1.000)	3024416	40.0000		
* 46 Acenaphthene-d10	164	7.573	7.577	(1.000)	1739458	40.0000		
* 67 Phenanthrene-d10	188	9.173	9.177	(1.000)	3007632	40.0000		
* 91 Chrysene-d12	240	12.078	12.082	(1.000)	2192790	40.0000		
* 98 Perylene-d12	264	14.187	14.187	(1.000)	1528366	40.0000		
\$ 3 2-Fluorophenol	112	3.320	3.306	(0.745)	1196814	66.7759		2330
\$ 5 Phenol-d5	99	4.077	4.082	(0.915)	1518962	67.9570		2370
\$ 20 Nitrobenzene-d5	82	4.982	4.992	(0.872)	700428	32.5788		1140
\$ 39 2-Fluorobiphenyl	172	6.844	6.849	(0.904)	1508657	29.4655		1030
\$ 60 2,4,6-Tribromophenol	329	8.420	8.420	(1.112)	359281	62.4835		2180
\$ 81 p-Terphenyl-d14	244	10.887	10.882	(0.901)	1633026	41.3652		1440

## ION RATIO REPORT

## SV REPORT

Data file: s8c0615.d

Report Date: 03/07/2010 11:36

Lab. ID: 248012007

SampleType: SAMPLE

Injection Date: 06-MAR-2010 14:28

Operator: nagl

Instrument: MSD8.i

Sample Info: |248012007|959457|1|SVM|1|LANL

Miscellaneous Info: |MSD8270\_S|WBN100227-01

Comment:

Method used: /chem/MSD8.i/s030610.b/MSD8-8270AQA-022010.m

Dilution Factor= 1.0

Integrator: HP RTE

Compound Sublist: 10-2027

Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
4	Aniline	CAS#: 62-53-3				
66	80862	4.08	4.15	80-120	100	(T)
93	316	4.08	4.15	235-295	0	(QT)
-----						
17	N-Nitrosodipropylamine	CAS#: 621-64-7				
70	97953	4.98	4.84	80-120	100	(T)
42	52369	4.98	4.84	31- 91	53	(T)
-----						
27	Benzoic acid	CAS#: 65-85-0				
105	853	5.48	5.46	80-120	100	( )
122	932	5.40	5.46	51-111	109	( )
77	350	5.44	5.46	47-107	41	(Q)
-----						
30	Naphthalene	CAS#: 91-20-3				
128	885	5.73	5.74	80-120	100	( )
129	325	5.72	5.74	0- 41	37	( )
127	0	0.00	5.74	0- 43	0	(T)
-----						
34	2-Methylnaphthalene	CAS#: 91-57-6				
142	247	6.45	6.46	80-120	100	( )
141	154	6.46	6.46	56-116	62	( )
-----						
44	2,6-Dinitrotoluene	CAS#: 606-20-2				
165	223606	7.57	7.35	80-120	100	(T)
63	3699	7.57	7.35	34- 94	2	(QT)
-----						

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
50	2,4-Dinitrotoluene			CAS#: 121-14-2		
165	223606	7.57	7.78	80-120	100	(T)
89	3343	7.57	7.78	48-108	1	(QT)
63	3699	7.57	7.78	24- 84	2	(QT)
-----						
55	2-Methyl-4,6-dinitrophenol			CAS#: 534-52-1		
198	1258	8.42	8.22	80-120	100	(T)
105	2567	8.42	8.21	12- 72	204	(QT)
51	2545	8.42	8.21	26- 86	202	(QT)
-----						
68	Phenanthrene			CAS#: 85-01-8		
178	527	9.20	9.20	80-120	100	( )
179	1917	9.18	9.20	0- 45	363	(Q)
176	120	9.17	9.20	0- 48	23	( )
-----						
92	Chrysene			CAS#: 218-01-9		
228	562	12.10	12.12	80-120	100	( )
229	2602	12.10	12.12	0- 49	463	(Q)
226	261	12.10	12.12	0- 59	47	( )
-----						
94	Di-n-octylphthalate			CAS#: 117-84-0		
149	302	12.96	12.97	80-120	100	( )
43	515	12.95	12.96	0- 38	170	(Q)
-----						

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD8.i/s030610.b/s8c0615.d  
 Lab Smp Id: 248012007 Client Smp ID: RE36-10-8478  
 Inj Date : 06-MAR-2010 14:28  
 Operator : nagl Inst ID: MSD8.i  
 Smp Info : |248012007|959457|1|SVM|1|LANL  
 Misc Info : |MSD8270 S|WBN100227-01  
 Comment : Column: J & W DB-5MS, 25m x 0.20 mm x 0.33 micron film  
 Method : /chem/MSD8.i/s030610.b/MSD8-8270AQA-022010.m  
 Meth Date : 07-Mar-2010 11:27 nat00999 Quant Type: ISTD  
 Cal Date : 21-FEB-2010 23:15 Cal File: s8b2042.d  
 Als bottle: 13  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: 10-2027.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	30.12000	weight of sample
M	4.74490	% moisture

Cpnd Variable Local Compound Variable

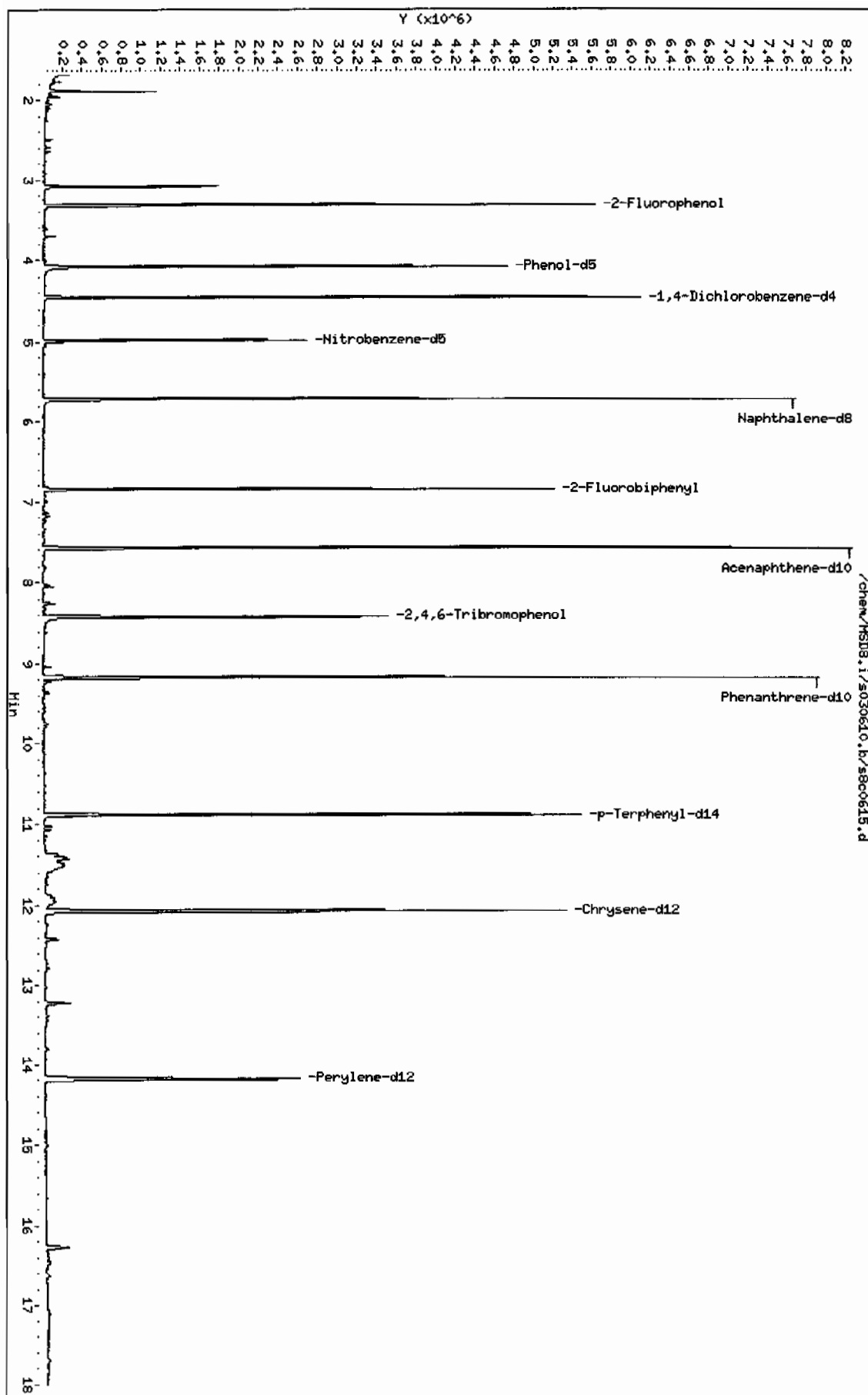
ISTD	RT	AREA	AMOUNT
=====	=====	=====	=====
* 10 1,4-Dichlorobenzene-d4	4.458	4555423	40.000
* 91 Chrysene-d12	12.078	6148074	40.000
* 98 Perylene-d12	14.187	4447012	40.000

CONCENTRATIONS					QUANT		
RT	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
=====	=====	=====	=====	=====	=====	=====	=====

RT	CONCENTRATIONS			QUAL	QUANT		
	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)		LIBRARY	LIB ENTRY	CPND #
=====	=====	=====	=====	=====	=====	=====	=====
Unknown					CAS #:		
1.892	723853	6.35596569	222	0		0	10
Unknown Aldol Condensate					CAS #:		
3.082	1564205	13.7348780	479	0		0	10
Friedelan-3-one					CAS #: 559-74-0		
11.520	819126	5.32931521	186	98	NIST05.L	176566	91
1,4-Dimethyl-8-isopropylidenetricyclo[5.					CAS #: 1000140-07-7		
16.273	503229	4.52644350	158	83	NIST05.L	59920	98

Data File: /chem/MSD8.i/s030610.b/s800615.d  
Date: 06-MAR-2010 14:28  
Client ID: REC6-10-8478  
Sample Info: 1248012007196945711SVH11LNL  
Volume Injected (uL): 0.5  
Column phase: J&W DB-5MS

Instrument: MSD8.i  
Operator: nag1  
Column diameter: 0.20





Date : 06-MAR-2010 14:28

Client ID: RE36-10-8478

Instrument: HSD8.i

Sample Info: I248012007195945711SVH11ILANL

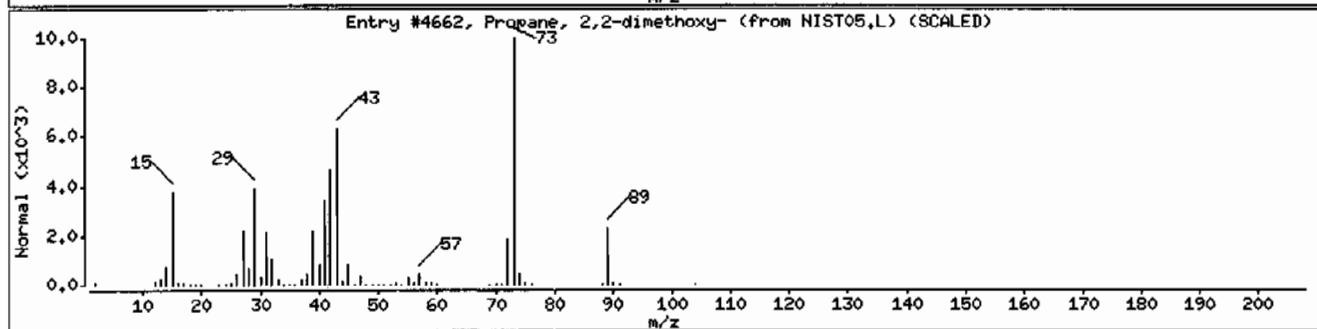
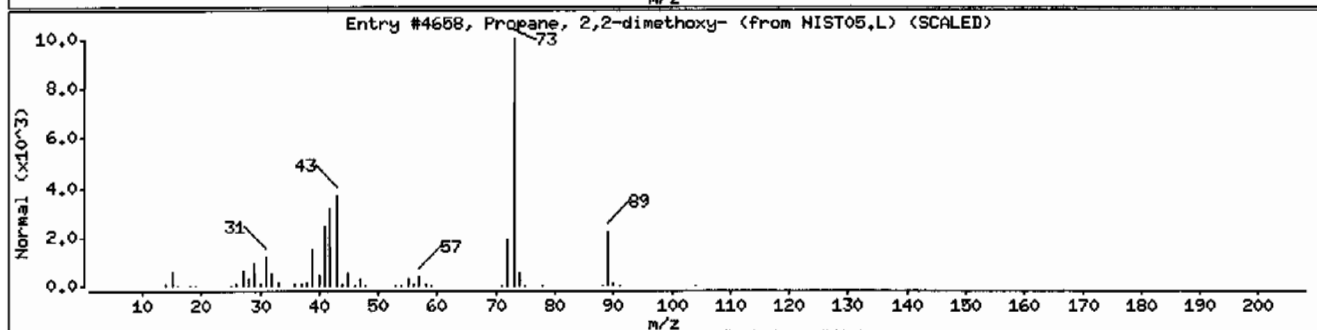
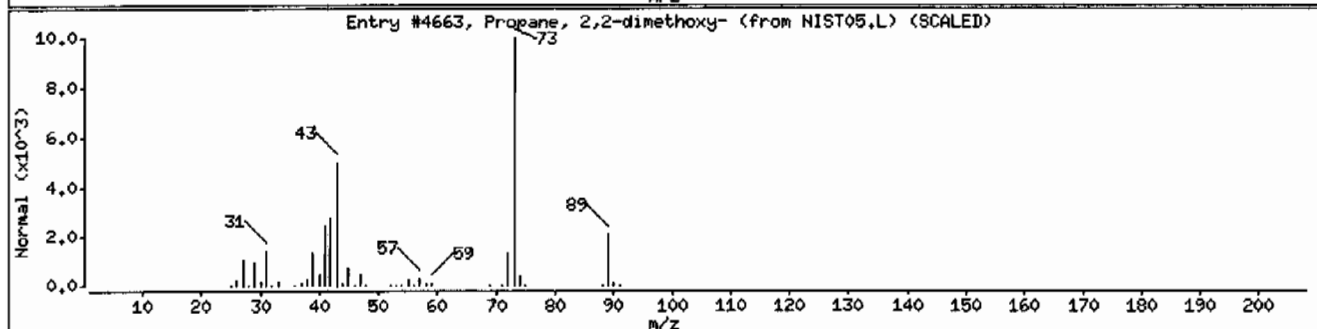
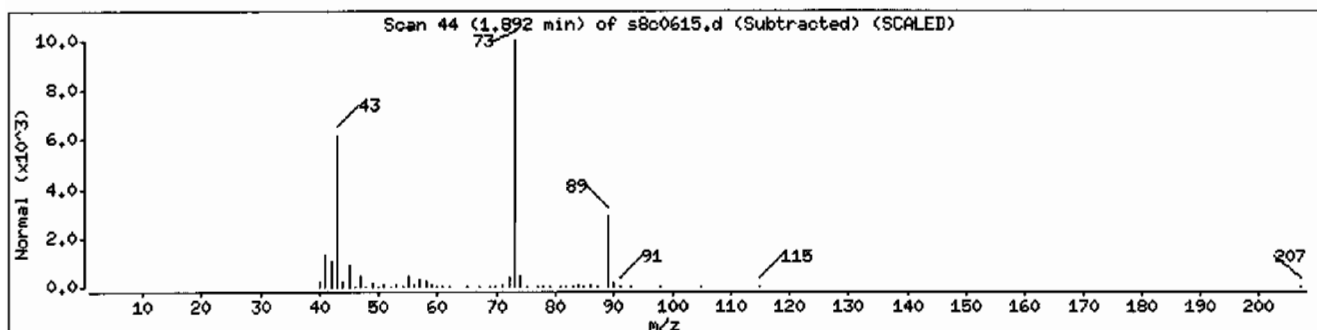
Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Propane, 2,2-dimethoxy-	77-76-9	NIST05.L	4663	42	C5H12O2	104
Propane, 2,2-dimethoxy-	77-76-9	NIST05.L	4658	42	C5H12O2	104
Propane, 2,2-dimethoxy-	77-76-9	NIST05.L	4662	40	C5H12O2	104



Date : 06-MAR-2010 14:28

Client ID: RE36-10-8478

Instrument: HSD8,i

Sample Info: 12480120071959457111SVH111LANL

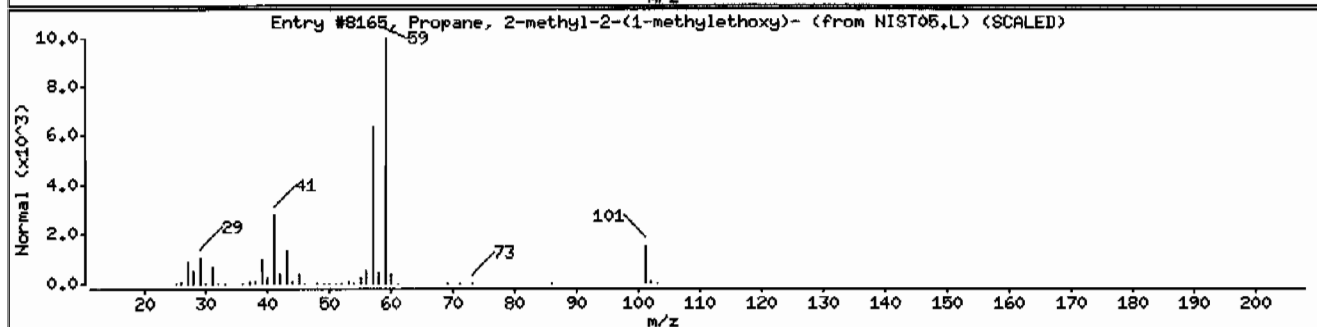
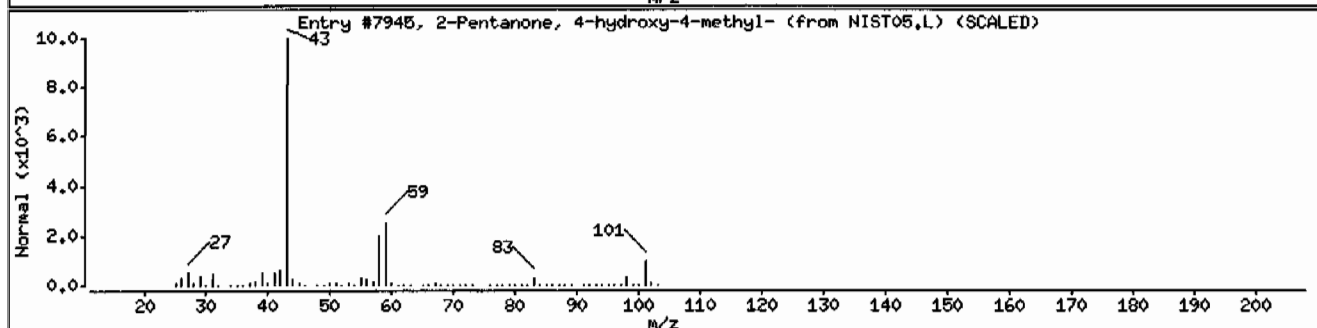
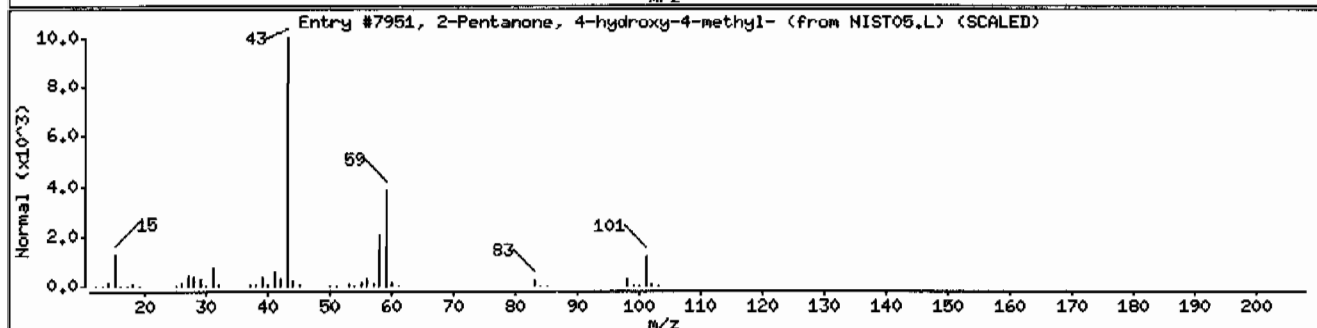
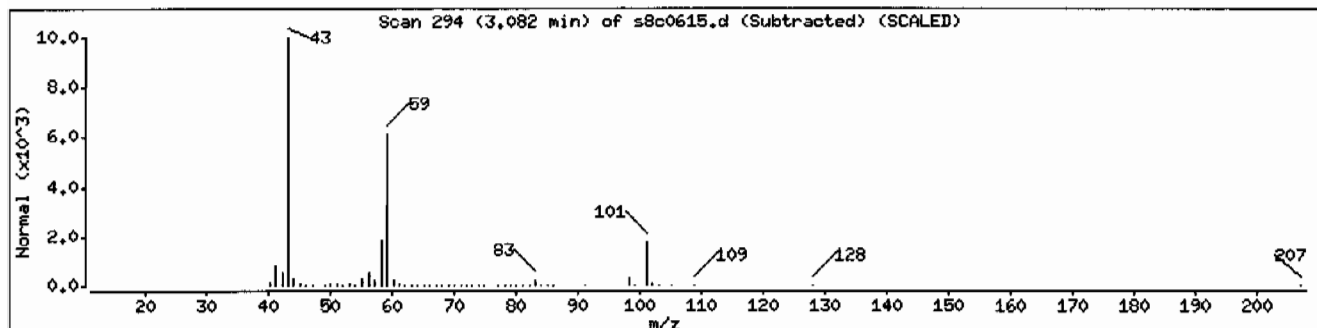
Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	59	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7945	53	C6H12O2	116
Propane, 2-methyl-2-(1-methylethoxy)-	17348-59-3	NIST05.L	8165	36	C7H16O	116



Date : 06-MAR-2010 14:28

Client ID: RE36-10-8478

Instrument: MSD8.i

Sample Info: 1248012007195945711ISVH11ILANL

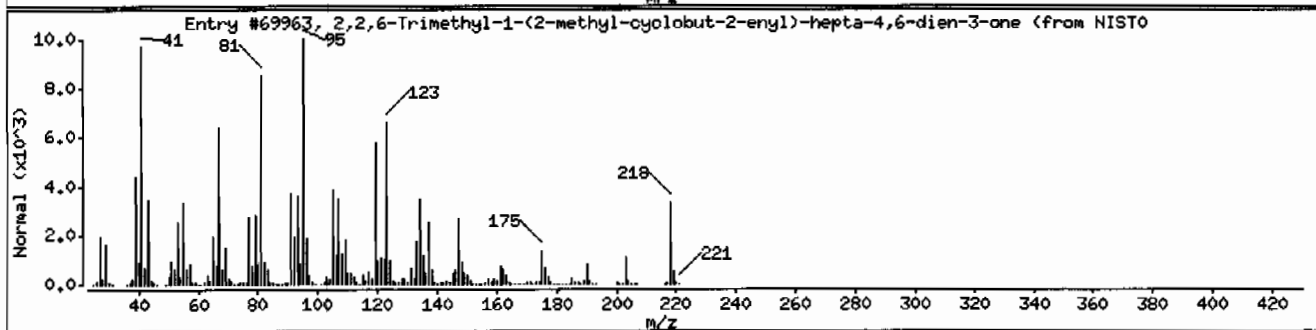
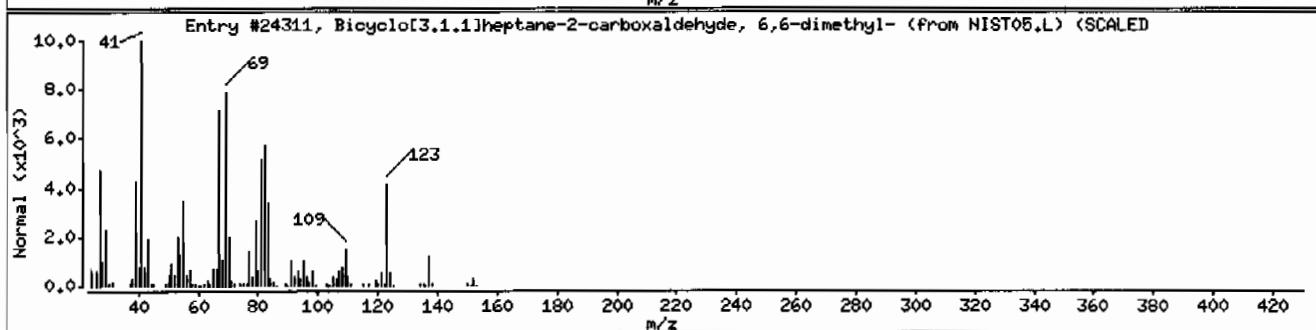
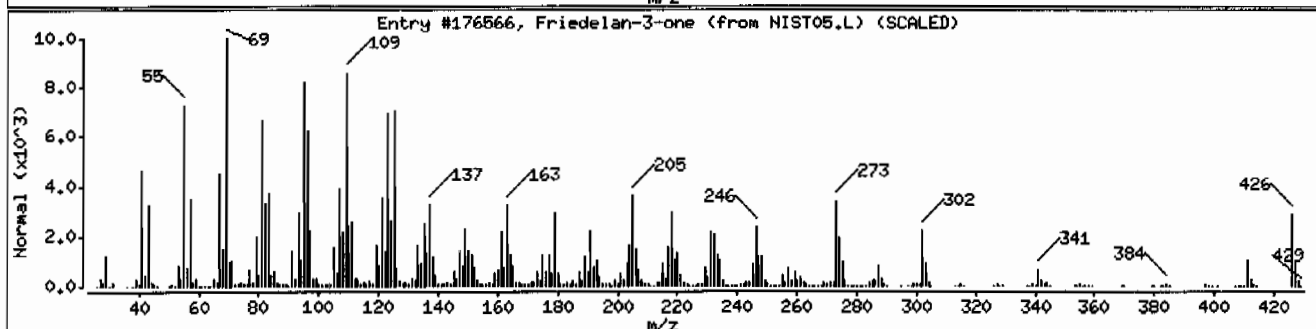
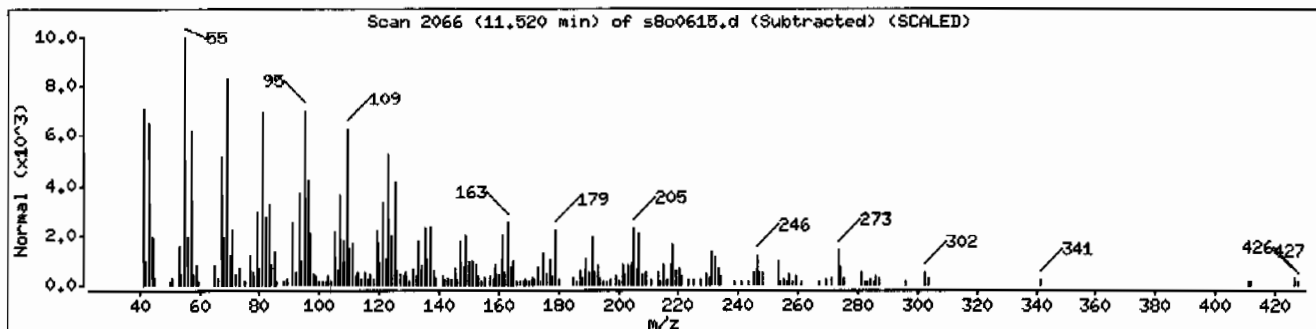
Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Friedelan-3-one	559-74-0	NIST05.L	176566	98	C30H50O	426
Bicyclo[3.1.1]heptane-2-carboxaldehyde,	4764-14-1	NIST05.L	24311	38	C10H16O	152
2,2,6-Trimethyl-1-(2-methyl-cyclobut-2-yl)-hepta-4,6-dien-3-one	1000188-72-8	NIST05.L	69963	25	C15H22O	218



Date : 06-MAR-2010 14:28

Client ID: RE36-10-8478

Instrument: MSD8.i

Sample Info: 12480120071959457111SVMI11LANL

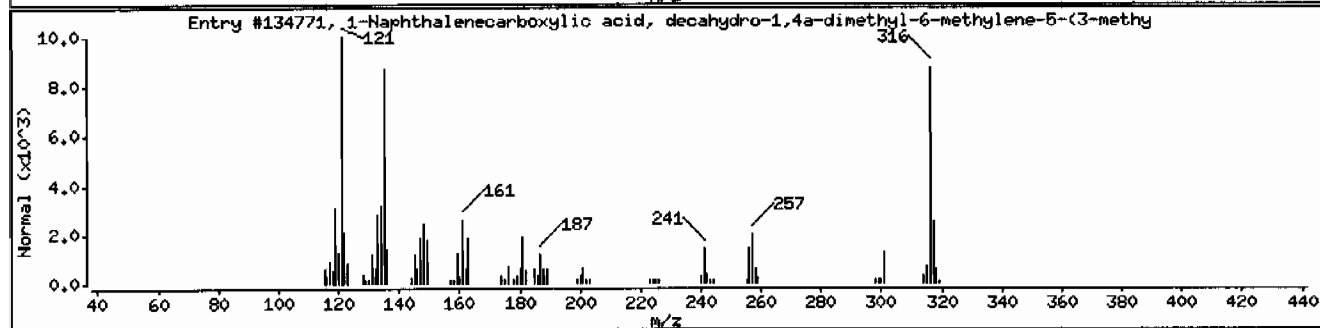
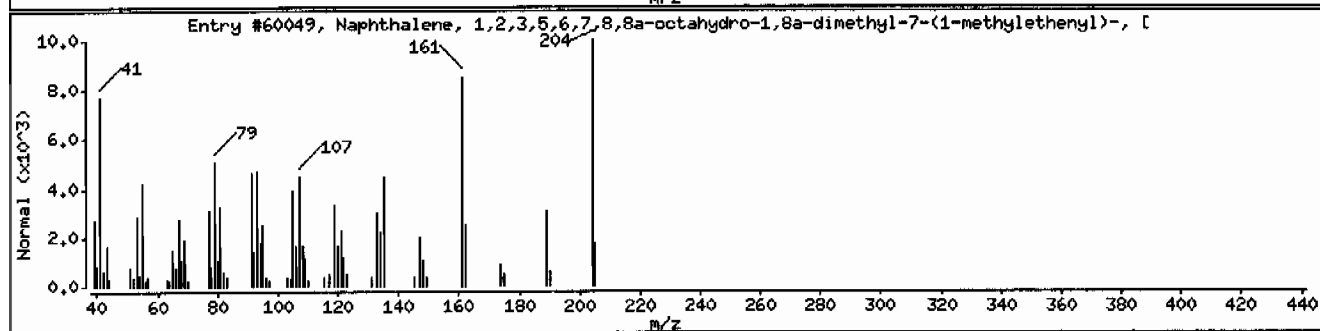
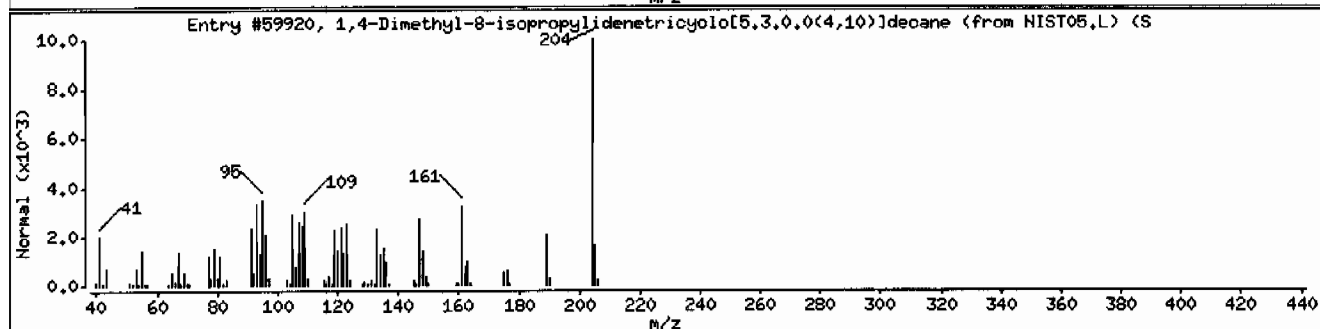
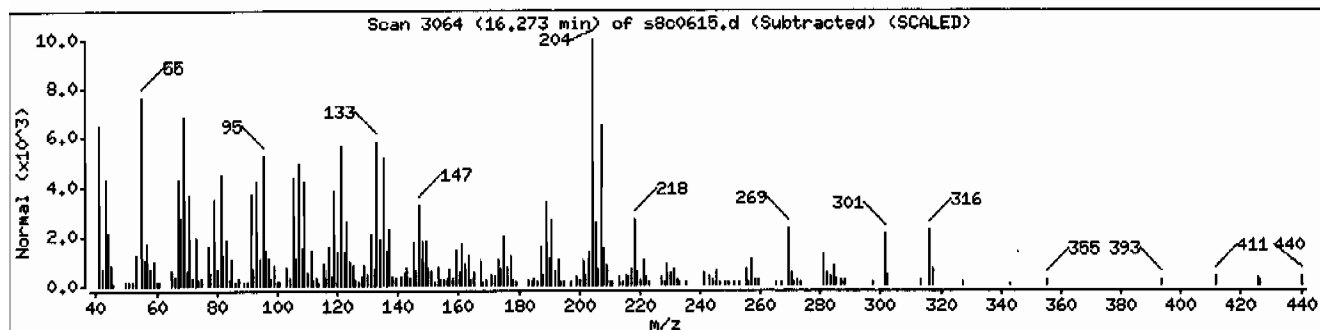
Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1,4-Dimethyl-8-isopropylidenetricyclo[5,	1000140-07-7	NIST05.L	59920	83	C15H24	204
Naphthalene, 1,2,3,5,6,7,8,8a-octahydro-	4630-07-3	NIST05.L	60049	70	C15H24	204
1-Naphthalenecarboxylic acid, decahydro-	1235-39-8	NIST05.L	134771	60	C21H32O2	316



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

Page 1 of 2

SDG Number: 10-2027  
Lab Sample ID: 248012005

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD8.I  
Analyst: NAG1  
Aliquot: 3018 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 10.8  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

Client ID: RE36-10-8480  
Batch ID: 959457  
Run Date: 03/06/2010 13:30  
Prep Date: 03/01/2010 23:22  
Data File: s8c0613.d

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	3.71	ug/kg	0.743	3.71
108-95-2	Phenol	U	3.71	ug/kg	0.743	3.71
95-57-8	2-Chlorophenol	U	3.71	ug/kg	0.743	3.71
106-46-7	1,4-Dichlorobenzene	U	3.71	ug/kg	0.743	3.71
621-64-7	N-Nitrosodipropylamine	U	3.71	ug/kg	0.743	3.71
59-50-7	4-Chloro-3-methylphenol	U	3.71	ug/kg	0.743	3.71
83-32-9	Acenaphthene	U	0.371	ug/kg	0.123	0.371
121-14-2	2,4-Dinitrotoluene	U	3.71	ug/kg	0.371	3.71
100-02-7	4-Nitrophenol	U	3.71	ug/kg	1.23	3.71
87-86-5	Pentachlorophenol	U	3.71	ug/kg	0.929	3.71
129-00-0	Pyrene	U	0.371	ug/kg	0.111	0.371
110-86-1	Pyridine	U	3.71	ug/kg	0.743	3.71
62-53-3	Aniline	U	3.71	ug/kg	1.11	3.71
111-44-4	bis(2-Chloroethyl) ether	U	3.71	ug/kg	0.743	3.71
541-73-1	1,3-Dichlorobenzene	U	3.71	ug/kg	0.743	3.71
100-51-6	Benzyl alcohol	U	3.71	ug/kg	1.11	3.71
95-50-1	1,2-Dichlorobenzene	U	3.71	ug/kg	0.743	3.71
108-60-1	bis(2-Chloroisopropyl)ether	U	3.71	ug/kg	0.743	3.71
95-48-7	o-Cresol	U	3.71	ug/kg	0.743	3.71
65794-96-9	m,p-Cresols	U	3.71	ug/kg	1.11	3.71
67-72-1	Hexachloroethane	U	3.71	ug/kg	0.743	3.71
98-95-3	Nitrobenzene	U	3.71	ug/kg	0.743	3.71
78-59-1	Isophorone	U	3.71	ug/kg	0.743	3.71
88-75-5	2-Nitrophenol	U	3.71	ug/kg	0.743	3.71
105-67-9	2,4-Dimethylphenol	U	3.71	ug/kg	1.30	3.71
111-91-1	bis(2-Chloroethoxy)methane	U	3.71	ug/kg	0.743	3.71
120-83-2	2,4-Dichlorophenol	U	3.71	ug/kg	0.743	3.71
65-85-0	Benzoic acid	U	7.43	ug/kg	1.86	7.43
91-20-3	Naphthalene	U	0.371	ug/kg	0.111	0.371
106-47-8	4-Chloroaniline	U	3.71	ug/kg	0.743	3.71
87-68-3	Hexachlorobutadiene	U	3.71	ug/kg	0.743	3.71
91-57-6	2-Methylnaphthalene	U	0.371	ug/kg	0.0743	0.371
77-47-4	Hexachlorocyclopentadiene	U	3.71	ug/kg	0.743	3.71
88-06-2	2,4,6-Trichlorophenol	U	3.71	ug/kg	0.743	3.71
95-95-4	2,4,5-Trichlorophenol	U	3.71	ug/kg	0.743	3.71
91-58-7	2-Chloronaphthalene	U	0.371	ug/kg	0.123	0.371
88-74-4	2-Nitroaniline	U	3.71	ug/kg	0.743	3.71
	<i>o</i> -Nitroaniline					
99-09-2	3-Nitroaniline	U	3.71	ug/kg	0.743	3.71

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

SDG Number: 10-2027  
Lab Sample ID: 248012005

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD8.I  
Analyst: NAG1  
Aliquot: 3018 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 10.8  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

Client ID: RE36-10-8480  
Batch ID: 959457  
Run Date: 03/06/2010 13:30  
Prep Date: 03/01/2010 23:22  
Data File: s8c0613.d

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	<i>m</i> -Nitroaniline					
131-11-3	Dimethylphthalate	U	3.71	ug/kg	0.743	3.71
606-20-2	2,6-Dinitrotoluene	U	3.71	ug/kg	0.371	3.71
208-96-8	Acenaphthylene	U	0.371	ug/kg	0.111	0.371
51-28-5	2,4-Dinitrophenol	U	7.43	ug/kg	1.41	7.43
132-64-9	Dibenzofuran	U	3.71	ug/kg	0.743	3.71
84-66-2	Diethylphthalate	U	3.71	ug/kg	0.743	3.71
86-73-7	Fluorene	U	0.371	ug/kg	0.111	0.371
7005-72-3	4-Chlorophenylphenylether	U	3.71	ug/kg	0.743	3.71
534-52-1	2-Methyl-4,6-dinitrophenol	U	3.71	ug/kg	0.743	3.71
100-01-6	4-Nitroaniline	U	3.71	ug/kg	1.11	3.71
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	3.71	ug/kg	0.743	3.71
122-66-7	Azobenzene	U	3.71	ug/kg	0.743	3.71
	<i>1,2</i> -Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	3.71	ug/kg	0.743	3.71
118-74-1	Hexachlorobenzene	U	3.71	ug/kg	0.743	3.71
85-01-8	Phenanthrene	U	0.371	ug/kg	0.111	0.371
120-12-7	Anthracene	U	0.371	ug/kg	0.0743	0.371
84-74-2	Di-n-butylphthalate	U	3.71	ug/kg	0.743	3.71
206-44-0	Fluoranthene	U	0.371	ug/kg	0.111	0.371
85-68-7	Butylbenzylphthalate	U	3.71	ug/kg	0.743	3.71
56-55-3	Benzo(a)anthracene	U	0.371	ug/kg	0.111	0.371
91-94-1	3,3'-Dichlorobenzidine	U	3.71	ug/kg	1.11	3.71
218-01-9	Chrysene	U	0.371	ug/kg	0.111	0.371
117-81-7	bis(2-Ethylhexyl)phthalate	U	3.71	ug/kg	0.743	3.71
117-84-0	Di-n-octylphthalate	U	3.71	ug/kg	0.743	3.71
205-99-2	Benzo(b)fluoranthene	U	0.371	ug/kg	0.111	0.371
207-08-9	Benzo(k)fluoranthene	U	0.371	ug/kg	0.111	0.371
50-32-8	Benzo(a)pyrene	U	0.371	ug/kg	0.111	0.371
193-39-5	Indeno(1,2,3-cd)pyrene	U	0.371	ug/kg	0.111	0.371
53-70-3	Dibenzo(a,h)anthracene	U	0.371	ug/kg	0.111	0.371
191-24-2	Benzo(ghi)perylene	U	0.371	ug/kg	0.111	0.371
120-82-1	1,2,4-Trichlorobenzene	U	3.71	ug/kg	0.743	3.71

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.08	4.05	ug/kg		JA
301-02-0	9-Octadecenamide, (Z)-	13.22	1.6	ug/kg	94	NJ

GEL Laboratories LLC

Data file : /chem/MSD8.i/s030610.b/s8c0613.d  
 Lab Smp Id: 248012005 Client Smp ID: RE36-10-8480  
 Inj Date : 06-MAR-2010 13:30  
 Operator : nagl Inst ID: MSD8.i  
 Smp Info : |248012005|959457|1|SVM|1|LANL  
 Misc Info : |MSD8270\_S|WBN100227-01  
 Comment : Column: J & W DB-5MS, 25m x 0.20 mm x 0.33 micron film  
 Method : /chem/MSD8.i/s030610.b/MSD8-8270AQA-022010.m  
 Meth Date : 07-Mar-2010 11:27 nat00999 Quant Type: ISTD  
 Cal Date : 21-FEB-2010 23:15 Cal File: s8b2042.d  
 Als bottle: 11  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: 10-2027.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	3018.00000	weight of sample
M	10.80430	% 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	4.458	4.458	(1.000)	714575	40.0000		
* 29 Naphthalene-d8	136	5.715	5.720	(1.000)	2761572	40.0000		
* 46 Acenaphthene-d10	164	7.573	7.577	(1.000)	1643699	40.0000		
* 67 Phenanthrene-d10	188	9.173	9.177	(1.000)	2986237	40.0000		
* 91 Chrysene-d12	240	12.077	12.082	(1.000)	2589603	40.0000		
* 98 Perylene-d12	264	14.192	14.187	(1.000)	1917216	40.0000		
\$ 3 2-Fluorophenol	112	3.320	3.306	(0.745)	1159451	68.7280		25.5
\$ 5 Phenol-d5	99	4.077	4.082	(0.915)	1421147	67.5483		25.1
\$ 20 Nitrobenzene-d5	82	4.982	4.992	(0.872)	617583	31.4595		11.7
\$ 39 2-Fluorobiphenyl	172	6.844	6.849	(0.904)	1568143	32.4116		12.0
\$ 60 2,4,6-Tribromophenol	329	8.420	8.420	(1.112)	411946	75.8164		28.2
\$ 81 p-Terphenyl-d14	244	10.887	10.882	(0.901)	1840458	39.4759		14.7

## ION RATIO REPORT

## SV REPORT

Data file: s8c0613.d

Report Date: 03/07/2010 11:35

Lab. ID: 248012005

SampleType: SAMPLE

Injection Date: 06-MAR-2010 13:30

Operator: nagl

Instrument: MSD8.i

Sample Info: |248012005|959457|1|SVM|1|LANL

Miscellaneous Info: |MSD8270\_S|WBN100227-01

Comment:

Method used: /chem/MSD8.i/s030610.b/MSD8-8270AQA-022010.m

Dilution Factor= 1.0

Integrator: HP RTE

Compound Sublist: 10-2027

Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
4 Aniline		CAS#: 62-53-3				
66	66636	4.08	4.15	80-120	100	(T)
93	1276	4.13	4.15	235-295	2	(Q)
-----						
17 N-Nitrosodipropylamine		CAS#: 621-64-7				
70	83940	4.98	4.84	80-120	100	(T)
42	37957	4.98	4.84	31- 91	45	(T)
-----						
27 Benzoic acid		CAS#: 65-85-0				
105	958	5.43	5.46	80-120	100	( )
122	259	5.45	5.46	51-111	27	(Q)
77	678	5.38	5.46	47-107	71	(T)
-----						
30 Naphthalene		CAS#: 91-20-3				
128	531	5.73	5.74	80-120	100	( )
129	438	5.72	5.74	0- 41	82	(Q)
127	0	0.00	5.74	0- 43	0	(T)
-----						
34 2-Methylnaphthalene		CAS#: 91-57-6				
142	111	6.45	6.46	80-120	100	( )
141	114	6.45	6.46	56-116	102	( )
-----						
40 2-Chloronaphthalene		CAS#: 91-58-7				
162	532	6.97	6.98	80-120	100	( )
164	2778	6.99	6.98	3- 63	522	(Q)
127	816	6.99	6.98	7- 67	153	(Q)
-----						



MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
<hr/>						
44 2,6-Dinitrotoluene				CAS#: 606-20-2		
165	211609	7.57	7.35	80-120	100	(T)
63	4636	7.57	7.35	34- 94	2	(QT)
<hr/>						
47 Acenaphthene				CAS#: 83-32-9		
154	16812	7.59	7.62	80-120	100	( )
153	15159	7.59	7.62	77-137	90	( )
152	13750	7.59	7.62	20- 80	82	(Q)
<hr/>						
50 2,4-Dinitrotoluene				CAS#: 121-14-2		
165	211609	7.57	7.78	80-120	100	(T)
89	3201	7.57	7.78	48-108	2	(QT)
63	4636	7.57	7.78	24- 84	2	(QT)
<hr/>						
55 2-Methyl-4,6-dinitrophenol				CAS#: 534-52-1		
198	1193	8.42	8.22	80-120	100	(T)
105	2149	8.42	8.21	12- 72	180	(QT)
51	1715	8.42	8.21	26- 86	144	(QT)
<hr/>						
68 Phenanthrene				CAS#: 85-01-8		
178	3036	9.20	9.20	80-120	100	( )
179	579	9.20	9.20	0- 45	19	( )
176	579	9.19	9.20	0- 48	19	( )
<hr/>						
92 Chrysene				CAS#: 218-01-9		
228	1863	12.11	12.12	80-120	100	( )
229	429	12.11	12.12	0- 49	23	( )
226	727	12.11	12.12	0- 59	39	( )
<hr/>						
94 Di-n-octylphthalate				CAS#: 117-84-0		
149	304	12.97	12.97	80-120	100	( )
43	350	12.93	12.96	0- 38	115	(Q)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD8.i/s030610.b/s8c0613.d  
 Lab Smp Id: 248012005 Client Smp ID: RE36-10-8480  
 Inj Date : 06-MAR-2010 13:30  
 Operator : nagl Inst ID: MSD8.i  
 Smp Info : |248012005|959457|1|SVM|1|LANL  
 Misc Info : |MSD8270 S|WBN100227-01  
 Comment : Column: J & W DB-5MS, 25m x 0.20 mm x 0.33 micron film  
 Method : /chem/MSD8.i/s030610.b/MSD8-8270AQA-022010.m  
 Meth Date : 07-Mar-2010 11:27 nat00999 Quant Type: ISTD  
 Cal Date : 21-FEB-2010 23:15 Cal File: s8b2042.d  
 Als bottle: 11  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: 10-2027.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	3018.00000	weight of sample
M	10.80430	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
=====	=====	=====	=====
* 10 1,4-Dichlorobenzene-d4	4.458	3945341	40.000
* 98 Perylene-d12	14.192	5275559	40.000

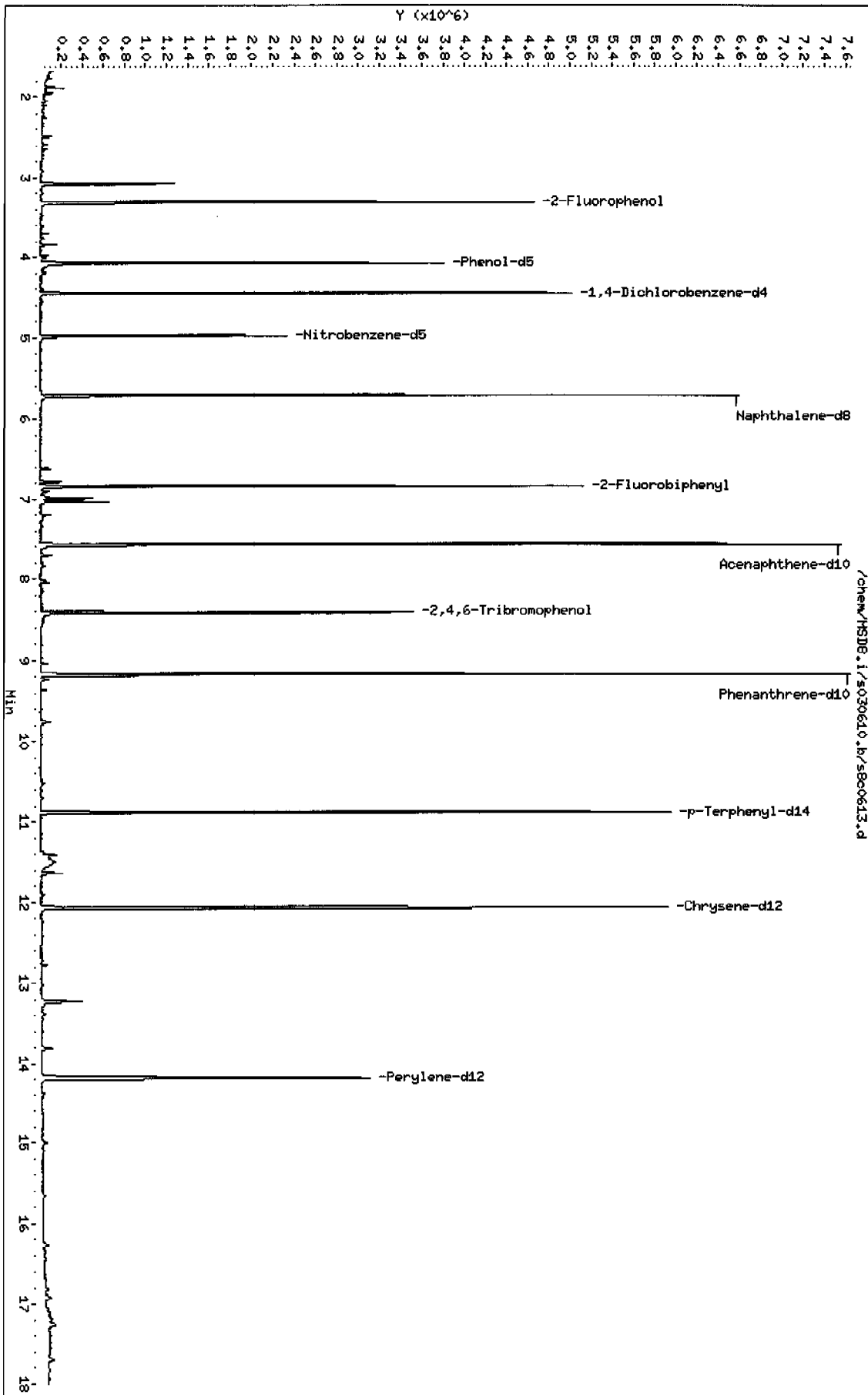
CONCENTRATIONS				QUANT			
RT	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
====	=====	=====	=====	=====	=====	=====	=====
Unknown Aldol Condensate							
3.082	1074602	10.8948969	4.0	0		0	10

RT	CONCENTRATIONS				QUANT		
	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
====	====	=====	=====	=====	=====	=====	=====
9-Octadecenamide, (Z)-					CAS #: 301-02-0		
13.220	567634	4.30387634	1.6	94	NIST05.L	112655	98

Data File: /chem/HSD8.i/s030610.b/s800613.d  
Date: 06-MAR-2010 13:30  
Client ID: RE36-10-8480  
Sample Info: 1248012005195945711SVH11.LANL  
Volume Injected (uL): 0.5  
Column phase: J&W DB-5HS

Instrument: HSD8.i  
Operator: nag1  
Column diameter: 0.20

Page 1



Date : 06-MAR-2010 13:30

Client ID: RE36-10-8480

Instrument: MSD8.i

Sample Info: 12480120051969457111SVH111LANL

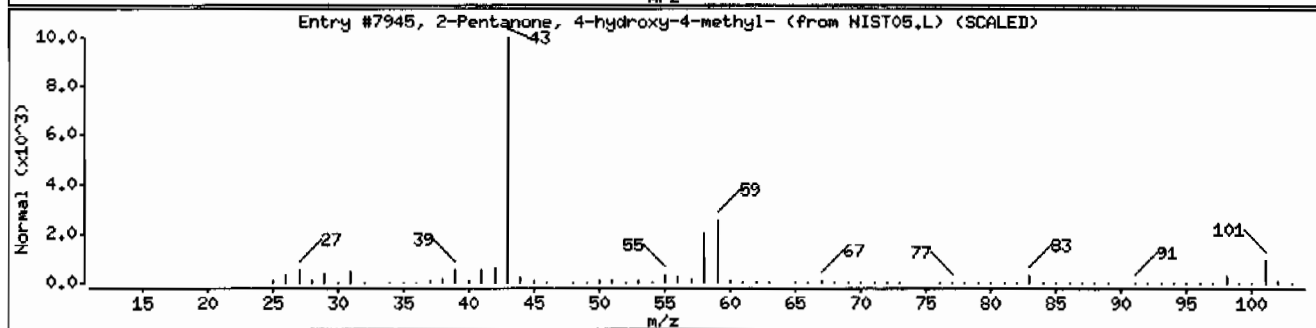
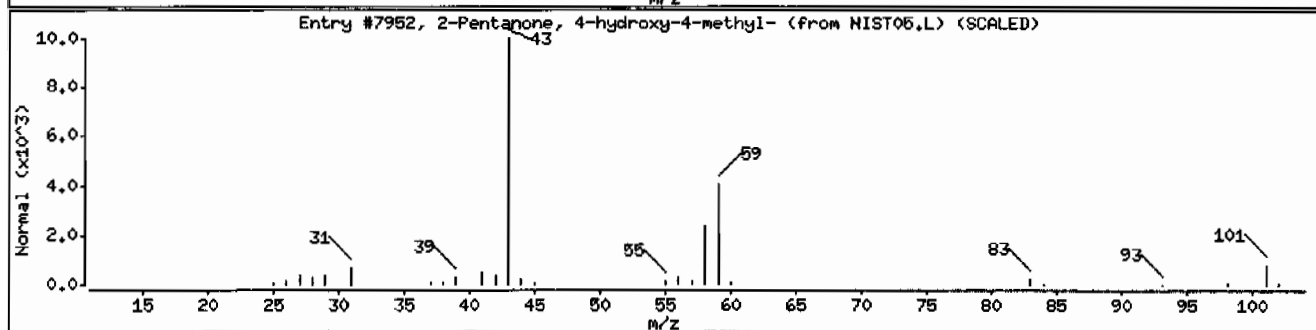
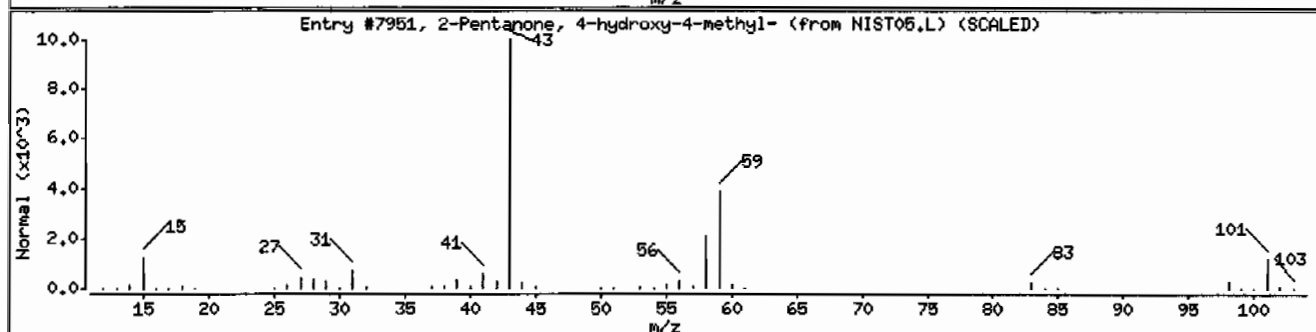
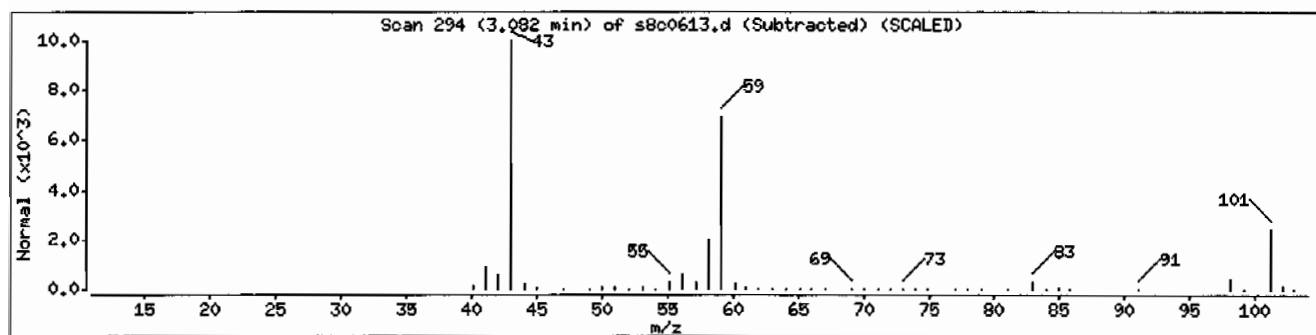
Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	53	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	7945	40	C6H12O2	116



Date : 06-MAR-2010 13:30

Client ID: RE36-10-8480

Instrument: MSD8.i

Sample Info: 12480120051959457111SVMI11LANL

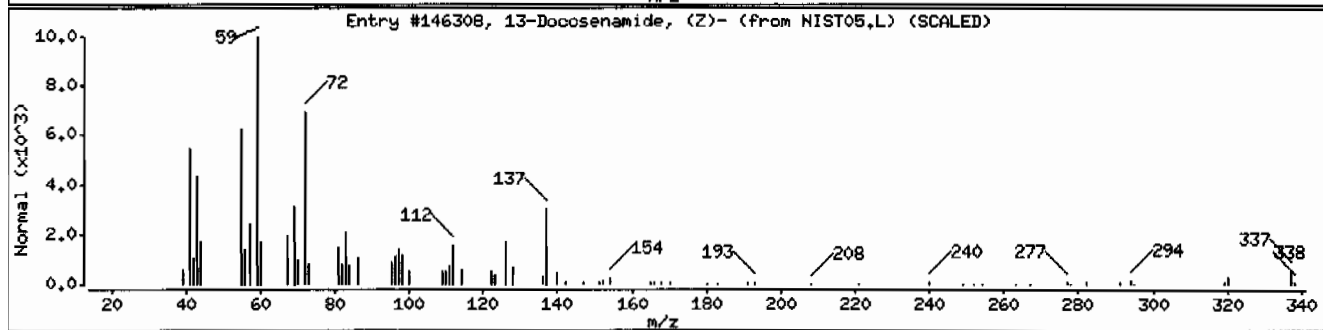
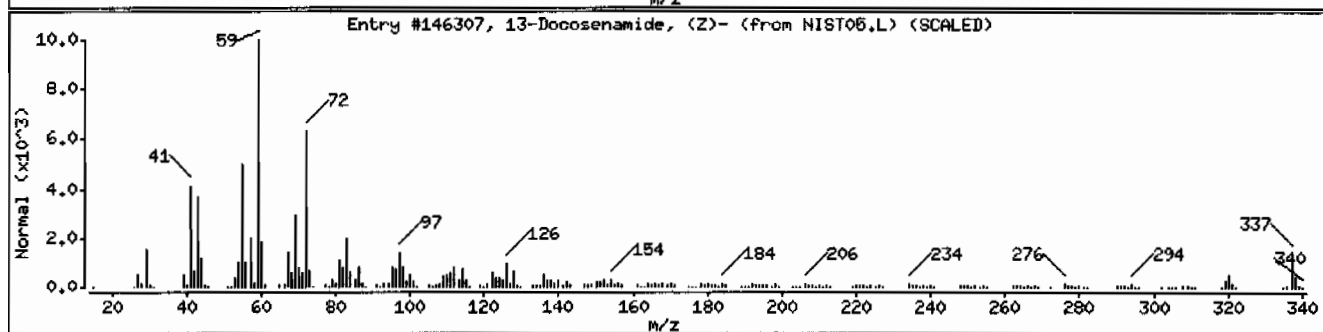
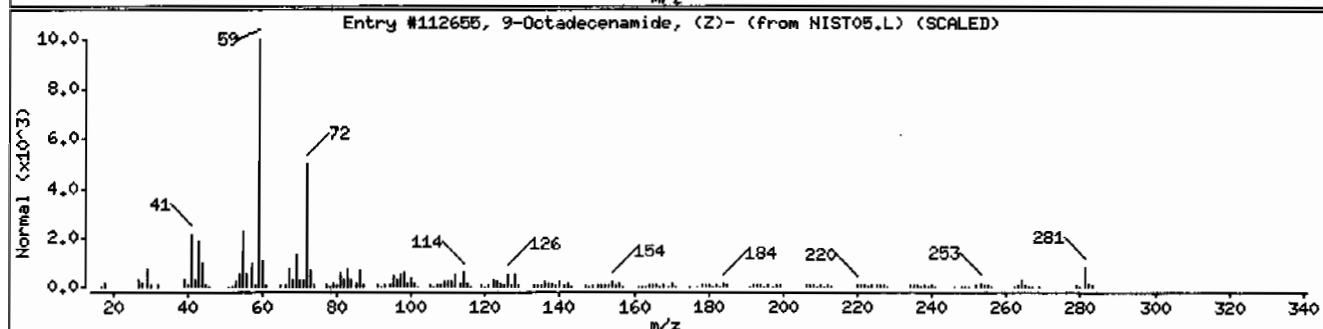
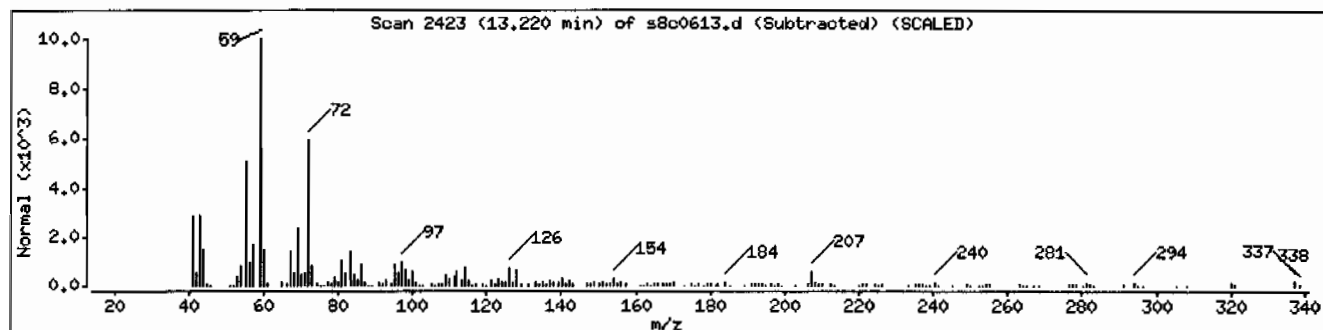
Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
9-Octadecenamide, (Z)-	301-02-0	NIST05.L	112655	94	C18H35NO	281
13-Docosenamide, (Z)-	112-84-5	NIST05.L	146307	93	C22H43NO	337
13-Docosenamide, (Z)-	112-84-5	NIST05.L	146308	93	C22H43NO	337



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

SDG Number: 10-2027  
Lab Sample ID: 248012009

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD8.I  
Analyst: NAG1  
Aliquot: 30.17 g  
Column: J&W DB-5MS

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

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	349	ug/kg	69.8	349
108-95-2	Phenol	U	349	ug/kg	69.8	349
95-57-8	2-Chlorophenol	U	349	ug/kg	69.8	349
106-46-7	1,4-Dichlorobenzene	U	349	ug/kg	69.8	349
621-64-7	N-Nitrosodipropylamine	U	349	ug/kg	69.8	349
59-50-7	4-Chloro-3-methylphenol	U	349	ug/kg	69.8	349
83-32-9	Acenaphthene	U	34.9	ug/kg	11.5	34.9
121-14-2	2,4-Dinitrotoluene	U	349	ug/kg	34.9	349
100-02-7	4-Nitrophenol	U	349	ug/kg	115	349
87-86-5	Pentachlorophenol	U	349	ug/kg	87.3	349
129-00-0	Pyrene		151	ug/kg	10.5	34.9
110-86-1	Pyridine	U	349	ug/kg	69.8	349
62-53-3	Aniline	U	349	ug/kg	105	349
111-44-4	bis(2-Chloroethyl) ether	U	349	ug/kg	69.8	349
541-73-1	1,3-Dichlorobenzene	U	349	ug/kg	69.8	349
100-51-6	Benzyl alcohol	U	349	ug/kg	105	349
95-50-1	1,2-Dichlorobenzene	U	349	ug/kg	69.8	349
108-60-1	bis(2-Chloroisopropyl)ether	U	349	ug/kg	69.8	349
95-48-7	o-Cresol	U	349	ug/kg	69.8	349
65794-96-9	m,p-Cresols	U	349	ug/kg	105	349
67-72-1	Hexachloroethane	U	349	ug/kg	69.8	349
98-95-3	Nitrobenzene	U	349	ug/kg	69.8	349
78-59-1	Isophorone	U	349	ug/kg	69.8	349
88-75-5	2-Nitrophenol	U	349	ug/kg	69.8	349
105-67-9	2,4-Dimethylphenol	U	349	ug/kg	122	349
111-91-1	bis(2-Chloroethoxy)methane	U	349	ug/kg	69.8	349
120-83-2	2,4-Dichlorophenol	U	349	ug/kg	69.8	349
65-85-0	Benzoic acid	U	698	ug/kg	175	698
91-20-3	Naphthalene	U	34.9	ug/kg	10.5	34.9
106-47-8	4-Chloroaniline	U	349	ug/kg	69.8	349
87-68-3	Hexachlorobutadiene	U	349	ug/kg	69.8	349
91-57-6	2-Methylnaphthalene	U	34.9	ug/kg	6.98	34.9
77-47-4	Hexachlorocyclopentadiene	U	349	ug/kg	69.8	349
88-06-2	2,4,6-Trichlorophenol	U	349	ug/kg	69.8	349
95-95-4	2,4,5-Trichlorophenol	U	349	ug/kg	69.8	349
91-58-7	2-Chloronaphthalene	U	34.9	ug/kg	11.5	34.9
88-74-4	2-Nitroaniline	U	349	ug/kg	69.8	349
	<i>o</i> -Nitroaniline					
99-09-2	3-Nitroaniline	U	349	ug/kg	69.8	349

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

SDG Number: 10-2027  
Lab Sample ID: 248012009

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD8.I  
Analyst: NAG1  
Aliquot: 30.17 g  
Column: J&W DB-5MS

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

Client ID: RE36-10-8482  
Batch ID: 959457  
Run Date: 03/06/2010 16:56  
Prep Date: 03/01/2010 23:22  
Data File: s8c0620.d

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	<i>m</i> -Nitroaniline					
131-11-3	Dimethylphthalate	U	349	ug/kg	69.8	349
606-20-2	2,6-Dinitrotoluene	U	349	ug/kg	34.9	349
208-96-8	Acenaphthylene	U	34.9	ug/kg	10.5	34.9
51-28-5	2,4-Dinitrophenol	U	698	ug/kg	133	698
132-64-9	Dibenzofuran	U	349	ug/kg	69.8	349
84-66-2	Diethylphthalate	U	349	ug/kg	69.8	349
86-73-7	Fluorene	U	34.9	ug/kg	10.5	34.9
7005-72-3	4-Chlorophenylphenylether	U	349	ug/kg	69.8	349
534-52-1	2-Methyl-4,6-dinitrophenol	U	349	ug/kg	69.8	349
100-01-6	4-Nitroaniline	U	349	ug/kg	105	349
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	349	ug/kg	69.8	349
122-66-7	Azobenzene	U	349	ug/kg	69.8	349
	<i>1,2</i> -Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	349	ug/kg	69.8	349
118-74-1	Hexachlorobenzene	U	349	ug/kg	69.8	349
85-01-8	Phenanthrene		125	ug/kg	10.5	34.9
120-12-7	Anthracene	J	11.0	ug/kg	6.98	34.9
84-74-2	Di-n-butylphthalate	U	349	ug/kg	69.8	349
206-44-0	Fluoranthene		148	ug/kg	10.5	34.9
85-68-7	Butylbenzylphthalate	U	349	ug/kg	69.8	349
56-55-3	Benzo(a)anthracene		106	ug/kg	10.5	34.9
91-94-1	3,3'-Dichlorobenzidine	U	349	ug/kg	105	349
218-01-9	Chrysene		145	ug/kg	10.5	34.9
117-81-7	bis(2-Ethylhexyl)phthalate	U	349	ug/kg	69.8	349
117-84-0	Di-n-octylphthalate	U	349	ug/kg	69.8	349
205-99-2	Benzo(b)fluoranthene		176	ug/kg	10.5	34.9
207-08-9	Benzo(k)fluoranthene		68.4	ug/kg	10.5	34.9
50-32-8	Benzo(a)pyrene		106	ug/kg	10.5	34.9
193-39-5	Indeno(1,2,3-cd)pyrene		52.5	ug/kg	10.5	34.9
53-70-3	Dibenzo(a,h)anthracene	U	34.9	ug/kg	10.5	34.9
191-24-2	Benzo(ghi)perylene		50.9	ug/kg	10.5	34.9
120-82-1	1,2,4-Trichlorobenzene	U	349	ug/kg	69.8	349

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	1.88	793	ug/kg		J
	Unknown Aldol Condensate	3.08	411	ug/kg		JA



Semi-Volatile  
Certificate of Analysis  
Sample Summary

Page 3 of 3

SDG Number: 10-2027  
Lab Sample ID: 248012009

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD8.I  
Analyst: NAG1  
Aliquot: 30.17 g  
Column: J&W DB-5MS

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

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
Tentatively Identified Compound Summary						
CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	4.33	193	ug/kg		J
	Unknown	11.52	379	ug/kg		J
5155-70-4	1-Phenanthrenecarboxylic acid, 1,2,3,4,4	11.84	149	ug/kg	93	NJ
112-95-8	Eicosane	13.81	168	ug/kg	96	NJ
58-22-0	Androst-4-en-3-one, 17-hydroxy-, (17.bet	17.7	167	ug/kg	80	NJ

GEL Laboratories LLC

Data file : /chem/MSD8.i/s030610.b/s8c0620.d  
Lab Smp Id: 248012009 Client Smp ID: RE36-10-8482  
Inj Date : 06-MAR-2010 16:56  
Operator : nagl Inst ID: MSD8.i  
Smp Info : |248012009|959457|1|SVM|1|LANL  
Misc Info : |MSD8270\_S|WBN100227-01  
Comment : Column: J & W DB-5MS, 25m x 0.20 mm x 0.33 micron film  
Method : /chem/MSD8.i/s030610.b/MSD8-8270AQA-022010.m  
Meth Date : 07-Mar-2010 11:27 nat00999 Quant Type: ISTD  
Cal Date : 21-FEB-2010 23:15 Cal File: s8b2042.d  
Als bottle: 18  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: 10-2027.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	30.17000	weight of sample
M	5.03730	% 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	4.458	4.458	(1.000)	733871	40.0000	
* 29 Naphthalene-d8	136	5.715	5.720	(1.000)	2945138	40.0000	
* 46 Acenaphthene-d10	164	7.573	7.577	(1.000)	1728192	40.0000	
* 67 Phenanthrene-d10	188	9.177	9.177	(1.000)	3011668	40.0000	
* 91 Chrysene-d12	240	12.082	12.082	(1.000)	2240876	40.0000	
* 98 Perylene-d12	264	14.192	14.187	(1.000)	1137665	40.0000	
\$ 3 2-Fluorophenol	112	3.315	3.306	(0.744)	990434	57.1656	2000
\$ 5 Phenol-d5	99	4.077	4.082	(0.915)	1245626	57.6489	2010
\$ 20 Nitrobenzene-d5	82	4.982	4.992	(0.872)	589242	28.1450	982
\$ 39 2-Fluorobiphenyl	172	6.844	6.849	(0.904)	1269928	24.9646	871
\$ 60 2,4,6-Tribromophenol	329	8.420	8.420	(1.112)	286189	50.0963	1750
\$ 81 p-Terphenyl-d14	244	10.887	10.882	(0.901)	1273913	31.5763	1100

Compounds	QUANT SIG	CONCENTRATIONS					
		MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN FINAL (ng/ul) (ug/Kg)
=====	=====	=====	=====	=====	=====	=====	=====
79 Pyrene	202	10.725	10.730	(0.888)	301830	4.31400	150
68 Phenanthrene	178	9.196	9.201	(1.002)	119280	3.56818	124
69 Anthracene	178	9.249	9.258	(1.008)	23055	0.31541	11.0(a)
76 Fluoranthene	202	10.477	10.482	(1.142)	324068	4.22865	148
89 Benzo(a)anthracene	228	12.063	12.068	(0.998)	178944	3.03453	106
92 Chrysene	228	12.111	12.115	(1.002)	195935	4.15106	145
95 Benzo(b)fluoranthene	252	13.568	13.573	(0.956)	162643	5.04255	176
96 Benzo(k)fluoranthene	252	13.606	13.620	(0.959)	63544	1.95968	68.4
97 Benzo(a)pyrene	252	14.087	14.096	(0.993)	82692	3.03976	106
99 Indeno(1,2,3-cd)pyrene	276	16.011	16.020	(1.128)	33921	1.50393	52.5
101 Benzo(ghi)perylene	276	16.487	16.497	(1.162)	27226	1.45895	50.9

#### QC Flag Legend

a - Target compound detected but, quantitated amount  
 Below Limit Of Quantitation(BLOQ).

## ION RATIO REPORT

## SV REPORT

Data file: s8c0620.d

Report Date: 03/07/2010 11:37

Lab. ID: 248012009

SampleType: SAMPLE

Injection Date: 06-MAR-2010 16:56

Operator: nagl

Instrument: MSD8.i

Sample Info: |248012009|959457|1|SVM|1|LANL

Miscellaneous Info: |MSD8270\_S|WBN100227-01

Comment:

Method used: /chem/MSD8.i/s030610.b/MSD8-8270AQA-022010.m

Dilution Factor= 1.0

Integrator: HP RTE

Compound Sublist: 10-2027

Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
4 Aniline		CAS#: 62-53-3				
66	66446	4.08	4.15	80-120	100	(T)
93	16716	4.13	4.15	235-295	25	(Q)
-----						
17 N-Nitrosodipropylamine		CAS#: 621-64-7				
70	83616	4.98	4.84	80-120	100	(T)
42	44984	4.98	4.84	31- 91	54	(T)
-----						
27 Benzoic acid		CAS#: 65-85-0				
105	595	5.46	5.46	80-120	100	( )
122	496	5.47	5.46	51-111	83	( )
77	716	5.46	5.46	47-107	120	(Q)
-----						
30 Naphthalene		CAS#: 91-20-3				
128	3870	5.73	5.74	80-120	100	( )
129	505	5.74	5.74	0- 41	13	( )
127	657	5.73	5.74	0- 43	17	( )
-----						
34 2-Methylnaphthalene		CAS#: 91-57-6				
142	1178	6.45	6.46	80-120	100	( )
141	1300	6.46	6.46	56-116	110	( )
-----						
40 2-Chloronaphthalene		CAS#: 91-58-7				
162	1076	6.97	6.98	80-120	100	( )
164	127	6.92	6.98	3- 63	12	( )
127	219	6.97	6.98	7- 67	20	( )
-----						

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
<hr/>						
44	2,6-Dinitrotoluene			CAS#: 606-20-2		
165	223161	7.57	7.35	80-120	100	(T)
63	3159	7.57	7.35	34- 94	1	(QT)
<hr/>						
48	2,4-Dinitrophenol			CAS#: 51-28-5		
184	232	7.61	7.63	80-120	100	( )
154	4457	7.61	7.63	21- 81	1919	(Q)
<hr/>						
50	2,4-Dinitrotoluene			CAS#: 121-14-2		
165	223161	7.57	7.78	80-120	100	(T)
89	3295	7.58	7.78	48-108	1	(QT)
63	3159	7.57	7.78	24- 84	1	(QT)
<hr/>						
55	2-Methyl-4,6-dinitrophenol			CAS#: 534-52-1		
198	876	8.42	8.22	80-120	100	(T)
105	3281	8.42	8.21	12- 72	374	(QT)
51	2352	8.42	8.21	26- 86	268	(QT)
<hr/>						
68	Phenanthrene			CAS#: 85-01-8		
178	119280	9.20	9.20	80-120	100	( )
179	19122	9.20	9.20	0- 45	16	( )
176	23817	9.20	9.20	0- 48	20	( )
<hr/>						
69	Anthracene			CAS#: 120-12-7		
178	23055	9.25	9.26	80-120	100	( )
179	3831	9.25	9.26	0- 45	17	( )
176	4487	9.25	9.26	0- 48	19	( )
<hr/>						
76	Fluoranthene			CAS#: 206-44-0		
202	324068	10.48	10.48	80-120	100	( )
203	55695	10.48	10.48	0- 47	17	( )
101	43346	10.48	10.48	0- 42	13	( )
<hr/>						
79	Pyrene			CAS#: 129-00-0		
202	301830	10.72	10.73	80-120	100	( )
200	62453	10.72	10.73	0- 50	21	( )
101	52426	10.72	10.72	0- 44	17	( )
<hr/>						
89	Benzo(a)anthracene			CAS#: 56-55-3		
228	178944	12.06	12.07	80-120	100	( )
226	49265	12.06	12.07	0- 55	28	( )
229	43936	12.06	12.07	0- 50	25	( )
<hr/>						
92	Chrysene			CAS#: 218-01-9		
228	195935	12.11	12.12	80-120	100	( )
229	42875	12.11	12.12	0- 49	22	( )
226	58198	12.11	12.12	0- 59	30	( )
<hr/>						

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
<hr/>						
94 Di-n-octylphthalate				CAS#: 117-84-0		
149	1918	12.97	12.97	80-120	100	( )
43	7266	12.93	12.96	0- 38	379	(Q)
<hr/>						
95 Benzo(b)fluoranthene				CAS#: 205-99-2		
252	162643	13.57	13.57	80-120	100	( )
253	37927	13.57	13.57	0- 52	23	( )
125	24663	13.57	13.57	0- 42	15	( )
<hr/>						
96 Benzo(k)fluoranthene				CAS#: 207-08-9		
252	63544	13.61	13.62	80-120	100	( )
253	14351	13.61	13.62	0- 52	23	( )
125	8655	13.60	13.62	0- 42	14	( )
<hr/>						
97 Benzo(a)pyrene				CAS#: 50-32-8		
252	82692	14.09	14.10	80-120	100	( )
253	18786	14.09	14.10	0- 52	23	( )
125	12119	14.09	14.09	0- 42	15	( )
<hr/>						
99 Indeno(1,2,3-cd)pyrene				CAS#: 193-39-5		
276	33921	16.01	16.02	80-120	100	( )
138	11360	16.02	16.02	0- 53	33	( )
<hr/>						
100 Dibenzo(a,h)anthracene				CAS#: 53-70-3		
278	10522	16.04	16.06	80-120	100	( )
139	1187	16.05	16.05	0- 48	11	( )
<hr/>						
101 Benzo(ghi)perylene				CAS#: 191-24-2		
276	27226	16.49	16.50	80-120	100	( )
138	5363	16.48	16.49	0- 54	20	( )

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD8.i/s030610.b/s8c0620.d  
 Lab Smp Id: 248012009 Client Smp ID: RE36-10-8482  
 Inj Date : 06-MAR-2010 16:56  
 Operator : nagl Inst ID: MSD8.i  
 Smp Info : |248012009|959457|1|SVM|1|LANL  
 Misc Info : |MSD8270\_S|WBN100227-01  
 Comment : Column: J & W DB-5MS, 25m x 0.20 mm x 0.33 micron film  
 Method : /chem/MSD8.i/s030610.b/MSD8-8270AQA-022010.m  
 Meth Date : 07-Mar-2010 11:27 nat00999 Quant Type: ISTD  
 Cal Date : 21-FEB-2010 23:15 Cal File: s8b2042.d  
 Als bottle: 18  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: 10-2027.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	30.17000	weight of sample
M	5.03730	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
=====	=====	=====	=====
* 10 1,4-Dichlorobenzene-d4	4.458	4501284	40.000
* 91 Chrysene-d12	12.082	6838780	40.000
* 98 Perylene-d12	14.192	3364718	40.000

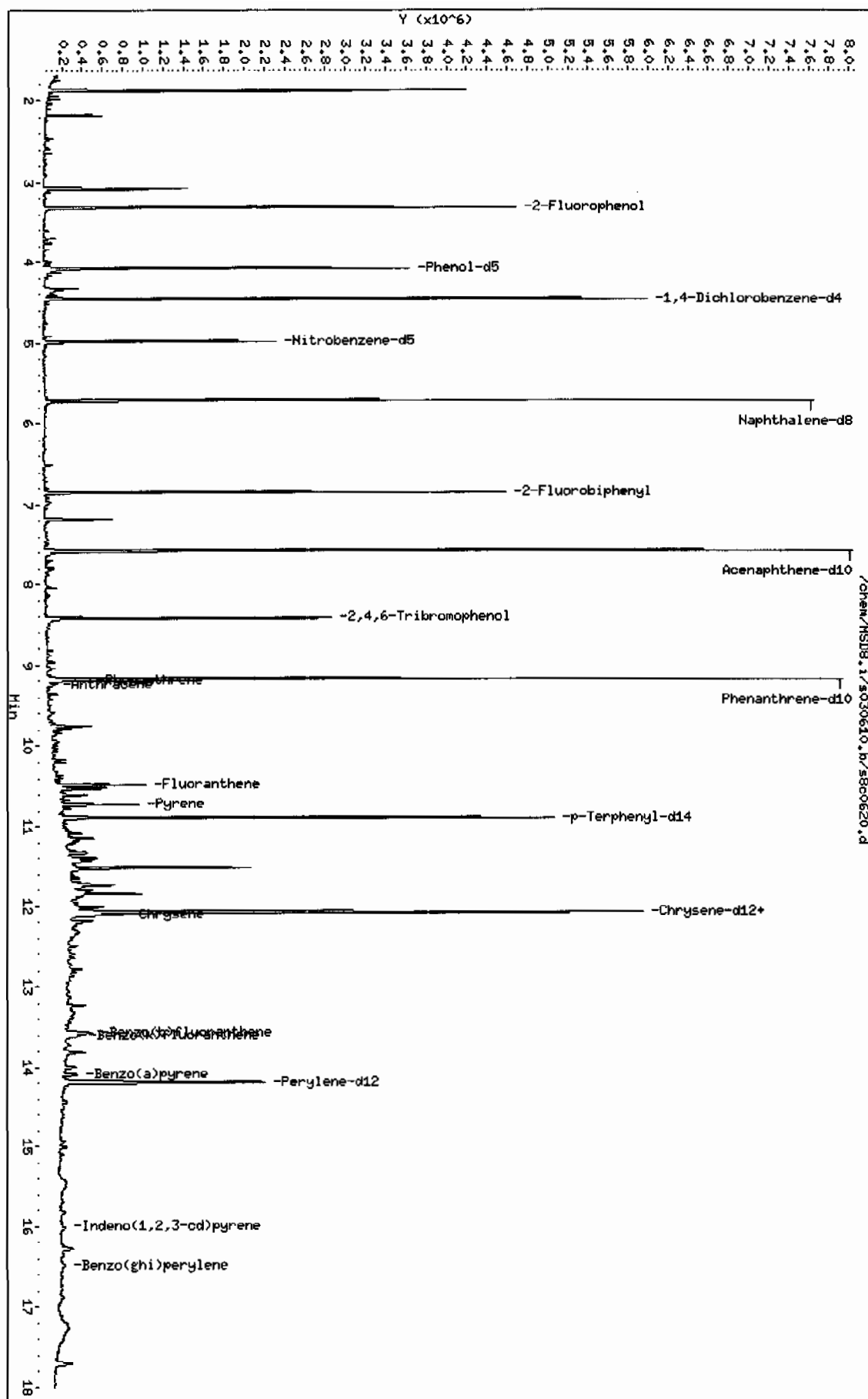
CONCENTRATIONS				QUANT			
RT	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
=====	=====	=====	=====	=====	=====	=====	=====

RT	CONCENTRATIONS				QUANT		
	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown					CAS #:		
1.882	2555988	22.7134059	793	0		0	10
Unknown Aldol Condensate					CAS #:		
3.082	1325606	11.7797981	411	0		0	10
Unknown					CAS #:		
4.330	622138	5.52853495	193	0		0	10
Unknown					CAS #:		
11.515	1858657	10.8712758	379	0		0	91
1-Phenanthrenecarboxylic acid, 1,2,3,4,4					CAS #: 5155-70-4		
11.844	730218	4.27104033	149	93	NIST05.L	125035	91
Eicosane					CAS #: 112-95-8		
13.811	404280	4.80610729	168	96	NIST05.L	113490	98
Androst-4-en-3-one, 17-hydroxy-, (17.bet					CAS #: 58-22-0		
17.696	402719	4.78754971	167	80	NIST05.L	117326	98



Data File: /chem/HSD8.i/s030610.b/s8c0620.d  
 Date: 06-MAR-2010 16:56  
 Client ID: RE36-10-8482  
 Sample Info: 1248012009195945711SVH11LNL  
 Volume Injected (uL): 0.5  
 Column phase: J&M DB-BMS

Instrument: HSD8.i  
 Operator: nag1  
 Column diameter: 0.20



Date : 06-MAR-2010 16:56

Client ID: RE36-10-8482

Instrument: MSD8.i

Sample Info: I248012009195945711SVMI1ILANL

Volume Injected (uL): 0.5

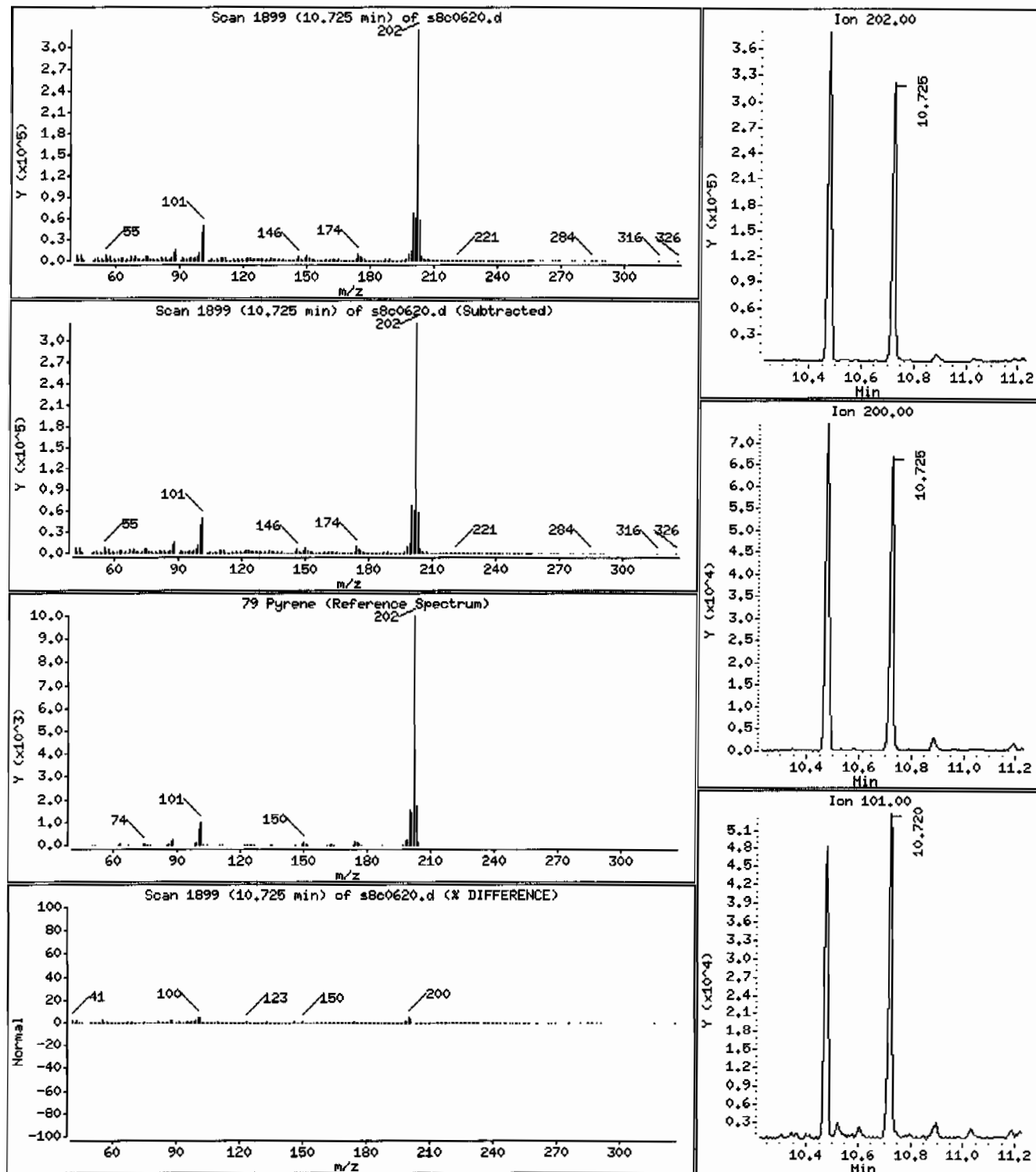
Operator: nag1

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

79 Pyrene

Concentration: 150 ug/Kg



Date : 06-MAR-2010 16:56

Client ID: RE36-10-8482

Instrument: MSD8.1

Sample Info: 12480120091959457111SVH111LANL

Volume Injected (uL): 0.5

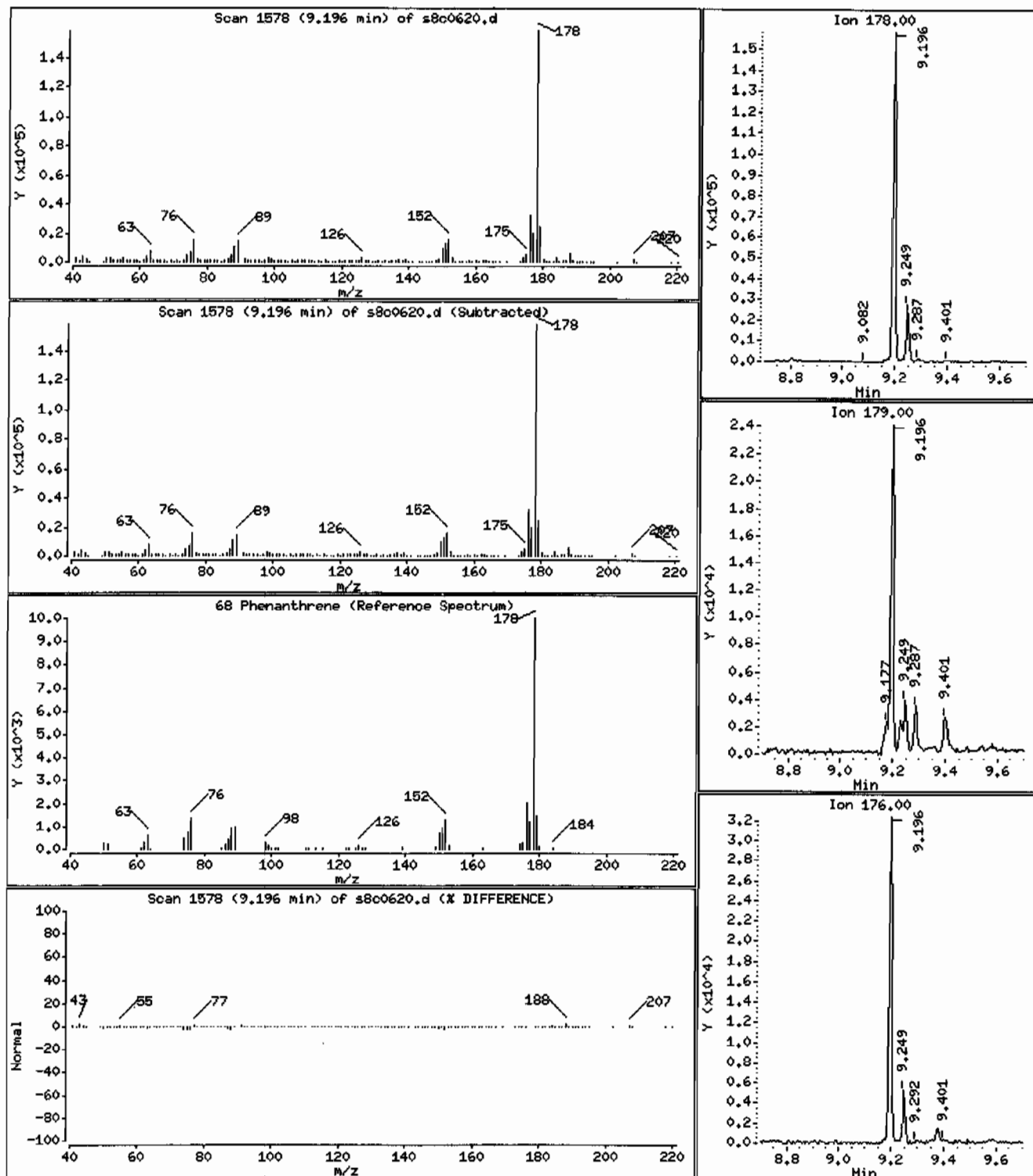
Operator: nag1

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

68 Phenanthrene

Concentration: 124 ug/Kg



Date : 06-MAR-2010 16:56

Client ID: RE36-10-8482

Instrument: HSD8.i

Sample Info: 1248012009195945711|SVH11|LANL

Volume Injected (uL): 0.5

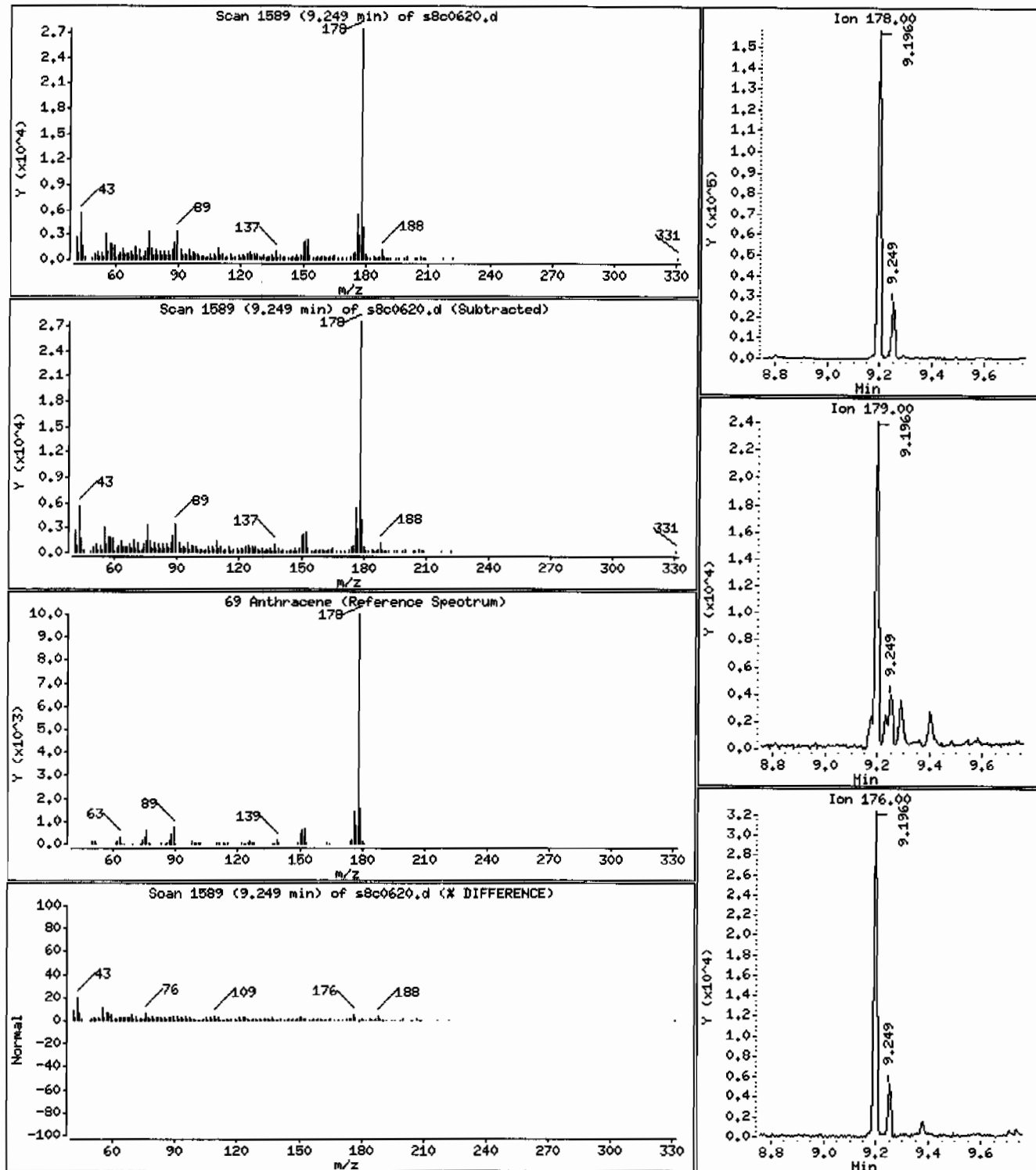
Operator: nag1

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

69 Anthracene

Concentration: 11.0 ug/Kg



Date : 06-MAR-2010 16:56

Client ID: RE36-10-8482

Instrument: MSD8.i

Sample Info: 12480120091959457111SVH111LANL

Volume Injected (uL): 0.5

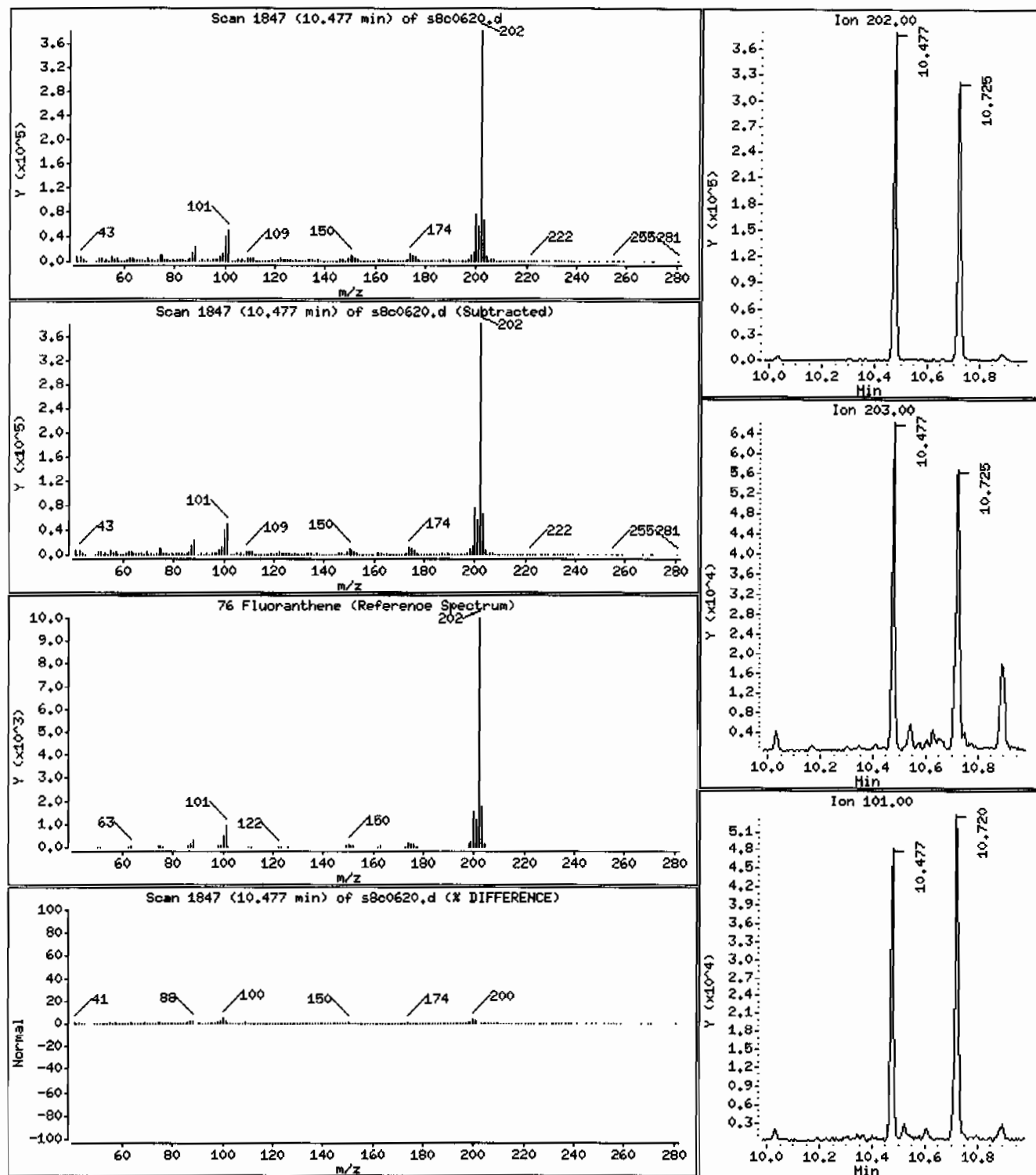
Operator: nag1

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

76 Fluoranthene

Concentration: 148 ug/Kg



Date : 06-MAR-2010 16:56

Client ID: RE36-10-8482

Instrument: HSD8.i

Sample Info: 1248012009195945711|SVH11|LANL

Volume Injected (uL): 0.5

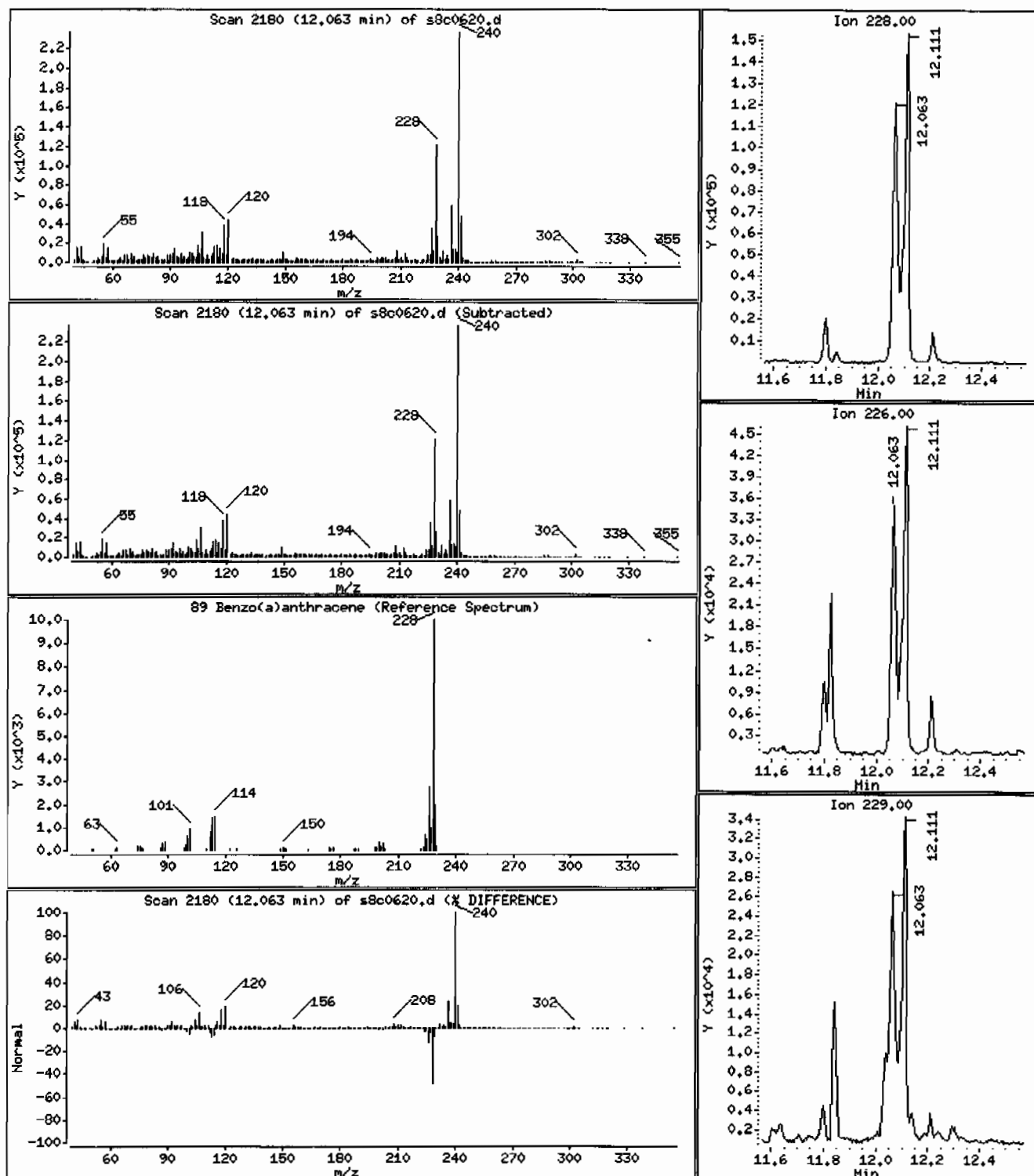
Operator: nag1

Column phase: J&amp;W DB-8MS

Column diameter: 0.20

89 Benzo(a)anthracene

Concentration: 106 ug/Kg



Date : 06-MAR-2010 16:56

Client ID: RE36-10-8482

Instrument: HSD8.i

Sample Info: 1248012009|96945711|SVH11|LANL

Volume Injected (uL): 0.5

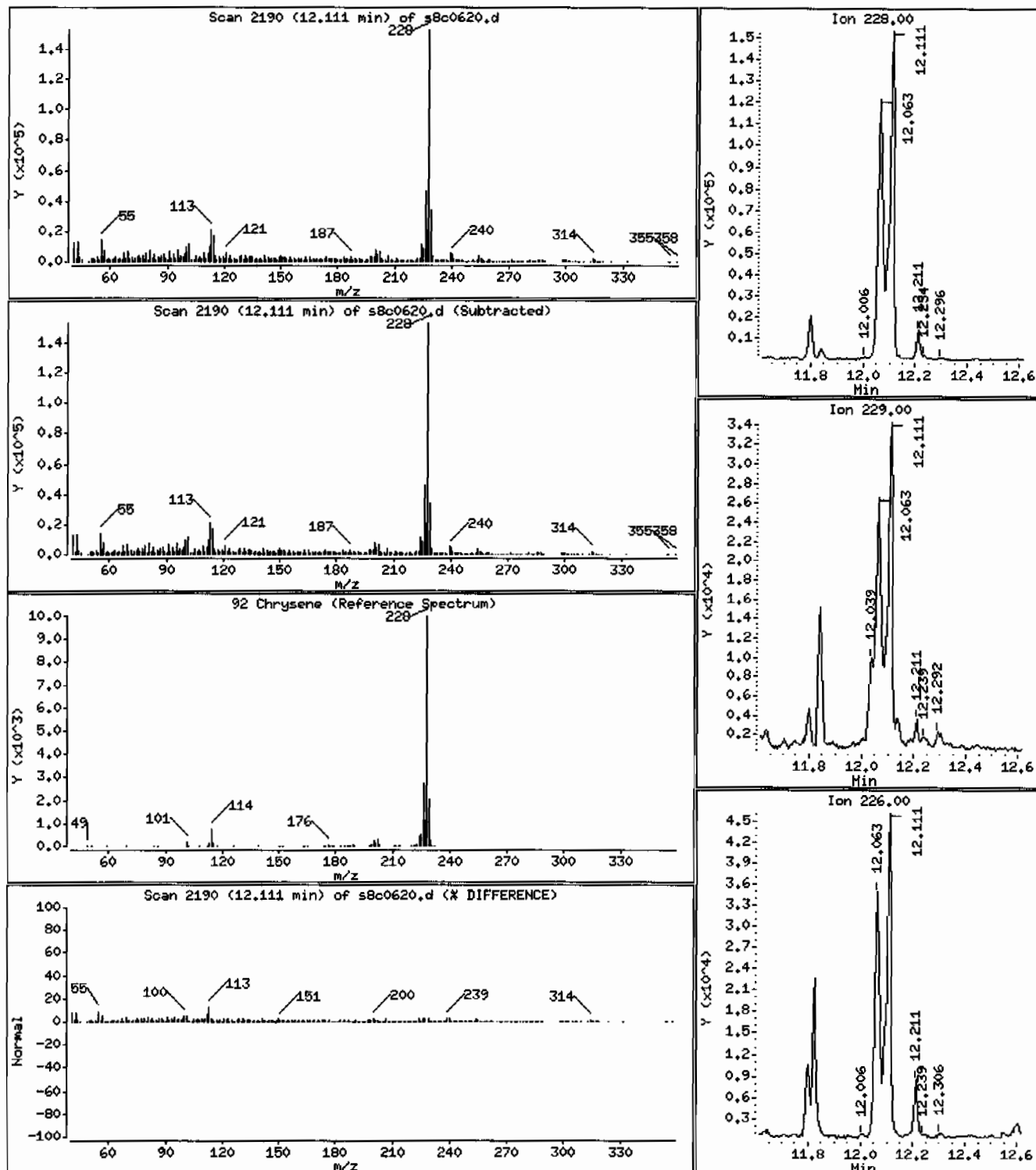
Operator: nag1

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

92 Chrysene

Concentration: 145 ug/Kg



Date: 06-MAR-2010 16:56

Client ID: RE36-10-8482

Instrument: HSD8.i

Sample Info: 12480120091959457111SVMI11LANL

Volume Injected (uL): 0.5

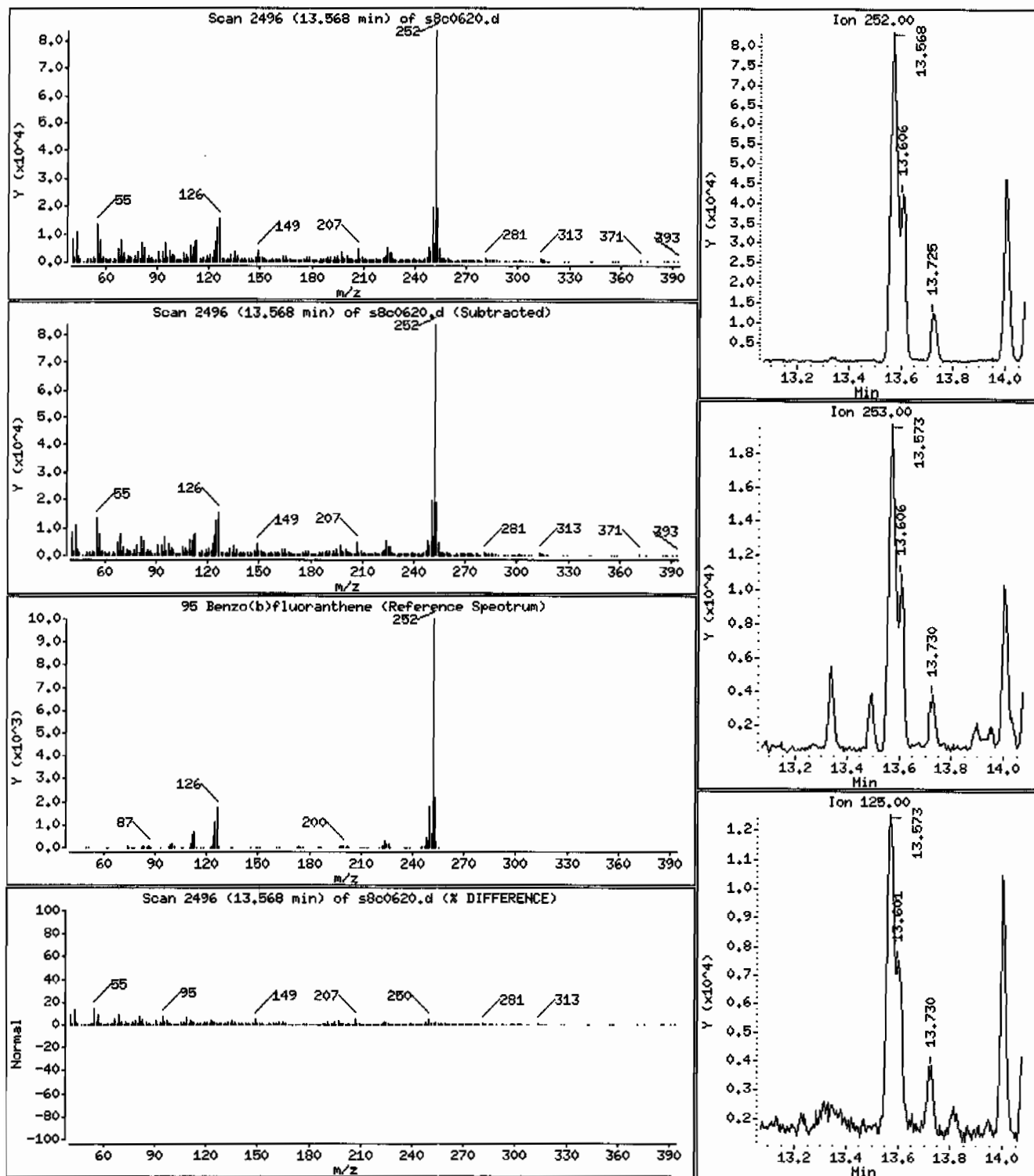
Operator: nag1

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

95 Benzo(b)fluoranthene

Concentration: 176 ug/Kg





Date : 06-MAR-2010 16:56

Client ID: RE36-10-8482

Instrument: MSD8.i

Sample Info: 1248012009198948711ISVM11/LANL

Volume Injected (uL): 0.5

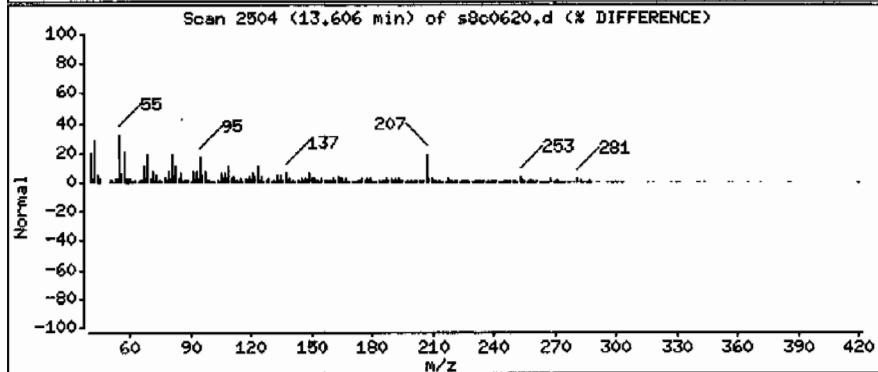
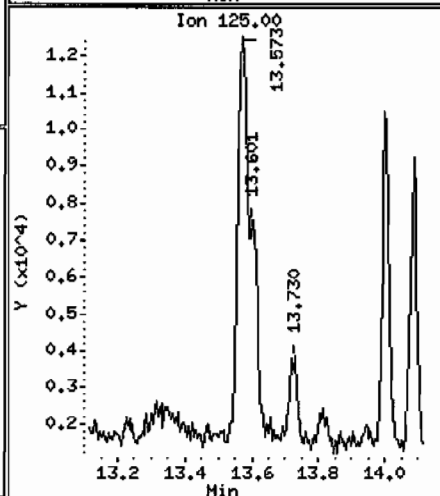
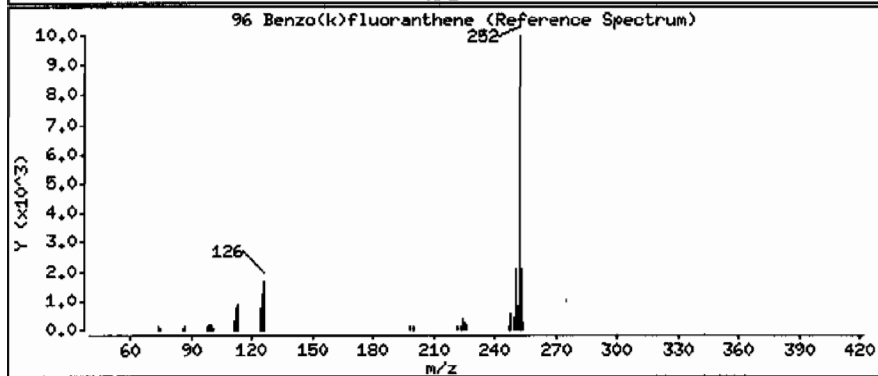
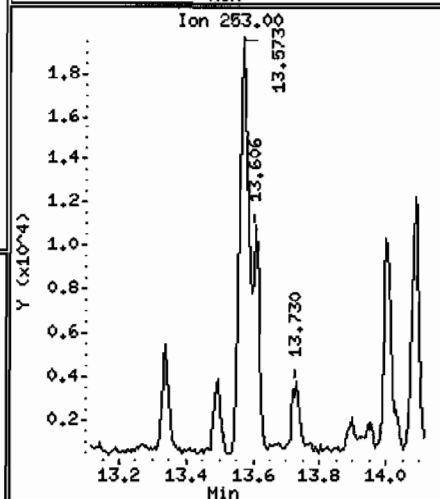
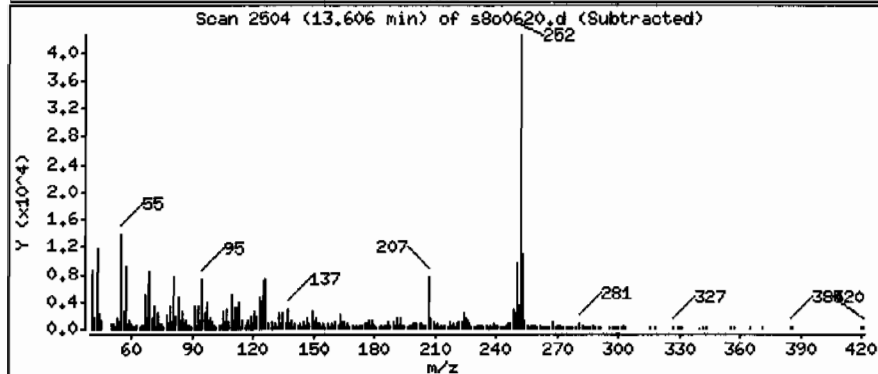
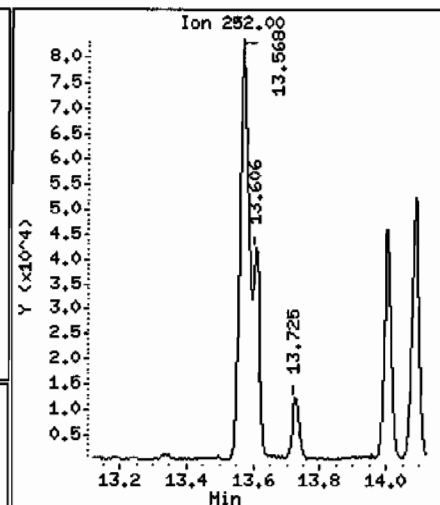
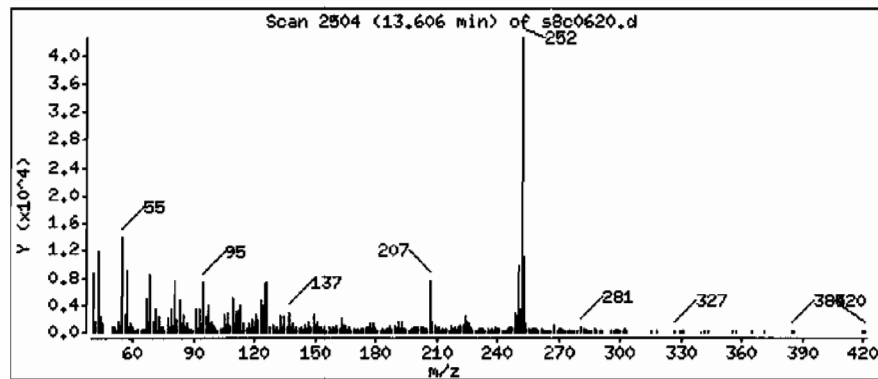
Operator: nag1

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

% Benzo(k)fluoranthene

Concentration: 68.4 ug/Kg



Date : 06-MAR-2010 16:56

Client ID: RE36-10-8482

Instrument: HSD8.i

Sample Info: 1248012009196945711ISVH11ILANL

Volume Injected (uL): 0.5

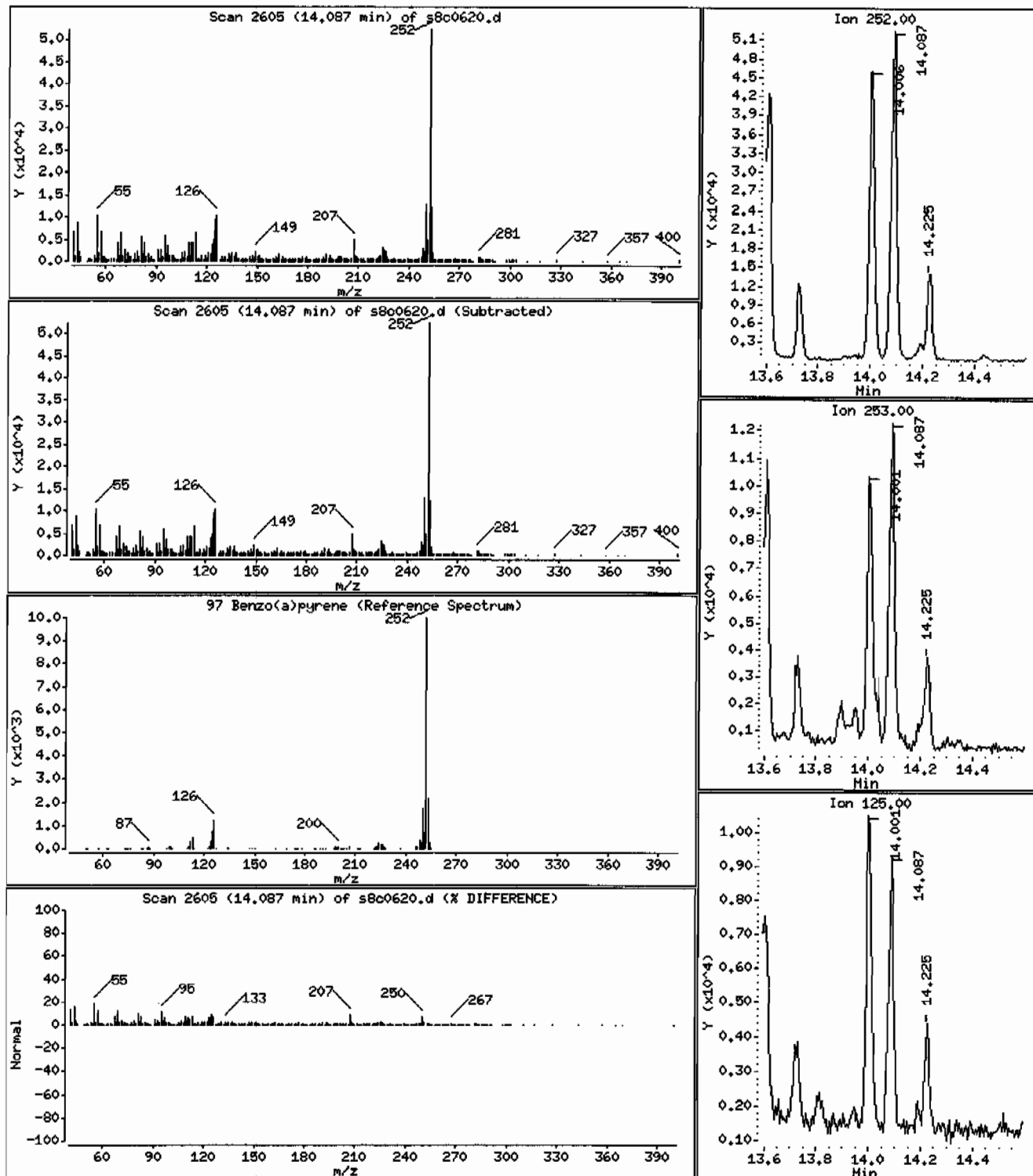
Operator: nag1

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

97 Benzo(a)pyrene

Concentration: 106 ug/Kg



Date : 06-MAR-2010 16:56

Client ID: RE36-10-8482

Instrument: MSD8.i

Sample Info: 1248012009195945711SVH111LANL

Volume Injected (uL): 0.5

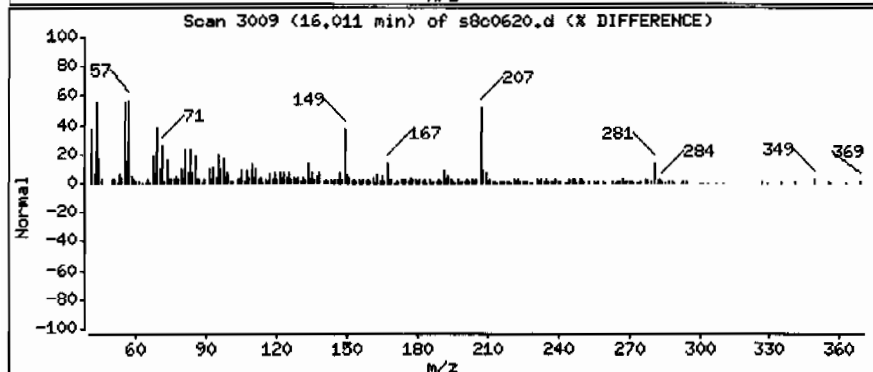
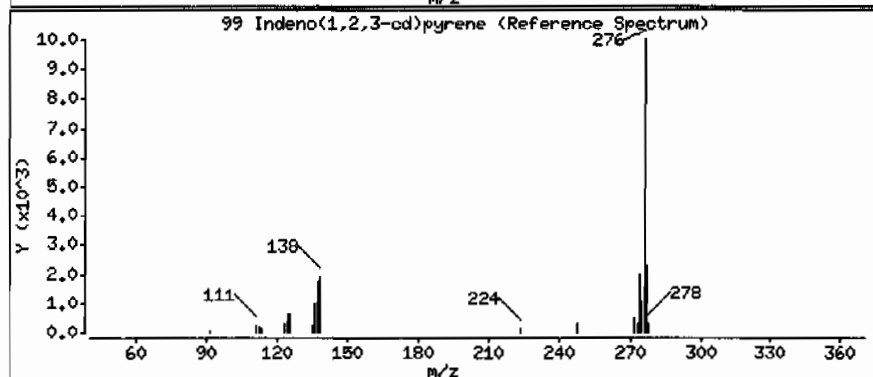
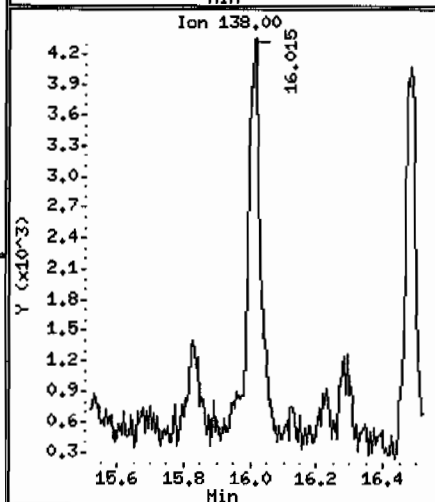
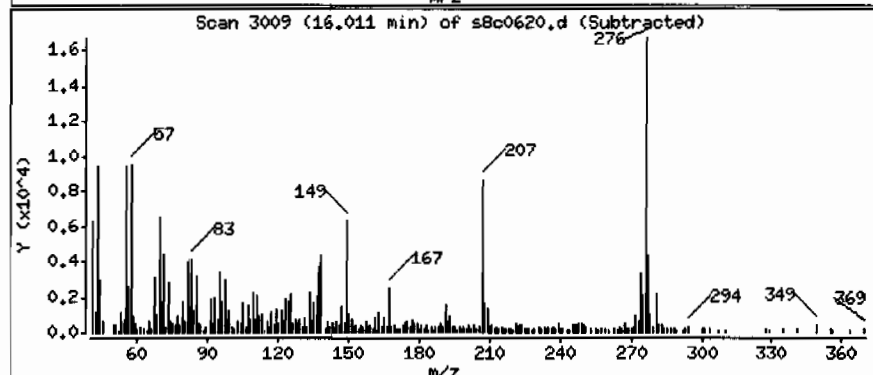
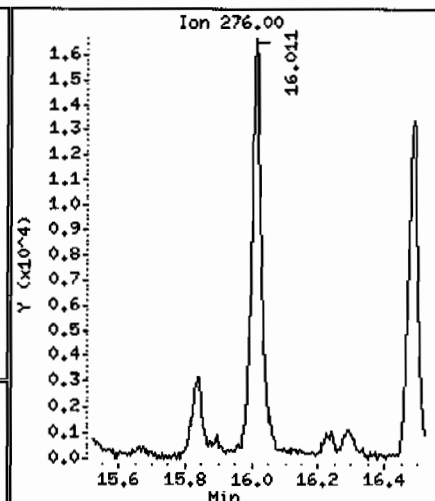
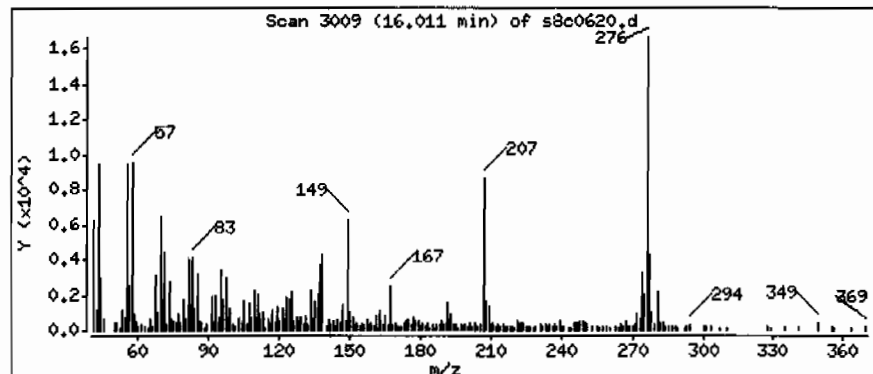
Operator: nag1

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

99 Indeno(1,2,3-cd)pyrene

Concentration: 52,5 ug/Kg



Date : 06-MAR-2010 16:56

Client ID: RE36-10-8482

Instrument: HSD8.i

Sample Info: 12480120091959457111SVH111LANL

Volume Injected (uL): 0.5

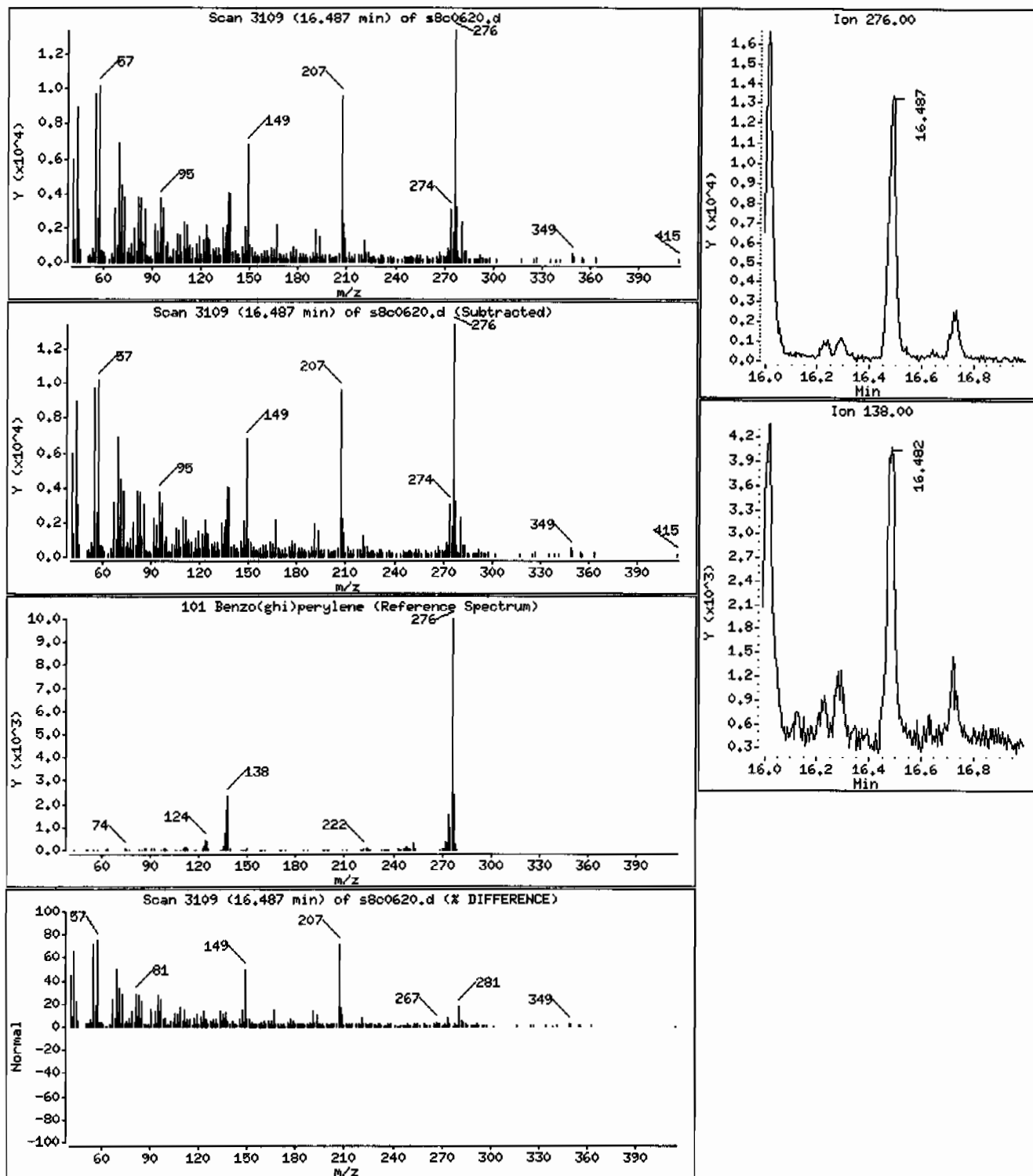
Operator: nag1

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

101 Benzo(ghi)perylene

Concentration: 50.9 ug/Kg



Date : 06-MAR-2010 16:56

Client ID: RE36-10-8482

Instrument: MSD8.i

Sample Info: I2480120091959457111SVMI11LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&amp;W DB-6MS

Column diameter: 0.20

## Library Search Compound Match

Unknown

Propane, 2,2-dimethoxy-

N-Ethylformamide

Propanoic acid, 2-methyl-, propyl ester

CAS Number

Library

Entry

Quality

Formula

Weight

77-76-9

NIST05.L

4663

39

C5H12O2

104

627-45-2

NIST05.L

718

25

C3H7NO

73

644-49-5

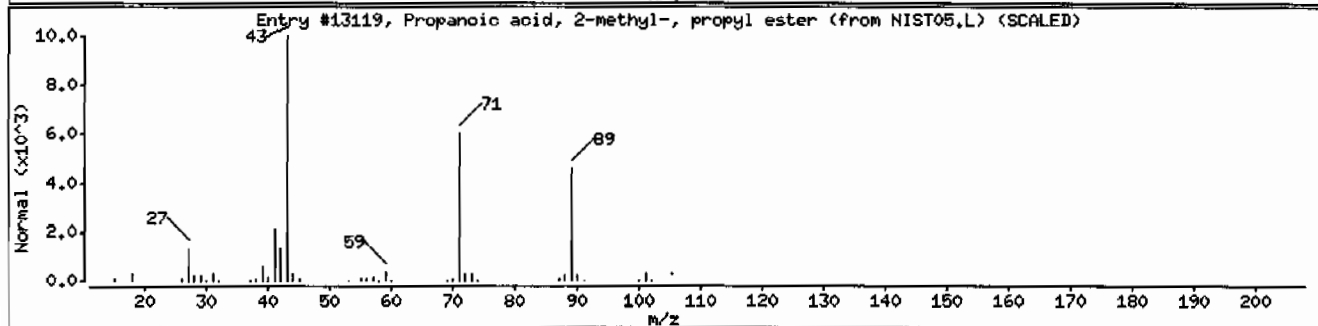
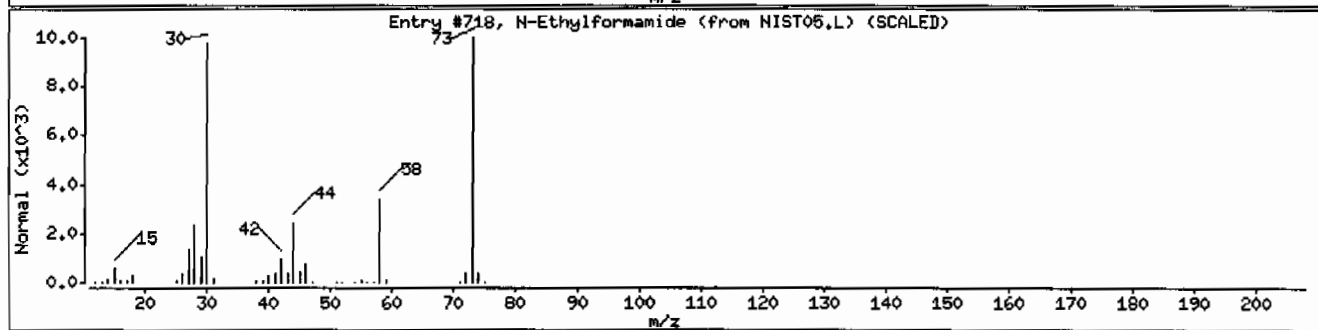
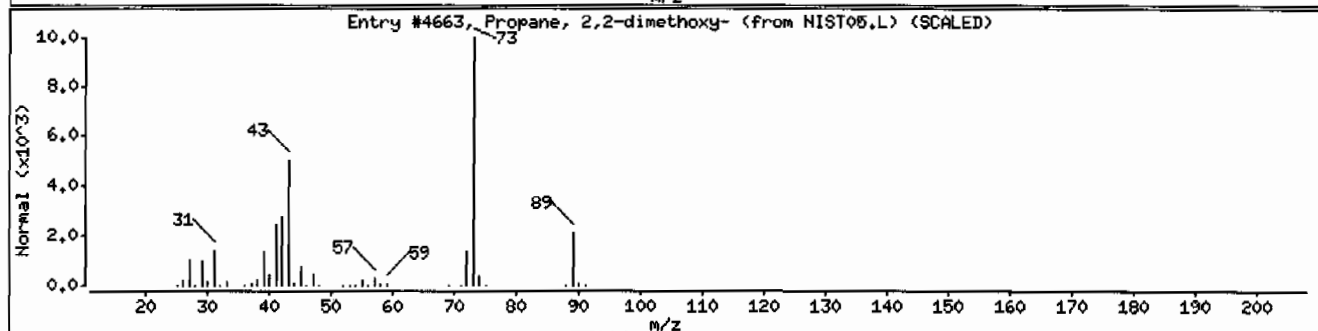
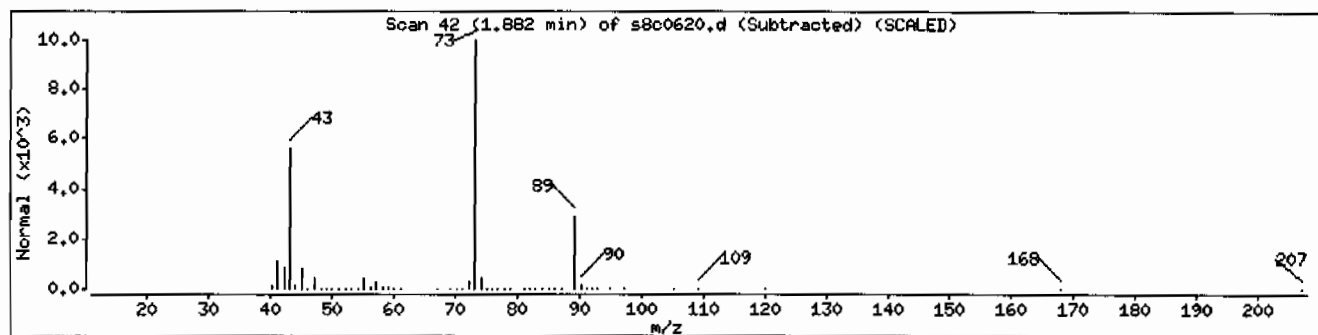
NIST05.L

13119

17

C7H14O2

130



Date : 06-MAR-2010 16:56

Client ID: RE36-10-8482

Instrument: MSD8.i

Sample Info: 12480120091959457111SVH111LANL

Volume Injected (uL): 0.5

Operator: nag1

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-

Acetic acid, 1,1-dimethylethyl ester

CAS Number

Library

Entry

Quality

Formula

Weight

123-42-2

NIST05.L

7951

59

C6H12O2

116

123-42-2

NIST05.L

7945

37

C6H12O2

116

540-88-5

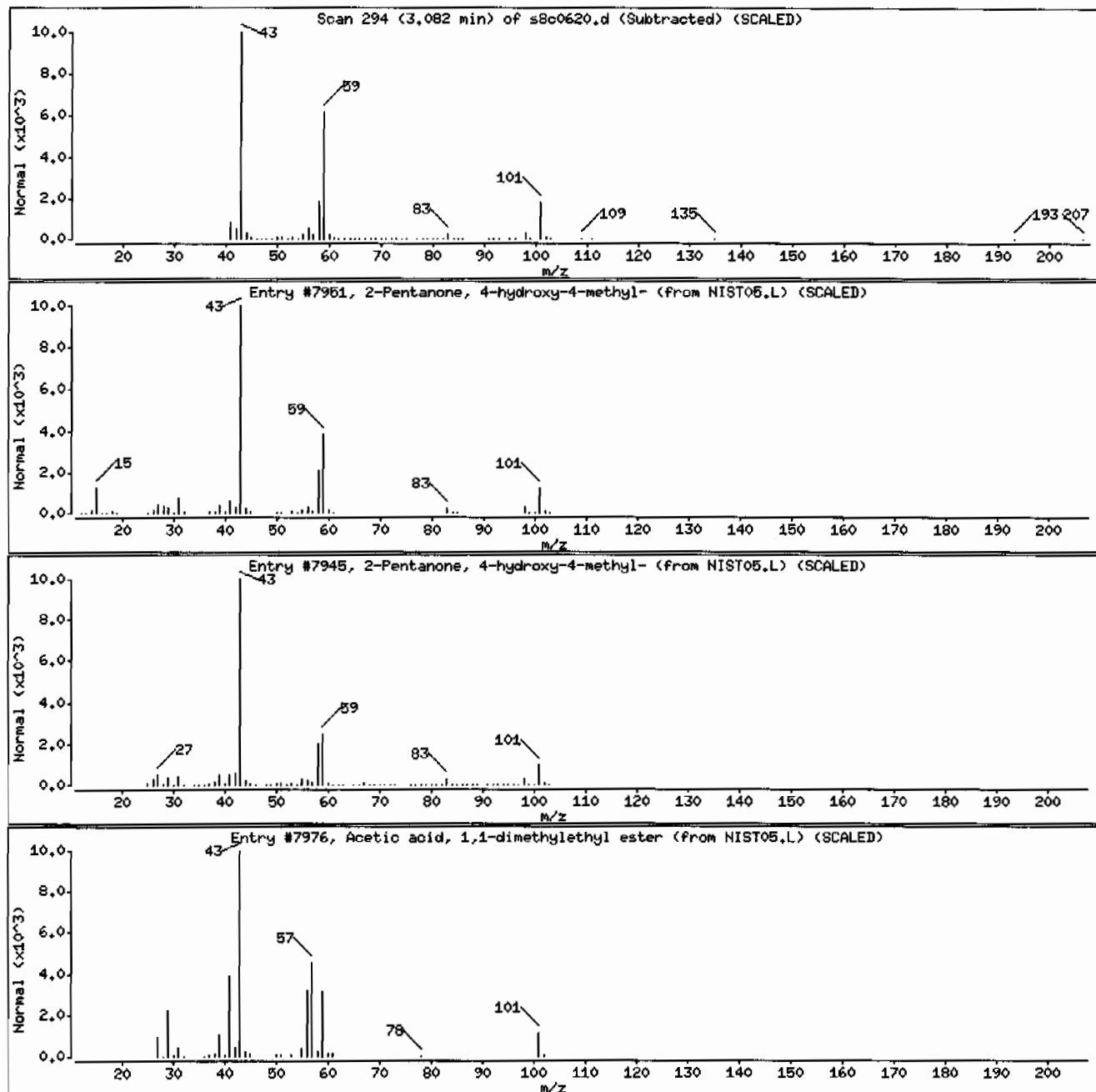
NIST05.L

7976

28

C6H12O2

116



Date : 06-MAR-2010 16:56

Client ID: RE36-10-8482

Instrument: HSD8.i

Sample Info: I248012009|959457|1|SVH11|LANL

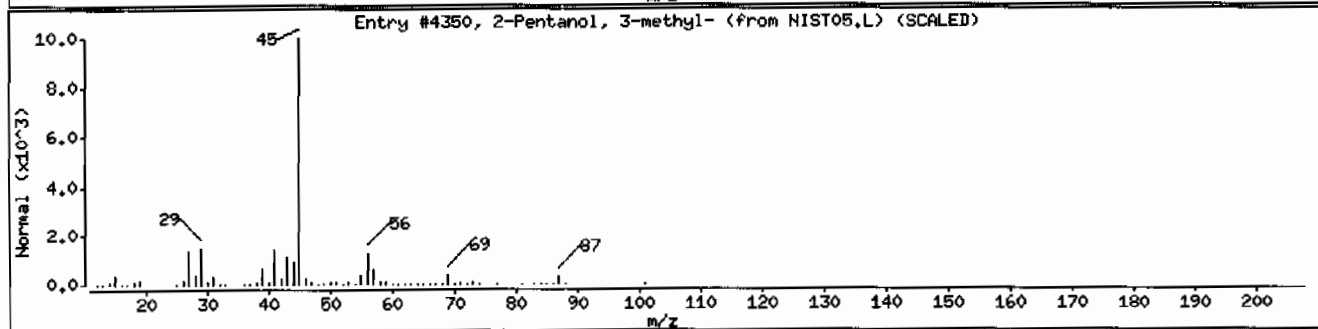
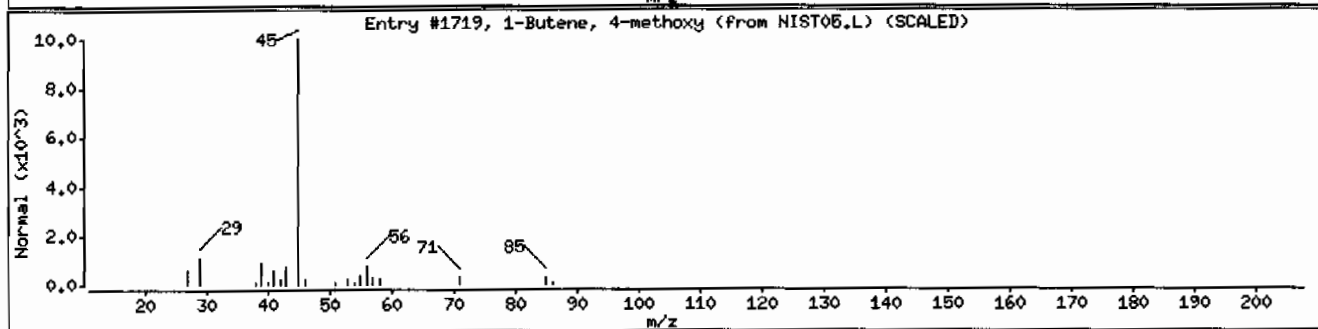
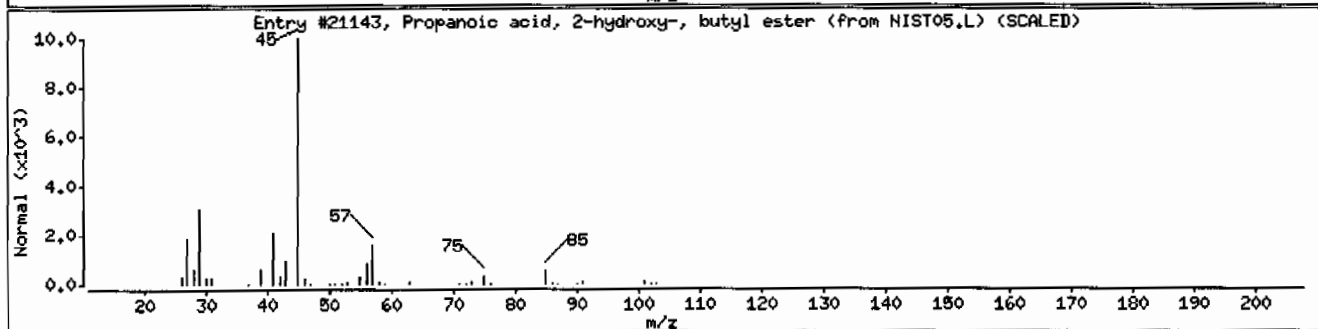
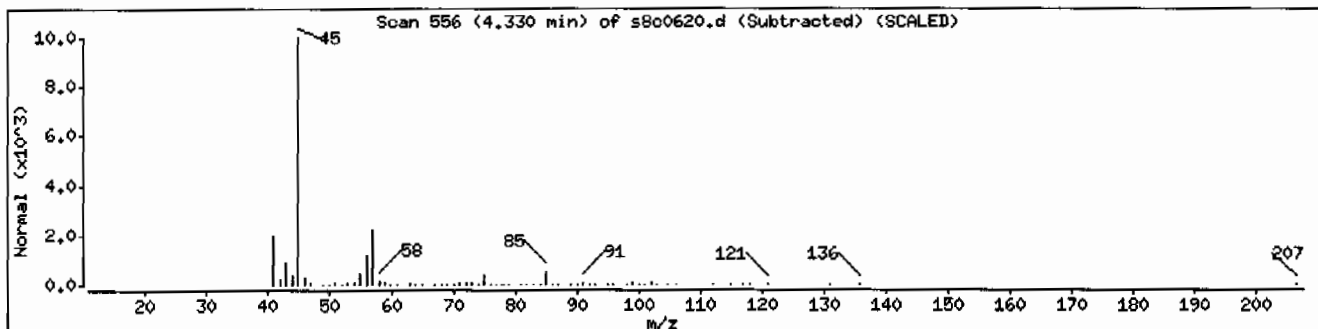
Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Propanoic acid, 2-hydroxy-, butyl ester	138-22-7	NIST05.L	21143	78	C7H14O3	146
1-Butene, 4-methoxy	4696-30-4	NIST05.L	1719	56	C5H10O	86
2-Pentanol, 3-methyl-	565-60-6	NIST05.L	4350	40	C6H14O	102



Date: 06-MAR-2010 16:56

Client ID: RE36-10-8482

Instrument: MSDB.i

Sample Info: 1248012009195945711ISVH11ILANL

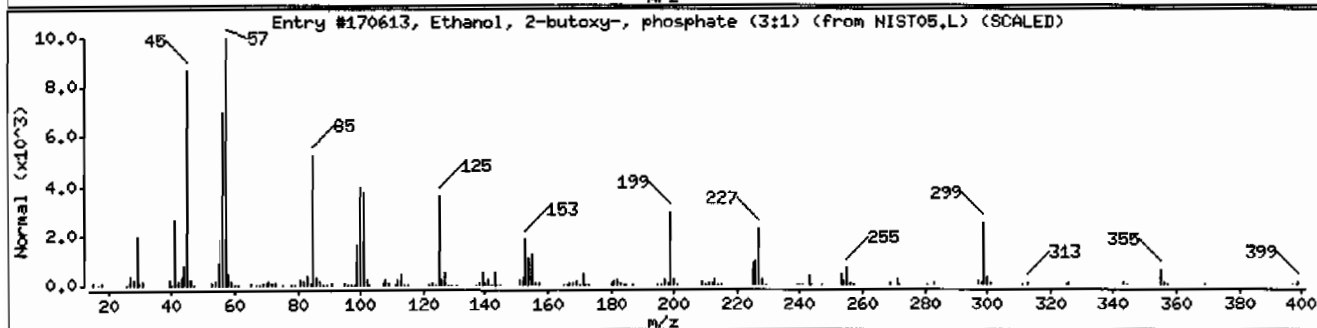
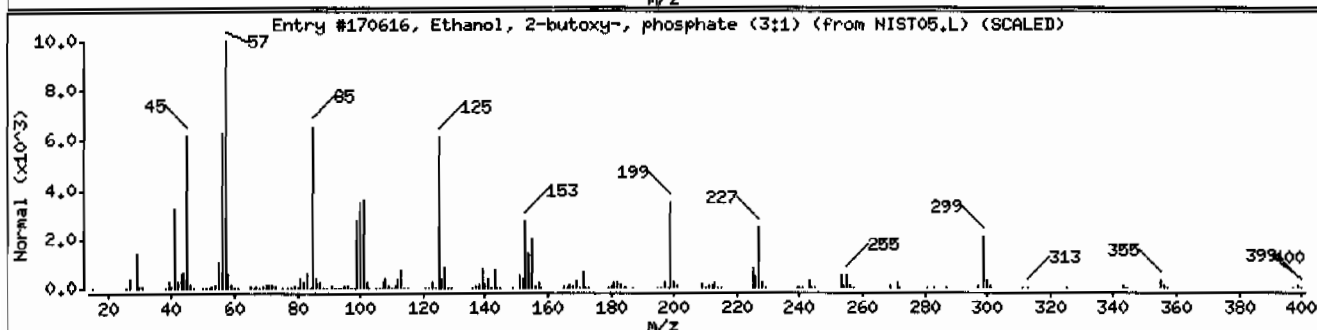
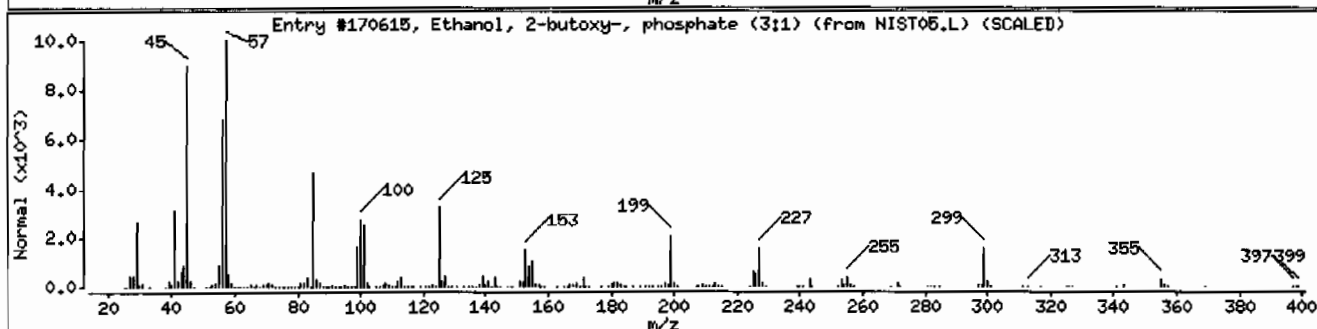
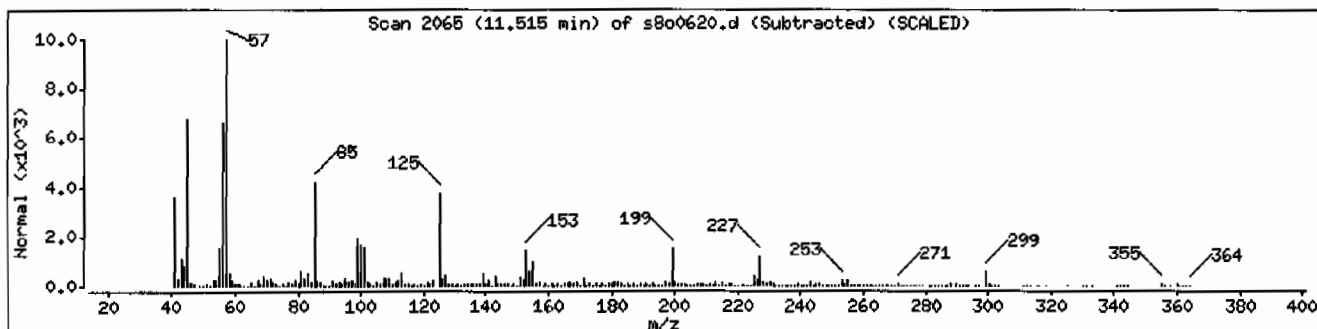
Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Ethanol, 2-butoxy-, phosphate (3:1)	78-51-3	NIST05.L	170615	72	C18H39O7P	398
Ethanol, 2-butoxy-, phosphate (3:1)	78-51-3	NIST05.L	170616	53	C18H39O7P	398
Ethanol, 2-butoxy-, phosphate (3:1)	78-51-3	NIST05.L	170613	50	C18H39O7P	398





Date : 06-MAR-2010 16:56

Client ID: RE36-10-8482

Instrument: MSD8.i

Sample Info: 1248012009195945711ISVH11ILANL

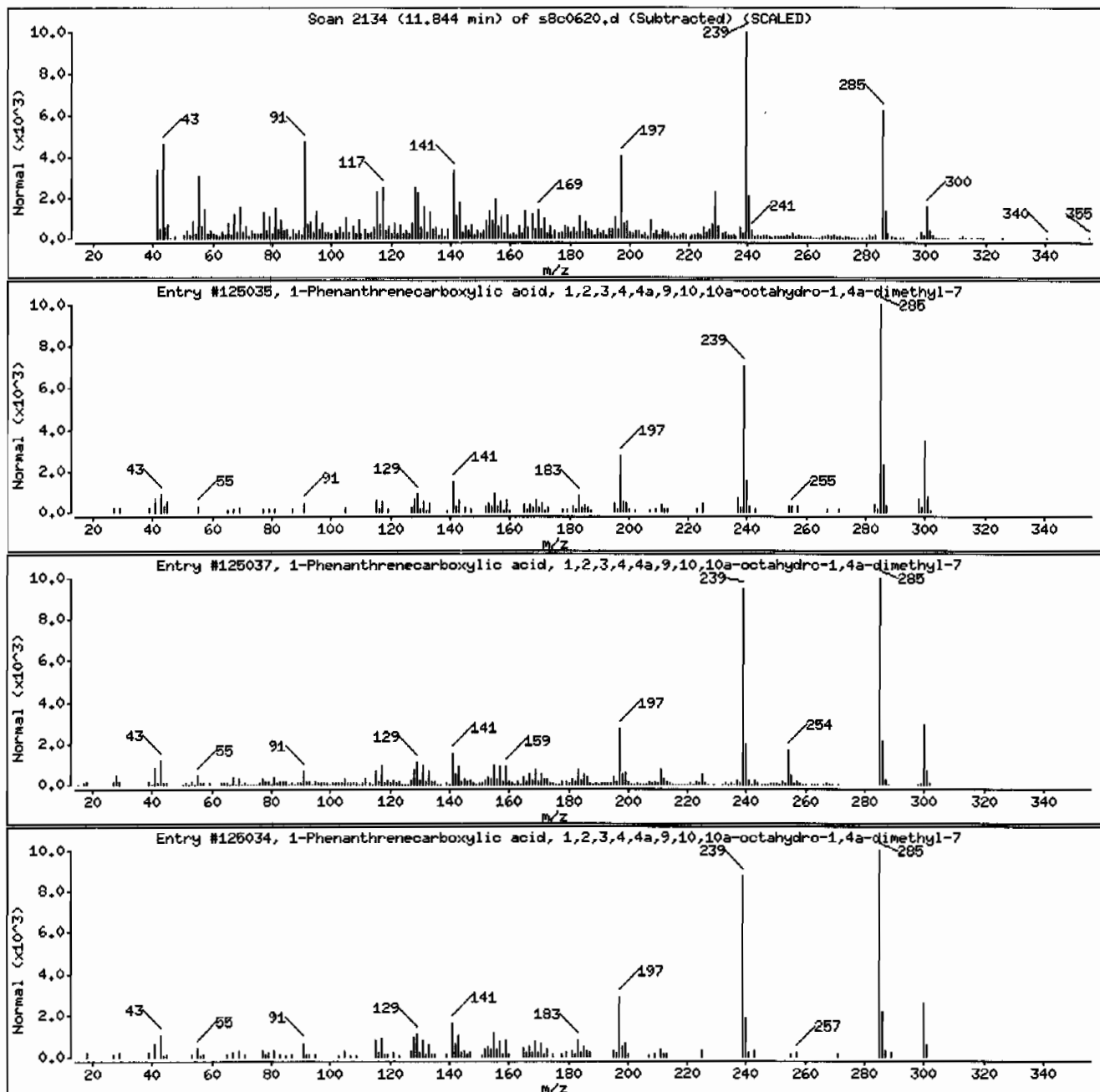
Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1-Phenanthrenecarboxylic acid, 1,2,3,4,4	6166-70-4	NIST05.L	125035	93	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	1740-19-8	NIST05.L	125034	90	C20H28O2	300



Date : 06-MAR-2010 16:56

Client ID: RE36-10-8482

Instrument: MSDB,i

Sample Info: 12480120091959457111SVH11ILANL

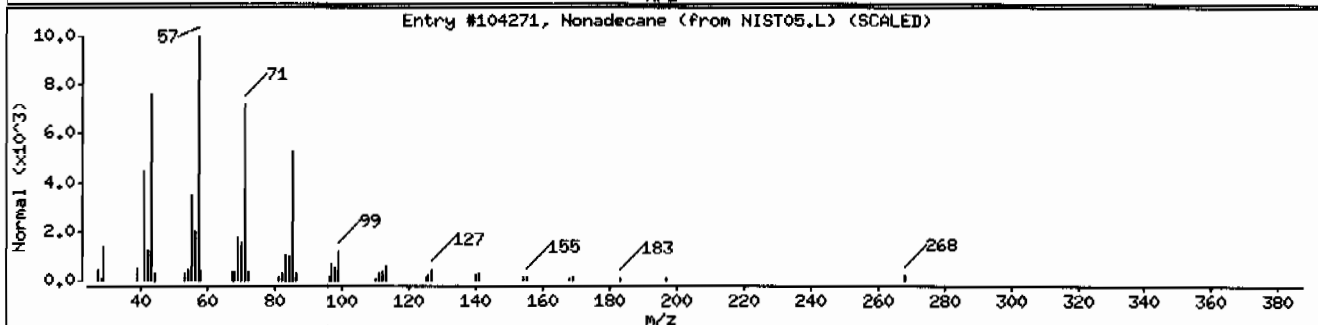
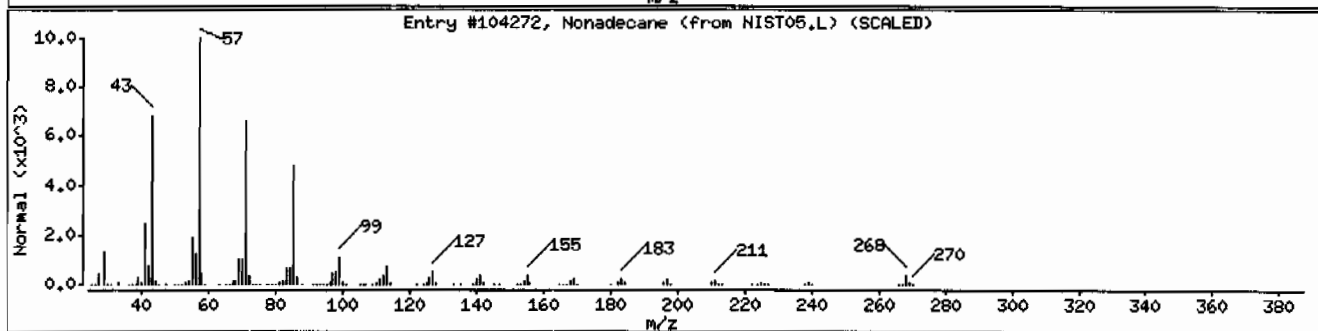
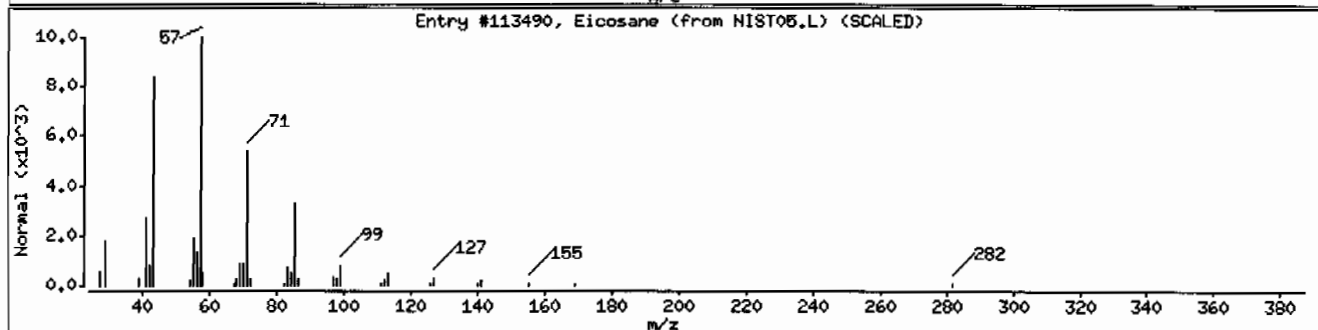
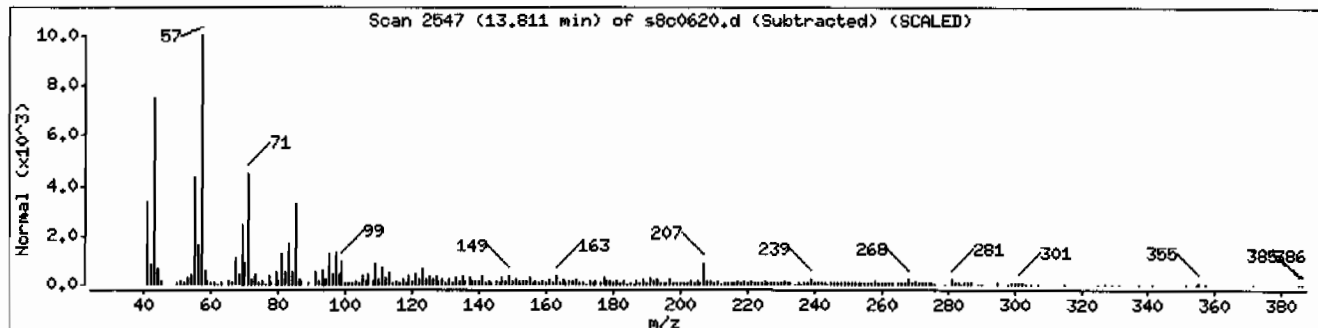
Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Eicosane	112-96-8	NIST05.L	113490	96	C20H42	282
Nonadecane	629-92-5	NIST05.L	104272	93	C19H40	268
Nonadecane	629-92-5	NIST05.L	104271	92	C19H40	268



Date: 06-MAR-2010 16:56

Client ID: RE36-10-8482

Instrument: MSD8.i

Sample Info: 1248012009195945711SVH111LANL

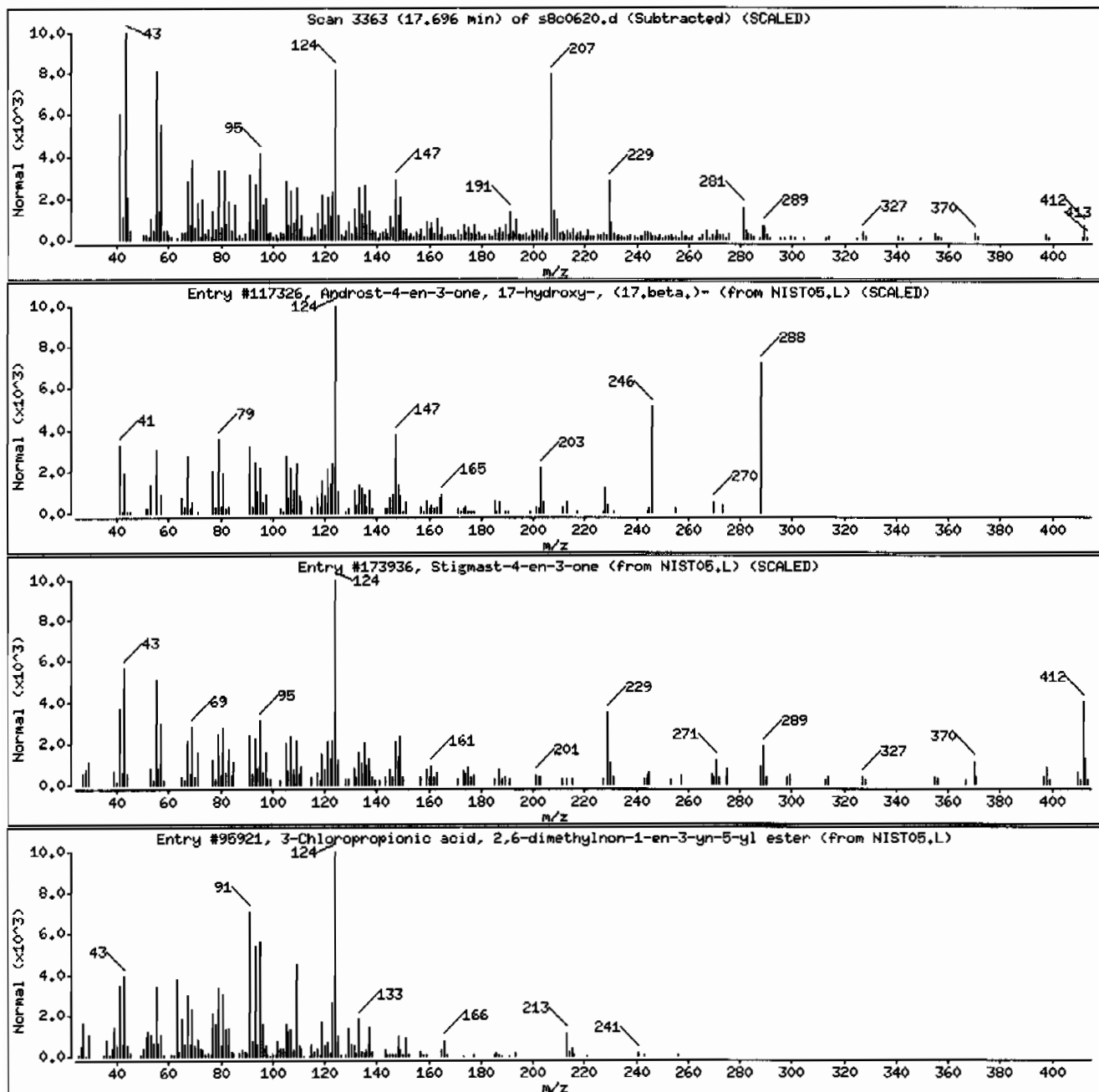
Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Androst-4-en-3-one, 17-hydroxy-, (17 $\beta$ )-	58-22-0	NIST05.L	117326	80	C19H28O2	288
Stigmast-4-en-3-one	1058-61-3	NIST05.L	173936	70	C29H48O	412
3-Chloropropionic acid, 2,6-dimethylnon-	1000299-21-8	NIST05.L	95921	38	C14H21ClO2	256



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

SDG Number: 10-2027  
Lab Sample ID: 248012008

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD8.I  
Analyst: NAG1  
Aliquot: 30.01 g  
Column: J&W DB-SMS

Matrix: R  
% Moisture: 2.3  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	341	ug/kg	68.2	341
108-95-2	Phenol	U	341	ug/kg	68.2	341
95-57-8	2-Chlorophenol	U	341	ug/kg	68.2	341
106-46-7	1,4-Dichlorobenzene	U	341	ug/kg	68.2	341
621-64-7	N-Nitrosodipropylamine	U	341	ug/kg	68.2	341
59-50-7	4-Chloro-3-methylphenol	U	341	ug/kg	68.2	341
83-32-9	Acenaphthene	U	34.1	ug/kg	11.3	34.1
121-14-2	2,4-Dinitrotoluene	U	341	ug/kg	34.1	341
100-02-7	4-Nitrophenol	U	341	ug/kg	113	341
87-86-5	Pentachlorophenol	U	341	ug/kg	85.3	341
129-00-0	Pyrene	U	34.1	ug/kg	10.2	34.1
110-86-1	Pyridine	U	341	ug/kg	68.2	341
62-53-3	Aniline	U	341	ug/kg	102	341
111-44-4	bis(2-Chloroethyl) ether	U	341	ug/kg	68.2	341
541-73-1	1,3-Dichlorobenzene	U	341	ug/kg	68.2	341
100-51-6	Benzyl alcohol	U	341	ug/kg	102	341
95-50-1	1,2-Dichlorobenzene	U	341	ug/kg	68.2	341
108-60-1	bis(2-Chloroisopropyl)ether	U	341	ug/kg	68.2	341
95-48-7	o-Cresol	U	341	ug/kg	68.2	341
65794-96-9	m,p-Cresols	U	341	ug/kg	102	341
67-72-1	Hexachloroethane	U	341	ug/kg	68.2	341
98-95-3	Nitrobenzene	U	341	ug/kg	68.2	341
78-59-1	Isophorone	U	341	ug/kg	68.2	341
88-75-5	2-Nitrophenol	U	341	ug/kg	68.2	341
105-67-9	2,4-Dimethylphenol	U	341	ug/kg	119	341
111-91-1	bis(2-Chloroethoxy)methane	U	341	ug/kg	68.2	341
120-83-2	2,4-Dichlorophenol	U	341	ug/kg	68.2	341
65-85-0	Benzoic acid	U	682	ug/kg	171	682
91-20-3	Naphthalene	U	34.1	ug/kg	10.2	34.1
106-47-8	4-Chloroaniline	U	341	ug/kg	68.2	341
87-68-3	Hexachlorobutadiene	U	341	ug/kg	68.2	341
91-57-6	2-Methylnaphthalene	U	34.1	ug/kg	6.82	34.1
77-47-4	Hexachlorocyclopentadiene	U	341	ug/kg	68.2	341
88-06-2	2,4,6-Trichlorophenol	U	341	ug/kg	68.2	341
95-95-4	2,4,5-Trichlorophenol	U	341	ug/kg	68.2	341
91-58-7	2-Chloronaphthalene	U	34.1	ug/kg	11.3	34.1
88-74-4	2-Nitroaniline	U	341	ug/kg	68.2	341
	<i>o</i> -Nitroaniline					
99-09-2	3-Nitroaniline	U	341	ug/kg	68.2	341

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

SDG Number: 10-2027  
Lab Sample ID: 248012008

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD8.I  
Analyst: NAG1  
Aliquot: 30.01 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 2.3  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
131-11-3	<i>m</i> -Nitroaniline					
	Dimethylphthalate	U	341	ug/kg	68.2	341
606-20-2	2,6-Dinitrotoluene	U	341	ug/kg	34.1	341
208-96-8	Acenaphthylene	U	34.1	ug/kg	10.2	34.1
51-28-5	2,4-Dinitrophenol	U	682	ug/kg	130	682
132-64-9	Dibenzofuran	U	341	ug/kg	68.2	341
84-66-2	Diethylphthalate	U	341	ug/kg	68.2	341
86-73-7	Fluorene	U	34.1	ug/kg	10.2	34.1
7005-72-3	4-Chlorophenylphenylether	U	341	ug/kg	68.2	341
534-52-1	2-Methyl-4,6-dinitrophenol	U	341	ug/kg	68.2	341
100-01-6	4-Nitroaniline	U	341	ug/kg	102	341
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	341	ug/kg	68.2	341
122-66-7	Azobenzene	U	341	ug/kg	68.2	341
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	341	ug/kg	68.2	341
118-74-1	Hexachlorobenzene	U	341	ug/kg	68.2	341
85-01-8	Phenanthrene	U	34.1	ug/kg	10.2	34.1
120-12-7	Anthracene	U	34.1	ug/kg	6.82	34.1
84-74-2	Di-n-butylphthalate	U	341	ug/kg	68.2	341
206-44-0	Fluoranthene	U	34.1	ug/kg	10.2	34.1
85-68-7	Butylbenzylphthalate	U	341	ug/kg	68.2	341
56-55-3	Benzo(a)anthracene	U	34.1	ug/kg	10.2	34.1
91-94-1	3,3'-Dichlorobenzidine	U	341	ug/kg	102	341
218-01-9	Chrysene	U	34.1	ug/kg	10.2	34.1
117-81-7	bis(2-Ethylhexyl)phthalate	U	341	ug/kg	68.2	341
117-84-0	Di-n-octylphthalate	U	341	ug/kg	68.2	341
205-99-2	Benzo(b)fluoranthene	U	34.1	ug/kg	10.2	34.1
207-08-9	Benzo(k)fluoranthene	U	34.1	ug/kg	10.2	34.1
50-32-8	Benzo(a)pyrene	U	34.1	ug/kg	10.2	34.1
193-39-5	Indeno(1,2,3-cd)pyrene	U	34.1	ug/kg	10.2	34.1
53-70-3	Dibenzo(a,h)anthracene	U	34.1	ug/kg	10.2	34.1
191-24-2	Benzo(ghi)perylene	U	34.1	ug/kg	10.2	34.1
120-82-1	1,2,4-Trichlorobenzene	U	341	ug/kg	68.2	341

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	1.89	723	ug/kg		J
	Unknown Aldol Condensate	3.08	577	ug/kg		JA

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

SDG Number: 10-2027  
Lab Sample ID: 248012008

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD8.I  
Analyst: NAG1  
Aliquot: 30.01 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 2.3  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
Tentatively Identified Compound Summary							
CAS No.	Tentatively Identified Compound (TIC)		RT	Estimated	Units	Fit	Qual
112-95-8	Eicosane		13.81	171	ug/kg	98	NJ

GEL Laboratories LLC

Data file : /chem/MSD8.i/s030610.b/s8c0616.d  
Lab Smp Id: 248012008 Client Smp ID: RE36-10-8483  
Inj Date : 06-MAR-2010 14:57  
Operator : nag1 Inst ID: MSD8.i  
Smp Info : |248012008|959457|1|SVM|1|LANL  
Misc Info : |MSD8270\_S|WBN100227-01  
Comment : Column: J & W DB-5MS, 25m x 0.20 mm x 0.33 micron film  
Method : /chem/MSD8.i/s030610.b/MSD8-8270AQA-022010.m  
Meth Date : 07-Mar-2010 11:27 nat00999 Quant Type: ISTD  
Cal Date : 21-FEB-2010 23:15 Cal File: s8b2042.d  
Als bottle: 14  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: 10-2027.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	2.29890	% 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	4.458	4.458 (1.000)	737360	40.0000	
* 29 Naphthalene-d8	136	5.716	5.720 (1.000)	2920400	40.0000	
* 46 Acenaphthene-d10	164	7.573	7.577 (1.000)	1711774	40.0000	
* 67 Phenanthrene-d10	188	9.173	9.177 (1.000)	2900403	40.0000	
* 91 Chrysene-d12	240	12.078	12.082 (1.000)	2212119	40.0000	
* 98 Perylene-d12	264	14.192	14.187 (1.000)	1551238	40.0000	
\$ 3 2-Fluorophenol	112	3.320	3.306 (0.745)	1229334	70.6187	2410
\$ 5 Phenol-d5	99	4.077	4.082 (0.915)	1535690	70.7371	2410
\$ 20 Nitrobenzene-d5	82	4.982	4.992 (0.872)	711520	34.2735	1170
\$ 39 2-Fluorobiphenyl	172	6.844	6.849 (0.904)	1567216	31.1043	1060
\$ 60 2,4,6-Tribromophenol	329	8.416	8.420 (1.111)	327972	57.9609	1980
\$ 81 p-Terphenyl-d14	244	10.887	10.882 (0.901)	1600076	40.1764	1370

## ION RATIO REPORT

## SV REPORT

Data file: s8c0616.d

Report Date: 03/07/2010 11:36

Lab. ID: 248012008

SampleType: SAMPLE

Injection Date: 06-MAR-2010 14:57

Operator: nagl

Instrument: MSD8.i

Sample Info: |248012008|959457|1|SVM|1|LANL

Miscellaneous Info: |MSD8270\_S|WBN100227-01

Comment:

Method used: /chem/MSD8.i/s030610.b/MSD8-8270AQA-022010.m

Dilution Factor= 1.0

Integrator: HP RTE

Compound Sublist: 10-2027

Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
4	Aniline		CAS#: 62-53-3			
66	79187	4.08	4.15	80-120	100	(T)
93	1585	4.13	4.15	235-295	2	(Q)
-----						
17	N-Nitrosodipropylamine		CAS#: 621-64-7			
70	98318	4.98	4.84	80-120	100	(T)
42	56359	4.98	4.84	31- 91	57	(T)
-----						
27	Benzoic acid		CAS#: 65-85-0			
105	309	5.47	5.46	80-120	100	( )
122	199	5.53	5.46	51-111	65	(T)
77	196	5.50	5.46	47-107	63	( )
-----						
30	Naphthalene		CAS#: 91-20-3			
128	808	5.73	5.74	80-120	100	( )
129	416	5.71	5.74	0- 41	51	(Q)
127	100	5.73	5.74	0- 43	12	( )
-----						
44	2,6-Dinitrotoluene		CAS#: 606-20-2			
165	219336	7.57	7.35	80-120	100	(T)
63	3307	7.57	7.35	34- 94	2	(QT)
-----						
50	2,4-Dinitrotoluene		CAS#: 121-14-2			
165	219336	7.57	7.78	80-120	100	(T)
89	3378	7.57	7.78	48-108	2	(QT)
63	3307	7.57	7.78	24- 84	2	(QT)
-----						



MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
55 2-Methyl-4,6-dinitrophenol				CAS#: 534-52-1		
198	946	8.42	8.22	80-120	100	(T)
105	2261	8.42	8.21	12- 72	239	(QT)
51	2059	8.42	8.21	26- 86	217	(QT)

92 Chrysene				CAS#: 218-01-9		
228	252	12.11	12.12	80-120	100	( )
229	1506	12.08	12.12	0- 49	598	(Q)
226	478	12.07	12.12	0- 59	190	(Q)

94 Di-n-octylphthalate				CAS#: 117-84-0		
149	382	12.96	12.97	80-120	100	( )
43	1811	13.00	12.96	0- 38	473	(Q)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD8.i/s030610.b/s8c0616.d  
 Lab Smp Id: 248012008 Client Smp ID: RE36-10-8483  
 Inj Date : 06-MAR-2010 14:57  
 Operator : nag1 Inst ID: MSD8.i  
 Smp Info : |248012008|959457|1|SVM|1|LANL  
 Misc Info : |MSD8270 S|WBN100227-01  
 Comment : Column: J & W DB-5MS, 25m x 0.20 mm x 0.33 micron film  
 Method : /chem/MSD8.i/s030610.b/MSD8-8270AQA-022010.m  
 Meth Date : 07-Mar-2010 11:27 nat00999 Quant Type: ISTD  
 Cal Date : 21-FEB-2010 23:15 Cal File: s8b2042.d  
 Als bottle: 14  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: 10-2027.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	2.29890	% moisture

Cpnd Variable Local Compound Variable

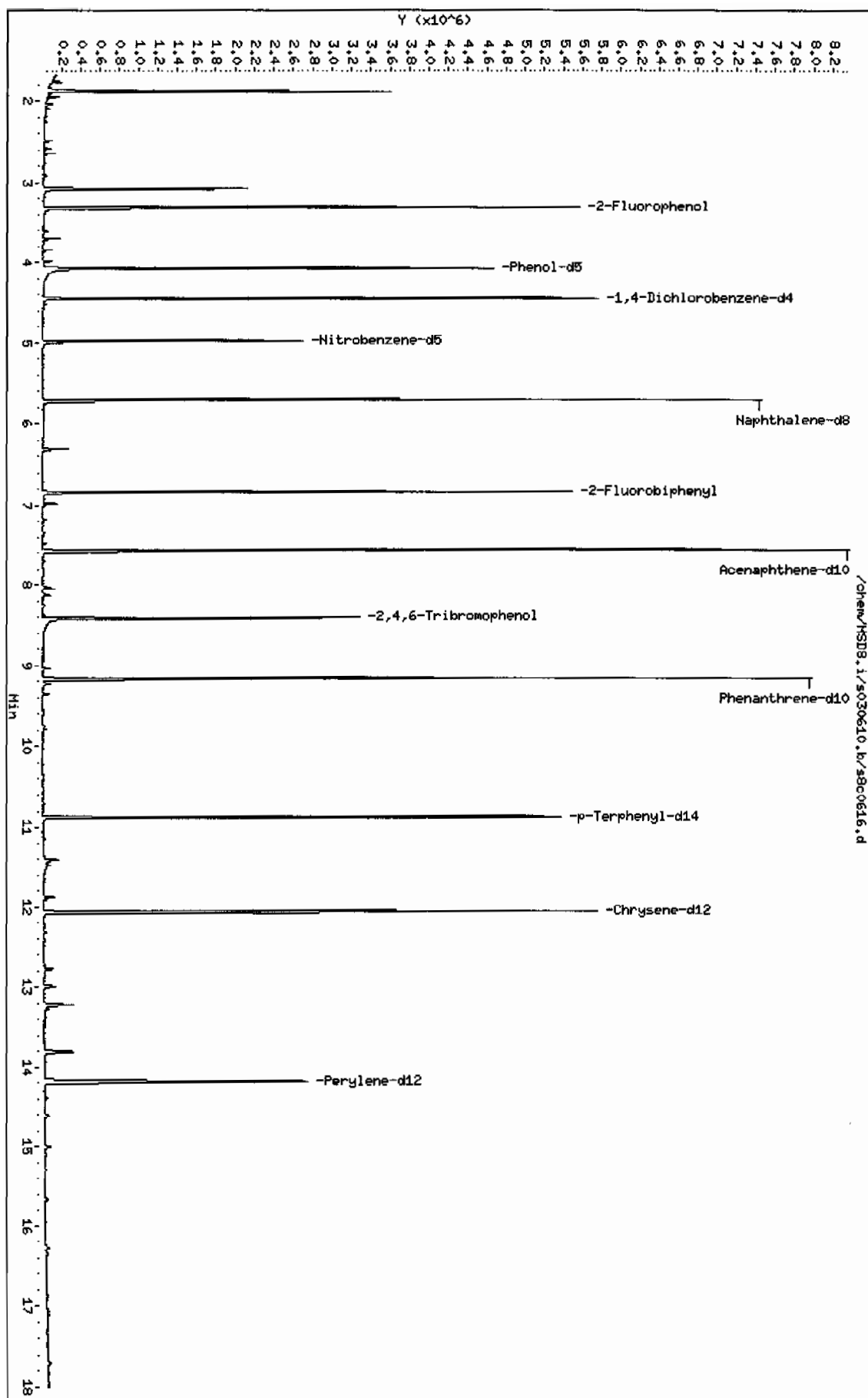
ISTD	RT	AREA	AMOUNT
=====	=====	=====	=====
* 10 1,4-Dichlorobenzene-d4	4.458	4463380	40.000
* 98 Perylene-d12	14.192	4487790	40.000

CONCENTRATIONS					QUANT		
RT	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
=====	=====	=====	=====	=====	=====	=====	=====
Unknown				CAS #:			
1.887	2366166	21.2051432	723	0		0	10

RT	AREA	CONCENTRATIONS		QUAL	QUANT		CPND #
		ON-COL (ng/ul)	FINAL (ug/Kg)		LIBRARY	LIB ENTRY	
====	====	=====	=====	====	=====	=====	=====
Unknown Aldol Condensate				CAS #:			
3.082	1889244	16.9310608	577	0		0	10
Eicosane				CAS #: 112-95-8			
13.806	561209	5.00209839	171	98	NIST05.L	113490	98

Data File: /chem/HSD8.i/s030610.b/s8c0616.d  
Date: 06-MAR-2010 14:57  
Client ID: RE36-10-8483  
Sample Info: 1248012008195945711SVH11LNL  
Volume Injected (uL): 0.5  
Column phase: J&W DB-SHS

Instrument: HSD8.i  
Operator: nag1  
Column diameter: 0.20



Date : 06-MAR-2010 14:57

Client ID: RE36-10-8483

Instrument: HSD8.i

Sample Info: I2480120081959487111SVM11ILANL

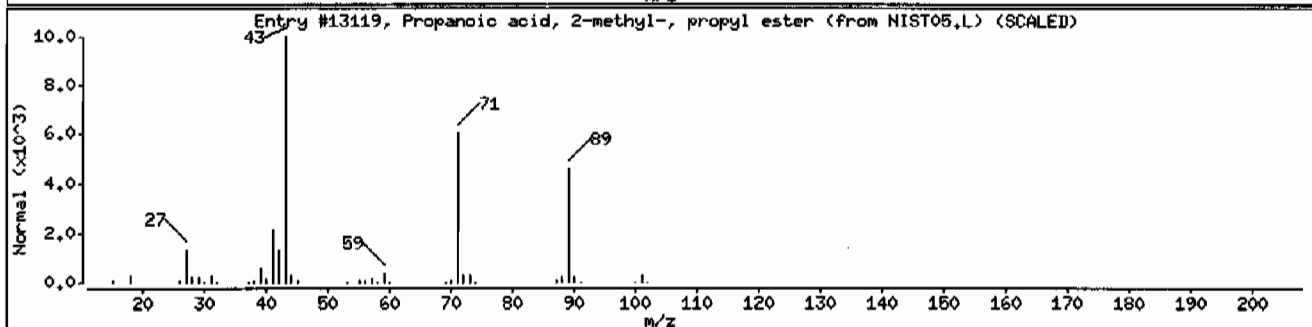
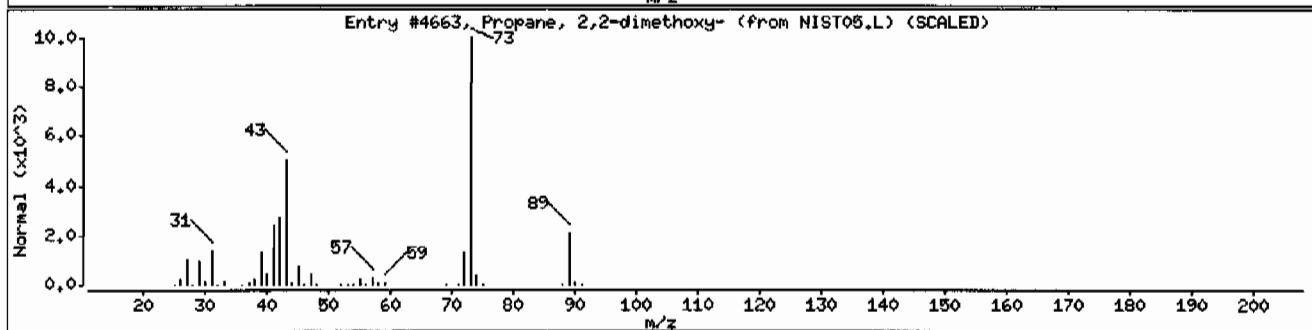
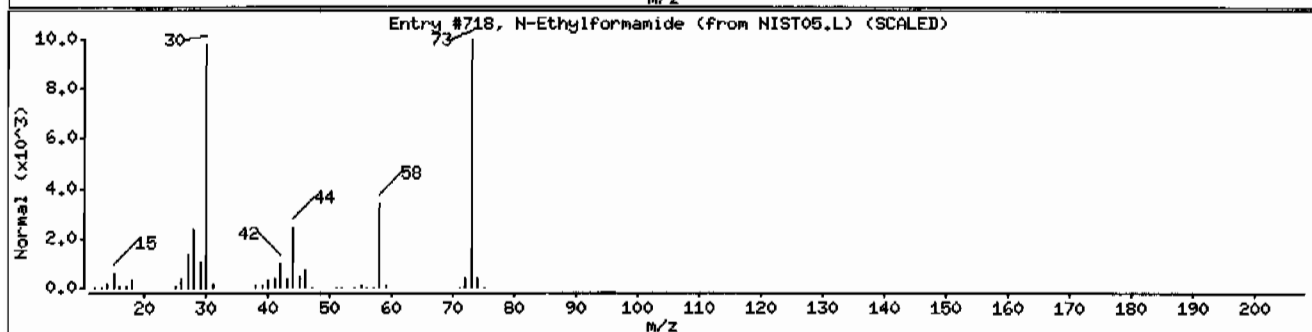
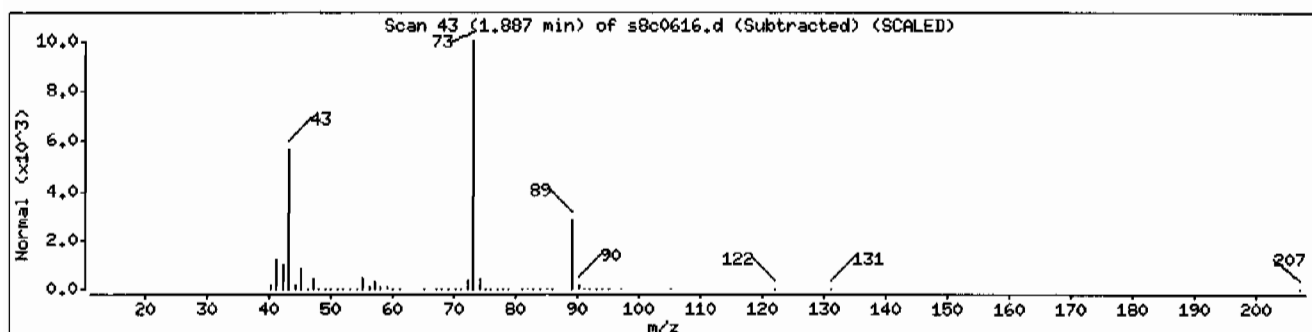
Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
N-Ethylformamide	627-45-2	NIST05.L	718	37	C3H7NO	73
Propane, 2,2-dimethoxy-	77-76-9	NIST05.L	4663	33	C5H12O2	104
Propanoic acid, 2-methyl-, propyl ester	644-49-5	NIST05.L	13119	17	C7H14O2	130



Date : 06-MAR-2010 14:57

Client ID: RE36-10-8483

Instrument: MSD8.i

Sample Info: I248012008196945711ISVH11ILANL

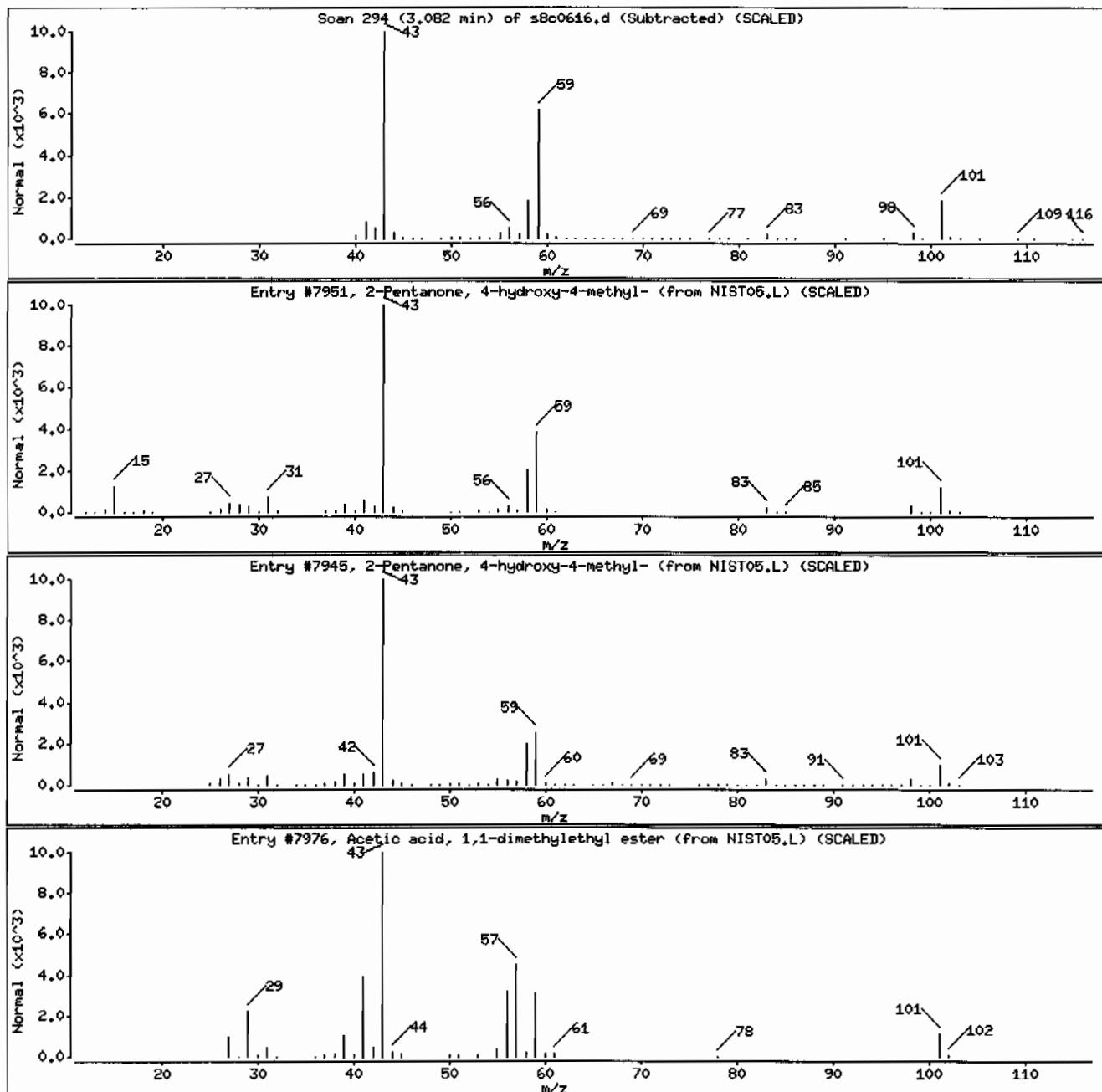
Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7961	59	C <sub>6</sub> H <sub>12</sub> O <sub>2</sub>	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7945	42	C <sub>6</sub> H <sub>12</sub> O <sub>2</sub>	116
Acetic acid, 1,1-dimethylethyl ester	540-88-5	NIST05.L	7976	28	C <sub>6</sub> H <sub>12</sub> O <sub>2</sub>	116



Date : 06-MAR-2010 14:57

Client ID: RE36-10-8483

Instrument: MSD8.i

Sample Info: I248012008195945711ISVH11ILANL

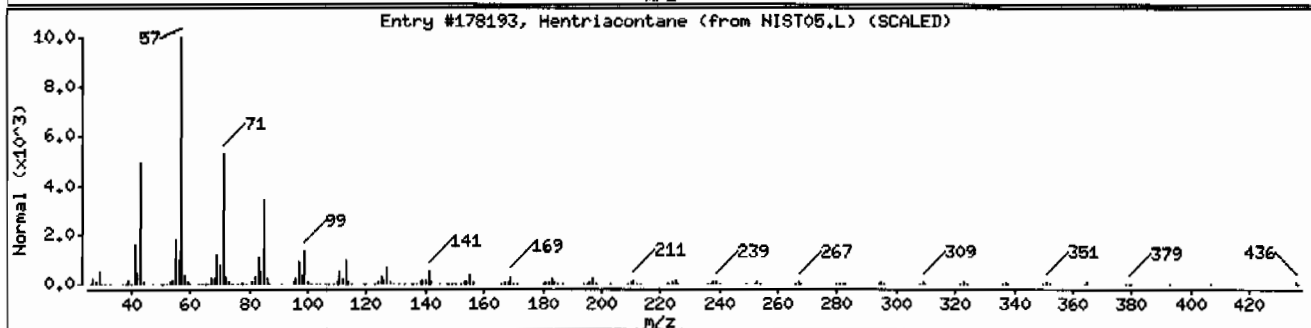
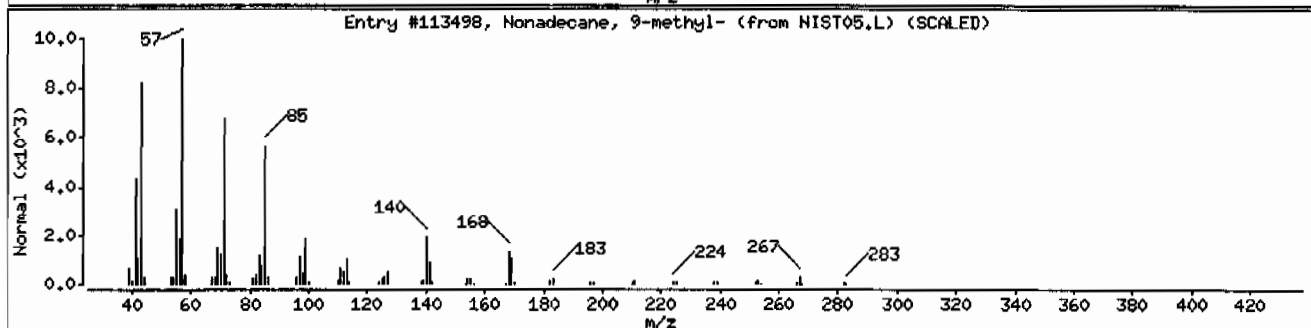
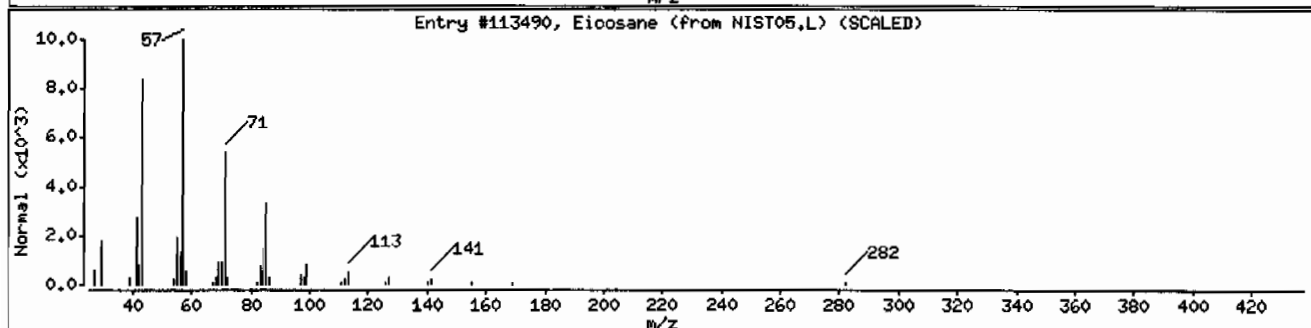
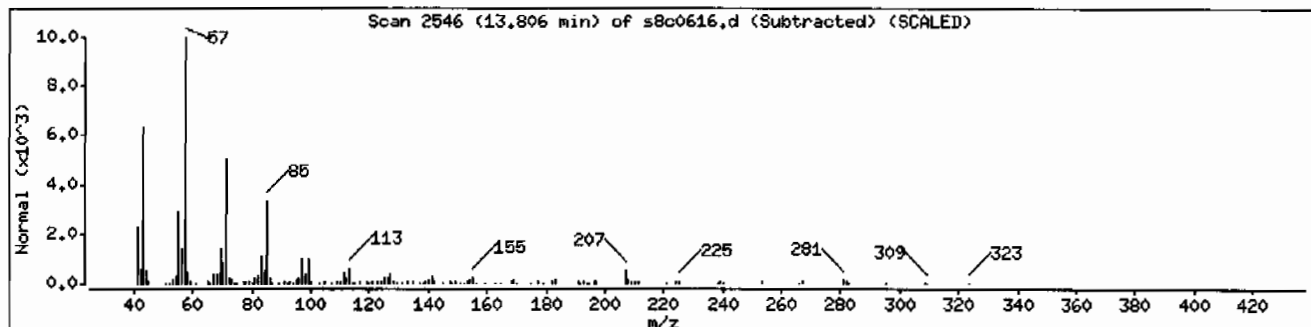
Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Eicosane	112-95-8	NIST05.L	113490	98	C20H42	282
Nonadecane, 9-methyl-	13287-24-6	NIST05.L	113498	90	C20H42	282
Hentriacontane	630-04-6	NIST05.L	178193	87	C31H64	437



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

SDG Number: 10-2027  
Lab Sample ID: 248012002

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD8.I  
Analyst: NAG1  
Aliquot: 30.13 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 5.1  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

Client ID: RE36-10-8490  
Batch ID: 959457  
Run Date: 03/06/2010 12:02  
Prep Date: 03/01/2010 23:22  
Data File: s8c0610.d

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	350	ug/kg	70.0	350
108-95-2	Phenol	U	350	ug/kg	70.0	350
95-57-8	2-Chlorophenol	U	350	ug/kg	70.0	350
106-46-7	1,4-Dichlorobenzene	U	350	ug/kg	70.0	350
621-64-7	N-Nitrosodipropylamine	U	350	ug/kg	70.0	350
59-50-7	4-Chloro-3-methylphenol	U	350	ug/kg	70.0	350
83-32-9	Acenaphthene	U	35.0	ug/kg	11.5	35.0
121-14-2	2,4-Dinitrotoluene	U	350	ug/kg	35.0	350
100-02-7	4-Nitrophenol	U	350	ug/kg	115	350
87-86-5	Pentachlorophenol	U	350	ug/kg	87.5	350
129-00-0	Pyrene	U	35.0	ug/kg	10.5	35.0
110-86-1	Pyridine	U	350	ug/kg	70.0	350
62-53-3	Aniline	U	350	ug/kg	105	350
111-44-4	bis(2-Chloroethyl) ether	U	350	ug/kg	70.0	350
541-73-1	1,3-Dichlorobenzene	U	350	ug/kg	70.0	350
100-51-6	Benzyl alcohol	U	350	ug/kg	105	350
95-50-1	1,2-Dichlorobenzene	U	350	ug/kg	70.0	350
108-60-1	bis(2-Chloroisopropyl)ether	U	350	ug/kg	70.0	350
95-48-7	o-Cresol	U	350	ug/kg	70.0	350
65794-96-9	m,p-Cresols	U	350	ug/kg	105	350
67-72-1	Hexachloroethane	U	350	ug/kg	70.0	350
98-95-3	Nitrobenzene	U	350	ug/kg	70.0	350
78-59-1	Isophorone	U	350	ug/kg	70.0	350
88-75-5	2-Nitrophenol	U	350	ug/kg	70.0	350
105-67-9	2,4-Dimethylphenol	U	350	ug/kg	122	350
111-91-1	bis(2-Chloroethoxy)methane	U	350	ug/kg	70.0	350
120-83-2	2,4-Dichlorophenol	U	350	ug/kg	70.0	350
65-85-0	Benzoic acid	U	700	ug/kg	175	700
91-20-3	Naphthalene	U	35.0	ug/kg	10.5	35.0
106-47-8	4-Chloroaniline	U	350	ug/kg	70.0	350
87-68-3	Hexachlorobutadiene	U	350	ug/kg	70.0	350
91-57-6	2-Methylnaphthalene	U	35.0	ug/kg	7.00	35.0
77-47-4	Hexachlorocyclopentadiene	U	350	ug/kg	70.0	350
88-06-2	2,4,6-Trichlorophenol	U	350	ug/kg	70.0	350
95-95-4	2,4,5-Trichlorophenol	U	350	ug/kg	70.0	350
91-58-7	2-Chloronaphthalene	U	35.0	ug/kg	11.5	35.0
88-74-4	2-Nitroaniline	U	350	ug/kg	70.0	350
	<i>o</i> -Nitroaniline					
99-09-2	3-Nitroaniline	U	350	ug/kg	70.0	350



Semi-Volatile  
Certificate of Analysis  
Sample Summary

Page 2 of 2

SDG Number: 10-2027  
Lab Sample ID: 248012002

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD8.I  
Analyst: NAG1  
Aliquot: 30.13 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 5.1  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

Client ID: RE36-10-8490  
Batch ID: 959457  
Run Date: 03/06/2010 12:02  
Prep Date: 03/01/2010 23:22  
Data File: s8c0610.d

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
131-11-3	<i>m</i> -Nitroaniline					
	Dimethylphthalate	U	350	ug/kg	70.0	350
606-20-2	2,6-Dinitrotoluene	U	350	ug/kg	35.0	350
208-96-8	Acenaphthylene	U	35.0	ug/kg	10.5	35.0
51-28-5	2,4-Dinitrophenol	U	700	ug/kg	133	700
132-64-9	Dibenzofuran	U	350	ug/kg	70.0	350
84-66-2	Diethylphthalate	U	350	ug/kg	70.0	350
86-73-7	Fluorene	U	35.0	ug/kg	10.5	35.0
7005-72-3	4-Chlorophenylphenylether	U	350	ug/kg	70.0	350
534-52-1	2-Methyl-4,6-dinitrophenol	U	350	ug/kg	70.0	350
100-01-6	4-Nitroaniline	U	350	ug/kg	105	350
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	350	ug/kg	70.0	350
122-66-7	Azobenzene	U	350	ug/kg	70.0	350
	<i>1,2</i> -Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	350	ug/kg	70.0	350
118-74-1	Hexachlorobenzene	U	350	ug/kg	70.0	350
85-01-8	Phenanthrene	U	35.0	ug/kg	10.5	35.0
120-12-7	Anthracene	U	35.0	ug/kg	7.00	35.0
84-74-2	Di-n-butylphthalate	U	350	ug/kg	70.0	350
206-44-0	Fluoranthene	U	35.0	ug/kg	10.5	35.0
85-68-7	Butylbenzylphthalate	U	350	ug/kg	70.0	350
56-55-3	Benzo(a)anthracene	U	35.0	ug/kg	10.5	35.0
91-94-1	3,3'-Dichlorobenzidine	U	350	ug/kg	105	350
218-01-9	Chrysene	U	35.0	ug/kg	10.5	35.0
117-81-7	bis(2-Ethylhexyl)phthalate	U	350	ug/kg	70.0	350
117-84-0	Di-n-octylphthalate	U	350	ug/kg	70.0	350
205-99-2	Benzo(b)fluoranthene	U	35.0	ug/kg	10.5	35.0
207-08-9	Benzo(k)fluoranthene	U	35.0	ug/kg	10.5	35.0
50-32-8	Benzo(a)pyrene	U	35.0	ug/kg	10.5	35.0
193-39-5	Indeno(1,2,3-cd)pyrene	U	35.0	ug/kg	10.5	35.0
53-70-3	Dibenzo(a,h)anthracene	U	35.0	ug/kg	10.5	35.0
191-24-2	Benzo(ghi)perylene	U	35.0	ug/kg	10.5	35.0
120-82-1	1,2,4-Trichlorobenzene	U	350	ug/kg	70.0	350

## Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	1.89	148	ug/kg		J
	Unknown Aldol Condensate	3.08	443	ug/kg		JA

GEL Laboratories LLC

Data file : /chem/MSD8.i/s030610.b/s8c0610.d  
Lab Smp Id: 248012002 Client Smp ID: RE36-10-8490  
Inj Date : 06-MAR-2010 12:02  
Operator : nagl Inst ID: MSD8.i  
Smp Info : |248012002|959457|1|SVM|1|LANL  
Misc Info : |MSD8270\_S|WBN100227-01  
Comment : Column: J & W DB-5MS, 25m x 0.20 mm x 0.33 micron film  
Method : /chem/MSD8.i/s030610.b/MSD8-8270AQA-022010.m  
Meth Date : 07-Mar-2010 11:27 nat00999 Quant Type: ISTD  
Cal Date : 21-FEB-2010 23:15 Cal File: s8b2042.d  
Als bottle: 8  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: 10-2027.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	30.13000	weight of sample
M	5.14730	% 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	4.458	4.458	(1.000)	692436	40.0000		
* 29 Naphthalene-d8	136	5.715	5.720	(1.000)	2663365	40.0000		
* 46 Acenaphthene-d10	164	7.573	7.577	(1.000)	1582130	40.0000		
* 67 Phenanthrene-d10	188	9.173	9.177	(1.000)	2796556	40.0000		
* 91 Chrysene-d12	240	12.077	12.082	(1.000)	2341342	40.0000		
* 98 Perylene-d12	264	14.187	14.187	(1.000)	1866405	40.0000		
\$ 3 2-Fluorophenol	112	3.320	3.306	(0.745)	1218672	74.5481		2610
\$ 5 Phenol-d5	99	4.077	4.082	(0.915)	1479223	72.5566		2540
\$ 20 Nitrobenzene-d5	82	4.982	4.992	(0.872)	656270	34.6629		1210
\$ 39 2-Fluorobiphenyl	172	6.844	6.849	(0.904)	1658650	35.6164		1250
\$ 60 2,4,6-Tribromophenol	329	8.416	8.420	(1.111)	399956	76.4742		2680
\$ 81 p-Terphenyl-d14	244	10.887	10.882	(0.901)	1793177	42.5400		1490

## ION RATIO REPORT

## SV REPORT

Data file: s8c0610.d

Report Date: 03/07/2010 11:34

Lab. ID: 248012002

SampleType: SAMPLE

Injection Date: 06-MAR-2010 12:02

Operator: nag1

Instrument: MSD8.i

Sample Info: |248012002|959457|1|SVM|1|LANL

Miscellaneous Info: |MSD8270\_S|WBN100227-01

Comment:

Method used: /chem/MSD8.i/s030610.b/MSD8-8270AQA-022010.m

Dilution Factor= 1.0

Integrator: HP RTE

Compound Sublist: 10-2027

Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
4 Aniline		CAS#: 62-53-3				
66	68905	4.08	4.15	80-120	100	(T)
93	115	4.08	4.15	235-295	0	(QT)
-----						
17 N-Nitrosodipropylamine		CAS#: 621-64-7				
70	89539	4.98	4.84	80-120	100	(T)
42	39362	4.98	4.84	31- 91	44	(T)
-----						
27 Benzoic acid		CAS#: 65-85-0				
105	687	5.53	5.46	80-120	100	(T)
122	129	5.46	5.46	51-111	19	(Q)
77	2610	5.37	5.46	47-107	379	(QT)
-----						
30 Naphthalene		CAS#: 91-20-3				
128	588	5.73	5.74	80-120	100	( )
129	193	5.72	5.74	0- 41	33	( )
127	0	0.00	5.74	0- 43	0	(T)
-----						
44 2,6-Dinitrotoluene		CAS#: 606-20-2				
165	202006	7.57	7.35	80-120	100	(T)
63	2321	7.57	7.35	34- 94	1	(QT)
-----						
50 2,4-Dinitrotoluene		CAS#: 121-14-2				
165	202006	7.57	7.78	80-120	100	(T)
89	2527	7.57	7.78	48-108	1	(QT)
63	2321	7.57	7.78	24- 84	1	(QT)
-----						

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
55	2-Methyl-4,6-dinitrophenol			CAS#: 534-52-1		
198	1139	8.42	8.22	80-120	100	(T)
105	2231	8.42	8.21	12- 72	196	(QT)
51	1703	8.42	8.21	26- 86	150	(QT)

-----						
92	Chrysene			CAS#: 218-01-9		
228	493	12.10	12.12	80-120	100	( )
229	146	12.10	12.12	0- 49	30	( )
226	121	12.10	12.12	0- 59	25	( )

-----						
94	Di-n-octylphthalate			CAS#: 117-84-0		
149	316	12.97	12.97	80-120	100	( )
43	278	12.91	12.96	0- 38	88	(Q)

-----

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD8.i/s030610.b/s8c0610.d  
Lab Smp Id: 248012002 Client Smp ID: RE36-10-8490  
Inj Date : 06-MAR-2010 12:02  
Operator : nagl Inst ID: MSD8.i  
Smp Info : |248012002|959457|1|SVM|1|LANL  
Misc Info : |MSD8270\_S|WBN100227-01  
Comment : Column: J & W DB-5MS, 25m x 0.20 mm x 0.33 micron film  
Method : /chem/MSD8.i/s030610.b/MSD8-8270AQA-022010.m  
Meth Date : 07-Mar-2010 11:27 nat00999 Quant Type: ISTD  
Cal Date : 21-FEB-2010 23:15 Cal File: s8b2042.d  
Als bottle: 8  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: 10-2027.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	30.13000	weight of sample
M	5.14730	% moisture

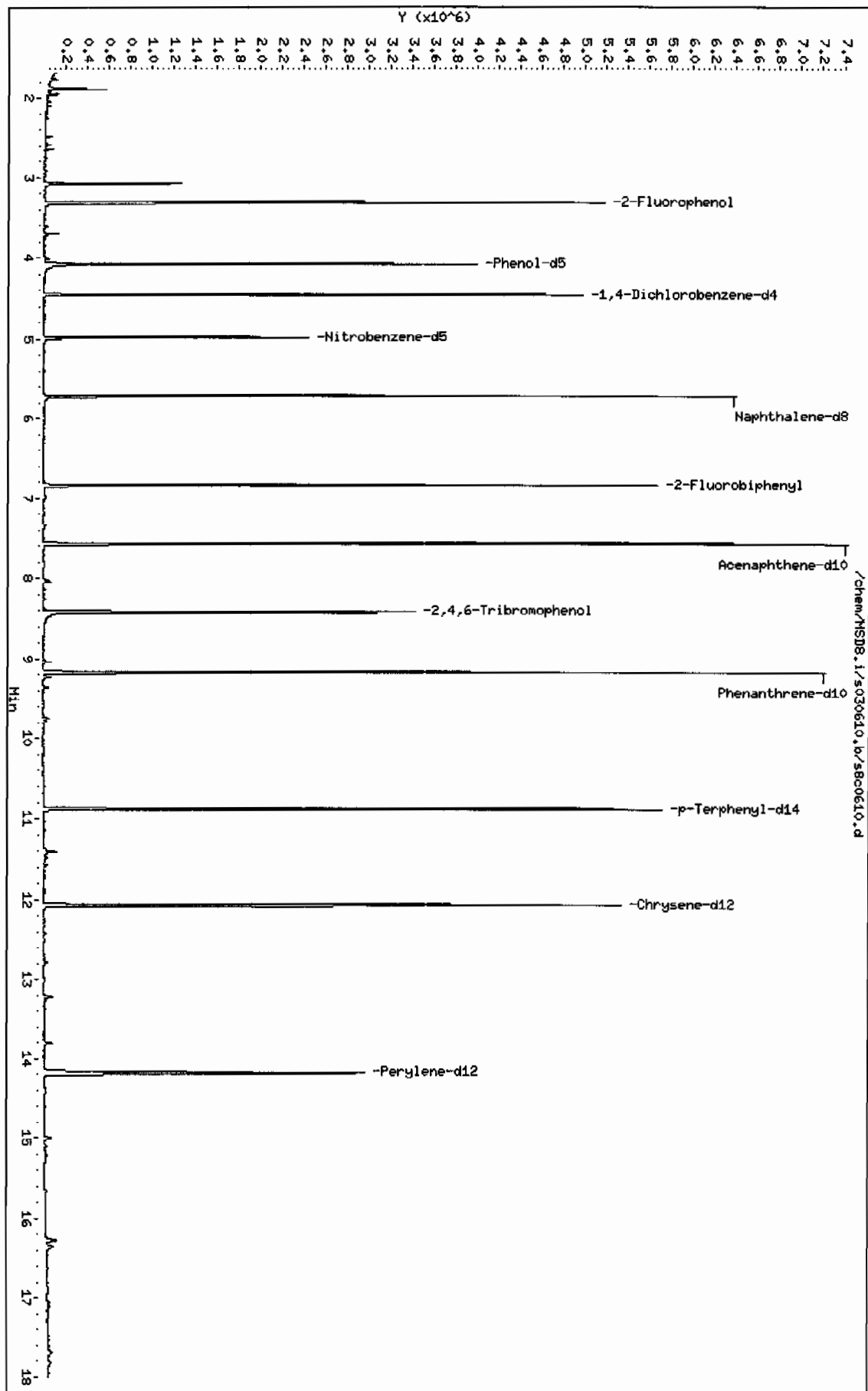
Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	4.458	3829547	40.000

CONCENTRATIONS					QUANT		
RT	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown							
1.887	405603	4.23656666	148	0		0	10
Unknown Aldol Condensate							
3.082	1213413	12.6742150	443	0		0	10

Data File: /chem/HSD8.i/s030610.b/s800610.d  
Date: 06-MAR-2010 12:02  
Client ID: REC6-10-8490  
Sample Info: 1248012002195945711.S\\M11.L\\NL  
Volume Injected (uL): 0.5  
Column phase: J&W DB-SHS

Instrument: HSD8.i  
Operator: nag1  
Column diameter: 0.20



Date : 06-MAR-2010 12:02

Client ID: RE36-10-8490

Instrument: MSD8.i

Sample Info: I248012002I959457I1ISVH11ILANL

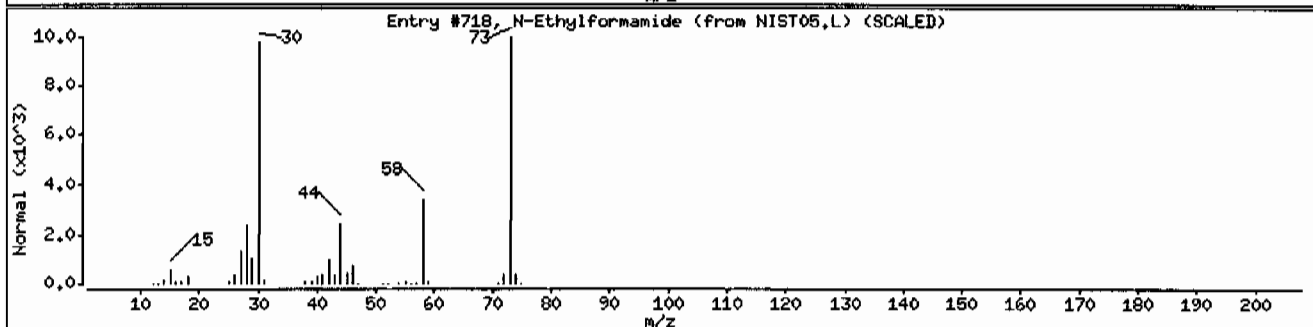
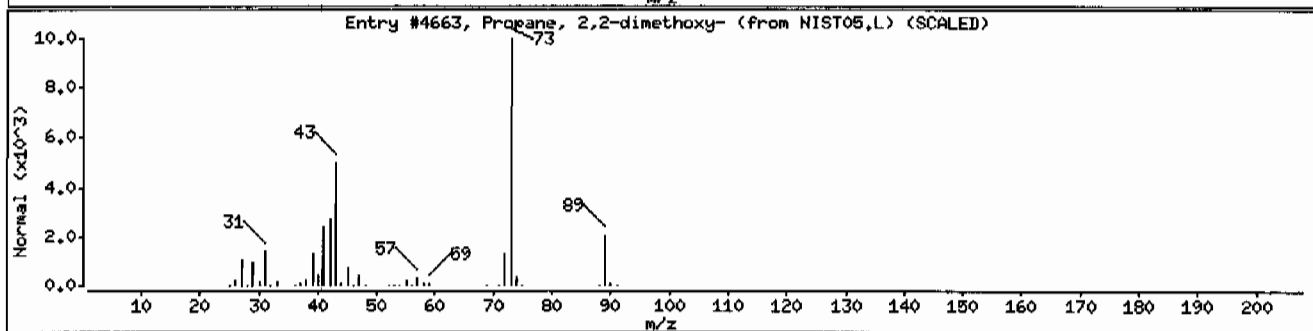
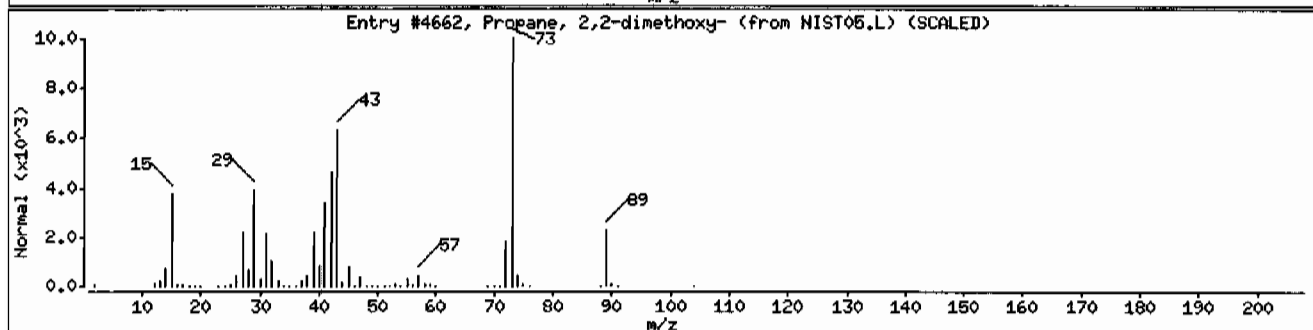
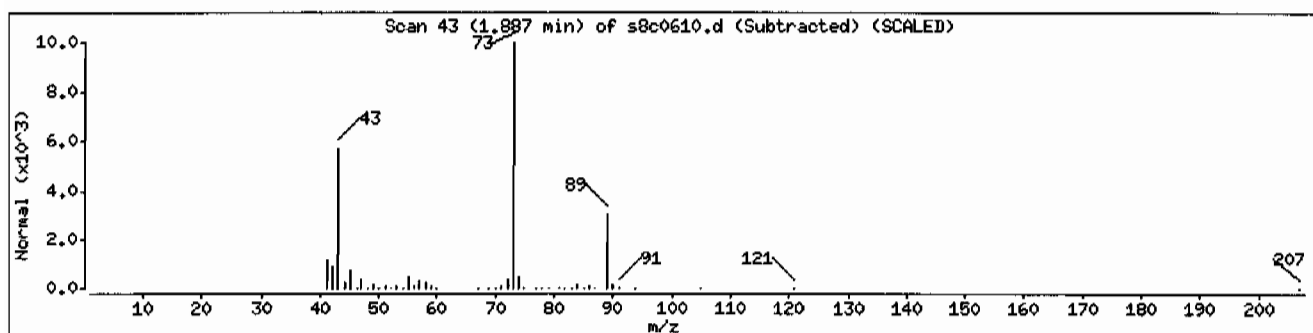
Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Propane, 2,2-dimethoxy-	77-76-9	NIST05.L	4662	42	C5H12O2	104
Propane, 2,2-dimethoxy-	77-76-9	NIST05.L	4663	38	C5H12O2	104
N-Ethylformamide	627-45-2	NIST05.L	718	12	C3H7NO	73



Date : 06-MAR-2010 12:02

Client ID: RE36-10-8490

Instrument: MSDB.i

Sample Info: I248012002195945711SVMI1ILANL

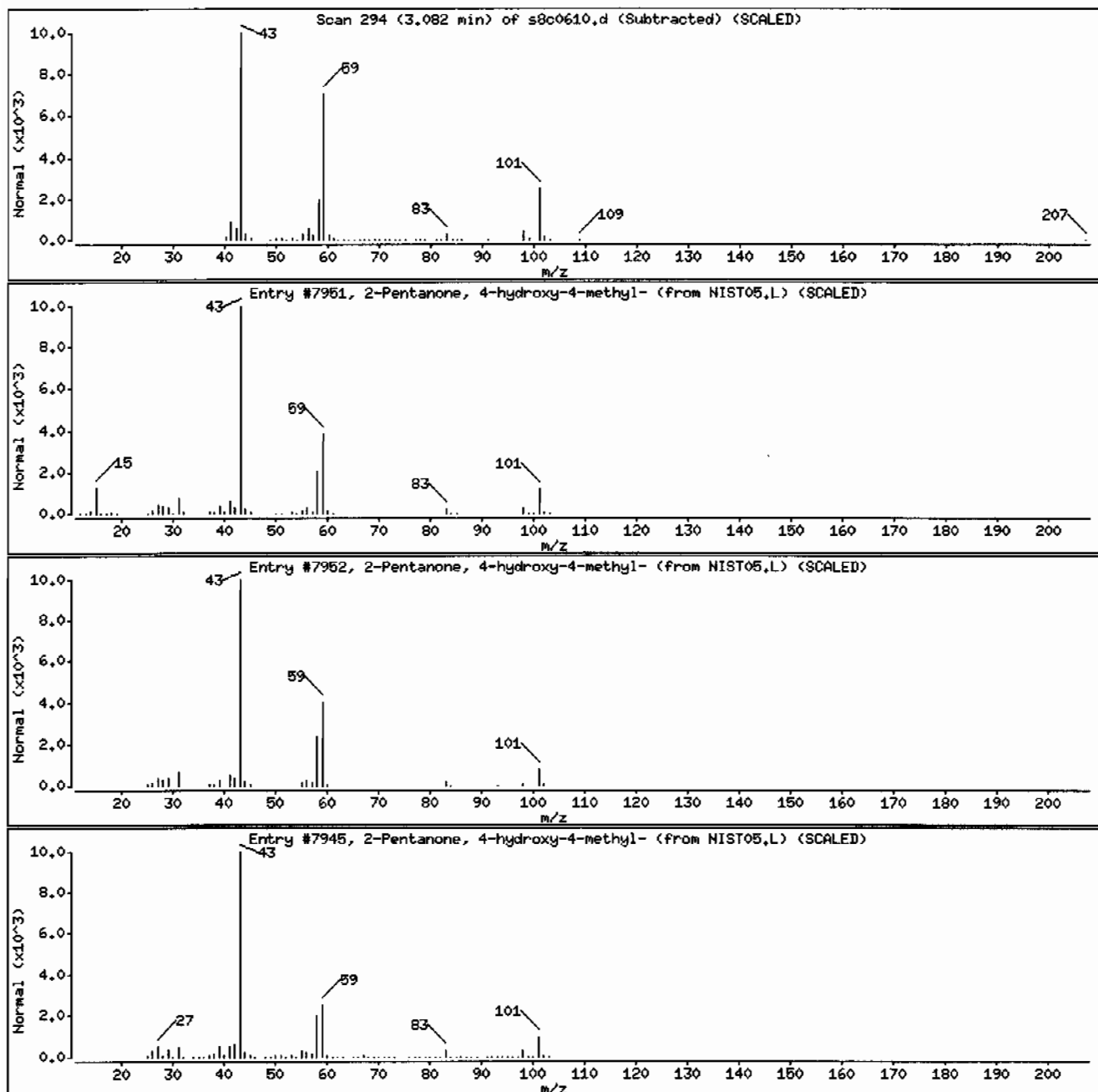
Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	53	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	7945	40	C6H12O2	116





# Standard Data

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
MEGA MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
1,4-Dichlorobenzene-d4 (INTERNAL STANDARD)								
Naphthalene-d8 (INTERNAL STANDARD)								
Acenaphthene-d10 (INTERNAL STANDARD)								
Phenanthrene-d10 (INTERNAL STANDARD)								
Chrysene-d12 (INTERNAL STANDARD)								
Perylene-d12 (INTERNAL STANDARD)								
2-Fluorophenol (SURROGATE)		10	20	40	50	80	100	120
Phenol-d5 (SURROGATE)		10	20	40	50	80	100	120
2-Chlorophenol-d4 (CLP SURROGATE)		10	20	40	50	80	100	120
1,2-Dichlorobenzene-d4 (CLP SURROGATE)		10	20	40	50	80	100	120
Nitrobenzene-d5 (SURROGATE)		10	20	40	50	80	100	120
2-Fluorobiphenyl (SURROGATE)		10	20	40	50	80	100	120
2,4,6-Tribromophenol (SURROGATE)		10	20	40	50	80	100	120
p-Terphenyl-d14 (SURROGATE)		10	20	40	50	80	100	120
N-Nitrosodimethylamine	1**	10	20	40	50	80	100	120
Pyridine		10	20	40	50	80	100	120
Aniline		10	20	40	50	80	100	120
Phenol		10	20	40	50	80	100	120
bis(2-Chloroethyl)ether		10	20	40	50	80	100	120
2-Chlorophenol		10	20	40	50	80	100	120
n-Decane		10	20	40	50	80	100	120
1,3-Dichlorobenzene		10	20	40	50	80	100	120
1,4-Dichlorobenzene		10	20	40	50	80	100	120
Benzyl Alcohol		10	20	40	50	80	100	120
1,2-Dichlorobenzene		10	20	40	50	80	100	120
bis(2-Chloroisopropyl)ether		10	20	40	50	80	100	120
o-Cresol (2-Methylphenol)		10	20	40	50	80	100	120
N-Nitrosodipropylamine	1**	10	20	40	50	80	100	120
m,p-Cresols (3-Methylphenol & 4-Methylphenol)		10	20	40	50	80	100	120
Hexachloroethane		10	20	40	50	80	100	120
Nitrobenzene		10	20	40	50	80	100	120
Isophorone		10	20	40	50	80	100	120
2-Nitrophenol		10	20	40	50	80	100	120
2,4-Dimethylphenol		10	20	40	50	80	100	120
bis(2-Chloroethoxy)methane		10	20	40	50	80	100	120
2,4-Dichlorophenol		10	20	40	50	80	100	120
Benzoic Acid			20	40	50	80	100	120
1,2,4-Trichlorobenzene		10	20	40	50	80	100	120
Naphthalene	1	10	20	40	50	80	100	120
alpha-Terpineol		10	20	40	50	80	100	120
4-Chloroaniline		10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
MEGA MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Hexachlorobutadiene		10	20	40	50	80	100	120
4-Chloro-3-methylphenol		10	20	40	50	80	100	120
2-Methylnaphthalene	1	10	20	40	50	80	100	120

1-Methylnaphthalene	1	10	20	40	50	80	100	120
Hexachlorocyclopentadiene		10	20	40	50	80	100	120
2,3-Dichloroaniline		10	20	40	50	80	100	120
2,4,6-Trichlorophenol		10	20	40	50	80	100	120
2,4,5-Trichlorophenol		10	20	40	50	80	100	120
2-Chloronaphthalene	1	10	20	40	50	80	100	120
o-Nitroaniline		10	20	40	50	80	100	120
m-Nitroaniline		10	20	40	50	80	100	120
Dimethylphthalate	1**	10	20	40	50	80	100	120
2,6-Dinitrotoluene		10	20	40	50	80	100	120
Acenaphthylene	1	10	20	40	50	80	100	120
Acenaphthene	1	10	20	40	50	80	100	120
2,4-Dinitrophenol		10	20	40	50	80	100	120
Dibenzofuran		10	20	40	50	80	100	120
2,4-Dinitrotoluene		10	20	40	50	80	100	120
Diethylphthalate	1**	10	20	40	50	80	100	120
4-Nitrophenol		10	20	40	50	80	100	120
Fluorene	1	10	20	40	50	80	100	120
4-Chlorophenyl phenyl ether		10	20	40	50	80	100	120
2-Methyl-4,6-dinitrophenol		10	20	40	50	80	100	120
p-Nitroaniline		10	20	40	50	80	100	120
Diphenylamine		10	20	40	50	80	100	120
1,2-Diphenylhydrazine		10	20	40	50	80	100	120
4-Bromophenyl phenylether		10	20	40	50	80	100	120
Hexachlorobenzene		10	20	40	50	80	100	120
Pentachlorophenol		10	20	40	50	80	100	120
n-Octadecane		10	20	40	50	80	100	120
Phenanthrene	1	10	20	40	50	80	100	120
Anthracene	1	10	20	40	50	80	100	120
Di-n-butylphthalate	1**	10	20	40	50	80	100	120
Fluoranthene	1	10	20	40	50	80	100	120
Pyrene	1	10	20	40	50	80	100	120
Butylbenzylphthalate	1**	10	20	40	50	80	100	120
Benzo(a)anthracene	1	10	20	40	50	80	100	120
Chrysene	1	10	20	40	50	80	100	120
bis (2-Ethylhexyl) phthalate	1	10	20	40	50	80	100	120
Di-n-octylphthalate	1**	10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
MEGA MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Benzo(b)fluoranthene	1	10	20	40	50	80	100	120
Benzo(k)fluoranthene	1	10	20	40	50	80	100	120
Benzo(a)pyrene	1	10	20	40	50	80	100	120
Indeno-(1,2,3-cd)pyrene	1	10	20	40	50	80	100	120
Dibenzo(a,h)anthracene	1	10	20	40	50	80	100	120
Benzo(ghi)perylene	1	10	20	40	50	80	100	120
m-Dinitrobenzene		10	20	40	50	80	100	120
2,3,4,6-Tetrachlorophenol		10	20	40	50	80	100	120
Dinoseb		10	20	40	50	80	100	120
Carbazole	1	10	20	40	50	80	100	120

p-Benzoquinone		10	20	40	50	80	100	120
Methoxychlor	1**	10	20	40	50	80	100	120
p-Toluidine		10	20	40	50	80	100	120
m-Toluidine		10	20	40	50	80	10	120
1,4-Dinitrobenzene		10	20	40	50	80	100	120
2-Ethoxyethanol		10	20	40	50	80	100	120
Phthalic anhydride		10	20	40	50	80	100	120
Methylenebis(2-chloroaniline)		10	20	40	50	80	100	120
Dibenzo(a,e)pyrene		10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
AP MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Benzaldehyde	10	20	40	50	80	100	120	
Acetophenone	10	20	40	50	80	100	120	
Caprolactam	10	20	40	50	80	100	120	
1,1'-Biphenyl	10	20	40	50	80	100	120	
Atrazine	10	20	40	50	80	100	120	
Benzidine	10	20	40	50	80	100	120	
3,3'-Dichlorobenzidine	10	20	40	50	80	100	120	
1,4-Dioxane	10	20	40	50	80	100	120	
Methyl methacrylate	10	20	40	50	80	100	120	
Ethyl methacrylate	10	20	40	50	80	100	120	
2-Picoline	10	20	40	50	80	100	120	
N-Nitrosomethylethylamine	10	20	40	50	80	100	120	
Methyl methanesulfonate	10	20	40	50	80	100	120	
N-Nitrosodiethylamine	10	20	40	50	80	100	120	
Ethyl methanesulfonate	10	20	40	50	80	100	120	
Pentachloroethane	10	20	40	50	80	100	120	
N-Nitrosopyrrolidine	10	20	40	50	80	100	120	
N-Nitrosomorpholine	10	20	40	50	80	100	120	
o-Toluidine	10	20	40	50	80	100	120	
N-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,l)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: 07-Mar-2010 11:53

### Calibration History

Method : /chem/MSD8.i/s030610.b/MSD8-8270AQA-022010.m  
Start Cal Date: 20-FEB-2010 12:55  
End Cal Date : 22-FEB-2010 01:19

#### Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 1.00000		
20-FEB-2010 12:55	MEGAIICARE	/chem/MSD8.i/s022010.b/s8b2003.d
Cal Level: 2 , Cal Amount: 10.00000		
21-FEB-2010 22:13	NEV	/chem/MSD8.i/s022010.b/s8b2040.d
21-FEB-2010 16:44	HEX	/chem/MSD8.i/s022010.b/s8b2029.d
21-FEB-2010 13:02	PEST	/chem/MSD8.i/s022010.b/s8b2022.d
21-FEB-2010 09:21	AP12	/chem/MSD8.i/s022010.b/s8b2015.d
20-FEB-2010 13:30	MEGAIICARE	/chem/MSD8.i/s022010.b/s8b2004.d
Cal Level: 3 , Cal Amount: 20.00000		
21-FEB-2010 22:45	NEV	/chem/MSD8.i/s022010.b/s8b2041.d
21-FEB-2010 17:16	HEX	/chem/MSD8.i/s022010.b/s8b2030.d
21-FEB-2010 13:33	PEST	/chem/MSD8.i/s022010.b/s8b2023.d
21-FEB-2010 09:52	AP12	/chem/MSD8.i/s022010.b/s8b2016.d
20-FEB-2010 14:05	MEGAIICARE	/chem/MSD8.i/s022010.b/s8b2005.d
Cal Level: 4 , Cal Amount: 40.00000		
21-FEB-2010 23:15	NEV	/chem/MSD8.i/s022010.b/s8b2042.d
21-FEB-2010 17:48	HEX	/chem/MSD8.i/s022010.b/s8b2031.d
21-FEB-2010 14:05	PEST	/chem/MSD8.i/s022010.b/s8b2024.d
21-FEB-2010 10:23	AP12	/chem/MSD8.i/s022010.b/s8b2017.d
20-FEB-2010 14:40	MEGAIICARE	/chem/MSD8.i/s022010.b/s8b2006.d
Cal Level: 5 , Cal Amount: 50.00000		
21-FEB-2010 23:46	NEV	/chem/MSD8.i/s022010.b/s8b2043.d
21-FEB-2010 18:19	HEX	/chem/MSD8.i/s022010.b/s8b2032.d
21-FEB-2010 14:37	PEST	/chem/MSD8.i/s022010.b/s8b2025.d
21-FEB-2010 10:54	AP12	/chem/MSD8.i/s022010.b/s8b2018.d
20-FEB-2010 15:14	MEGAIICARE	/chem/MSD8.i/s022010.b/s8b2007.d
Cal Level: 6 , Cal Amount: 80.00000		
22-FEB-2010 00:17	NEV	/chem/MSD8.i/s022010.b/s8b2044.d
21-FEB-2010 18:51	HEX	/chem/MSD8.i/s022010.b/s8b2033.d
21-FEB-2010 15:09	PEST	/chem/MSD8.i/s022010.b/s8b2026.d
21-FEB-2010 11:26	AP12	/chem/MSD8.i/s022010.b/s8b2019.d
20-FEB-2010 15:50	MEGAIICARE	/chem/MSD8.i/s022010.b/s8b2008.d
Cal Level: 7 , Cal Amount: 100.00000		

22-FEB-2010	00:48	NEV	/chem/MSD8.i/s022010.b/s8b2045.d
21-FEB-2010	19:22	HEX	/chem/MSD8.i/s022010.b/s8b2034.d
21-FEB-2010	15:40	PEST	/chem/MSD8.i/s022010.b/s8b2027.d
21-FEB-2010	11:59	AP12	/chem/MSD8.i/s022010.b/s8b2020.d
20-FEB-2010	16:25	MEGAIICARE	/chem/MSD8.i/s022010.b/s8b2009.d
+-----+-----+-----+-----+			
Cal Level: 8 , Cal Amount: 120.00000			
+-----+-----+-----+-----+			
22-FEB-2010	01:19	NEV	/chem/MSD8.i/s022010.b/s8b2046.d
21-FEB-2010	16:12	PEST	/chem/MSD8.i/s022010.b/s8b2028.d
21-FEB-2010	12:30	AP12	/chem/MSD8.i/s022010.b/s8b2021.d
20-FEB-2010	16:59	MEGAIICARE	/chem/MSD8.i/s022010.b/s8b2010.d
+-----+-----+-----+-----+			

# Continuing Calibration

Ccal Level Mode: GLOBAL LEVEL 4

+-----+-----+-----+-----+			
Ccal Level: 4 , Ccal Amount: 40.0			
+-----+-----+-----+-----+			
06-MAR-2010	09:06	MEGAIICARE	/chem/MSD8.i/s030610.b/s8c0604.d
+-----+-----+-----+-----+			
Ccal Level: 4 , Ccal Amount: 40.0			
+-----+-----+-----+-----+			
06-MAR-2010	09:37	AP12	/chem/MSD8.i/s030610.b/s8c0605.d
+-----+-----+-----+-----+			
Ccal Level: 4 , Ccal Amount: 40.0			
+-----+-----+-----+-----+			
06-MAR-2010	07:40	MEGAIICARE	/chem/MSD8.i/s030610.b/s8c0602.d
+-----+-----+-----+-----+			



## GEL Laboratories LLC

## INITIAL CALIBRATION DATA

Start Cal Date : 20-FEB-2010 12:55  
 End Cal Date : 22-FEB-2010 01:19  
 Quant Method : ISTD  
 Target Version : 3.50  
 Integrator : HP RTE  
 Method file : /chem/MSD8.i/s030610.b/MSD8-8270AQA-022010.m  
 Cal Date : 07-Mar-2010 11:27 nat00999

## Calibration File Names:

Level 1: /chem/MSD8.i/s022010.b/s8b2003.d  
 Level 2: /chem/MSD8.i/s022010.b/s8b2040.d  
 Level 3: /chem/MSD8.i/s022010.b/s8b2041.d  
 Level 4: /chem/MSD8.i/s022010.b/s8b2042.d  
 Level 5: /chem/MSD8.i/s022010.b/s8b2043.d  
 Level 6: /chem/MSD8.i/s022010.b/s8b2044.d  
 Level 7: /chem/MSD8.i/s022010.b/s8b2045.d  
 Level 8: /chem/MSD8.i/s022010.b/s8b2046.d

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	b	Coefficients m1	m2	%RSD or R <sup>2</sup>
1 N-Methyl-N-nitrosomethylamine	++++ 0.57992	0.61951 0.58593	0.63665	0.62571	0.60931	0.60758	AVRG		0.60923		3.37337
2 Pyridine	++++ 0.87607	0.89446 0.87582	0.93458	0.90790	0.87786	0.88941	AVRG		0.89373		2.40541
4 Aniline	++++ 0.54402	0.55291 0.56183	0.56486	0.55215	0.55460	0.55759	AVRG		0.55542		1.23562
209 Benzaldehyde	++++ 0.82905	0.88461 0.77335	0.93065	0.82979	0.84335	0.81229	AVRG		0.84330		6.04219
6 Phenol	++++ 1.19022	1.21439 1.21801	1.26753	1.22620	1.19992	1.19696	AVRG		1.21617		2.13674

## GEL Laboratories LLC

## INITIAL CALIBRATION DATA

Start Cal Date : 20-FEB-2010 12:55  
 End Cal Date : 22-FEB-2010 01:19  
 Quant Method : ISTD  
 Target Version : 3.50  
 Integrator : HP RTE  
 Method file : /chem/MSD8.i/s030610.b/MSD8-8270AQA-022010.m  
 Cal Date : 07-Mar-2010 11:27 nat00999

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	b	Coefficients m1	m2	RSD or R <sup>2</sup>
7 bis(2-Chloroethyl) ether	++++ 0.79428	0.86875 0.80161	0.87510 0.82182	0.84552	0.82182	0.81301	AVRG		0.83144		3.86597
8 2-Chlorophenol	++++ 1.03335	1.03978 1.06466	1.08408	1.07215	1.04534	1.05301	AVRG		1.05605		1.73871
203 n-Decane	++++ 0.94466	1.27851 0.91988	1.24822	1.15740	1.07516	1.00264	AVRG		1.08949		13.14312
9 1,3-Dichlorobenzene	++++ 1.22581	1.28111 1.26112	1.28796	1.25869	1.21836	1.23373	AVRG		1.25240		2.16688
11 1,4-Dichlorobenzene	++++ 1.27786	1.29450 1.32204	1.32850	1.27510	1.26337	1.28372	AVRG		1.29215		1.89951
12 Benzyl alcohol	++++ 0.65441	0.63823 0.66840	0.66891	0.66923	0.65483	0.66997	AVRG		0.66057		1.81681
13 1,2-Dichlorobenzene	++++ 1.16994	1.23246 1.20670	1.24228	1.20302	1.17789	1.18128	AVRG		1.20194		2.30652
14 bis(2-Chloroisopropyl)ether	++++ 1.49862	1.75891 1.49146	1.77869	1.68785	1.62858	1.56724	AVRG		1.63019		7.19167
15 o-Cresol	++++ 0.83135	0.83685 0.85253	0.86246	0.86097	0.83301	0.83522	AVRG		0.84463		1.60879

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 Integrator : HP RTE  
 Method file : /chem/MSD8.i/s030610.b/MSD8-8270AQA-022010.m  
 Cal Date : 07-Mar-2010 11:27 nat00999

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	++++ 1.20314	1.22382 1.15394	1.29124	1.18127	1.20711	1.16108	AVRG		1.20309		3.85004
17 N-Nitrosodipropylamine	++++ 0.76559	0.77291 0.77632	0.78775	0.78533	0.78242	0.77484	AVRG		0.77788		0.99721
18 m,p-Cresols	++++ 1.06572	1.04493 1.08557	1.08669	1.06836	1.05918	1.07181	AVRG		1.06890		1.36774
19 Hexachloroethane	++++ 0.48126	0.48582 0.49008	0.49574	0.48975	0.48187	0.48407	AVRG		0.48694		1.06899
21 Nitrobenzene	++++ 0.29496	0.29364 0.29467	0.29812	0.29008	0.28855	0.29311	AVRG		0.29331		1.08619
22 Isophorone	++++ 0.54707	0.54198 0.54526	0.54074	0.53290	0.53134	0.54066	AVRG		0.53999		1.09041
23 2-Nitrophenol	++++ 0.13936	0.13002 0.13958	0.13039	0.13172	0.13404	0.13721	AVRG		0.13462		3.05487
24 2,4-Dimethylphenol	++++ 0.24421	0.23868 0.24544	0.23567	0.23285	0.23796	0.24044	AVRG		0.23932		1.86969
25 bis(2-Chloroethoxy)methane	++++ 0.30400	0.31326 0.30594	0.30893	0.29561	0.29347	0.29853	AVRG		0.30282		2.39356

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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
26 2,4-Dichlorophenol	++++ 0.22351	0.20745 0.22510	0.21497 0.21276	0.21364 0.21276	0.21276 0.21276	0.21836 0.21836	AVRG	0.21654	2.87770		
27 Benzoic acid	++++ 779305	++++ 996763	83893	215984	333227	600127	LINR	0.37420	0.17210	0.99460	
28 1,2,4-Trichlorobenzene	++++ 0.29534	0.30108 0.29975	0.29237	0.28234	0.27990	0.28748	AVRG	0.29118	2.83696		
30 Naphthalene	59622 4829589	408591 5952102	879341	1743176	2453204	3915424	LINR	0.05011	0.91806	0.99772	
204 alpha-Terpineol	++++ 0.21504	0.23619 0.21341	0.23584	0.22166	0.22004	0.21591	AVRG	0.22259	4.31595		
31 4-Chloroaniline	++++ 0.28493	0.27947 0.28604	0.29236	0.29508	0.28109	0.28200	AVRG	0.28585	2.05307		
189 Caprolactam	++++ 0.07008	0.05934 0.06871	0.06750	0.06559	0.06739	0.06727	AVRG	0.06655	5.20909		
32 Hexachlorobutadiene	++++ 0.18360	0.18359 0.18593	0.18107	0.17811	0.17478	0.18060	AVRG	0.18110	2.07689		
33 4-Chloro-3-methylphenol	++++ 0.24180	0.22447 0.24455	0.23171	0.23125	0.22996	0.23628	AVRG	0.23429	3.00125		

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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	ml	ml	or R^2
	100	120									
	Level 7	Level 8									
34 2-Methylnaphthalene	381101 3185761	2759631 3911554	6003381 594641	11984381 1175844	16513501 1616234	25748861 2506814	LINR	0.032681	0.601141		0.998531
35 1-Methylnaphthalene	385761 3139153	2716651 3823750	5946411 3823750	11758441 1175844	16162341 1616234	25068141 2506814	LINR	0.030941	0.588351		0.998351
36 Hexachlorocyclopentadiene	++++ 0.25115	0.218771 0.267661	0.251381 0.267661	0.247561 0.24756	0.253111 0.25311	0.248241 0.24824	AVRG	0.248271			5.901141
208 1,1'-Biphenyl	++++ 1.25475	1.222471 1.22731	1.291271 1.22731	1.179871 1.17987	1.198981 1.19898	1.180701 1.18070	AVRG	1.222191			3.325261
205 2,3-Dichloroaniline	++++ 0.55128	0.512701 0.575351	0.514801 0.575351	0.498711 0.49871	0.510911 0.51091	0.532481 0.53248	AVRG	0.528031			5.106581
37 2,4,6-Trichlorophenol	++++ 0.33385	0.279141 0.349031	0.291041 0.349031	0.288761 0.28876	0.299781 0.29978	0.315711 0.31571	AVRG	0.308191			8.345501
38 2,4,5-Trichlorophenol	++++ 0.34169	0.294401 0.359901	0.320761 0.359901	0.319471 0.31947	0.315651 0.31565	0.337881 0.33788	AVRG	0.327111			6.489071
40 2-Chloronaphthalene	364491 3039631	2682511 3702903	5829751 3702903	11557951 1155795	15822281 1582228	24697551 2469755	LINR	0.036551	1.026651		0.997601
42 o-Nitroaniline	++++ 0.28197	0.255721 0.288841	0.269981 0.288841	0.269461 0.26946	0.273641 0.27364	0.277831 0.27783	AVRG	0.273921			3.855931

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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	++++ 0.20505	0.18519 0.21482	0.21448 0.21492	0.21492 0.21737	0.21737 0.20957	0.20957 AVRG	AVRG		0.20877		5.36018
43 Dimethylphthalate	++++ 1.12375	1.12648 1.14118	1.14453 1.10613	1.10613 1.09173	1.09173 1.11237	1.11237 AVRG	AVRG		1.12088		1.68894
44 2,6-Dinitrotoluene	++++ 0.24733	0.25896 0.25426	0.26346 0.25342	0.25342 0.24949	0.24949 0.24696	0.24696 AVRG	AVRG		0.25341		2.42391
45 Acenaphthylene	2.18976 1.60612	1.59988 1.68189	1.58469 1.52835	1.52835 1.53064	1.53064 1.56415	1.56415 AVRG	AVRG		1.66068		13.20366
47 Acenaphthene	1.41358 1.02939	1.00028 1.07707	0.99778 1.07707	0.99778 0.98187	0.99926 1.00432	1.00432 AVRG	AVRG		1.06294		13.61052
48 2,4-Dinitrophenol	++++ 320377	++++ 412311	38021 1.40644	93310 1.40820	146622 1.33815	245403 1.36798	AVRG LINR	0.35935	0.12672		0.99075
49 Dibenzofuran	++++ 1.41726	1.40644 1.49580	1.40820 0.31049	1.32867 0.32098	1.33815 0.31786	1.36798 0.31902	AVRG		1.39464		4.06888
50 2,4-Dinitrotoluene	++++ 0.33142	0.31049 0.34814	0.32653 1.16273	0.32098 1.14803	0.31786 1.15696	0.31902 1.15712	AVRG		0.32492		3.75316
51 Diethylphthalate	++++ 1.18165	1.16273 1.21522	1.19006 1.21522	1.14803 1.15696	1.15696 1.15712	1.15712 AVRG	AVRG		1.17311		2.02529

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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
52 4-Nitrophenol	++++ 0.14797	0.10359 0.15374	0.13187	0.13545	0.14163	0.14151	AVRG		0.13654		11.90490
53 Fluorene	1.69412 1.29401	1.18564 1.36155	1.18324	1.16123	1.18593	1.26226	AVRG		1.29100		13.69804
54 4-Chlorophenylphenylether	++++ 0.64896	0.59987 0.68125	0.60491	0.58500	0.59564	0.63651	AVRG		0.62173		5.60755
220 Hydroquinone	++++ ++++	++++ ++++	++++	++++	++++	++++	AVRG		0.000e+00		0.000e+00
55 2-Methyl-4,6-dinitrophenol	++++ 489102	26409 612903	78471	169233	248477	398816	LINEAR	0.16815	0.09594		0.99736
56 p-Nitroaniline	++++ 0.19726	0.13756 0.20537	0.16571	0.18963	0.20209	0.19373	AVRG		0.18448		13.23346
133 Diphenylamine	++++ 0.52558	0.48702 0.53844	0.48634	0.48646	0.49672	0.51765	AVRG		0.50546		4.26163
58 1,2-Diphenylhydrazine	++++ 0.59206	0.58322 0.60379	0.59673	0.58464	0.59299	0.60280	AVRG		0.59375		1.35599
59 Tributylphosphate	++++ 0.98996	0.85316 1.00565	0.98848	0.99919	0.98562	0.99554	AVRG		0.97394		5.51372

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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
61 4-Bromophenylphenylether	++++ 0.19629	0.18589 0.20338	0.18897	0.18392	0.18630	0.19322	AVRG		0.19114		3.62682
63 Hexachlorobenzene	++++ 0.20365	0.19642 0.21337	0.19554	0.19003	0.19110	0.20055	AVRG		0.19866		4.06498
207 Atrazine	++++ 0.03441	0.03758 0.03072	0.04062	0.03420	0.03665	0.03302	AVRG		0.03531		9.21662
65 Pentachlorophenol	++++ 0.09718	0.06388 0.10035	0.08247	0.08843	0.09083	0.09630	AVRG		0.08849		14.02887
206 n-Octadecane	++++ 0.37111	0.41912 0.36735	0.42264	0.40756	0.40012	0.39129	AVRG		0.39703		5.48958
68 Phenanthrene	5370346 1.26726	486199 0.89621	1015060	2006630	2809008	4284140	LINR	0.04915	0.98874		0.99753
69 Anthracene	0.95537	1.00675	0.90633	0.88074	0.91241	0.94159	AVRG		0.97083		13.00076
72 Di-n-butylphthalate	++++ 1.04405	0.94663 1.06383	0.99271	0.99656	1.01616	1.04338	AVRG		1.01476		3.93061
76 Fluoranthene	1.27400 1.01627	0.97604 1.03676	0.96078	0.93382	0.96161	0.98359	AVRG		1.01786		10.65772



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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
77 Benzidine	++++ 1879386	114948 2370017	240488	575469	576881	1632421	LINEAR	0.20503	0.37744		0.99275
79 Pyrene	1.59200 1.21785	1.13341 1.22742	1.18323	1.21007	1.19482	1.23234	AVRG		1.24889		11.38418
85 Butylbenzylphthalate	++++ 0.44474	0.37478 0.44980	0.43005	0.45705	0.44937	0.45125	AVRG		0.43672		6.54417
89 Benzo(a)anthracene	1.38070 1.04657	0.96707 1.07617	0.98220	0.96802	0.98013	1.02003	AVRG		1.05261		13.14311
90 3,3'-Dichlorobenzidine	++++ 0.27999	0.19682 0.27551	0.23362	0.24165	0.24177	0.26523	AVRG		0.24780		11.62921
92 Chrysene	56779 4593832	460630 5526812	913811	1690536	2342194	3398164	LINEAR	0.00950	0.92743		0.99892
93 bis(2-Ethylhexyl)phthalate	0.56666 0.64575	0.53374 0.66128	0.59392	0.62267	0.62324	0.64211	AVRG		0.61117		7.10990
94 Di-n-octylphthalate	++++ 4377445	368592 ++++	834860	1605441	2216889	3330642	LINEAR	0.13246	1.42322		0.99630
95 Benzo(b)fluoranthene	1.19103 1.17803	0.97573 1.29729	1.06659	1.08748	1.13194	1.14428	AVRG		1.13405		8.41332

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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									
96 Benzo(k) Fluoranthene	1.26573 1.19513	1.00893 1.20870	1.07939	1.10364	1.13551	1.12361	AVRG		1.14008		7.11278
97 Benzo(a)pyrene	0.91365 1.01342	0.85418 1.04734	0.92377	0.94122	0.96804	0.99011	AVRG		0.95647		6.41651
99 Indeno(1,2,3-cd)pyrene	0.79917 0.74498	0.81532 0.78923	0.80541	0.77792	0.75613	0.85605	AVRG		0.79303		4.41296
100 Dibenzo(a,h)anthracene	0.61288 0.63604	0.61866 0.62414	0.60233	0.58469	0.57198	0.65233	AVRG		0.61288		4.28662
101 Benzo(ghi)perylene	0.75516 0.64840	0.69322 0.59909	0.66528	0.62680	0.59234	0.66873	AVRG		0.65613		8.07863
102 1,4-Dioxane	++++ 0.30758	0.35084 0.29584	0.36273	0.32344	0.32306	0.29885	AVRG		0.32319		7.90081
103 Methyl methacrylate	++++ 0.16230	0.17778 0.15788	0.18944	0.16410	0.16994	0.15571	AVRG		0.16817		7.11952
104 Ethyl methacrylate	++++ 0.66413	0.70693 0.62961	0.75062	0.67894	0.68905	0.63812	AVRG		0.67963		6.10805
105 2-Picoline	++++ 1.07041	1.12830 1.03794	1.19020	1.07957	1.10232	1.04185	AVRG		1.09294		4.88732

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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
106 N-Nitrosomethylethylamine	++++ 0.44409	0.44779 0.42146	0.46529	0.43489	0.44140	0.42410	AVRG		0.43986		3.39928
107 Methyl methanesulfonate	++++ 0.49978	0.52524 0.46508	0.54520	0.49099	0.48678	0.48343	AVRG		0.49950		5.43906
108 N-Nitrosodiethylamine	++++ 0.45963	0.46217 0.43541	0.49395	0.44813	0.46428	0.44274	AVRG		0.45804		4.17302
109 Ethyl Methanesulfonate	++++ 0.61342	0.62189 0.58197	0.65375	0.60074	0.60188	0.58949	AVRG		0.60902		3.91897
110 Pentachloroethane	++++ 0.32132	0.32386 0.30635	0.34717	0.31621	0.32422	0.30740	AVRG		0.32092		4.26755
111 N-Nitrosopyrrolidine	++++ 0.49612	0.47922 0.48073	0.51794	0.48306	0.49257	0.48446	AVRG		0.49059		2.76402
113 N-Nitrosomorpholine	++++ 0.65152	0.68559 0.61465	0.71997	0.66306	0.66815	0.64403	AVRG		0.66385		4.99866
114 o-Toluidine	++++ 1.62224	1.63357 1.57015	1.73837	1.58287	1.64173	1.56389	AVRG		1.62183		3.70472
115 N-Nitrosopiperidine	++++ 0.12371	0.12360 0.12009	0.13377	0.12334	0.12644	0.11963	AVRG		0.12437		3.81963

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Compound	i 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
116 a, a-Dimethylphenethylamine	++++ 0.78780	0.64599 0.76698	0.73902 0.73378	0.73378 0.73378	0.77250 0.77250	0.75528 0.75528	AVRG		0.74304		6.29693
117 Triethylphosphorothioate	++++ 0.12726	0.12776 0.13005	0.13008 0.12715	0.12715 0.12715	0.12802 0.12802	0.12765 0.12765	AVRG		0.12828		0.97777
118 2,6-Dichlorophenol	++++ 0.20928	0.19213 0.20299	0.20693 0.20693	0.19910 0.19910	0.19955 0.19955	0.20082 0.20082	AVRG		0.20154		2.79228
119 Hexachloropropene	++++ 0.13255	0.11005 0.13069	0.12087 0.12087	0.12529 0.12529	0.11800 0.11800	0.12775 0.12775	AVRG		0.12360		6.37831
120 p-Phenylenediamine	++++ 0.18199	0.20097 0.16903	0.22012 0.22012	0.20890 0.20890	0.19933 0.19933	0.19552 0.19552	AVRG		0.19655		8.57847
121 N-Nitrosodl-n-butylamine	++++ 0.19691	0.22009 0.18916	0.23358 0.23358	0.22059 0.22059	0.22259 0.22259	0.19498 0.19498	AVRG		0.21161		8.26915
122 Safrole	++++ 0.19409	0.19404 0.18904	0.20590 0.20590	0.18988 0.18988	0.19335 0.19335	0.18710 0.18710	AVRG		0.19334		3.19019
123 1,2,4,5-Tetrachlorobenzene	++++ 0.48299	0.48179 0.47441	0.50127 0.50127	0.46416 0.46416	0.46968 0.46968	0.45641 0.45641	AVRG		0.47582		3.07832
124 Isosafrole	++++ 0.32391	0.31959 0.31581	0.34105 0.34105	0.31534 0.31534	0.32095 0.32095	0.31245 0.31245	AVRG		0.32130		2.96333

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 Target Version : 3.50  
 Integrator : HP RTE  
 Method file : /chem/MSD8.i/s030610.b/MSD8-8270AQA-022010.m  
 Cal Date : 07-Mar-2010 11:27 nat00999

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
125 1,4-Naphthoquinone	++++ 0.23046	0.32816 ++++	0.34621 ++++	0.30613	0.30795	0.25958	AVRG		0.29641		14.64421
126 m-Dinitrobenzene	++++ 0.16004	0.15594 ++++	0.16628 ++++	0.16332	0.16381	0.16032	AVRG		0.16162		2.24564
127 Pentachlorobenzene	++++ 0.44346	0.43767 0.43799	0.45121 0.43799	0.42030	0.42682	0.42210	AVRG		0.43422		2.65150
128 1-Naphthylamine	++++ 0.87214	0.82239 0.85263	0.86814 0.85263	0.82529	0.81386	0.84167	AVRG		0.84230		2.72431
129 2-Naphthylamine	++++ 0.94061	0.87494 0.91680	0.84477 0.91680	0.88369	0.86051	0.89209	AVRG		0.88763		3.68720
130 2,3,4,6-Tetrachlorophenol	++++ 0.29224	0.25022 0.30421	0.26956 0.30421	0.27043	0.27312	0.28194	AVRG		0.27739		6.29089
131 5-Nitro-o-toluidine	++++ 0.25619	0.21312 0.25185	0.24508 0.25185	0.24080	0.23259	0.24890	AVRG		0.24122		6.04443
132 Thionazin	++++ 0.14438	0.13437 0.14610	0.14473 0.14610	0.14728	0.14423	0.14621	AVRG		0.14390		3.02307
134 Sulfotepp	++++ 0.08119	0.07479 0.08666	0.07643 0.08666	0.07811	0.08209	0.08186	AVRG		0.08016		5.01325

## GEL Laboratories LLC

## INITIAL CALIBRATION DATA

Start Cal Date : 20-FEB-2010 12:55  
 End Cal Date : 22-FEB-2010 01:19  
 Quant Method : ISTD  
 Target Version : 3.50  
 Integrator : HP RTE  
 Method file : /chem/MSD8.i/s030610.b/MSD8-8270QA-022010.m  
 Cal Date : 07-Mar-2010 11:27 nat00999

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
135 Phorate	++++ 0.29242	0.29874 0.29307	0.30476	0.30486	0.31798	0.30102	AVRG		0.30183		2.88237
136 1,3,5-Trinitrobenzene	++++ 0.10131	0.07415 0.09994	0.09175	0.09919	0.09673	0.10189	AVRG		0.09499		10.32629
137 Phenacetin	++++ 0.23865	0.18206 0.22853	0.20988	0.21406	0.21650	0.22859	AVRG		0.21690		8.45110
138 Diallyate	++++ 0.20258	0.20463 0.19294	0.21020	0.19892	0.21153	0.19343	AVRG		0.20203		3.67352
139 Dimethoate	++++ 0.16740	0.14043 0.16949	0.15915	0.16697	0.17200	0.17406	AVRG		0.16422		7.00813
140 4-Aminobiphenyl	++++ 0.58751	0.43217 0.58243	0.48080	0.49774	0.49087	0.54937	AVRG		0.51727		11.12235
141 Pentachloronitrobenzene	++++ 0.08047	0.07756 0.07668	0.08234	0.07796	0.08272	0.07781	AVRG		0.07936		3.09424
142 Pronamide	++++ 0.26196	0.24165 0.25418	0.25727	0.24493	0.25850	0.24762	AVRG		0.25230		3.02507
143 Dinoseb	++++ 749359	36739 959224	110780	253153	360839	582168	LINR	0.21574	0.15018		0.99408

## GEL Laboratories LLC

## INITIAL CALIBRATION DATA

Start Cal Date : 20-FEB-2010 12:55  
 End Cal Date : 22-FEB-2010 01:19  
 Quant Method : ISTD  
 Target Version : 3.50  
 Integrator : HP RTE  
 Method file : /chem/MSD8.i/s030610.b/MSD8-8270AQA-022010.m  
 Cal Date : 07-Mar-2010 11:27 nat00999

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
144 Disulfoton	++++ 0.22925	0.26489 0.2314	0.24948	0.24076	0.24841	0.23789	AVRG		0.24340		4.93796
145 Methyl parathion	++++ 0.16709	0.12612 0.17055	0.15136	0.15938	0.16288	0.16713	AVRG		0.15779		9.71146
146 4-Nitroquinoline-l-oxide	++++ ++++	0.02056 ++++	0.02288	0.01846	0.01666	0.01679	AVRG		0.01907		13.89367
147 Methapyrilene	++++ 0.28225	0.29694 0.26103	0.32659	0.28898	0.30536	0.28186	AVRG		0.29186		7.08529
148 Isodrin	++++ 0.10901	0.10688 0.10550	0.11119	0.10398	0.11043	0.10326	AVRG		0.10718		2.91403
149 Aramite	++++ 0.03486	0.03161 0.03195	0.03603	0.03415	0.03476	0.03379	AVRG		0.03388		4.71492
150 Kepone	++++ 0.07875	0.07589 0.07575	0.08420	0.07666	0.07796	0.07644	AVRG		0.07795		3.80313
151 p- (Dimethylamino)azobenzene	++++ 0.27510	0.22465 0.26877	0.25205	0.24804	0.27799	0.25995	AVRG		0.25808		7.17705
152 Chlorobenzilate	++++ 0.28069	0.22654 0.27880	0.24955	0.24660	0.29801	0.25875	AVRG		0.26271		9.30544

## GEL Laboratories LLC

## INITIAL CALIBRATION DATA

Start Cal Date : 20-FEB-2010 12:55  
 End Cal Date : 22-FEB-2010 01:19  
 Quant Method : ISTD  
 Target Version : 3.50  
 Integrator : HP RTE  
 Method file : /chem/MSD8.i/s030610.b/MSD8-8270AQA-022010.m  
 Cal Date : 07-Mar-2010 11:27 nat00999

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
153 3,3'-Dimethylbenzidine	++++ 0.52259	0.37150 0.50844	0.43396	0.42299	0.44074	0.48724	AVRG		0.45535		11.72591
154 Famphur	++++ 0.36897	0.29682 0.38152	0.32000	0.33232	0.36789	0.37506	AVRG		0.34894		9.31134
155 2-Acetylaminofluorene	++++ 1402952	77941 1690573	174270	466888	454874	1169522	LINR	0.16495	0.26994		0.99689
157 7,12Dimethylbenz(a)anthracene	++++ 0.56747	0.44428 0.57419	0.50077	0.50095	0.52555	0.52043	AVRG		0.51909		8.50027
158 3-Methylcholanthrene	++++ 0.39268	0.31873 0.38502	0.35613	0.36783	0.37459	0.37965	AVRG		0.36780		6.70304
26 Phthalic anhydride	++++ 723533	35664 893615	121861	249075	381828	594958	LINR	0.12971	0.14328		0.99917
173 Carbazole	0.89649	0.61077	0.58409	0.64323	0.66829	0.69364	AVRG		0.69337		13.94742
174 Hexachlorophene	++++ 7386241	935628 ++++	3163522	4273678	5413416	6917749	LINR	6.19705	0.07687		0.99449
179 Dibenzo(a,e)pyrene	++++ 0.27252	0.28462 0.23457	0.25044	0.26698	0.22397	0.28475	AVRG		0.26112		9.06299



## GEL Laboratories LLC

## INITIAL CALIBRATION DATA

Start Cal Date : 20-FEB-2010 12:55  
 End Cal Date : 22-FEB-2010 01:19  
 Quant Method : ISTD  
 Target Version : 3.50  
 Integrator : HP RTE  
 Method file : /chem/MSD8.i/s030610.b/MSD8-8270QA-022010.m  
 Cal Date : 07-Mar-2010 11:27 nat00999

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
185 (2,3-Dibromopropyl)phosphate	++++ 100	++++ 120	++++	++++	++++	++++	AVRG	0.000e+00	0.000e+00	<--	
184 p-Benzquinone	++++ 265584	13412 310038	38094	103028	141046	214307	LINEAR	0.07963	0.20135		0.99786
191 Parathion	++++ 0.05609	0.04141 0.05831	0.04946	0.05375	0.05525	0.05615	AVRG		0.05291		10.91556
192 Methoxychlor	++++ 0.60937	0.47370 0.59064	0.56446	0.59238	0.57838	0.60702	AVRG		0.57371		8.15235
210 m-Toluidine	++++ 1.58280	1.23929 1.56243	1.38356	1.46111	1.48802	1.58621	AVRG		1.48620		9.61503
211 p-Toluidine	++++ 1.10329	1.14906 1.09804	1.18370	1.16691	1.19548	1.08736	AVRG		1.14055		3.86703
212 Cis Diallate	++++ 0.19989	0.20120 0.19195	0.20767	0.19674	0.21346	0.19409	AVRG		0.20071		3.79541
213 Trans Diallate	++++ 0.23833	0.24074 0.22699	0.24730	0.23402	0.24886	0.22756	AVRG		0.23769		3.67352
214 1,4-Dinitrobenzene	++++ 0.18015	0.14712 0.18546	0.16526	0.16942	0.17547	0.17667	AVRG		0.17136		7.34157

## GEL Laboratories LLC

## INITIAL CALIBRATION DATA

Start Cal Date : 20-FEB-2010 12:55  
 End Cal Date : 22-FEB-2010 01:19  
 Quant Method : ISTD  
 Target Version : 3.50  
 Integrator : HP RTE  
 Method file : /chem/MSD8.i/s030610.b/MSD8-8270AQA-022010.m  
 Cal Date : 07-Mar-2010 11:27 nat00999

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									
215 2-Ethoxyethanol	++++ 0.55822	0.58676 0.54494	0.60203	0.59483	0.55565	0.57374	AVRG		0.57374		3.77318
216 Methylenebis(2-chloroaniline)	++++ 647915	36455 779120	87285	192808	305235	476431	LINR	0.18581	0.13997		0.99822
229 2,2'-Dichlorobenzil	++++ 0.63091	0.53014 0.61172	0.54882	0.57218	0.56813	0.55363	AVRG		0.57365		6.23315
230 4-Chlorothiobisole	++++ 0.25390	0.23127 0.26275	0.22998	0.24707	0.25459	0.25234	AVRG		0.24741		4.99827
231 4-Chlorothiophenol	++++ 1130595	69510 1540522	156101	409410	538100	905821	LINR	0.15090	0.21447		0.99884
232 bis(p-Chlorophenyl)sulfone	++++ 0.34792	0.32332 0.33496	0.32274	0.32522	0.32041	0.30818	AVRG		0.32611		3.81298
233 bis(p-Chlorophenyl)disulfide	++++ 0.12978	0.11382 0.12394	0.11054	0.12051	0.11929	0.11551	AVRG		0.11906		5.46007
234 Diphenyl disulfide	++++ 0.20205	0.19202 0.19917	0.19186	0.19737	0.19958	0.19288	AVRG		0.19642		2.10807
235 Diphenyl sulfide	++++ 0.81579	0.76604 0.83897	0.75916	0.77559	0.80138	0.79306	AVRG		0.79285		3.59622

## GEL Laboratories LLC

## INITIAL CALIBRATION DATA

Start Cal Date : 20-FEB-2010 12:55  
 End Cal Date : 22-FEB-2010 01:19  
 Quant Method : ISTD  
 Target Version : 3.50  
 Integrator : HP RTE  
 Method file : /chem/MSD8.i/s030610.b/MSD8-8270AQA-022010.m  
 Cal Date : 07-Mar-2010 11:27 nat00999

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									
236 Phenyl sulfone	++++ 0.35788	0.34800 0.36394	0.34646	0.34913	0.35609	0.34394	AVRG		0.35221		2.05193
237 Hydroxymethyl phthalimide	++++ 0.09932	0.11562 0.08725	0.12919	0.11505	0.10331	0.08699	AVRG		0.10525		14.88762
238 Phthalic acid	++++ 592112	20021 841517	61221	192852	247836	445405	LINEAR	0.27721	0.11935		0.99378
239 Thiophenol	++++ 1.06962	0.72136 1.11441	0.86680	1.01677	1.07339	1.08115	AVRG		0.99193		14.55784
240 bis(Chloromethyl)ether	++++ 0.72897	0.73330 0.73156	0.72927	0.75420	0.77531	0.76257	AVRG		0.74502		2.53135
241 Octachlorostyrene	++++ 0.07686	0.06930 0.07691	0.06943	0.07008	0.07083	0.07166	AVRG		0.07215		4.62127
M 222 Trichlorophenols	++++ 0.33777	0.28677 0.35446	0.30590	0.30411	0.30771	0.32680	AVRG		0.31765		7.28968
M 223 Tetrachlorophenols	++++ 0.29224	0.25022 0.30421	0.26956	0.27043	0.27312	0.28194	AVRG		0.27739		6.29089
M 224 Benzo(b,k)fluoranthene	1.22838 1.18658	0.99233 1.25299	1.07299	1.09556	1.13372	1.13395	AVRG		1.13706		7.50876

## GEL Laboratories LLC

## INITIAL CALIBRATION DATA

Start Cal Date : 20-FEB-2010 12:55  
 End Cal Date : 22-FEB-2010 01:19  
 Quant Method : ISTD  
 Target Version : 3.50  
 Integrator : HP RTE  
 Method file : /chem/MSD8.i/s030610.b/MSD8-8270AQA-022010.m  
 Cal Date : 07-Mar-2010 11:27 nat00999

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	b	Coefficients ml	m2	%RSD or R^2
	100	120									
	Level 7	Level 8									
M 225 T10 Sum Semivolatiles	++++	++++	++++	++++	++++	++++	AVRG		0.000e+00		0.000e+00 <-
	++++	++++									
\$ 3 2-Fluorophenol	++++	0.92659	0.96919	0.96650	0.94036	0.93281					
	0.93098	0.94400					AVRG		0.94435		1.80921
\$ 5 Phenol-d5	++++	1.15492	1.20808	1.18961	1.17093	1.17303					
	1.15725	1.19013					AVRG		1.17771		1.63471
\$ 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	++++	0.28463	0.28610	0.28272	0.27867	0.28386					
	0.28710	0.28733					AVRG		0.28435		1.06265
\$ 39 2-Fluorobiphenyl	++++	1.17351	1.17042	1.12460	1.11619	1.18499					
	1.20400	1.26805					AVRG		1.17740		4.32813
\$ 60 2,4,6-Tribromophenol	++++	0.12711	0.13347	0.12836	0.12619	0.12779					
	0.13893	0.14371					AVRG		0.13223		5.12665
\$ 81 p-Terphenyl-d14	++++	0.67083	0.69230	0.71233	0.71339	0.73658					
	0.74530	0.77029					AVRG		0.72015		4.65100

## GEL Laboratories LLC

## INITIAL CALIBRATION DATA

Start Cal Date : 20-FEB-2010 12:55  
End Cal Date : 22-FEB-2010 01:19  
Quant Method : ISTD  
Target Version : 3.50  
Integrator : HP RTE  
Method file : /chem/MSD8.i/s030610.b/MSD8-8270AQA-022010.m  
Cal Date : 07-Mar-2010 11:27 nat00999

Curve	Formula	Units
Averaged	$\text{Amt} = \text{Resp/ml}$	Response
Linear	$\text{Amt} = b + \text{Resp/ml}$	Response

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD8.i Injection Date: 20-FEB-2010 18:09  
Lab File ID: s8b2012.d Init. Cal. Date(s): 20-FEB-2010 22-FEB-2010  
Analysis Type: Init. Cal. Times: 12:55 01:19  
Lab Sample ID: WBN100215-05.1 Quant Type: ISTD  
Method: /chem/MSD8.i/s022010.b/MSD8-8270AQA-022010.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
3 2-Fluorophenol	0.94435	0.91252	0.91252	0.000	-3.36963	60.00000	Averaged
5 Phenol-d5	1.17771	1.11967	1.11967	0.000	-4.92793	60.00000	Averaged
20 Nitrobenzene-d5	0.28435	0.28445	0.28445	0.000	0.03513	60.00000	Averaged
39 2-Fluorobiphenyl	1.17740	1.10971	1.10971	0.000	-5.74835	60.00000	Averaged
60 2,4,6-Tribromophenol	0.13223	0.12031	0.12031	0.000	-9.01194	60.00000	Averaged
81 p-Terphenyl-d14	0.72015	0.73651	0.73651	0.000	2.27163	60.00000	Averaged
1 N-Methyl-N-nitrosomethylami	0.60923	0.57218	0.57218	0.000	-6.08077	60.00000	Averaged
2 Pyridine	0.89373	0.67690	0.67690	0.000	-24.26051	60.00000	Averaged
4 Aniline	0.55542	0.50332	0.50332	0.000	-9.38073	60.00000	Averaged
6 Phenol	1.21617	1.17309	1.17309	0.001	-3.54259	20.00000	Averaged ccc
7 bis(2-Chloroethyl) ether	0.83144	0.74294	0.74294	0.000	-10.64430	60.00000	Averaged
8 2-Chlorophenol	1.05605	1.02399	1.02399	0.000	-3.03618	60.00000	Averaged
203 n-Decane	1.08949	1.10768	1.10768	0.000	1.66910	60.00000	Averaged
9 1,3-Dichlorobenzene	1.25240	1.20785	1.20785	0.000	-3.55721	60.00000	Averaged
11 1,4-Dichlorobenzene	1.29215	1.21176	1.21176	0.001	-6.22171	20.00000	Averaged ccc
13 1,2-Dichlorobenzene	1.20194	1.13600	1.13600	0.000	-5.48562	60.00000	Averaged
14 bis(2-Chloroisopropyl) ether	1.63019	1.56683	1.56683	0.000	-3.88699	60.00000	Averaged
12 Benzyl alcohol	0.66057	0.64188	0.64188	0.000	-2.82972	60.00000	Averaged
15 o-Cresol	0.84463	0.81254	0.81254	0.000	-3.79849	60.00000	Averaged
18 m,p-Cresols	1.06890	1.06346	1.06346	0.000	-0.50838	60.00000	Averaged
17 N-Nitrosodipropylamine	0.77788	0.74120	0.74120	0.050	-4.71529	60.00000	Averaged spcc
19 Hexachloroethane	0.48694	0.45665	0.45665	0.000	-6.22059	60.00000	Averaged
21 Nitrobenzene	0.29331	0.27681	0.27681	0.000	-5.62390	60.00000	Averaged
22 Isophorone	0.53999	0.49377	0.49377	0.000	-8.55934	60.00000	Averaged
23 2-Nitrophenol	0.13462	0.13301	0.13301	0.001	-1.19474	20.00000	Averaged ccc
24 2,4-Dimethylphenol	0.23932	0.22527	0.22527	0.000	-5.87154	60.00000	Averaged
25 bis(2-Chloroethoxy)methane	0.30282	0.26637	0.26637	0.000	-12.03559	60.00000	Averaged
26 2,4-Dichlorophenol	0.21654	0.20901	0.20901	0.001	-3.47894	20.00000	Averaged ccc
27 Benzoic acid	41.94960	40.00000	0.11609	0.000	4.87400	60.00000	Linear
28 1,2,4-Trichlorobenzene	0.29118	0.26506	0.26506	0.000	-8.96931	60.00000	Averaged
30 Naphthalene	35.39177	40.00000	0.76629	0.000	-11.52057	60.00000	Linear
204 alpha-Terpineol	0.22259	0.20059	0.20059	0.000	-9.88109	60.00000	Averaged
31 4-Chloroaniline	0.28585	0.27423	0.27423	0.000	-4.06642	60.00000	Averaged
32 Hexachlorobutadiene	0.18110	0.17017	0.17017	0.001	-6.03393	20.00000	Averaged ccc
33 4-Chloro-3-methylphenol	0.23429	0.22644	0.22644	0.001	-3.34816	20.00000	Averaged ccc
34 2-Methylnaphthalene	37.56535	40.00000	0.54491	0.000	-6.08662	60.00000	Linear

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD8.i Injection Date: 20-FEB-2010 18:09  
Lab File ID: s8b2012.d Init. Cal. Date(s): 20-FEB-2010 22-FEB-2010  
Analysis Type: Init. Cal. Times: 12:55 01:19  
Lab Sample ID: WBN100215-05.1 Quant Type: ISTD  
Method: /chem/MSD8.i/s022010.b/MSD8-8270AQA-022010.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
35 1-Methylnaphthalene	36.14060	40.00000	0.51338	0.000	-9.64851	60.00000	Linear
36 Hexachlorocyclopentadiene	0.24827	0.20951	0.20951	0.050	-15.61096	60.00000	Averaged spcc
205 2,3-Dichloroaniline	0.52803	0.47281	0.47281	0.000	-10.45916	60.00000	Averaged
37 2,4,6-Trichlorophenol	0.30819	0.28652	0.28652	0.001	-7.02903	20.00000	Averaged ccc
38 2,4,5-Trichlorophenol	0.32711	0.32121	0.32121	0.000	-1.80308	60.00000	Averaged
40 2-Chloronaphthalene	36.94398	40.00000	0.91069	0.000	-7.64006	60.00000	Linear
42 o-Nitroaniline	0.27392	0.25926	0.25926	0.000	-5.35118	60.00000	Averaged
41 m-Nitroaniline	0.20877	0.20131	0.20131	0.000	-3.57417	60.00000	Averaged
43 Dimethylphthalate	1.12088	1.03748	1.03748	0.000	-7.44016	60.00000	Averaged
44 2,6-Dinitrotoluene	0.25341	0.23417	0.23417	0.000	-7.59187	60.00000	Averaged
50 2,4-Dinitrotoluene	0.32492	0.29882	0.29882	0.000	-8.03184	60.00000	Averaged
45 Acenaphthylene	1.66068	1.47808	1.47808	0.000	-10.99555	60.00000	Averaged
47 Acenaphthene	1.06294	0.89925	0.89925	0.001	-15.39975	20.00000	Averaged ccc
48 2,4-Dinitrophenol	42.02206	40.00000	0.08759	0.050	5.05516	60.00000	Linear spcc
49 Dibenzofuran	1.39464	1.27908	1.27908	0.000	-8.28625	60.00000	Averaged
51 Diethylphthalate	1.17311	1.07200	1.07200	0.000	-8.61955	60.00000	Averaged
52 4-Nitrophenol	0.13654	0.14391	0.14391	0.050	5.40043	60.00000	Averaged spcc
53 Fluorene	1.29100	1.07540	1.07540	0.000	-16.69989	60.00000	Averaged
54 4-Chlorophenylphenylether	0.62173	0.54162	0.54162	0.000	-12.88500	60.00000	Averaged
55 2-Methyl-4,6-dinitrophenol	48.66926	40.00000	0.10060	0.000	21.67316	60.00000	Linear
56 p-Nitroaniline	0.18448	0.18495	0.18495	0.000	0.25453	60.00000	Averaged
133 Diphenylamine	0.50546	0.46520	0.46520	0.001	-7.96469	20.00000	Averaged ccc
58 1,2-Diphenylhydrazine	0.59375	0.56532	0.56532	0.000	-4.78833	60.00000	Averaged
61 4-Bromophenylphenylether	0.19114	0.16319	0.16319	0.000	-14.62019	60.00000	Averaged
63 Hexachlorobenzene	0.19866	0.17428	0.17428	0.000	-12.27477	60.00000	Averaged
65 Pentachlorophenol	0.08849	0.08776	0.08776	0.001	-0.83218	20.00000	Averaged ccc
206 n-Octadecane	0.39703	0.39262	0.39262	0.000	-1.10928	60.00000	Averaged
68 Phenanthrene	35.36562	40.00000	0.82559	0.000	-11.58594	60.00000	Linear
69 Anthracene	0.97083	0.82497	0.82497	0.000	-15.02413	60.00000	Averaged
72 Di-n-butylphthalate	1.01476	0.94515	0.94515	0.000	-6.85986	60.00000	Averaged
76 Fluoranthene	1.01786	0.89285	0.89285	0.001	-12.28130	20.00000	Averaged ccc
79 Pyrene	1.24889	1.05447	1.05447	0.000	-15.56774	60.00000	Averaged
85 Butylbenzylphthalate	0.43672	0.42071	0.42071	0.000	-3.66508	60.00000	Averaged
89 Benzo(a)anthracene	1.05261	0.90191	0.90191	0.000	-14.31645	60.00000	Averaged
92 Chrysene	36.32073	40.00000	0.83331	0.000	-9.19818	60.00000	Linear
93 bis(2-Ethylhexyl)phthalate	0.61117	0.58944	0.58944	0.000	-3.55520	60.00000	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD8.i Injection Date: 20-FEB-2010 18:09  
Lab File ID: s8b2012.d Init. Cal. Date(s): 20-FEB-2010 22-FEB-2010  
Analysis Type: Init. Cal. Times: 12:55 01:19  
Lab Sample ID: WBN100215-05.1 Quant Type: ISTD  
Method: /chem/MSD8.i/s022010.b/MSD8-8270AQA-022010.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
94 Di-n-octylphthalate	39.76021	40.00000	1.22616	0.001	-0.59948	20.00000	Linear ccc
95 Benzo(b)fluoranthene	1.13405	1.05298	1.05298	0.000	-7.14838	60.00000	Averaged
96 Benzo(k)fluoranthene	1.14008	1.04465	1.04465	0.000	-8.37069	60.00000	Averaged
97 Benzo(a)pyrene	0.95647	0.89169	0.89169	0.001	-6.77277	20.00000	Averaged ccc
99 Indeno(1,2,3-cd)pyrene	0.79303	0.69287	0.69287	0.000	-12.62907	60.00000	Averaged
100 Dibenzo(a,h)anthracene	0.61288	0.52486	0.52486	0.000	-14.36175	60.00000	Averaged
101 Benzo(ghi)perylene	0.65613	0.54043	0.54043	0.000	-17.63270	60.00000	Averaged
126 m-Dinitrobenzene	0.16162	0.15617	0.15617	0.000	-3.37054	60.00000	Averaged
130 2,3,4,6-Tetrachlorophenol	0.27739	0.25140	0.25140	0.000	-9.36867	60.00000	Averaged
143 Dinoseb	39.33235	40.00000	0.11528	0.000	-1.66914	60.00000	Linear
173 Carbazole	0.69337	0.64707	0.64707	0.000	-6.67637	60.00000	Averaged
184 p-Benzoquinone	26.23116	40.00000	0.11601	0.000	-34.42209	60.00000	Linear
192 Methoxychlor	0.57371	0.53574	0.53574	0.000	-6.61792	60.00000	Averaged
211 p-Toluidine	1.14055	0.88750	0.88750	0.000	-22.18641	60.00000	Averaged
210 m-Toluidine	1.48620	1.44197	1.44197	0.000	-2.97629	60.00000	Averaged
26 Phthalic anhydride	53.94737	40.00000	0.17465	0.000	34.86844	60.00000	Linear
179 Dibenzo(a,e)pyrene	0.26112	0.15069	0.15069	0.000	-42.29332	60.00000	Averaged
214 1,4-Dinitrobenzene	0.17136	0.17062	0.17062	0.000	-0.43576	60.00000	Averaged
215 2-Ethoxyethanol	0.57374	0.58779	0.58779	0.000	2.44852	60.00000	Averaged
216 Methylenebis(2-chloroanilin	41.74874	40.00000	0.12008	0.000	4.37185	60.00000	Linear
M 222 Trichlorophenols	0.31765	0.30387	0.30387	0.000	-4.33823	60.00000	Averaged
M 223 Tetrachlorophenols	0.27739	0.25140	0.25140	0.000	-9.36867	60.00000	Averaged
M 224 Benzo(b,k)fluoranthene	1.13706	1.04881	1.04881	0.000	-7.76116	60.00000	Averaged



GEL Laboratories LLC

Data file : /chem/MSD8.i/s022010.b/s8b2012.d  
 Lab Smp Id: WBN100215-05.1 Client Smp ID: MEGAICV  
 Inj Date : 20-FEB-2010 18:09  
 Operator : nagl Inst ID: MSD8.i  
 Smp Info : |WBN100215-05.1|40 PPM|1|SVM|1|MEGAICV  
 Misc Info : |MSD8270|WBN100217-01  
 Comment : Column: J & W DB-5MS, 25m x 0.20 mm x 0.33 micron film  
 Method : /chem/MSD8.i/s022010.b/MSD8-8270AQA-022010.m  
 Meth Date : 23-Feb-2010 13:25 nat00999 Quant Type: ISTD  
 Cal Date : 22-FEB-2010 01:19 Cal File: s8b2046.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

						AMOUNTS		
		QUANT SIG				CAL-AMT	ON-COL	
Compounds		MASS	RT	EXP RT	REL RT	RESPONSE	(ng/ul)	(ng/ul)
=====								
* 10	1,4-Dichlorobenzene-d4	152	4.530	4.530	(1.000)	613599	40.0000	
* 29	Naphthalene-d8	136	5.797	5.797	(1.000)	2473544	40.0000	
* 46	Acenaphthene-d10	164	7.663	7.663	(1.000)	1402775	40.0000	
* 67	Phenanthrene-d10	188	9.263	9.263	(1.000)	2635307	40.0000	
* 91	Chrysene-d12	240	12.197	12.197	(1.000)	2302220	40.0000	
* 98	Perylene-d12	264	14.354	14.354	(1.000)	1521193	40.0000	
\$ 3	2-Fluorophenol	112	3.368	3.368	(0.743)	559924	40.0000	38.6
\$ 5	Phenol-d5	99	4.149	4.149	(0.916)	687028	40.0000	38.0
\$ 20	Nitrobenzene-d5	82	5.063	5.063	(0.873)	703589	40.0000	40.0
\$ 39	2-Fluorobiphenyl	172	6.925	6.925	(0.904)	1556680	40.0000	37.7
\$ 60	2,4,6-Tribromophenol	329	8.506	8.506	(1.110)	168767	40.0000	36.4
\$ 81	p-Terphenyl-d14	244	10.978	10.978	(0.900)	1695598	40.0000	40.9
1	N-Methyl-N-nitrosomethylamine	74	2.382	2.382	(0.526)	351092	40.0000	37.6
2	Pyridine	79	2.420	2.420	(0.534)	415348	40.0000	30.3
4	Aniline	66	4.220	4.220	(0.932)	308837	40.0000	36.2
6	Phenol	94	4.163	4.163	(0.919)	719807	40.0000	38.6 (Q)
7	bis(2-Chloroethyl) ether	63	4.263	4.263	(0.941)	455867	40.0000	35.7
8	2-Chlorophenol	128	4.335	4.335	(0.957)	628318	40.0000	38.8
203	n-Decane	43	4.354	4.354	(0.961)	679671	40.0000	40.7
9	1,3-Dichlorobenzene	146	4.477	4.477	(0.988)	741134	40.0000	38.6
11	1,4-Dichlorobenzene	146	4.549	4.549	(1.004)	743535	40.0000	37.5
13	1,2-Dichlorobenzene	146	4.692	4.692	(1.036)	697051	40.0000	37.8
14	bis(2-Chloroisopropyl) ether	45	4.768	4.768	(1.053)	961403	40.0000	38.4
12	Benzyl alcohol	108	4.644	4.644	(1.025)	393855	40.0000	38.9 (H)
15	o-Cresol	107	4.735	4.735	(1.045)	498576	40.0000	38.5
18	m,p-Cresols	107	4.887	4.887	(1.079)	652539	40.0000	39.8

Compounds	QUANT SIG						AMOUNTS	
	MASS	RT	EXP RT	REL RT	RESPONSE		CAL-AMT (ng/ul)	ON-COL (ng/ul)
17 N-Nitrosodipropylamine	70	4.906	4.906	(1.083)	454801		40.0000	38.1
19 Hexachloroethane	117	5.025	5.025	(1.109)	280201		40.0000	37.5
21 Nitrobenzene	77	5.082	5.082	(0.877)	684707		40.0000	37.8
22 Isophorone	82	5.320	5.320	(0.918)	1221372		40.0000	36.6
23 2-Nitrophenol	139	5.397	5.397	(0.931)	329005		40.0000	39.5
24 2,4-Dimethylphenol	122	5.420	5.420	(0.935)	557217		40.0000	37.6
25 bis(2-Chloroethoxy)methane	93	5.525	5.525	(0.953)	658886		40.0000	35.2
26 2,4-Dichlorophenol	162	5.644	5.644	(0.974)	516992		40.0000	38.6
27 Benzoic acid	105	5.539	5.539	(0.956)	287142		40.0000	41.9
28 1,2,4-Trichlorobenzene	180	5.735	5.735	(0.989)	655648		40.0000	36.4
30 Naphthalene	128	5.820	5.820	(1.004)	1895442		40.0000	35.4
204 alpha-Terpineol	59	5.816	5.816	(1.003)	496172		40.0000	36.0
31 4-Chloroaniline	127	5.863	5.863	(1.012)	678318		40.0000	38.4
32 Hexachlorobutadiene	225	5.939	5.939	(1.025)	420920		40.0000	37.6
33 4-Chloro-3-methylphenol	107	6.354	6.354	(1.096)	560118		40.0000	38.7
34 2-Methylnaphthalene	142	6.539	6.539	(1.128)	1347856		40.0000	37.6
35 1-Methylnaphthalene	142	6.649	6.649	(1.147)	1269859		40.0000	36.1
36 Hexachlorocyclopentadiene	237	6.706	6.706	(0.875)	293896		40.0000	33.8
205 2,3-Dichloroaniline	161	6.835	6.835	(0.892)	663240		40.0000	35.8
37 2,4,6-Trichlorophenol	196	6.835	6.835	(0.892)	401928		40.0000	37.2
38 2,4,5-Trichlorophenol	196	6.873	6.873	(0.897)	450584		40.0000	39.3
40 2-Chloronaphthalene	162	7.063	7.063	(0.922)	1277487		40.0000	36.9
42 o-Nitroaniline	65	7.163	7.163	(0.935)	363688		40.0000	37.8
41 m-Nitroaniline	138	7.606	7.606	(0.993)	282391		40.0000	38.6
43 Dimethylphthalate	163	7.363	7.363	(0.961)	1455357		40.0000	37.0
44 2,6-Dinitrotoluene	165	7.425	7.425	(0.969)	328490		40.0000	37.0
50 2,4-Dinitrotoluene	165	7.854	7.854	(1.025)	419181		40.0000	36.8
45 Acenaphthylene	152	7.511	7.511	(0.980)	2073418		40.0000	35.6
47 Acenaphthene	154	7.697	7.697	(1.004)	1261448		40.0000	33.8
48 2,4-Dinitrophenol	184	7.711	7.711	(1.006)	122866		40.0000	42.0
49 Dibenzofuran	168	7.878	7.878	(1.028)	1794261		40.0000	36.7
51 Diethylphthalate	149	8.111	8.111	(1.058)	1503769		40.0000	36.6
52 4-Nitrophenol	139	7.768	7.768	(1.014)	201873		40.0000	42.2
53 Fluorene	166	8.249	8.249	(1.076)	1508548		40.0000	33.3
54 4-Chlorophenylphenylether	204	8.239	8.239	(1.075)	759775		40.0000	34.8
55 2-Methyl-4,6-dinitrophenol	198	8.297	8.297	(0.896)	265115		40.0000	48.7
56 p-Nitroaniline	138	8.263	8.263	(1.078)	259438		40.0000	40.1
133 Diphenylamine	169	8.368	8.368	(0.903)	1225948		40.0000	36.8
58 1,2-Diphenylhydrazine	77	8.416	8.416	(0.908)	1489780		40.0000	38.1
61 4-Bromophenylphenylether	248	8.768	8.768	(0.947)	430063		40.0000	34.2
63 Hexachlorobenzene	284	8.839	8.839	(0.954)	459277		40.0000	35.1
65 Pentachlorophenol	266	9.049	9.049	(0.977)	231262		40.0000	39.7
206 n-Octadecane	57	9.125	9.125	(0.985)	1034683		40.0000	39.6
68 Phenanthrene	178	9.292	9.292	(1.003)	2175678		40.0000	35.4
69 Anthracene	178	9.344	9.344	(1.009)	2174061		40.0000	34.0
72 Di-n-butylphthalate	149	9.873	9.873	(1.066)	2490757		40.0000	37.2
76 Fluoranthene	202	10.573	10.573	(1.141)	2352940		40.0000	35.1

Compounds	QUANT SIG				RESPONSE	AMOUNTS	
	MASS	RT	EXP RT	REL RT		CAL-AMT (ng/ul)	ON-COL (ng/ul)
=====	=====	==	=====	=====	=====	=====	=====
79 Pyrene	202	10.820	10.820	(0.887)	2427617	40.0000	33.8
85 Butylbenzylphthalate	149	11.497	11.497	(0.943)	968576	40.0000	38.5
89 Benzo(a)anthracene	228	12.178	12.178	(0.998)	2076405	40.0000	34.3
92 Chrysene	228	12.230	12.230	(1.003)	1918472	40.0000	36.3
93 bis(2-Ethylhexyl)phthalate	149	12.182	12.182	(0.999)	1357026	40.0000	38.6
94 Di-n-octylphthalate	149	13.097	13.097	(0.912)	1865222	40.0000	39.8
95 Benzo(b)fluoranthene	252	13.720	13.720	(0.956)	1601785	40.0000	37.1 (H)
96 Benzo(k)fluoranthene	252	13.768	13.768	(0.959)	1589110	40.0000	36.6
97 Benzo(a)pyrene	252	14.254	14.254	(0.993)	1356428	40.0000	37.3
99 Indeno(1,2,3-cd)pyrene	276	16.220	16.220	(1.130)	1053996	40.0000	34.9
100 Dibenzo(a,h)anthracene	278	16.254	16.254	(1.132)	798414	40.0000	34.2
101 Benzo(ghi)perylene	276	16.701	16.701	(1.164)	822104	40.0000	32.9
126 m-Dinitrobenzene	168	7.392	7.392	(0.965)	219071	40.0000	38.6
130 2,3,4,6-Tetrachlorophenol	232	8.001	8.001	(1.044)	352660	40.0000	36.2
143 Dinoseb	211	9.239	9.239	(0.997)	303786	40.0000	39.3
173 Carbazole	167	9.511	9.511	(1.027)	1705240	40.0000	37.3
184 p-Benzoquinone	54	3.787	3.787	(0.836)	71181	40.0000	26.2
192 Methoxychlor	227	12.078	12.078	(0.990)	1233392	40.0000	37.4
211 p-Toluidine	106	4.949	4.949	(1.093)	544571	40.0000	31.1
210 m-Toluidine	106	4.982	4.982	(1.100)	884790	40.0000	38.8
26 Phthalic anhydride	104	6.597	6.597	(1.138)	432011	40.0000	53.9
179 Dibenzo(a,e)pyrene	302	19.925	19.925	(1.388)	229221	40.0000	23.1
214 1,4-Dinitrobenzene	75	7.311	7.311	(0.954)	239338	40.0000	39.8
215 2-Ethoxyethanol	59	2.177	2.177	(0.481)	360665	40.0000	41.0
216 Methylenebis(2-chloroaniline)	231	12.135	12.135	(0.995)	276453	40.0000	41.7 (Q)
M 222 Trichlorophenols	196				852512	80.0000	76.5
M 223 Tetrachlorophenols	232				352660	40.0000	36.2
M 224 Benzo(b,k)fluoranthene	252				3190895	80.0000	73.8

#### QC Flag Legend

Q - Qualifier signal failed the ratio test.  
H - Operator selected an alternate compound hit.

Data File: /chem/MSDB.i/s022010.b/s8h2012.d

Date : 20-FEB-2010 18:09

**Client ID: MEGACITY**

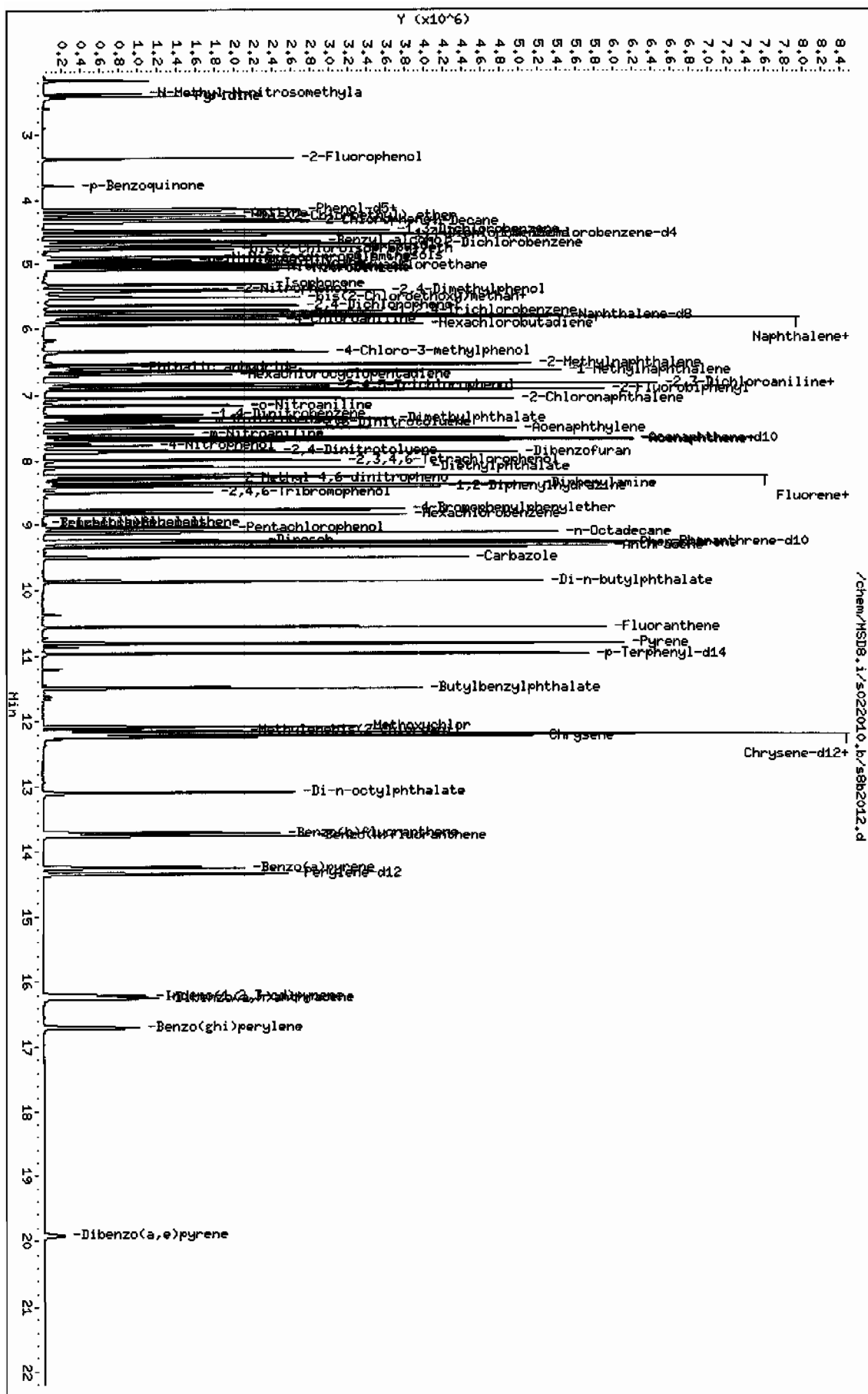
Sample Info: 1WB100215-05.1140 PPM11SVH11MEGAICU

Column phase: 384 DB-5MS

Instrument: MSD8.i

Operator: mag1

Column diameter: 0.20



GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD8.i Injection Date: 21-FEB-2010 19:53  
 Lab File ID: s8b2035.d Init. Cal. Date(s): 20-FEB-2010 22-FEB-2010  
 Analysis Type: Init. Cal. Times: 12:55 01:19  
 Lab Sample ID: WBN100218-08.1 Quant Type: ISTD  
 Method: /chem/MSD8.i/s022010.b/MSD8-8270AQA-022010.m

COMPOUND	RRF / AMOUNT	RF40	CCAL	MIN	MAX	CURVE TYPE
			RRF40	RRF	%D / %DRIFT	
209 Benzaldehyde	0.84330	0.69688	0.69688	0.000	-17.36320	Averaged
16 Acetophenone	1.20309	1.14109	1.14109	0.000	-5.15283	Averaged
189 Caprolactam	0.06655	0.06831	0.06831	0.000	2.63428	Averaged
208 1,1'-Biphenyl	1.22219	1.19703	1.19703	0.000	-2.05853	Averaged
207 Atrazine	0.03531	0.03806	0.03806	0.000	7.78782	Averaged
77 Benzidine	41.98033	40.00000	0.31874	0.000	4.95082	Linear
90 3,3'-Dichlorobenzidine	0.24780	0.27320	0.27320	0.000	10.24947	Averaged
102 1,4-Dioxane	0.32319	0.37708	0.37708	0.000	16.67521	Averaged
103 Methyl methacrylate	0.16817	0.19675	0.19675	0.000	16.99914	Averaged
104 Ethyl methacrylate	0.67963	0.79943	0.79943	0.000	17.62812	Averaged
105 2-Picoline	1.09294	1.07981	1.07981	0.000	-1.20157	Averaged
106 N-Nitrosomethylethylamine	0.43986	0.46246	0.46246	0.000	5.13741	Averaged
107 Methyl methanesulfonate	0.49950	0.54492	0.54492	0.000	9.09235	Averaged
108 N-Nitrosodiethylamine	0.45804	0.47767	0.47767	0.000	4.28449	Averaged
109 Ethyl Methanesulfonate	0.60902	0.73730	0.73730	0.000	21.06290	Averaged
110 Pentachloroethane	0.32092	0.43327	0.43327	0.000	35.01075	Averaged
111 N-Nitrosopyrrolidine	0.49059	0.49284	0.49284	0.000	0.45905	Averaged
113 N-Nitrosomorpholine	0.66385	0.70342	0.70342	0.000	5.95974	Averaged
114 o-Toluidine	1.62183	1.64404	1.64404	0.000	1.36960	Averaged
115 N-Nitrosopiperidine	0.12437	0.12589	0.12589	0.000	1.22448	Averaged
116 a,a-Dimethylphenethylamine	0.74304	0.77809	0.77809	0.000	4.71795	Averaged
118 2,6-Dichlorophenol	0.20154	0.20467	0.20467	0.000	1.55320	Averaged
119 Hexachloropropene	0.12360	0.18944	0.18944	0.000	53.26602	Averaged
120 p-Phenylenediamine	0.19655	0.20159	0.20159	0.000	2.56438	Averaged
121 N-Nitrosodi-n-butylamine	0.21161	0.22736	0.22736	0.000	7.44405	Averaged
122 Saffrole	0.19334	0.21416	0.21416	0.000	10.76780	Averaged
123 1,2,4,5-Tetrachlorobenzene	0.47582	0.48716	0.48716	0.000	2.38273	Averaged
124 Isosafrole	0.32130	0.41354	0.41354	0.000	28.70739	Averaged
125 1,4-Naphthoquinone	0.29641	0.29356	0.29356	0.000	-0.96298	Averaged
127 Pentachlorobenzene	0.43422	0.41984	0.41984	0.000	-3.31212	Averaged
128 1-Naphthylamine	0.84230	0.87716	0.87716	0.000	4.13822	Averaged
129 2-Naphthylamine	0.88763	0.93442	0.93442	0.000	5.27090	Averaged
131 5-Nitro-o-toluidine	0.24122	0.24992	0.24992	0.000	3.60687	Averaged
136 1,3,5-Trinitrobenzene	0.09499	0.13160	0.13160	0.000	38.54101	Averaged
137 Phenacetin	0.21690	0.22945	0.22945	0.000	5.79020	Averaged
138 Diallate	0.20203	0.19101	0.19101	0.000	-5.45490	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD8.i Injection Date: 21-FEB-2010 19:53  
Lab File ID: s8b2035.d Init. Cal. Date(s): 20-FEB-2010 22-FEB-2010  
Analysis Type: Init. Cal. Times: 12:55 01:19  
Lab Sample ID: WBN100218-08.1 Quant Type: ISTD  
Method: /chem/MSD8.i/s022010.b/MSD8-8270AQA-022010.m

COMPOUND	RRF / AMOUNT	RF40	CCAL	MIN	MAX	CURVE TYPE
			RRF40	RRF	%D / %DRIFT	
212 Cis Diallate	0.20071	0.25770	0.25770	0.000	28.39010	Averaged
213 Trans Diallate	0.23769	0.22472	0.22472	0.000	-5.45490	Averaged
140 4-Aminobiphenyl	0.51727	0.55152	0.55152	0.000	6.62074	Averaged
141 Pentachloronitrobenzene	0.07936	0.08310	0.08310	0.000	4.70392	Averaged
142 Pronamide	0.25230	0.26699	0.26699	0.000	5.82308	Averaged
146 4-Nitroquinoline-1-oxide	0.01907	0.01438	0.01438	0.000	-24.58503	Averaged
147 Methapyrilene	0.29186	0.32275	0.32275	0.000	10.58368	Averaged
148 Isodrin	0.10718	0.09605	0.09605	0.000	-10.38226	Averaged
149 Aramite	0.03388	0.03359	0.03359	0.000	-0.86154	Averaged
150 Kepone	0.07795	0.07692	0.07692	0.000	-1.31942	Averaged
151 p-(Dimethylamino)azobenzene	0.25808	0.27705	0.27705	0.000	7.35059	Averaged
152 Chlorobenzilate	0.26271	0.28217	0.28217	0.000	7.40895	Averaged
153 3,3'-Dimethylbenzidine	0.45535	0.49139	0.49139	0.000	7.91309	Averaged
155 2-Acetylaminofluorene	42.39036	40.00000	0.24154	0.000	5.97589	Linear
157 7,12Dimethylbenz(a)anthrace	0.51909	0.49026	0.49026	0.000	-5.55329	Averaged
158 3-Methylcholanthrene	0.36780	0.40291	0.40291	0.000	9.54489	Averaged

GEL Laboratories LLC

Data file : /chem/MSD8.i/s022010.b/s8b2035.d  
 Lab Smp Id: WBN100218-08.1 Client Smp ID: APICV  
 Inj Date : 21-FEB-2010 19:53  
 Operator : nagl Inst ID: MSD8.i  
 Smp Info : |WBN100218-08.1|40 PPM|1|SVM|1|APICV  
 Misc Info : |MSD8270|WBN100217-01  
 Comment : Column: J & W DB-5MS, 25m x 0.20 mm x 0.33 micron film  
 Method : /chem/MSD8.i/s022010.b/MSD8-8270AQA-022010.m  
 Meth Date : 23-Feb-2010 13:31 nat00999 Quant Type: ISTD  
 Cal Date : 22-FEB-2010 00:48 Cal File: s8b2045.d  
 Als bottle: 23 Continuing Calibration Sample  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: AP12.sub  
 Target Version: 3.50  
 Processing Host: hpc1p1

Compounds	QUANT SIG			REL RT	RESPONSE	AMOUNTS	
	MASS	RT	EXP RT			CAL-AMT (ng/ul)	ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	4.530	4.530	(1.000)	649861	40.0000	
* 29 Naphthalene-d8	136	5.796	5.796	(1.000)	2469894	40.0000	
* 46 Acenaphthene-d10	164	7.658	7.658	(1.000)	1465298	40.0000	
* 67 Phenanthrene-d10	188	9.263	9.263	(1.000)	2747481	40.0000	
* 91 Chrysene-d12	240	12.192	12.192	(1.000)	2214467	40.0000	
* 98 Perylene-d12	264	14.349	14.349	(1.000)	1648118	40.0000	
209 Benzaldehyde	77	4.125	4.125	(0.911)	452872	40.0000	33.0
16 Acetophenone	105	4.906	4.906	(1.083)	741552	40.0000	37.9
189 Caprolactam	113	6.225	6.225	(1.074)	168712	40.0000	41.0 (H)
208 1,1'-Biphenyl	154	7.034	7.034	(0.919)	1754011	40.0000	39.2
207 Atrazine	173	8.939	8.939	(0.965)	104582	40.0000	43.1
77 Benzidine	184	10.706	10.706	(0.878)	705844	40.0000	42.0
90 3,3'-Dichlorobenzidine	252	12.130	12.130	(0.995)	604986	40.0000	44.1
102 1,4-Dioxane	88	2.177	2.177	(0.481)	245052	40.0000	46.7
103 Methyl methacrylate	100	2.177	2.177	(0.481)	127862	40.0000	46.8
104 Ethyl methacrylate	69	2.692	2.692	(0.594)	519520	40.0000	47.0
105 2-Picoline	93	2.939	2.939	(0.649)	701726	40.0000	39.5
106 N-Nitrosomethylethylamine	88	3.011	3.011	(0.665)	300533	40.0000	42.0
107 Methyl methanesulfonate	80	3.239	3.239	(0.715)	354120	40.0000	43.6
108 N-Nitrosodiethylamine	102	3.568	3.568	(0.788)	310419	40.0000	41.7
109 Ethyl Methanesulfonate	79	3.806	3.806	(0.840)	479140	40.0000	48.4
110 Pentachloroethane	167	4.268	4.268	(0.942)	281568	40.0000	54.0
111 N-Nitrosopyrrolidine	100	4.887	4.887	(1.079)	320276	40.0000	40.2 (Q)
113 N-Nitrosomorpholine	56	4.925	4.925	(1.087)	457122	40.0000	42.4
114 o-Toluidine	106	4.944	4.944	(1.091)	1068400	40.0000	40.5
115 N-Nitrosopiperidine	114	5.230	5.230	(0.902)	310940	40.0000	40.5

Compounds	QUANT SIG					AMOUNTS	
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ng/ul)	ON-COL (ng/ul)
=====	=====	==	=====	=====	=====	=====	=====
116 a,a-Dimethylphenethylamine	58	5.630	5.630	(0.971)	1921805	40.0000	41.9
118 2,6-Dichlorophenol	162	5.872	5.872	(1.013)	505519	40.0000	40.6
119 Hexachloropropene	213	5.906	5.906	(1.019)	467897	40.0000	61.3
120 p-Phenylenediamine	108	6.230	6.230	(1.075)	497912	40.0000	41.0
121 N-Nitrosodi-n-butylamine	84	6.211	6.211	(1.071)	561557	40.0000	43.0
122 Safrole	162	6.439	6.439	(1.111)	528955	40.0000	44.3
123 1,2,4,5-Tetrachlorobenzene	216	6.715	6.715	(0.877)	713829	40.0000	41.0
124 Isosafrole	162	6.992	6.992	(0.913)	605957	40.0000	51.5
125 1,4-Naphthoquinone	158	7.244	7.244	(0.946)	430153	40.0000	39.6
127 Pentachlorobenzene	250	7.830	7.830	(1.022)	615188	40.0000	38.7
128 1-Naphthylamine	143	7.958	7.958	(1.039)	1285298	40.0000	41.6
129 2-Naphthylamine	143	8.044	8.044	(1.050)	1369199	40.0000	42.1
131 5-Nitro-o-toluidine	152	8.249	8.249	(1.077)	366207	40.0000	41.4
136 1,3,5-Trinitrobenzene	75	8.634	8.634	(0.932)	361581	40.0000	55.4
137 Phenacetin	108	8.701	8.701	(0.939)	630422	40.0000	42.3 (Q)
138 Diallyl	86	8.673	8.673	(0.936)	524804	40.0000	37.8
212 Cis Diallyl	86	8.768	8.768	(0.947)	106203	6.00000	7.7
213 Trans Diallyl	86	8.673	8.673	(0.936)	524804	34.0000	32.1
140 4-Aminobiphenyl	169	9.049	9.049	(0.977)	1515283	40.0000	42.6
141 Pentachloronitrobenzene	237	9.063	9.063	(0.978)	228304	40.0000	41.9 (Q)
142 Pronamide	173	9.106	9.106	(0.983)	733556	40.0000	42.3
146 4-Nitroquinoline-1-oxide	101	10.111	10.111	(1.091)	39509	40.0000	30.2
147 Methapyrilene	58	10.192	10.192	(1.100)	886744	40.0000	44.2
148 Isodrin	193	10.411	10.411	(1.124)	263898	40.0000	35.8
149 Aramite	185	10.944	10.944	(1.181)	92281	40.0000	39.6
150 Kepone	272	11.563	11.563	(1.248)	211334	40.0000	39.5
151 p-(Dimethylamino)azobenzene	120	11.125	11.125	(0.912)	613518	40.0000	42.9
152 Chlorobenzilate	251	11.173	11.173	(0.916)	624855	40.0000	43.0
153 3,3'-Dimethylbenzidine	212	11.487	11.487	(0.942)	1088156	40.0000	43.2
155 2-Acetylaminofluorene	181	11.782	11.782	(0.966)	534890	40.0000	42.4
157 7,12Dimethylbenz(a)anthracene	256	13.706	13.706	(0.955)	808013	40.0000	37.8
158 3-Methylcholanthrene	268	14.849	14.849	(1.035)	664045	40.0000	43.8 (Q)

#### QC Flag Legend

Q - Qualifier signal failed the ratio test.  
H - Operator selected an alternate compound hit.



Data File: /chem/HSD8.1/s022010.b/s8b2035.d

Date: 21-FEB-2010 19:53

Client ID: APICV

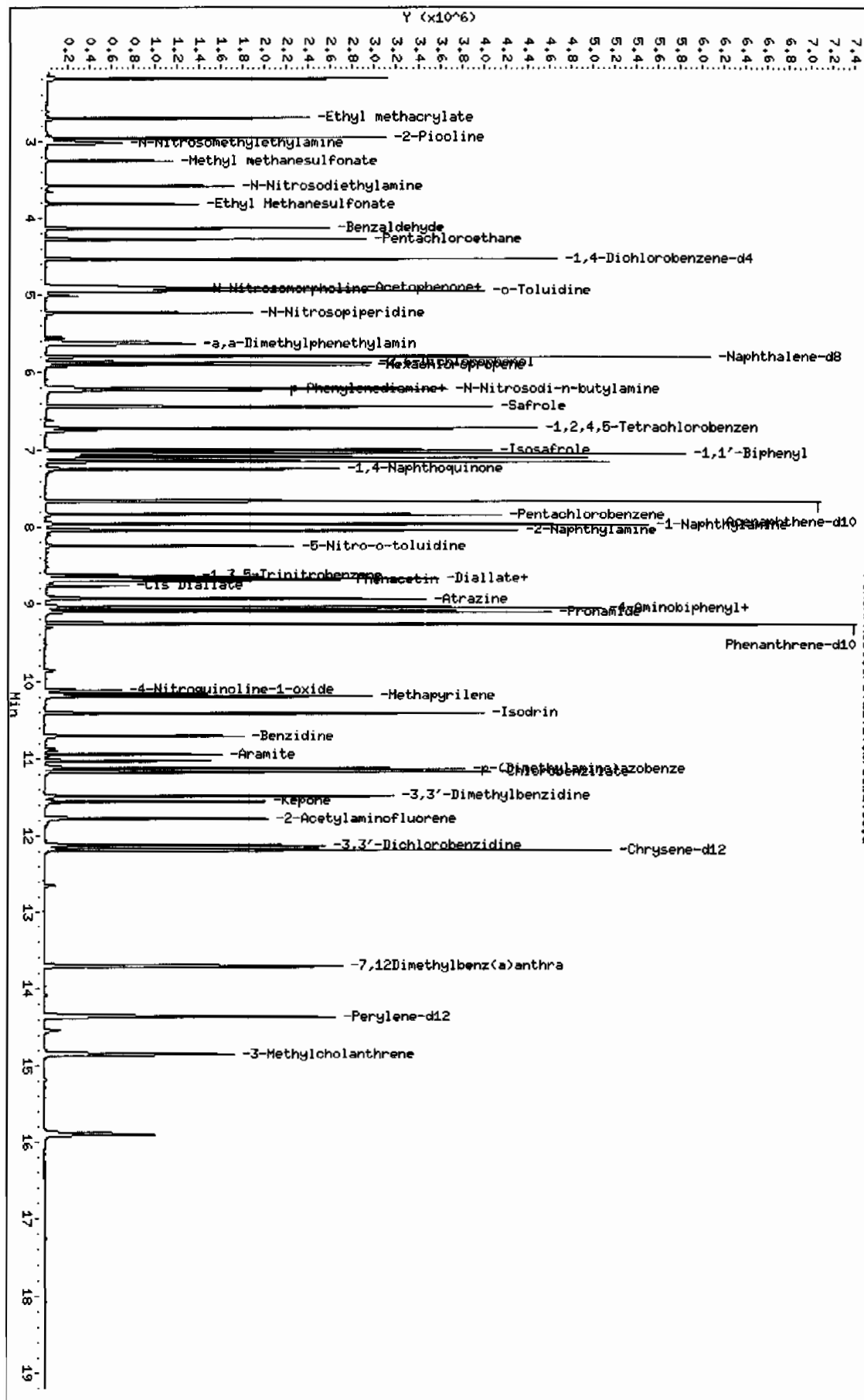
Sample Info: IABN100218-08.1140 PPM111SWH11APICV

Column phase: J&W DB-5MS

Instrument: HSD8.1

Operator: nag1

Column diameter: 0.20



GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD8.i Injection Date: 06-MAR-2010 09:06  
Lab File ID: s8c0604.d Init. Cal. Date(s): 20-FEB-2010 22-FEB-2010  
Analysis Type: Init. Cal. Times: 12:55 01:19  
Lab Sample ID: WBN100225-05.5 Quant Type: ISTD  
Method: /chem/MSD8.i/s030610.b/MSD8-8270AQA-022010.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
3 2-Fluorophenol	0.94435	0.87558	0.87558	0.000	-7.28206	60.00000	Averaged
5 Phenol-d5	1.17771	1.11344	1.11344	0.000	-5.45677	60.00000	Averaged
20 Nitrobenzene-d5	0.28435	0.27496	0.27496	0.000	-3.30074	60.00000	Averaged
39 2-Fluorobiphenyl	1.17740	1.07505	1.07505	0.000	-8.69220	60.00000	Averaged
60 2,4,6-Tribromophenol	0.13223	0.12783	0.12783	0.000	-3.32437	60.00000	Averaged
81 p-Terphenyl-d14	0.72015	0.66004	0.66004	0.000	-8.34669	60.00000	Averaged
1 N-Methyl-N-nitrosomethylami	0.60923	0.50030	0.50030	0.000	-17.87939	60.00000	Averaged
2 Pyridine	0.89373	0.71173	0.71173	0.000	-20.36418	60.00000	Averaged
4 Aniline	0.55542	0.43817	0.43817	0.000	-21.11022	60.00000	Averaged
6 Phenol	1.21617	1.08749	1.08749	0.001	-10.58087	20.00000	Averaged ccc
7 bis(2-Chloroethyl) ether	0.83144	0.75209	0.75209	0.000	-9.54430	60.00000	Averaged
8 2-Chlorophenol	1.05605	1.04742	1.04742	0.000	-0.81765	60.00000	Averaged
203 n-Decane	1.08949	0.95448	0.95448	0.000	-12.39279	60.00000	Averaged
9 1,3-Dichlorobenzene	1.25240	1.21602	1.21602	0.000	-2.90466	60.00000	Averaged
11 1,4-Dichlorobenzene	1.29215	1.27292	1.27292	0.001	-1.48836	20.00000	Averaged ccc
13 1,2-Dichlorobenzene	1.20194	1.17094	1.17094	0.000	-2.57909	60.00000	Averaged
14 bis(2-Chloroisopropyl)ether	1.63019	1.51566	1.51566	0.000	-7.02549	60.00000	Averaged
12 Benzyl alcohol	0.66057	0.56331	0.56331	0.000	-14.72284	60.00000	Averaged
15 o-Cresol	0.84463	0.82393	0.82393	0.000	-2.45079	60.00000	Averaged
18 m,p-Cresols	1.06890	1.05343	1.05343	0.000	-1.44702	60.00000	Averaged
17 N-Nitrosodipropylamine	0.77788	0.76186	0.76186	0.050	-2.06027	60.00000	Averaged spcc
19 Hexachloroethane	0.48694	0.46691	0.46691	0.000	-4.11486	60.00000	Averaged
21 Nitrobenzene	0.29331	0.28277	0.28277	0.000	-3.59367	60.00000	Averaged
22 Isophorone	0.53999	0.51219	0.51219	0.000	-5.14985	60.00000	Averaged
23 2-Nitrophenol	0.13462	0.13562	0.13562	0.001	0.74387	20.00000	Averaged ccc
24 2,4-Dimethylphenol	0.23932	0.23164	0.23164	0.000	-3.21035	60.00000	Averaged
25 bis(2-Chloroethoxy)methane	0.30282	0.30943	0.30943	0.000	2.18369	60.00000	Averaged
26 2,4-Dichlorophenol	0.21654	0.21351	0.21351	0.001	-1.39992	20.00000	Averaged ccc
27 Benzoic acid	43.24026	40.00000	0.12164	0.000	8.10066	60.00000	Linear
28 1,2,4-Trichlorobenzene	0.29118	0.26079	0.26079	0.000	-10.43567	60.00000	Averaged
30 Naphthalene	38.82662	40.00000	0.84512	0.000	-2.93346	60.00000	Linear
204 alpha-Terpineol	0.22259	0.23946	0.23946	0.000	7.58333	60.00000	Averaged
31 4-Chloroaniline	0.28585	0.27020	0.27020	0.000	-5.47669	60.00000	Averaged
32 Hexachlorobutadiene	0.18110	0.15430	0.15430	0.001	-14.79851	20.00000	Averaged ccc
33 4-Chloro-3-methylphenol	0.23429	0.22519	0.22519	0.001	-3.88132	20.00000	Averaged ccc
34 2-Methylnaphthalene	38.00995	40.00000	0.55159	0.000	-4.97513	60.00000	Linear

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD8.i Injection Date: 06-MAR-2010 09:06  
Lab File ID: s8c0604.d Init. Cal. Date(s): 20-FEB-2010 22-FEB-2010  
Analysis Type: Init. Cal. Times: 12:55 01:19  
Lab Sample ID: WBN100225-05.5 Quant Type: ISTD  
Method: /chem/MSD8.i/s030610.b/MSD8-8270AQA-022010.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
35 1-Methylnaphthalene	38.27942	40.00000	0.54484	0.000	-4.30145	60.00000	Linear
36 Hexachlorocyclopentadiene	0.24827	0.15510	0.15510	0.050	-37.52604	60.00000	Averaged spcc
205 2,3-Dichloroaniline	0.52803	0.50597	0.50597	0.000	-4.17932	60.00000	Averaged
37 2,4,6-Trichlorophenol	0.30819	0.29107	0.29107	0.001	-5.55290	20.00000	Averaged ccc
38 2,4,5-Trichlorophenol	0.32711	0.29631	0.29631	0.000	-9.41530	60.00000	Averaged
40 2-Chloronaphthalene	36.49907	40.00000	0.89927	0.000	-8.75232	60.00000	Linear
42 o-Nitroaniline	0.27392	0.26852	0.26852	0.000	-1.97319	60.00000	Averaged
41 m-Nitroaniline	0.20877	0.19333	0.19333	0.000	-7.39662	60.00000	Averaged
43 Dimethylphthalate	1.12088	1.04834	1.04834	0.000	-6.47121	60.00000	Averaged
44 2,6-Dinitrotoluene	0.25341	0.24070	0.24070	0.000	-5.01725	60.00000	Averaged
50 2,4-Dinitrotoluene	0.32492	0.29839	0.29839	0.000	-8.16442	60.00000	Averaged
45 Acenaphthylene	1.66068	1.46636	1.46636	0.000	-11.70160	60.00000	Averaged
47 Acenaphthene	1.06294	0.92488	0.92488	0.001	-12.98850	20.00000	Averaged ccc
48 2,4-Dinitrophenol	36.51739	40.00000	0.07015	0.050	-8.70652	60.00000	Linear spcc
49 Dibenzofuran	1.39464	1.25483	1.25483	0.000	-10.02504	60.00000	Averaged
51 Diethylphthalate	1.17311	1.10511	1.10511	0.000	-5.79652	60.00000	Averaged
52 4-Nitrophenol	0.13654	0.14119	0.14119	0.050	3.40969	60.00000	Averaged spcc
53 Fluorene	1.29100	1.15300	1.15300	0.000	-10.68945	60.00000	Averaged
54 4-Chlorophenylphenylether	0.62173	0.53666	0.53666	0.000	-13.68386	60.00000	Averaged
55 2-Methyl-4,6-dinitrophenol	35.95020	40.00000	0.07009	0.000	-10.12449	60.00000	Linear
56 p-Nitroaniline	0.18448	0.16233	0.16233	0.000	-12.00589	60.00000	Averaged
133 Diphenylamine	0.50546	0.49583	0.49583	0.001	-1.90453	20.00000	Averaged ccc
58 1,2-Diphenylhydrazine	0.59375	0.59381	0.59381	0.000	0.01126	60.00000	Averaged
61 4-Bromophenylphenylether	0.19114	0.18289	0.18289	0.000	-4.31401	60.00000	Averaged
63 Hexachlorobenzene	0.19866	0.18239	0.18239	0.000	-8.19236	60.00000	Averaged
65 Pentachlorophenol	0.08849	0.09919	0.09919	0.001	12.09477	20.00000	Averaged ccc
206 n-Octadecane	0.39703	0.33829	0.33829	0.000	-14.79543	60.00000	Averaged
68 Phenanthrene	36.47538	40.00000	0.85302	0.000	-8.81155	60.00000	Linear
69 Anthracene	0.97083	0.85294	0.85294	0.000	-12.14378	60.00000	Averaged
72 Di-n-butylphthalate	1.01476	1.00080	1.00080	0.000	-1.37546	60.00000	Averaged
76 Fluoranthene	1.01786	0.87184	0.87184	0.001	-14.34576	20.00000	Averaged ccc
79 Pyrene	1.24889	1.05869	1.05869	0.000	-15.22977	60.00000	Averaged
85 Butylbenzylphthalate	0.43672	0.44400	0.44400	0.000	1.66703	60.00000	Averaged
89 Benzo(a)anthracene	1.05261	0.89960	0.89960	0.000	-14.53653	60.00000	Averaged
92 Chrysene	35.55182	40.00000	0.81549	0.000	-11.12045	60.00000	Linear
93 bis(2-Ethylhexyl)phthalate	0.61117	0.65731	0.65731	0.000	7.55014	60.00000	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD8.i Injection Date: 06-MAR-2010 09:06  
Lab File ID: s8c0604.d Init. Cal. Date(s): 20-FEB-2010 22-FEB-2010  
Analysis Type: Init. Cal. Times: 12:55 01:19  
Lab Sample ID: WBN100225-05.5 Quant Type: ISTD  
Method: /chem/MSD8.i/s030610.b/MSD8-8270AQA-022010.m

COMPOUND	RRF / AMOUNT	RF40	CCAL	MIN	MAX	CURVE TYPE
94 Di-n-octylphthalate	44.20899	40.00000	1.38445	0.001	10.52249	Linear ccc
95 Benzo(b)fluoranthene	1.13405	1.01088	1.01088	0.000	-10.86095	Averaged
96 Benzo(k)fluoranthene	1.14008	1.02458	1.02458	0.000	-10.13048	Averaged
97 Benzo(a)pyrene	0.95647	0.87240	0.87240	0.001	-8.78896	Averaged ccc
99 Indeno(1,2,3-cd)pyrene	0.79303	0.75459	0.75459	0.000	-4.84646	Averaged
100 Dibenzo(a,h)anthracene	0.61288	0.61417	0.61417	0.000	0.21003	Averaged
101 Benzo(ghi)perylene	0.65613	0.60400	0.60400	0.000	-7.94493	Averaged
126 m-Dinitrobenzene	0.16162	0.15182	0.15182	0.000	-6.05969	Averaged
130 2,3,4,6-Tetrachlorophenol	0.27739	0.25959	0.25959	0.000	-6.41820	Averaged
143 Dinoseb	37.12442	40.00000	0.10699	0.000	-7.18896	Linear
173 Carbazole	0.69337	0.57344	0.57344	0.000	-17.29561	Averaged
184 p-Benzoquinone	21.22609	40.00000	0.09081	0.000	-46.93477	Linear
192 Methoxychlor	0.57371	0.54905	0.54905	0.000	-4.29730	Averaged
211 p-Toluidine	1.14055	1.05554	1.05554	0.000	-7.45301	Averaged
210 m-Toluidine	1.48620	1.26572	1.26572	0.000	-14.83528	Averaged
26 Phthalic anhydride	30.87313	40.00000	0.09200	0.000	-22.81718	Linear
179 Dibenzo(a,e)pyrene	0.26112	0.29564	0.29564	0.000	13.21841	Averaged
214 1,4-Dinitrobenzene	0.17136	0.15999	0.15999	0.000	-6.63930	Averaged
215 2-Ethoxyethanol	0.57374	0.45075	0.45075	0.000	-21.43588	Averaged
216 Methylenebis(2-chloroanilin	26.01869	40.00000	0.06504	0.000	-34.95328	Linear
M 222 Trichlorophenols	0.31765	0.29369	0.29369	0.000	-7.54162	Averaged
M 223 Tetrachlorophenols	0.27739	0.25959	0.25959	0.000	-6.41820	Averaged
M 224 Benzo(b,k)fluoranthene	1.13706	1.01773	1.01773	0.000	-10.49474	Averaged

GEL Laboratories LLC

Data file : /chem/MSD8.i/s030610.b/s8c0604.d  
 Lab Smp Id: WBN100225-05.5 Client Smp ID: MEGACVS  
 Inj Date : 06-MAR-2010 09:06  
 Operator : nagl Inst ID: MSD8.i  
 Smp Info : |WBN100225-05.5|CCV|1|SVM|1|MEGACVS  
 Misc Info : |MSD8270|WBN100227-01  
 Comment : Column: J & W DB-5MS, 25m x 0.20 mm x 0.33 micron film  
 Method : /chem/MSD8.i/s030610.b/MSD8-8270AQA-022010.m  
 Meth Date : 07-Mar-2010 11:27 nat00999 Quant Type: ISTD  
 Cal Date : 21-FEB-2010 23:15 Cal File: s8b2042.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	AMOUNTS					
		CAL-AMT	ON-COL				
	MASS	RT	EXP RT	REL RT	RESPONSE	(ng/ul)	(ng/ul)
=====	=====	==	=====	=====	=====	=====	=====
* 10 1,4-Dichlorobenzene-d4	152	4.458	4.458	(1.000)	697454	40.0000	
* 29 Naphthalene-d8	136	5.720	5.720	(1.000)	2792494	40.0000	
* 46 Acenaphthene-d10	164	7.577	7.577	(1.000)	1623127	40.0000	
* 67 Phenanthrene-d10	188	9.177	9.177	(1.000)	2784872	40.0000	
* 91 Chrysene-d12	240	12.082	12.082	(1.000)	2409647	40.0000	
* 98 Perylene-d12	264	14.187	14.187	(1.000)	1657771	40.0000	
\$ 3 2-Fluorophenol	112	3.306	3.306	(0.742)	610675	40.0000	37.1
\$ 5 Phenol-d5	99	4.082	4.082	(0.916)	776574	40.0000	37.8
\$ 20 Nitrobenzene-d5	82	4.992	4.992	(0.873)	767825	40.0000	38.7
\$ 39 2-Fluorobiphenyl	172	6.849	6.849	(0.904)	1744949	40.0000	36.5
\$ 60 2,4,6-Tribromophenol	329	8.420	8.420	(1.111)	207484	40.0000	38.7
\$ 81 p-Terphenyl-d14	244	10.882	10.882	(0.901)	1590459	40.0000	36.7
1 N-Methyl-N-nitrosomethylamine	74	2.349	2.349	(0.527)	348939	40.0000	32.8
2 Pyridine	79	2.387	2.387	(0.535)	496397	40.0000	31.8
4 Aniline	66	4.149	4.149	(0.931)	305605	40.0000	31.6
6 Phenol	94	4.096	4.096	(0.919)	758476	40.0000	35.8
7 bis(2-Chloroethyl) ether	63	4.196	4.196	(0.941)	524545	40.0000	36.2
8 2-Chlorophenol	128	4.258	4.258	(0.955)	730525	40.0000	39.7
203 n-Decane	43	4.282	4.282	(0.960)	665703	40.0000	35.0
9 1,3-Dichlorobenzene	146	4.406	4.406	(0.988)	848118	40.0000	38.8
11 1,4-Dichlorobenzene	146	4.473	4.473	(1.003)	887805	40.0000	39.4
13 1,2-Dichlorobenzene	146	4.620	4.620	(1.036)	816676	40.0000	39.0
14 bis(2-Chloroisopropyl) ether	45	4.701	4.701	(1.054)	1057105	40.0000	37.2
12 Benzyl alcohol	108	4.573	4.573	(1.026)	392886	40.0000	34.1
15 o-Cresol	107	4.663	4.663	(1.046)	574651	40.0000	39.0
18 m,p-Cresols	107	4.820	4.820	(1.081)	734718	40.0000	39.4

Compounds	QUANT SIG					AMOUNTS	
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ng/ul)	ON-COL (ng/ul)
17 N-Nitrosodipropylamine	70	4.839	4.839	(1.085)	531359	40.0000	39.2
19 Hexachloroethane	117	4.949	4.949	(1.110)	325645	40.0000	38.4
21 Nitrobenzene	77	5.011	5.011	(0.876)	789625	40.0000	38.6
22 Isophorone	82	5.249	5.249	(0.918)	1430274	40.0000	37.9
23 2-Nitrophenol	139	5.325	5.325	(0.931)	378716	40.0000	40.3
24 2,4-Dimethylphenol	122	5.349	5.349	(0.935)	646852	40.0000	38.7
25 bis(2-Chloroethoxy)methane	93	5.449	5.449	(0.953)	864087	40.0000	40.9
26 2,4-Dichlorophenol	162	5.563	5.563	(0.973)	596227	40.0000	39.4
27 Benzoic acid	105	5.458	5.458	(0.954)	339674	40.0000	43.2
28 1,2,4-Trichlorobenzene	180	5.658	5.658	(0.989)	728267	40.0000	35.8
30 Naphthalene	128	5.744	5.744	(1.004)	2359994	40.0000	38.8
204 alpha-Terpineol	59	5.739	5.739	(1.003)	668704	40.0000	43.0
31 4-Chloroaniline	127	5.787	5.787	(1.012)	754526	40.0000	37.8
32 Hexachlorobutadiene	225	5.858	5.858	(1.024)	430872	40.0000	34.1
33 4-Chloro-3-methylphenol	107	6.277	6.277	(1.097)	628854	40.0000	38.4
34 2-Methylnaphthalene	142	6.463	6.463	(1.130)	1540313	40.0000	38.0
35 1-Methylnaphthalene	142	6.568	6.568	(1.148)	1521450	40.0000	38.3
36 Hexachlorocyclopentadiene	237	6.625	6.625	(0.874)	251751	40.0000	25.0
205 2,3-Dichloroaniline	161	6.758	6.758	(0.892)	821246	40.0000	38.3
37 2,4,6-Trichlorophenol	196	6.753	6.753	(0.891)	472448	40.0000	37.8
38 2,4,5-Trichlorophenol	196	6.792	6.792	(0.896)	480947	40.0000	36.2
40 2-Chloronaphthalene	162	6.982	6.982	(0.921)	1459624	40.0000	36.5
42 o-Nitroaniline	65	7.082	7.082	(0.935)	435836	40.0000	39.2
41 m-Nitroaniline	138	7.525	7.525	(0.993)	313797	40.0000	37.0
43 Dimethylphthalate	163	7.287	7.287	(0.962)	1701597	40.0000	37.4
44 2,6-Dinitrotoluene	165	7.349	7.349	(0.970)	390680	40.0000	38.0
50 2,4-Dinitrotoluene	165	7.777	7.777	(1.026)	484328	40.0000	36.7
45 Acenaphthylene	152	7.425	7.425	(0.980)	2380085	40.0000	35.3
47 Acenaphthene	154	7.615	7.615	(1.005)	1501201	40.0000	34.8
48 2,4-Dinitrophenol	184	7.634	7.634	(1.008)	113861	40.0000	36.5
49 Dibenzofuran	168	7.796	7.796	(1.029)	2036748	40.0000	36.0
51 Diethylphthalate	149	8.034	8.034	(1.060)	1793739	40.0000	37.7
52 4-Nitrophenol	139	7.692	7.692	(1.015)	229172	40.0000	41.4
53 Fluorene	166	8.163	8.163	(1.077)	1871461	40.0000	35.7
54 4-Chlorophenylphenylether	204	8.158	8.158	(1.077)	871061	40.0000	34.5
55 2-Methyl-4,6-dinitrophenol	198	8.215	8.215	(0.895)	195204	40.0000	36.0
56 p-Nitroaniline	138	8.177	8.177	(1.079)	263480	40.0000	35.2
133 Diphenylamine	169	8.287	8.287	(0.903)	1380831	40.0000	39.2
58 1,2-Diphenylhydrazine	77	8.330	8.330	(0.908)	1653693	40.0000	40.0
61 4-Bromophenylphenylether	248	8.687	8.687	(0.947)	509330	40.0000	38.3
63 Hexachlorobenzene	284	8.754	8.754	(0.954)	507929	40.0000	36.7
65 Pentachlorophenol	266	8.963	8.963	(0.977)	276244	40.0000	44.8
206 n-Octadecane	57	9.039	9.039	(0.985)	942082	40.0000	34.1
68 Phenanthrene	178	9.201	9.201	(1.003)	2375550	40.0000	36.5
69 Anthracene	178	9.258	9.258	(1.009)	2375323	40.0000	35.1
72 Di-n-butylphthalate	149	9.787	9.787	(1.066)	2787106	40.0000	39.4
76 Fluoranthene	202	10.482	10.482	(1.142)	2427960	40.0000	34.3

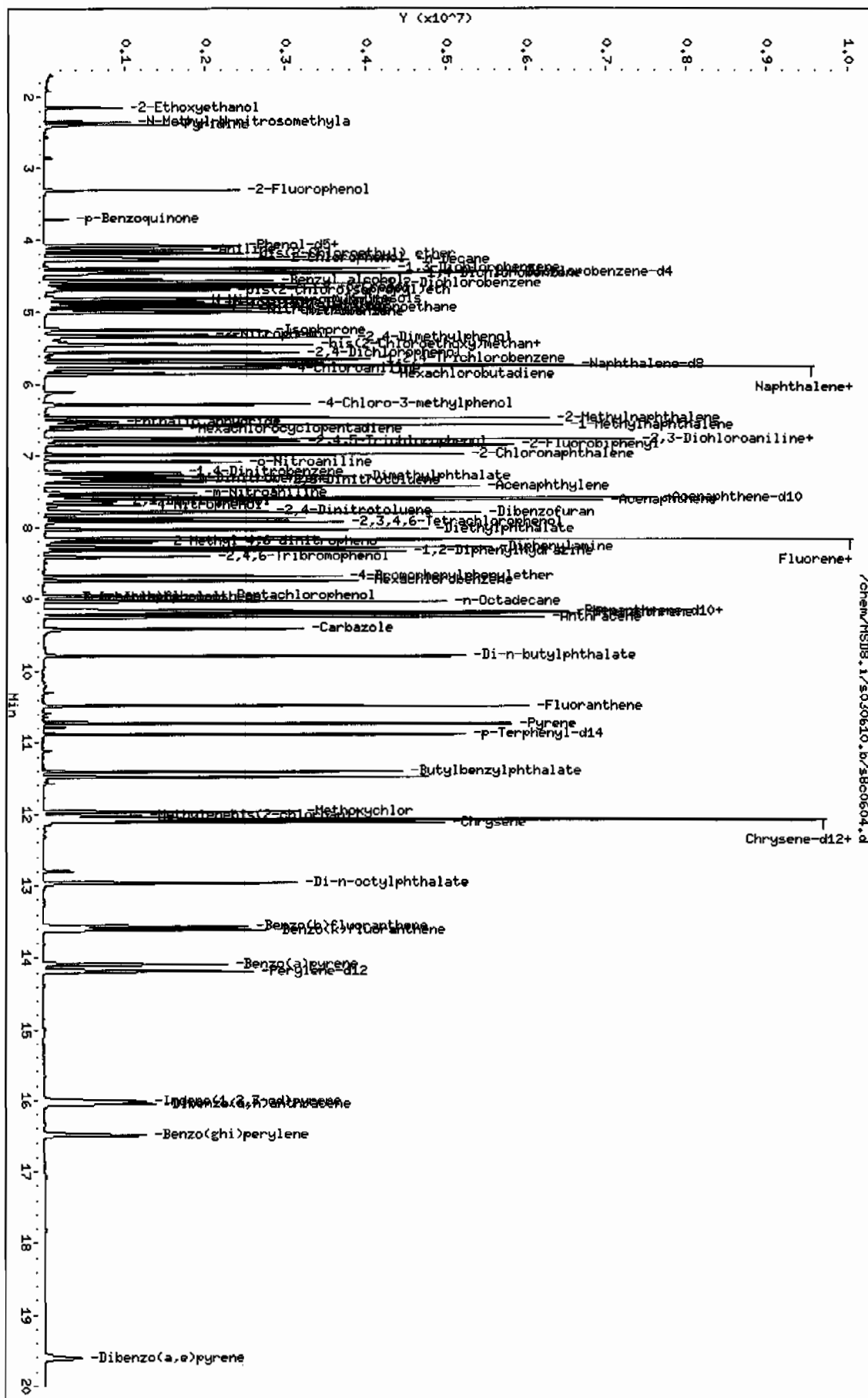
Compounds	QUANT SIG					AMOUNTS	
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ng/ul)	ON-COL (ng/ul)
79 Pyrene	202	10.730	10.730	(0.888)	2551066	40.0000	33.9
85 Butylbenzylphthalate	149	11.406	11.406	(0.944)	1069884	40.0000	40.7
89 Benzo (a)anthracene	228	12.068	12.068	(0.999)	2167713	40.0000	34.2
92 Chrysene	228	12.115	12.115	(1.003)	1965034	40.0000	35.6
93 bis(2-Ethylhexyl)phthalate	149	12.073	12.073	(0.999)	1583897	40.0000	43.0
94 Di-n-octylphthalate	149	12.968	12.968	(0.914)	2295096	40.0000	44.2
95 Benzo (b)fluoranthene	252	13.573	13.573	(0.957)	1675803	40.0000	35.6
96 Benzo (k)fluoranthene	252	13.620	13.620	(0.960)	1698526	40.0000	35.9
97 Benzo (a)pyrene	252	14.096	14.096	(0.994)	1446244	40.0000	36.5
99 Indeno(1,2,3-cd)pyrene	276	16.020	16.020	(1.129)	1250942	40.0000	38.1
100 Dibenzo(a,h)anthracene	278	16.058	16.058	(1.132)	1018150	40.0000	40.1
101 Benzo (ghi)perylene	276	16.497	16.497	(1.163)	1001290	40.0000	36.8
126 m-Dinitrobenzene	168	7.315	7.315	(0.965)	246429	40.0000	37.6
130 2,3,4,6-Tetrachlorophenol	232	7.920	7.920	(1.045)	421341	40.0000	37.4
143 Dinoseb	211	9.158	9.158	(0.998)	297941	40.0000	37.1
173 Carbazole	167	9.420	9.420	(1.026)	1596969	40.0000	33.1
184 p-Benzoquinone	54	3.725	3.725	(0.836)	63337	40.0000	21.2
192 Methoxychlor	227	11.968	11.968	(0.991)	1323026	40.0000	38.3
211 p-Toluidine	106	4.877	4.877	(1.094)	736194	40.0000	37.0
210 m-Toluidine	106	4.911	4.911	(1.101)	882781	40.0000	34.1
26 Phthalic anhydride	104	6.520	6.520	(1.140)	256914	40.0000	30.9
179 Dibenzo(a,e)pyrene	302	19.611	19.611	(1.382)	490101	40.0000	45.3
214 1,4-Dinitrobenzene	75	7.234	7.234	(0.955)	259679	40.0000	37.3
215 2-Ethoxyethanol	59	2.149	2.149	(0.482)	314379	40.0000	31.4
216 Methylenebis(2-chloroaniline)	231	12.030	12.030	(0.996)	156719	40.0000	26.0
M 222 Trichlorophenols	196				953395	80.0000	74.0
M 223 Tetrachlorophenols	232				421341	40.0000	37.4
M 224 Benzo (b,k)fluoranthene	252				3374329	80.0000	71.6

Page 1

Client ID: MEGACV3

Instrument: MSD8.1

Operator: nag1  
Column diameter: 0.20





GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD8.i Injection Date: 06-MAR-2010 09:37  
 Lab File ID: s8c0605.d Init. Cal. Date(s): 20-FEB-2010 22-FEB-2010  
 Analysis Type: Init. Cal. Times: 12:55 01:19  
 Lab Sample ID: WBN100218-03.4 Quant Type: ISTD  
 Method: /chem/MSD8.i/s030610.b/MSD8-8270AQA-022010.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
209 Benzaldehyde	0.84330	0.70529	0.70529	0.000	-16.36489	60.00000	Averaged
16 Acetophenone	1.20309	1.02362	1.02362	0.000	-14.91728	60.00000	Averaged
189 Caprolactam	0.06655	0.06756	0.06756	0.000	1.50807	60.00000	Averaged
208 1,1'-Biphenyl	1.22219	1.11619	1.11619	0.000	-8.67293	60.00000	Averaged
207 Atrazine	0.03531	0.03664	0.03664	0.000	3.74980	60.00000	Averaged
77 Benzidine	37.61392	40.00000	0.27754	0.000	-5.96520	60.00000	Linear
90 3,3'-Dichlorobenzidine	0.24780	0.24612	0.24612	0.000	-0.67606	60.00000	Averaged
102 1,4-Dioxane	0.32319	0.27348	0.27348	0.000	-15.37976	60.00000	Averaged
103 Methyl methacrylate	0.16817	0.15329	0.15329	0.000	-8.84525	60.00000	Averaged
104 Ethyl methacrylate	0.67963	0.54276	0.54276	0.000	-20.13880	60.00000	Averaged
105 2-Picoline	1.09294	0.99041	0.99041	0.000	-9.38110	60.00000	Averaged
106 N-Nitrosomethylethylamine	0.43986	0.36771	0.36771	0.000	-16.40232	60.00000	Averaged
107 Methyl methanesulfonate	0.49950	0.40809	0.40809	0.000	-18.29974	60.00000	Averaged
108 N-Nitrosodiethylamine	0.45804	0.40439	0.40439	0.000	-11.71388	60.00000	Averaged
109 Ethyl Methanesulfonate	0.60902	0.50518	0.50518	0.000	-17.04959	60.00000	Averaged
110 Pentachloroethane	0.32092	0.29420	0.29420	0.000	-8.32683	60.00000	Averaged
111 N-Nitrosopyrrolidine	0.49059	0.43903	0.43903	0.000	-10.50934	60.00000	Averaged
113 N-Nitrosomorpholine	0.66385	0.51828	0.51828	0.000	-21.92830	60.00000	Averaged
114 o-Toluidine	1.62183	1.46907	1.46907	0.000	-9.41882	60.00000	Averaged
115 N-Nitrosopiperidine	0.12437	0.11550	0.11550	0.000	-7.13125	60.00000	Averaged
116 a,a-Dimethylphenethylamine	0.74304	0.58206	0.58206	0.000	-21.66530	60.00000	Averaged
118 2,6-Dichlorophenol	0.20154	0.20486	0.20486	0.000	1.64592	60.00000	Averaged
119 Hexachloropropene	0.12360	0.08779	0.08779	0.000	-28.97634	60.00000	Averaged
120 p-Phenylenediamine	0.19655	0.20345	0.20345	0.000	3.51153	60.00000	Averaged
121 N-Nitrosodi-n-butylamine	0.21161	0.19699	0.19699	0.000	-6.90971	60.00000	Averaged
122 Safrrole	0.19334	0.18153	0.18153	0.000	-6.10740	60.00000	Averaged
123 1,2,4,5-Tetrachlorobenzene	0.47582	0.42506	0.42506	0.000	-10.66821	60.00000	Averaged
124 Isosafrole	0.32130	0.29055	0.29055	0.000	-9.56949	60.00000	Averaged
125 1,4-Naphthoquinone	0.29641	0.28944	0.28944	0.000	-2.35164	60.00000	Averaged
127 Pentachlorobenzene	0.43422	0.37219	0.37219	0.000	-14.28595	60.00000	Averaged
128 1-Naphthylamine	0.84230	0.80840	0.80840	0.000	-4.02545	60.00000	Averaged
129 2-Naphthylamine	0.88763	0.86134	0.86134	0.000	-2.96153	60.00000	Averaged
131 5-Nitro-o-toluidine	0.24122	0.23021	0.23021	0.000	-4.56295	60.00000	Averaged
136 1,3,5-Trinitrobenzene	0.09499	0.08660	0.08660	0.000	-8.83890	60.00000	Averaged
137 Phenacetin	0.21690	0.21085	0.21085	0.000	-2.78820	60.00000	Averaged
138 Diallylate	0.20203	0.18093	0.18093	0.000	-10.44742	60.00000	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD8.i Injection Date: 06-MAR-2010 09:37  
 Lab File ID: s8c0605.d Init. Cal. Date(s): 20-FEB-2010 22-FEB-2010  
 Analysis Type: Init. Cal. Times: 12:55 01:19  
 Lab Sample ID: WBN100218-03.4 Quant Type: ISTD  
 Method: /chem/MSD8.i/s030610.b/MSD8-8270AQA-022010.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
212 Cis Diallate	0.20071	0.17230	0.17230	0.000	-14.15581	60.00000	Averaged
213 Trans Diallate	0.23769	0.21285	0.21285	0.000	-10.44742	60.00000	Averaged
140 4-Aminobiphenyl	0.51727	0.54501	0.54501	0.000	5.36183	60.00000	Averaged
141 Pentachloronitrobenzene	0.07936	0.06556	0.06556	0.000	-17.38733	60.00000	Averaged
142 Pronamide	0.25230	0.24732	0.24732	0.000	-1.97482	60.00000	Averaged
146 4-Nitroquinoline-1-oxide	0.01907	0.01750	0.01750	0.000	-8.23372	60.00000	Averaged
147 Methapyrilene	0.29186	0.34045	0.34045	0.000	16.65021	60.00000	Averaged
148 Isodrin	0.10718	0.09594	0.09594	0.000	-10.48568	60.00000	Averaged
149 Aramite	0.03388	0.03460	0.03460	0.000	2.12831	60.00000	Averaged
150 Kepone	0.07795	0.06803	0.06803	0.000	-12.72927	60.00000	Averaged
151 p-(Dimethylamino)azobenzene	0.25808	0.28581	0.28581	0.000	10.74673	60.00000	Averaged
152 Chlorobenzilate	0.26271	0.27496	0.27496	0.000	4.66587	60.00000	Averaged
153 3,3'-Dimethylbenzidine	0.45535	0.44968	0.44968	0.000	-1.24505	60.00000	Averaged
155 2-Acetylaminofluorene	46.17157	40.00000	0.26706	0.000	15.42893	60.00000	Linear
157 7,12Dimethylbenz(a)anthrace	0.51909	0.47149	0.47149	0.000	-9.17075	60.00000	Averaged
158 3-Methylcholanthrene	0.36780	0.36022	0.36022	0.000	-2.06252	60.00000	Averaged

GEL Laboratories LLC

Data file : /chem/MSD8.i/s030610.b/s8c0605.d  
 Lab Smp Id: WBN100218-03.4 Client Smp ID: AP12CVS  
 Inj Date : 06-MAR-2010 09:37  
 Operator : nag1 Inst ID: MSD8.i  
 Smp Info : |WBN100218-03.4|CCV|1|SVM|1|AP12CVS  
 Misc Info : |MSD8270|WBN100227-01  
 Comment : Column: J & W DB-5MS, 25m x 0.20 mm x 0.33 micron film  
 Method : /chem/MSD8.i/s030610.b/MSD8-8270AQA-022010.m  
 Meth Date : 07-Mar-2010 11:26 nat00999 Quant Type: ISTD  
 Cal Date : 21-FEB-2010 23:15 Cal File: s8b2042.d  
 Als bottle: 3 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	ON-COL
* 10 1,4-Dichlorobenzene-d4	152	4.458	4.458	(1.000)	697841	40.0000
* 29 Naphthalene-d8	136	5.715	5.715	(1.000)	2678786	40.0000
* 46 Acenaphthene-d10	164	7.573	7.573	(1.000)	1601198	40.0000
* 67 Phenanthrene-d10	188	9.177	9.177	(1.000)	2834791	40.0000
* 91 Chrysene-d12	240	12.077	12.077	(1.000)	2316095	40.0000
* 98 Perylene-d12	264	14.187	14.187	(1.000)	1730547	40.0000
209 Benzaldehyde	77	4.058	4.058	(0.910)	492183	40.0000 33.4
16 Acetophenone	105	4.835	4.835	(1.084)	714323	40.0000 34.0
189 Caprolactam	113	6.149	6.149	(1.076)	180973	40.0000 40.6
208 1,1'-Biphenyl	154	6.954	6.954	(0.918)	1787246	40.0000 36.5
207 Atrazine	173	8.858	8.858	(0.965)	103863	40.0000 41.5
77 Benzidine	184	10.616	10.616	(0.879)	642810	40.0000 37.6
90 3,3'-Dichlorobenzidine	252	12.020	12.020	(0.995)	570046	40.0000 39.7
102 1,4-Dioxane	88	2.154	2.154	(0.483)	190849	40.0000 33.8
103 Methyl methacrylate	100	2.154	2.154	(0.483)	106973	40.0000 36.5
104 Ethyl methacrylate	69	2.644	2.644	(0.593)	378759	40.0000 31.9
105 2-Picoline	93	2.892	2.892	(0.649)	691150	40.0000 36.2
106 N-Nitrosomethylethylamine	88	2.958	2.958	(0.664)	256605	40.0000 33.4
107 Methyl methanesulfonate	80	3.182	3.182	(0.714)	284784	40.0000 32.7
108 N-Nitrosodiethylamine	102	3.506	3.506	(0.786)	282200	40.0000 35.3
109 Ethyl Methanesulfonate	79	3.744	3.744	(0.840)	352538	40.0000 33.2
110 Pentachloroethane	167	4.201	4.201	(0.942)	205302	40.0000 36.7
111 N-Nitrosopyrrolidine	100	4.815	4.815	(1.080)	306372	40.0000 35.8(Q)
113 N-Nitrosomorpholine	56	4.849	4.849	(1.088)	361677	40.0000 31.2
114 o-Toluidine	106	4.868	4.868	(1.092)	1025180	40.0000 36.2
115 N-Nitrosopiperidine	114	5.154	5.154	(0.902)	309400	40.0000 37.1

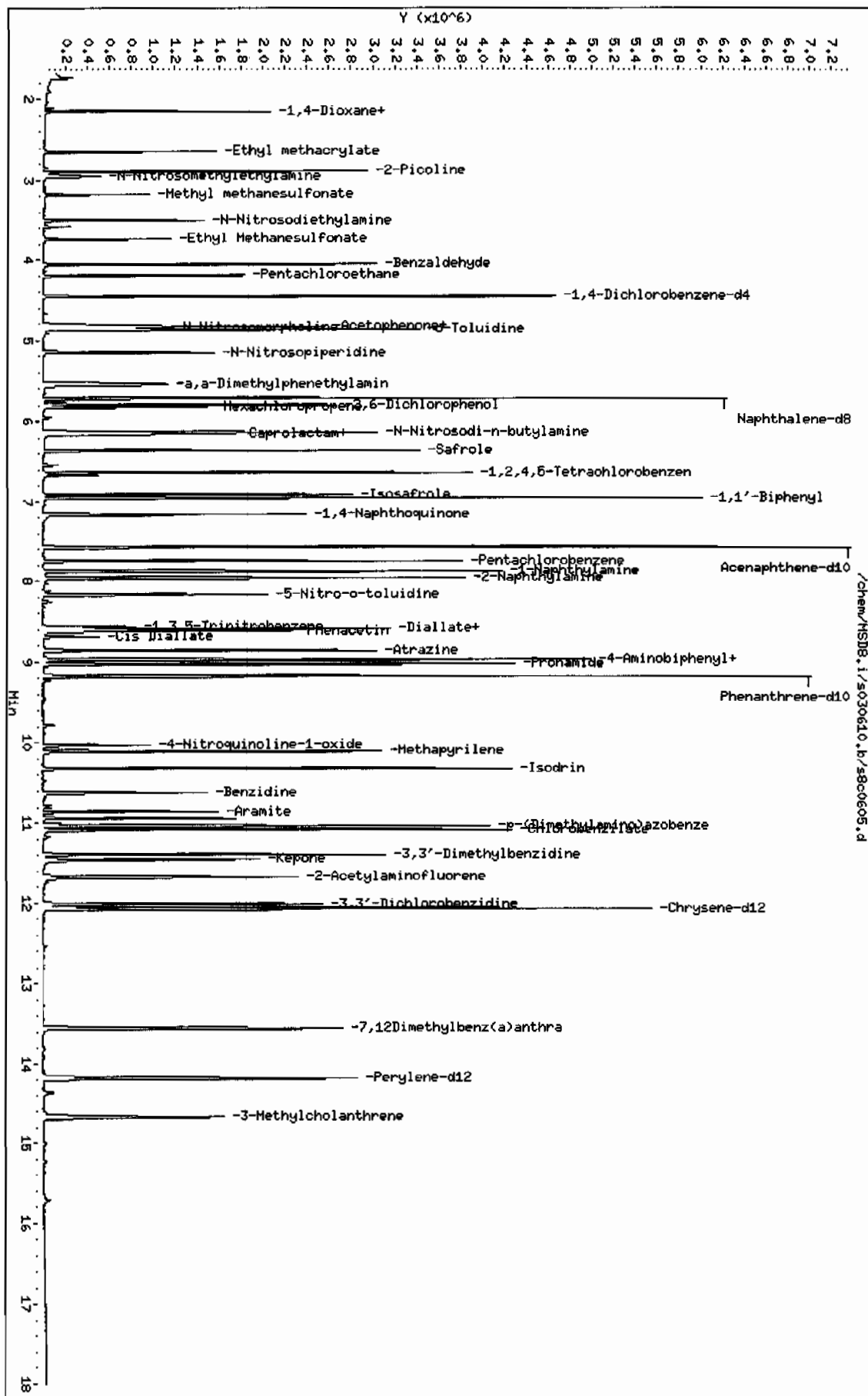
Compounds	QUANT SIG					AMOUNTS	
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ng/ul)	ON-COL (ng/ul)
116 a,a-Dimethylphenethylamine	58	5.539	5.539	(0.969)	1559201	40.0000	31.3
118 2,6-Dichlorophenol	162	5.796	5.796	(1.014)	548774	40.0000	40.6
119 Hexachloropropene	213	5.825	5.825	(1.019)	235162	40.0000	28.4
120 p-Phenylenediamine	108	6.158	6.158	(1.077)	545010	40.0000	41.4
121 N-Nitrosodi-n-butylamine	84	6.135	6.135	(1.073)	527686	40.0000	37.2
122 Safrole	162	6.358	6.358	(1.112)	486291	40.0000	37.6
123 1,2,4,5-Tetrachlorobenzene	216	6.635	6.635	(0.876)	680601	40.0000	35.7
124 Isosafrole	162	6.911	6.911	(0.913)	465235	40.0000	36.2
125 1,4-Naphthoquinone	158	7.163	7.163	(0.946)	463457	40.0000	39.0
127 Pentachlorobenzene	250	7.749	7.749	(1.023)	595946	40.0000	34.3
128 1-Naphthylamine	143	7.873	7.873	(1.040)	1294401	40.0000	38.4
129 2-Naphthylamine	143	7.958	7.958	(1.051)	1379181	40.0000	38.8
131 5-Nitro-o-toluidine	152	8.168	8.168	(1.079)	368616	40.0000	38.2
136 1,3,5-Trinitrobenzene	75	8.563	8.563	(0.933)	245484	40.0000	36.5
137 Phenacetin	108	8.620	8.620	(0.939)	597711	40.0000	38.9 (Q)
138 Diallate	86	8.587	8.587	(0.936)	512888	40.0000	35.8
212 Cis Diallate	86	8.687	8.687	(0.947)	73266	6.00000	5.2
213 Trans Diallate	86	8.587	8.587	(0.936)	512888	34.0000	30.4
140 4-Aminobiphenyl	169	8.968	8.968	(0.977)	1544976	40.0000	42.1
141 Pentachloronitrobenzene	237	8.977	8.977	(0.978)	185859	40.0000	33.0 (Q)
142 Pronamide	173	9.025	9.025	(0.983)	701095	40.0000	39.2
146 4-Nitroquinoline-1-oxide	101	10.025	10.025	(1.092)	49603	40.0000	36.7
147 Methapyrilene	58	10.101	10.101	(1.101)	965115	40.0000	46.7
148 Isodrin	193	10.316	10.316	(1.124)	271970	40.0000	35.8
149 Aramite	185	10.858	10.858	(1.183)	98085	40.0000	40.8
150 Kepone	272	11.458	11.458	(1.249)	192838	40.0000	34.9
151 p-(Dimethylamino)azobenzene	120	11.035	11.035	(0.914)	661974	40.0000	44.3
152 Chlorobenzilate	251	11.082	11.082	(0.918)	636841	40.0000	41.9
153 3,3'-Dimethylbenzidine	212	11.397	11.397	(0.944)	1041509	40.0000	39.5
155 2-Acetylaminofluorene	181	11.677	11.677	(0.967)	618538	40.0000	46.2
157 7,12Dimethylbenz(a)anthracene	256	13.558	13.558	(0.956)	815929	40.0000	36.3
158 3-Methylcholanthrene	268	14.673	14.673	(1.034)	623375	40.0000	39.2 (Q)

#### QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD8.1/s030610.b/s800605.d  
 Date: 06-MAR-2010 09:37  
 Client ID: AP12CVS  
 Sample Info: IABM00218-03.41CC111SW111AP12CVS  
 Column Phase: JMJ DB-SMS

Instrument: MSD8.1  
 Operator: nag1  
 Column diameter: 0.20



# QC Data

Data File: /chem/MSD8.i/s022010.b/s8b2001.d

Page 1

Date : 20-FEB-2010 12:04

Client ID: DFTPP

Instrument: MSD8.i

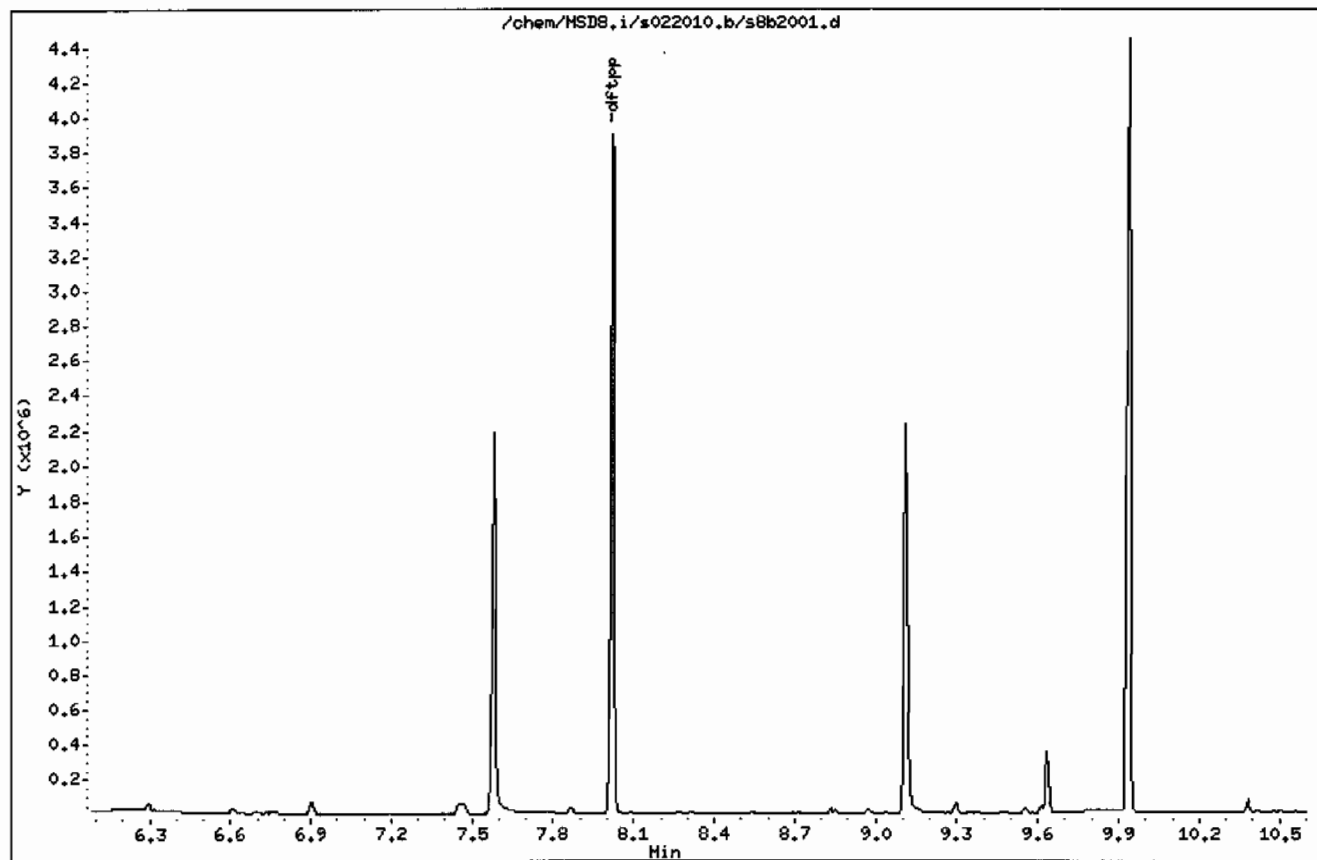
Sample Info: IWSN100207-01150 PPH11SVNF111DFTPP

Volume Injected (uL): 1.0

Operator: nag1

Column phase: J & W DB-5MS

Column diameter: 0,20



Date : 20-FEB-2010 12:04

Client ID: DFTPP

Instrument: MSD8.i

Sample Info: IWBH100207-01150 PPH11SVHF11DFTPP

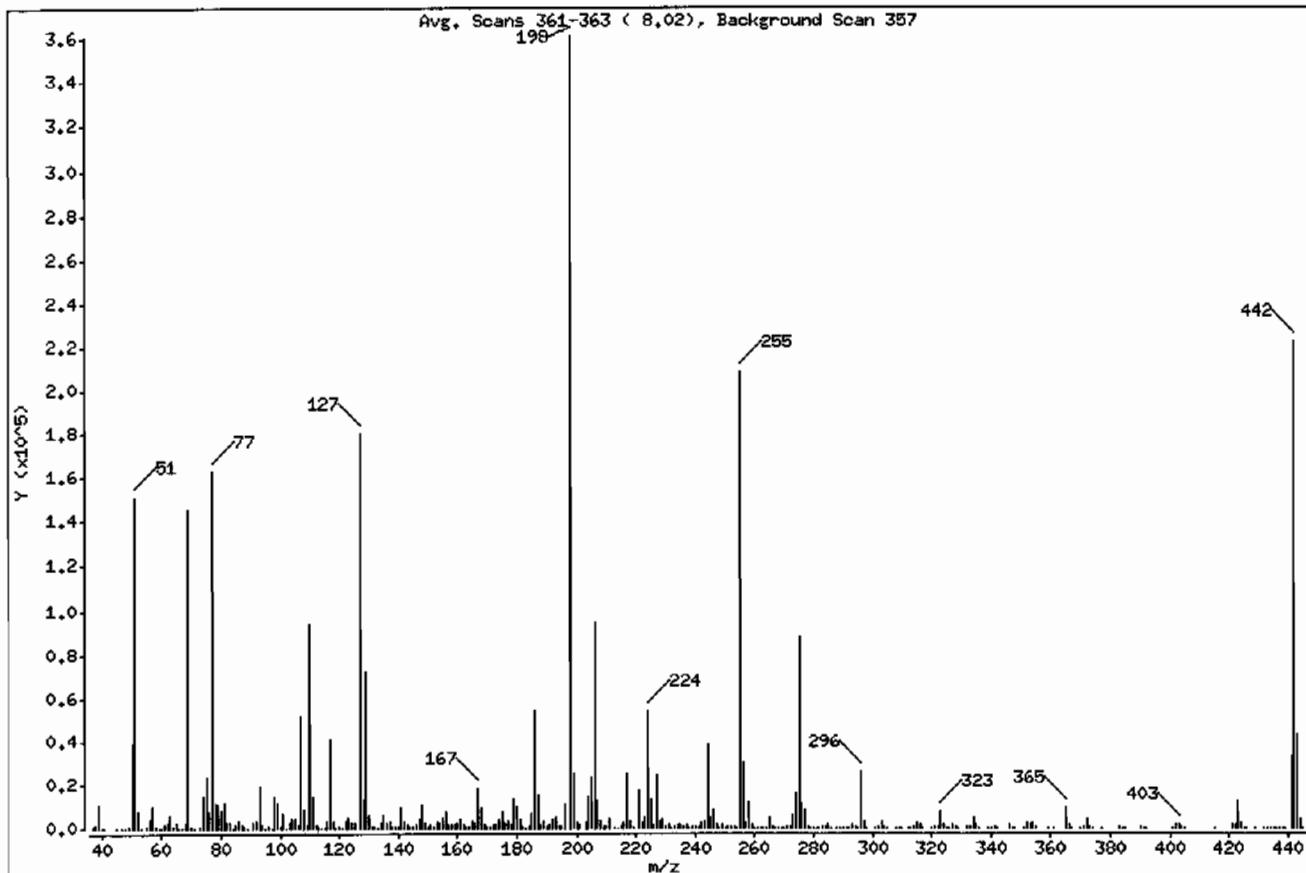
Volume Injected (uL): 1.0

Operator: nag1

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	41.91
68	Less than 2.00% of mass 69	0.76 ( 1.89)
69	Mass 69 relative abundance	40.27
70	Less than 2.00% of mass 69	0.22 ( 0.56)
127	40.00 - 60.00% of mass 198	49.86
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.79
275	10.00 - 30.00% of mass 198	24.30
365	Greater than 1.00% of mass 198	2.63
441	Present, but less than mass 443	9.09
442	Greater than 40.00% of mass 198	61.67
443	17.00 - 23.00% of mass 442	11.88 ( 19.27)



Date : 20-FEB-2010 12:04

Client ID: DFTPP

Instrument: MSDB.i

Sample Info: IWBNI00207-01150 PPH11SVMF11DFTPP

Volume Injected (uL): 1.0

Operator: nag1

Column phase: J &amp; W DB-5MS

Column diameter: 0.20

Data File: s8b2001.d

Spectrum: Avg. Scans 361-363 ( 8.02), Background Scan 357

Location of Maximum: 198.00

Number of points: 333

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	636	129.00	72112	216.00	2111	304.00	793
38.00	1805	130.00	6198	217.00	25088	305.00	96
39.00	10515	131.00	1179	218.00	3223	308.00	368
40.00	135	132.00	719	219.00	274	309.00	231
41.00	281	133.00	246	221.00	17016	310.00	352
45.00	296	134.00	2094	222.00	2240	312.00	71
47.00	79	135.00	5474	223.00	5388	313.00	267
48.00	100	136.00	2273	224.00	53856	314.00	1186
49.00	1097	137.00	2986	225.00	13496	315.00	2886
50.00	38736	138.00	704	226.00	1520	316.00	1494
51.00	151296	139.00	433	227.00	24000	317.00	272
52.00	7819	140.00	888	228.00	3311	320.00	103
53.00	348	141.00	9408	229.00	4563	321.00	882
55.00	755	142.00	3186	230.00	691	322.00	424
56.00	4473	143.00	1904	231.00	1920	323.00	7824
57.00	10066	144.00	664	232.00	303	324.00	1477
58.00	547	145.00	475	233.00	448	325.00	190
59.00	111	146.00	1633	234.00	1560	326.00	188
60.00	164	147.00	4413	235.00	1679	327.00	1444
61.00	1759	148.00	10596	236.00	1024	328.00	743
62.00	2153	149.00	2303	237.00	1900	329.00	97
63.00	6125	150.00	612	238.00	252	332.00	590
64.00	883	151.00	1360	239.00	942	333.00	759
65.00	2765	152.00	728	240.00	677	334.00	5028
66.00	317	153.00	2923	241.00	1231	335.00	1370
67.00	157	154.00	2190	242.00	2711	336.00	167
68.00	2746	155.00	5079	243.00	3008	339.00	122
69.00	145408	156.00	7633	244.00	38520	340.00	144
70.00	809	157.00	1609	245.00	5292	341.00	1027
71.00	66	158.00	1859	246.00	8553	342.00	229
73.00	1006	159.00	1245	247.00	1526	346.00	1715
74.00	14753	160.00	2882	248.00	404	347.00	313
75.00	23536	161.00	4229	249.00	1334	348.00	34
76.00	7856	162.00	1249	250.00	237	351.00	95
77.00	162688	163.00	420	251.00	454	352.00	2254

Date : 20-FEB-2010 12:04

Client ID: DFTPP

Instrument: HSD8.i

Sample Info: IWBH100207-01150 PPH11SVMF11DFTPP

Volume Injected (uL): 1.0

Operator: nag1

Column phase: J &amp; W DB-5MS

Column diameter: 0.20

Data File: s8b2001.d

Spectrum: Avg. Scans 361-363 ( 8.02), Background Scan 357

Location of Maximum: 198.00

Number of points: 333

m/z	Y	m/z	Y	m/z	Y	m/z	Y
-----							
78.00	11164	164.00	482	252.00	526	353.00	1685
79.00	11063	165.00	3411	253.00	1014	354.00	2374
80.00	8318	166.00	2886	254.00	246	355.00	442
81.00	11755	167.00	18128	255.00	208576	359.00	131
82.00	2698	168.00	8989	256.00	29864	361.00	41
-----							
83.00	2563	169.00	1693	257.00	2335	365.00	9500
84.00	292	170.00	689	258.00	11889	366.00	1267
85.00	2016	171.00	811	259.00	1946	367.00	41
86.00	3161	172.00	1827	260.00	327	370.00	143
87.00	1709	173.00	1985	261.00	323	371.00	544
-----							
88.00	611	174.00	3761	262.00	91	372.00	4073
89.00	242	175.00	7387	263.00	105	373.00	967
91.00	2732	176.00	2369	264.00	245	374.00	36
92.00	2924	177.00	3691	265.00	4904	377.00	41
93.00	18696	178.00	1264	266.00	660	383.00	924
-----							
94.00	1352	179.00	13514	267.00	81	384.00	271
95.00	383	180.00	9564	268.00	48	385.00	83
96.00	815	181.00	4172	269.00	46	390.00	495
97.00	300	182.00	737	270.00	217	391.00	390
98.00	14288	183.00	389	271.00	458	392.00	149
-----							
99.00	11396	184.00	1158	272.00	683	401.00	249
100.00	988	185.00	6644	273.00	6165	402.00	1263
101.00	6504	186.00	53976	274.00	16175	403.00	1933
102.00	385	187.00	15120	275.00	87720	404.00	757
103.00	2407	188.00	1626	276.00	11586	405.00	99
-----							
104.00	4126	189.00	3449	277.00	8344	415.00	104
105.00	3848	190.00	678	278.00	1175	421.00	1862
106.00	1319	191.00	1548	279.00	270	422.00	1706
107.00	51688	192.00	4531	280.00	40	423.00	12077
108.00	8074	193.00	4921	281.00	26	424.00	2784
-----							
109.00	1707	194.00	960	282.00	153	425.00	353
110.00	94192	195.00	585	283.00	954	426.00	35
111.00	14368	196.00	10955	284.00	633	429.00	49
112.00	1773	198.00	361024	285.00	1386	432.00	53
113.00	552	199.00	24520	286.00	247	433.00	99

Date : 20-FEB-2010 12:04

Client ID: DFTPP

Instrument: MSD8.i

Sample Info: IWBNI00207-01150 PPHI1|SVHF1|DFTPP

Volume Injected (uL): 1.0

Operator: nag1

Column phase: J &amp; W DB-5MS

Column diameter: 0.20

Data File: s8b2001.d

Spectrum: Avg. Scans 361-363 ( 8.02), Background Scan 357

Location of Maximum: 198.00

Number of points: 333

m/z	Y	m/z	Y	m/z	Y	m/z	Y
114.00	137	200.00	2077	288.00	81	434.00	73
115.00	242	201.00	1683	289.00	256	435.00	109
116.00	2914	203.00	2421	290.00	281	436.00	130
117.00	40800	204.00	13892	291.00	185	437.00	215
118.00	3050	205.00	22864	292.00	403	438.00	351
119.00	350	206.00	94712	293.00	1882	439.00	245
120.00	773	207.00	12092	294.00	526	441.00	32832
121.00	290	208.00	3333	295.00	44	442.00	222592
122.00	3559	209.00	1153	296.00	25992	443.00	42896
123.00	5240	210.00	891	297.00	3524	444.00	3896
124.00	2349	211.00	3877	298.00	302	445.00	219
125.00	2177	213.00	294	301.00	317		
127.00	179968	214.00	128	302.00	514		
128.00	13270	215.00	1136	303.00	3030		

Data File: /chem/MSD8.i/s022010.b/s8b2013.d

Page 1

Date : 21-FEB-2010 08:35

Client ID: DFTPP

Instrument: MSD8.i

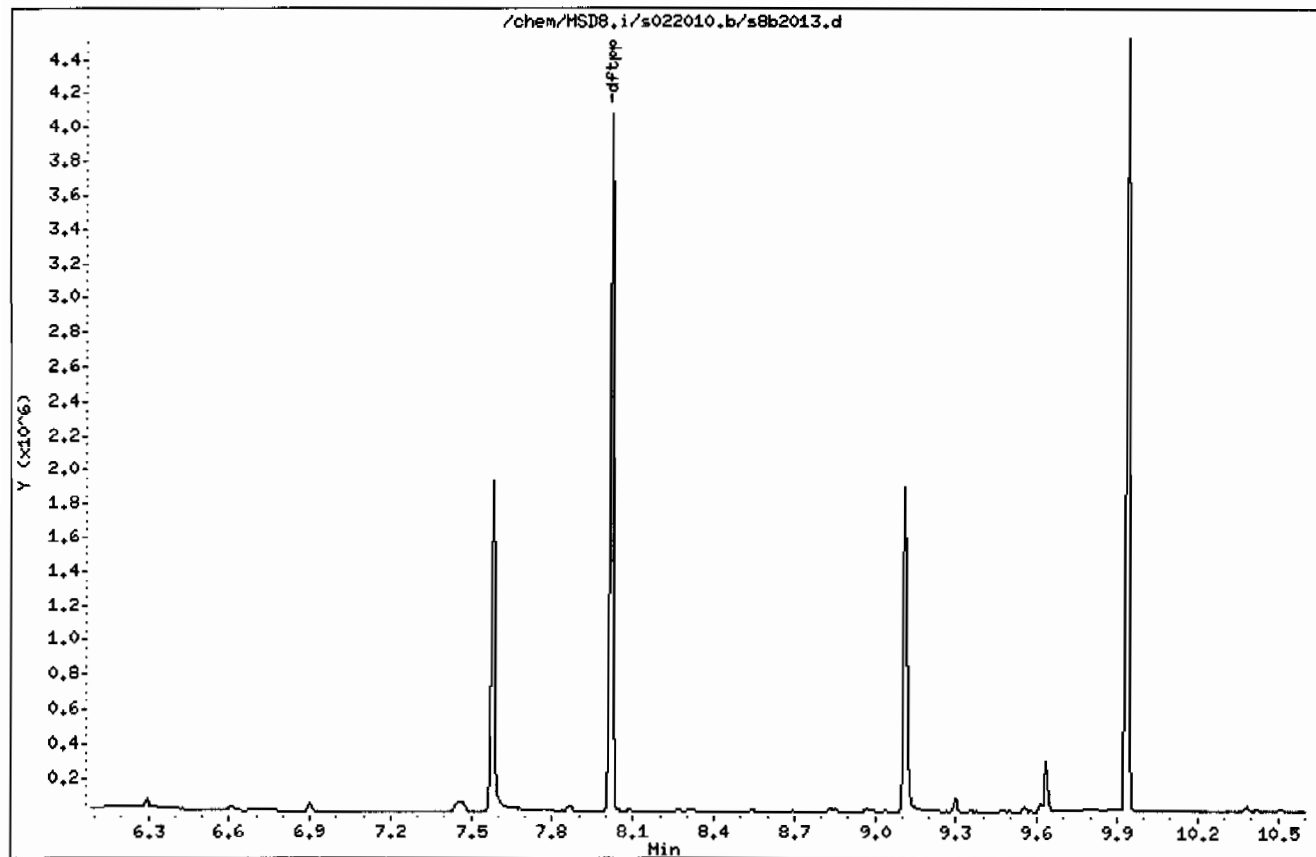
Sample Info: IWBNI00207-01150 PPM11SVMF111DFTPP

Volume Injected (uL): 1.0

Operator: nag1

Column phase: J & W DB-5MS

Column diameter: 0.20



Date : 21-FEB-2010 08:35

Client ID: DFTPP

Instrument: MSDB.i

Sample Info: IWBNI00207-01150 PPHI1ISVMFI1IDFTPP

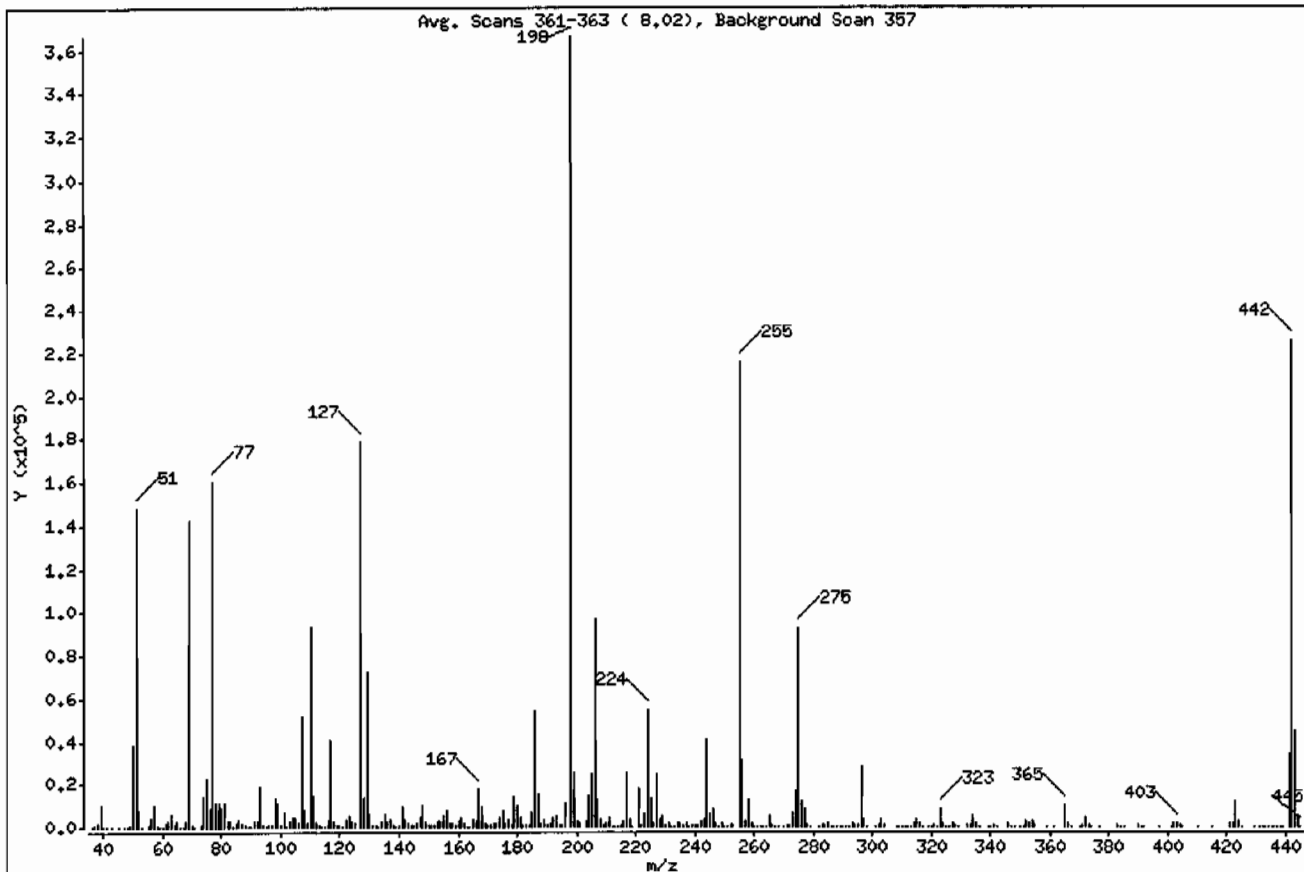
Volume Injected (uL): 1.0

Operator: nag1

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	40.53
68	Less than 2.00% of mass 69	0.71 ( 1.84)
69	Mass 69 relative abundance	38.91
70	Less than 2.00% of mass 69	0.22 ( 0.56)
127	40.00 - 60.00% of mass 198	48.75
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.82
275	10.00 - 30.00% of mass 198	25.27
365	Greater than 1.00% of mass 198	2.78
441	Present, but less than mass 443	9.31
442	Greater than 40.00% of mass 198	61.67
443	17.00 - 23.00% of mass 442	12.15 ( 19.71)

Date : 21-FEB-2010 08:35

Client ID: DFTPP

Instrument: MSDB.i

Sample Info: IWBNI00207-01150 PPHI1SVHF11DFTPP

Volume Injected (uL): 1.0

Operator: nag1

Column phase: J &amp; W DB-5MS

Column diameter: 0.20

Data File: s8b2013.d

Spectrum: Avg. Scans 361-363 ( 8.02), Background Scan 357

Location of Maximum: 198.00

Number of points: 338

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	56	127.00	178624	214.00	46	309.00	256
37.00	622	128.00	13701	215.00	1055	310.00	391
38.00	1670	129.00	72120	216.00	2351	311.00	40
39.00	10227	130.00	6084	217.00	25672	312.00	66
40.00	276	131.00	1249	218.00	3337	313.00	215
41.00	148	132.00	676	219.00	394	314.00	1282
43.00	81	133.00	345	221.00	17360	315.00	2979
45.00	175	134.00	2137	222.00	784	316.00	1571
47.00	75	135.00	5764	223.00	5854	317.00	345
48.00	135	136.00	2291	224.00	54384	319.00	39
49.00	1162	137.00	3163	225.00	13504	320.00	89
50.00	38328	138.00	613	226.00	1516	321.00	844
51.00	148480	139.00	305	227.00	24384	322.00	237
52.00	7983	140.00	874	228.00	3450	323.00	8074
53.00	379	141.00	9200	229.00	5126	324.00	1548
55.00	654	142.00	3293	230.00	654	325.00	173
56.00	4225	143.00	2051	231.00	1887	326.00	144
57.00	9800	144.00	620	232.00	354	327.00	1551
58.00	460	145.00	527	233.00	399	328.00	753
59.00	146	146.00	1802	234.00	1541	329.00	186
60.00	207	147.00	4607	235.00	1773	332.00	625
61.00	1930	148.00	10337	236.00	1054	333.00	892
62.00	2234	149.00	2168	237.00	1872	334.00	4922
63.00	5775	150.00	592	238.00	323	335.00	1472
64.00	828	151.00	1245	239.00	1019	336.00	124
65.00	2791	152.00	804	240.00	727	339.00	168
66.00	273	153.00	2889	241.00	1258	340.00	43
67.00	294	154.00	2254	242.00	2657	341.00	971
68.00	2618	155.00	4976	243.00	3024	342.00	281
69.00	142528	156.00	7917	244.00	40320	346.00	1742
70.00	801	157.00	1591	245.00	5613	347.00	411
71.00	110	158.00	1797	246.00	8746	348.00	42
73.00	982	159.00	1200	247.00	1601	350.00	100
74.00	14686	160.00	2833	248.00	402	351.00	114
75.00	23056	161.00	3964	249.00	1347	352.00	2446

Date : 21-FEB-2010 08:35

Client ID: DFTPP

Instrument: MSD8.i

Sample Info: IWBNI00207-01150 PPH11SVMF11DFTPP

Volume Injected (uL): 1.0

Operator: nag1

Column phase: J &amp; W DB-5MS

Column diameter: 0.20

Data File: s8b2013.d

Spectrum: Avg. Scans 361-363 ( 8.02), Background Scan 357

Location of Maximum: 198.00

Number of points: 338

m/z	Y	m/z	Y	m/z	Y	m/z	Y
76.00	8112	162.00	1292	250.00	297	353.00	1664
77.00	159808	163.00	370	251.00	407	354.00	2324
78.00	10752	164.00	418	252.00	537	355.00	613
79.00	10806	165.00	3457	253.00	973	359.00	188
80.00	8432	166.00	2678	255.00	216000	361.00	35
81.00	11175	167.00	17744	256.00	30888	365.00	10172
82.00	2848	168.00	9666	257.00	2348	366.00	1571
83.00	2358	169.00	1555	258.00	12794	367.00	123
84.00	380	170.00	598	259.00	1933	370.00	198
85.00	1937	171.00	742	260.00	364	371.00	652
86.00	3300	172.00	1586	261.00	405	372.00	4000
87.00	1567	173.00	2096	262.00	34	373.00	950
88.00	607	174.00	3829	263.00	99	374.00	88
89.00	261	175.00	7675	264.00	325	377.00	56
90.00	99	176.00	2028	265.00	5206	383.00	1037
91.00	2533	177.00	3616	266.00	733	384.00	350
92.00	2877	178.00	1241	267.00	130	385.00	59
93.00	18624	179.00	14050	268.00	1	390.00	434
94.00	1132	180.00	10302	270.00	314	391.00	386
95.00	384	181.00	4359	271.00	454	392.00	247
96.00	852	182.00	801	272.00	611	397.00	36
97.00	507	183.00	425	273.00	6575	401.00	218
98.00	13725	184.00	1104	274.00	16896	402.00	1420
99.00	11316	185.00	7010	275.00	92592	403.00	2003
100.00	984	186.00	53560	276.00	12112	404.00	730
101.00	6416	187.00	15376	277.00	8831	405.00	147
102.00	398	188.00	1621	278.00	1259	410.00	36
103.00	2271	189.00	3344	279.00	291	415.00	89
104.00	4172	190.00	507	282.00	228	421.00	1948
105.00	3955	191.00	1461	283.00	887	422.00	1783
106.00	1360	192.00	4556	284.00	657	423.00	12054
107.00	51416	193.00	5226	285.00	1565	424.00	2758
108.00	7732	194.00	1074	286.00	264	425.00	311
109.00	1415	195.00	648	287.00	35	429.00	89
110.00	93200	196.00	11299	288.00	114	431.00	91

Date : 21-FEB-2010 08:35

Client ID: DFTPP

Instrument: MSDB.i

Sample Info: IWBNI00207-01150 PPM11|SVMF11|DFTPP

Volume Injected (uL): 1.0

Operator: nag1

Column phase: J &amp; W DB-5MS

Column diameter: 0.20

Data File: s8b2013.d

Spectrum: Avg. Scans 361-363 ( 8.02), Background Scan 367

Location of Maximum: 198.00

Number of points: 338

m/z	Y	m/z	Y	m/z	Y	m/z	Y
111.00	14005	198.00	366464	289.00	369	432.00	75
112.00	1777	199.00	25008	290.00	221	433.00	42
113.00	565	200.00	2149	291.00	192	434.00	133
114.00	156	201.00	1762	292.00	407	435.00	174
115.00	309	203.00	2677	293.00	1828	436.00	69
116.00	2977	204.00	14145	294.00	475	437.00	142
117.00	40696	205.00	24104	295.00	609	438.00	145
118.00	2826	206.00	97072	296.00	27600	439.00	257
119.00	441	207.00	12482	297.00	3606	441.00	34104
120.00	684	208.00	3467	298.00	227	442.00	225984
121.00	249	209.00	1206	301.00	394	443.00	44536
122.00	3382	210.00	1778	302.00	459	444.00	4167
123.00	5335	211.00	3877	303.00	3092	445.00	202
124.00	2445	212.00	196	304.00	889		
125.00	2106	213.00	321	308.00	309		



Data File: /chem/MSDB.i/s030610,b/s8c0603,d

Page 1

Date : 06-MAR-2010 08:50

Client ID: DFTPP

Instrument: MSDB.i

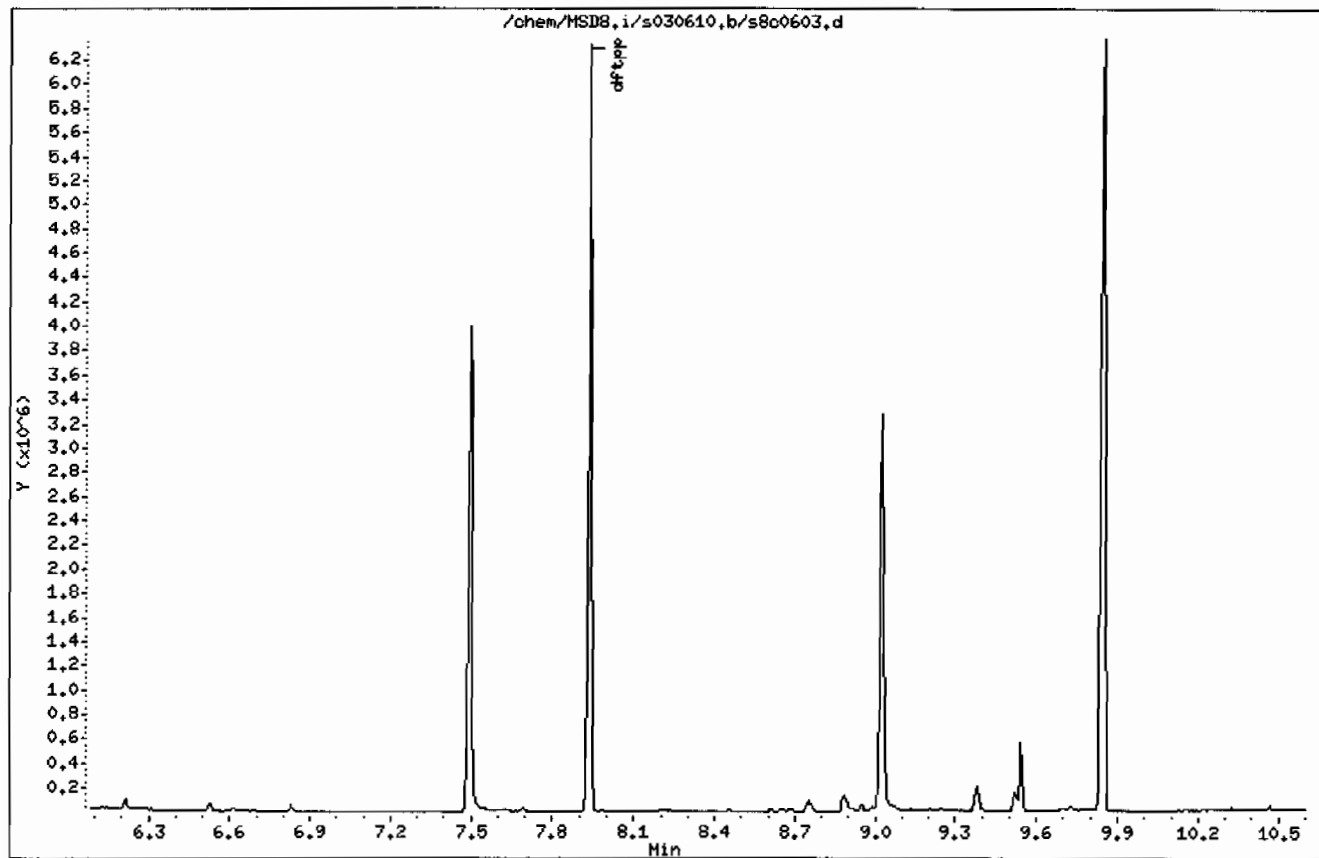
Sample Info: IWBNI00207-01IDFTPP11SVHI1150 PPM

Volume Injected (uL): 1.0

Operator: nag1

Column phase: J & W DB-5MS

Column diameter: 0.20



Date : 06-MAR-2010 08:50

Client ID: DFTPP

Instrument: MSD8.i

Sample Info: IWBNI00207-01IDFTPP11SVMI1150 PPH

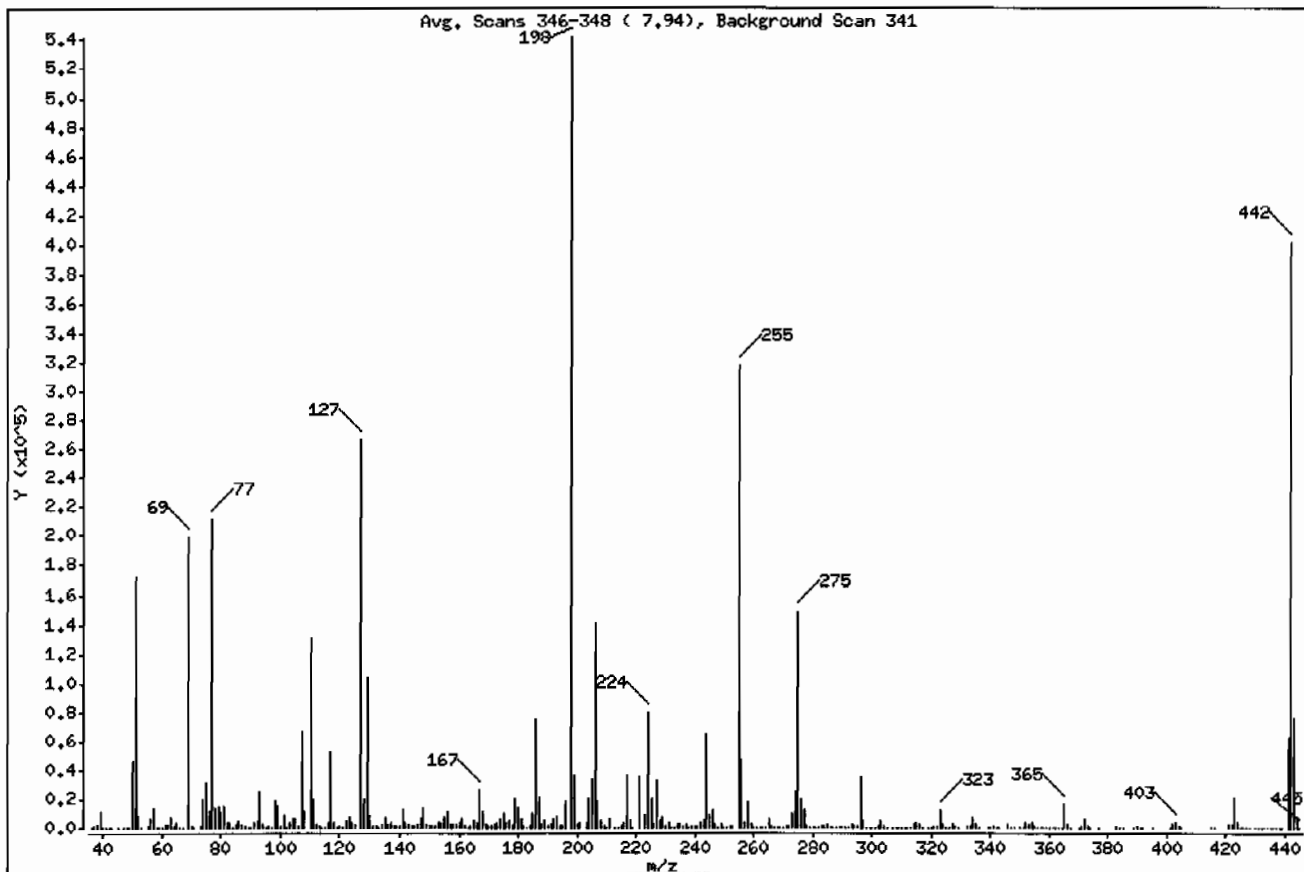
Volume Injected (uL): 1.0

Operator: nag1

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	31.72
68	Less than 2.00% of mass 69	0.00 ( 0.00)
69	Mass 69 relative abundance	36.74
70	Less than 2.00% of mass 69	0.20 ( 0.56)
127	40.00 - 60.00% of mass 198	49.19
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.73
275	10.00 - 30.00% of mass 198	27.42
365	Greater than 1.00% of mass 198	2.97
441	Present, but less than mass 443	11.59
442	Greater than 40.00% of mass 198	73.98
443	17.00 - 23.00% of mass 442	14.05 ( 18.99)

Date : 06-MAR-2010 08:50

Client ID: DFTPP

Instrument: MSD8.i

Sample Info: IWBNI00207-01IDFTPP11SVH11150 PPH

Volume Injected (uL): 1.0

Operator: nag1

Column phase: J &amp; W DB-SMS

Column diameter: 0.20

Data File: s8c0603.d

Spectrum: Avg. Scans 346-348 ( 7.94), Background Scan 341

Location of Maximum: 198.00

Number of points: 354

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	174	132.00	1000	226.00	2431	317.00	386
37.00	738	133.00	382	227.00	31936	319.00	34
38.00	2190	134.00	2906	228.00	4716	320.00	180
39.00	10963	135.00	7855	229.00	6974	321.00	1469
40.00	252	136.00	3112	230.00	985	322.00	693
41.00	252	137.00	4123	231.00	3123	323.00	12592
42.00	82	138.00	780	232.00	556	324.00	2288
43.00	19	139.00	680	233.00	532	325.00	220
45.00	338	140.00	1320	234.00	2216	326.00	174
47.00	114	141.00	12919	235.00	2346	327.00	2361
48.00	131	142.00	4242	236.00	1537	328.00	1030
49.00	335	143.00	2814	237.00	2521	329.00	231
50.00	45768	144.00	790	238.00	462	332.00	890
51.00	171840	145.00	848	239.00	1399	333.00	1292
52.00	8822	146.00	2241	240.00	1032	334.00	7760
53.00	514	147.00	6670	241.00	1758	335.00	2057
55.00	1119	148.00	14082	242.00	4086	336.00	181
56.00	5736	149.00	2990	243.00	4740	339.00	185
57.00	13122	150.00	794	244.00	64832	340.00	279
58.00	542	151.00	1703	245.00	8437	341.00	1332
59.00	78	152.00	1258	246.00	12171	342.00	467
60.00	274	153.00	4338	247.00	2366	343.00	116
61.00	2467	154.00	3196	248.00	583	346.00	2689
62.00	2682	155.00	7263	249.00	2393	347.00	437
63.00	7447	156.00	10609	250.00	477	348.00	76
64.00	1079	157.00	2195	251.00	551	350.00	147
65.00	3887	158.00	2730	252.00	671	351.00	243
66.00	386	159.00	1939	253.00	1593	352.00	3524
67.00	429	160.00	4036	255.00	318144	353.00	2762
69.00	198976	161.00	6073	256.00	46728	354.00	3742
70.00	1110	162.00	1621	257.00	3776	355.00	713
71.00	193	163.00	595	258.00	17256	356.00	70
73.00	1578	164.00	700	259.00	2770	357.00	35
74.00	20040	165.00	4588	260.00	500	358.00	43
75.00	31304	166.00	3675	261.00	507	359.00	208

Date : 06-MAR-2010 08:50

Client ID: DFTPP

Instrument: MSDB.i

Sample Info: IWBH100207-01IDFTPP11SVH11150 PPM

Volume Injected (uL): 1.0

Operator: nag1

Column phase: J &amp; W DB-5MS

Column diameter: 0.20

Data File: s8c0603.d

Spectrum: Avg. Scans 346-348 ( 7.94), Background Scan 341

Location of Maximum: 198.00

Number of points: 354

m/z	Y	m/z	Y	m/z	Y	m/z	Y
-----							
76.00	11078	167.00	26024	262.00	85	360.00	38
77.00	211648	168.00	11238	263.00	160	361.00	85
78.00	14132	169.00	2253	264.00	577	362.00	102
79.00	14953	170.00	964	265.00	6767	363.00	99
80.00	11051	171.00	1259	266.00	1076	364.00	59
-----							
81.00	14995	172.00	2284	267.00	257	365.00	16088
82.00	3955	173.00	3328	268.00	78	366.00	2281
83.00	3584	174.00	5909	269.00	126	367.00	172
84.00	420	175.00	10171	270.00	447	370.00	350
85.00	2721	176.00	3456	271.00	693	371.00	924
-----							
86.00	4427	177.00	4908	272.00	1040	372.00	5758
87.00	2124	178.00	1623	273.00	10014	373.00	1578
88.00	774	179.00	19496	274.00	25416	374.00	198
89.00	398	180.00	13250	275.00	148544	377.00	107
90.00	74	181.00	6571	276.00	20064	383.00	1635
-----							
91.00	4009	182.00	1131	277.00	11944	384.00	437
92.00	4453	183.00	591	278.00	1841	385.00	87
93.00	25440	184.00	1623	279.00	356	389.00	52
94.00	1871	185.00	9820	280.00	81	390.00	839
95.00	416	186.00	74624	281.00	107	391.00	407
-----							
96.00	1129	187.00	20848	282.00	361	392.00	365
97.00	272	188.00	2142	283.00	1385	395.00	33
98.00	19232	189.00	5027	284.00	878	401.00	340
99.00	15188	190.00	786	285.00	1902	402.00	2400
100.00	1366	191.00	2230	286.00	379	403.00	3297
-----							
101.00	8410	192.00	6518	287.00	87	404.00	1211
102.00	481	193.00	7056	288.00	159	405.00	144
103.00	3249	194.00	1659	289.00	602	415.00	226
104.00	5687	195.00	1144	290.00	494	416.00	34
105.00	5810	196.00	19160	291.00	310	421.00	2791
-----							
106.00	1868	198.00	541760	292.00	590	422.00	3006
107.00	67520	199.00	36480	293.00	2792	423.00	21368
108.00	10868	200.00	2704	294.00	674	424.00	4204
110.00	130336	201.00	3274	296.00	824	426.00	515
111.00	19824	203.00	3798	296.00	35296	426.00	37

Date : 06-MAR-2010 08:50

Client ID: DFTPP

Instrument: HSD8.i

Sample Info: IWBH100207-01IDFTPP11SVH11150 PPM

Volume Injected (uL): 1.0

Operator: nag1

Column phase: J &amp; W DB-5MS

Column diameter: 0.20

Data File: s8c0603.d

Spectrum: Avg. Scans 346-348 ( 7.94), Background Scan 341

Location of Maximum: 198.00

Number of points: 354

m/z	Y	m/z	Y	m/z	Y	m/z	Y
112.00	2387	204.00	19776	297.00	4985	427.00	40
113.00	637	205.00	33168	298.00	311	428.00	70
114.00	259	206.00	140416	299.00	54	430.00	40
115.00	428	207.00	18728	300.00	41	431.00	103
116.00	4297	208.00	4644	301.00	517	432.00	114
117.00	52768	209.00	1487	302.00	632	433.00	214
118.00	4022	210.00	489	303.00	4594	434.00	239
119.00	519	211.00	5767	304.00	1265	435.00	224
120.00	870	213.00	419	305.00	175	436.00	583
121.00	469	214.00	233	307.00	69	437.00	474
122.00	5381	215.00	1692	308.00	611	438.00	248
123.00	7019	216.00	3234	309.00	400	439.00	252
124.00	3393	217.00	36248	310.00	417	441.00	62816
125.00	3086	218.00	4850	311.00	113	442.00	400768
127.00	266496	219.00	451	312.00	149	443.00	76112
128.00	19912	221.00	35144	313.00	396	444.00	6971
129.00	103768	223.00	8607	314.00	1919	445.00	390
130.00	8671	224.00	79144	315.00	3945		
131.00	1755	225.00	20480	316.00	2243		

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

SDG Number: 10-2027  
Lab Sample ID: 1202057823  
Client Sample: QC for batch 959456  
Client ID: MB for batch 959456  
Batch ID: 959457  
Run Date: 03/06/2010 10:05  
Prep Date: 03/01/2010 23:22  
Data File: s8c0606-1.d

Client: LANL010  
Method: SW846 8270C  
Inst: MSD8.I  
Analyst: NAG1  
Aliquot: 30 g  
Column: J&W DB-5MS

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

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	333	ug/kg	66.7	333
108-95-2	Phenol	U	333	ug/kg	66.7	333
95-57-8	2-Chlorophenol	U	333	ug/kg	66.7	333
106-46-7	1,4-Dichlorobenzene	U	333	ug/kg	66.7	333
621-64-7	N-Nitrosodipropylamine	U	333	ug/kg	66.7	333
59-50-7	4-Chloro-3-methylphenol	U	333	ug/kg	66.7	333
83-32-9	Acenaphthene	U	33.3	ug/kg	11.0	33.3
121-14-2	2,4-Dinitrotoluene	U	333	ug/kg	33.3	333
100-02-7	4-Nitrophenol	U	333	ug/kg	110	333
87-86-5	Pentachlorophenol	U	333	ug/kg	83.3	333
129-00-0	Pyrene	U	33.3	ug/kg	10.0	33.3
110-86-1	Pyridine	U	333	ug/kg	66.7	333
62-53-3	Aniline	U	333	ug/kg	100	333
111-44-4	bis(2-Chloroethyl) ether	U	333	ug/kg	66.7	333
541-73-1	1,3-Dichlorobenzene	U	333	ug/kg	66.7	333
100-51-6	Benzyl alcohol	U	333	ug/kg	100	333
95-50-1	1,2-Dichlorobenzene	U	333	ug/kg	66.7	333
108-60-1	bis(2-Chloroisopropyl)ether	U	333	ug/kg	66.7	333
95-48-7	o-Cresol	U	333	ug/kg	66.7	333
65794-96-9	m,p-Cresols	U	333	ug/kg	100	333
67-72-1	Hexachloroethane	U	333	ug/kg	66.7	333
98-95-3	Nitrobenzene	U	333	ug/kg	66.7	333
78-59-1	Isophorone	U	333	ug/kg	66.7	333
88-75-5	2-Nitrophenol	U	333	ug/kg	66.7	333
105-67-9	2,4-Dimethylphenol	U	333	ug/kg	117	333
111-91-1	bis(2-Chloroethoxy)methane	U	333	ug/kg	66.7	333
120-83-2	2,4-Dichlorophenol	U	333	ug/kg	66.7	333
65-85-0	Benzoic acid	U	667	ug/kg	167	667
91-20-3	Naphthalene	U	33.3	ug/kg	10.0	33.3
106-47-8	4-Chloroaniline	U	333	ug/kg	66.7	333
87-68-3	Hexachlorobutadiene	U	333	ug/kg	66.7	333
91-57-6	2-Methylnaphthalene	U	33.3	ug/kg	6.67	33.3
77-47-4	Hexachlorocyclopentadiene	U	333	ug/kg	66.7	333
88-06-2	2,4,6-Trichlorophenol	U	333	ug/kg	66.7	333
95-95-4	2,4,5-Trichlorophenol	U	333	ug/kg	66.7	333
91-58-7	2-Chloronaphthalene	U	33.3	ug/kg	11.0	33.3
88-74-4	2-Nitroaniline	U	333	ug/kg	66.7	333
99-09-2	o-Nitroaniline	U	333	ug/kg	66.7	333
	3-Nitroaniline					

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

SDG Number: 10-2027		Matrix: SOIL
Lab Sample ID: 1202057823		
Client Sample: QC for batch 959456	Client: LANL010	Project: QC
Client ID: MB for batch 959456	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 959457	Inst: MSD8.I	Dilution: 1
Run Date: 03/06/2010 10:05	Analyst: NAG1	Inj. Vol: 5 uL
Prep Date: 03/01/2010 23:22	Aliquot: 30 g	Final Volume: 1 mL
Data File: s8c0606-1.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					
606-20-2	Dimethylphthalate	U	333	ug/kg	66.7	333
208-96-8	2,6-Dinitrotoluene	U	333	ug/kg	33.3	333
51-28-5	Acenaphthylene	U	33.3	ug/kg	10.0	33.3
132-64-9	2,4-Dinitrophenol	U	667	ug/kg	127	667
84-66-2	Dibenzofuran	U	333	ug/kg	66.7	333
86-73-7	Diethylphthalate	U	333	ug/kg	66.7	333
7005-72-3	Fluorene	U	33.3	ug/kg	10.0	33.3
534-52-1	4-Chlorophenylphenylether	U	333	ug/kg	66.7	333
100-01-6	2-Methyl-4,6-dinitrophenol	U	333	ug/kg	66.7	333
122-39-4	4-Nitroaniline	U	333	ug/kg	100	333
122-66-7	<i>p</i> -Nitroaniline					
101-55-3	Diphenylamine	U	333	ug/kg	66.7	333
118-74-1	Azobenzene	U	333	ug/kg	66.7	333
85-01-8	<i>1,2</i> -Diphenylhydrazine					
120-12-7	4-Bromophenylphenylether	U	333	ug/kg	66.7	333
84-74-2	Hexachlorobenzene	U	333	ug/kg	66.7	333
206-44-0	Phenanthrene	U	33.3	ug/kg	10.0	33.3
85-68-7	Anthracene	U	33.3	ug/kg	6.67	33.3
56-55-3	Di-n-butylphthalate	U	333	ug/kg	66.7	333
91-94-1	Fluoranthene	U	33.3	ug/kg	10.0	33.3
218-01-9	Butylbenzylphthalate	U	333	ug/kg	66.7	333
117-81-7	Benzo(a)anthracene	U	33.3	ug/kg	10.0	33.3
117-84-0	3,3'-Dichlorobenzidine	U	333	ug/kg	100	333
205-99-2	Chrysene	U	33.3	ug/kg	10.0	33.3
207-08-9	bis(2-Ethylhexyl)phthalate	U	333	ug/kg	66.7	333
50-32-8	Di-n-octylphthalate	U	333	ug/kg	66.7	333
193-39-5	Benzo(b)fluoranthene	U	33.3	ug/kg	10.0	33.3
53-70-3	Benzo(k)fluoranthene	U	33.3	ug/kg	10.0	33.3
191-24-2	Benzo(a)pyrene	U	33.3	ug/kg	10.0	33.3
120-82-1	Indeno(1,2,3-cd)pyrene	U	33.3	ug/kg	10.0	33.3
	Dibenzo(a,h)anthracene	U	33.3	ug/kg	10.0	33.3
	Benzo(ghi)perylene	U	33.3	ug/kg	10.0	33.3
	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	1.89	1320	ug/kg		J
	Unknown Aldol Condensate	3.08	504	ug/kg		JA

Data File: /chem/MSD8.i/s030610.b/s8c0606-2.d  
Report Date: 08-Mar-2010 06:47

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GEL Laboratories LLC

Data file : /chem/MSD8.i/s030610.b/s8c0606-2.d  
Lab Smp Id: 1202057823 Client Smp ID: SBLK01  
Inj Date : 06-MAR-2010 10:05  
Operator : nag1 Inst ID: MSD8.i  
Smp Info : |1202057823|959457|1|SVM|1|SBLK01  
Misc Info : |MSD8270\_S|WBN100227-01  
Comment : Column: J & W DB-5MS, 25m x 0.20 mm x 0.33 micron film  
Method : /chem/MSD8.i/s030610.b/MSD8-8270AQA-022010.m  
Meth Date : 07-Mar-2010 11:27 nat00999 Quant Type: ISTD  
Cal Date : 21-FEB-2010 23:15 Cal File: s8b2042.d  
Als bottle: 4 QC Sample: BLANK  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: 10-2027.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	0.00000	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG	CONCENTRATIONS					
		MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	4.458	4.458	(1.000)	629614	40.0000	
* 29 Naphthalene-d8	136	5.715	5.720	(1.000)	2421232	40.0000	
* 46 Acenaphthene-d10	164	7.573	7.577	(1.000)	1422917	40.0000	
* 67 Phenanthrene-d10	188	9.173	9.177	(1.000)	2471418	40.0000	
* 91 Chrysene-d12	240	12.073	12.082	(1.000)	1787815	40.0000	
* 98 Perylene-d12	264	14.182	14.187	(1.000)	1287417	40.0000	
\$ 3 2-Fluorophenol	112	3.320	3.306	(0.745)	1067754	71.8333	2390
\$ 5 Phenol-d5	99	4.077	4.082	(0.915)	1247110	67.2750	2240
\$ 20 Nitrobenzene-d5	82	4.982	4.992	(0.872)	563810	32.7574	1090
\$ 39 2-Fluorobiphenyl	172	6.844	6.849	(0.904)	1403399	33.5073	1120
\$ 60 2,4,6-Tribromophenol	329	8.415	8.420	(1.111)	345579	73.4704	2450
\$ 81 p-Terphenyl-d14	244	10.882	10.882	(0.901)	1462152	45.4265	1510



GEL Laboratories LLC

Data file : /chem/MSD8.i/s030610.b/s8c0606-2.d  
 Lab Smp Id: 1202057823 Client Smp ID: SBLK01  
 Inj Date : 06-MAR-2010 10:05  
 Operator : nag1 Inst ID: MSD8.i  
 Smp Info : |1202057823|959457|1|SVM|1|SBLK01  
 Misc Info : |MSD8270\_S|WBN100227-01  
 Comment : Column: J & W DB-5MS, 25m x 0.20 mm x 0.33 micron film  
 Method : /chem/MSD8.i/s030610.b/MSD8-8270AQA-022010.m  
 Meth Date : 07-Mar-2010 11:27 nat00999 Quant Type: ISTD  
 Cal Date : 21-FEB-2010 23:15 Cal File: s8b2042.d  
 Als bottle: 4 QC Sample: BLANK  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: 10-2027.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

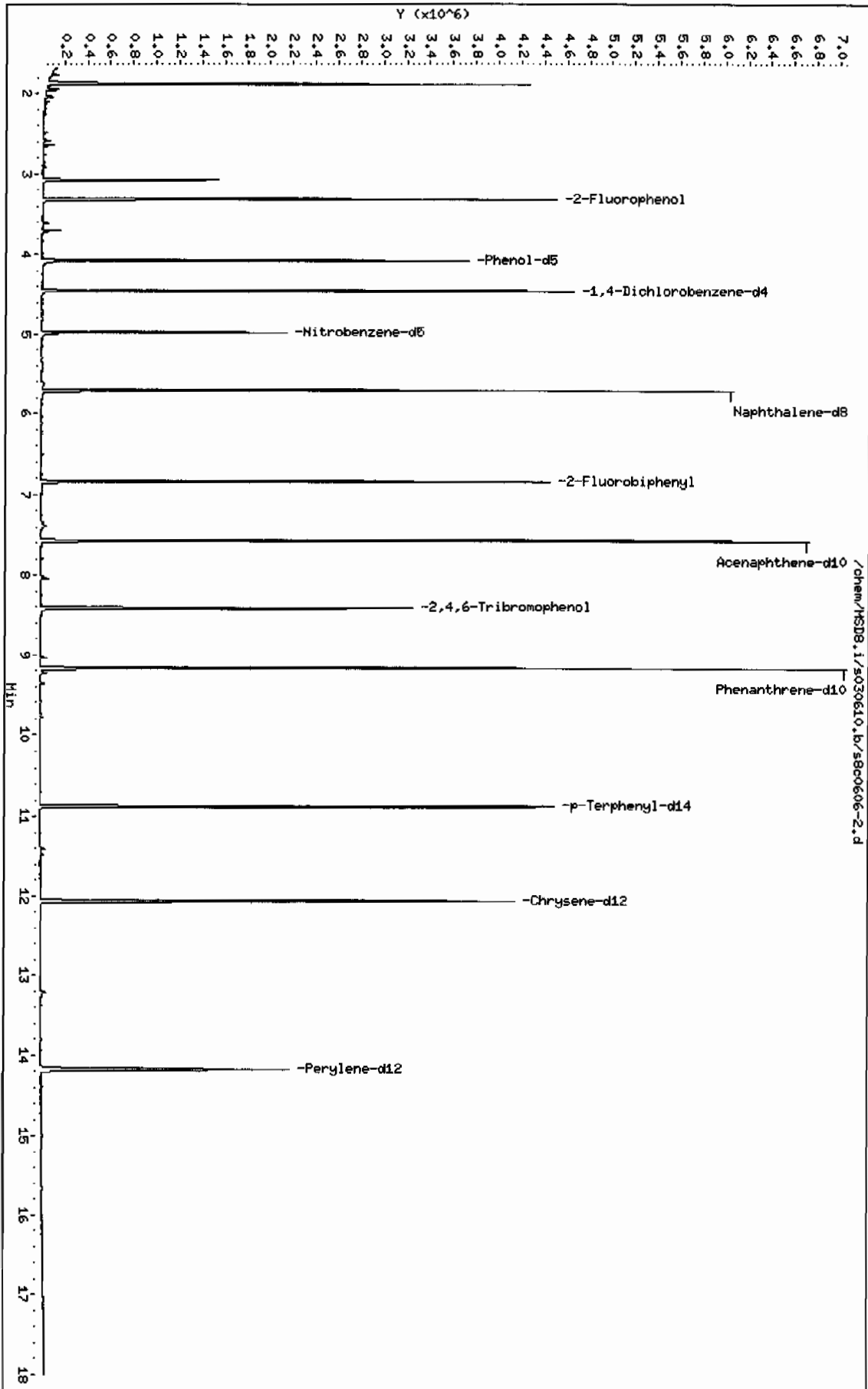
Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
=====	=====	=====	=====
* 10 1,4-Dichlorobenzene-d4	4.458	3503199	40.000

CONCENTRATIONS				QUANT			
RT	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
=====	=====	=====	=====	=====	=====	=====	=====
Unknown				CAS #:			
1.887	3456207	39.4634335	1320	0		0	10
Unknown Aldol Condensate				CAS #:			
3.082	1323922	15.1167175	504	0		0	10

Data File: /chem/MSDB.i/s030610.b/s8c0606-2.d  
 Date: 06-MAR-2010 10:05  
 Client ID: SRLK01  
 Sample Info: 11202057823195945711SYN11SRLK01  
 Volume Injected (uL): 0.5  
 Column phase: J&W DB-SHS

Instrument: MSDB.i  
 Operator: nag1  
 Column diameter: 0.20



Date : 06-MAR-2010 10:05

Client ID: SBLK01

Instrument: HSD8.i

Sample Info: I1202057823195945711ISVH11ISBLK01

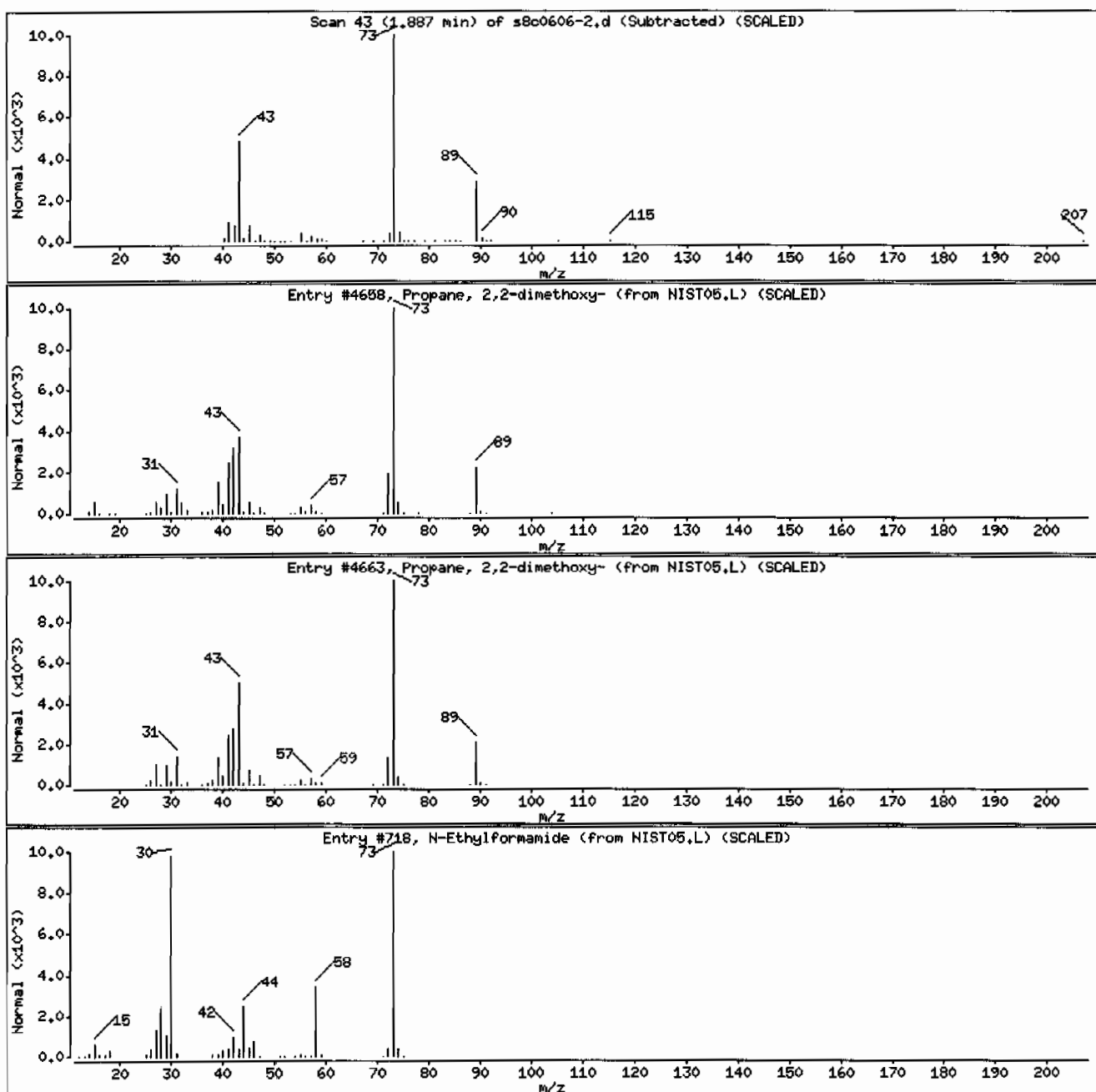
Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Propane, 2,2-dimethoxy-	77-76-9	NIST05.L	4658	56	C5H12O2	104
Propane, 2,2-dimethoxy-	77-76-9	NIST05.L	4663	39	C5H12O2	104
N-Ethylformamide	627-45-2	NIST05.L	718	25	C3H7NO	73



Date : 06-MAR-2010 10:05

Client ID: SBLK01

Instrument: MSD8.i

Sample Info: I12020578231959457111SVH111SBLK01

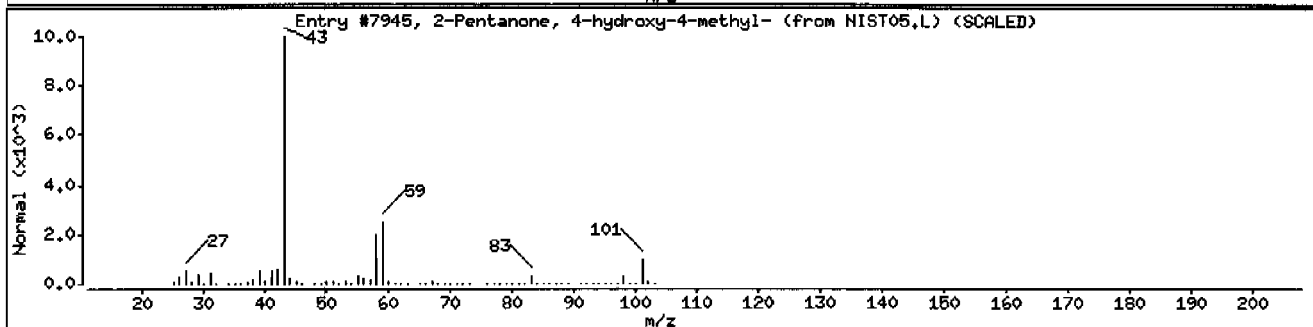
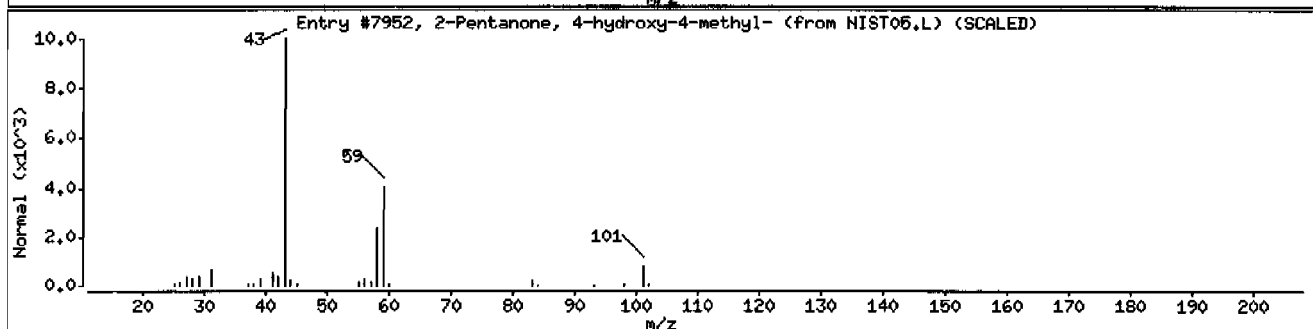
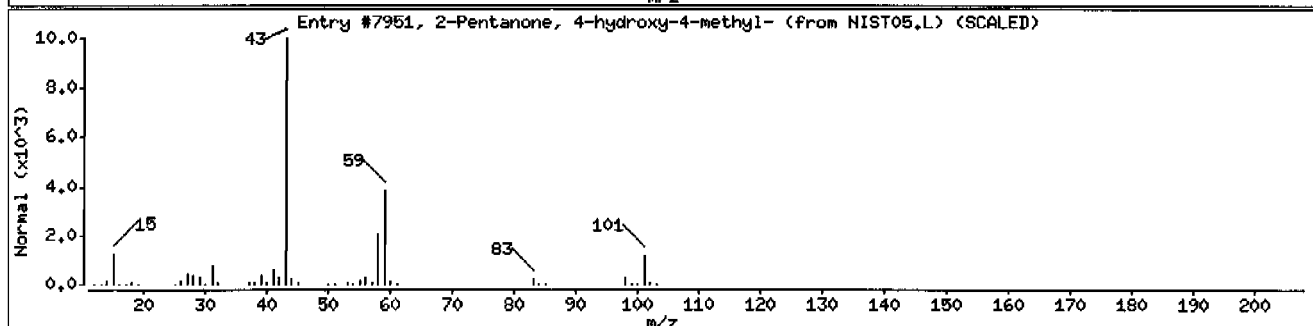
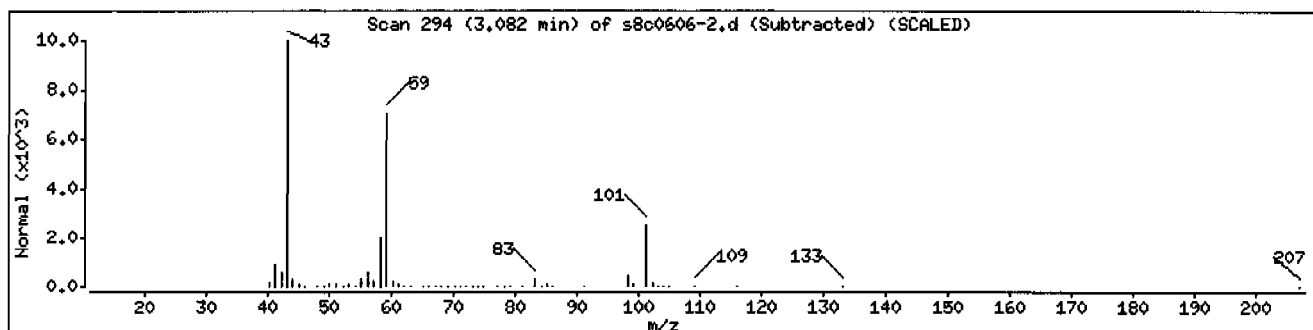
Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	53	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	7945	40	C6H12O2	116



Semi-Volatile  
Certificate of Analysis  
Sample Summary

Page 1 of 2

SDG Number: 10-2027

Matrix: SOIL

Lab Sample ID: 1202057824

Client Sample: QC for batch 959456

Client: LANL010

Project: QC

Client ID: LCS for batch 959456

Method: SW846 8270C

SOP Ref: GL-OA-E-009

Batch ID: 959457

Inst: MSD8.I

Dilution: 1

Run Date: 03/06/2010 10:34

Analyst: NAG1

Inj. Vol: .5 uL

Prep Date: 03/01/2010 23:22

Aliquot: 30 g

Final Volume: 1 mL

Data File: s8c0607-1.d

Column: J&amp;W DB-5MS

Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine		887	ug/kg	66.7	333
108-95-2	Phenol		1140	ug/kg	66.7	333
95-57-8	2-Chlorophenol		1190	ug/kg	66.7	333
106-46-7	1,4-Dichlorobenzene		1080	ug/kg	66.7	333
621-64-7	N-Nitrosodipropylamine		1070	ug/kg	66.7	333
59-50-7	4-Chloro-3-methylphenol		1230	ug/kg	66.7	333
83-32-9	Acenaphthene		1000	ug/kg	11.0	33.3
121-14-2	2,4-Dinitrotoluene		1210	ug/kg	33.3	333
100-02-7	4-Nitrophenol		1330	ug/kg	110	333
87-86-5	Pentachlorophenol		1340	ug/kg	83.3	333
129-00-0	Pyrene		926	ug/kg	10.0	33.3
110-86-1	Pyridine		919	ug/kg	66.7	333
62-53-3	Aniline		857	ug/kg	100	333
111-44-4	bis(2-Chloroethyl) ether		943	ug/kg	66.7	333
541-73-1	1,3-Dichlorobenzene		1080	ug/kg	66.7	333
100-51-6	Benzyl alcohol		810	ug/kg	100	333
95-50-1	1,2-Dichlorobenzene		1090	ug/kg	66.7	333
108-60-1	bis(2-Chloroisopropyl)ether		782	ug/kg	66.7	333
95-48-7	o-Cresol		1150	ug/kg	66.7	333
65794-96-9	m,p-Cresols		1320	ug/kg	100	333
67-72-1	Hexachloroethane		1010	ug/kg	66.7	333
98-95-3	Nitrobenzene		1050	ug/kg	66.7	333
78-59-1	Isophorone		1040	ug/kg	66.7	333
88-75-5	2-Nitrophenol		1250	ug/kg	66.7	333
105-67-9	2,4-Dimethylphenol		1010	ug/kg	117	333
111-91-1	bis(2-Chloroethoxy)methane		1090	ug/kg	66.7	333
120-83-2	2,4-Dichlorophenol		1220	ug/kg	66.7	333
65-85-0	Benzoic acid		2730	ug/kg	167	667
91-20-3	Naphthalene		1130	ug/kg	10.0	33.3
106-47-8	4-Chloroaniline		882	ug/kg	66.7	333
87-68-3	Hexachlorobutadiene		1030	ug/kg	66.7	333
91-57-6	2-Methylnaphthalene		1230	ug/kg	6.67	33.3
77-47-4	Hexachlorocyclopentadiene		1010	ug/kg	66.7	333
88-06-2	2,4,6-Trichlorophenol		1150	ug/kg	66.7	333
95-95-4	2,4,5-Trichlorophenol		1140	ug/kg	66.7	333
91-58-7	2-Chloronaphthalene		1090	ug/kg	11.0	33.3
88-74-4	2-Nitroaniline		1240	ug/kg	66.7	333
	<i>o</i> -Nitroaniline					
99-09-2	3-Nitroaniline		1150	ug/kg	66.7	333

Semi-Volatile  
Certificate of Analysis  
Sample Summary

SDG Number: 10-2027

Matrix: SOIL

Lab Sample ID: 1202057824

Client Sample: QC for batch 959456

Client: LANL010

Project: QC

Client ID: LCS for batch 959456

Method: SW846 8270C

SOP Ref: GL-OA-E-009

Batch ID: 959457

Inst: MSD8.I

Dilution: 1

Run Date: 03/06/2010 10:34

Analyst: NAG1

Inj. Vol: .5 uL

Prep Date: 03/01/2010 23:22

Aliquot: 30 g

Final Volume: 1 mL

Data File: s8c0607-1.d

Column: J&amp;W DB-5MS

Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	<i>m</i> -Nitroaniline					
131-11-3	Dimethylphthalate		1200	ug/kg	66.7	333
606-20-2	2,6-Dinitrotoluene		1180	ug/kg	33.3	333
208-96-8	Acenaphthylene		1100	ug/kg	10.0	33.3
51-28-5	2,4-Dinitrophenol		1560	ug/kg	127	667
132-64-9	Dibenzofuran		1120	ug/kg	66.7	333
84-66-2	Diethylphthalate		1210	ug/kg	66.7	333
86-73-7	Fluorene		1070	ug/kg	10.0	33.3
7005-72-3	4-Chlorophenylphenylether		1070	ug/kg	66.7	333
534-52-1	2-Methyl-4,6-dinitrophenol		1390	ug/kg	66.7	333
100-01-6	4-Nitroaniline		1520	ug/kg	100	333
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine		1330	ug/kg	66.7	333
122-66-7	Azobenzene		1330	ug/kg	66.7	333
	<i>1,2</i> -Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether		1120	ug/kg	66.7	333
118-74-1	Hexachlorobenzene		1040	ug/kg	66.7	333
85-01-8	Phenanthrene		1140	ug/kg	10.0	33.3
120-12-7	Anthracene		1090	ug/kg	6.67	33.3
84-74-2	Di-n-butylphthalate		1300	ug/kg	66.7	333
206-44-0	Fluoranthene		1120	ug/kg	10.0	33.3
85-68-7	Butylbenzylphthalate		1220	ug/kg	66.7	333
56-55-3	Benzo(a)anthracene		1060	ug/kg	10.0	33.3
91-94-1	3,3'-Dichlorobenzidine		1060	ug/kg	100	333
218-01-9	Chrysene		1090	ug/kg	10.0	33.3
117-81-7	bis(2-Ethylhexyl)phthalate		1310	ug/kg	66.7	333
117-84-0	Di-n-octylphthalate		1290	ug/kg	66.7	333
205-99-2	Benzo(b)fluoranthene		1110	ug/kg	10.0	33.3
207-08-9	Benzo(k)fluoranthene		1050	ug/kg	10.0	33.3
50-32-8	Benzo(a)pyrene		1160	ug/kg	10.0	33.3
193-39-5	Indeno(1,2,3-cd)pyrene		1100	ug/kg	10.0	33.3
53-70-3	Dibenzo(a,h)anthracene		1310	ug/kg	10.0	33.3
191-24-2	Benzo(ghi)perylene		1110	ug/kg	10.0	33.3
120-82-1	1,2,4-Trichlorobenzene		1070	ug/kg	66.7	333

GEL Laboratories LLC

Data file : /chem/MSD8.i/s030610.b/s8c0607-2.d  
Lab Smp Id: 1202057824 Client Smp ID: SBLK01LCS  
Inj Date : 06-MAR-2010 10:34  
Operator : nag1 Inst ID: MSD8.i  
Smp Info : |1202057824|959457|1|SVM|1|SBLK01LCS  
Misc Info : |MSD8270\_S|WBN100227-01  
Comment : Column: J & W DB-5MS, 25m x 0.20 mm x 0.33 micron film  
Method : /chem/MSD8.i/s030610.b/MSD8-8270AQA-022010.m  
Meth Date : 07-Mar-2010 11:27 nat00999 Quant Type: ISTD  
Cal Date : 21-FEB-2010 23:15 Cal File: s8b2042.d  
Als bottle: 5 QC Sample: LCS  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: 10-2027.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	4.458	4.458	(1.000)	722221	40.0000		
* 29 Naphthalene-d8	136	5.720	5.720	(1.000)	2822954	40.0000		
* 46 Acenaphthene-d10	164	7.577	7.577	(1.000)	1718350	40.0000		
* 67 Phenanthrene-d10	188	9.177	9.177	(1.000)	3063318	40.0000		
* 91 Chrysene-d12	240	12.087	12.082	(1.000)	3108823	40.0000		
* 98 Perylene-d12	264	14.196	14.187	(1.000)	2261043	40.0000		
\$ 3 2-Fluorophenol	112	3.320	3.306	(0.745)	1193356	69.9889	2330	
\$ 5 Phenol-d5	99	4.087	4.082	(0.917)	1426151	67.0685	2240	
\$ 20 Nitrobenzene-d5	82	4.987	4.992	(0.872)	633032	31.5453	1050	
\$ 39 2-Fluorobiphenyl	172	6.844	6.849	(0.903)	1589669	31.4292	1050	
\$ 60 2,4,6-Tribromophenol	329	8.425	8.420	(1.112)	410990	72.3543	2410	
\$ 81 p-Terphenyl-d14	244	10.887	10.882	(0.901)	1910091	34.1269	1140	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ng/ul)	FINAL (ug/Kg)
=====	=====	==	=====	=====	=====	=====	=====
6 Phenol	94	4.096	4.096	(0.919)	754039	34.3390	1140
8 2-Chlorophenol	128	4.263	4.258	(0.956)	677954	35.5554	1180
11 1,4-Dichlorobenzene	146	4.473	4.473	(1.003)	753338	32.2898	1080
17 N-Nitrosodipropylamine	70	4.834	4.839	(1.084)	450821	32.0982	1070
26 1,2,4-Trichlorobenzene	180	5.654	5.658	(0.988)	661170	32.1741	1070
33 4-Chloro-3-methylphenol	107	6.287	6.277	(1.099)	609692	36.8737	1230
47 Acenaphthene	154	7.611	7.615	(1.004)	1372892	30.0660	1000
50 2,4-Dinitrotoluene	165	7.777	7.777	(1.026)	507786	36.3792	1210
52 4-Nitrophenol	139	7.696	7.692	(1.016)	233380	39.7891	1330
65 Pentachlorophenol	266	8.968	8.963	(0.977)	273118	40.3010	1340
79 Pyrene	202	10.730	10.730	(0.888)	2697131	27.7870	926
2 Pyridine	79	2.420	2.387	(0.543)	444976	27.5754	919
4 Aniline	66	4.149	4.149	(0.931)	257976	25.7244	857
7 bis(2-Chloroethyl) ether	63	4.196	4.196	(0.941)	424755	28.2942	943
9 1,3-Dichlorobenzene	146	4.406	4.406	(0.988)	730945	32.3245	1080
12 Benzyl alcohol	108	4.573	4.573	(1.026)	289727	24.2919	810
13 1,2-Dichlorobenzene	146	4.620	4.620	(1.036)	708442	32.6447	1090
14 bis(2-Chloroisopropyl) ether	45	4.696	4.701	(1.053)	690128	23.4467	782
15 o-Cresol	107	4.668	4.663	(1.047)	523877	34.3522	1140
18 m,p-Cresols	107	4.815	4.820	(1.080)	762691	39.5187	1320
19 Hexachloroethane	117	4.949	4.949	(1.110)	266537	30.3159	1010
21 Nitrobenzene	77	5.006	5.011	(0.875)	651494	31.4734	1050
22 Isophorone	82	5.244	5.249	(0.917)	1184930	31.0928	1040
23 2-Nitrophenol	139	5.320	5.325	(0.930)	355696	37.4397	1250
24 2,4-Dimethylphenol	122	5.349	5.349	(0.935)	511631	30.2921	1010
25 bis(2-Chloroethoxy) methane	93	5.449	5.449	(0.953)	700388	32.7726	1090
26 2,4-Dichlorophenol	162	5.568	5.563	(0.973)	560855	36.6999	1220
27 Benzoic acid	105	5.496	5.458	(0.961)	812822	81.8918	2730
30 Naphthalene	128	5.739	5.744	(1.003)	2069558	33.9466	1130
31 4-Chloroaniline	127	5.787	5.787	(1.012)	533734	26.4568	882
32 Hexachlorobutadiene	225	5.858	5.858	(1.024)	395640	30.9562	1030
34 2-Methylnaphthalene	142	6.463	6.463	(1.130)	1506247	36.8109	1230
36 Hexachlorocyclopentadiene	237	6.620	6.625	(0.874)	323158	30.3001	1010
37 2,4,6-Trichlorophenol	196	6.758	6.753	(0.892)	455699	34.4202	1150
38 2,4,5-Trichlorophenol	196	6.796	6.792	(0.897)	481069	34.2346	1140
40 2-Chloronaphthalene	162	6.982	6.982	(0.921)	1376183	32.6655	1090
42 o-Nitroaniline	65	7.082	7.082	(0.935)	438127	37.2325	1240
41 m-Nitroaniline	138	7.525	7.525	(0.993)	310333	34.6025	1150
43 Dimethylphthalate	163	7.277	7.287	(0.960)	1732728	35.9849	1200
44 2,6-Dinitrotoluene	165	7.344	7.349	(0.969)	385460	35.4082	1180
45 Acenaphthylene	152	7.425	7.425	(0.980)	2343695	32.8520	1100
48 2,4-Dinitrophenol	184	7.634	7.634	(1.008)	176126	46.7283	1560
49 Dibenzofuran	168	7.796	7.796	(1.029)	2021738	33.7451	1120
51 Diethylphthalate	149	8.034	8.034	(1.060)	1826723	36.2478	1210
53 Fluorene	166	8.163	8.163	(1.077)	1785040	32.1863	1070
54 4-Chlorophenylphenylether	204	8.158	8.158	(1.077)	854809	32.0047	1070
55 2-Methyl-4,6-dinitrophenol	198	8.215	8.215	(0.895)	257755	41.8072	1390



Compounds	QUANT SIG	MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN	FINAL
							(ng/ul)	(ug/Kg)
56 p-Nitroaniline		138	8.187	8.177	(1.080)	362489	45.7406	1520
133 Diphenylamine		169	8.287	8.287	(0.903)	1549156	40.0200	1330
58 1,2-Diphenylhydrazine		77	8.330	8.330	(0.908)	1819899	40.0234	1330
61 4-Bromophenylphenylether		248	8.687	8.687	(0.947)	492888	33.6721	1120
63 Hexachlorobenzene		284	8.754	8.754	(0.954)	476331	31.3082	1040
68 Phenanthrene		178	9.201	9.201	(1.003)	2434357	34.1152	1140
69 Anthracene		178	9.258	9.258	(1.009)	2441527	32.8386	1090
72 Di-n-butylphthalate		149	9.792	9.787	(1.067)	3037807	39.0899	1300
76 Fluoranthene		202	10.482	10.482	(1.142)	2607505	33.4507	1120
85 Butylbenzylphthalate		149	11.411	11.406	(0.944)	1245999	36.7095	1220
89 Benzo(a)anthracene		228	12.068	12.068	(0.998)	2609446	31.8966	1060
90 3,3'-Dichlorobenzidine		252	12.030	12.020	(0.995)	612999	31.8291	1060
92 Chrysene		228	12.120	12.115	(1.003)	2332699	32.7424	1090
93 bis(2-Ethylhexyl)phthalate		149	12.077	12.073	(0.999)	1863125	39.2232	1310
94 Di-n-octylphthalate		149	12.968	12.968	(0.913)	2682154	38.6385	1290
95 Benzo(b)fluoranthene		252	13.582	13.573	(0.957)	2140537	33.3921	1110
96 Benzo(k)fluoranthene		252	13.625	13.620	(0.960)	2037053	31.6095	1050
97 Benzo(a)pyrene		252	14.101	14.096	(0.993)	1874584	34.6726	1160
99 Indeno(1,2,3-cd)pyrene		276	16.030	16.020	(1.129)	1473495	32.8709	1100
100 Dibenzo(a,h)anthracene		278	16.068	16.058	(1.132)	1360299	39.2654	1310
101 Benzo(ghi)perylene		276	16.506	16.497	(1.163)	1239688	33.4253	1110
1 N-Methyl-N-nitrosomethylamine		74	2.382	2.349	(0.534)	292832	26.6211	887

Instrument: MSD8.1  
Operator: nag1  
Column diameter: 0.20

[illegible]

# Miscellaneous Data

# Prep Logbook

## Extraction of Semivolatile and Nonvolatile Organic Compounds from Soil, Sludge, and Other Miscellaneous Solid Samples

Batch ID: 959456      Verified by: \_\_\_\_\_      Lab SOP: GL-OA-E-010 REV# 18  
 Analyst: Alberto Velasco      Instrument: Semi-Volatiles Manual  
 Method: SW846 3550B

Sample ID	Run Date	Aliquot (g)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1202057823 MB	01-MAR-2010 23:22:00	30	1	0.03333
1202057824 LCS	01-MAR-2010 23:22:00	30	1	0.03333
247915001	01-MAR-2010 23:22:00	30.14	1	0.03318
247915002	01-MAR-2010 23:22:00	30.1	1	0.03322
247915003	01-MAR-2010 23:22:00	30.15	1	0.03317
247915004	01-MAR-2010 23:22:00	30.08	1	0.03324
247915005	01-MAR-2010 23:22:00	30.14	1	0.03318
247915006	01-MAR-2010 23:22:00	30.12	1	0.0332
247915007	01-MAR-2010 23:22:00	30.03	1	0.0333
247920002	01-MAR-2010 23:22:00	30.19	1	0.03312
248012002	01-MAR-2010 23:22:00	30.13	1	0.03319
248012003	01-MAR-2010 23:22:00	30.01	1	0.03332
248012004	01-MAR-2010 23:22:00	30.19	1	0.03312
248012005	01-MAR-2010 23:22:00	30.18	1	0.00033
248012006	01-MAR-2010 23:22:00	30.14	1	0.03318
248012007	01-MAR-2010 23:22:00	30.12	1	0.0332
248012008	01-MAR-2010 23:22:00	30.01	1	0.03332
248012009	01-MAR-2010 23:22:00	30.17	1	0.03315
248013001	01-MAR-2010 23:22:00	30.18	1	0.03313
1202057825 MS (248013001)	01-MAR-2010 23:22:00	30.1	1	0.03322
1202057826 MSD (248013001)	01-MAR-2010 23:22:00	30.14	1	0.03318
248013002	01-MAR-2010 23:22:00	30.04	1	0.03329
248013003	01-MAR-2010 23:22:00	30.18	1	0.03313
248013004	01-MAR-2010 23:22:00	30.12	1	0.0332

Type	Sample Id	Description	Serial Number	Spike Amt	Units	Comments:
LCS	1202057824	BNA LCS w/o Benzidine 50ppm	UE100222-14	1	mL	Verified By: AAW
LCS	1202057824	BENZIDINE LCS	UE100222-22	1	mL	Final Solvent: CH2Cl2
MS	1202057825	BNA LCS w/o Benzidine 50ppm	UE100222-14	1	mL	
MS	1202057825	BENZIDINE LCS	UE100222-22	1	mL	
MSD	1202057826	BNA LCS w/o Benzidine 50ppm	UE100222-14	1	mL	
MSD	1202057826	BENZIDINE LCS	UE100222-22	1	mL	
SURR	All	BNA for all Surrogate	UE091002-10	1	mL	
REGNT	All	Methylene Chloride	100301-D	150	mL	
REGNT	All	Acetone	1273823-B1	150	mL	
SOURC	All	SODIUM SULFATE	1274910	30	g	

## GEL ORGANIC RUN LOG

INSTRUMENT ID: MSD8

DATE: 03/06/2010 METHOD: See raw data OPERATOR: NAG REVIEWED BY: DATE: \_\_\_\_\_

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT 1266705-D  
Multiplier Voltage: 1176mv Extr. Injection Volume: 0.5, 1.0 ul  
DFTPP Solution ID: WBN100207-01 Internal Std ID: WBN100227-01  
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/MSD8.i/s030610.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
Is8c0601.d	WBN100207-01	lnag1	06-MAR-2010 07:25	DFTPP	Is030610	1.0 50 PPM	IDUSE	
Is8c0602.d	WBN100225-05.5	lnag1	06-MAR-2010 07:40	CCV	Is030610	1.0 MEGACVS	IDUSE	
Is8c0603.d	WBN100207-01	lnag1	06-MAR-2010 08:50	DFTPP	Is030610	1.0 50 PPM		
Is8c0604-D.d	WBN100225-05.5	lnag1	06-MAR-2010 09:06	CCV	Is030610	1.0 MEGACVS	IDUSE	
Is8c0604.d	WBN100225-05.5	lnag1	06-MAR-2010 09:06	CCV	Is030610	1.0 MEGACVS	I697454	
Is8c0605.d	WBN100218-03.4	lnag1	06-MAR-2010 09:37	CCV	Is030610	1.0 AF12CVS		
Is8c0606-1.d	I1202057823	lnag1	06-MAR-2010 10:05	959457	I10-2021	1.0 SBLK01		
Is8c0606-2.d	I1202057823	lnag1	06-MAR-2010 10:05	959457	I10-2027	1.0 SBLK01		
Is8c0606-3.d	I1202057823	lnag1	06-MAR-2010 10:05	959457	I10-2034	1.0 SBLK01		
Is8c0606.d	I1202057823	lnag1	06-MAR-2010 10:05	959457	I10-2015	1.0 SBLK01		
Is8c0607-1.d	I1202057824	lnag1	06-MAR-2010 10:34	959457	I10-2021	1.0 SBLK01LCS		
Is8c0607-2.d	I1202057824	lnag1	06-MAR-2010 10:34	959457	I10-2027	1.0 SBLK01LCS		
Is8c0607-3.d	I1202057824	lnag1	06-MAR-2010 10:34	959457	I10-2034	1.0 SBLK01LCS		
Is8c0607.d	I1202057824	lnag1	06-MAR-2010 10:34	959457	I10-2015	1.0 SBLK01LCS		
Is8c0608.d	I247915002	lnag1	06-MAR-2010 11:03	959457	I10-2015	1.0 LANL		
Is8c0609.d	I247915003	lnag1	06-MAR-2010 11:33	959457	I10-2015	1.0 LANL		
Is8c0610.d	I248012002	lnag1	06-MAR-2010 12:02	959457	I10-2027	1.0 LANL		
Is8c0611.d	I248012003	lnag1	06-MAR-2010 12:31	959457	I10-2027	1.0 LANL		
Is8c0612.d	I248012004	lnag1	06-MAR-2010 13:00	959457	I10-2027	1.0 LANL		

s8c0613.d	1248012005	1nag1	06-MAR-2010 13:30	959457	10-2027	1.0 LANL	
s8c0614.d	1248012006	1nag1	06-MAR-2010 13:58	959457	10-2027	1.0 LANL	
s8c0615.d	1248012007	1nag1	06-MAR-2010 14:28	959457	10-2027	1.0 LANL	
s8c0616.d	1248012008	1nag1	06-MAR-2010 14:57	959457	10-2027	1.0 LANL	
s8c0617.d	1247915005	1nag1	06-MAR-2010 15:27	959457	10-2015	1.0 LANL	
s8c0618.d	1247915007	1nag1	06-MAR-2010 15:57	959457	10-2015	1.0 LANL	
s8c0619.d	1247915001	1nag1	06-MAR-2010 16:26	959457	10-2015	1.0 LANL	
s8c0620.d	1248012009	1nag1	06-MAR-2010 16:56	959457	10-2027	1.0 LANL	
s8c0621.d	1248013001	1nag1	06-MAR-2010 17:25	959457	10-2034	1.0 LANL	
s8c0622.d	11202057825	1nag1	06-MAR-2010 17:55	959457	10-2034	1.0 MS	failed C12
s8c0623.d	11202057826	1nag1	06-MAR-2010 18:24	959457	10-2034	1.0 MSD	failed C12
s8c0624.d	1247915004	1nag1	06-MAR-2010 18:53	959457	10-2015	1.0 LANL	
s8c0625.d	1248013002	1nag1	06-MAR-2010 19:22	959457	10-2034	1.0 LANL	IDUSE - failed IS - rr - see s8c0827
s8c0626.d	1248013003	1nag1	06-MAR-2010 19:51	959457	10-2034	1.0 LANL	
s8c0627.d	1247920002	1nag1	06-MAR-2010 20:20	959457	10-2021	1.0 LANL	

Instrument Batch: /chem/MSD8.i/s030610.b

## GEL ORGANIC RUN LOG

INSTRUMENT ID: MSD8

DATE: 02/20/2010 METHOD: See raw data OPERATOR: NAG REVIEWED BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT 1239699-D  
Multiplier Voltage: 1094mv Extr. Injection Volume: 0.5, 1.0 ul  
DFTPP Solution ID: WBN100207-01 Internal Std ID: WBN100217-01  
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/MSD8.i/s022010.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
ls8b2001-D.d	WBN100207-01	lnag1	120-FEB-2010 12:04	150 PPM	ls022010	1	1.0 DFTPP	1
ls8b2001.d	WBN100207-01	lnag1	120-FEB-2010 12:04	150 PPM	ls022010	1	1.0-DFTPP	1
ls8b2002.d	inst blk	lnag1	120-FEB-2010 12:21	1-----	ls022010	1	1.0 INST BLK	1
ls8b2003.d	WBN100215-08	lnag1	120-FEB-2010 12:55	11 PPM	ls022010	1	1.0 MEGAICAL	Naphthalene/1-Methylnaphthalene failed SC
ls8b2004-linear.d	WBN100215-07	lnag1	120-FEB-2010 13:30	110 PPM	ls022010	1	1.0 MEGAICAL	1
ls8b2004.d	WBN100215-07	lnag1	120-FEB-2010 13:30	110 PPM	ls022010	1	1.0 MEGAICAL	1
ls8b2005-linear.d	WBN100215-06	lnag1	120-FEB-2010 14:05	120 PPM	ls022010	1	1.0 MEGAICAL	1
ls8b2005.d	WBN100215-06	lnag1	120-FEB-2010 14:05	120 PPM	ls022010	1	1.0 MEGAICAL	1
ls8b2006.d	WBN100215-05.1	lnag1	120-FEB-2010 14:40	140 PPM	ls022010	1	1.0 MEGAICAL	1
ls8b2007.d	WBN100215-04	lnag1	120-FEB-2010 15:14	150 PPM	ls022010	1	1.0 MEGAICAL	1
ls8b2008.d	WBN100215-03	lnag1	120-FEB-2010 15:50	180 PPM	ls022010	1	1.0 MEGAICAL	1
ls8b2009.d	WBN100215-02	lnag1	120-FEB-2010 16:25	1100 PPM	ls022010	1	1.0 MEGAICAL	1
ls8b2010.d	WBN100215-01	lnag1	120-FEB-2010 16:59	1120 PPM	ls022010	1	1.0 MEGAICAL	1
ls8b2011.d	inst blk	lnag1	120-FEB-2010 17:34	1-----	ls022010	1	1.0 INST BLK	1
ls8b2012-D.d	WBN100215-05.1	lnag1	120-FEB-2010 18:09	140 PPM	ls022010	1	1.0 MEGACV	8270D
ls8b2012.d	WBN100215-05.1	lnag1	120-FEB-2010 18:09	140 PPM	ls022010	1	1.0 MEGACV	1
ls8b2013-D.d	WBN100207-01	lnag1	121-FEB-2010 08:35	150 PPM	ls022010	1	1.0 DFTPP	1
ls8b2013.d	WBN100207-01	lnag1	121-FEB-2010 08:35	150 PPM	ls022010	1	1.0 DFTPP	1
ls8b2014.d	inst blk	lnag1	121-FEB-2010 08:51	1-----	ls022010	1	1.0 INST BLK	1







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Data file : /chem/MSD8.i/s030610.b/s8c0622.d  
Lab Smp Id: 1202057825 Client Smp ID: RE46-10-13332MS  
Inj Date : 06-MAR-2010 17:55  
Operator : nag1 Inst ID: MSD8.i  
Smp Info : |1202057825|959457|1|SVM|1|MS  
Misc Info : |MSD8270\_S|WBN100227-01  
Comment : Column: J & W DB-5MS, 25m x 0.20 mm x 0.33 micron film  
Method : /chem/MSD8.i/s030610.b/MSD8-8270AQA-022010.m  
Meth Date : 07-Mar-2010 11:27 nat00999 Quant Type: ISTD  
Cal Date : 21-FEB-2010 23:15 Cal File: s8b2042.d  
Als bottle: 20 QC Sample: MS  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: 10-2034.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	30.10000	weight of sample
M	5.29210	% 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	4.458	4.458	(1.000)	730740	40.0000	
* 29 Naphthalene-d8	136	5.720	5.720	(1.000)	2892315	40.0000	
* 46 Acenaphthene-d10	164	7.577	7.577	(1.000)	1672464	40.0000	
* 67 Phenanthrene-d10	188	9.177	9.177	(1.000)	2869470	40.0000	
* 91 Chrysene-d12	240	12.087	12.082	(1.000)	2366074	40.0000	
* 98 Perylene-d12	264	14.192	14.187	(1.000)	1257591	40.0000	
\$ 3 2-Fluorophenol	112	3.320	3.306	(0.745)	1187607	68.8397	2410
\$ 5 Phenol-d5	99	4.087	4.082	(0.917)	1514832	70.4084	2470
\$ 20 Nitrobenzene-d5	82	4.987	4.992	(0.872)	692326	33.6727	1180
\$ 39 2-Fluorobiphenyl	172	6.849	6.849	(0.904)	1496344	30.3957	1070
\$ 60 2,4,6-Tribromophenol	329	8.425	8.420	(1.112)	362046	65.4865	2300
\$ 81 p-Terphenyl-d14	244	10.887	10.882	(0.901)	1619396	38.0158	1330

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ng/ul)	FINAL (ug/Kg)
6 Phenol	94	4.101	4.096	(0.920)	806522	36.3009	1270
8 2-Chlorophenol	128	4.263	4.258	(0.956)	672324	34.8490	1220
11 1,4-Dichlorobenzene	146	4.473	4.473	(1.003)	695236	29.4520	1030
17 N-Nitrosodipropylamine	70	4.835	4.839	(1.084)	525184	36.9569	1300 (Q)
28 1,2,4-Trichlorobenzene	180	5.654	5.658	(0.988)	610430	28.9926	1020
33 4-Chloro-3-methylphenol	107	6.292	6.277	(1.100)	603868	35.6457	1250
47 Acenaphthene	154	7.611	7.615	(1.004)	1368014	30.7811	1080
50 2,4-Dinitrotoluene	165	7.777	7.777	(1.026)	477796	35.1698	1230
52 4-Nitrophenol	139	7.706	7.692	(1.017)	112310	19.6731	690
65 Pentachlorophenol	266	8.968	8.963	(0.977)	208869	32.9026	1150
79 Pyrene	202	10.730	10.730	(0.888)	2355073	31.8795	1120
2 Pyridine	79	2.415	2.387	(0.542)	395241	24.2077	849
4 Aniline	66	4.149	4.149	(0.931)	351800	34.6712	1220 (Q)
7 bis(2-Chloroethyl) ether	63	4.196	4.196	(0.941)	538860	35.4766	1240
9 1,3-Dichlorobenzene	146	4.406	4.406	(0.988)	672917	29.4114	1030
12 Benzyl alcohol	108	4.577	4.573	(1.027)	101280	8.39272	294 (aR)
13 1,2-Dichlorobenzene	146	4.620	4.620	(1.036)	665592	30.3126	1060
14 bis(2-Chloroisopropyl) ether	45	4.696	4.701	(1.053)	1141434	38.3274	1340
15 o-Cresol	107	4.668	4.663	(1.047)	511641	33.1587	1160
18 m,p-Cresols	107	4.816	4.820	(1.080)	827983	42.4017	1490
19 Hexachloroethane	117	4.949	4.949	(1.110)	263139	29.5805	1040
21 Nitrobenzene	77	5.006	5.011	(0.875)	733900	34.6041	1210
22 Isophorone	82	5.244	5.249	(0.917)	1363989	34.9330	1220
23 2-Nitrophenol	139	5.320	5.325	(0.930)	332156	34.1235	1200
24 2,4-Dimethylphenol	122	5.349	5.349	(0.935)	619980	35.8268	1260
25 bis(2-Chloroethoxy)methane	93	5.449	5.449	(0.953)	763090	34.8503	1220
26 2,4-Dichlorophenol	162	5.568	5.563	(0.973)	538387	34.3848	1210
27 Benzoic acid	105	5.473	5.458	(0.957)	510218	55.9695	1960
30 Naphthalene	128	5.739	5.744	(1.003)	2037250	32.6939	1150
31 4-Chloroaniline	127	5.787	5.787	(1.012)	660781	31.9690	1120
32 Hexachlorobutadiene	225	5.858	5.858	(1.024)	357432	27.2960	958
34 2-Methylnaphthalene	142	6.463	6.463	(1.130)	1428479	34.1704	1200
36 Hexachlorocyclopentadiene	237	6.625	6.625	(0.874)	213335	20.5516	721
37 2,4,6-Trichlorophenol	196	6.758	6.753	(0.892)	407039	31.5883	1110
38 2,4,5-Trichlorophenol	196	6.801	6.792	(0.898)	483463	35.3490	1240
40 2-Chloronaphthalene	162	6.982	6.982	(0.921)	1297057	31.6783	1110
42 o-Nitroaniline	65	7.087	7.082	(0.935)	445879	38.9309	1360
41 m-Nitroaniline	138	7.525	7.525	(0.993)	305574	35.0066	1230
43 Dimethylphthalate	163	7.277	7.287	(0.960)	1660463	35.4302	1240
44 2,6-Dinitrotoluene	165	7.349	7.349	(0.970)	362333	34.1969	1200
45 Acenaphthylene	152	7.425	7.425	(0.980)	2223169	32.0176	1120
48 2,4-Dinitrophenol	184	7.639	7.634	(1.008)	83362	30.1078	1060
49 Dibenzofuran	168	7.796	7.796	(1.029)	1923020	32.9780	1160
51 Diethylphthalate	149	8.035	8.034	(1.060)	1791126	36.5165	1280
53 Fluorene	166	8.163	8.163	(1.077)	1744512	32.3185	1130
54 4-Chlorophenylphenylether	204	8.158	8.158	(1.077)	838393	32.2513	1130
55 2-Methyl-4,6-dinitrophenol	198	8.216	8.215	(0.895)	157859	29.6625	1040

Compounds	QUANT SIG	MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN	FINAL
							(ng/ul)	(ug/Kg)
=====	=====	=====	=====	=====	=====	=====	=====	=====
56 p-Nitroaniline		138	8.187	8.177	(1.080)	327805	42.4989	1490
133 Diphenylamine		169	8.287	8.287	(0.903)	1508769	41.6097	1460
58 1,2-Diphenylhydrazine		77	8.330	8.330	(0.908)	1832424	43.0213	1510
61 4-Bromophenylphenylether		248	8.687	8.687	(0.947)	468975	34.2029	1200
63 Hexachlorobenzene		284	8.758	8.754	(0.954)	448561	31.4746	1100
68 Phenanthrene		178	9.201	9.201	(1.003)	2332802	34.8553	1220
69 Anthracene		178	9.258	9.258	(1.009)	2304106	33.0838	1160
72 Di-n-butylphthalate		149	9.792	9.787	(1.067)	3086169	42.3950	1490
76 Fluoranthene		202	10.482	10.482	(1.142)	2357476	32.2863	1130
85 Butylbenzylphthalate		149	11.411	11.406	(0.944)	1161725	44.9709	1580
89 Benzo(a)anthracene		228	12.068	12.068	(0.998)	2066085	33.1827	1160
90 3,3'-Dichlorobenzidine		252	12.030	12.020	(0.995)	466555	31.8299	1120
92 Chrysene		228	12.120	12.115	(1.003)	1786506	32.9452	1160
93 bis(2-Ethylhexyl)phthalate		149	12.078	12.073	(0.999)	1817496	50.2739	1760
94 Di-n-octylphthalate		149	12.968	12.968	(0.914)	2347163	57.7544	2020
95 Benzo(b)fluoranthene		252	13.578	13.573	(0.957)	1348590	37.8242	1330
96 Benzo(k)fluoranthene		252	13.620	13.620	(0.960)	1306665	36.4544	1280
97 Benzo(a)pyrene		252	14.097	14.096	(0.993)	1108551	36.8644	1290
99 Indeno(1,2,3-cd)pyrene		276	16.020	16.020	(1.129)	856021	34.3334	1200
100 Dibenzo(a,h)anthracene		278	16.059	16.058	(1.132)	706891	36.6857	1290
101 Benzo(ghi)perylene		276	16.497	16.497	(1.162)	636456	30.8533	1080
1 N-Methyl-N-nitrosomethylamine		74	2.373	2.349	(0.532)	313492	28.1671	988

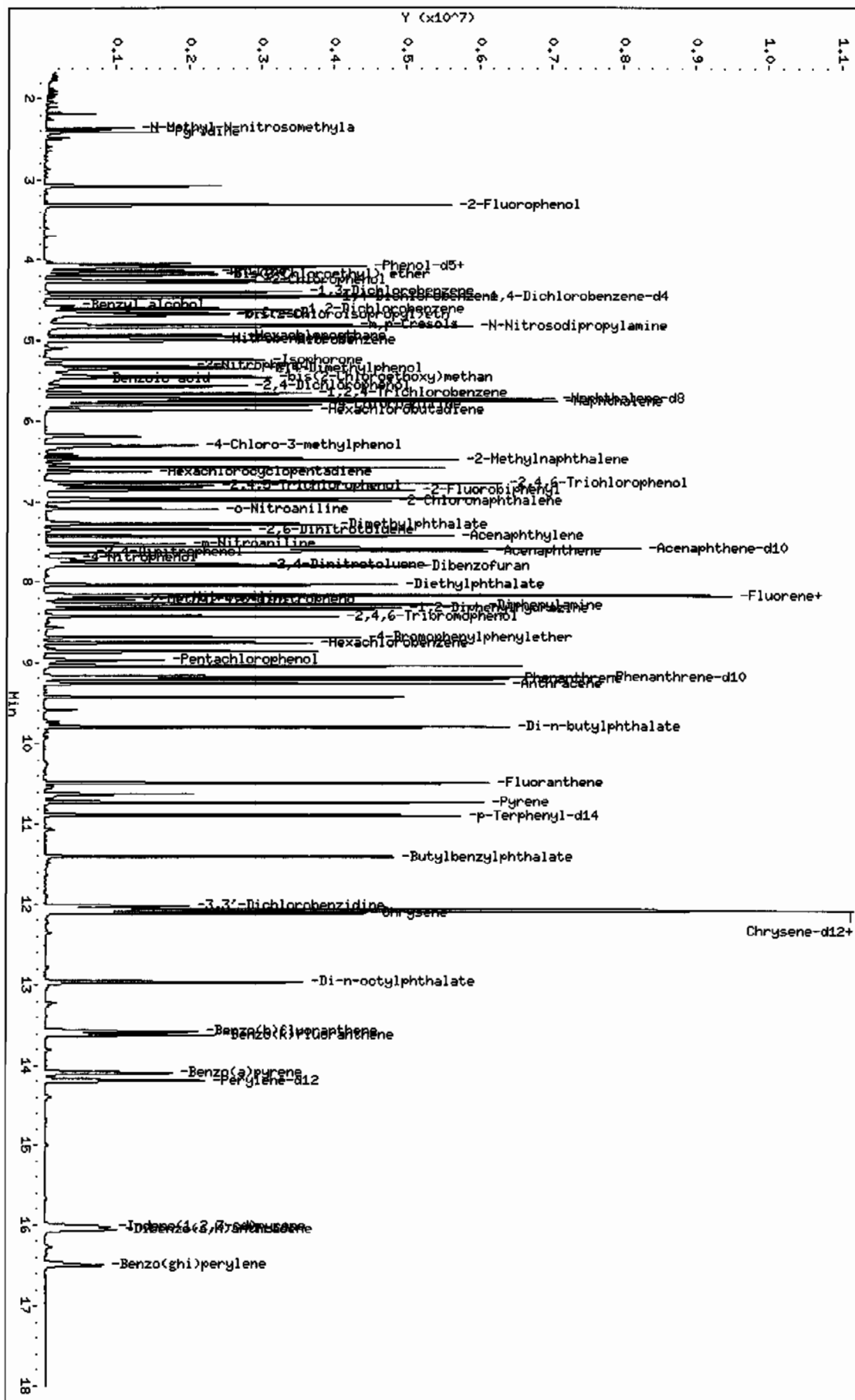
#### QC Flag Legend

- 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/MSDB.i/s030610.b/s80622.d  
 Date: 06-MAR-2010 17:55  
 Client ID: RE46-10-1332MS  
 Sample Info: 11202057825195945711SYN11HS  
 Volume Injected (uL): 0.5  
 Column phase: 3uM DB-SHS

/chem/MSDB.i/s030610.b/s80622.d

Instrument: MSDB.1  
 Operator: nag1  
 Column diameter: 0.20



GEL Laboratories LLC

Data file : /chem/MSD8.i/s030610.b/s8c0623.d  
Lab Smp Id: 1202057826 Client Smp ID: RE46-10-13332MSD  
Inj Date : 06-MAR-2010 18:24  
Operator : nag1 Inst ID: MSD8.i  
Smp Info : |1202057826|959457|1|SVM|1|MSD  
Misc Info : |MSD8270\_S|WBN100227-01  
Comment : Column: J & W DB-5MS, 25m x 0.20 mm x 0.33 micron film  
Method : /chem/MSD8.i/s030610.b/MSD8-8270AQA-022010.m  
Meth Date : 07-Mar-2010 11:27 nat00999 Quant Type: ISTD  
Cal Date : 21-FEB-2010 23:15 Cal File: s8b2042.d  
Als bottle: 21 QC Sample: MSD  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: 10-2034.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	30.14000	weight of sample
M	5.29210	% 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	4.458	4.458	(1.000)	739828	40.0000	
* 29 Naphthalene-d8		136	5.720	5.720	(1.000)	2909238	40.0000	
* 46 Acenaphthene-d10		164	7.577	7.577	(1.000)	1683423	40.0000	
* 67 Phenanthrene-d10		188	9.178	9.177	(1.000)	2882975	40.0000	
* 91 Chrysene-d12		240	12.087	12.082	(1.000)	2357010	40.0000	
* 98 Perylene-d12		264	14.192	14.187	(1.000)	1136201	40.0000	
\$ 3 2-Fluorophenol		112	3.320	3.306	(0.745)	1269654	72.6915	2550
\$ 5 Phenol-d5		99	4.087	4.082	(0.917)	1631021	74.8776	2620
\$ 20 Nitrobenzene-d5		82	4.987	4.992	(0.872)	757234	36.6154	1280
\$ 39 2-Fluorobiphenyl		172	6.844	6.849	(0.903)	1564964	31.5827	1110
\$ 60 2,4,6-Tribromophenol		329	8.425	8.420	(1.112)	367306	66.0054	2310
\$ 81 p-Terphenyl-d14		244	10.887	10.882	(0.901)	1651395	38.9160	1360

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ng/ul)	FINAL (ug/Kg)
=====	=====	==	=====	=====	=====	=====	=====
6 Phenol	94	4.101	4.096	(0.920)	867806	38.5795	1350
8 2-Chlorophenol	128	4.263	4.258	(0.956)	725532	37.1450	1300
11 1,4-Dichlorobenzene	146	4.473	4.473	(1.003)	782407	32.7376	1150
17 N-Nitrosodipropylamine	70	4.835	4.839	(1.084)	564873	39.2615	1380 (Q)
28 1,2,4-Trichlorobenzene	180	5.654	5.658	(0.988)	662342	31.2752	1100
33 4-Chloro-3-methylphenol	107	6.292	6.277	(1.100)	617873	36.2602	1270
47 Acenaphthene	154	7.611	7.615	(1.004)	1366031	30.5364	1070
50 2,4-Dinitrotoluene	165	7.777	7.777	(1.026)	498666	36.4670	1280
52 4-Nitrophenol	139	7.711	7.692	(1.018)	76783	13.3624	468
65 Pentachlorophenol	266	8.968	8.963	(0.977)	202640	31.7718	1110
79 Pyrene	202	10.730	10.730	(0.888)	2446486	33.2442	1160
2 Pyridine	79	2.416	2.387	(0.542)	456328	27.6059	967
4 Aniline	66	4.149	4.149	(0.931)	377361	36.7335	1290 (Q)
7 bis(2-Chloroethyl) ether	63	4.197	4.196	(0.941)	587890	38.2291	1340
9 1,3-Dichlorobenzene	146	4.406	4.406	(0.988)	754003	32.5507	1140
12 Benzyl alcohol	108	4.577	4.573	(1.027)	96964	7.93636	278 (aQR)
13 1,2-Dichlorobenzene	146	4.616	4.620	(1.035)	735264	33.0743	1160
14 bis(2-Chloroisopropyl) ether	45	4.697	4.701	(1.053)	1219893	40.4587	1420
15 o-Cresol	107	4.668	4.663	(1.047)	597020	38.2167	1340
18 m,p-Cresols	107	4.816	4.820	(1.080)	891440	45.0906	1580
19 Hexachloroethane	117	4.949	4.949	(1.110)	292390	32.4649	1140
21 Nitrobenzene	77	5.006	5.011	(0.875)	800190	37.5103	1310
22 Isophorone	82	5.244	5.249	(0.917)	1441336	36.6992	1280
23 2-Nitrophenol	139	5.320	5.325	(0.930)	363404	37.1166	1300
24 2,4-Dimethylphenol	122	5.349	5.349	(0.935)	650488	37.3711	1310
25 bis(2-Chloroethoxy)methane	93	5.449	5.449	(0.953)	815750	37.0386	1300
26 2,4-Dichlorophenol	162	5.568	5.563	(0.973)	567302	36.0208	1260
27 Benzoic acid	105	5.482	5.458	(0.958)	599954	62.9003	2200
30 Naphthalene	128	5.739	5.744	(1.003)	2201757	34.9792	1220
31 4-Chloroaniline	127	5.787	5.787	(1.012)	706753	33.9942	1190
32 Hexachlorobutadiene	225	5.858	5.858	(1.024)	386697	29.3591	1030
34 2-Methylnaphthalene	142	6.463	6.463	(1.130)	1513904	35.9331	1260
36 Hexachlorocyclopentadiene	237	6.620	6.625	(0.874)	239616	22.9331	803
37 2,4,6-Trichlorophenol	196	6.758	6.753	(0.892)	419627	32.3532	1130
38 2,4,5-Trichlorophenol	196	6.801	6.792	(0.898)	494879	35.9481	1260
40 2-Chloronaphthalene	162	6.982	6.982	(0.921)	1348708	32.6770	1140
42 o-Nitroaniline	65	7.087	7.082	(0.935)	461324	40.0172	1400
41 m-Nitroaniline	138	7.525	7.525	(0.993)	320075	36.4292	1280
43 Dimethylphthalate	163	7.277	7.287	(0.960)	1725242	36.5728	1280
44 2,6-Dinitrotoluene	165	7.349	7.349	(0.970)	377239	35.3720	1240
45 Acenaphthylene	152	7.425	7.425	(0.980)	2334630	33.4039	1170
48 2,4-Dinitrophenol	184	7.639	7.634	(1.008)	84608	30.2390	1060
49 Dibenzofuran	168	7.797	7.796	(1.029)	2009868	34.2429	1200
51 Diethylphthalate	149	8.035	8.034	(1.060)	1849985	37.4710	1310
53 Fluorene	166	8.163	8.163	(1.077)	1802595	33.1772	1160
54 4-Chlorophenylphenylether	204	8.158	8.158	(1.077)	865814	33.0893	1160
55 2-Methyl-4,6-dinitrophenol	198	8.216	8.215	(0.895)	171094	31.4690	1100

Compounds	QUANT SIG	CONCENTRATIONS					
		MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ng/ul)      FINAL (ug/Kg)
=====	=====	=====	==	=====	=====	=====	=====
56 p-Nitroaniline	138	8.187	8.177	(1.080)	348375	44.8717	1570
133 Diphenylamine	169	8.287	8.287	(0.903)	1532214	42.0583	1470
58 1,2-Diphenylhydrazine	77	8.330	8.330	(0.908)	1891678	44.2044	1550
61 4-Bromophenylphenylether	248	8.687	8.687	(0.947)	483088	35.0671	1230
63 Hexachlorobenzene	284	8.758	8.754	(0.954)	461220	32.2113	1130
68 Phenanthrene	178	9.206	9.201	(1.003)	2401395	35.6638	1250
69 Anthracene	178	9.258	9.258	(1.009)	2345839	33.5253	1170
72 Di-n-butylphthalate	149	9.792	9.787	(1.067)	3137749	42.9017	1500
76 Fluoranthene	202	10.482	10.482	(1.142)	2451703	33.4195	1170
85 Butylbenzylphthalate	149	11.411	11.406	(0.944)	1217423	47.3083	1660
89 Benzo(a)anthracene	228	12.068	12.068	(0.998)	2064030	33.2772	1160
90 3,3'-Dichlorobenzidine	252	12.030	12.020	(0.995)	463272	31.7274	1110
92 Chrysene	228	12.116	12.115	(1.002)	1808017	33.4641	1170
93 bis(2-Ethylhexyl)phthalate	149	12.078	12.073	(0.999)	1858967	51.6188	1810
94 Di-n-octylphthalate	149	12.968	12.968	(0.914)	2379737	64.1644	2250
95 Benzo(b)fluoranthene	252	13.578	13.573	(0.957)	1267409	39.3451	1380
96 Benzo(k)fluoranthene	252	13.620	13.620	(0.960)	1213836	37.4826	1310
97 Benzo(a)pyrene	252	14.097	14.096	(0.993)	1022185	37.6240	1320
99 Indeno(1,2,3-cd)pyrene	276	16.025	16.020	(1.129)	805327	35.7511	1250
100 Dibenzo(a,h)anthracene	278	16.059	16.058	(1.132)	660804	37.9578	1330
101 Benzo(ghi)perylene	276	16.497	16.497	(1.162)	612426	32.8602	1150
1 N-Methyl-N-nitrosomethylamine	74	2.377	2.349	(0.533)	352677	31.2986	1100

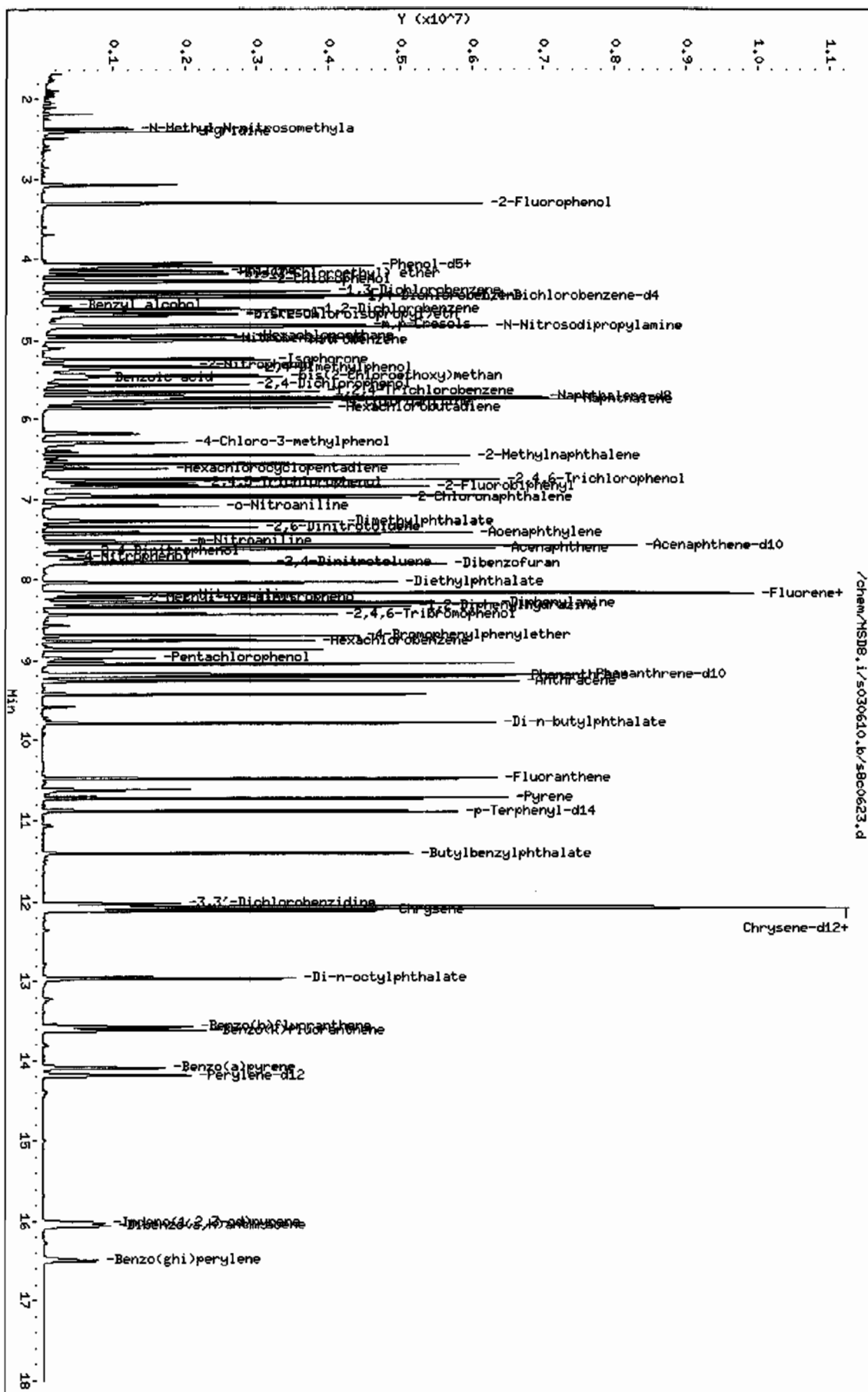
#### QC Flag Legend

- 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/MSD8.1/s030610.b/s800623.d  
 Date: 06-MAR-2010 18:24  
 Client ID: RE46-10-13332MSD  
 Sample Info: 142020578261959457113VM11MSD  
 Volume Injected (uL): 0.5  
 Column phase: 3uM DB-SMS

Instrument: MSD8.1  
 Operator: nagl  
 Column diameter: 0.20



# LC/MS/MS EXPLOSIVES ANALYSIS

**LC/MS/MS Case Narrative  
Los Alamos National Laboratory (LANL)  
SDG 10-2027**

**Method/Analysis Information**

**Procedure:** Definitive Low Level Analysis of Nitroaromatic Explosives Utilizing Liquid Chromatography / Mass Spectrometry / Mass Spectrometry (LC/MS/MS) by SW-846 Method 8321 Modified (8321M)

Analytical Method: SW846 8321A Modified

Prep Method: SW846 8330 PREP

Analytical Batch Number: 958247

Prep Batch Number: 958246

**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>
248012002	RE36-10-8490
248012003	RE36-10-8470
248012004	RE36-10-8476
248012005	RE36-10-8480
248012006	RE36-10-8474
248012007	RE36-10-8478
248012008	RE36-10-8483
248012009	RE36-10-8482
1202055003	Method Blank (MB)
1202055004	Laboratory Control Sample (LCS)
1202055005	248004002(RE36-10-8489) Matrix Spike (MS)
1202055006	248004002(RE36-10-8489) 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.

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#### **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 42.8%. The recovery limits are 51-112%. While Tetryl did not meet in-house recovery limits, it did meet the DOD marginal exceedance limits of 41-122%. Since both the MS and MSD met acceptance limits for Tetryl, the data are reported. Please see data exception report 816015.

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

Client sample 248004002 (RE36-10-8489) from SDG 10-2024 was chosen for matrix spike and matrix spike duplicate analysis. Please see the raw data in the Miscellaneous Section.

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

The MS spike recoveries were within the established acceptance limits.

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

The MSD spike recoveries were within the established acceptance limits.

##### **MS/MSD Relative Percent Difference (RPD) Statement**

The MS/MSD pair (1202055005/6) did not meet RPD acceptance limits for Tetryl at 42.8%. The acceptance limits are 0-30%. Since all other RPD recoveries met acceptance criteria, the noted exception is attributed to vagaries in the extraction process. The data are reported. Please see data exception report 816015.

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

The internal standard responses were within the required acceptance criteria for all samples and QC in this SDG.

#### **Technical Information**

##### **Holding Time Specifications**

All samples in this SDG in this analytical batch met the specified holding time. GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration.

#### **Preparation/Analytical Method Verification**

All procedures were performed as stated in the SOP.

#### **Sample Dilutions**

According to the GEL SOP for Method 8321A, all sample and QC extracts are diluted 1:1 v/v with HPLC grade water. The samples in this SDG in this analytical batch for this analysis did not require any additional dilutions.

#### **Sample Re-extraction/Re-analysis**

Re-extractions or re-analyses were not required in this SDG in this analytical batch for this analysis except for dilutions.

#### **Secondary Analyte Analysis**

#### **Calibration Information**

##### **Initial Calibration**

All initial calibration requirements for this analysis have been met for this SDG.

##### **Calibration Verification Standard Requirements**

All associated calibration verification standard(s) (ICV or CCV) for this analysis met the acceptance criteria.

##### **Calibration Blank Requirements**

All initial or continuing calibration blanks (ICB or CCB) bracketing the analyses associated with this batch for this analysis were within acceptance criteria. Due to software limitations, the CCBs and/or the ICBs may have a concentration for target analytes in the Found column. These values should be zero.

##### **CRI Requirements**

All low level calibration verification (CRI) requirements for this analysis were met by all bracketing CRI standards and may be based off the grand mean average percent recovery of all target analytes.

#### **Quality Control (QC) Information**

##### **Method Blank (MB) Statement**

The MB(s) analyzed with this SDG for this analysis met the acceptance criteria.

##### **Surrogate Recoveries**

All the surrogate recoveries were within the established acceptance criteria in this SDG in this analytical batch for this analysis.

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

The LCS spike recoveries were within the established acceptance limits.

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

Client sample 248004002 (RE36-10-8489) from SDG 10-2024 was chosen for matrix spike and matrix spike duplicate analysis. Please see the raw data in the Miscellaneous Section.

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

The MS spike recoveries were within the established acceptance limits.

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

The MSD spike recoveries were within the established acceptance limits.

#### **MS/MSD Relative Percent Difference (RPD) Statement**

The RPD(s) between the MS and MSD met the acceptance limits.

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

The internal standards were not added to the secondary analyte extracts.

#### **Technical Information**

##### **Holding Time Specifications**

All samples in this SDG in this analytical batch met the specified holding time. GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration.

##### **Preparation/Analytical Method Verification**

All procedures were performed as stated in the SOP.

##### **Sample Dilutions**

According to the GEL SOP for Method 8321A, all sample and QC extracts are diluted 1:1 v/v with HPLC grade water. The samples in this SDG in this analytical batch for this analysis did not require any additional dilutions.

##### **Sample Re-extraction/Re-analysis**

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 816015 was generated for this SDG.

The LCS recovered Tetryl at 42.8%. The recovery limits are 51-112%. While Tetryl did not meet in-house recovery limits, it did meet the DOD marginal exceedance limits of 41-122%. Since both the MS and MSD met acceptance limits for Tetryl, the data are reported.

The MS/MSD pair (1202055005/6) did not meet RPD acceptance limits for Tetryl at 42.8%. The acceptance limits are 0-30%. Since all other RPD recoveries met acceptance criteria, the noted exception is attributed to vagaries in the extraction process. 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.

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### **System Configuration**

The laboratory utilizes a Waters LC 2795 liquid chromatography instrument for primary analyte analysis. It is coupled with either a Micromass Quattro Micro Mass Spectrometer/ Mass Spectrometer, or a Micromass Quattro Ultima Mass Spectrometer/ Mass Spectrometer. Each being designated as LCMSMS #1, and LCMSMS #2, respectively. It is fitted with an APCI (Atmospheric Pressure chemical Ionization) probe that is operated in the negative ionization mode for the primary analyte analysis. The laboratory also utilizes an Agilent 1100 liquid chromatography instrument for either primary or secondary analyte analysis. It is coupled with a Applied Biosystems 4000 Mass Spectrometer/ Mass Spectrometer, designated as either LCMSMS #3 or LCMSMS #4. It is fitted with a APCI (Atmospheric Pressure chemical Ionization) probe that is operated in the negative ionization mode for both the primary and secondary analyte analysis.

### **Chromatographic Columns**

The detection of the primary analyte nitroaromatic and nitramines is accomplished through analysis on the following reversed phase column:

Phenomenex: Ultracarb 5u ODS (20), 250 x 4.60 mm ID.

The detection of the secondary analytes is accomplished through analysis on the following reversed phase column:

YMC: J'sphere ODS-H80, 150 x 4.6mm I.D.

### **Certification Statement**

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

### **Review Validation:**

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Herbert M. Mauer Date: 04/12/10

# SAMPLE DATA SUMMARY



1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-8490

Lab Code: GEL

GEL Job No (SDG) 10-2027

Matrix: SOIL

GEL Sample ID: 248012002

Sample Amount 2

Moisture: 5.1

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958246

Concentrated Extract Volume (mL) 10

Date Extracted: 02-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0408092a

Date Analyzed: 10-APR-10 18:20

Units: ug/kg

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

\*Concentration =

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

1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-8490

Lab Code: GEL

GEL Job No (SDG) 10-2027

Matrix: SOIL

GEL Sample ID: 248012002

Sample Amount 2

Moisture: 5.1

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958246

Concentrated Extract Volume (mL) 10

Date Extracted: 02-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03310060.wiff

Date Analyzed: 01-APR-10 00:07

Units: ug/kg

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

\*Concentration =

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

1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-8470

Lab Code: GEL

GEL Job No (SDG) 10-2027

Matrix: SOIL

GEL Sample ID: 248012003

Sample Amount 2

Moisture: 6.2

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958246

Concentrated Extract Volume (mL) 10

Date Extracted: 02-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0408093a

Date Analyzed: 10-APR-10 18:49

Units: ug/kg

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

\*Concentration =

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

1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-8470

Lab Code: GEL

GEL Job No (SDG) 10-2027

Matrix: SOIL

GEL Sample ID: 248012003

Sample Amount 2

Moisture: 6.2

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958246

Concentrated Extract Volume (mL) 10

Date Extracted: 02-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03310064.wiff

Date Analyzed: 01-APR-10 01:10

Units: ug/kg

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

\*Concentration =

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

1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-8476

Lab Code: GEL

GEL Job No (SDG) 10-2027

Matrix: SOIL

GEL Sample ID: 248012004

Sample Amount 2

Moisture: 4.2

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958246

Concentrated Extract Volume (mL) 10

Date Extracted: 02-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0408094a

Date Analyzed: 10-APR-10 19:19

Units: ug/kg

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

\*Concentration =

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

1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-8476

Lab Code: GEL

GEL Job No (SDG) 10-2027

Matrix: SOIL

GEL Sample ID: 248012004

Sample Amount 2

Moisture: 4.2

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958246

Concentrated Extract Volume (mL) 10

Date Extracted: 02-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03310065.wiff

Date Analyzed: 01-APR-10 01:26

Units: ug/kg

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

\*Concentration =

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

1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-8480

Lab Code: GEL

GEL Job No (SDG) 10-2027

Matrix: SOIL

GEL Sample ID: 248012005

Sample Amount 2

Moisture: 10.8

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958246

Concentrated Extract Volume (mL) 10

Date Extracted: 02-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0408095a

Date Analyzed: 10-APR-10 19:48

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>		

1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-8480

Lab Code: GEL

GEL Job No (SDG) 10-2027

Matrix: SOIL

GEL Sample ID: 248012005

Sample Amount 2

Moisture: 10.8

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958246

Concentrated Extract Volume (mL) 10

Date Extracted: 02-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03310066.wiff

Date Analyzed: 01-APR-10 01:42

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



1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-8474

Lab Code: GEL

GEL Job No (SDG) 10-2027

Matrix: SOIL

GEL Sample ID: 248012006

Sample Amount 2

Moisture: 12.8

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958246

Concentrated Extract Volume (mL) 10

Date Extracted: 02-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0408096a

Date Analyzed: 10-APR-10 20:18

Units: ug/kg

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

\*Concentration =

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

1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-8474

Lab Code: GEL

GEL Job No (SDG) 10-2027

Matrix: SOIL

GEL Sample ID: 248012006

Sample Amount 2

Moisture: 12.8

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958246

Concentrated Extract Volume (mL) 10

Date Extracted: 02-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03310067.wiff

Date Analyzed: 01-APR-10 01:57

Units: ug/kg

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

\*Concentration =

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

1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-8478

Lab Code: GEL

GEL Job No (SDG) 10-2027

Matrix: SOIL

GEL Sample ID: 248012007

Sample Amount 2

Moisture: 4.7

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958246

Concentrated Extract Volume (mL) 10

Date Extracted: 02-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0408097a

Date Analyzed: 10-APR-10 20:47

Units: ug/kg

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

\*Concentration =

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

1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-8478

Lab Code: GEL

GEL Job No (SDG) 10-2027

Matrix: SOIL

GEL Sample ID: 248012007

Sample Amount 2

Moisture: 4.7

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958246

Concentrated Extract Volume (mL) 10

Date Extracted: 02-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03310068.wiff

Date Analyzed: 01-APR-10 02:13

Units: ug/kg

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

\*Concentration =

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

1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-8483

Lab Code: GEL

GEL Job No (SDG) 10-2027

Matrix: SOIL

GEL Sample ID: 248012008

Sample Amount 2

Moisture: 2.3

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958246

Concentrated Extract Volume (mL) 10

Date Extracted: 02-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0408101a

Date Analyzed: 10-APR-10 22:45

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	Concentrated Extract Volume	X	Dilution Factor
		Sample Amount		

1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-8483

Lab Code: GEL

GEL Job No (SDG) 10-2027

Matrix: SOIL

GEL Sample ID: 248012008

Sample Amount 2

Moisture: 2.3

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958246

Concentrated Extract Volume (mL) 10

Date Extracted: 02-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03310069.wiff

Date Analyzed: 01-APR-10 02:29

Units: ug/kg

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

\*Concentration =

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

1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-8482

Lab Code: GEL

GEL Job No (SDG) 10-2027

Matrix: SOIL

GEL Sample ID: 248012009

Sample Amount 2

Moisture: 5.0

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958246

Concentrated Extract Volume (mL) 10

Date Extracted: 02-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0408102a

Date Analyzed: 10-APR-10 23:15

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	184	J
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

\*Concentration =

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

1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-8482

Lab Code: GEL

GEL Job No (SDG) 10-2027

Matrix: SOIL

GEL Sample ID: 248012009

Sample Amount 2

Moisture: 5.0

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958246

Concentrated Extract Volume (mL) 10

Date Extracted: 02-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03310070.wiff

Date Analyzed: 01-APR-10 02:44

Units: ug/kg

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

\*Concentration =

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

# High Explosives Surrogate Recovery Summary

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2027

Lab Code: GEL

HPLC Column: Phenomenex Ultracarb 5u ODS(20)

Lab Sample ID	Client Sample ID	DNT	QC Limits	Flg
248012002	RE36-10-8490	101	70 - 144	
248012002	RE36-10-8490	106	70 - 144	
248012003	RE36-10-8470	99.1	70 - 144	
248012003	RE36-10-8470	108	70 - 144	
248012004	RE36-10-8476	104	70 - 144	
248012004	RE36-10-8476	112	70 - 144	
248012005	RE36-10-8480	103	70 - 144	
248012005	RE36-10-8480	112	70 - 144	
248012006	RE36-10-8474	111	70 - 144	
248012006	RE36-10-8474	114	70 - 144	
248012007	RE36-10-8478	110	70 - 144	
248012007	RE36-10-8478	106	70 - 144	
248012008	RE36-10-8483	104	70 - 144	
248012008	RE36-10-8483	114	70 - 144	
248012009	RE36-10-8482	104	70 - 144	
248012009	RE36-10-8482	109	70 - 144	
1202055003	MB for batch 958246	98.3	70 - 144	
1202055003	MB for batch 958246	101	70 - 144	
1202055004	LCS for batch 958246	98.5	70 - 144	
1202055004	LCS for batch 958246	100	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)** 10-2027

**Extract Batch Code:** 958246

**Date Extracted:** 02-MAR-10

**GEL LCS ID:** 1202055004

**GEL LCSDUP ID:**

**Analysis Date/Time:** 10-APR-10 11:27

**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
Nitrobenzene	5000	4490	89.7					71 – 122
PETN	5000	5490	110					64 – 137
1,3,5-Trinitrobenzene	5000	4440	88.8					69 – 126
2,4-Dinitrotoluene	5000	4950	99					87 – 137
HMX	5000	5130	103					58 – 138
4-Amino-2,6-dinitrotoluene	5000	5180	104					84 – 130
2-Amino-4,6-dinitrotoluene	5000	5310	106					90 – 130
2,6-Dinitrotoluene	5000	4980	99.6					89 – 120
2,4,6-Trinitrotoluene	5000	5300	106					73 – 149
RDX	5000	5270	105					81 – 137
Tetryl	5000	2140	42.8 *					51 – 112
m-Dinitrobenzene	5000	4910	98.3					83 – 122
m-Nitrotoluene	5000	3970	79.5					73 – 118
o-Nitrotoluene	5000	4260	85.2					72 – 119
p-Nitrotoluene	5000	4470	89.4					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) 10-2027

Extract Batch Code: 958246

Date Extracted: 02-MAR-10

GEL LCS ID: 1202055004

GEL LCSDUP ID:

Analysis Date/Time: 31-MAR-10 22:02

DUP Analysis Date/Time:

Reporting Units: ug/kg

QC Type: LCS/LCSD

Compound	Spike Added	LCS Conc	LCS Rec #	LCSD Conc	LCSD Rec #	RPD #	RPD	Recovery Limits
2,4-Diamino-6-nitrotoluene	5000	5420	108					52 - 114
2,6-Diamino-4-nitrotoluene	5000	5530	111					64 - 122
3,5-Dinitroaniline	5000	5200	104					70 - 127
TATB	7500	6850	91.3					28 - 162
tris(o-cresyl) phosphate	5000	5010	100					84 - 119

# Column to be used to flag recovery and RPD values with an asterisk

\* Values outside of QC limits

# High Explosives MS/MSD Summary

Lab Name: GEL Laboratories LLC

Client ID: RE36-10-8489

Lab Code: GEL

GEL Job No (SDG) 10-2027

Extract Batch Code: 958246

Date Extracted: 02-MAR-10

GEL Spike ID: 1202055005

GEL SpikeDup ID: 1202055006

Analysis Date/Time: 10-APR-10 12:26

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
HMX	5000	0	5240	105	5270	105	.62	30	51 – 144
Nitrobenzene	5000	0	4660	93.2	4600	91.9	1.34	30	70 – 122
PETN	5000	0	5580	112	5830	117	4.44	30	60 – 140
2,4,6-Trinitrotoluene	5000	0	5680	114	5550	111	2.3	30	76 – 144
4-Amino-2,6-dinitrotoluene	5000	0	5070	101	5160	103	1.79	30	72 – 143
2-Amino-4,6-dinitrotoluene	5000	0	5230	105	5450	109	4.27	30	85 – 137
2,6-Dinitrotoluene	5000	0	4850	97.1	4850	97	.046	30	90 – 118
2,4-Dinitrotoluene	5000	0	4670	93.3	5190	104	10.6	30	86 – 135
1,3,5-Trinitrobenzene	5000	0	4910	98.3	4800	96.1	2.25	30	50 – 140
RDX	5000	0	5390	108	5350	107	.825	30	59 – 152
Tetryl	5000	0	4280	85.5	3040	60.7	33.9 *	30	36 – 124
m-Dinitrobenzene	5000	0	4810	96.2	4750	95	1.24	30	85 – 118
m-Nitrotoluene	5000	0	4080	81.6	4280	85.6	4.78	30	70 – 120
o-Nitrotoluene	5000	0	4290	85.7	4530	90.7	5.6	30	69 – 123
p-Nitrotoluene	5000	0	4370	87.3	4610	92.3	5.54	30	65 – 133

#Column to be used to flag recovery and RPD values with an asterisk

# High Explosives MS/MSD Summary

Lab Name: GEL Laboratories LLC

Client ID: RE36-10-8489

Lab Code: GEL

GEL Job No (SDG) 10-2027

Extract Batch Code: 958246

Date Extracted: 02-MAR-10

GEL Spike ID: 1202055005

GEL SpikeDup ID: 1202055006

Analysis Date/Time: 31-MAR-10 22:33

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	5080	102	4900	98	3.61	26	34 - 135
2,6-Diamino-4-nitrotoluene	5000	0	5390	108	5540	111	2.75	30	55 - 130
TATB	7500	0	8050	107	10300	137	24.5	30	29 - 155
3,5-Dinitroaniline	5000	0	4840	96.8	5050	101	4.25	30	73 - 129
tris(o-cresyl) phosphate	5000	0	5060	101	5080	102	.394	30	72 - 127

#Column to be used to flag recovery and RPD values with an asterisk

Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2027

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 08-APR-10 21:32

GEL Data File: EXP0408001a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
1,3-Dinitrobenzene-d4	500	505.174
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	503.22
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0

Quantify Sample Report  
GEL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp.PRO\040810expA.qld, Time: Fri Apr 09 10:54:52 2010

Method: C:\MASSLYNX\New\_Exp.PRO\MethDB\040810expa.mdb, Time: Fri Apr 09 10:24:44 2010  
Calibration: Untitled, Time: Fri Apr 09 10:54:52 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\data\EXP0408001a

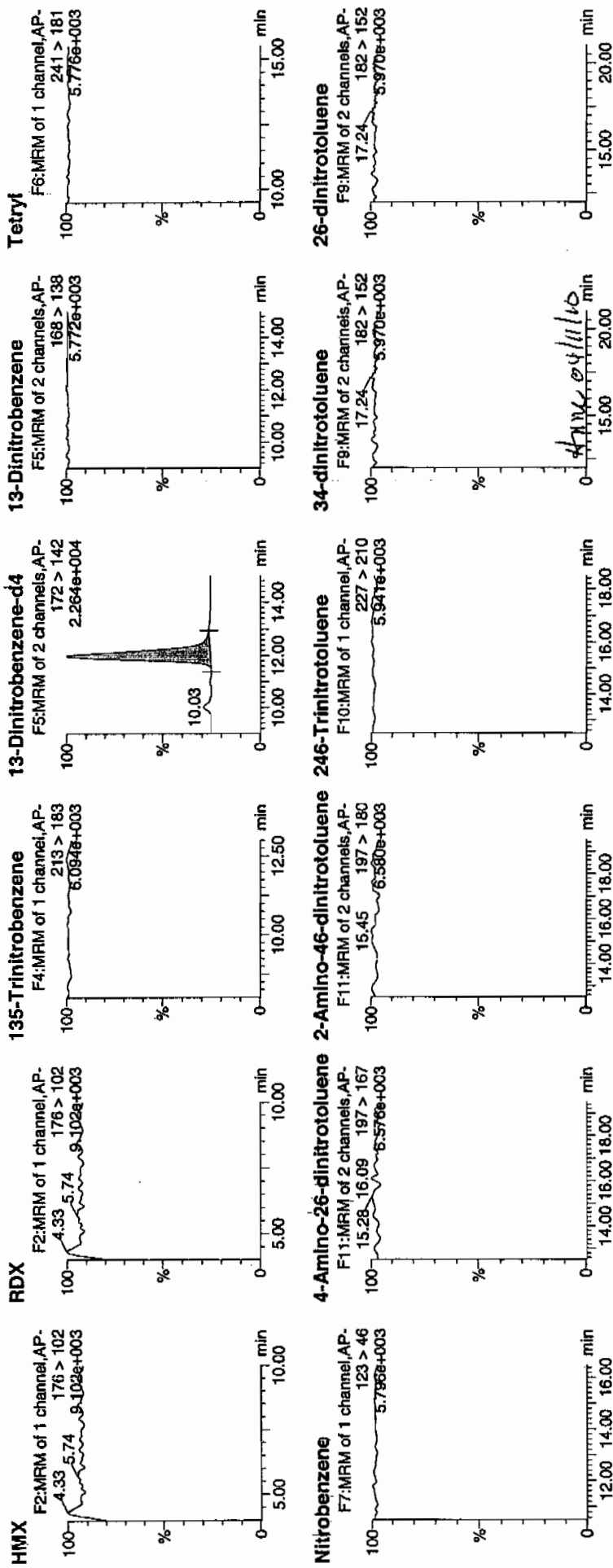
Date: 08-Apr-2010

Time: 21:32:51

ID: XIBLK01

Vol: 1:1,A

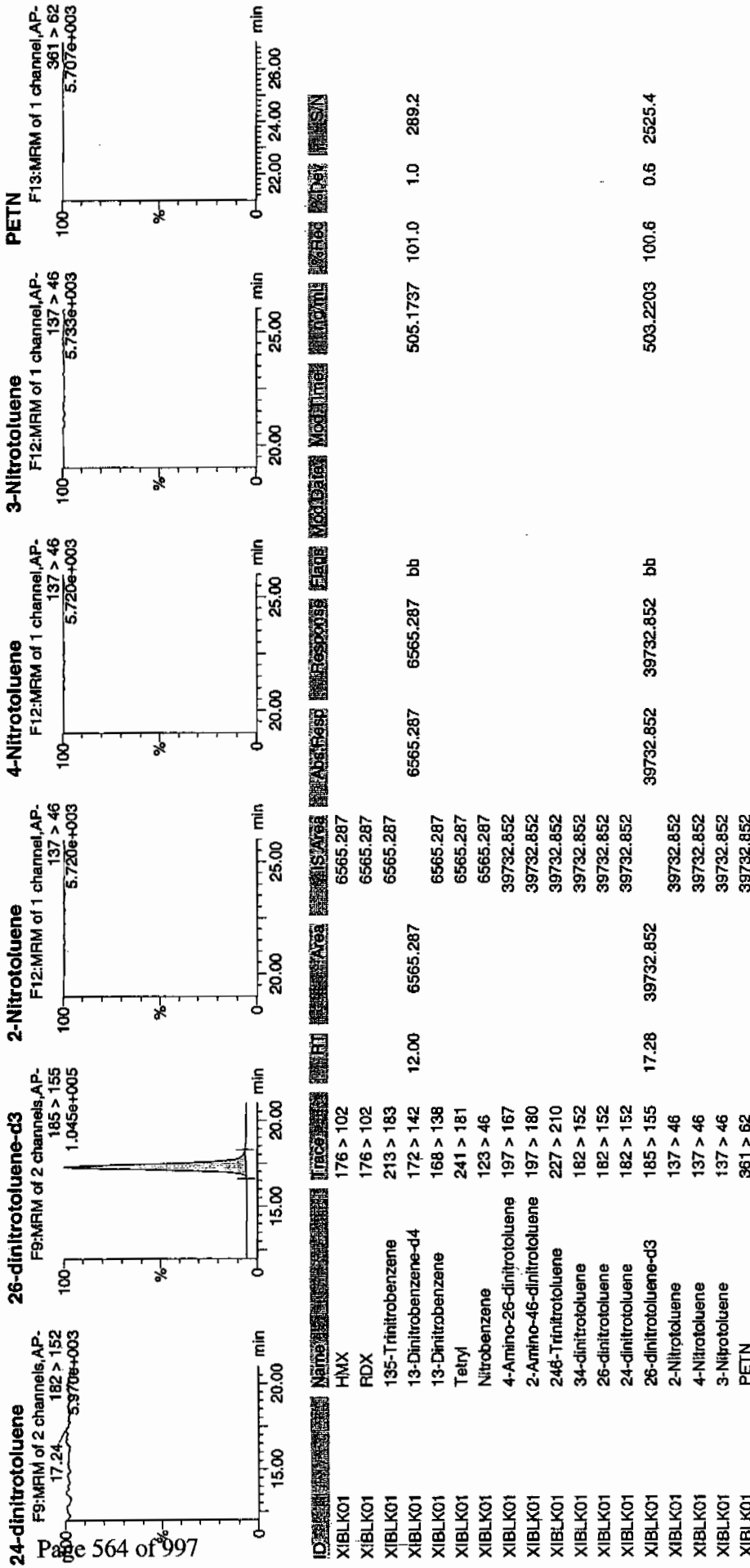
11/10/10





**Quantify Sample Report**  
 GEL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp\PRO\040810expA.qld, Time: Fri Apr 09 10:54:52 2010



Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2027

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 08-APR-10 22:02

GEL Data File: EXP0408002a

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	589.589
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	523.733
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\040810expA.qld, Time: Fri Apr 09 10:54:52 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP04080002a

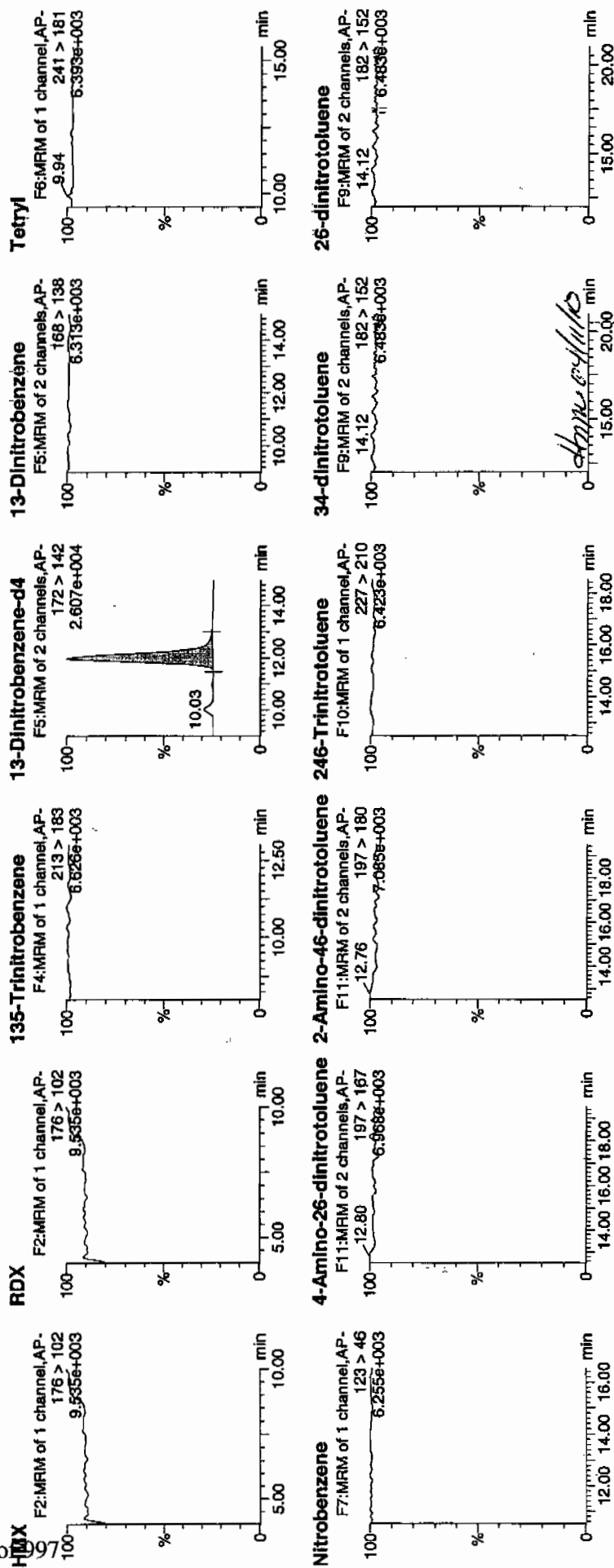
Date: 08-Apr-2010

Time: 22:02:20

ID: XIBLK01

Val: 1:1,A

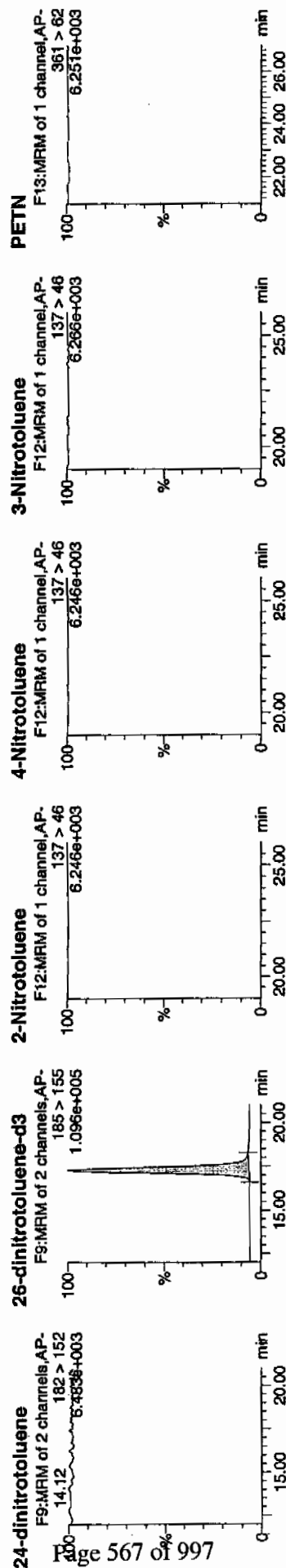
1007  
4/10/10



### Quantify Sample Report

**Analyst: Michael A. Penny**

Dataset: C:\MASSLYNX\New\_Exp.PRO\040810expA.qld, Time: Fri Apr 09 10:54:52 2010



ID	Name	Trace	Ft	S Area	Abs Resp.	Response	Pack	Date	Moment	% Rec	Area	CN
XIBLK01	HMX	176 > 102		7662.359								
XIBLK01	RDX	176 > 102		7662.359								
XIBLK01	135-Trinitrobenzene	213 > 183		7662.359								
XIBLK01	13-Dinitrobenzene-d4	172 > 142	12.00	7662.359	7662.359	bb			589.5891	117.9	17.9	617.0
XIBLK01	13-Dinitrobenzene	168 > 138		7662.359								
XIBLK01	Tetryl	241 > 181		7662.359								
XIBLK01	Nitrobenzene	123 > 46		7662.359								
XIBLK01	4-Amino-26-dinitrotoluene	197 > 167		41352.492								
XIBLK01	2-Amino-46-dinitrotoluene	197 > 180		41352.492								
XIBLK01	246-Trinitrotoluene	227 > 210		41352.492								
XIBLK01	34-dinitrotoluene	182 > 152		41352.492								
XIBLK01	26-dinitrotoluene	182 > 152		41352.492								
XIBLK01	24-dinitrotoluene	182 > 152		41352.492								
XIBLK01	26-dinitrotoluene-d3	185 > 155	17.29	41352.492	41352.492	MM-	09-Apr-10	10:45:40				
XIBLK01	2-Nitrotoluene	137 > 46		41352.492								
XIBLK01	4-Nitrotoluene	137 > 46		41352.492								
XIBLK01	3-Nitrotoluene	137 > 46		41352.492								
XIBLK01	PETN	361 > 62		41352.492								
					41352.492	41352.492	bb		523.7332	104.7	4.7	3147.8

Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2027

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 31-MAR-10 08:40

GEL Data File: EXS03310001.wiff

Instrument ID: LCMSMS

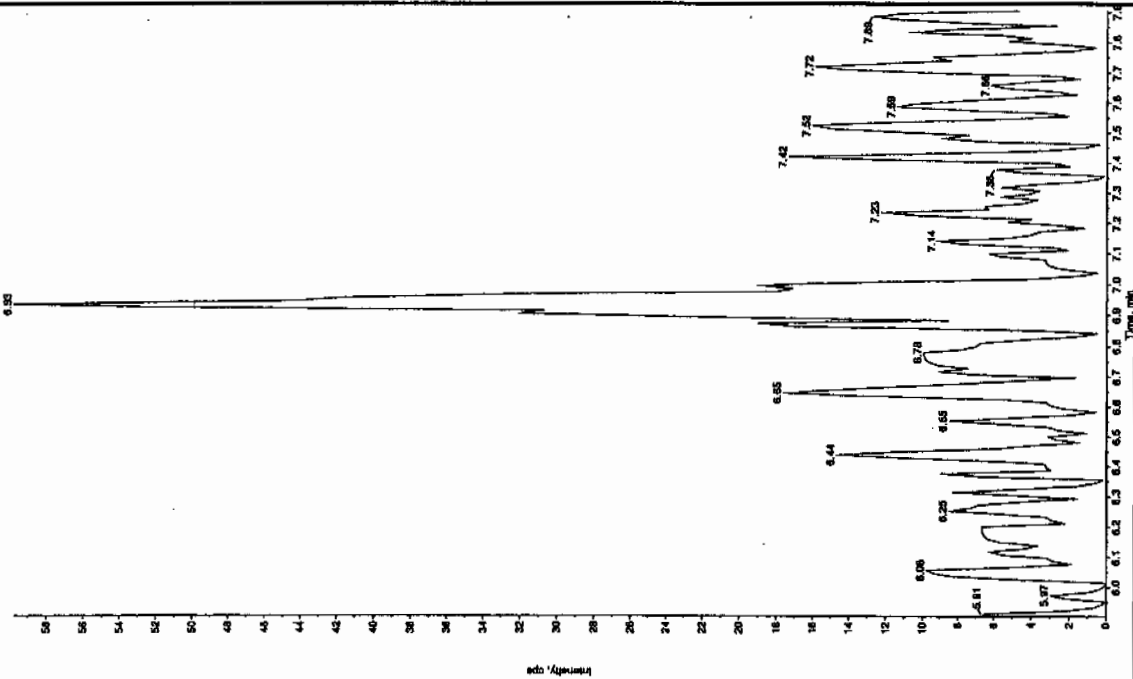
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	0
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0

See 4/5/10

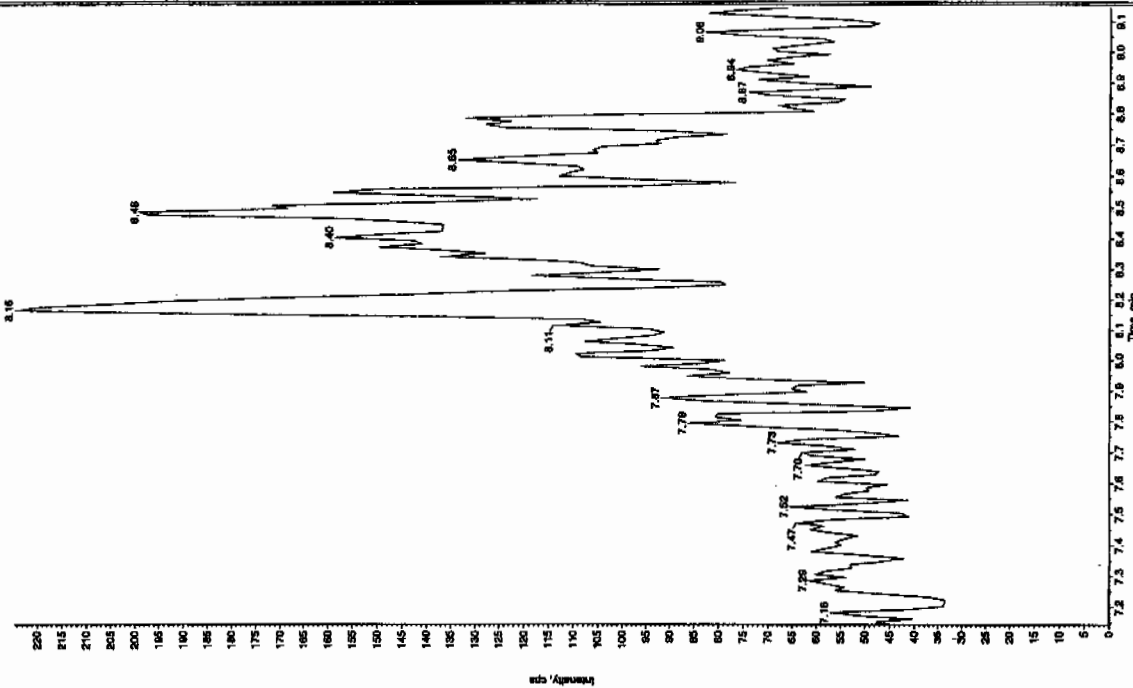
Sample Name: "XBLK01" Sample ID: "T1L1" File: "EXS03310001.wif"  
 Peak Name: "T1L1" Mass(es): "257.2204.9 amu"  
 Comment: "LCMSEXP\_B" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 3/31/2010  
 Acq. Time: 8:40:32 AM  
 Modified: No

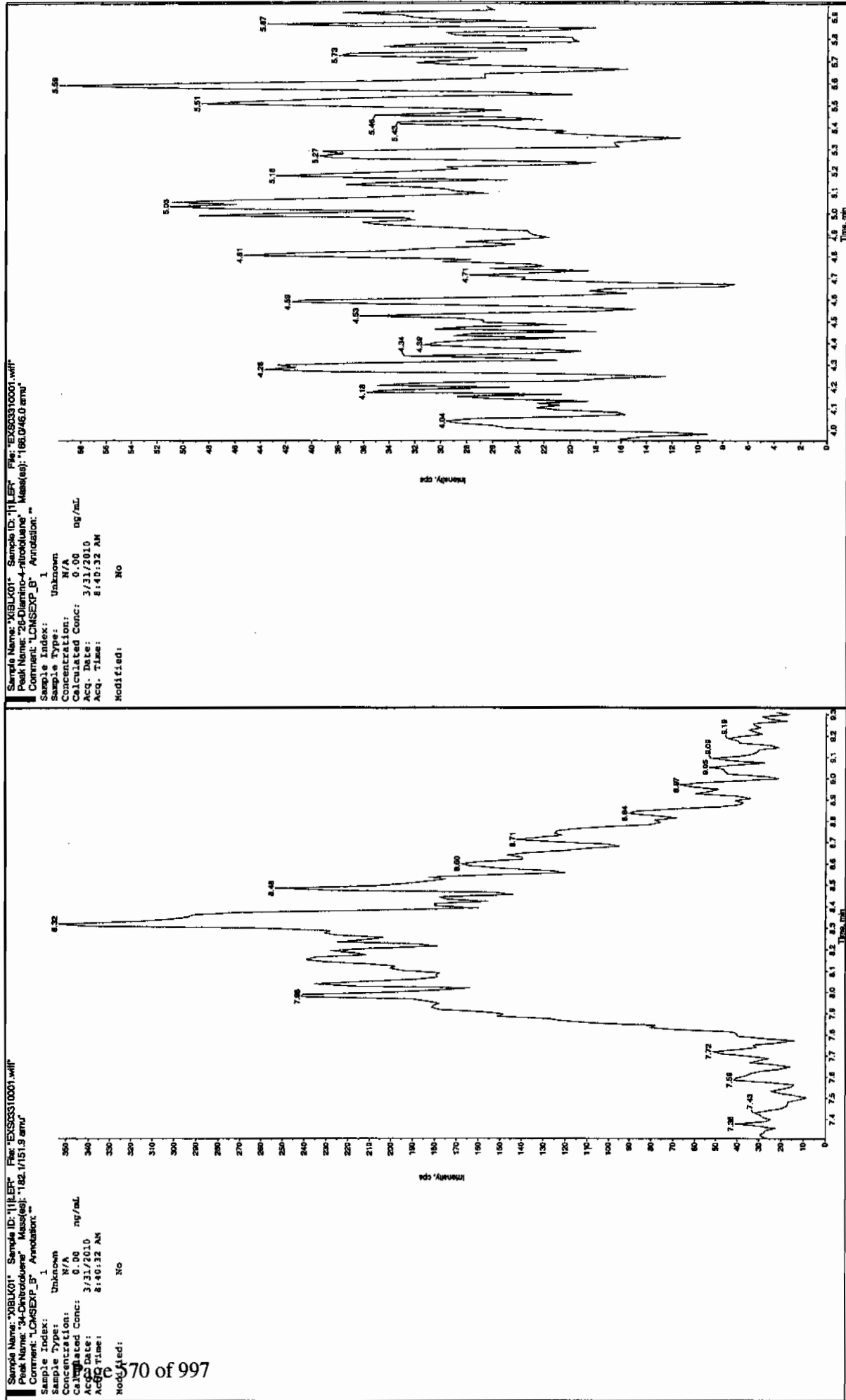


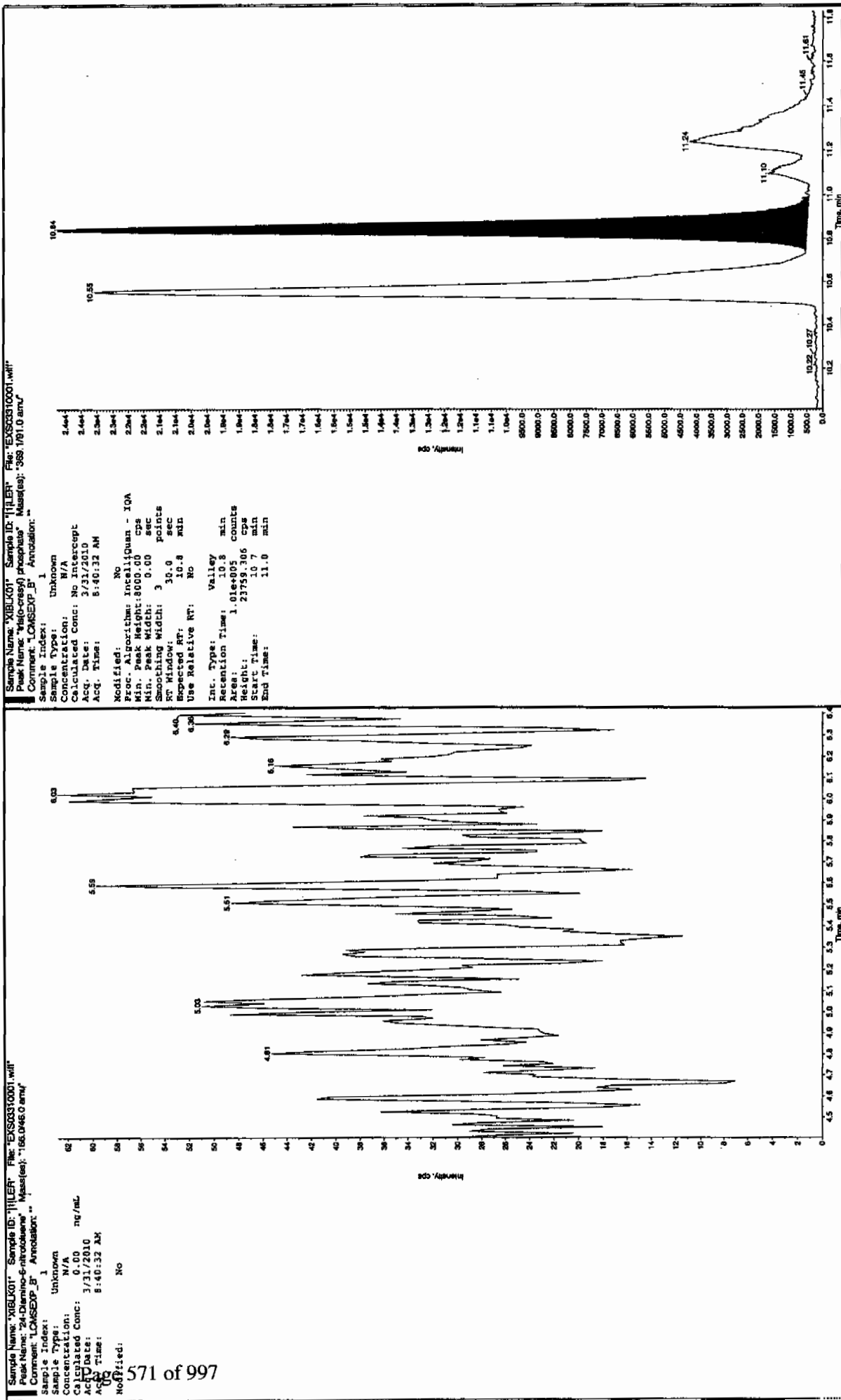
Sample Name: "XBLK01" Sample ID: "T1L1" File: "EXS03310001.wif"  
 Peak Name: "3S-Dinitroamine" Mass(es): "182.046.0 amu"  
 Comment: "LCMSEXP\_B" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 3/31/2010  
 Acq. Time: 8:40:32 AM  
 Modified: No



Am 04/05/10







Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2027

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 31-MAR-10 08:56

GEL Data File: EXS03310002.wiff

Instrument ID: LCMSMS

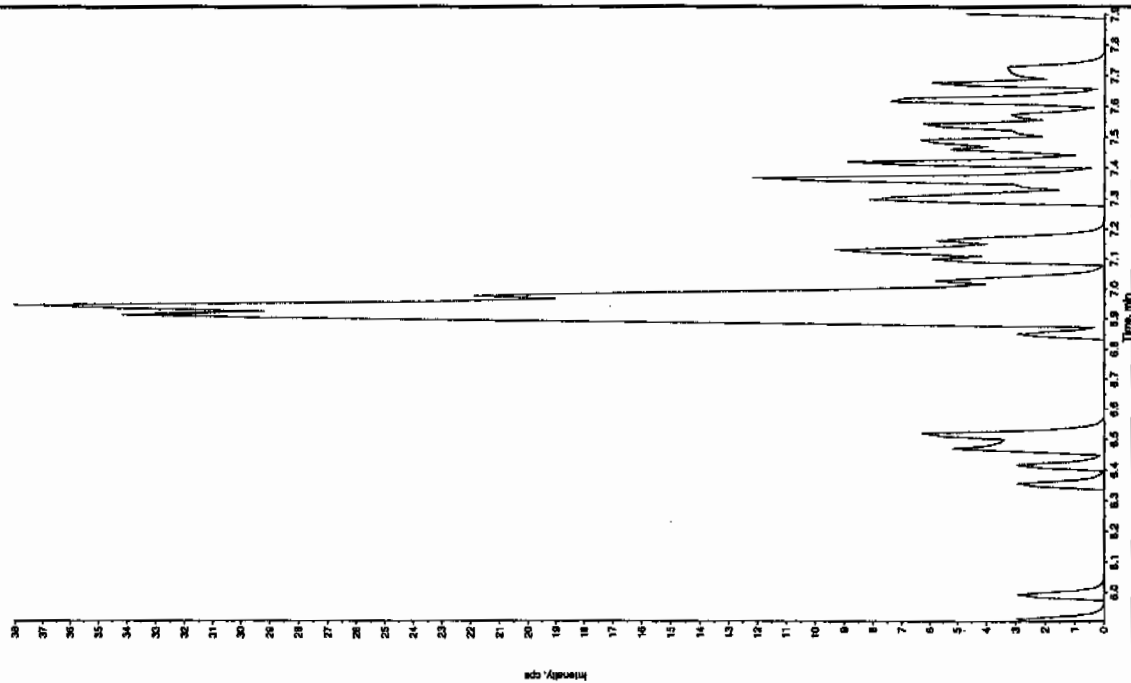
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	0
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0

Low 4/15/10

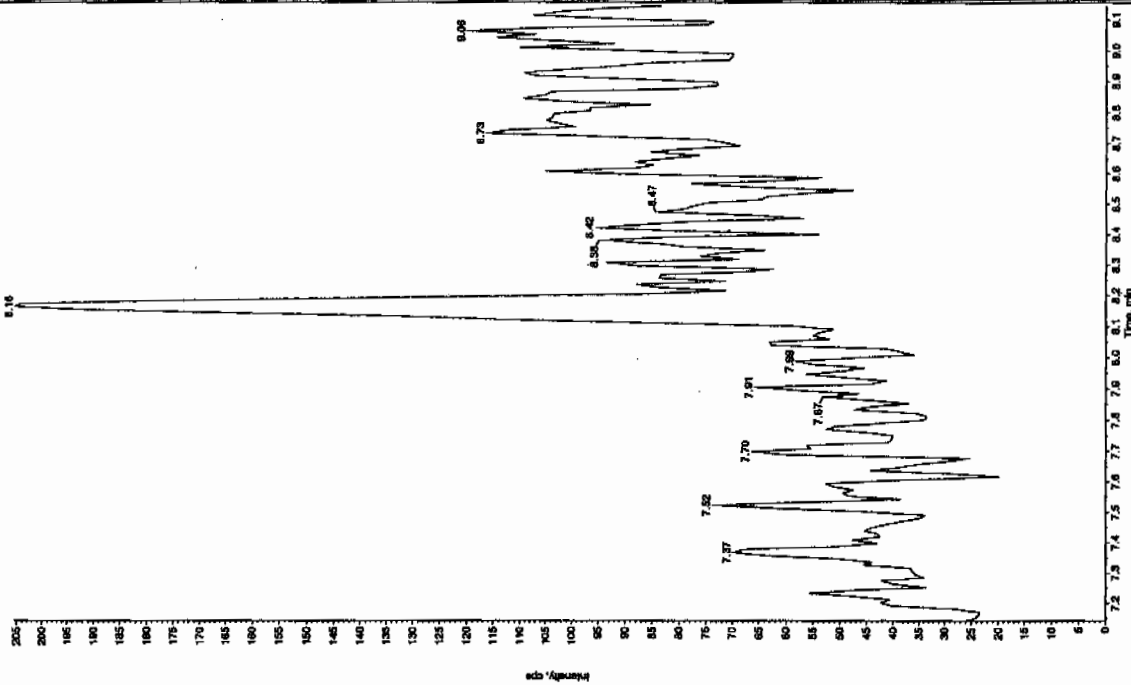
Sample Name: "XIBLX01" Sample ID: "111ER" File: "EXS03310002.wiff"  
 Peak Name: "TATB" Mass(es): "257.2204.6 amu"  
 Comment: "LCMSEXP\_B" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 3/31/2010  
 Acq. Time: 8:56:19 AM  
 Modified: No



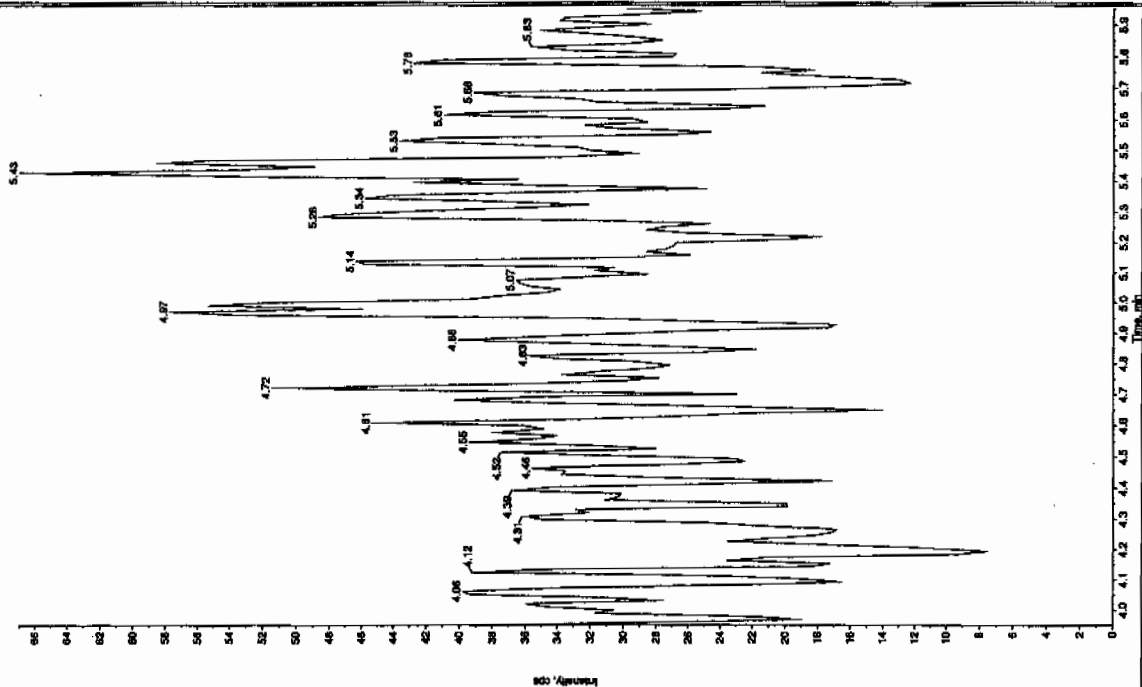
Sample Name: "XIBLX01" Sample ID: "111ER" File: "EXS03310002.wiff"  
 Peak Name: "SS-Dinitroaniline" Mass(es): "182.046.0 amu"  
 Comment: "LCMSEXP\_B" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 3/31/2010  
 Acq. Time: 8:56:19 AM  
 Modified: No

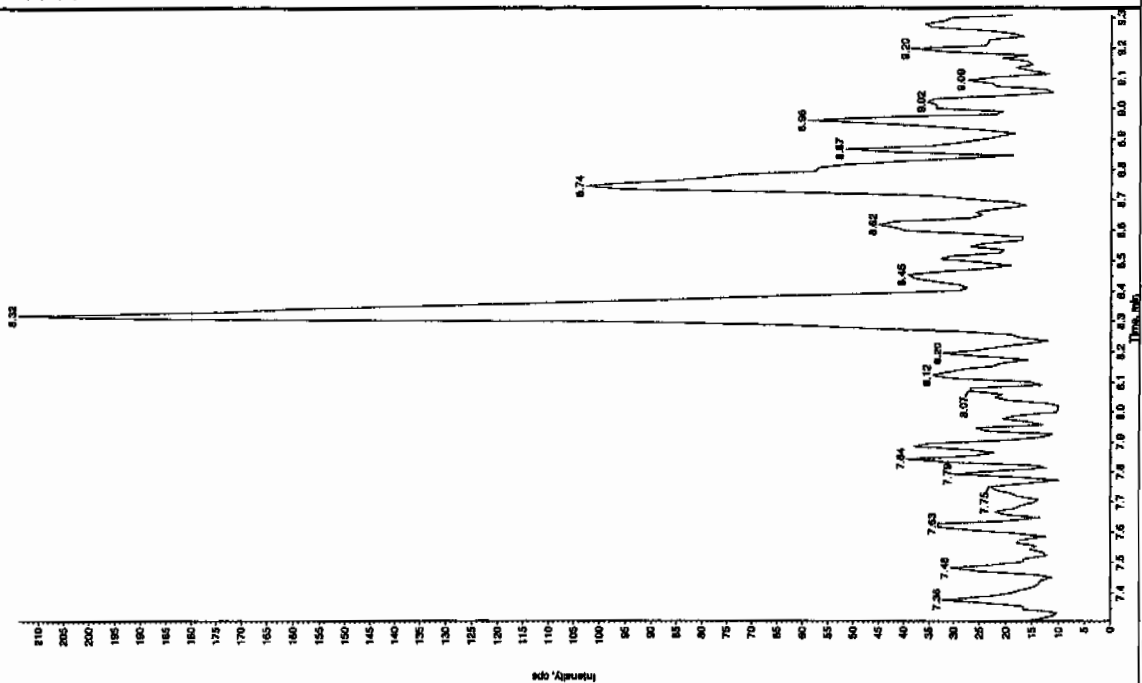


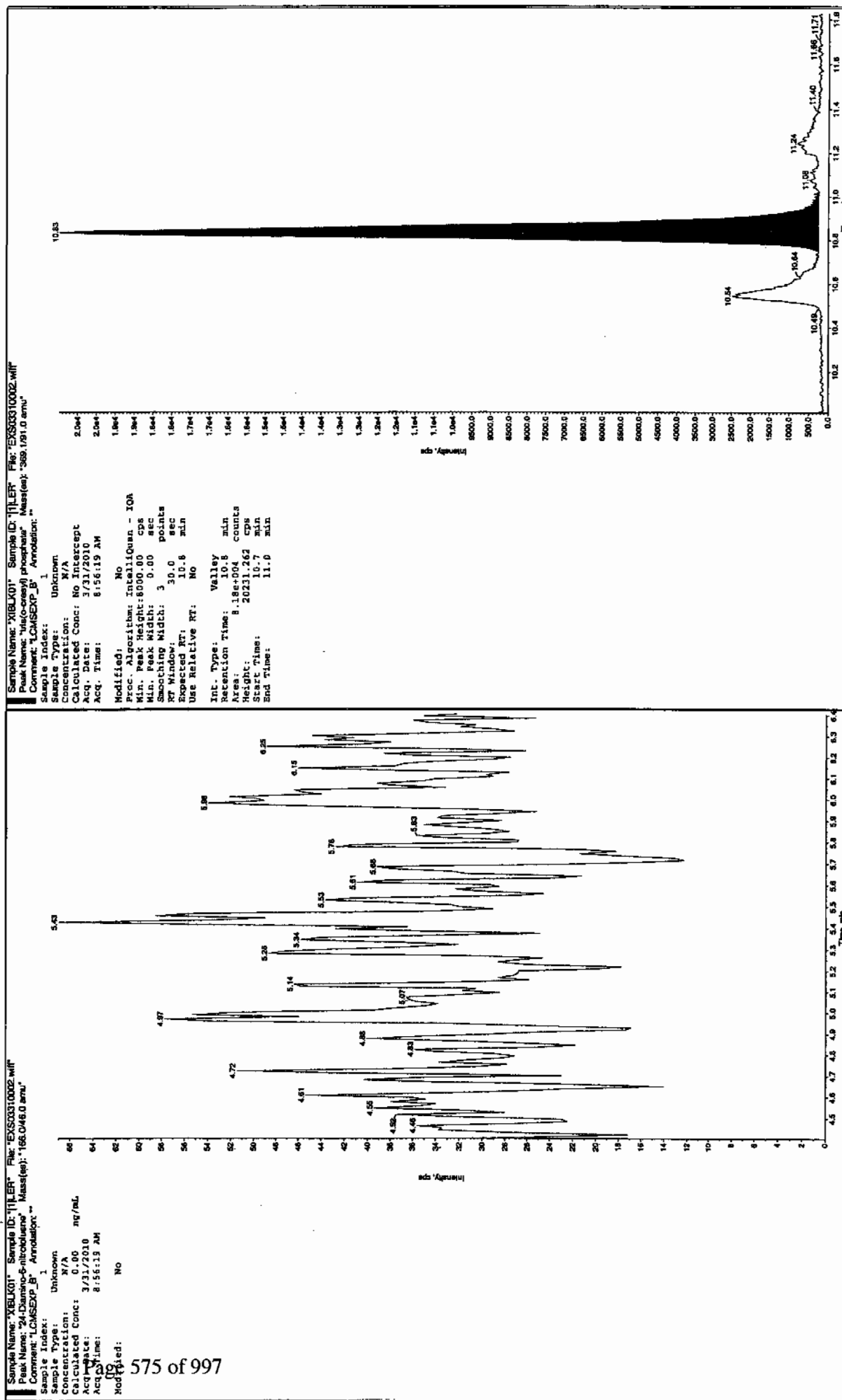
Ann 04/05/10

Sample Name: "XIBLK01" Sample ID: "JILER" File: "EXS0310002.wiff"  
 Peak Name: "28-Diamino-4-nitrotoluene" Mass(es): "165.046.0 amu"  
 Comment: "LCMSEXP\_B" Annotation: ""  
 Sample Index: 1  
 Sample Type: Unknown  
 Concentration: M/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 3/31/2010  
 Acq. Time: 8:56:19 AM  
 Modified: No



Sample Name: "XIBLK01" Sample ID: "JILER" File: "EXS0310002.wiff"  
 Peak Name: "34-Dinitrotoluene" Mass(es): "182.1451.9 amu"  
 Comment: "LCMSEXP\_B" Annotation: ""  
 Sample Index: 1  
 Sample Type: Unknown  
 Concentration: M/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 3/31/2010  
 Acq. Time: 8:56:19 AM  
 Modified: No





**4A**  
**Explosives Continuing Calibration Blank**

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2027

Lab Code: GEL

Lab Sample ID: XIBLK02

Analysis Date: 09-APR-10 01:28

GEL Data File: EXP0408009a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	582.512
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	582.151

Quantify Sample Report  
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp.PRO\040810expA.qld, Time: Fri Apr 09 10:54:52 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0408009a

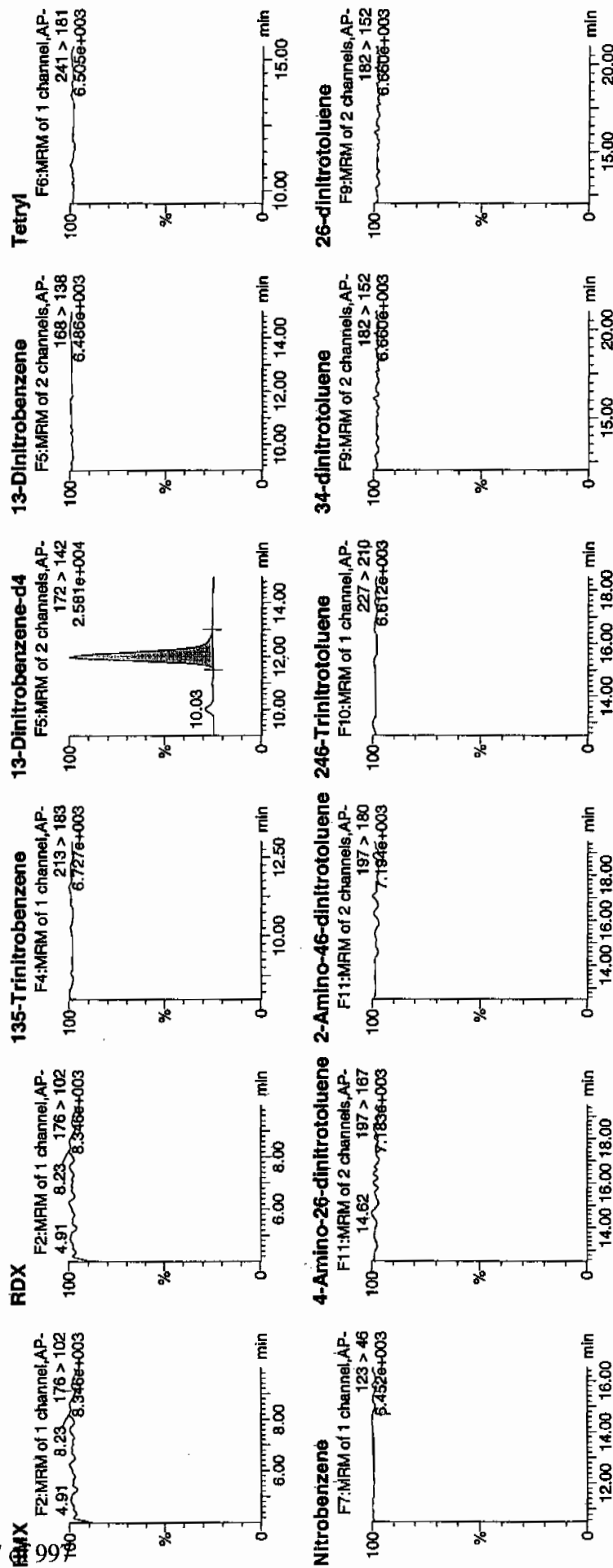
Date: 09-Apr-2010

Time: 01:28:39

ID: XIBLK02

Vial: 1:1,A

4/10/10

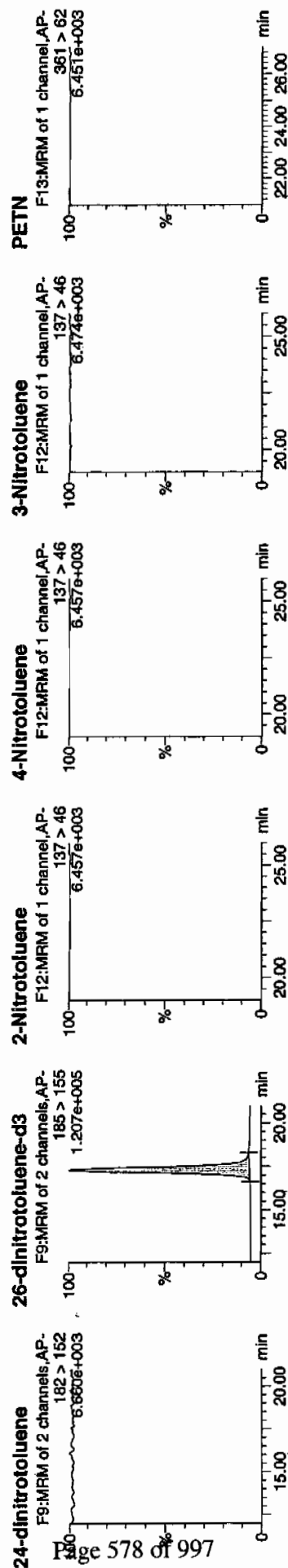


4/10/10

## Quantify Sample Report

GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp.PRO\040810expA.qld, Time: Fri Apr 09 10:54:52 2010



ID	Name	Trace	RT	Area	Start	Abt Resp	Response	Flags	Mod Time	Amount	% Rec	% Dev	SN
XIBLK02	HMx	176 > 102			7570.382								
XIBLK02	RDX	176 > 102			7570.382								
XIBLK02	135-Trinitrobenzene	213 > 183			7570.382								
XIBLK02	13-Dinitrobenzene-d4	172 > 142	12.00	7570.382		7570.382	7570.382	bb		582.5119	116.5	16.5	406.2
XIBLK02	13-Dinitrobenzene	168 > 138			7570.382								
XIBLK02	Tetryl	241 > 181			7570.382								
XIBLK02	Nitrobenzene	123 > 46			7570.382								
XIBLK02	4-Amino-26-dinitrotoluene	197 > 167			45964.992								
XIBLK02	2-Amino-46-dinitrotoluene	197 > 180			45964.992								
XIBLK02	246-Trinitrotoluene	227 > 210			45964.992								
XIBLK02	34-dinitrotoluene	182 > 152			45964.992								
XIBLK02	26-dinitrotoluene	182 > 152			45964.992								
XIBLK02	24-dinitrotoluene	182 > 152			45964.992								
XIBLK02	26-dinitrotoluene-d3	185 > 155	17.29	45964.992		45964.992	45964.992	bb		582.1510	116.4	16.4	2006.3
XIBLK02	2-Nitrotoluene	137 > 46			45964.992								
XIBLK02	4-Nitrotoluene	137 > 46			45964.992								
XIBLK02	3-Nitrotoluene	137 > 46			45964.992								
XIBLK02	PETN	361 > 62			45964.992								

4A  
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2027

Lab Code: GEL

Lab Sample ID: XIBLK03

Analysis Date: 09-APR-10 02:27

GEL Data File: EXP0408011a

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	614.27
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	618.135
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\040810expA.qld, Time: Fri Apr 09 10:54:52 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0408011a

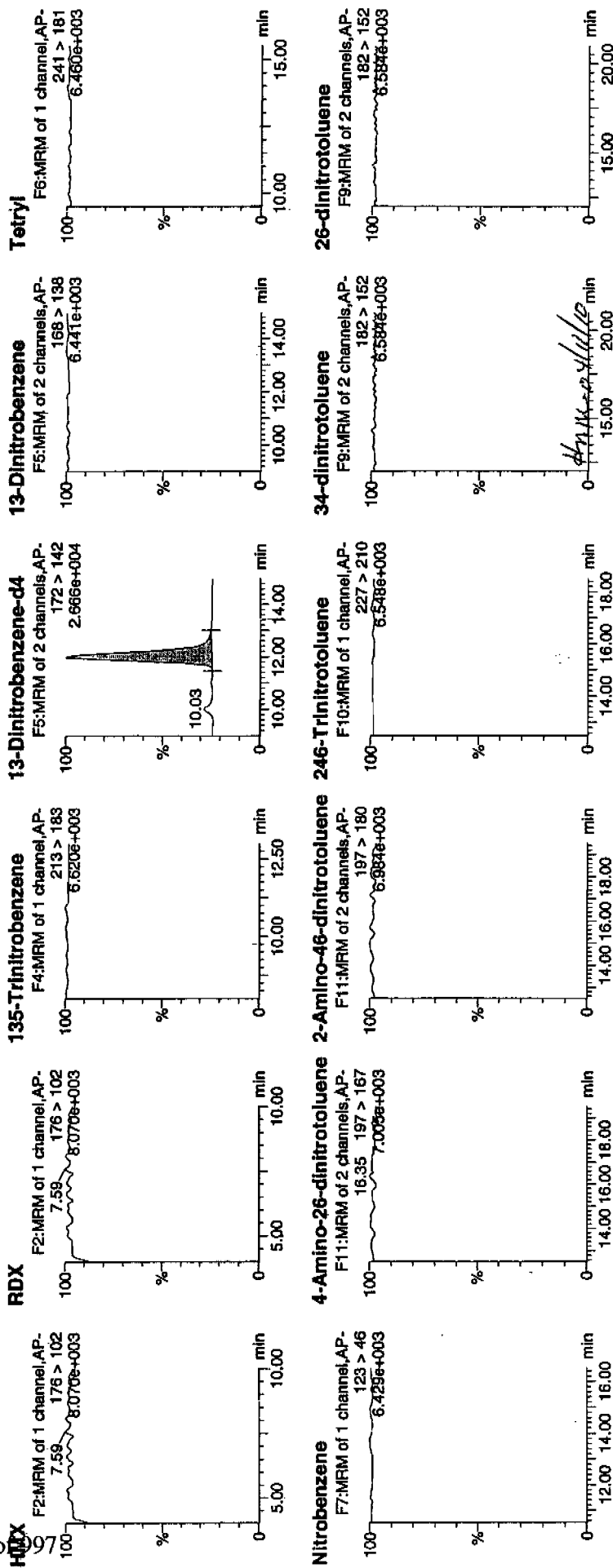
Date: 09-Apr-2010

Time: 02:27:37

ID: XIBLK03

Ver: 1:1,A

10/12/10

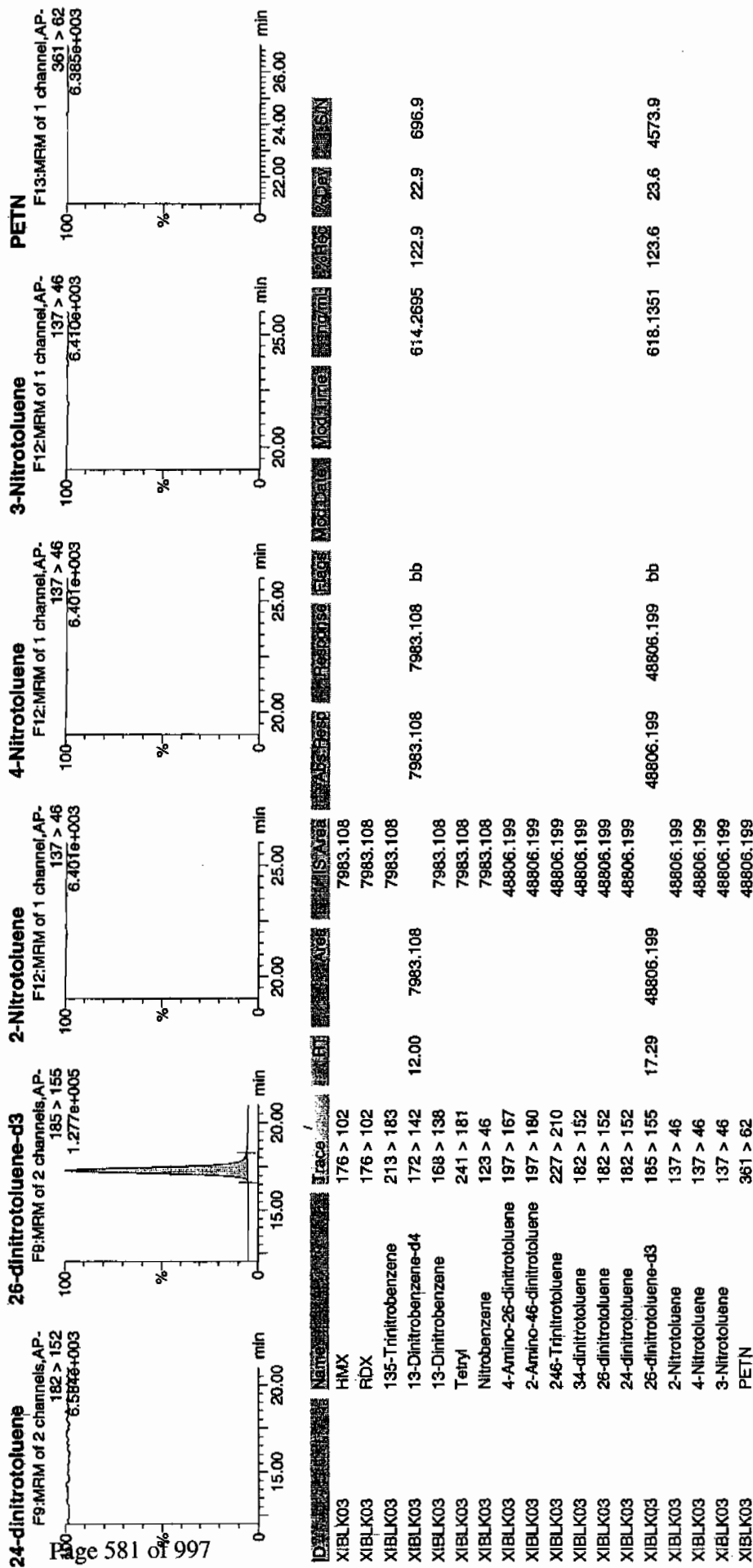


# Quantify Sample Report

GEL Laboratories, LLC / Analyst: Michael A. Penny

Printed: Fri Apr 09 10:56:07 2010, Page 22 of 51

Dataset: C:\MASSLYNX\New\_Exp.PRO\040810expA.qld, Time: Fri Apr 09 10:54:52 2010



4A  
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2027

Lab Code: GEL

Lab Sample ID: XIBLK04

Analysis Date: 09-APR-10 08:50

GEL Data File: EXP0408024a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
2,6-Dinitrotoluene-d3	500	634.417
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	626.188
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0

**Quantify Sample Report**  
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp.PRO\040810expA.qld, Time: Fri Apr 09 10:54:52 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0408024a

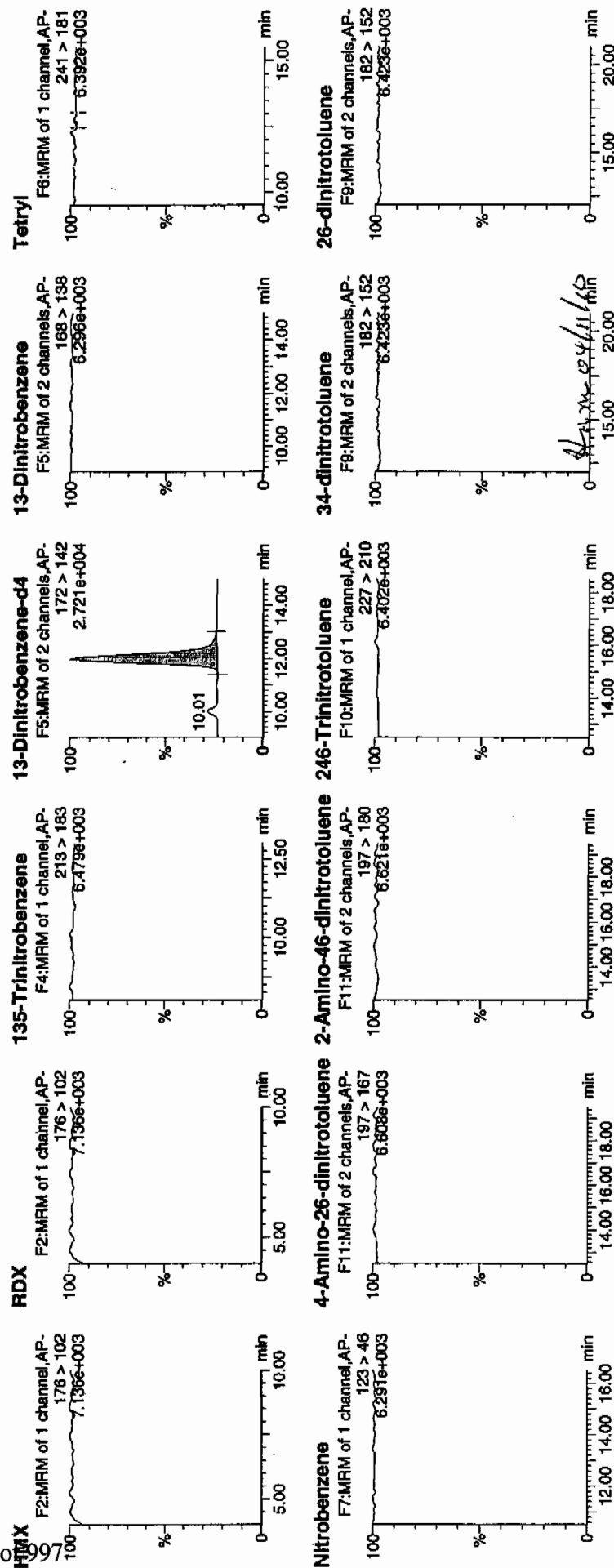
Date: 09-Apr-2010

Time: 08:50:59

ID: XIBLK04

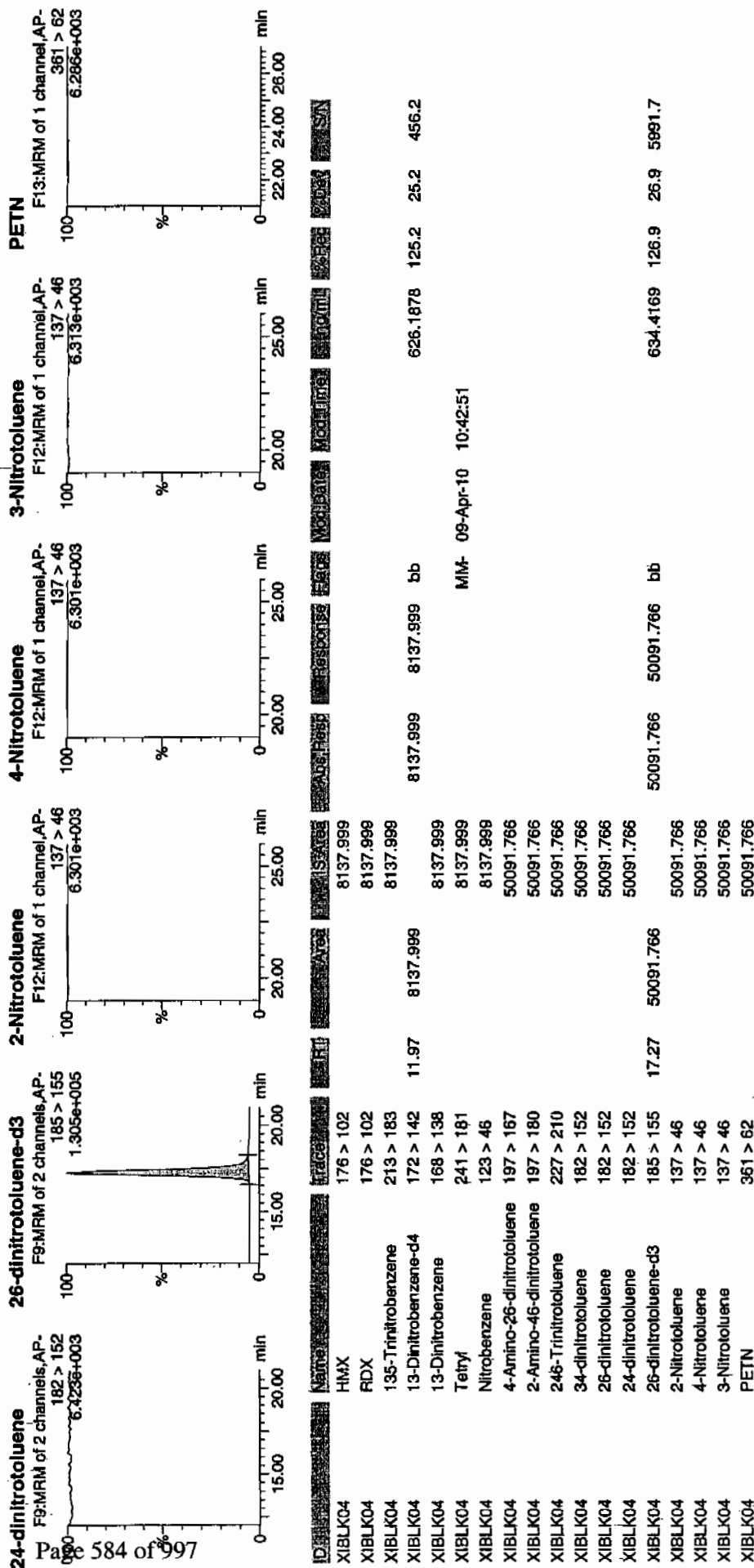
Val: 1:1,A

10/17  
4/12/10



**Quantify Sample Report**  
 GEL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp.PRO\040810expA.qld, Time: Fri Apr 09 10:54:52 2010



4A  
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2027

Lab Code: GEL

Lab Sample ID: XIBLK05

Analysis Date: 09-APR-10 15:14

GEL Data File: EXP0408037a

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	537.089
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	518.05
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\040810expA1.qld, Time: Sat Apr 10 11:40:36 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0408037a

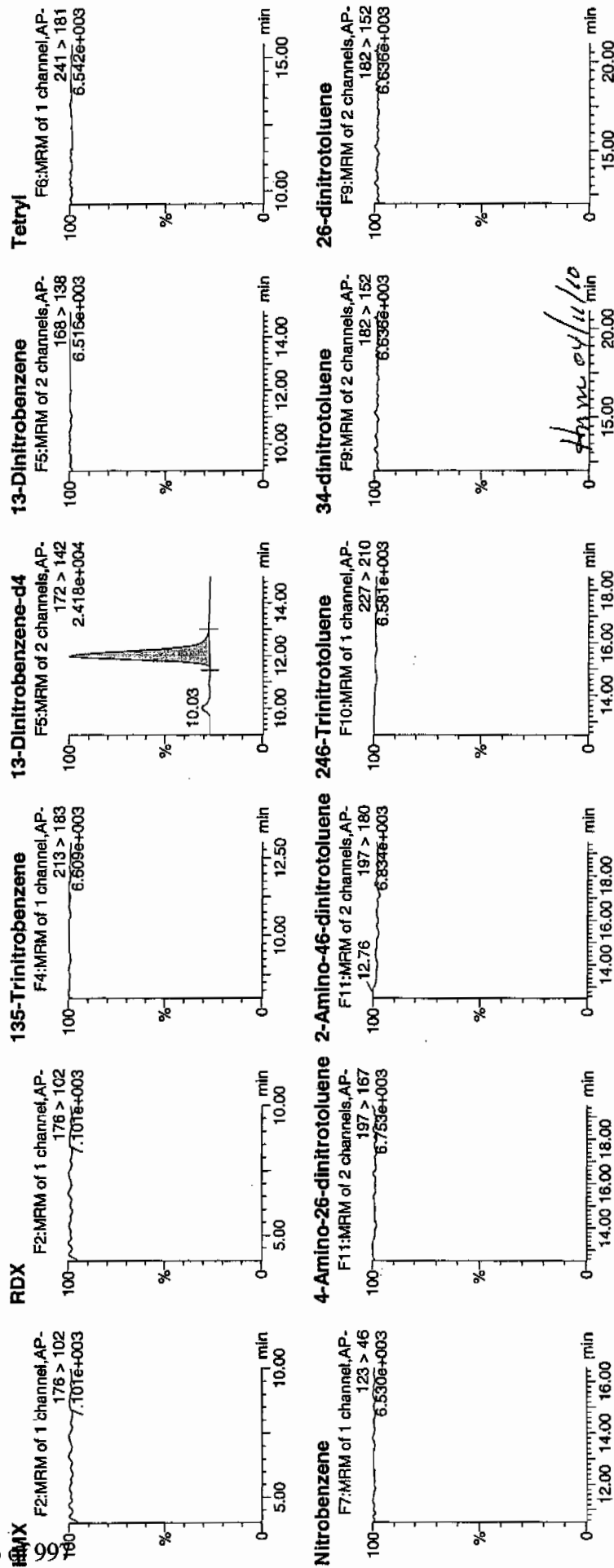
Date: 09-Apr-2010

Time: 15:14:23

ID: XIBLK05

Val: 1:1.A

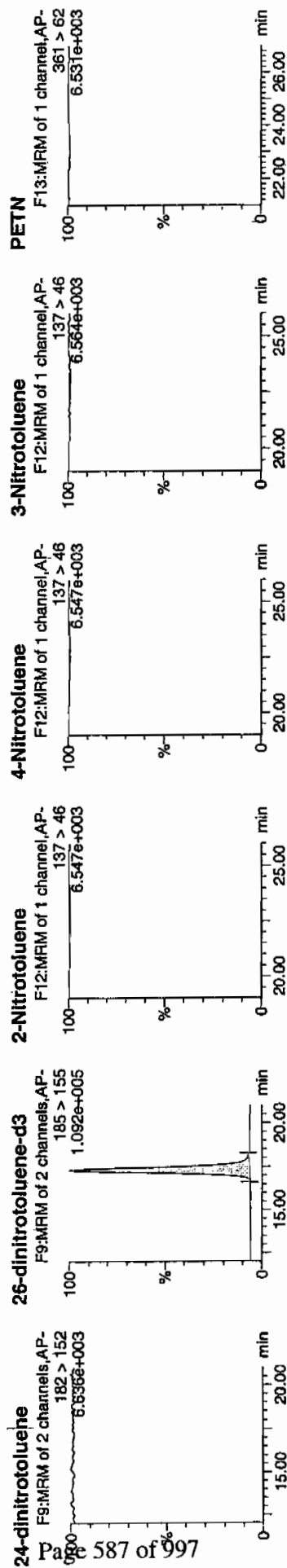
4/10/10



Printed: Sat Apr 10 11:42:30 2010, Page 24 of 99

Quantify Sample Report  
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp.PRO\040810expA1.qld, Time: Sat Apr 10 11:40:36 2010



ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	Mod User	Ref	SN
XIBLK05	HMX	176 > 102		6980.063									
XIBLK05	RDX	176 > 102		6980.063									
XIBLK05	135-Trinitrobenzene	213 > 183		6980.063									
XIBLK05	13-Dinitrobenzene-d4	172 > 142	12.00	6980.063									
XIBLK05	13-Dinitrobenzene	168 > 138		6980.063									
XIBLK05	Tetryl	241 > 181		6980.063									
XIBLK05	Nitrobenzene	123 > 46		6980.063									
XIBLK05	4-Amino-26-dinitrotoluene	197 > 167		40903.723									
XIBLK05	2-Amino-46-dinitrotoluene	197 > 180		40903.723									
XIBLK05	246-Trinitrotoluene	227 > 210		40903.723									
XIBLK05	34-dinitrotoluene	182 > 152		40903.723									
XIBLK05	26-dinitrotoluene	182 > 152		40903.723									
XIBLK05	24-dinitrotoluene	182 > 152		40903.723									
XIBLK05	26-dinitrotoluene-d3	185 > 155	17.29	40903.723									
XIBLK05	2-Nitrotoluene	137 > 46		40903.723									
XIBLK05	4-Nitrotoluene	137 > 46		40903.723									
XIBLK05	3-Nitrotoluene	137 > 46		40903.723									
XIBLK05	PETN	361 > 62		40903.723									
						6980.063	6980.063	bb				537.0891	107.4
						40903.723	40903.723	bb				518.0495	103.6
													3.6
													2372.7
													999.9
													7.4



4A  
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2027

Lab Code: GEL

Lab Sample ID: XIBLK06

Analysis Date: 09-APR-10 20:12

GEL Data File: EXP0408047a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	435.902
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	429.443
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0

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Quantify Sample Report  
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp.PRO\040810expA1.qld, Time: Sat Apr 10 11:40:36 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0408047a

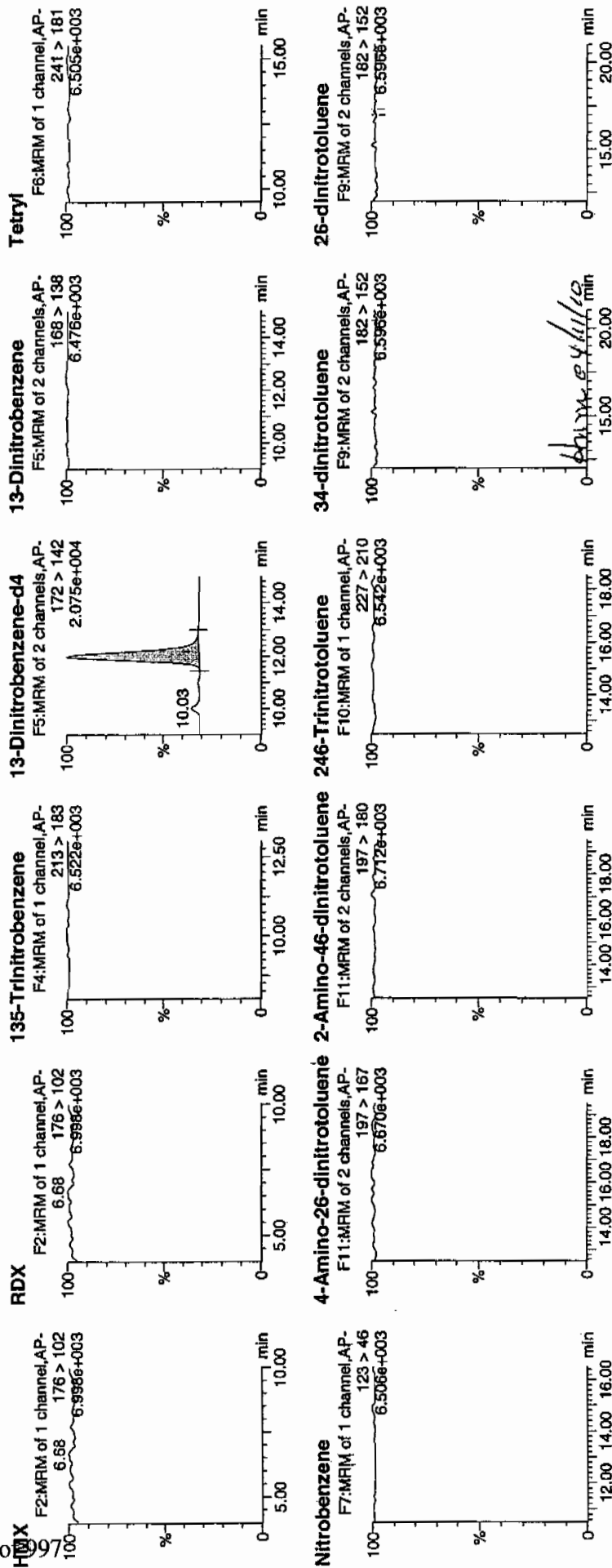
Date: 09-Apr-2010

Time: 20:12:37

ID: XIBLK06

Vol: 1:1,A

MR  
4/10/10



**24-dinitrotoluene**

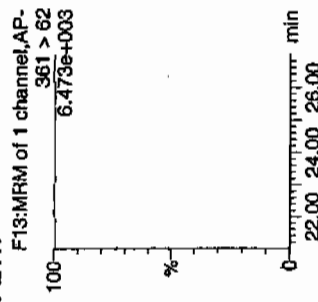
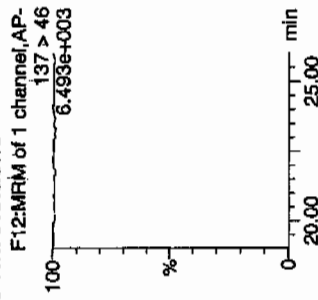
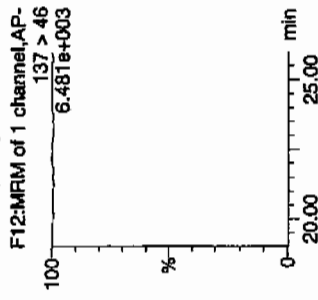
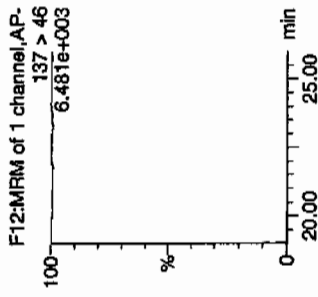
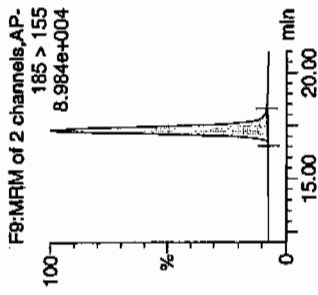
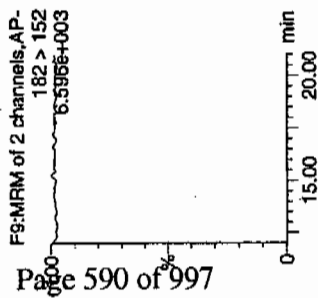
26-dinitrotoluene-d3

## 2-Nitrotoluene

## 4-Nitrotoluene

### 3-Nitrotoluene

**PETN**



ID	Name	Trace Area	RT	Area	SAVega	Abs. Resp	Response	Flags	Mod Date	Mod Time	Conc/mL	% Rec	% Dev	SSIN
XIBLK06	HMX	176 > 102			5581.087									
XIBLK05	RDX	176 > 102			5581.087									
XIBLK06	135-Trinitrobenzene	213 > 183			5581.087									
XIBLK06	13-Dinitrobenzene-d4	172 > 142	12.00	5581.087		5581.087	5581.087	bb			429.4432	85.9	-14.1	248.3
XIBLK06	13-Dinitrobenzene	168 > 138			5581.087									
XIBLK06	Tetryl	241 > 181			5581.087									
XIBLK06	Nitrobenzene	123 > 46			5581.087									
XIBLK06	4-Anilino-26-dinitrotoluene	197 > 167			34417.574									
XIBLK06	2-Amino-46-dinitrotoluene	197 > 180			34417.574									
XIBLK06	246-Trinitrotoluene	227 > 210			34417.574									
XIBLK06	34-dinitrotoluene	182 > 152			34417.574									
XIBLK06	26-dinitrotoluene	182 > 152			34417.574									
XIBLK06	24-dinitrotoluene	182 > 152			34417.574				MM-	10-Apr-10	11:35:24			
XIBLK06	26-dinitrotoluene-d3	185 > 155	17.29	34417.574		34417.574	34417.574	bb			435.9018	87.2	-12.8	2532.7
XIBLK06	2-Nitrotoluene	137 > 46			34417.574									
XIBLK06	4-Nitrotoluene	137 > 46			34417.574									
XIBLK06	3-Nitrotoluene	137 > 46			34417.574									
XIBLK06	PETN	361 > 62			34417.574									

4A  
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2027

Lab Code: GEL

Lab Sample ID: XIBLK07

Analysis Date: 10-APR-10 02:36

GEL Data File: EXP0408060a

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	468.862
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	454.011
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\040810expA1.qtd, Time: Sat Apr 10 11:40:36 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\data\EXP0408060a

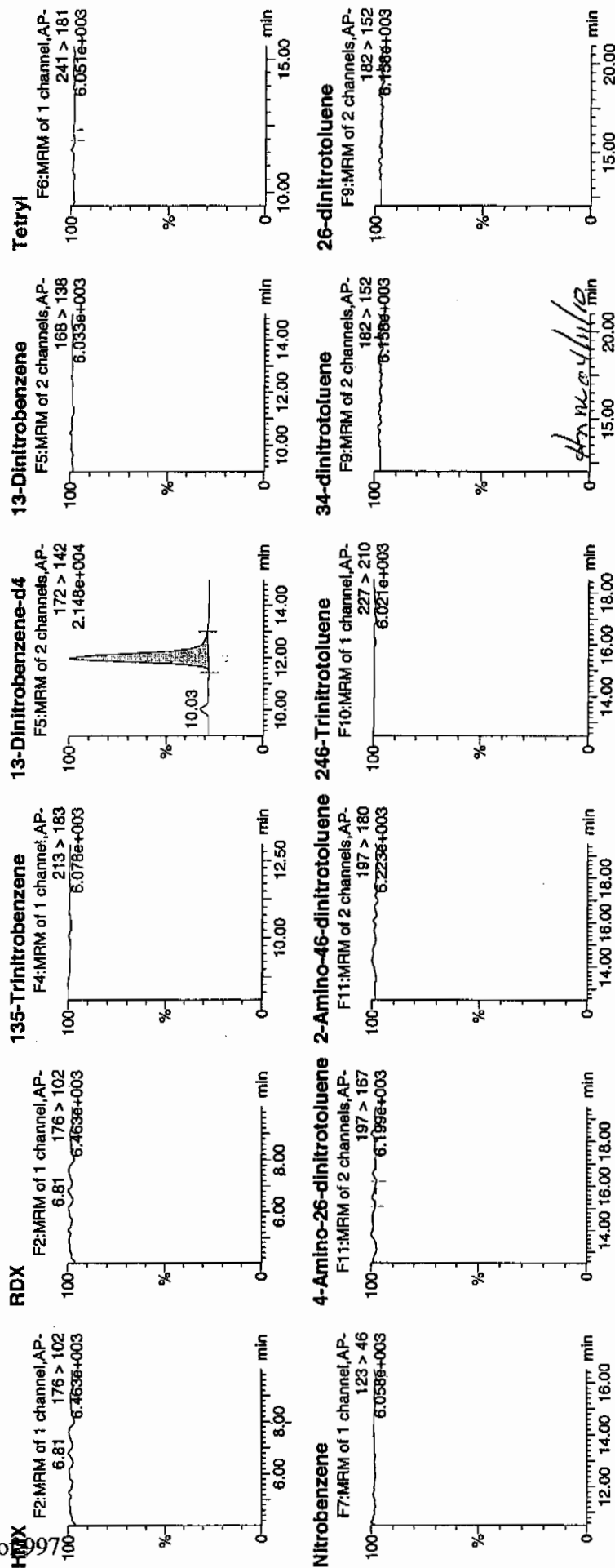
Date: 10-Apr-2010

Time: 02:36:11

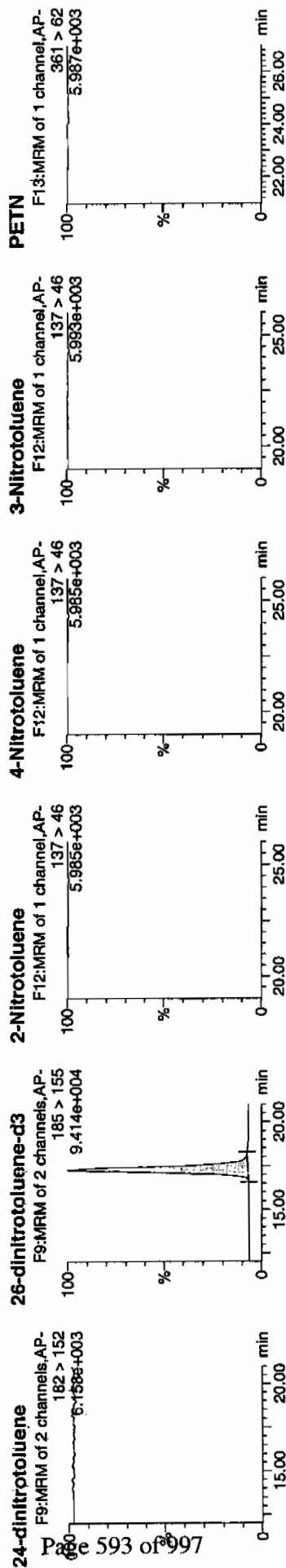
ID: XIBLK07

Vol: 1:1,A

4/10/10  
M.A.P.



Dataset: C:\MASSLYNX\New\_Exp\PRO\040810expA1.qid, Time: Sat Apr 10 11:40:36 2010



ID	Name	Trace	RT	Area	Area	Response	Flags	Mod Date	Mod Time	Acq Date	Acq Time
XIBLK07	HMX	176 > 102		6093.372							
XIBLK07	RDX	176 > 102		6093.372							
XIBLK07	135-Trinitrobenzene	213 > 183		6093.372							
XIBLK07	13-Dinitrobenzene-d4	172 > 142	11.97	6093.372		6093.372	bb			468.8616	93.8 -6.2 691.4
XIBLK07	13-Dinitrobenzene	168 > 138		6093.372							
XIBLK07	Tetryl	241 > 181		6093.372							
XIBLK07	Nitrobenzene	123 > 46		6093.372							
XIBLK07	4-Amino-26-dinitrotoluene	197 > 167		35847.441							
XIBLK07	2-Amino-46-dinitrotoluene	197 > 180		35847.441							
XIBLK07	246-Trinitrotoluene	227 > 210		35847.441							
XIBLK07	34-dinitrotoluene	182 > 152		35847.441							
XIBLK07	26-dinitrotoluene	182 > 152		35847.441							
XIBLK07	24-dinitrotoluene	182 > 152		35847.441							
XIBLK07	26-dinitrotoluene-d3	185 > 155	17.27	35847.441		35847.441	bb			454.0112	90.8 -9.2 2465.3
XIBLK07	2-Nitrotoluene	137 > 46		35847.441							
XIBLK07	4-Nitrotoluene	137 > 46		35847.441							
XIBLK07	3-Nitrotoluene	137 > 46		35847.441							
XIBLK07	PETN	361 > 62		35847.441							

4A  
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2027

Lab Code: GEL

Lab Sample ID: XIBLK08

Analysis Date: 10-APR-10 08:59

GEL Data File: EXP0408073a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	463.163
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	505.982
2,4,6-Trinitrotoluene	0	0

Quantify Sample Report  
GEL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp.PRO\040810expA1.qld, Time: Sat Apr 10 11:40:36 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0408073a

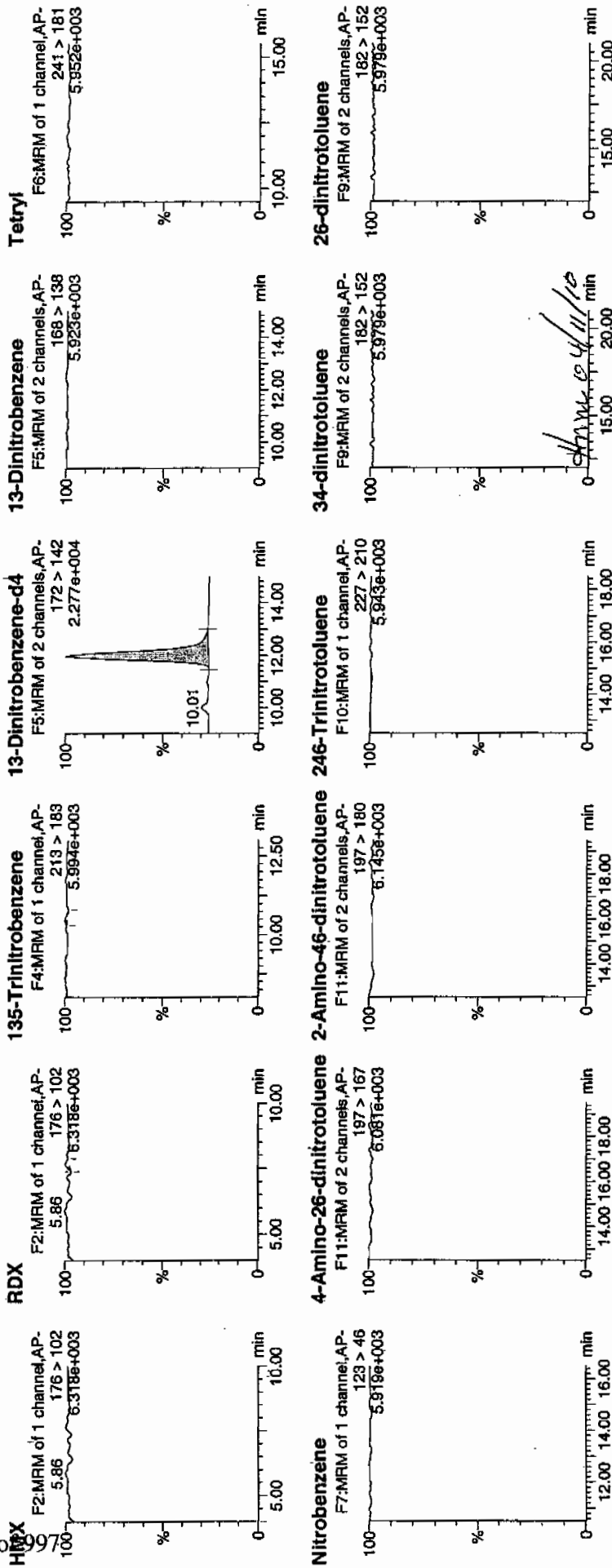
Date: 10-Apr-2010

Time: 08:59:47

ID: XIBLK08

Vol: 1:1,A

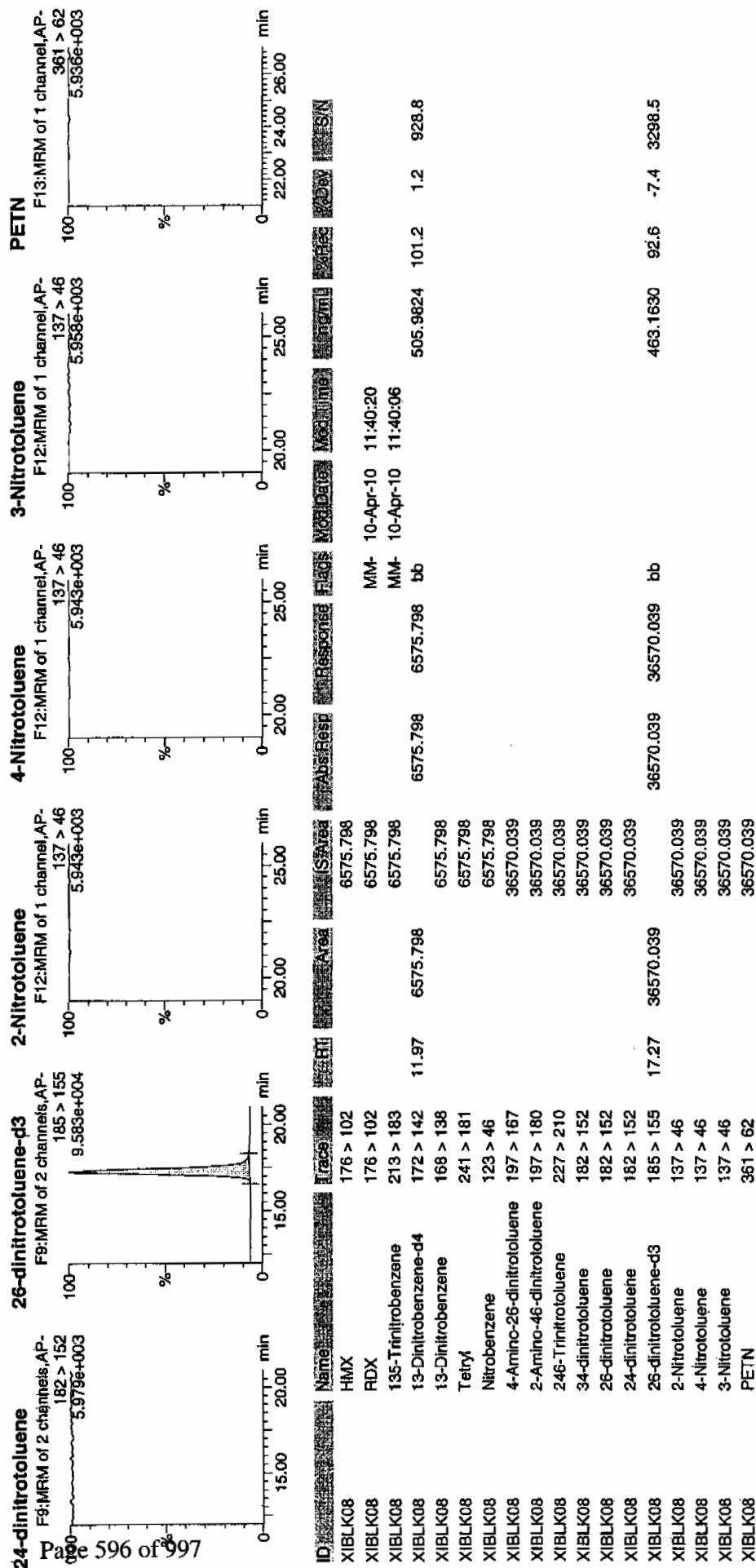
4/10/10





**Quantify Sample Report**  
 GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp.PRO\040810expA1.qld, Time: Sat Apr 10 11:40:36 2010



4A  
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2027

Lab Code: GEL

Lab Sample ID: XIBLK09

Analysis Date: 10-APR-10 10:28

GEL Data File: EXP0408076a

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	465.147
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	447.611
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\040810expA2.qld, Time: Sun Apr 11 11:45:05 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0408076a

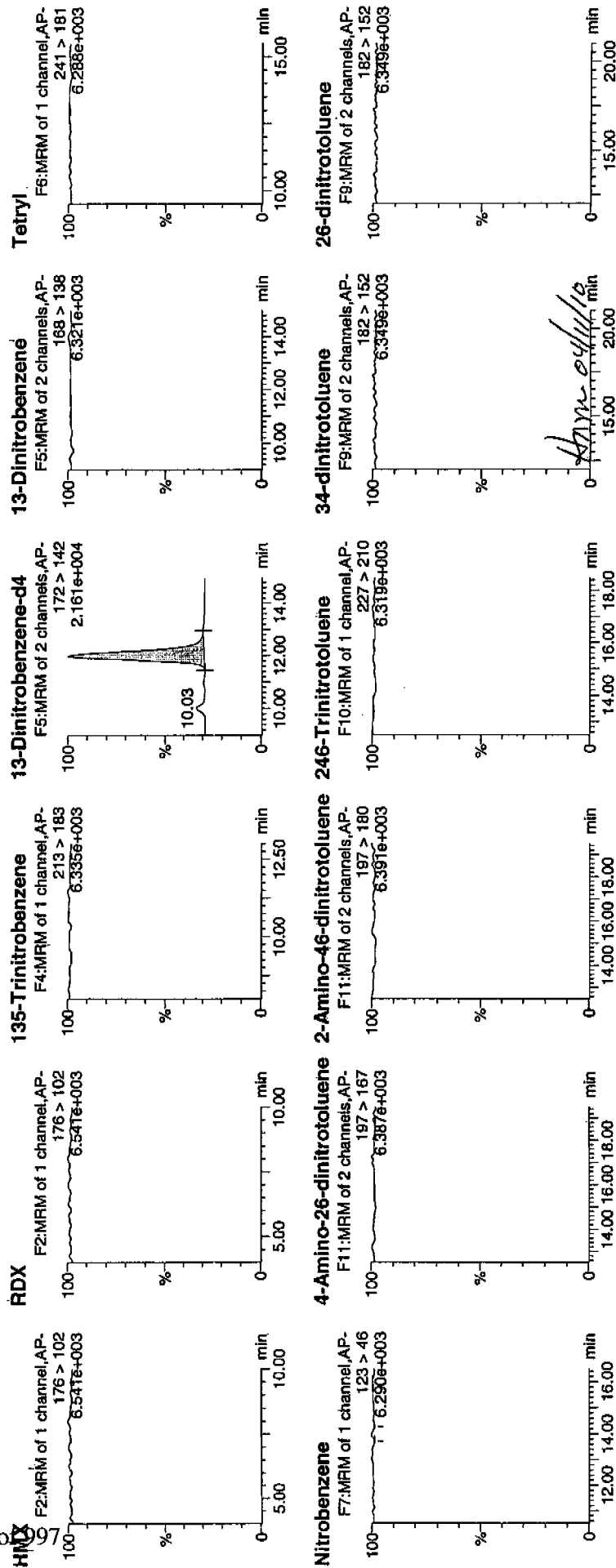
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Time: 10:28:20

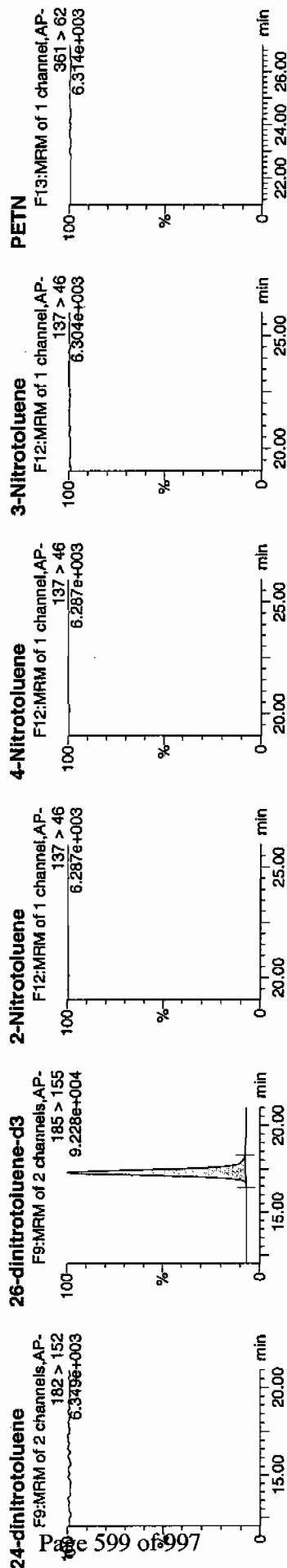
ID: XIBLK09

View: 1:1,A

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4/11/10



Dataset: C:\MASSLYNX\New\_Exp\PRO\040810expA2.qld, Time: Sun Apr 11 11:45:05 2010



ID	Name	Trace	RT	Area	IS Area	Abs Resp	Mod Date	Mod Time	Mod User	%Dev	SN
XIBLK09	HMX	176 > 102		6045.094							
XIBLK09	RDX	176 > 102		6045.094							
XIBLK09	135-Trinitrobenzene	213 > 183		6045.094							
XIBLK09	13-Dinitrobenzene-d4	172 > 142	12.00	6045.094							
XIBLK09	13-Dinitrobenzene	168 > 138		6045.094							
XIBLK09	Tetryl	241 > 181		6045.094							
XIBLK09	Nitrobenzene	123 > 46		6045.094							
XIBLK09	4-Amino-26-dinitrotoluene	197 > 167		35342.066							
XIBLK09	2-Amino-46-dinitrotoluene	197 > 180		35342.066							
XIBLK09	246-Trinitrotoluene	227 > 210		35342.066							
XIBLK09	34-dinitrotoluene	182 > 152		35342.066							
XIBLK09	26-dinitrotoluene	182 > 152		35342.066							
XIBLK09	24-dinitrotoluene	182 > 152		35342.066							
XIBLK09	26-dinitrotoluene-d3	185 > 155	17.29	35342.066							
XIBLK09	2-Nitrotoluene	137 > 46		35342.066							
XIBLK09	4-Nitrotoluene	137 > 46		35342.066							
XIBLK09	3-Nitrotoluene	137 > 46		35342.066							
XIBLK09	PETN	361 > 62		35342.066							
						6045.094	6045.094	bb	MM- 11-Apr-10 11:33:23	465.1468	93.0 -7.0 703.9
						35342.066	35342.066	bb		447.6106	89.5 -10.5 1834.9

4A  
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2027

Lab Code: GEL

Lab Sample ID: XIBLK10

Analysis Date: 10-APR-10 15:23

GEL Data File: EXP0408086a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
p-Nitrotoluene	0	0
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	453.275
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	429.682
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

Dataset: C:\MASSLYNX\New\_Exp.PRO\040810expA2.qld, Time: Sun Apr 11 11:45:05 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0408086a

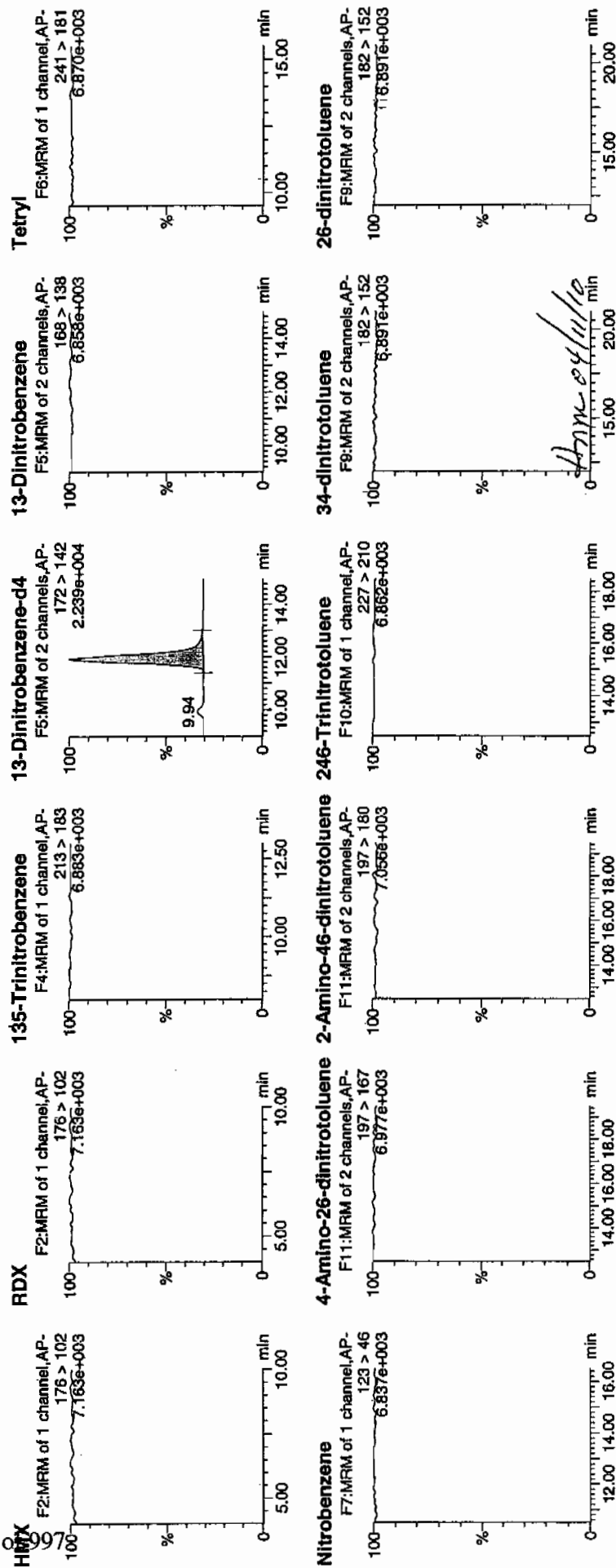
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Time: 15:23:25

ID: XIBLK10

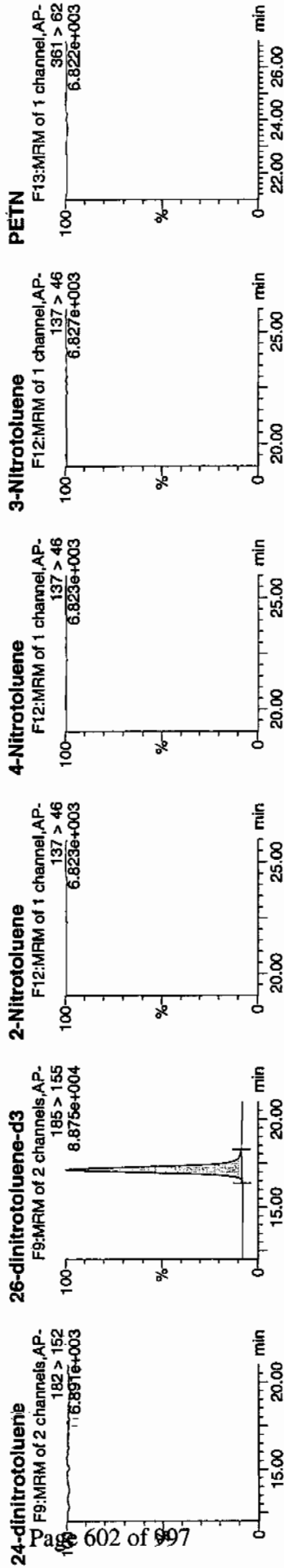
View: 1:1,A

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**Quantify Sample Report**  
 GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp\PRO\040810expA2.qld, Time: Sun Apr 11 11:45:05 2010



ID	Name	Trace	RT	Area	IS Area	Abs Resp	Flags	Mod Date	Mod Time	Mod User
XIBLK10	HMX	176 > 102		5890.806						
XIBLK10	RDX	176 > 102		5890.806						
XIBLK10	135-Trinitrobenzene	213 > 183		5890.806						
XIBLK10	13-Dinitrobenzene-d4	172 > 142	11.92	5890.806		5890.806	bb	453.2749	90.7	-9.3 263.8
XIBLK10	13-Dinitrobenzene	168 > 138		5890.806						
XIBLK10	Tetryl	241 > 181		5890.806						
XIBLK10	Nitrobenzene	123 > 46		5890.806						
XIBLK10	4-Amino-26-dinitrotoluene	197 > 167		33926.508						
XIBLK10	2-Amino-46-dinitrotoluene	197 > 180		33926.508						
XIBLK10	246-Trinitrotoluene	227 > 210		33926.508						
XIBLK10	34-dinitrotoluene	182 > 152		33926.508						
XIBLK10	26-dinitrotoluene	182 > 152		33926.508						
XIBLK10	24-dinitrotoluene	182 > 152		33926.508						
XIBLK10	26-dinitrotoluene-d3	185 > 155	17.14	33926.508		33926.508		429.6824	85.9	-14.1 1188.7
XIBLK10	2-Nitrotoluene	137 > 46		33926.508						
XIBLK10	4-Nitrotoluene	137 > 46		33926.508						
XIBLK10	3-Nitrotoluene	137 > 46		33926.508						
XIBLK10	PETN	361 > 62		33926.508						

**4A**  
**Explosives Continuing Calibration Blank**

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2027

Lab Code: GEL

Lab Sample ID: XIBLK11

Analysis Date: 10-APR-10 21:46

GEL Data File: EXP0408099a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	574.264
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	468.42
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\040810expA2.qld, Time: Sun Apr 11 11:45:05 2010

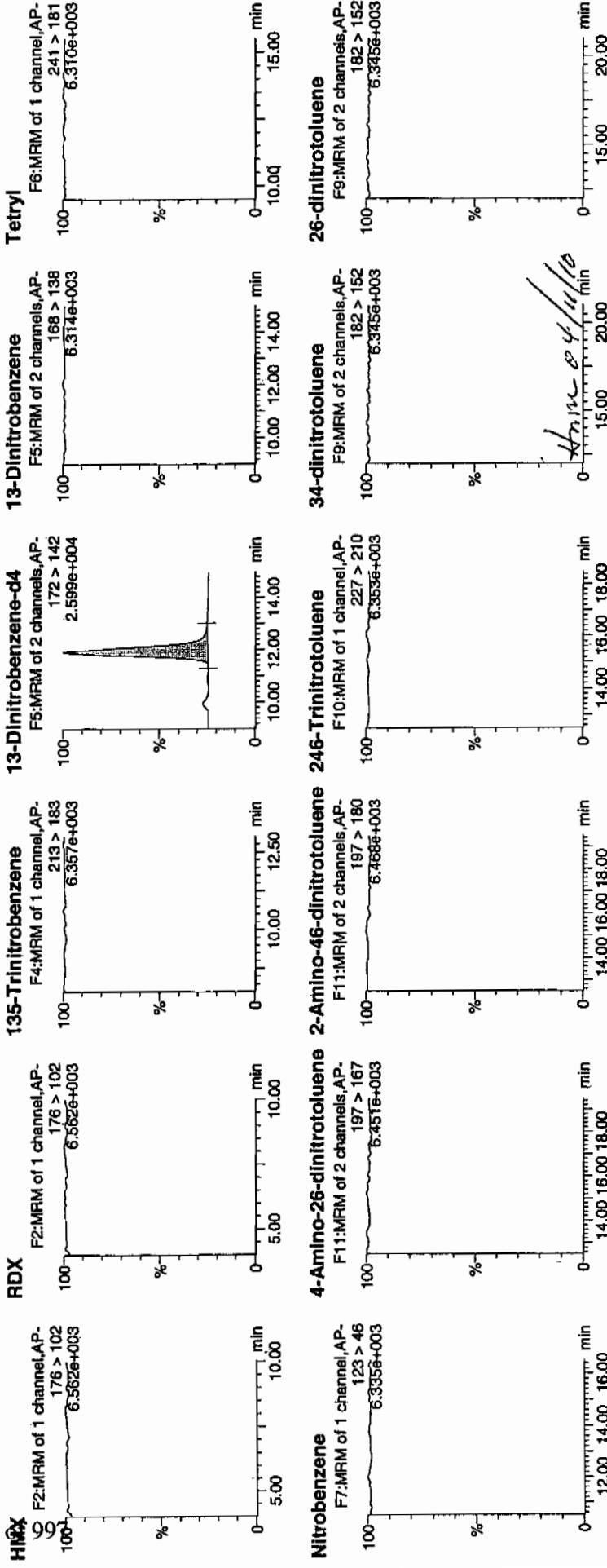
Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0408099a

Date: 10-Apr-2010

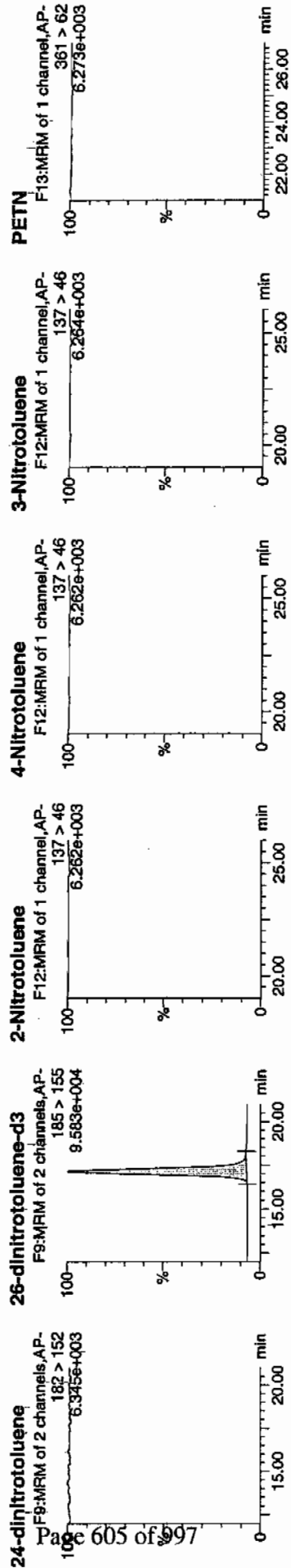
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ID: XIBLK11

View: 1:1,A



Dataset: C:\MASSLYN\New\_Exp.PRO\040810expA2.qld, Time: Sun Apr 11 11:45:05 2010

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4A  
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2027

Lab Code: GEL

Lab Sample ID: XIBLK12

Analysis Date: 11-APR-10 02:12

GEL Data File: EXP0408108a

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	478.469
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	458.517
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\040810expA2.qld, Time: Sun Apr 11 11:45:05 2010

Name: C:\MASSLYN\NEW\_EXP\PRO\Data\EXP0408108a

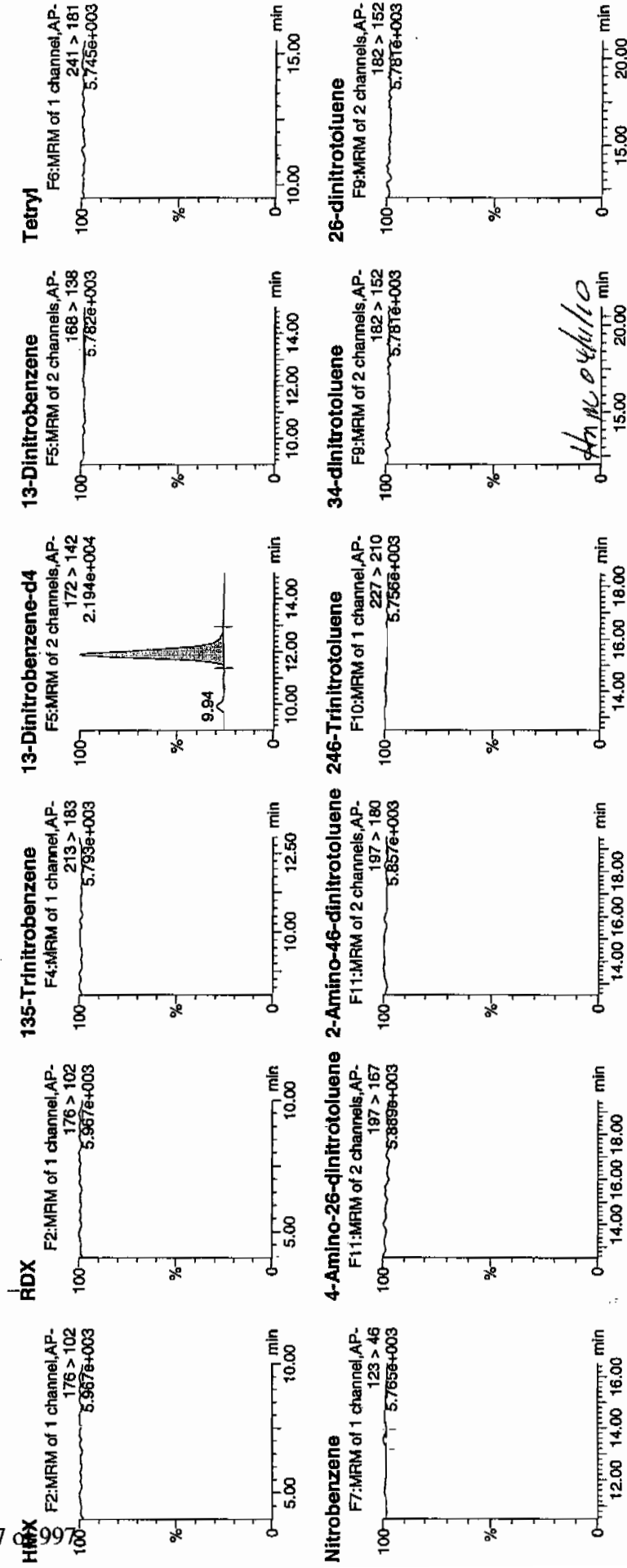
Date: 11-Apr-2010

Time: 02:12:26

ID: XIBLK12

Vis: 1:1,A

10/1/10

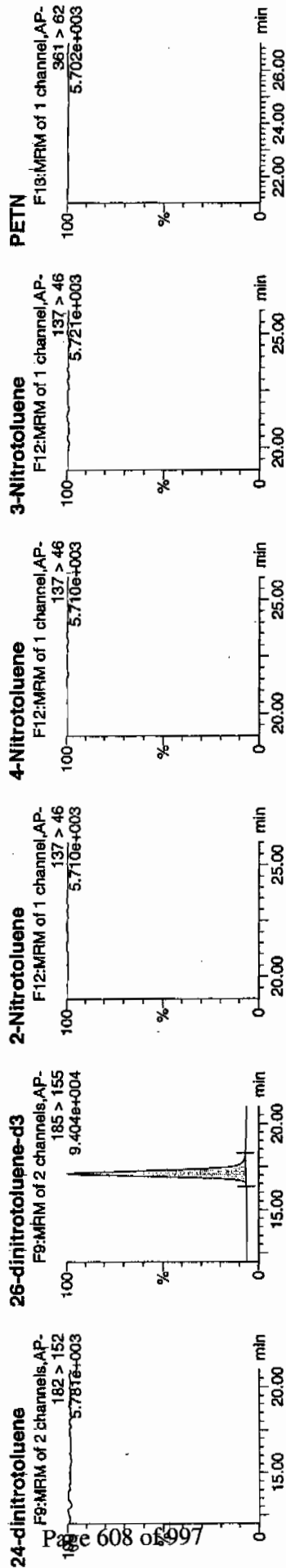


# Quantify Sample Report

GEL Laboratories, LLC / Analyst: Michael A. Penny

Printed: Sun Apr 11 11:47:08 2010, Page 68 of 97

Dataset: C:\MASSLYNX\New\_Exp\PRO1040810expA2.qtd, Time: Sun Apr 11 11:45:05 2010



ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	Mod By	Mod User
XIBLK12	HMX	176 > 102			6218.233							
XIBLK12	RDX	176 > 102			6218.233							
XIBLK12	135-Trinitrobenzene	213 > 183			6218.233							
XIBLK12	13-Dinitrobenzene-d4	172 > 142	11.90	6218.233								
XIBLK12	13-Dinitrobenzene	168 > 138			6218.233							
XIBLK12	Tetryl	241 > 181			6218.233							
XIBLK12	Nitrobenzene	123 > 46			6218.233							
XIBLK12	4-Amino-25-dinitrotoluene	197 > 167			6218.233							
XIBLK12	2-Amino-45-dinitrotoluene	197 > 180			36203.238							
XIBLK12	246-Trinitrotoluene	227 > 210			36203.238							
XIBLK12	34-dinitrotoluene	182 > 152			36203.238							
XIBLK12	26-dinitrotoluene	182 > 152			36203.238							
XIBLK12	24-dinitrotoluene	182 > 152			36203.238							
XIBLK12	26-dinitrotoluene-d3	185 > 155	17.11	36203.238								
XIBLK12	2-Nitrotoluene	137 > 46			36203.238							
XIBLK12	4-Nitrotoluene	137 > 46			36203.238							
XIBLK12	3-Nitrotoluene	137 > 46			36203.238							
XIBLK12	PETN	361 > 62			36203.238							
						6218.233	6218.233	bb		MM- 11-Apr-10 11:34:03		
						6218.233	6218.233	bb				
						36203.238	36203.238	bb				
						478.4692	478.4692	95.7	-4.3	1367.7		
						458.5174	458.5174	91.7	-8.3	1716.9		

4A  
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2027

Lab Code: GEL

Lab Sample ID: XIBLK02

Analysis Date: 31-MAR-10 11:01

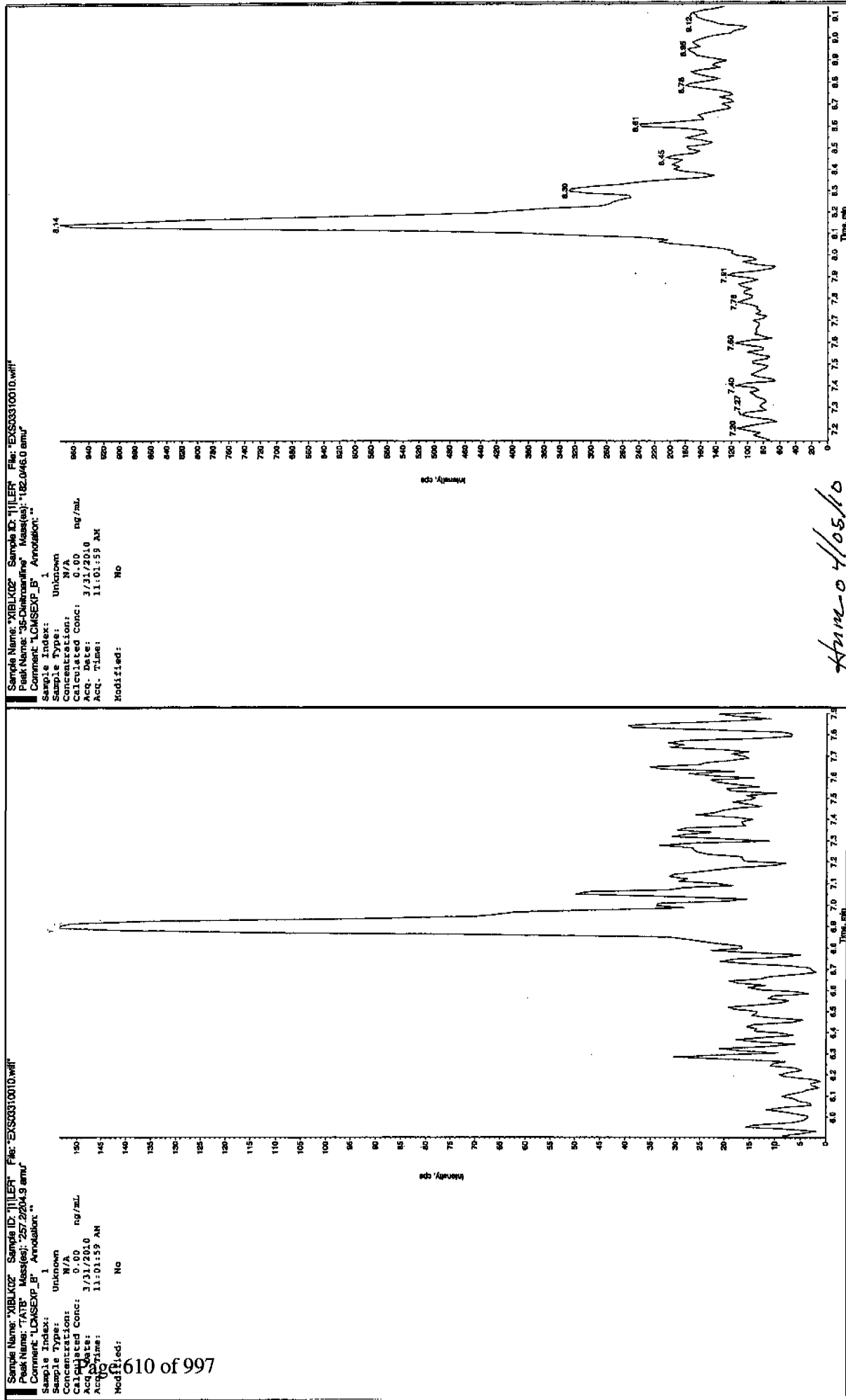
GEL Data File: EXS03310010.wiff

Instrument ID: LCMSMS

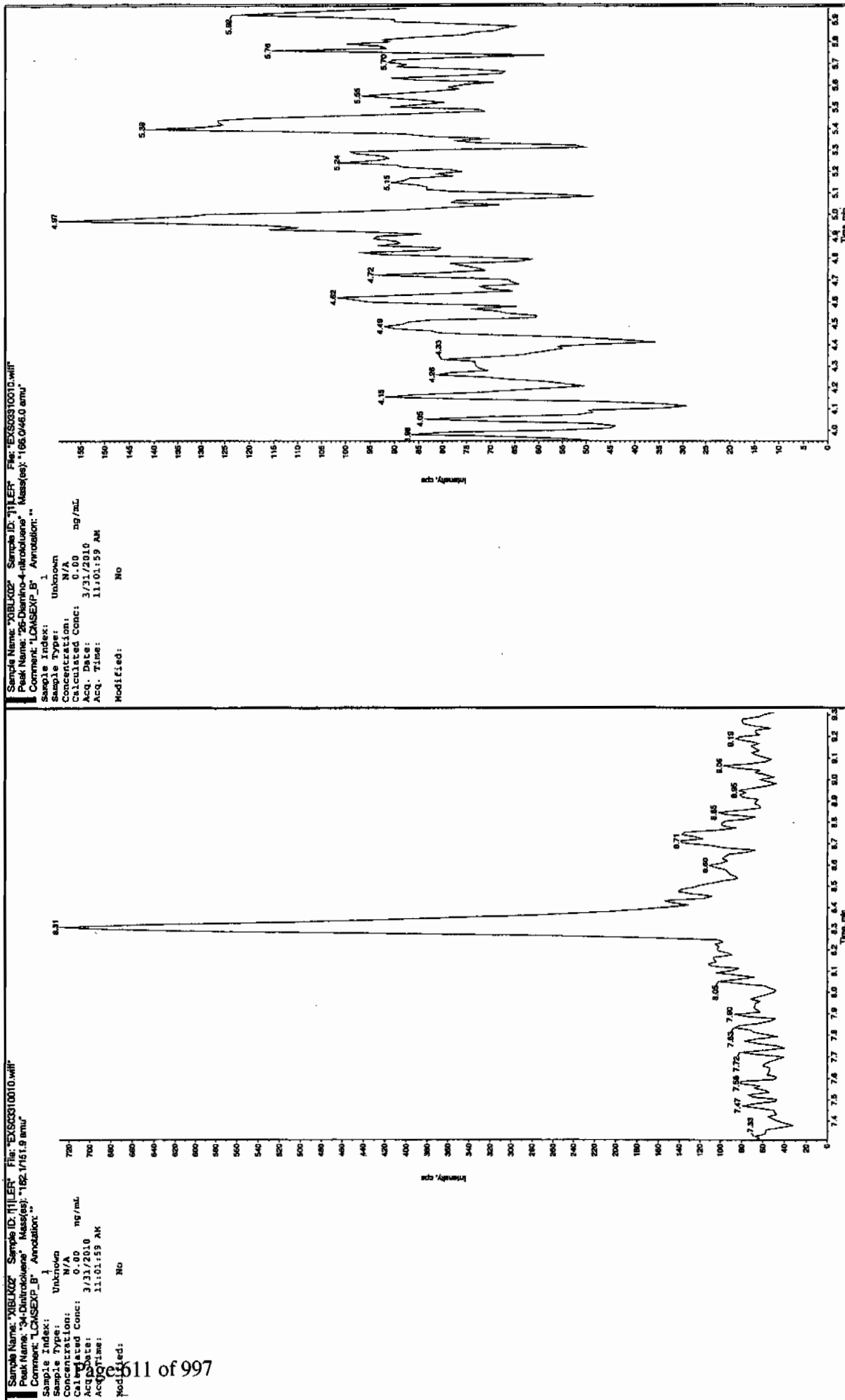
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	5.19
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0

See 4/15/10



June 04/05/10







4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2027

Lab Code: GEL

Lab Sample ID: XIBLK03

Analysis Date: 31-MAR-10 11:33

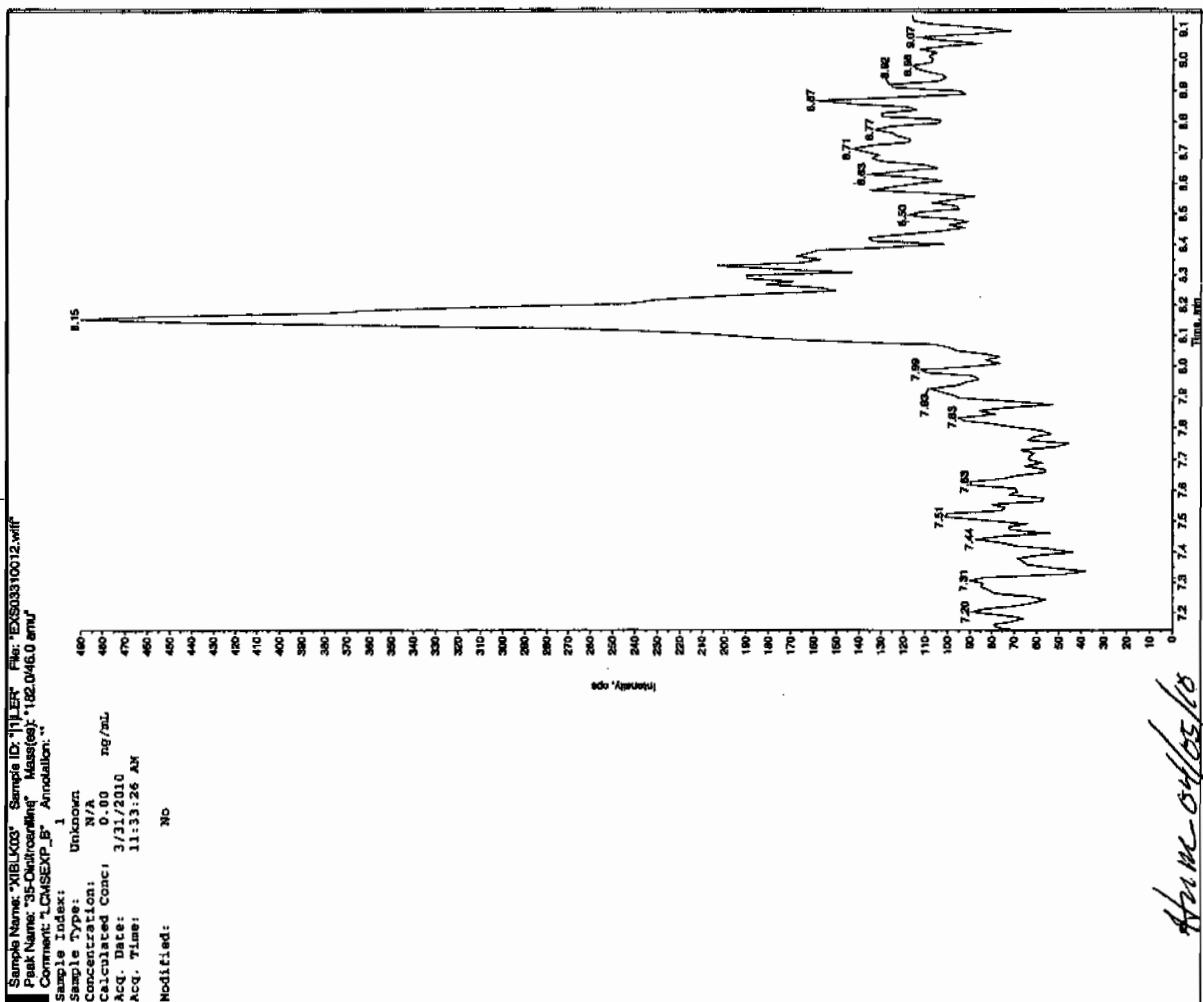
GEL Data File: EXS03310012.wiff

Instrument ID: LCMSMS

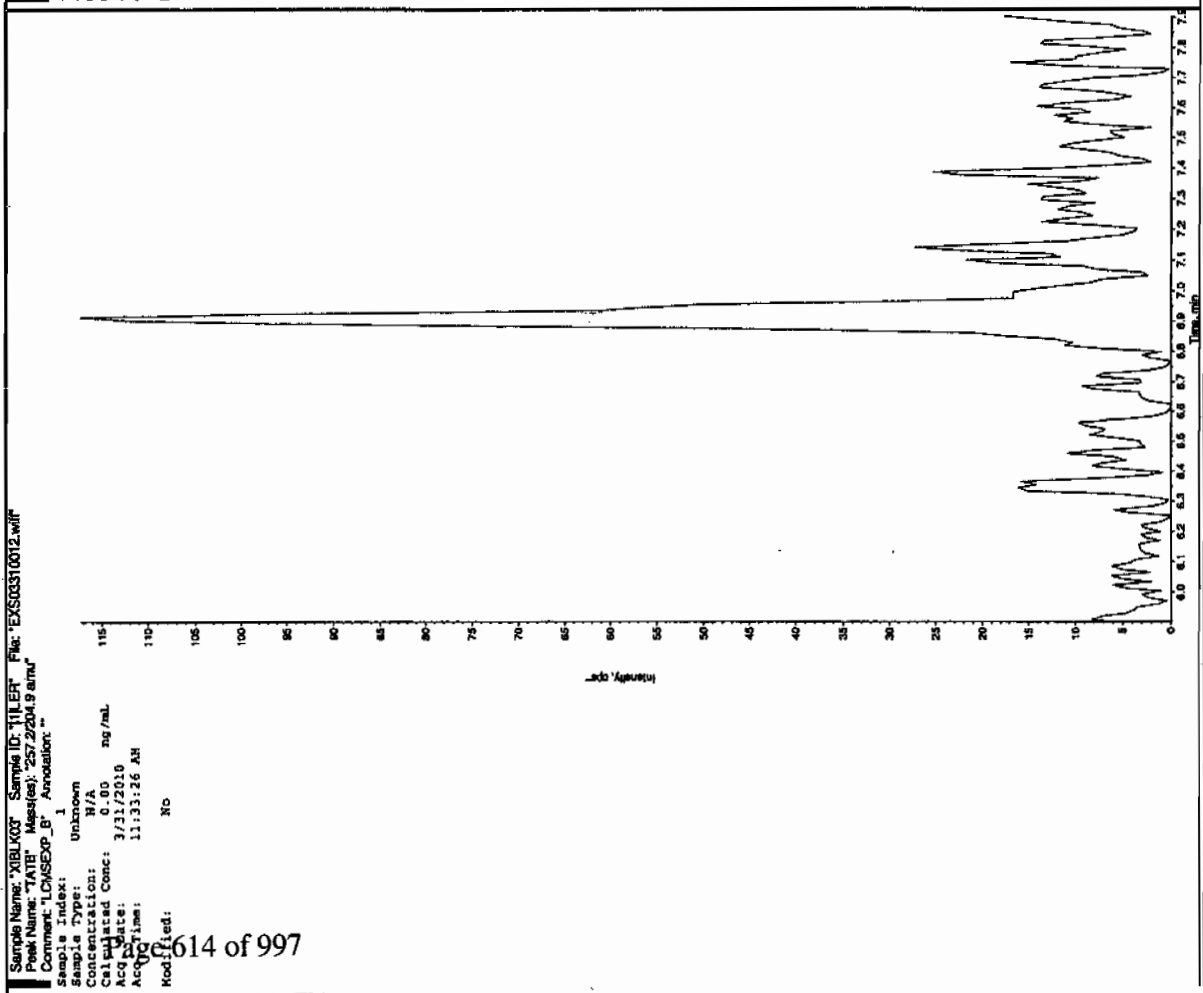
Column: Phenomenex Ultracarb 5u ODS(20)

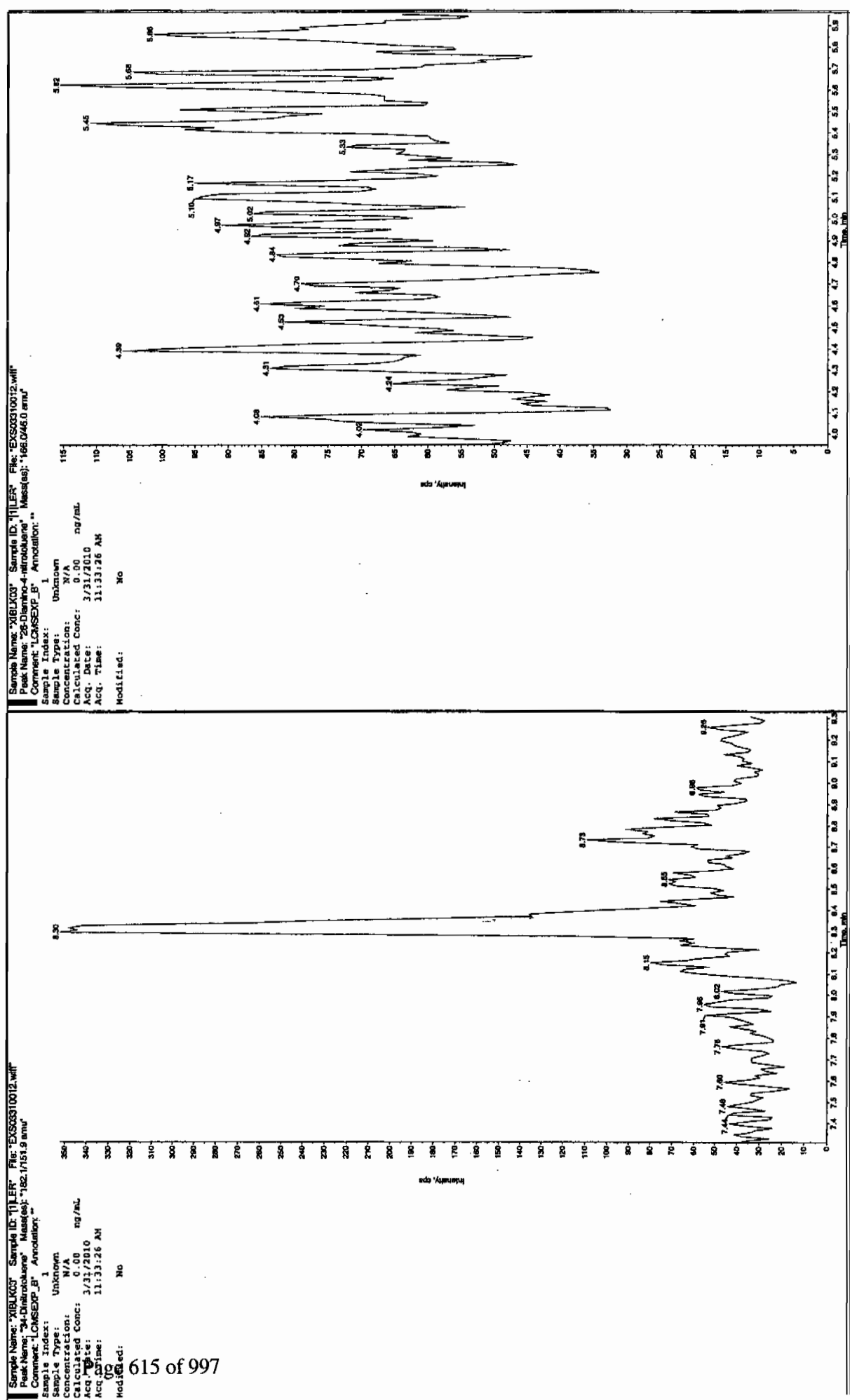
Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	.384
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0

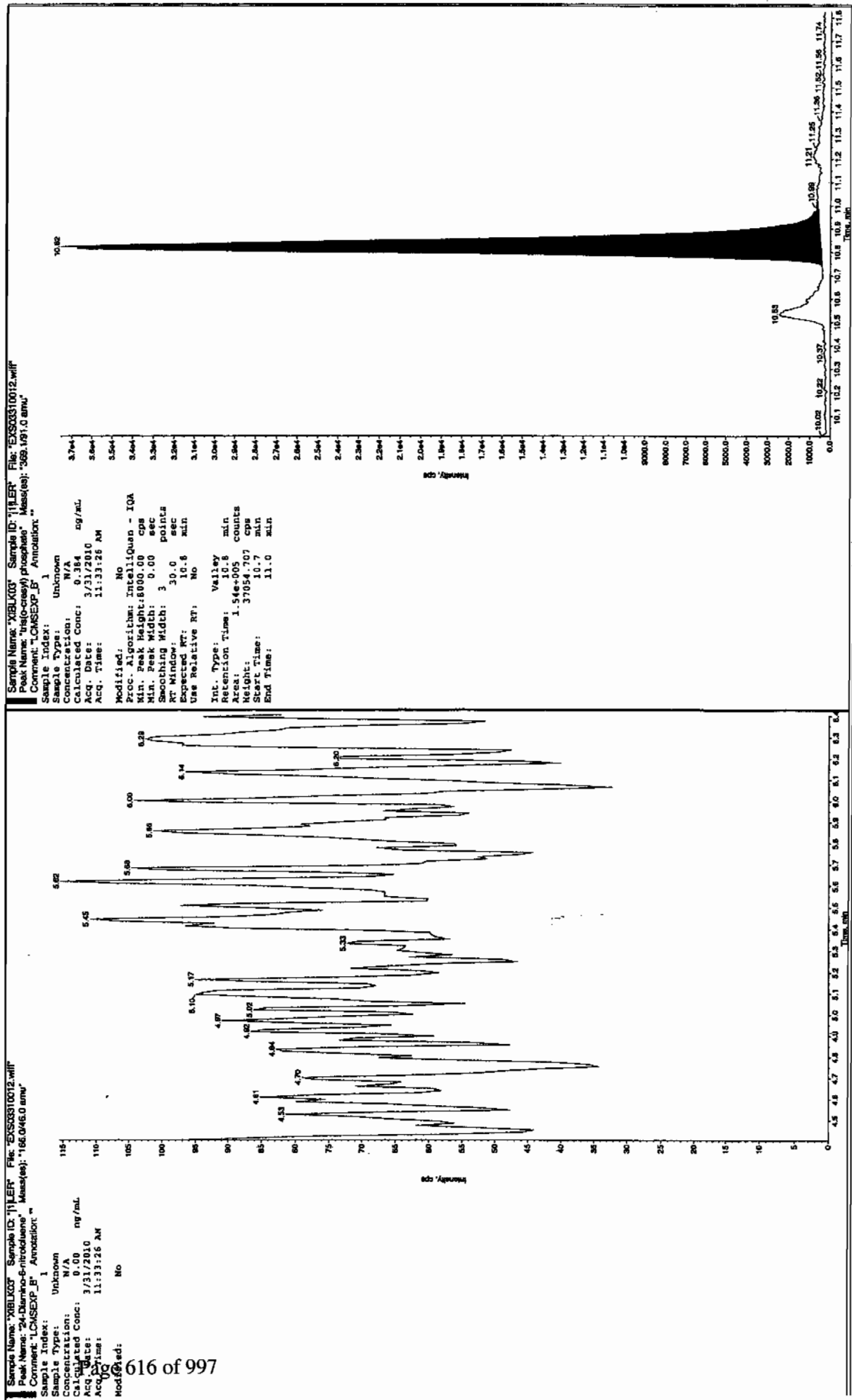
Ren 4/15/10



ARM-04/05/10







4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2027

Lab Code: GEL

Lab Sample ID: XIBLK04

Analysis Date: 31-MAR-10 14:57

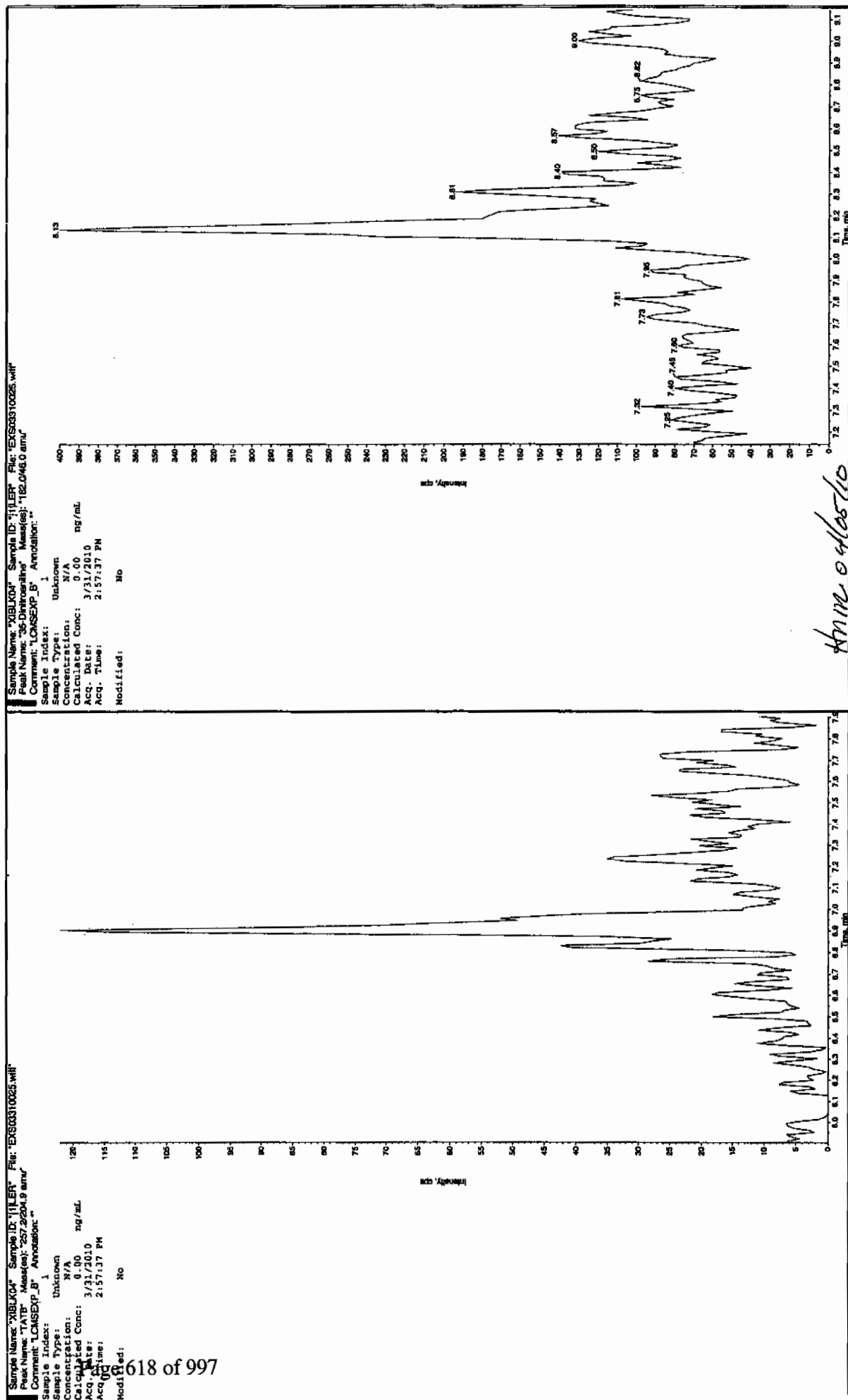
GEL Data File: EXS03310025.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	0
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0

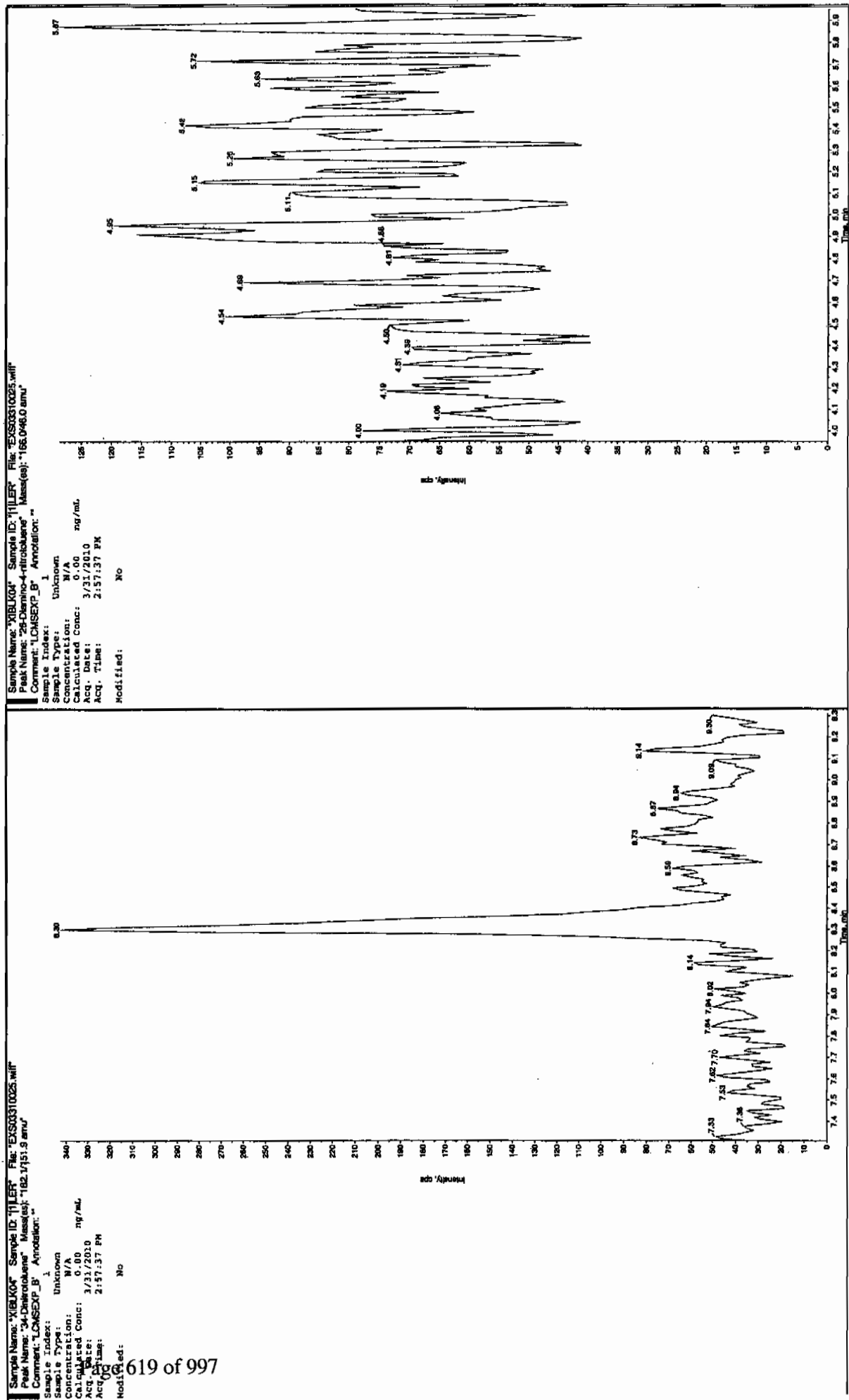
Run 41510



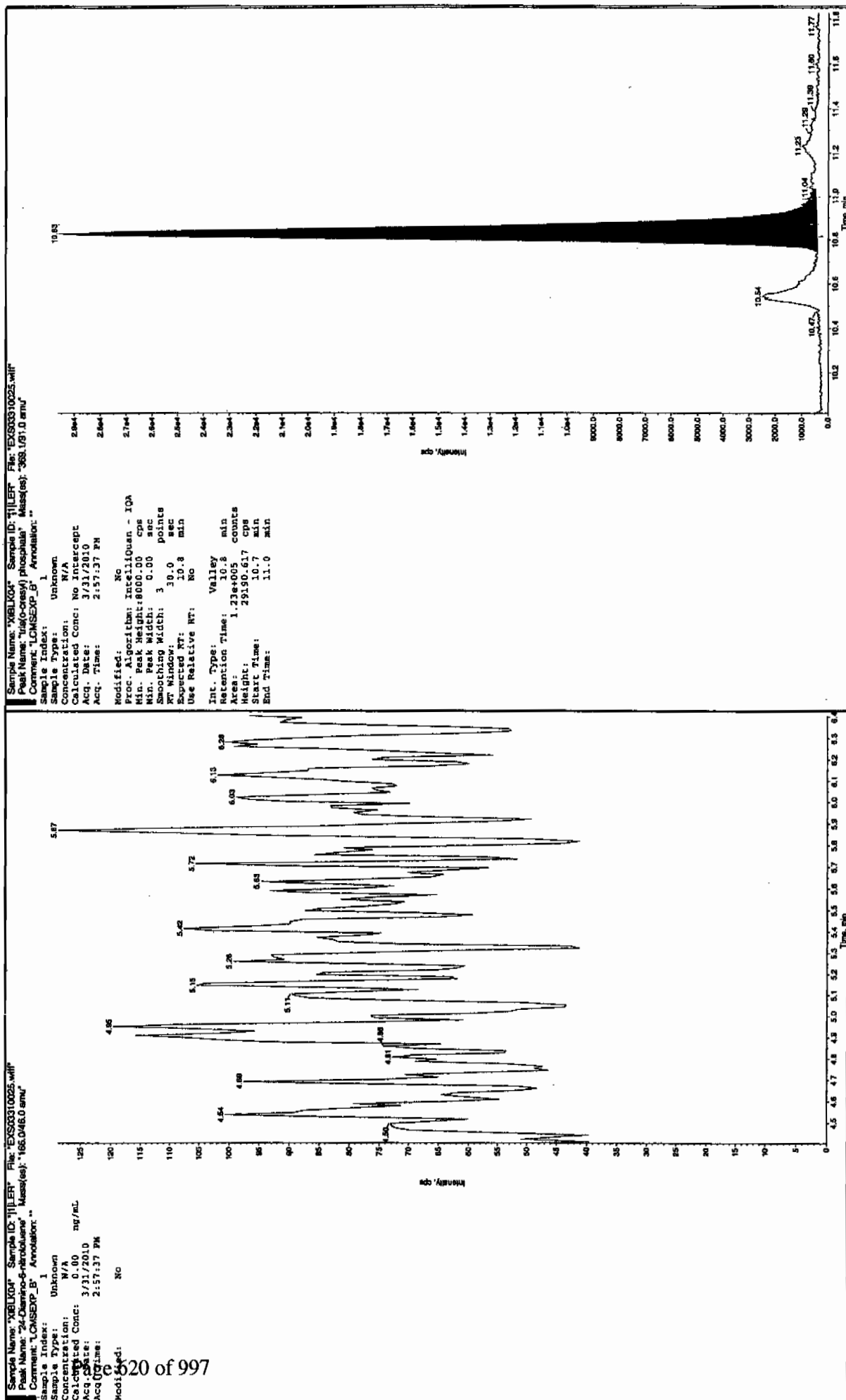
Sample Name: "XBLK04" Sample ID: "11111" File: "EXS0310025.wif"  
 Peak Name: "35-Dinitroanisole" Mass(es): "162.046.0 amu"  
 Comment: "LCMSEXP\_B" Annotation: ""  
 Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 3/31/2010  
 Acq. Time: 2:57:37 PM  
 Modified: No

Sample Name: "XBLK04" Sample ID: "11111" File: "EXS0310025.wif"  
 Peak Name: "TATP" Mass(es): "257.2604.9 amu"  
 Comment: "LCMSEXP\_B" Annotation: ""  
 Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 3/31/2010  
 Acq. Time: 2:57:37 PM  
 Modified: No

Amie o 41510







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): 10-2027

Lab Code: GEL

Lab Sample ID: XIBLK05

Analysis Date: 31-MAR-10 18:06

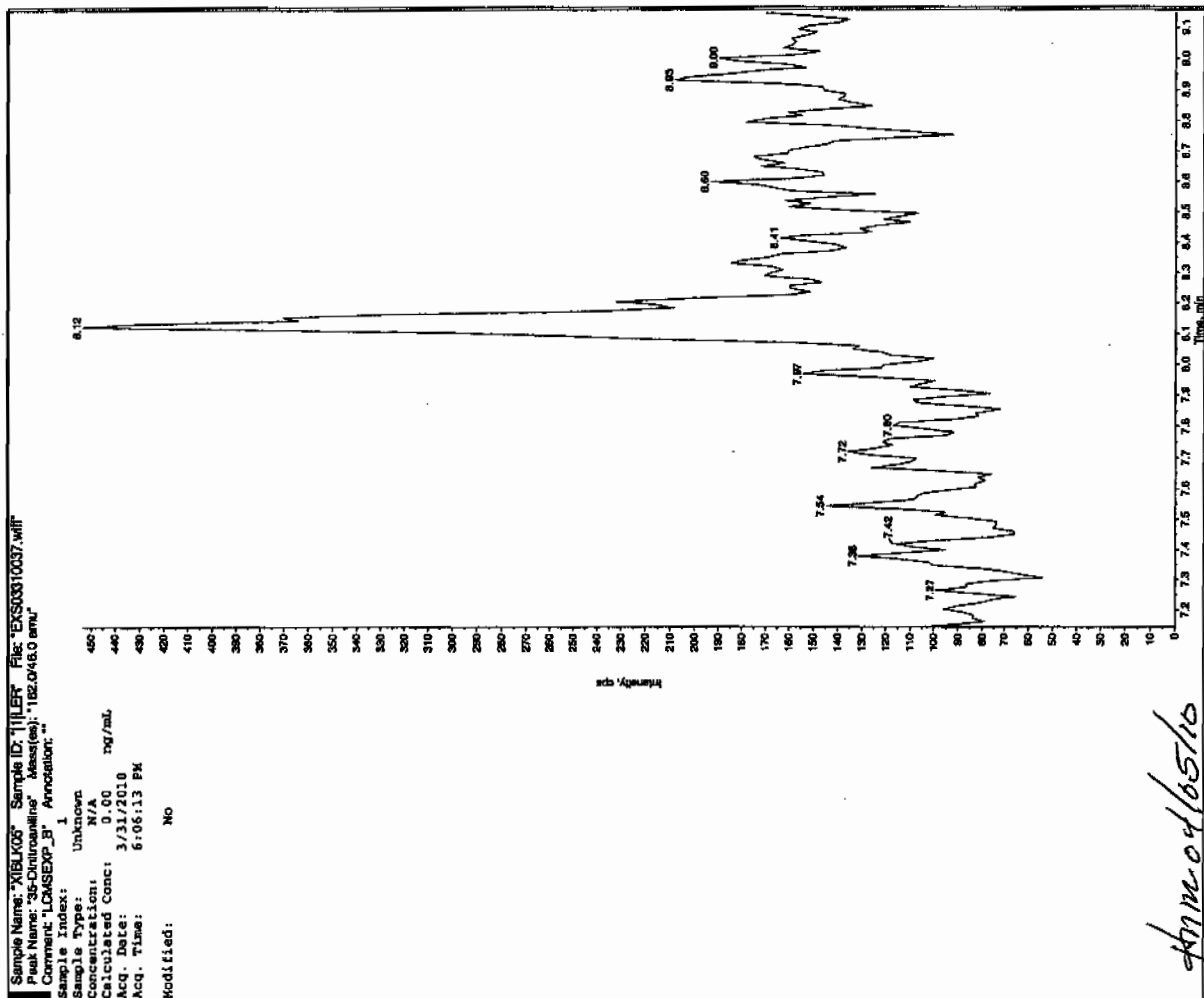
GEL Data File: EXS03310037.wiff

Instrument ID: LCMSMS

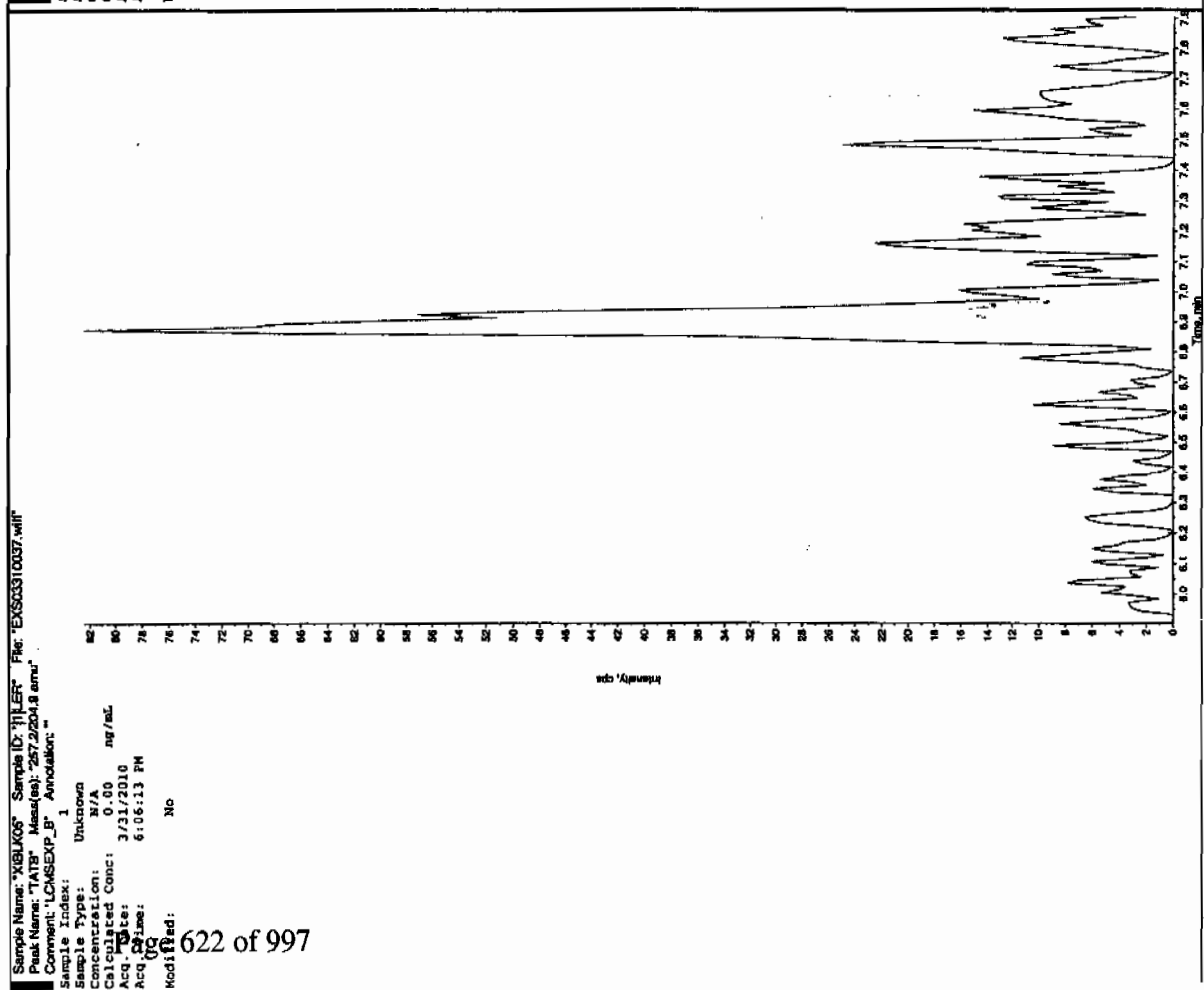
Column: Phenomenex Ultracarb 5u ODS(20)

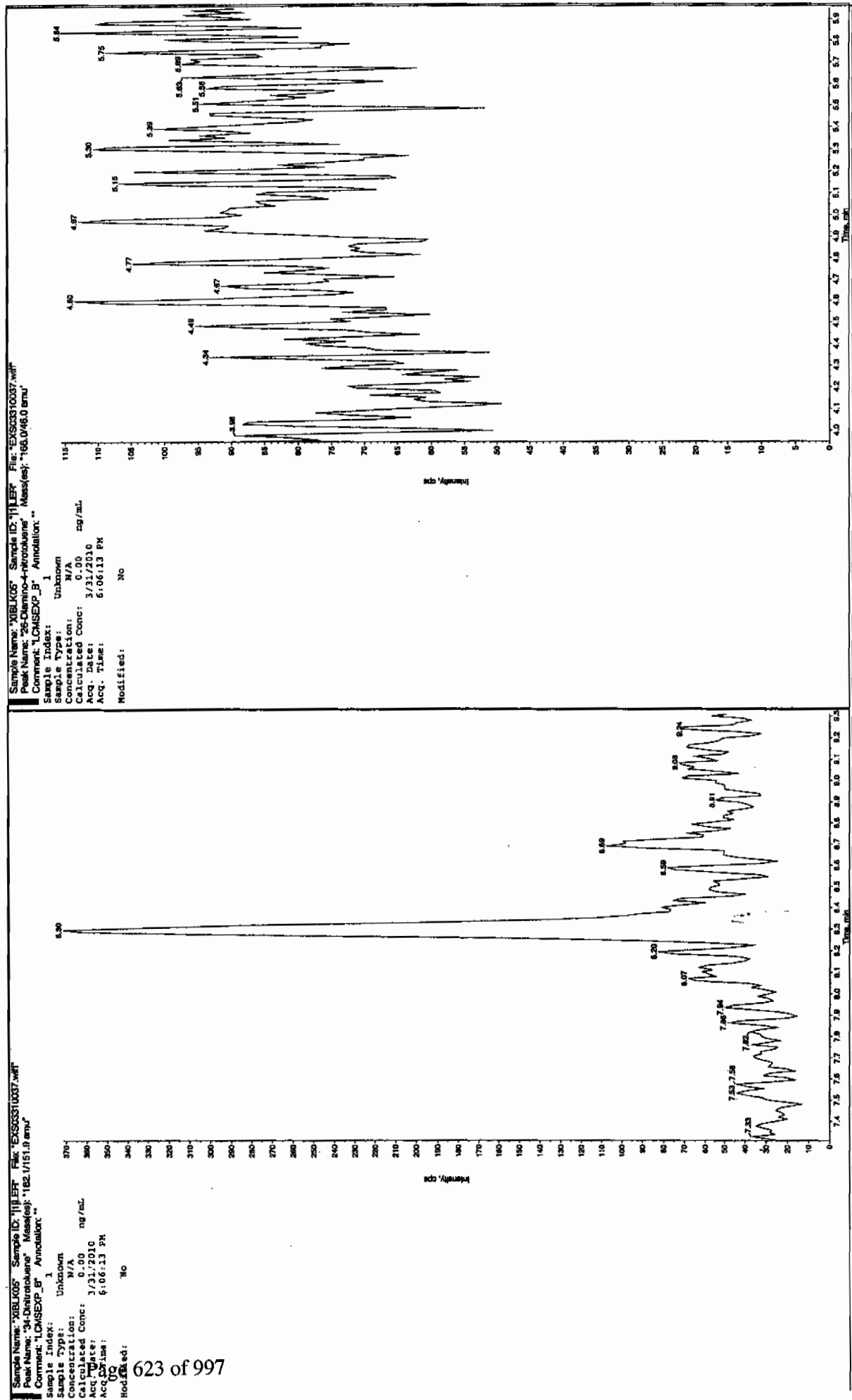
Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	0
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0

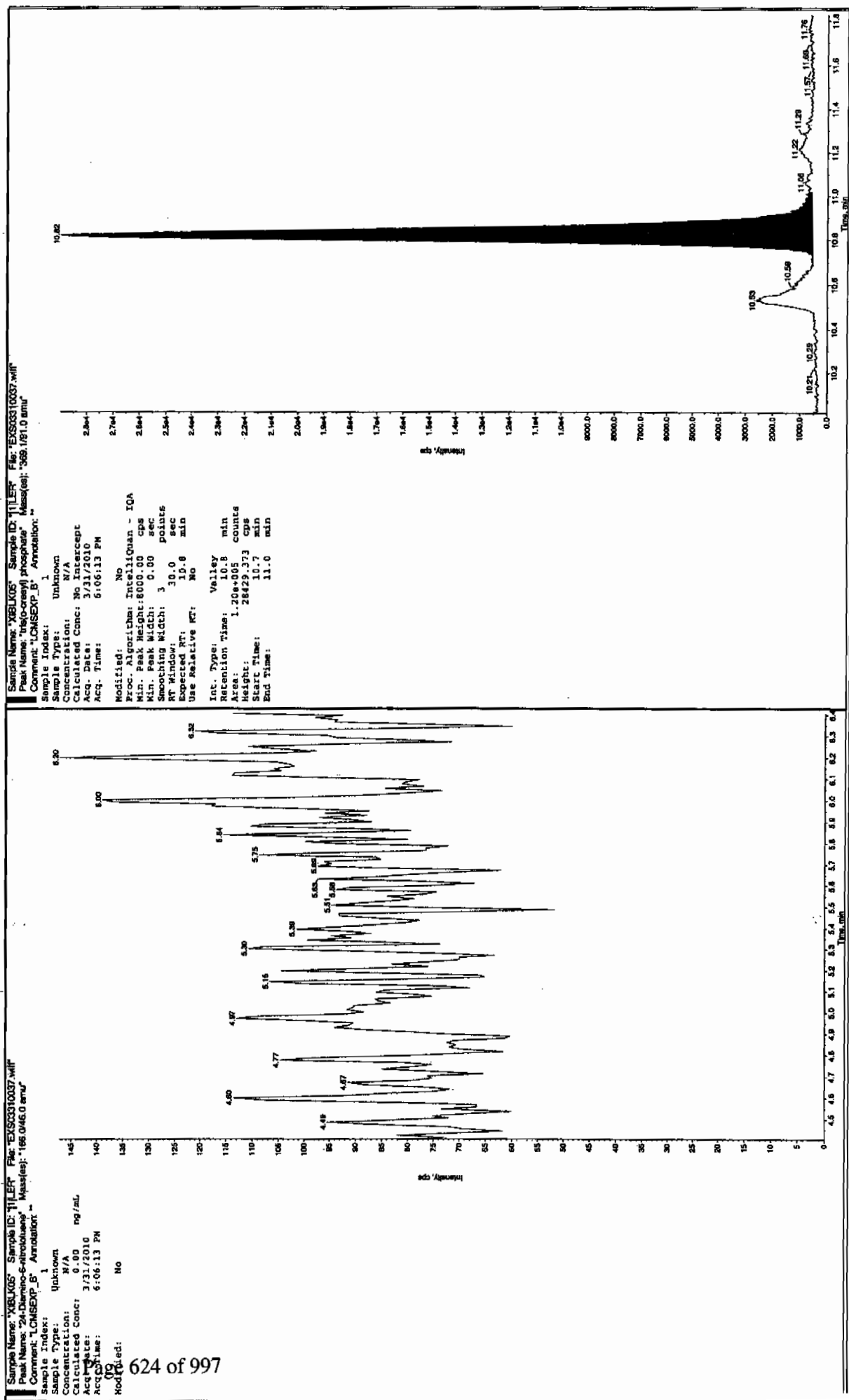
Run 4/5/10



Run 4/5/10







4A  
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2027

Lab Code: GEL

Lab Sample ID: XIBLK06

Analysis Date: 31-MAR-10 21:14

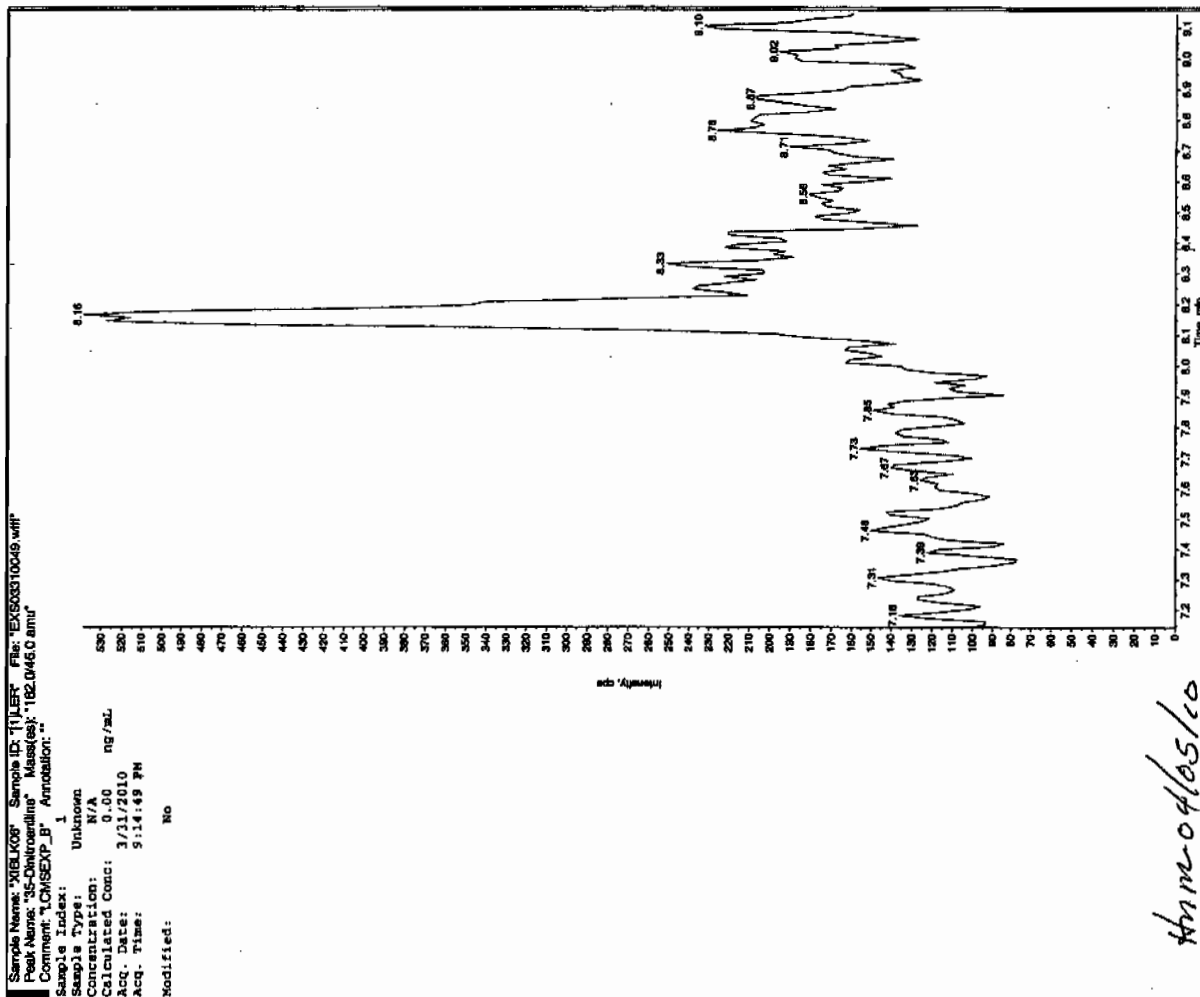
GEL Data File: EXS03310049.wiff

Instrument ID: LCMSMS

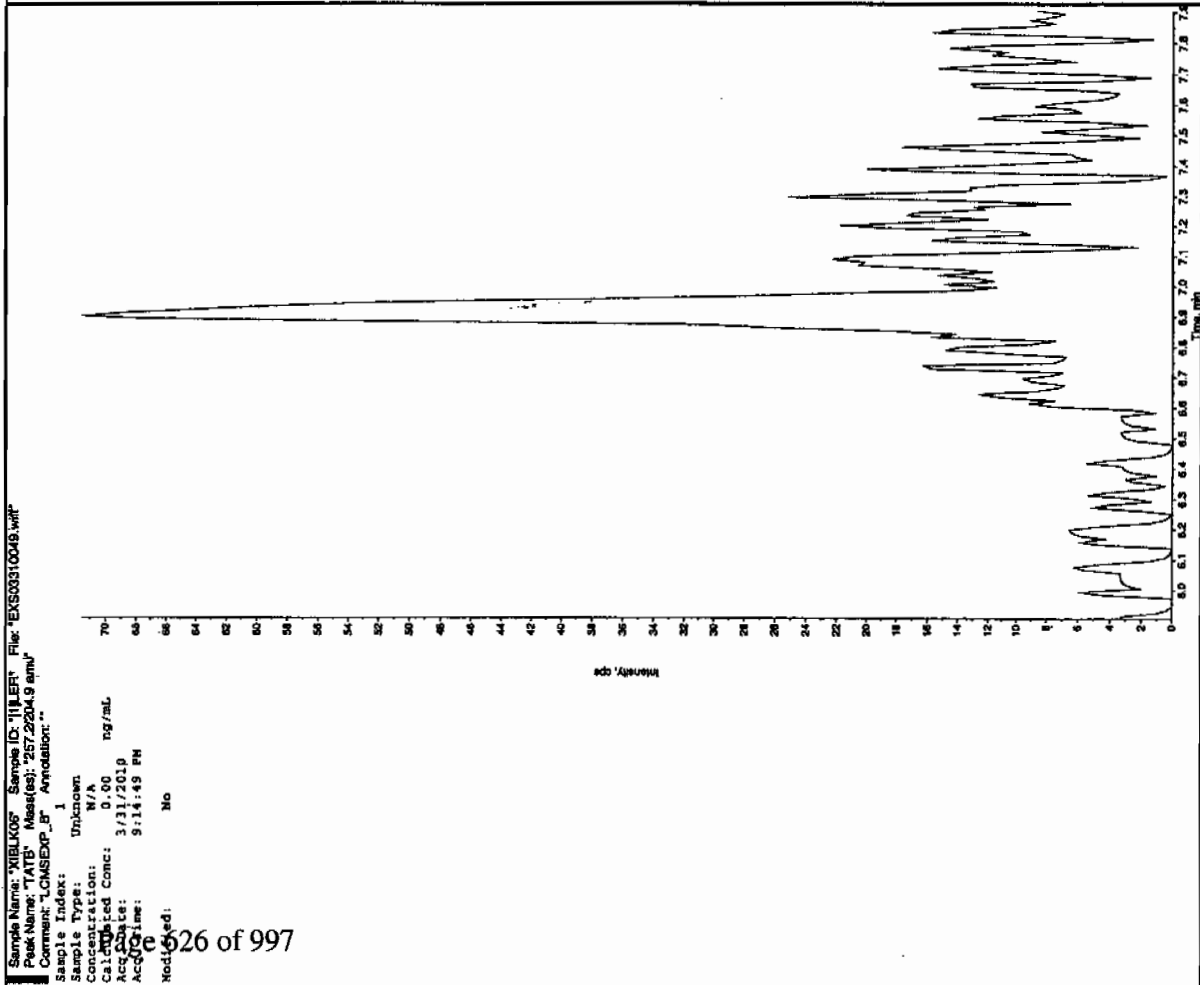
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	0
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0

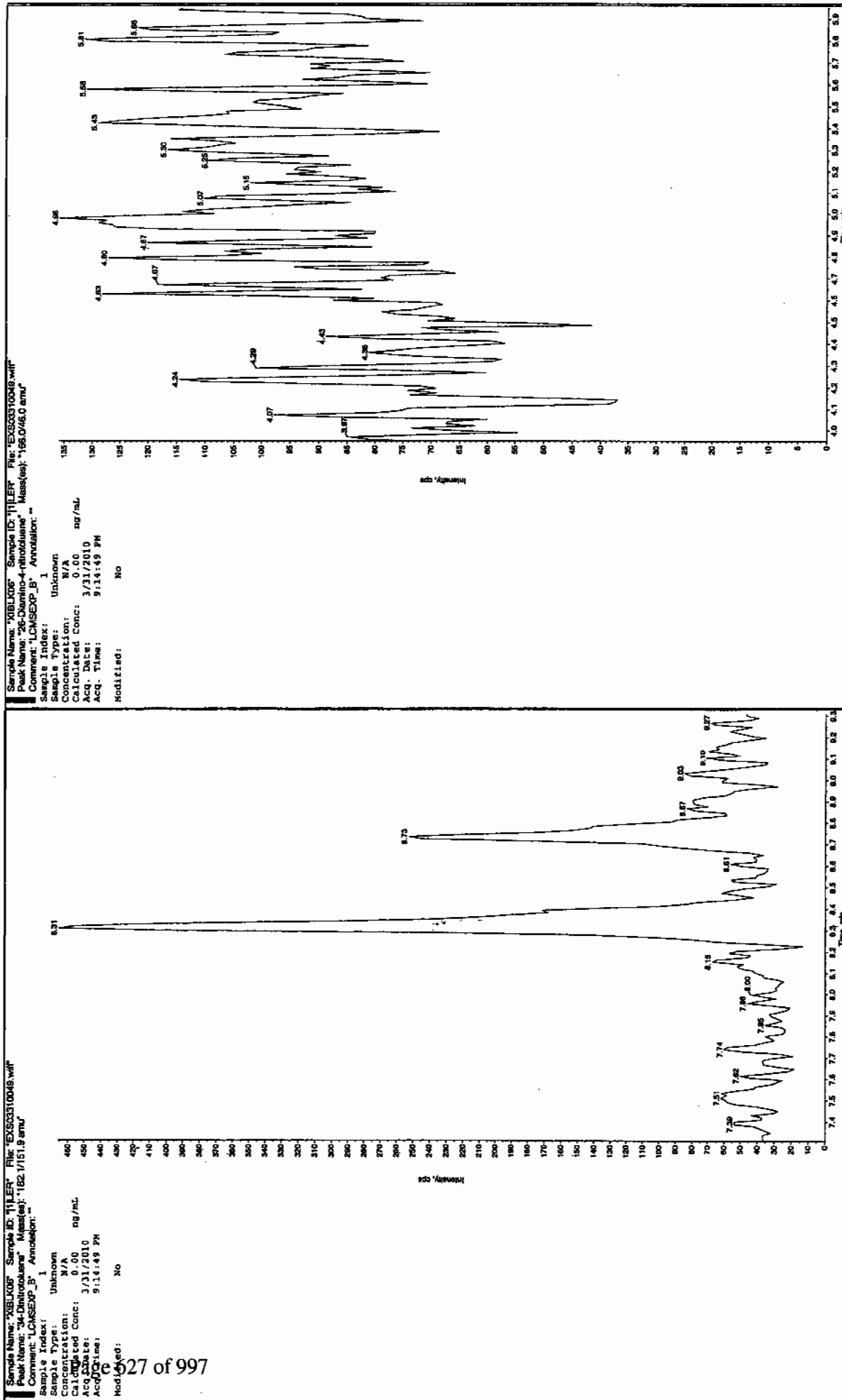
for 4/5/10



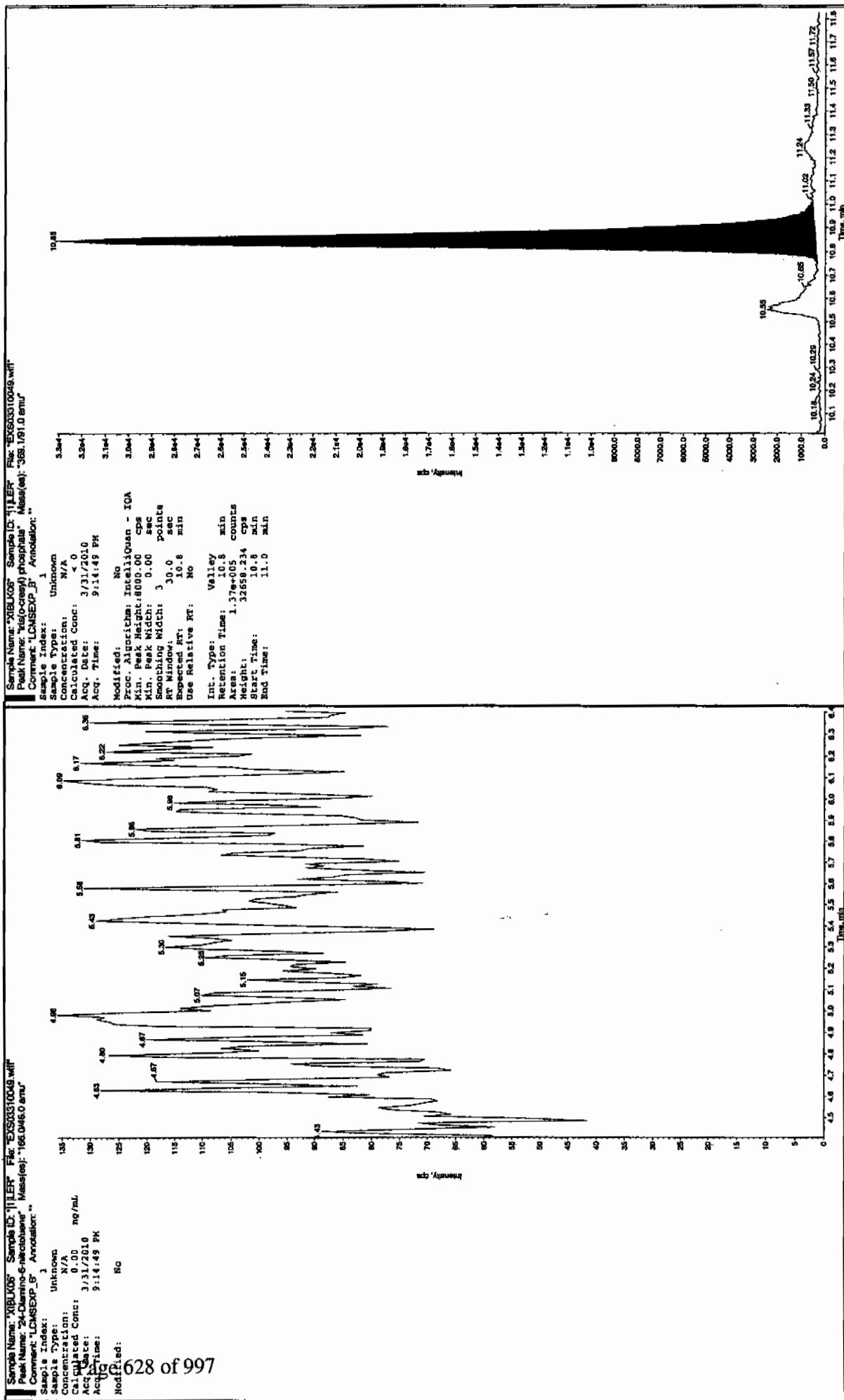
Am-04/05/10



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): 10-2027

Lab Code: GEL

Lab Sample ID: XIBLK07

Analysis Date: 01-APR-10 00:39

GEL Data File: EXS03310062.wiff

Instrument ID: LCMSMS

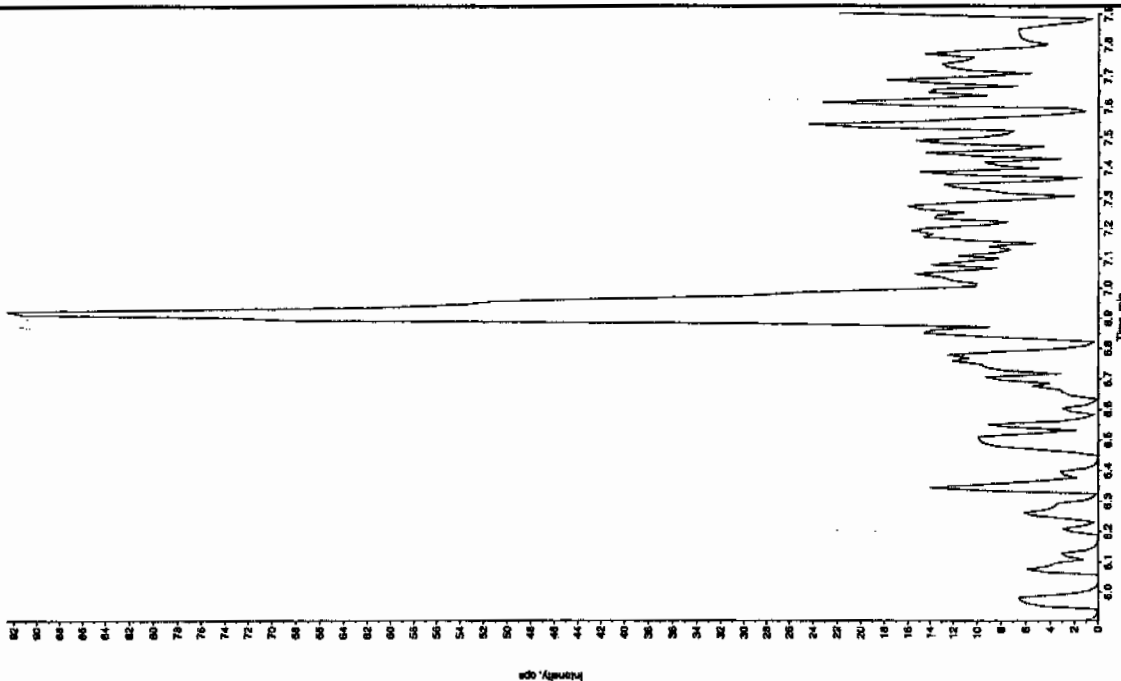
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	0
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0

Jan 4/15/10

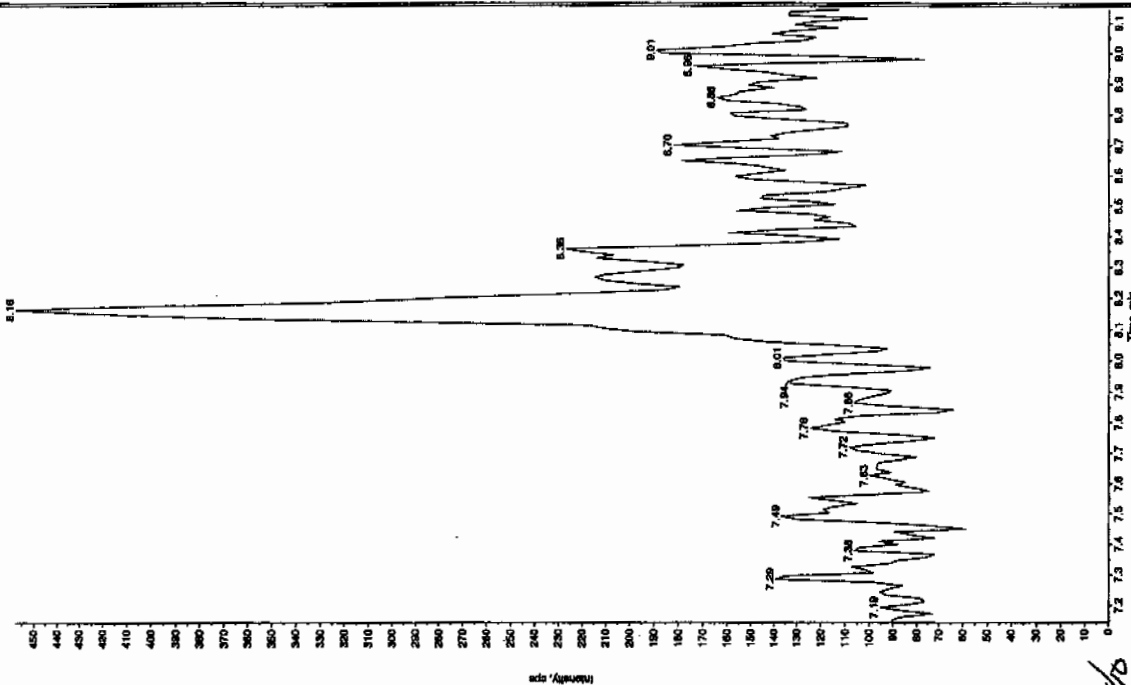
Sample Name: 'XBLK07' Sample ID: '11111' File: 'EX030310082.wif'  
 Peak Name: '1A1B' Mass(es): '257.2204.9 amu'  
 Comment: 'LCMSEXP\_B' Acquisition: ''

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: 0.00 ng/mL  
 Acquisition Date: 4/1/2010  
 Acquisition Time: 12:39:08 AM  
 Modified: No

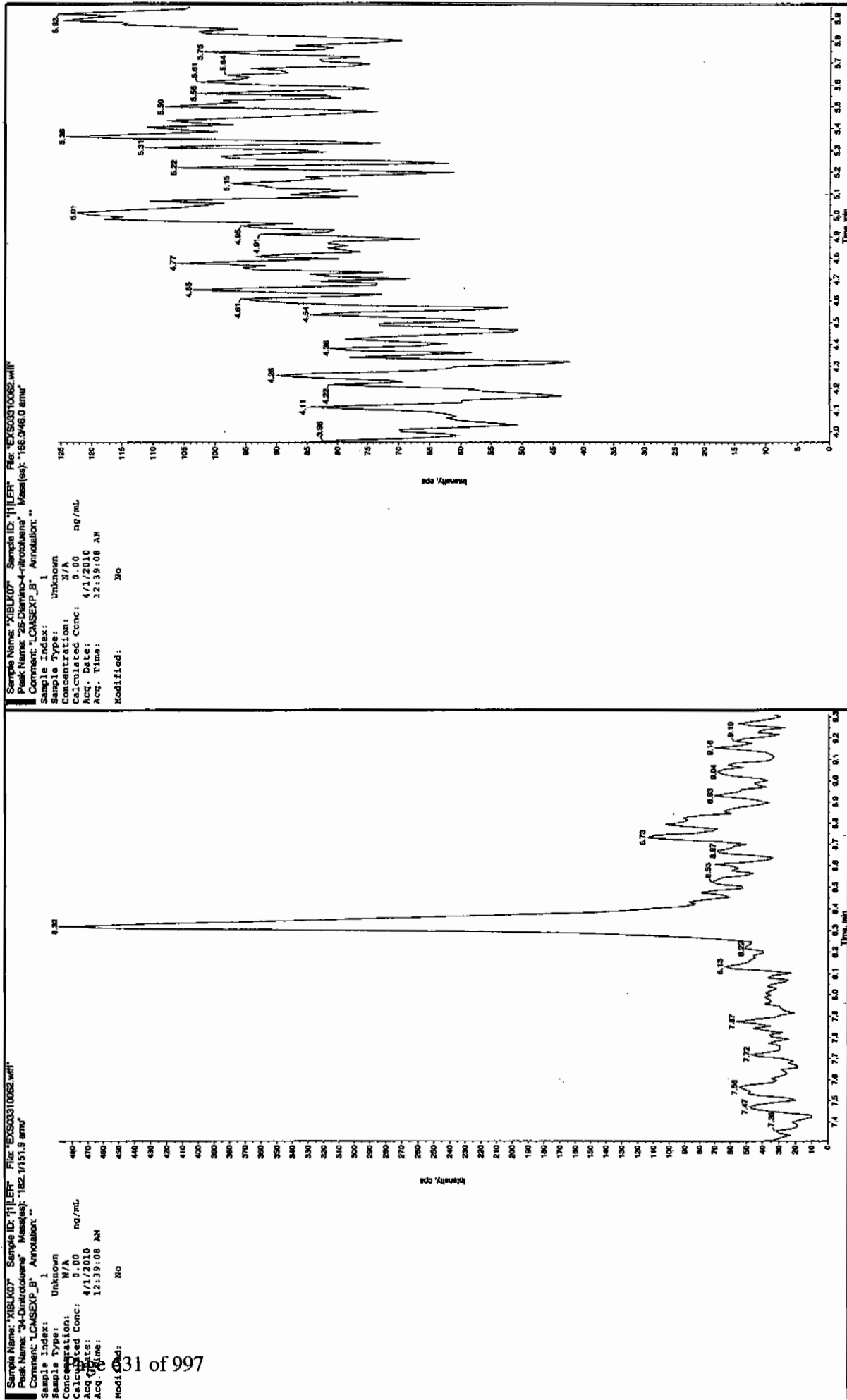


Sample Name: 'XBLK07' Sample ID: '11111' File: 'EX030310082.wif'  
 Peak Name: '35-Chloroaniline' Mass(es): '182.0460 amu'  
 Comment: 'LCMSEXP\_B' Acquisition: ''

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: 0.00 ng/mL  
 Acquisition Date: 4/1/2010  
 Acquisition Time: 12:39:08 AM  
 Modified: No



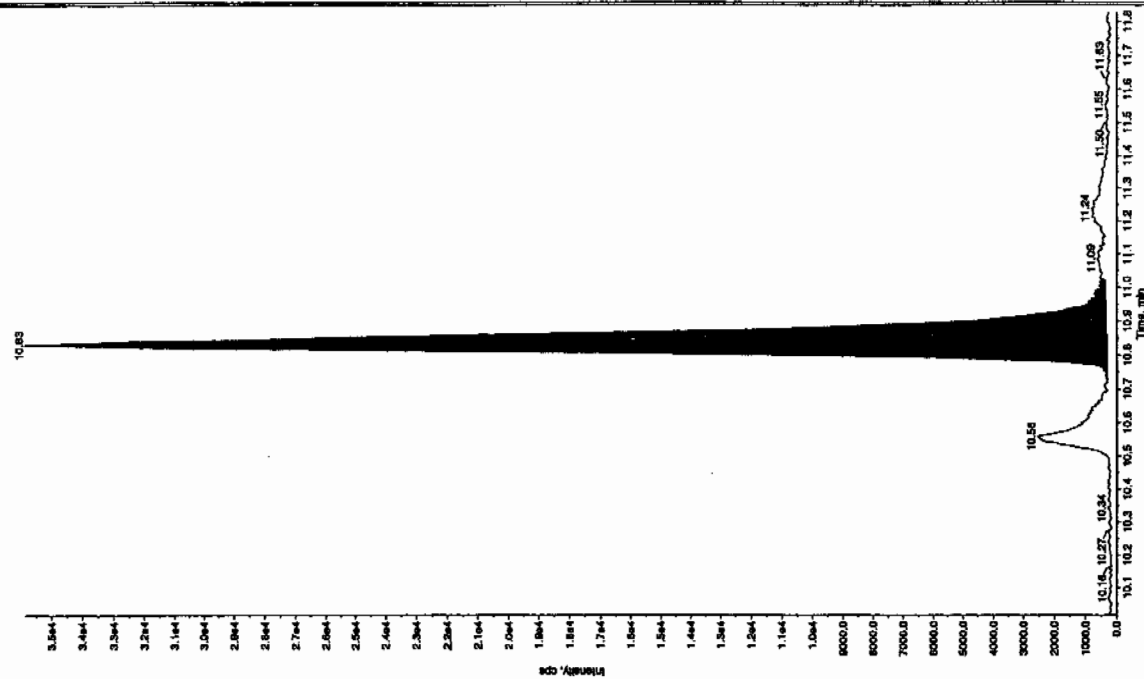
Jan 04/05/10



GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

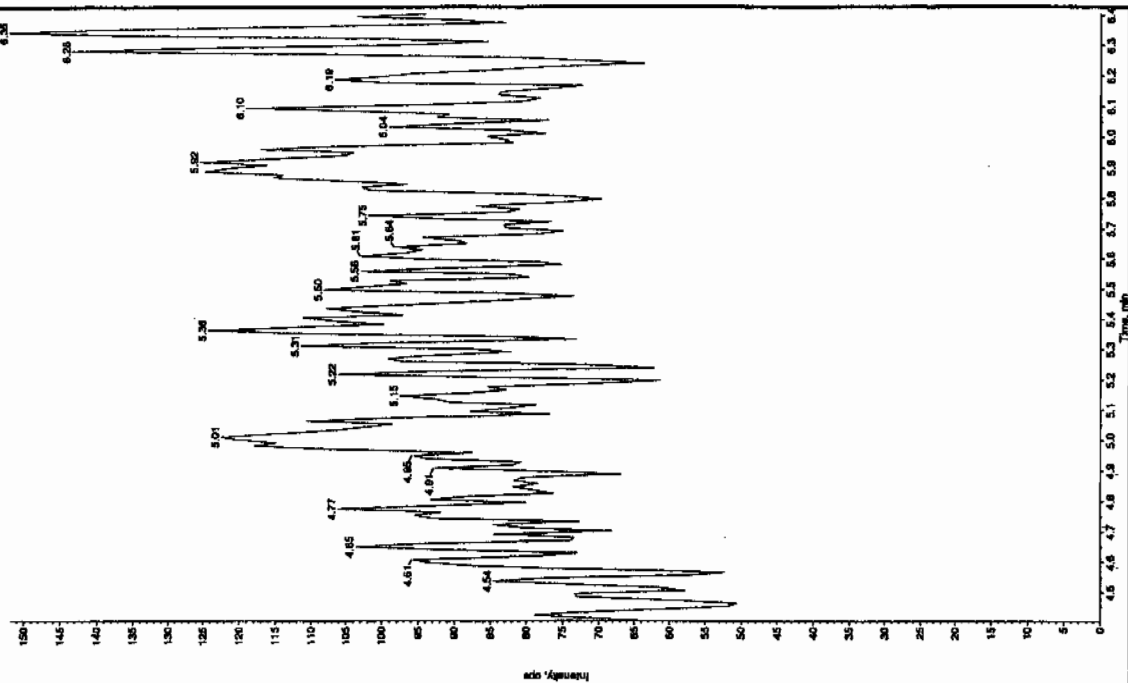
Sample Name: 'XBLK07' Sample ID: 'JLIER' File: 'EX503310062.wif'  
 Peak Name: 'trio-cresyl phosphate' Mass(es): '369.191.0 amu'  
 Comment: 'LCMSXP\_B' Annotation: ''

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 4.1/2010  
 Acq. Date: 12/31/08 AM  
 Acq. Time: 12:39:08 AM  
 Modified: No  
 Proc. Algorithm: IntelliScan - IQA  
 Min. Peak Height: 8000.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 RT Window: 30.0 sec  
 Expected RT: 10.8 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 10.8 min  
 Peak Height: 1.39e+005 counts  
 Peak Area: 35531.734 cps  
 Start Time: 10.7 min  
 End Time: 11.0 min



Sample Name: 'XBLK07' Sample ID: 'JLIER' File: 'EX503310062.wif'  
 Peak Name: '2,4-Dinitro-6-nitrotoluene' Mass(es): '166.046.0 amu'  
 Comment: 'LCMSXP\_B' Annotation: ''

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ug/mL  
 Acq. Date: 12/31/08 AM  
 Acq. Time: 12:39:08 AM  
 Modified: No



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): 10-2027

Lab Code: GEL

Lab Sample ID: XIBLK08

Analysis Date: 01-APR-10 04:03

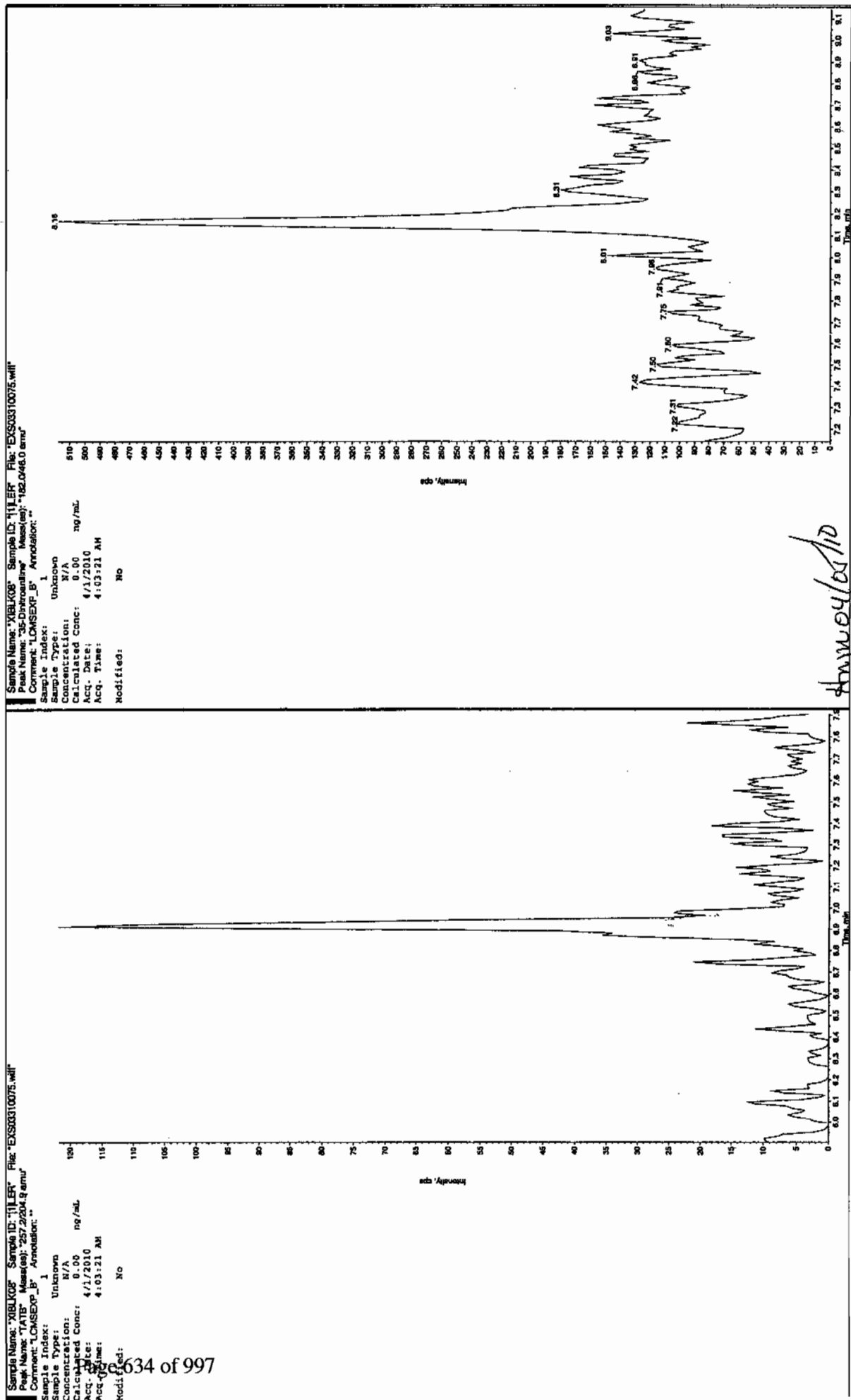
GEL Data File: EXS03310075.wiff

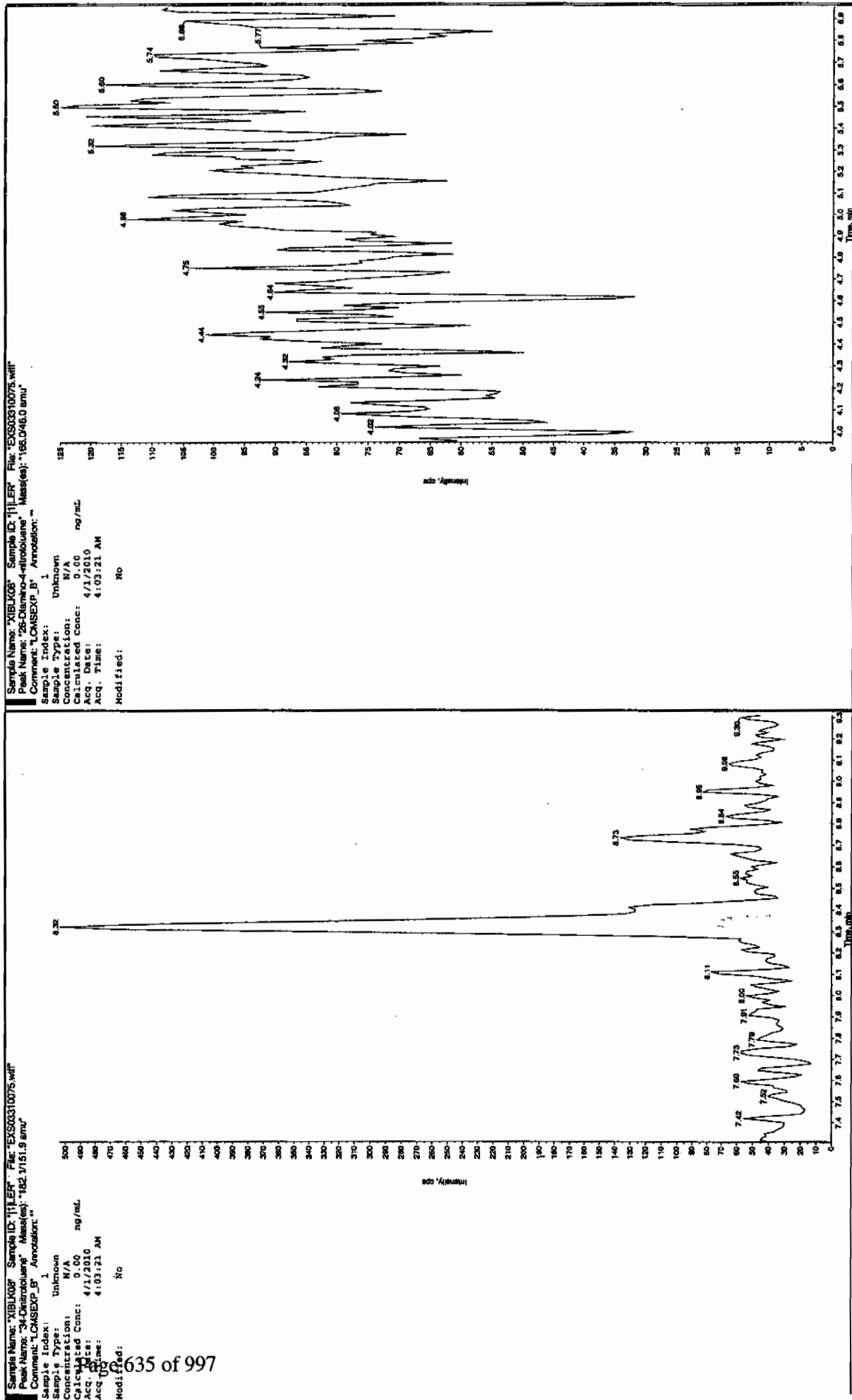
Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

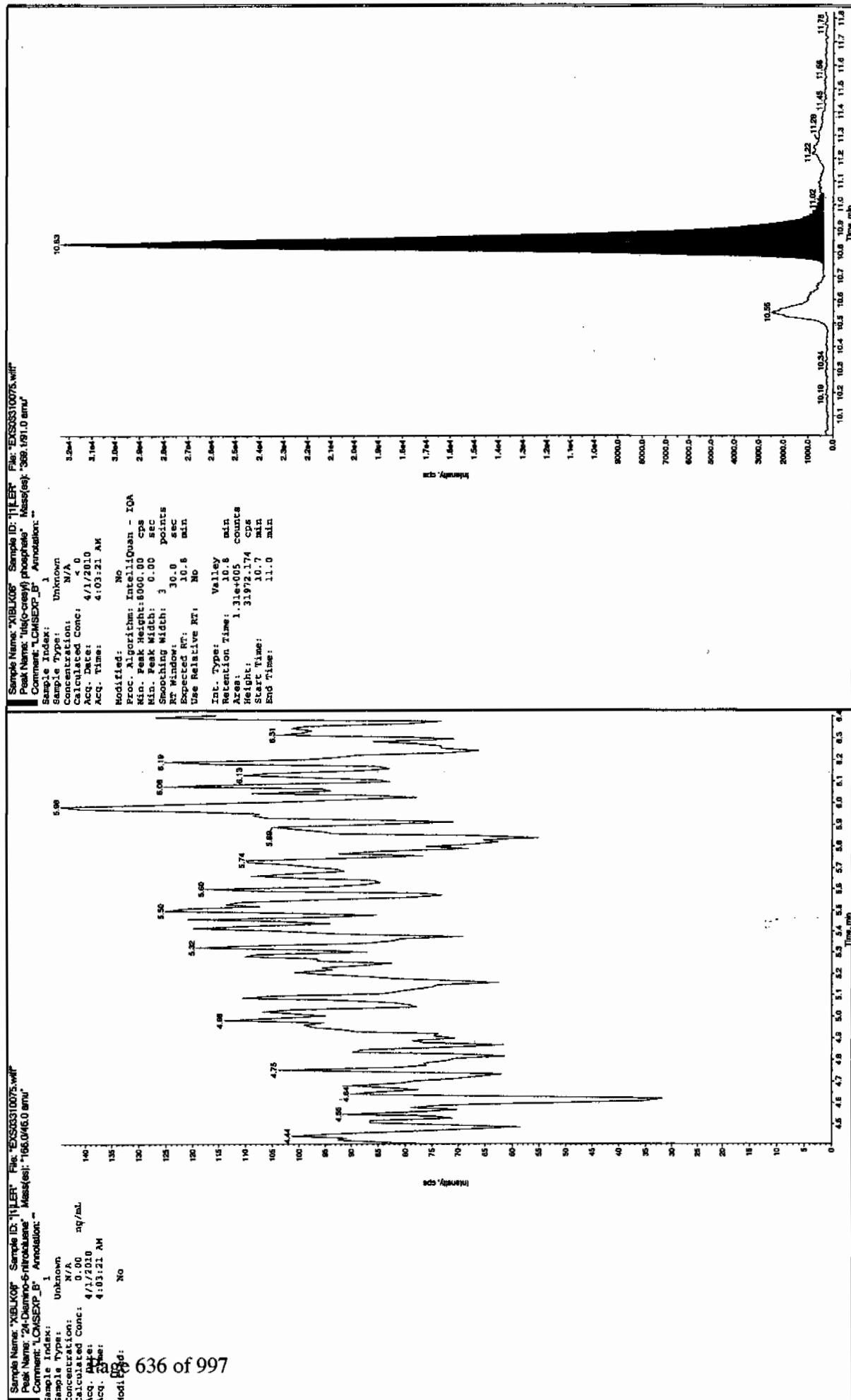
Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	0
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0

Scan 415710









GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

# Blanket

; Perfluorinated aromatic and average matrix from relation  
 ; of 1:1:1:1:1 (2:0:0:0:0) 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

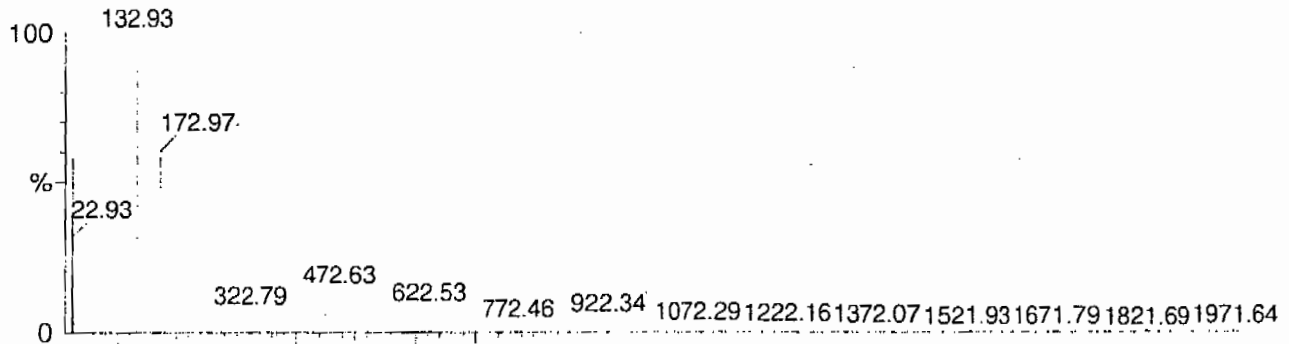
Calibration Report - MS1 Static

Page 1 of 1

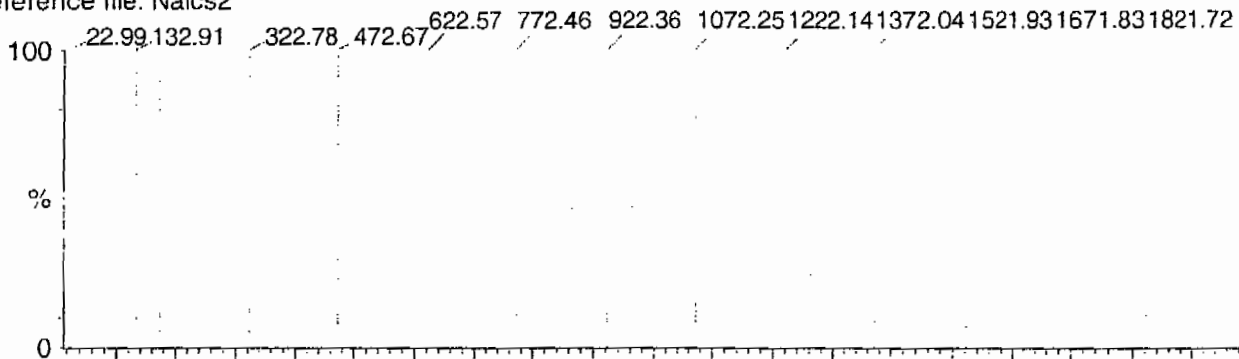
Printed: Fri Aug 25 10:50:01 2006

Data file: STATMS1 - Calibrated

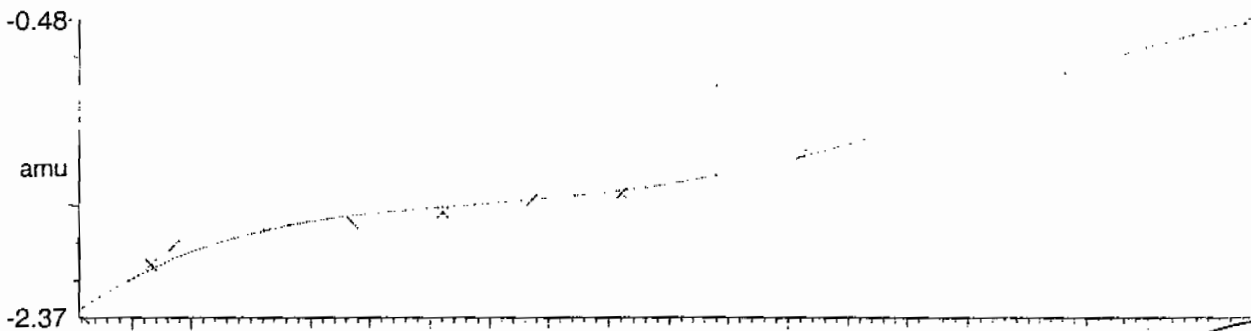
15 matches of 15 tested references



Reference file: Naics2

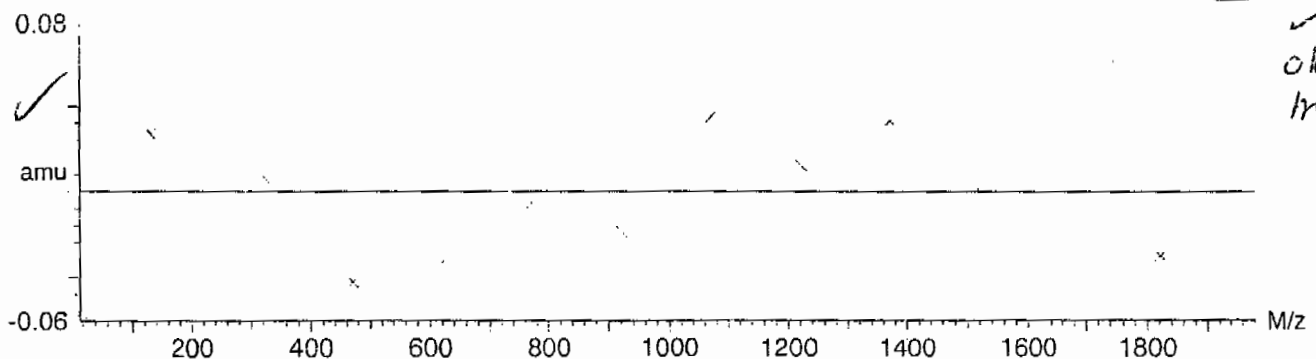


Mass difference (Raw - Ref mass)



Residuals

Mean residual =  $-1.673470e-9 \pm 0.036953$



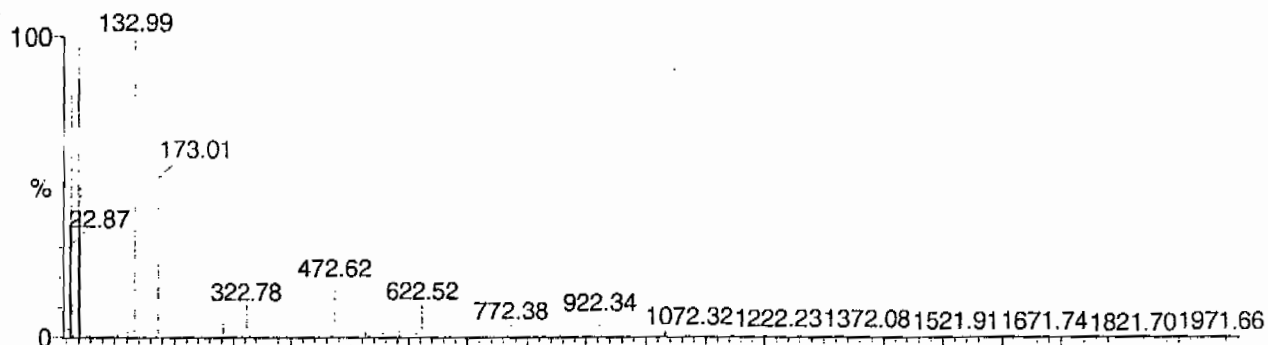
Calibration Report - MS1 Scanning

Page 1 of 1

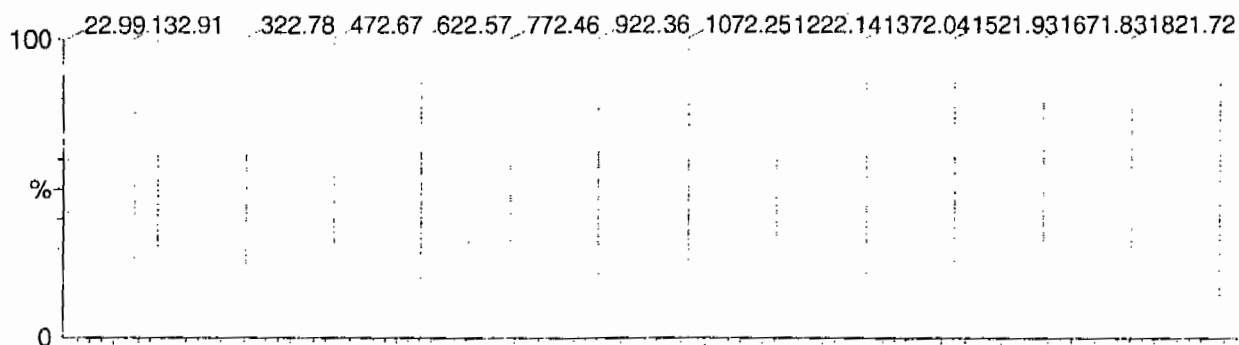
Printed: Fri Aug 25 10:51:06 2006

Data file: SCNMS1 - Calibrated

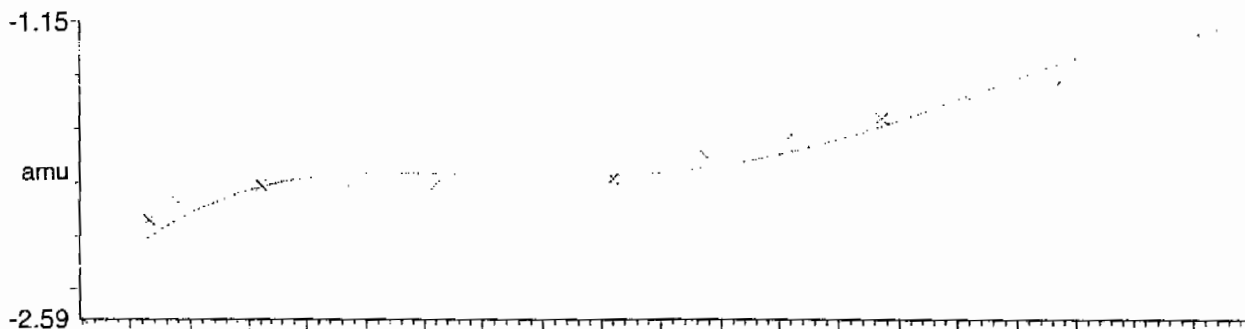
15 matches of 15 tested references:



Reference file: Naics2

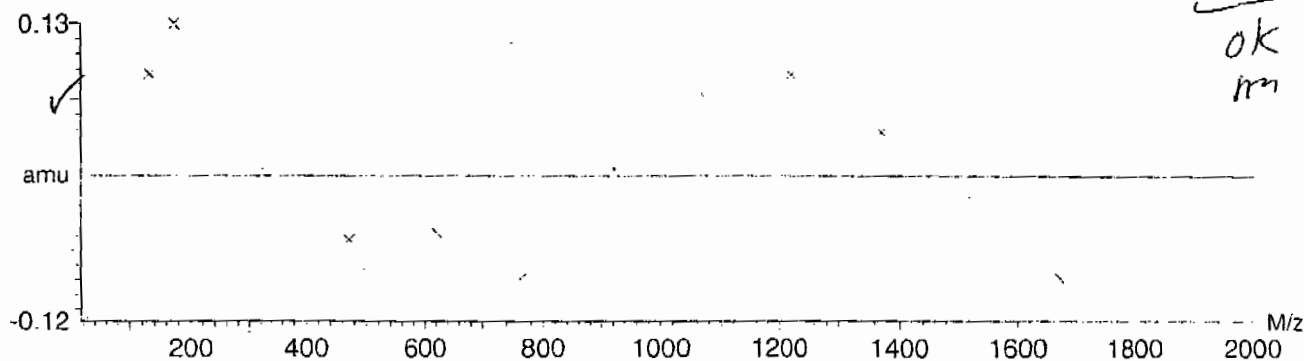


Mass difference (Raw - Ref mass)



Residuals

Mean residual =  $-5.432715e-9 \pm 0.069858$



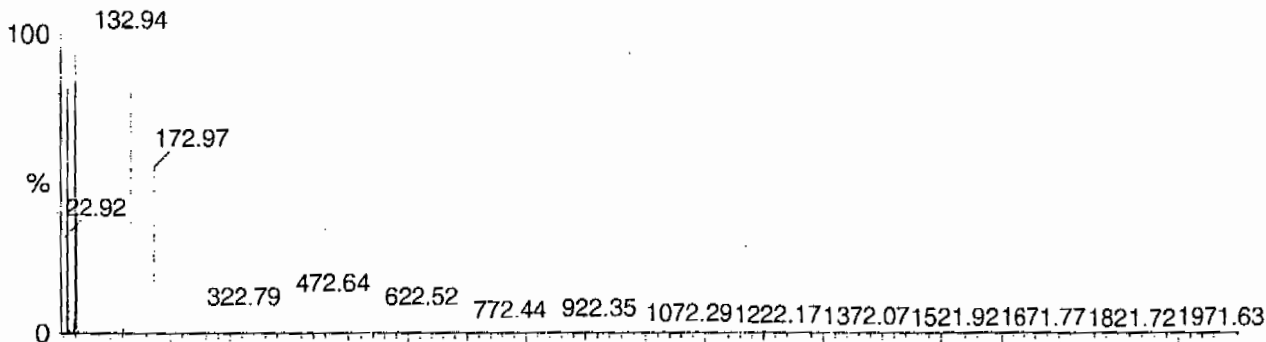
Calibration Report - MS1 Scan Speed Compensation

Page 1 of 1

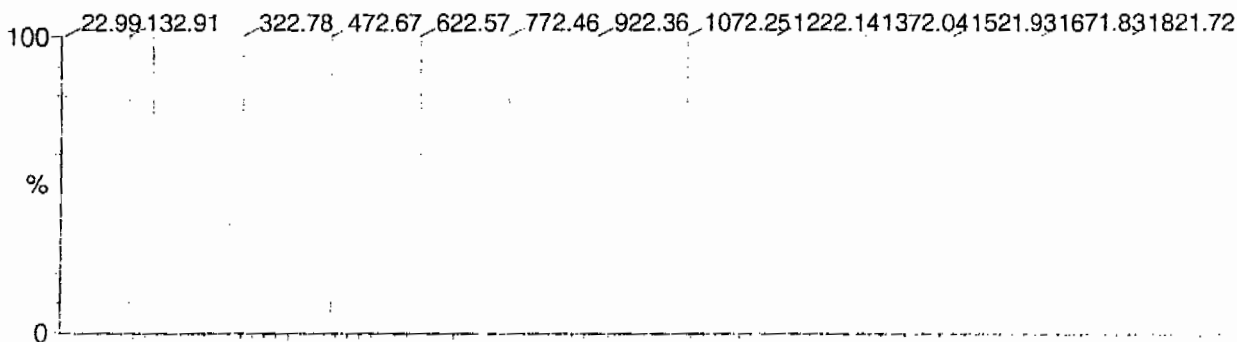
Printed: Fri Aug 25 10:52:01 2006

Data file: FASTMS1 - Calibrated

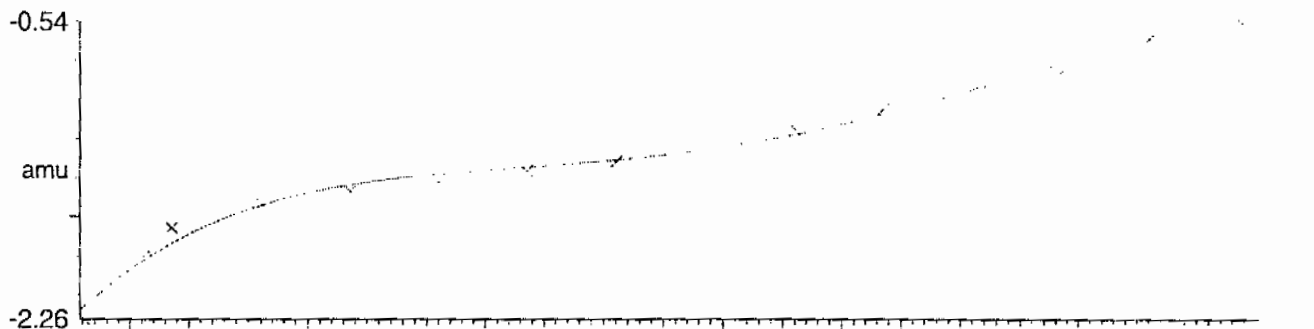
15 matches of 15 tested references



Reference file: Naics2

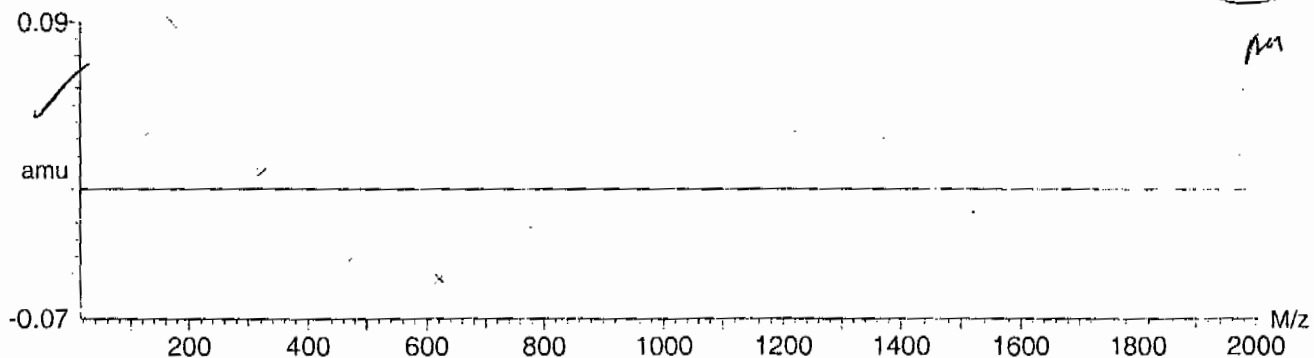


Mass difference (Raw - Ref mass)



Residuals

Mean residual =  $3.486639 \times 10^{-9} \pm 0.040487$



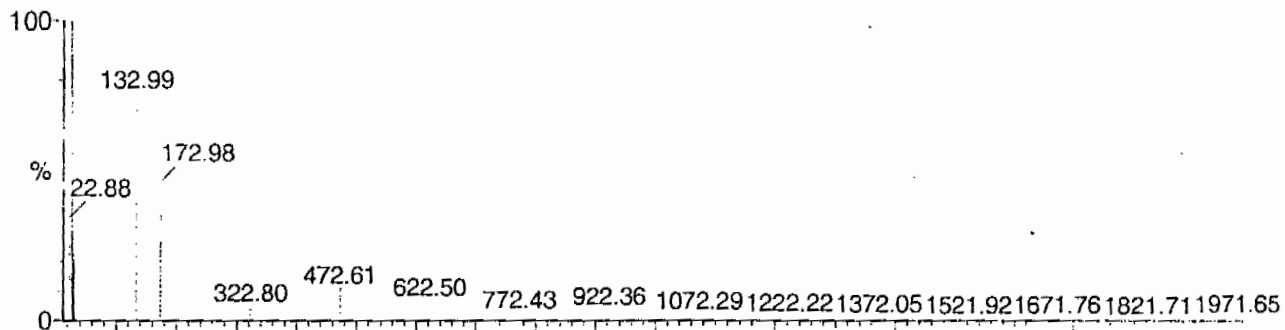
Calibration Report - MS2 Static

Page 1 of 1

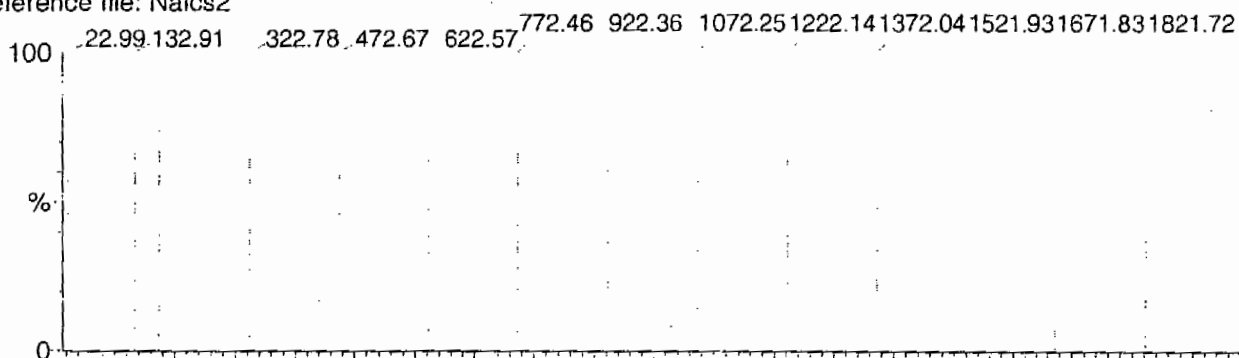
Printed: Fri Aug 25 10:52:54 2006

Data file: STATMS2 - Calibrated

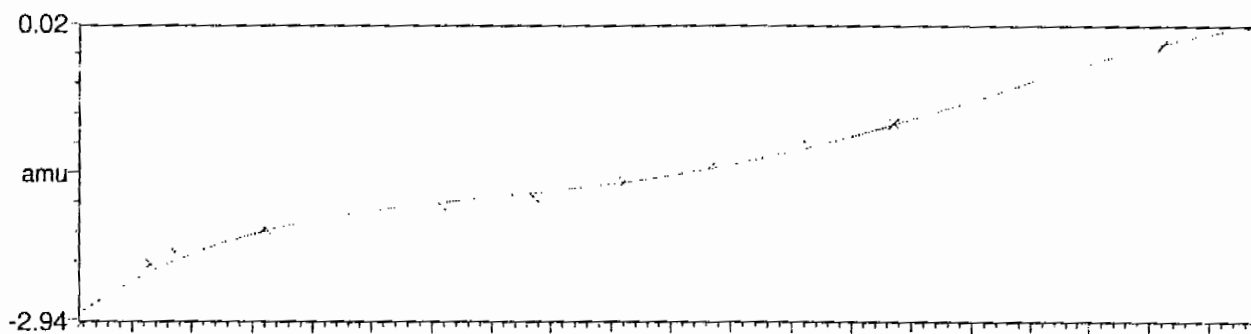
15 matches of 15 tested references



Reference file: Naics2

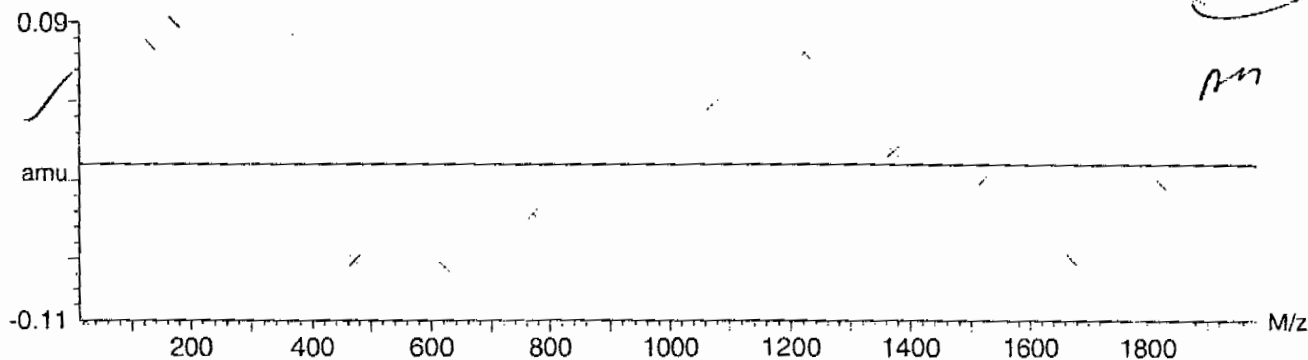


Mass difference (Raw - Ref mass)



Residuals

Mean residual =  $2.048910 \times 10^{-9} \pm 0.057803$



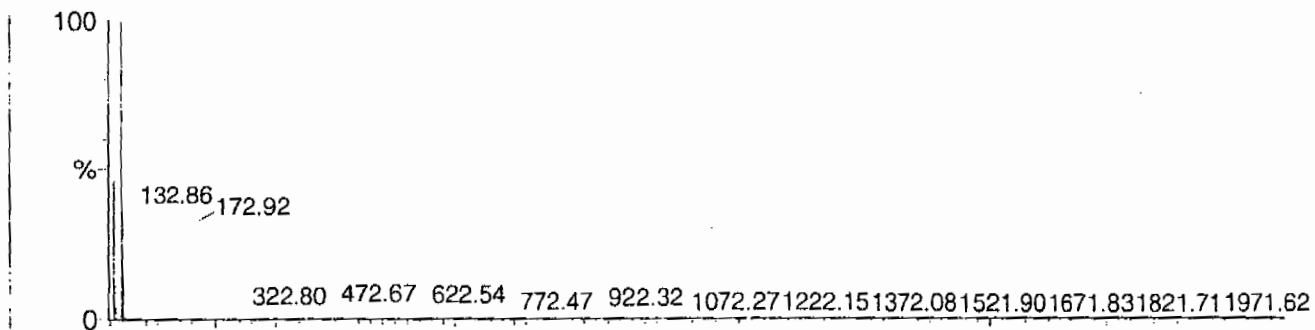
Calibration Report - MS2 Scanning

Page 1 of 1

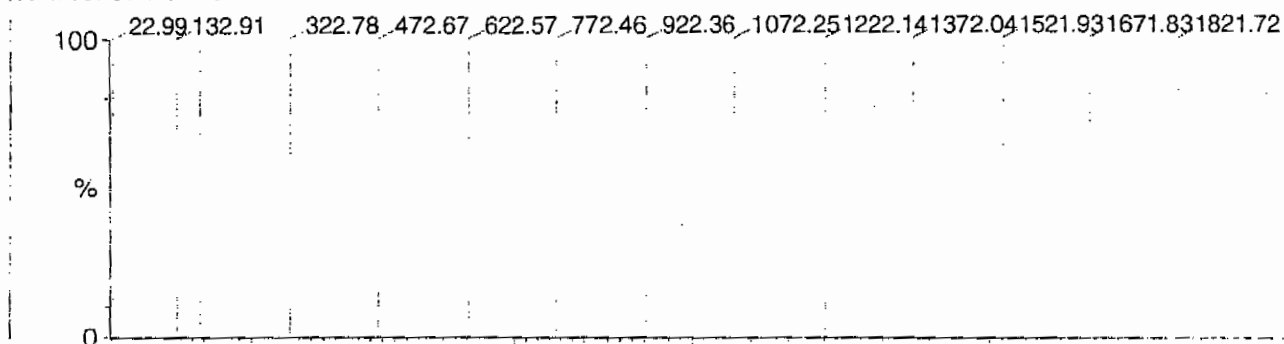
Printed: Fri Aug 25 10:54:00 2006

Data file: SCNMS2 - Calibrated

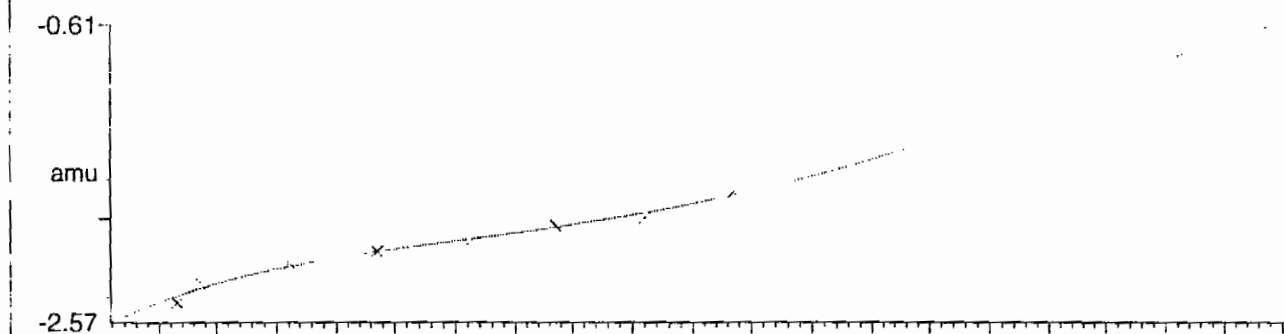
14 matches of 15 tested references



Reference file: Naics2

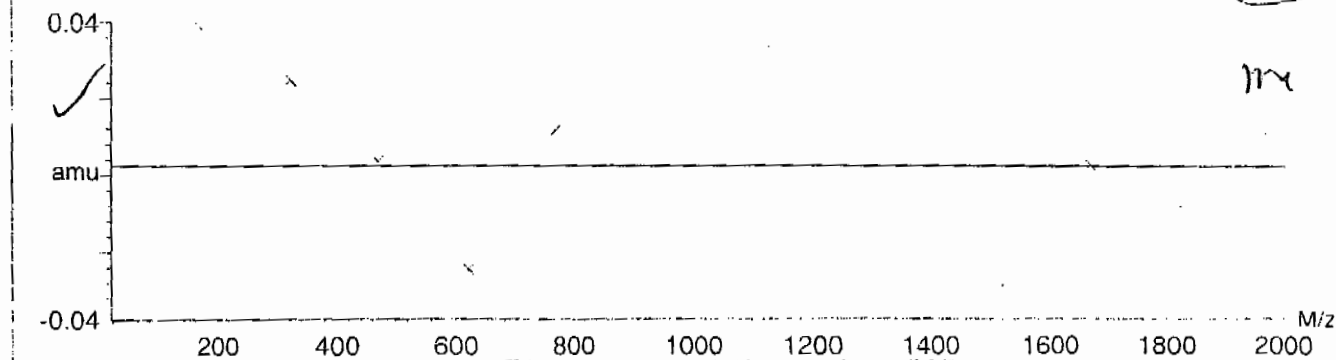


Mass difference (Raw - Ref mass)



Residuals

Mean residual =  $-2.623502 \times 10^{-9} \pm 0.025622$



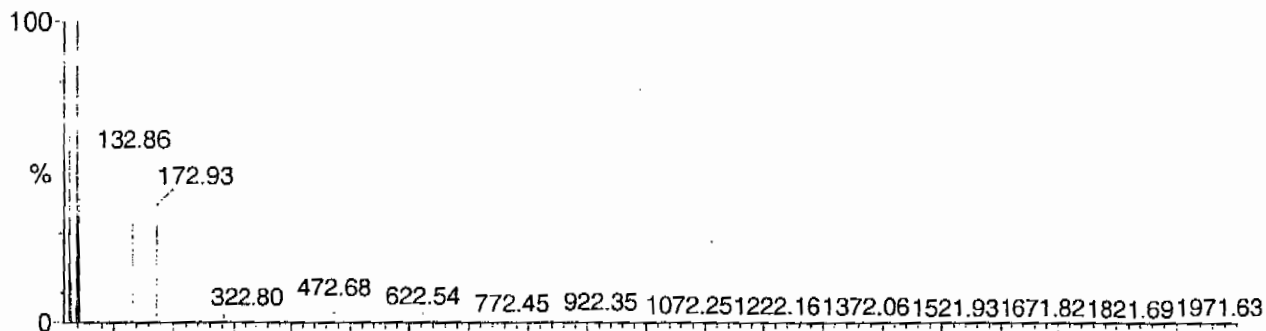
Calibration Report - MS2 Scan Speed Compensation

Page 1 of 1

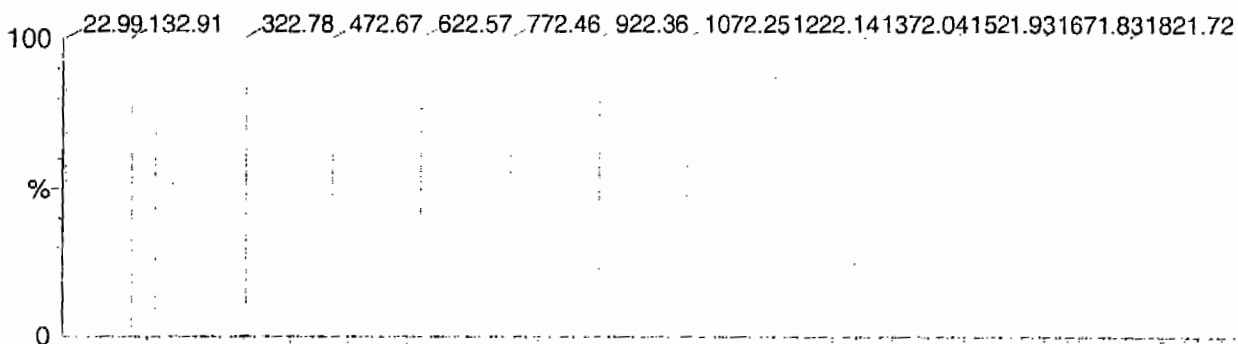
Printed: Fri Aug 25 10:54:54 2006

Data file: FASTMS2 - Calibrated

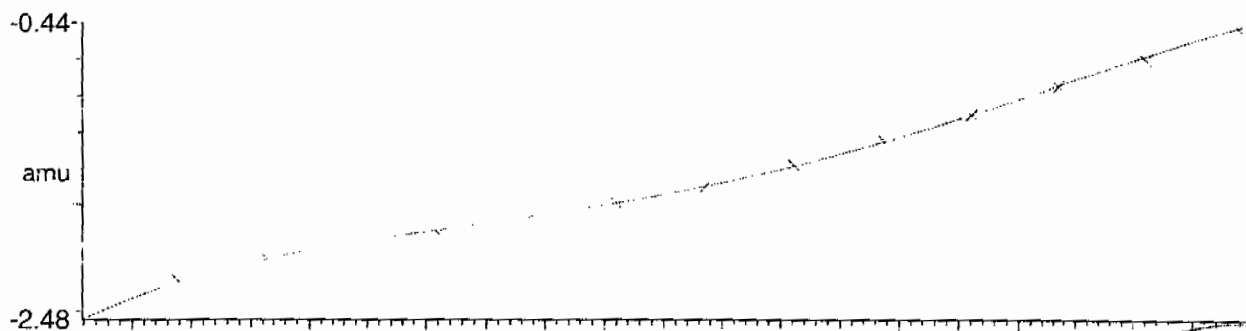
14 matches of 15 tested references



Reference file: Naics2

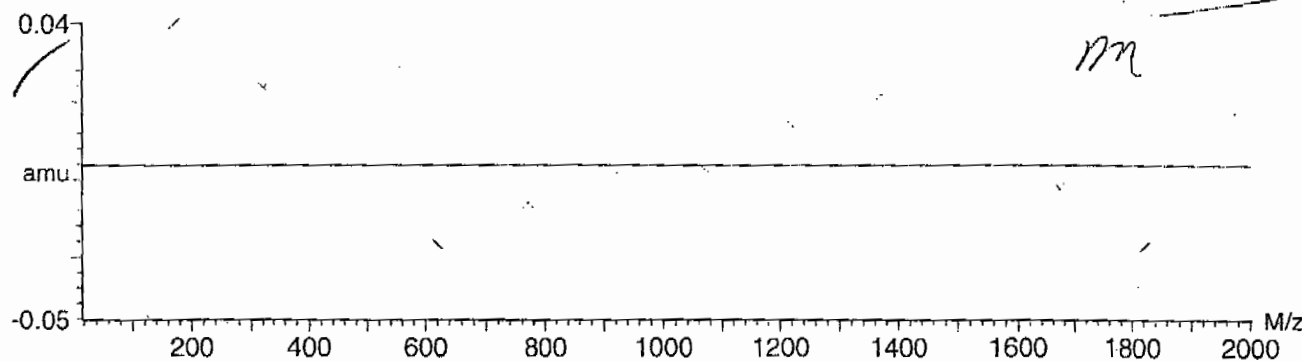


Mass difference (Raw - Ref mass)



Residuals

Mean residual =  $-6.785350 \times 10^{-9} \pm 0.023134$



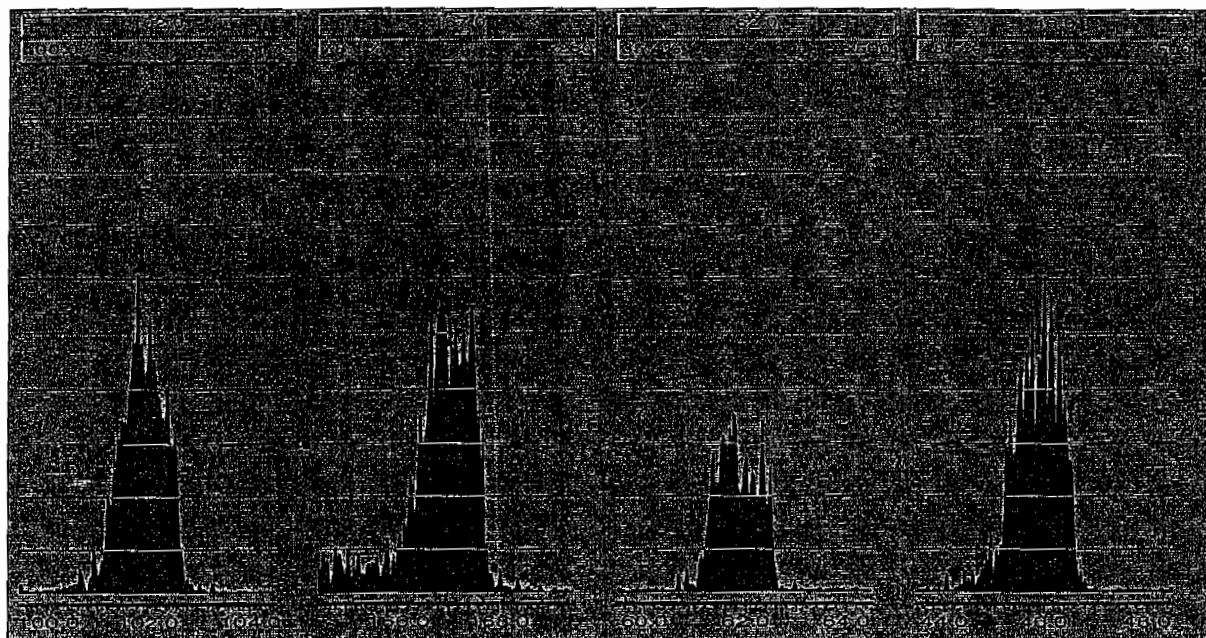


# Quattro Micro Tune Parameters

Page 1

Parameter File: C:\MASSLYNX\New\_Exp.PROVACQUDB\explosives04.ipr

Printed : Thu Apr 08 15:35:33 2010



# High Explosives Internal Standard Summary

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2027

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) #
			6498.048	11.995	39478.583	17.288
Upper Limit			8447.4624	12.495	51322.1579	17.788
Lower Limit			4548.6336	11.495	27635.0081	16.788
MB for batch 958246	10-apr-10 10:57	EXP0408077a	6257.75	11.973	36613	17.265
LCS for batch 958246	10-apr-10 11:27	EXP0408078a	5794.4	11.972	34951.8	17.291
RE36-10-8490	10-apr-10 18:20	EXP0408092a	6018.92	11.922	35912.6	17.136
RE36-10-8470	10-apr-10 18:49	EXP0408093a	5722.17	11.92	34513.7	17.117
RE36-10-8476	10-apr-10 19:19	EXP0408094a	6123.11	11.921	33704.6	17.135
RE36-10-8480	10-apr-10 19:48	EXP0408095a	5713.77	11.926	33495.9	17.136
RE36-10-8474	10-apr-10 20:18	EXP0408096a	6556.37	11.92	36139	17.117
RE36-10-8478	10-apr-10 20:47	EXP0408097a	5992.76	11.92	34285.1	17.117
RE36-10-8483	10-apr-10 22:45	EXP0408101a	6021.34	11.894	35280	17.117
RE36-10-8482	10-apr-10 23:15	EXP0408102a	6226.21	11.921	36529.1	17.113

IS1 (DNB) = 1,3-Dinitrobenzene-d4

IS2 (DNT) = 2,6-Dinitrotoluene-d3

Area Upper Limit = + 30% of average IS area from multipoint calibration

Area Lower Limit = - 30% of average IS area from multipoint calibration

RT Upper Limit = +0.5 of average multipoint RT

RT Lower Limit = -0.5 of average multipoint RT

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

\* Values outside of QC limits

# SAMPLE DATA

1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-8490

Lab Code: GEL

GEL Job No (SDG) 10-2027

Matrix: SOIL

GEL Sample ID: 248012002

Sample Amount 2

Moisture: 5.1

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958246

Concentrated Extract Volume (mL) 10

Date Extracted: 02-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0408092a

Date Analyzed: 10-APR-10 18:20

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	Concentrated Extract Volume	X	Dilution Factor
		Sample Amount		

# Quantify Sample Report

GEL Laboratories, LLC / Analyst : Michael A. Penny

Printed: Sun Apr 11 11:47:08 2010, Page 35 of 97

Dataset: C:\MASSLYNX\New\_Exp\PRO1040810expA2.qld, Time: Sun Apr 11 11:45:05 2010

Name: C:\MASSLYNX\NEW\_EXP\PRO1Data\EXP0408092a

Date: 10-Apr-2010

Time: 18:20:24

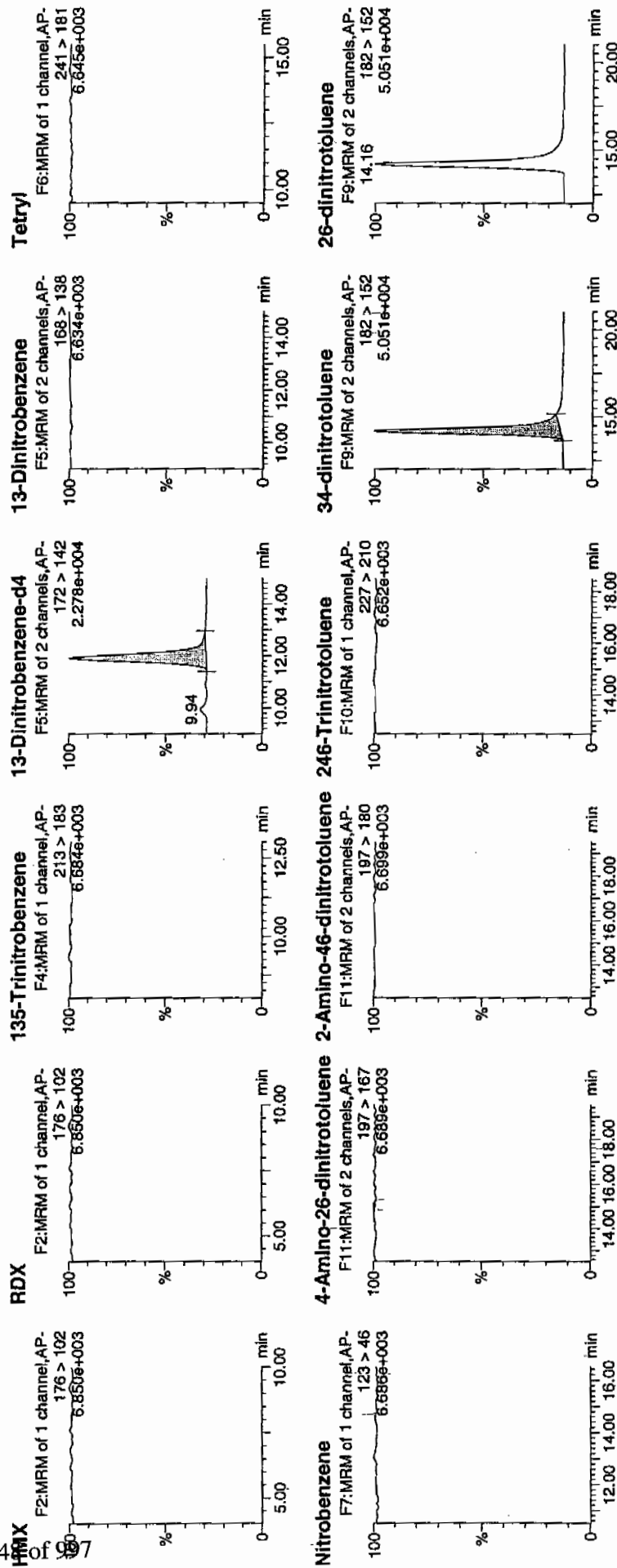
ID: 248012002

Vial: 3:4,D

4/11/10

LAUL 958247 / 21

64 of 107



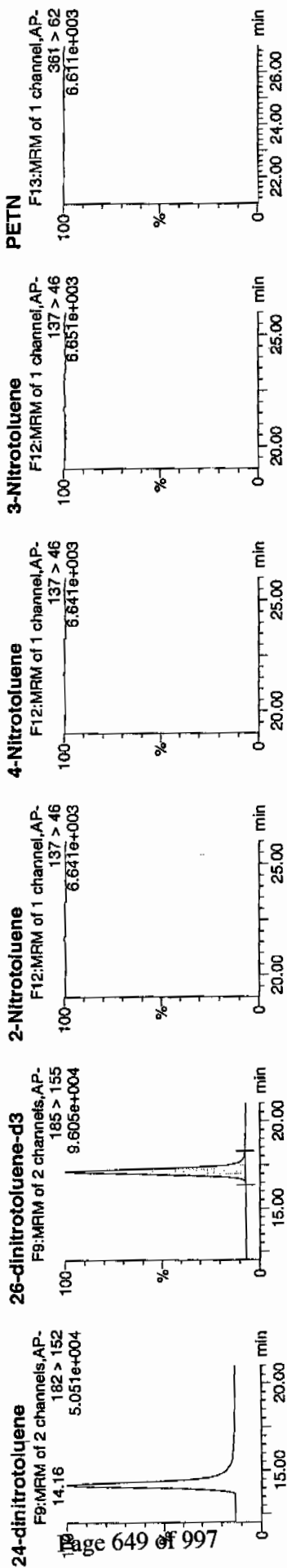
Handwritten signature

# Quantify Sample Report

GEL Laboratories, LLC / Analyst: Michael A. Penny

Printed: Sun Apr 11 11:47:08 2010, Page 36 of 97

Dataset: C:\MASSLYNX\New\_Exp\_PRO\040810expA2.qld, Time: Sun Apr 11 11:45:05 2010



ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	Mod User	Dev	SN
248012002	HMX	176 > 102			6018.920								
248012002	RDX	176 > 102			6018.920								
248012002	135-Trinitrobenzene	213 > 183			6018.920								
248012002	13-Dinitrobenzene-d4	172 > 142	11.92	6018.920			6018.920	bb		463.1328	92.6	-7.4	179.1
248012002	13-Dinitrobenzene	168 > 138			6018.920								
248012002	Tetryl	241 > 181			6018.920								
248012002	Nitrobenzene	123 > 46			6018.920								
248012002	4-Amino-26-dinitrotoluene	197 > 167			35912.590								
248012002	2-Amino-46-dinitrotoluene	197 > 180			35912.590								
248012002	246-Trinitrotoluene	227 > 210			35912.590								
248012002	34-dinitrotoluene	182 > 152	14.16	18676.682			18676.682	bb		253.5440	101.4	1.4	953.7
248012002	26-dinitrotoluene	182 > 152			35912.590								
248012002	24-dinitrotoluene	182 > 152			35912.590								
248012002	26-dinitrotoluene-d3	185 > 155	17.14	35912.590			35912.590	bb		454.8363	91.0	-9.0	2327.1
248012002	2-Nitrotoluene	137 > 46			35912.590								
248012002	4-Nitrotoluene	137 > 46			35912.590								
248012002	3-Nitrotoluene	137 > 46			35912.590								
248012002	PETN	361 > 62			35912.590								

1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-8490

Lab Code: GEL

GEL Job No (SDG) 10-2027

Matrix: SOIL

GEL Sample ID: 248012002

Sample Amount 2

Moisture: 5.1

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 258246

Concentrated Extract Volume (mL) 10

Date Extracted: 02-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03310060.wiff

Date Analyzed: 01-APR-10 00:07

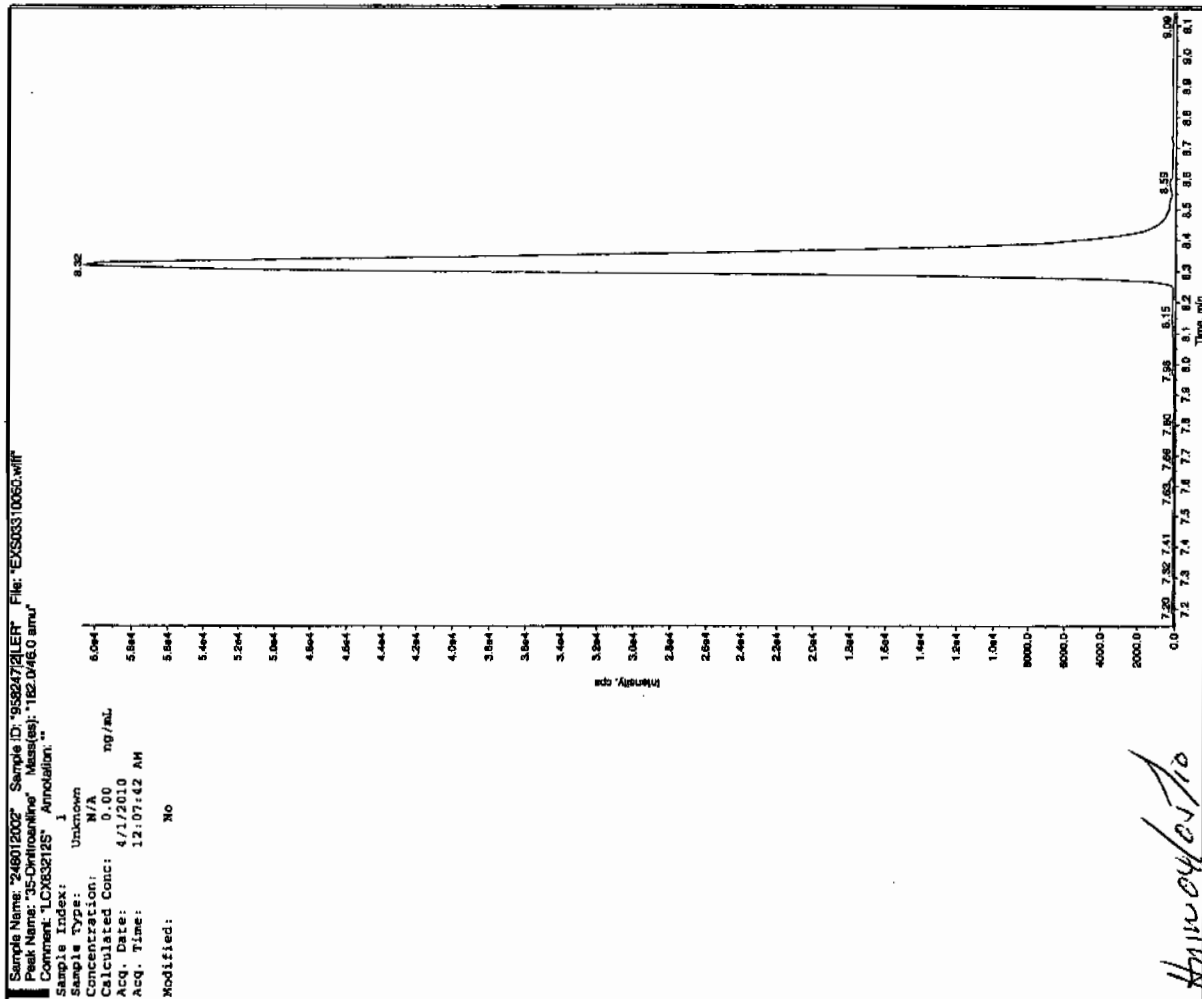
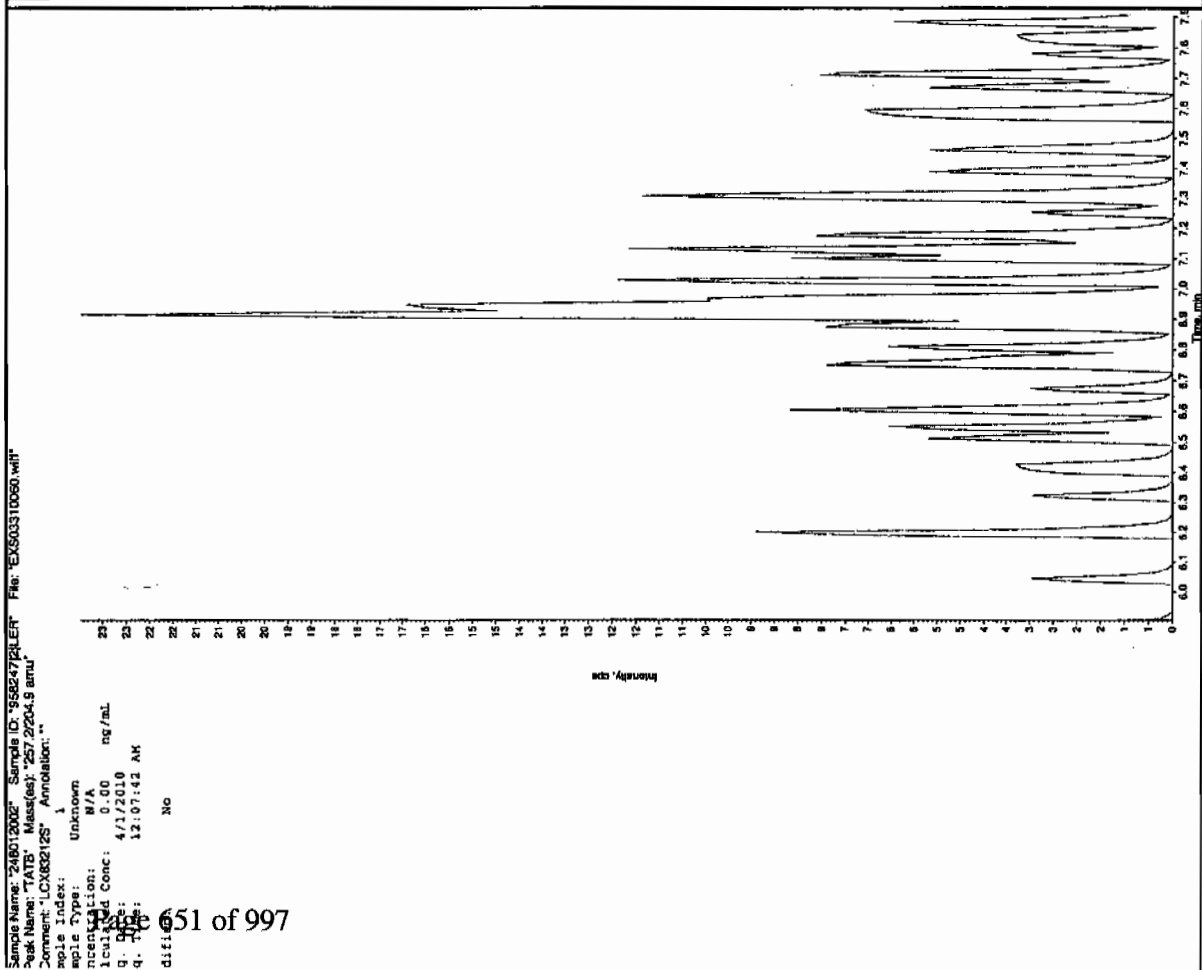
Units: ug/kg

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

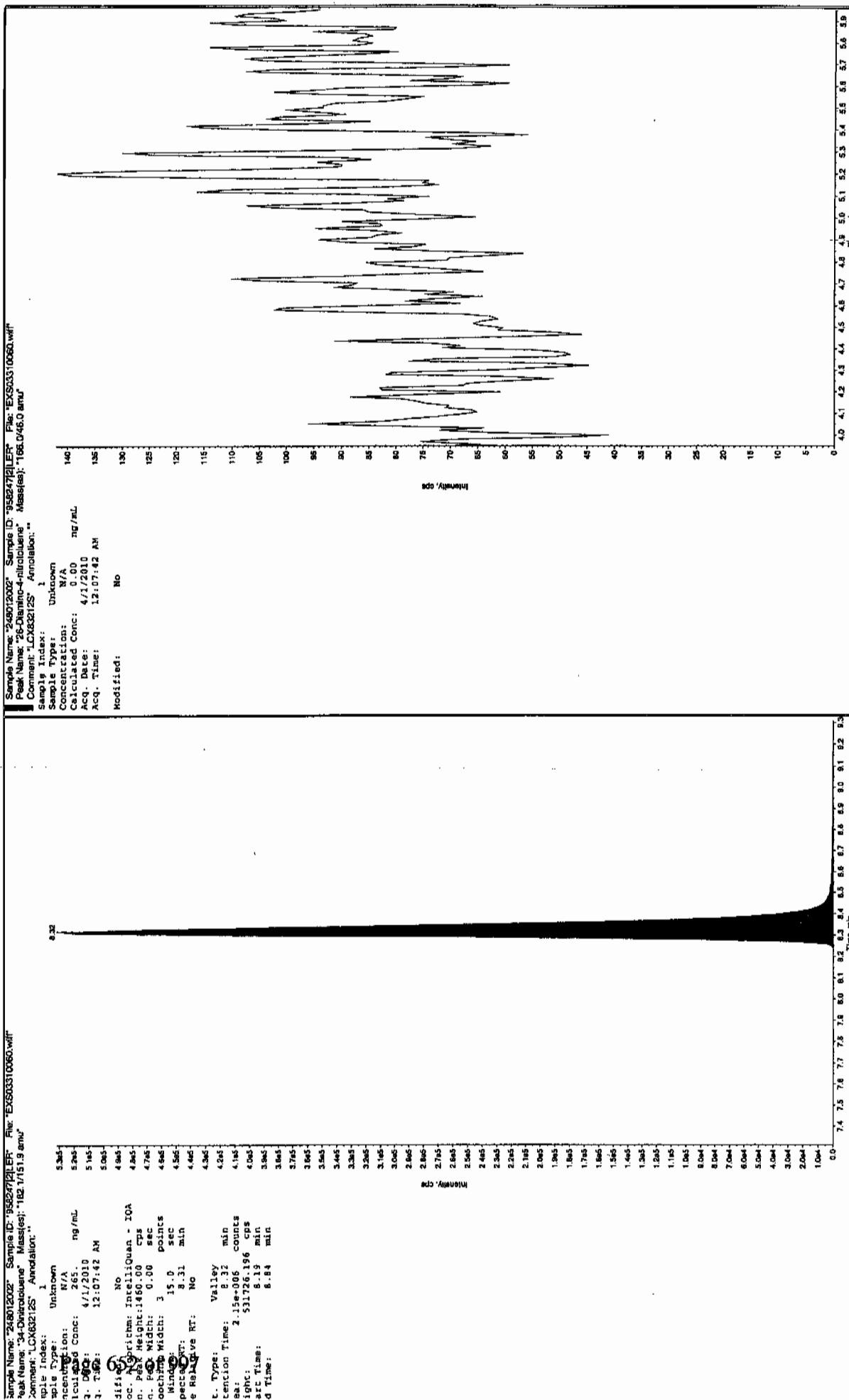
\*Concentration =

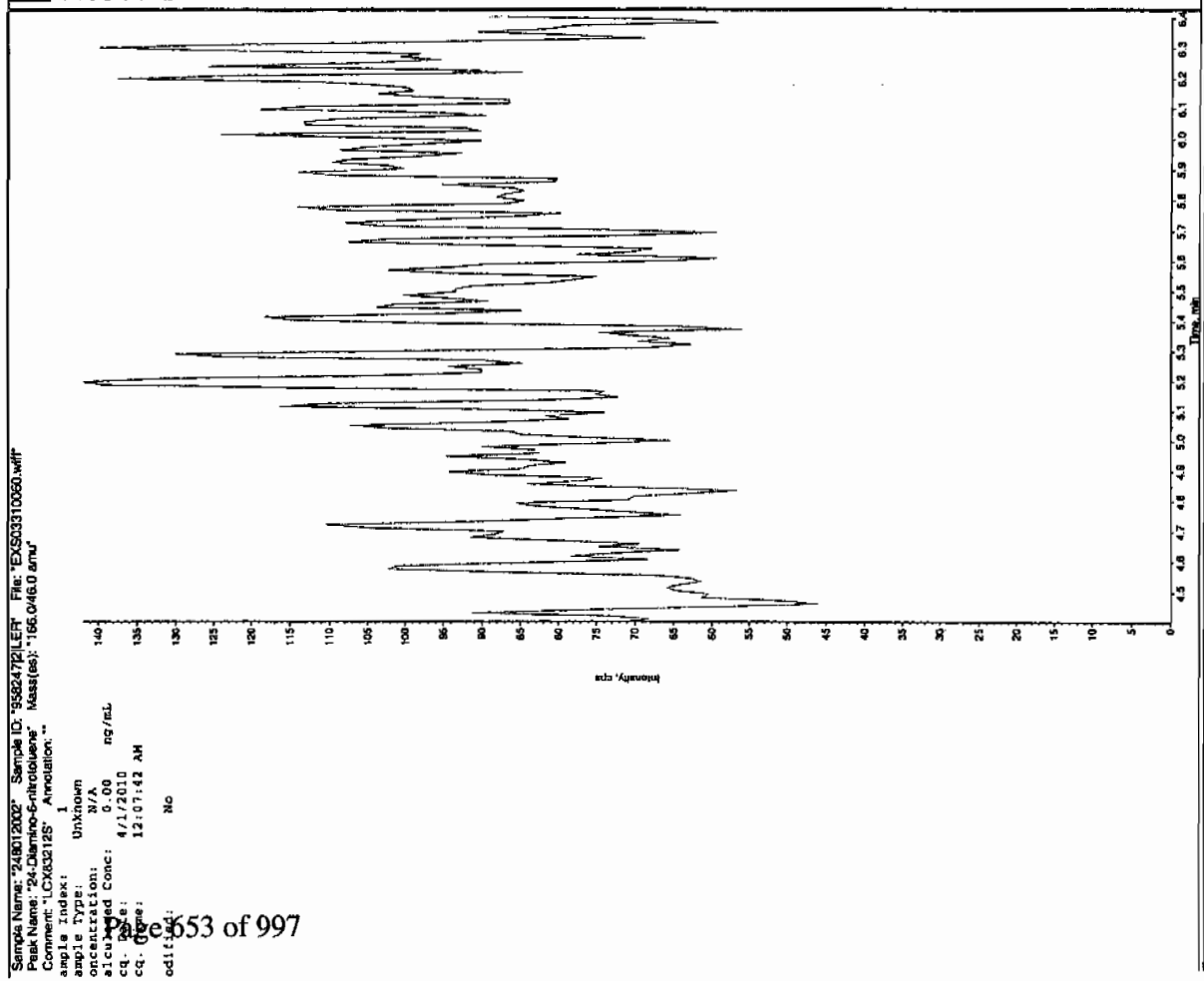
Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor

Scan 41510









1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-8470

Lab Code: GEL

GEL Job No (SDG) 10-2027

Matrix: SOIL

GEL Sample ID: 248012003

Sample Amount 2

Moisture: 6.2

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958246

Concentrated Extract Volume (mL) 10

Date Extracted: 02-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0408093a

Date Analyzed: 10-APR-10 18:49

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\040810expA2.qld, Time: Sun Apr 11 11:45:05 2010

Name: C:\MASSLYNX\NEW\_EXP\PRO\Data\EXP0408093a

Date: 10-Apr-2010

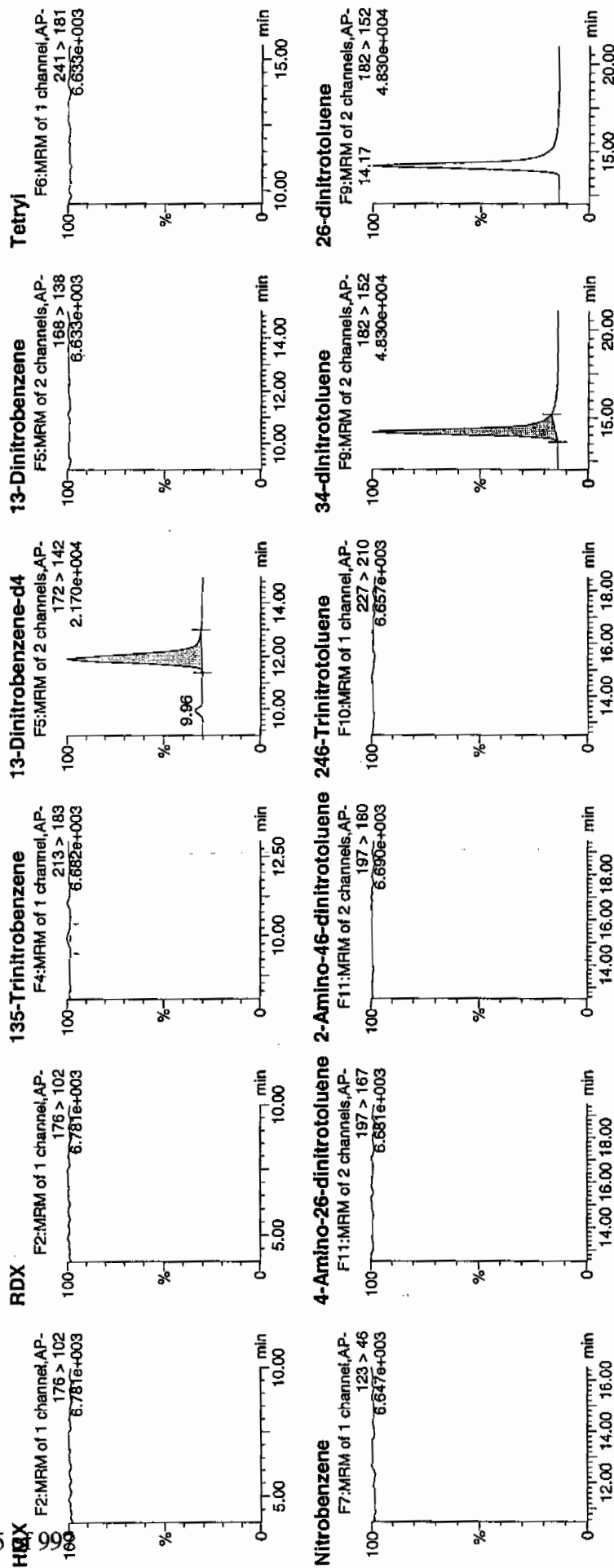
Time: 18:49:53

ID: 248012003

Ver: 3:4,E

1077  
4/11/10

LAU/958247/SOL/21



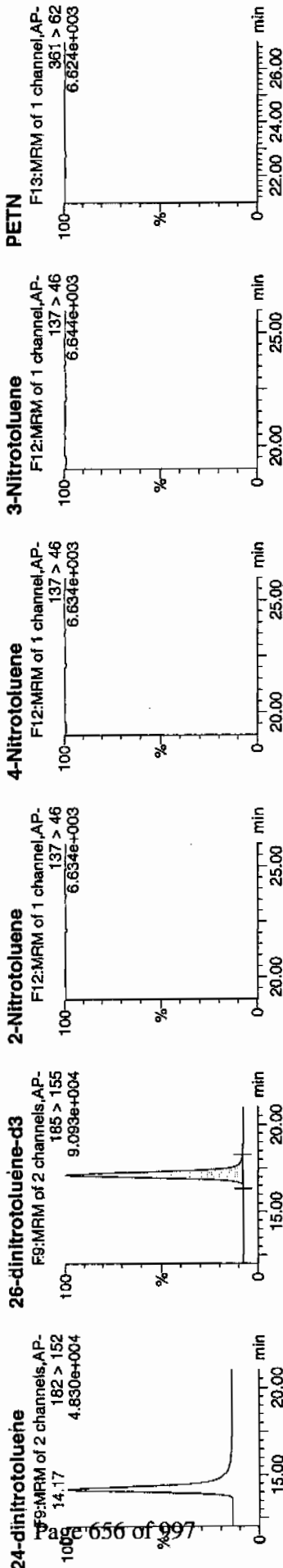
4/12/10

# Quantify Sample Report

GEL Laboratories, LLC / Analyst: Michael A. Penny

Printed: Sun Apr 11 11:47:08 2010, Page 38 of 97

Dataset: C:\MASSLYNX\New\_Exp.PRO\040810expA2.qld, Time: Sun Apr 11 11:45:05 2010



ID	Name	Trace	RT	Area	S:Area	Abs:Resp	Response	Flag	Mod Date	Mod Time	%Rec	%Dev	SSIN
248012003	HMX	176 > 102		5722.166									
248012003	RDX	176 > 102		5722.166									
248012003	135-Trinitrobenzene	213 > 183		5722.166					MM- 11-Apr-10	11:32:38			
248012003	13-Dinitrobenzene-d4	172 > 142	11.92	5722.166		5722.166	5722.166	bb			440.2987	88.1	-11.9 306.7
248012003	13-Dinitrobenzene	188 > 138											
248012003	Tetryl	241 > 181											
248012003	Nitrobenzene	123 > 46											
248012003	4-Amino-26-dinitrotoluene	197 > 167											
248012003	2-Amino-46-dinitrotoluene	197 > 180											
248012003	246-Trinitrotoluene	227 > 210											
248012003	34-dinitrotoluene	182 > 152	14.17	17533.857		17533.857	254.013	bb			247.6773	99.1	-0.9 1065.8
248012003	26-dinitrotoluene	182 > 152											
248012003	24-dinitrotoluene	182 > 152											
248012003	26-dinitrotoluene-d3	185 > 155	17.12	34513.711		34513.711	34513.711	bb			437.1194	87.4	-12.6 1613.9
248012003	2-Nitrotoluene	137 > 46											
248012003	4-Nitrotoluene	137 > 46											
248012003	3-Nitrotoluene	137 > 46											
248012003	PETN	361 > 62											

1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-8470

Lab Code: GEL

GEL Job No (SDG) 10-2027

Matrix: SOIL

GEL Sample ID: 248012003

Sample Amount 2

Moisture: 6.2

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958246

Concentrated Extract Volume (mL) 10

Date Extracted: 02-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03310064.wiff

Date Analyzed: 01-APR-10 01:10

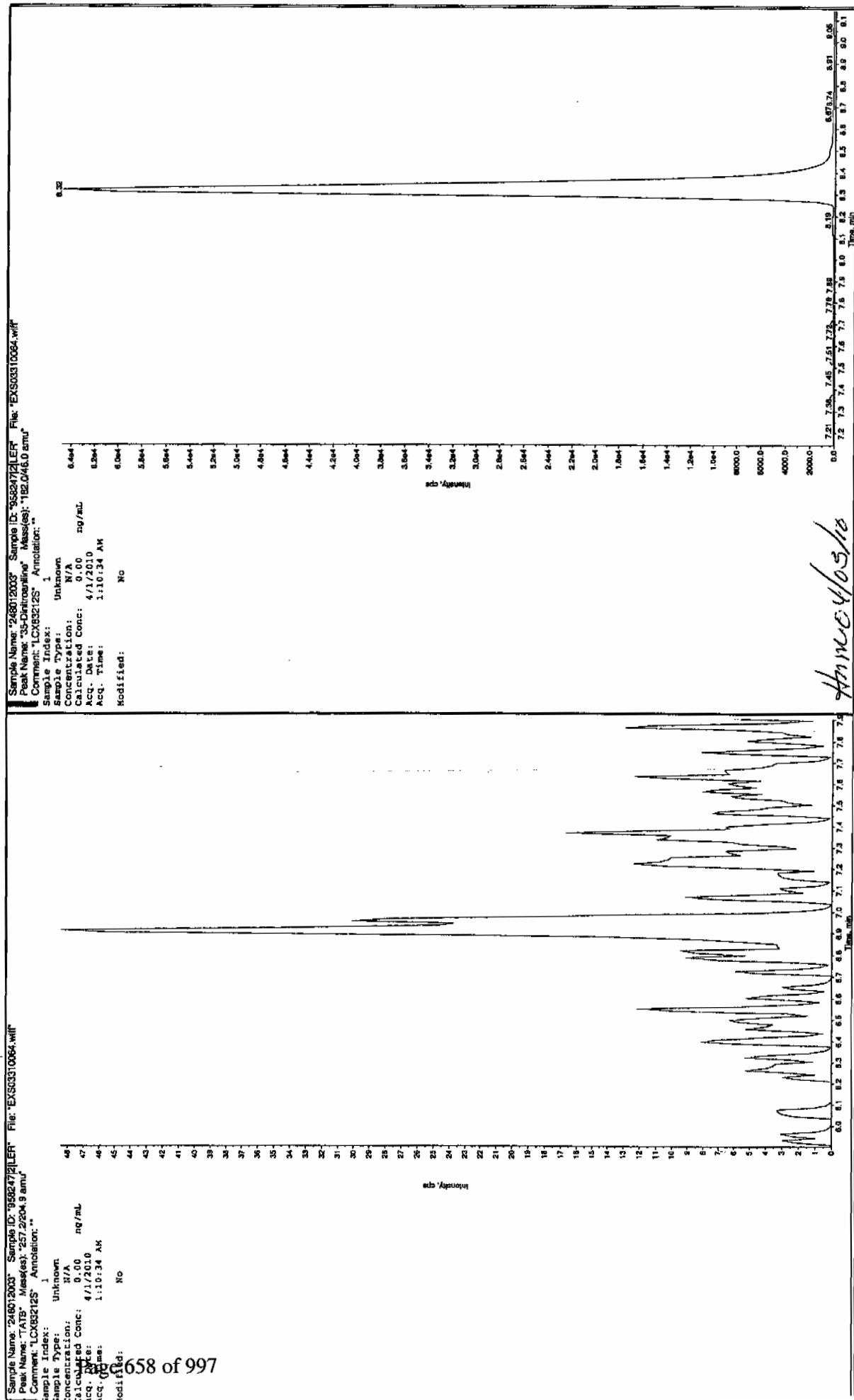
Units: ug/kg

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

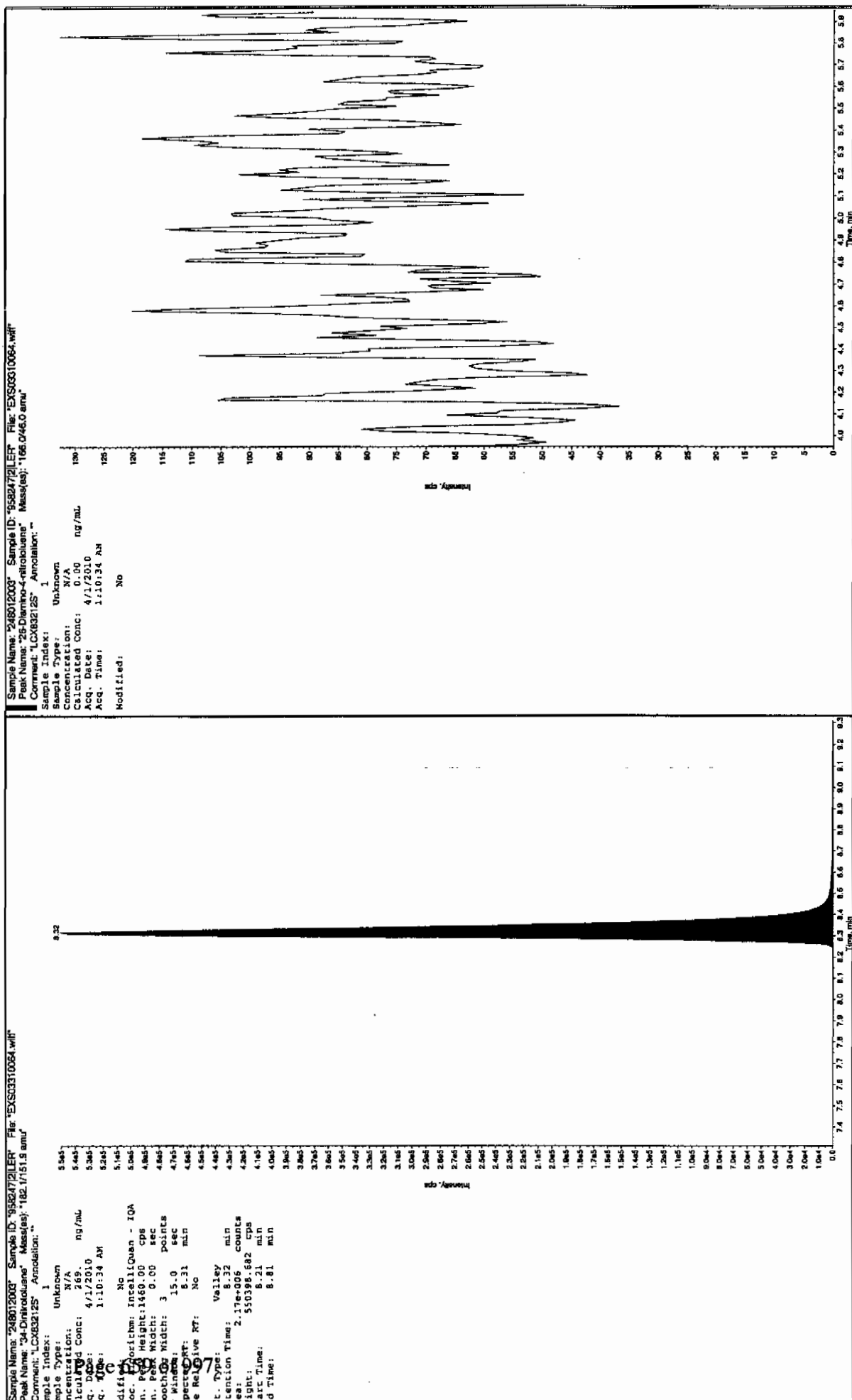
\*Concentration =

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

See 415710

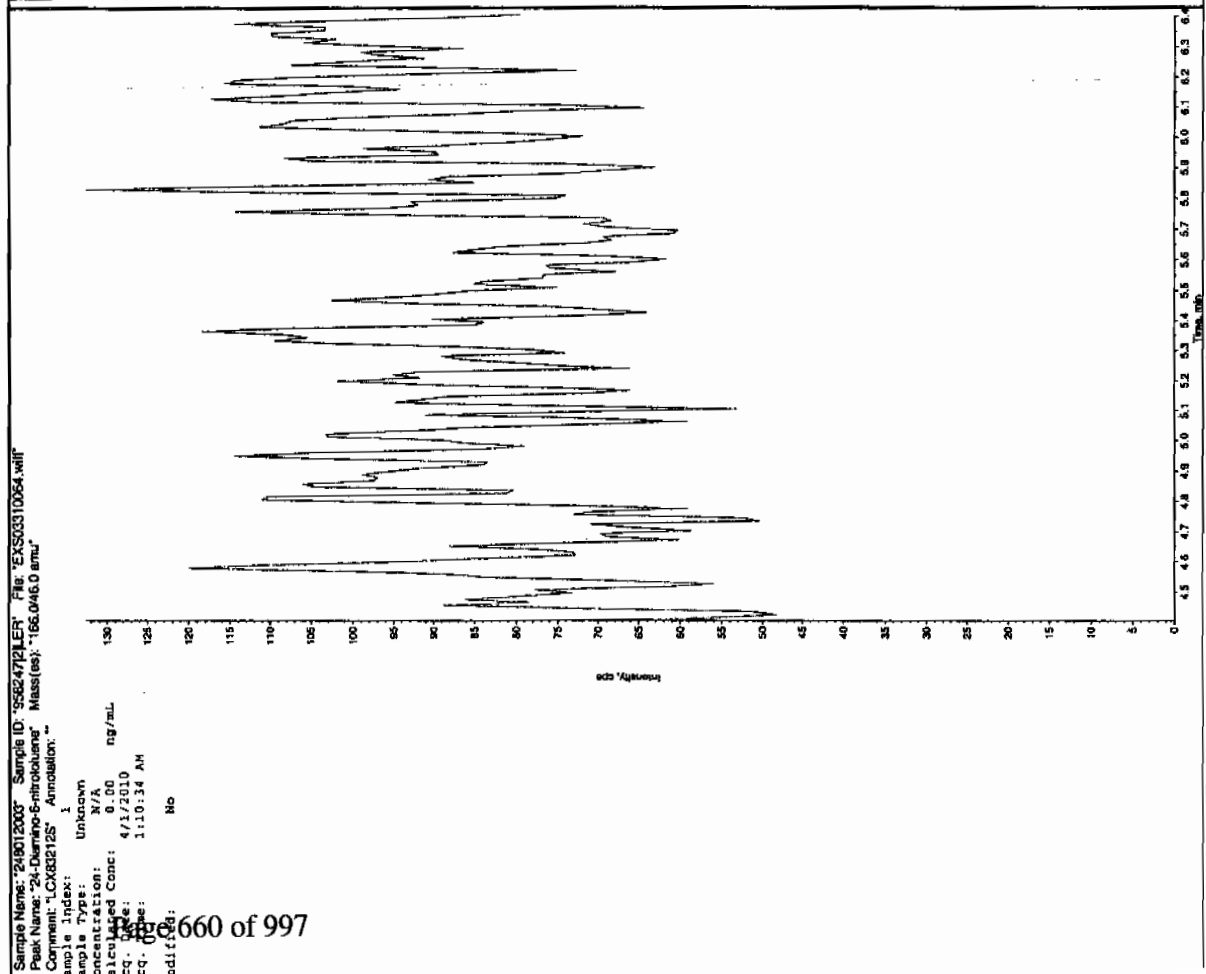
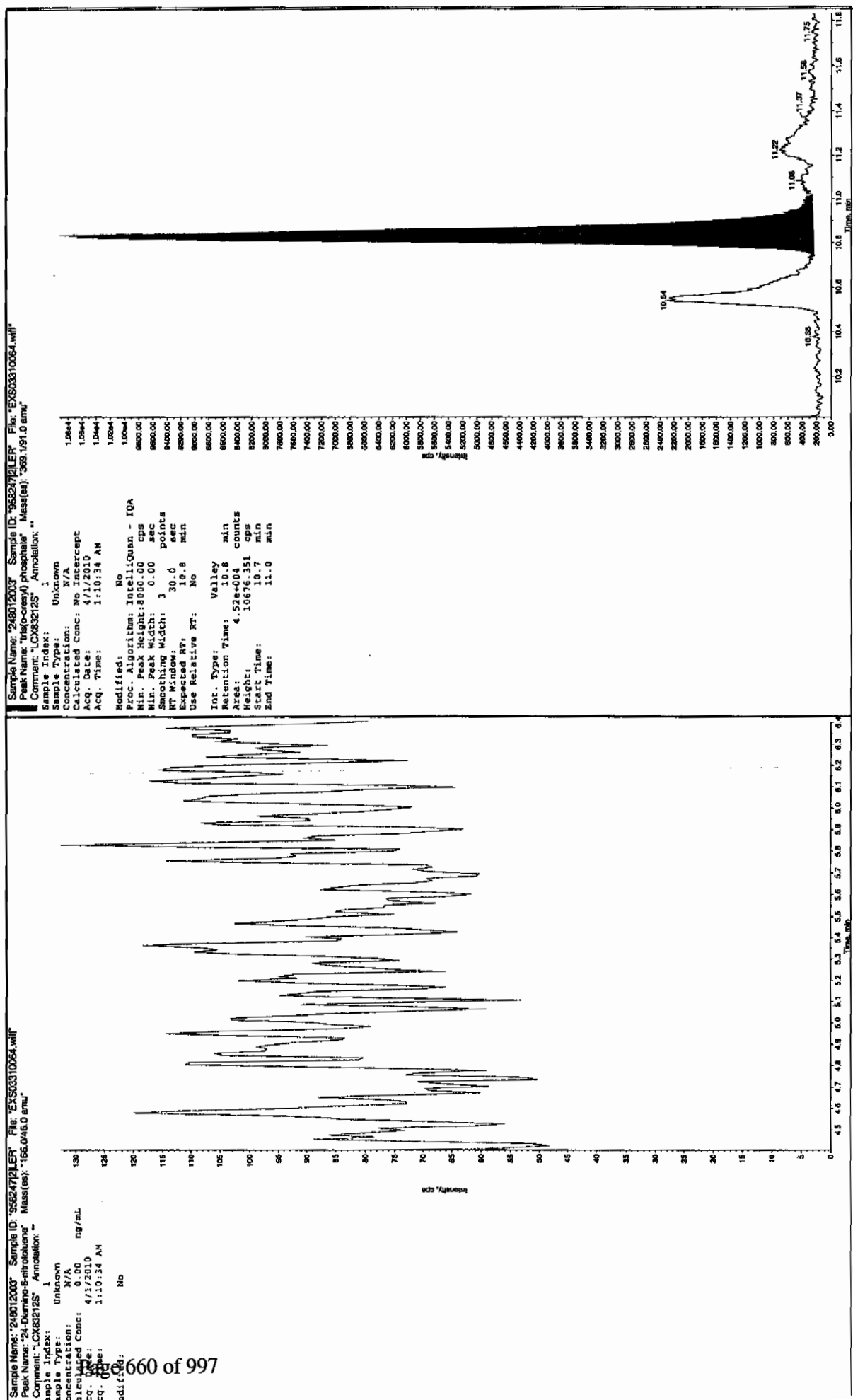


Amme 415710



REL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4





1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-8476

Lab Code: GEL

GEL Job No (SDG) 10-2027

Matrix: SOIL

GEL Sample ID: 248012004

Sample Amount 2

Moisture: 4.2

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958246

Concentrated Extract Volume (mL) 10

Date Extracted: 02-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0408094a

Date Analyzed: 10-APR-10 19:19

Units: ug/kg

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

\*Concentration =

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

# Quantify Sample Report

GEL Laboratories, LLC / Analyst: Michael A. Penny

Printed: Sun Apr 11 11:47:08 2010, Page 39 of 97

Dataset: C:\MASSLYNX\New\_Exp\PRO1040810expA2.qld, Time: Sun Apr 11 11:45:05 2010

Name: C:\MASSLYNX\NEW\_EXP\PRO1Data\EXP0408094a

Date: 10-Apr-2010

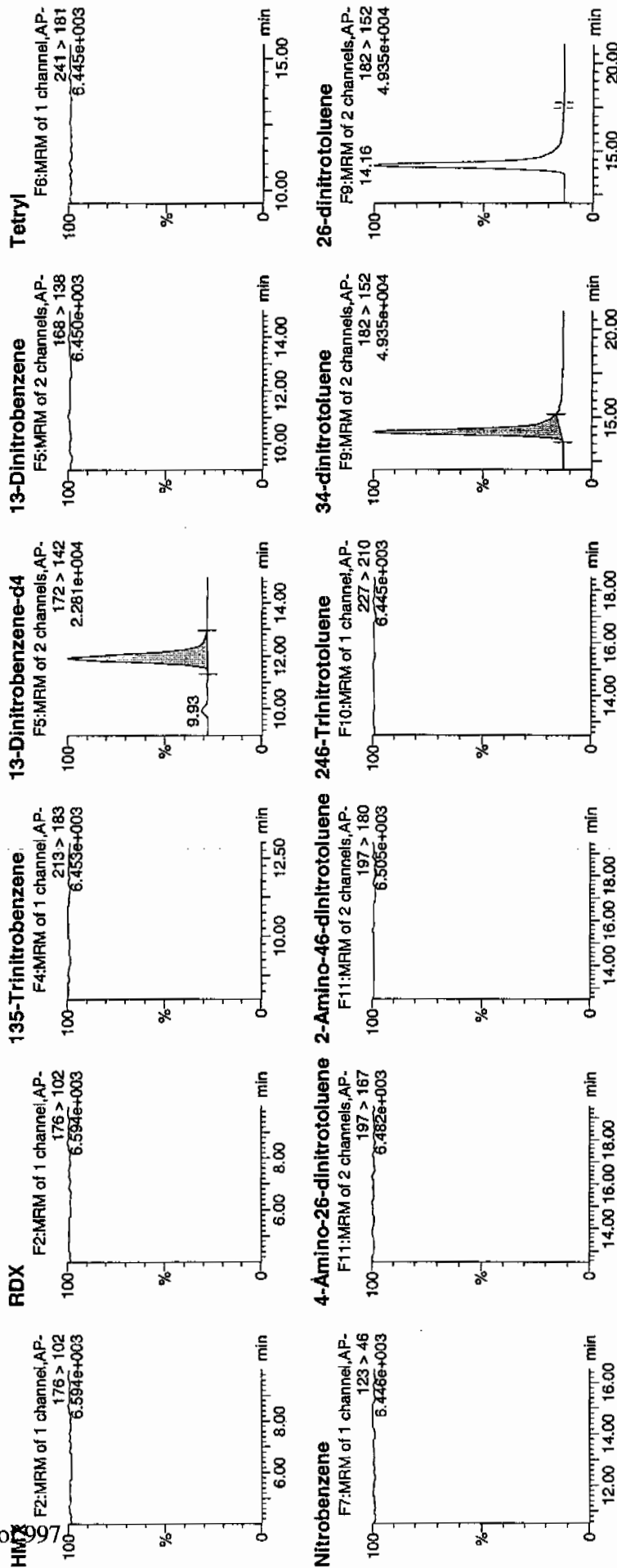
Time: 19:19:21

ID: 248012004

Vial: 3:4,F

1077  
4/11/10

1983247 / 8023 / 21



4/12/10



1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-8476

Lab Code: GEL

GEL Job No (SDG) 10-2027

Matrix: SOIL

GEL Sample ID: 248012004

Sample Amount 2

Moisture: 4.2

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958246

Concentrated Extract Volume (mL) 10

Date Extracted: 02-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03310065.wiff

Date Analyzed: 01-APR-10 01:26

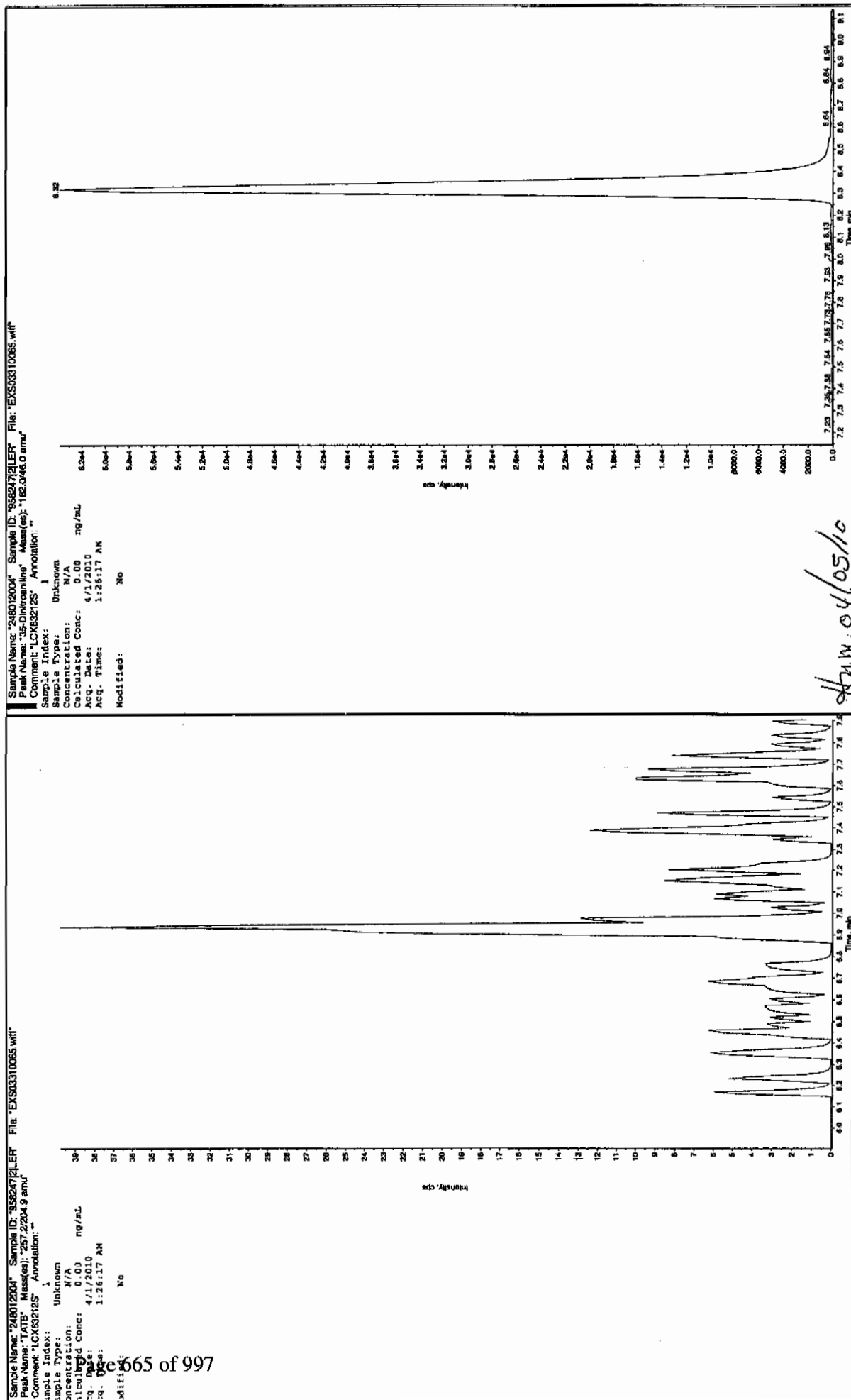
Units: ug/kg

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

\*Concentration =

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

Run 415110

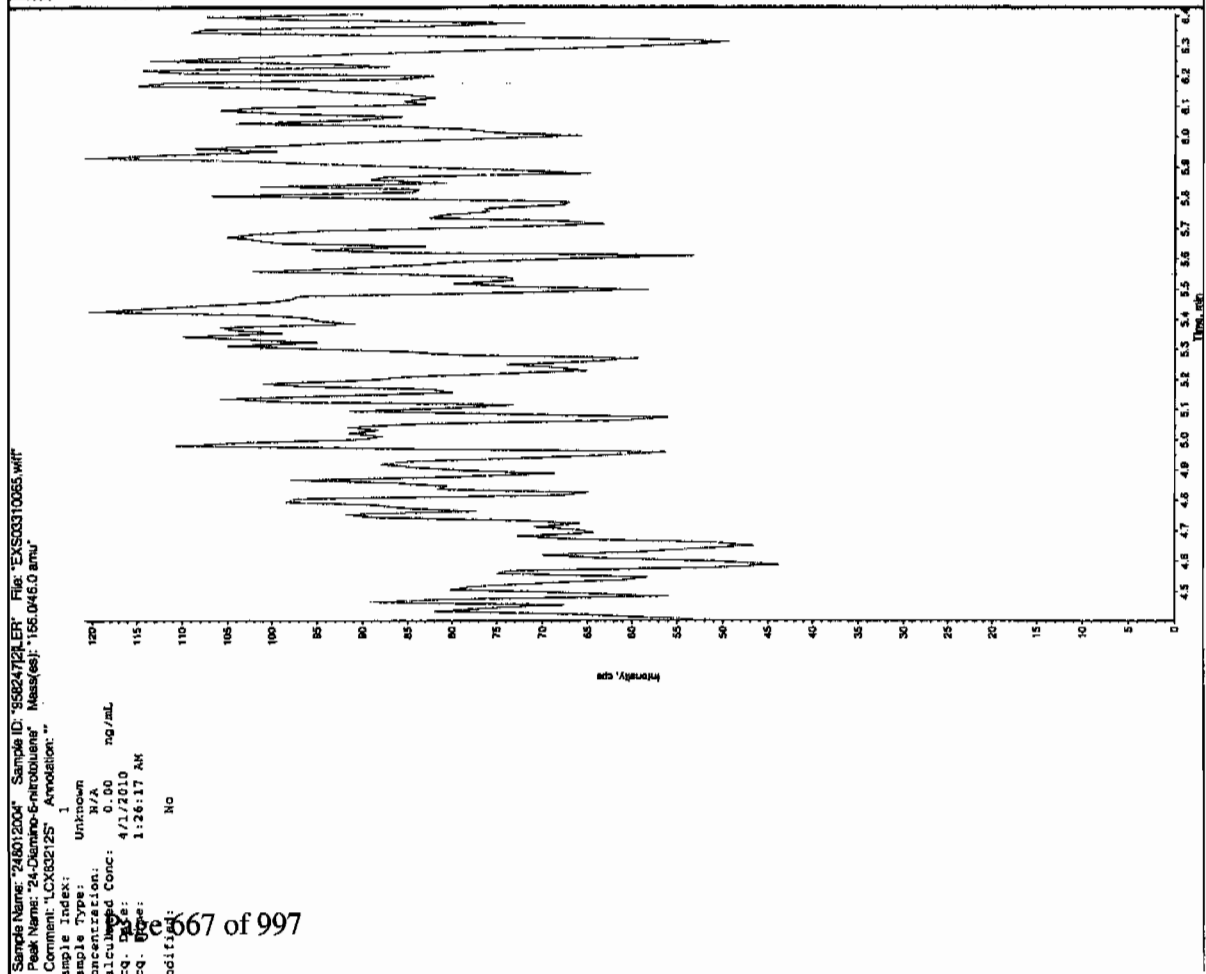
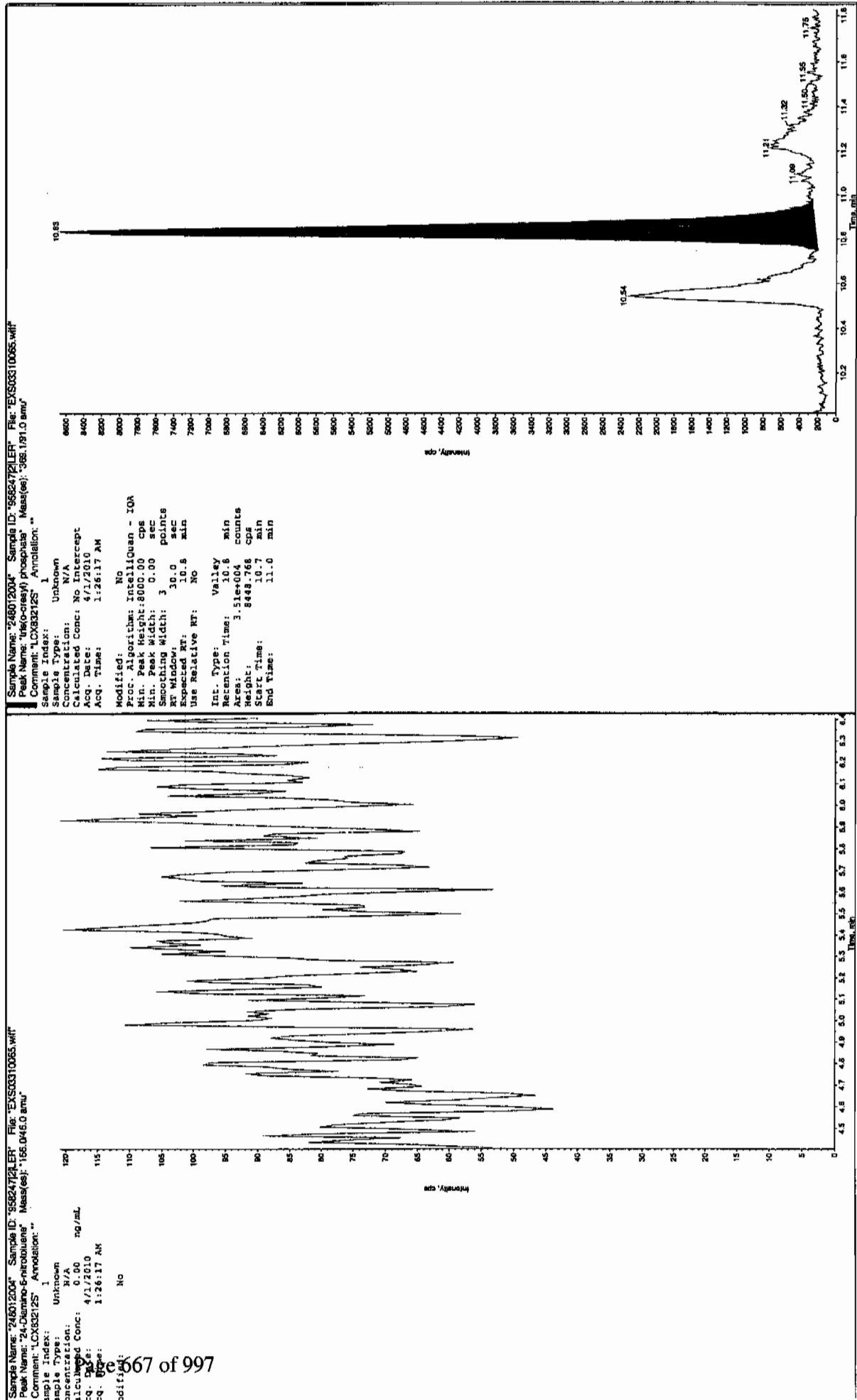


Sample Name: "248012004" Sample ID: "85824721LRF" File: "EX503310065.wif"  
 Peak Name: "35-Dinitroaniline" Mass(es): "182.0465.0 amu"  
 Comment: "LCK832125" Annotation: ""  
 Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 4/1/2010  
 Acq. Time: 1:26:17 AM  
 Modified: No

Sample Name: "248012004" Sample ID: "85824721LRF" File: "EX503310065.wif"  
 Peak Name: "35-Dinitroaniline" Mass(es): "182.0465.0 amu"  
 Comment: "LCK832125" Annotation: ""  
 Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 4/1/2010  
 Acq. Time: 1:26:17 AM  
 Modified: No

Run 04/05/10







1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-8480

Lab Code: GEL

GEL Job No (SDG) 10-2027

Matrix: SOIL

GEL Sample ID: 248012005

Sample Amount 2

Moisture: 10.8

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958246

Concentrated Extract Volume (mL) 10

Date Extracted: 02-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0408095a

Date Analyzed: 10-APR-10 19:48

Units: ug/kg

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

\*Concentration =

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

# Quantify Sample Report

GEL Laboratories, LLC / Analyst: Michael A. Penny

Printed: Sun Apr 11 11:47:08 2010, Page 41 of 97

Dataset: C:\MASSLYNX\New\_Exp.PRO\040810expA2.qld, Time: Sun Apr 11 11:45:05 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0408095a

Date: 10-Apr-2010

Time: 19:48:49

ID: 248012005

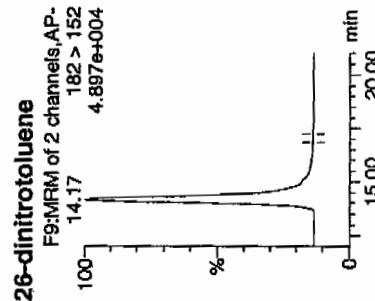
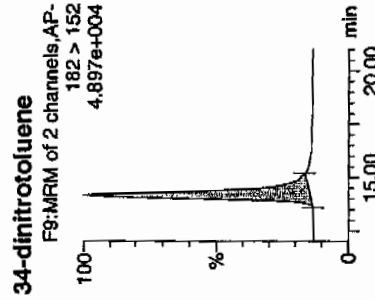
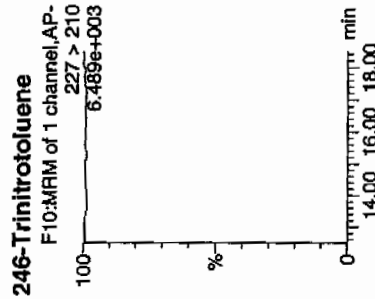
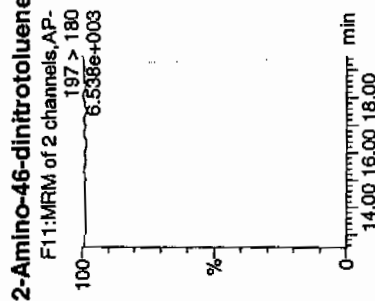
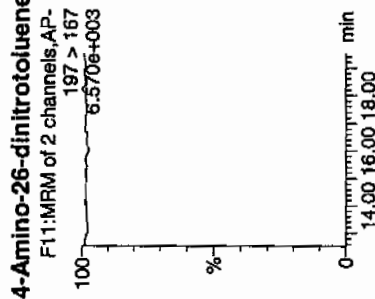
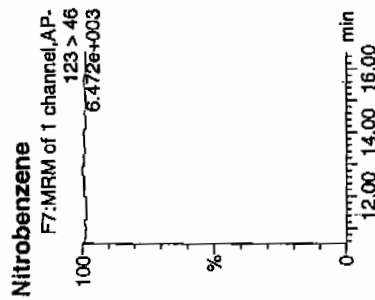
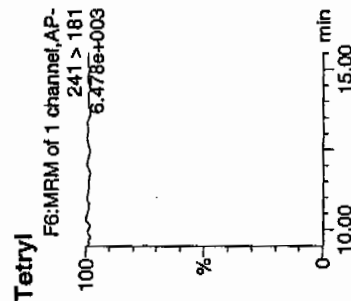
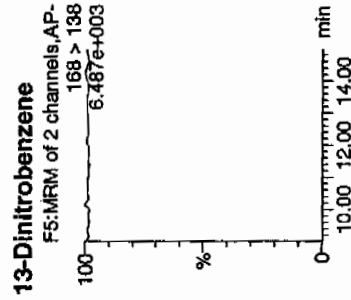
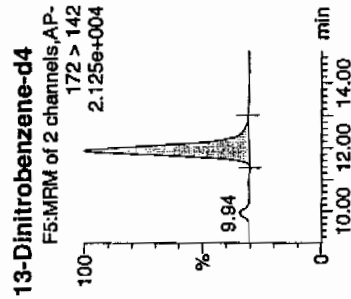
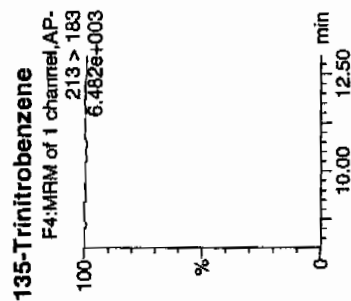
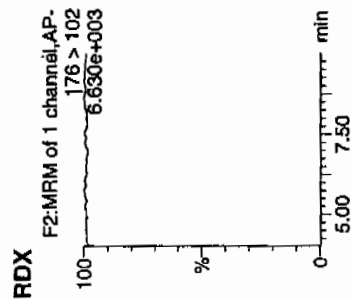
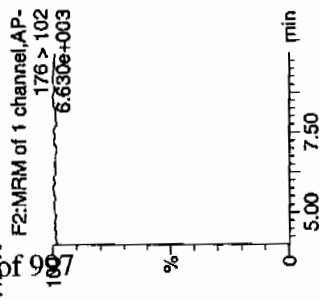
Vol: 3.5, A

2647  
4/11/10

LAU-98247 / Soas / 21

69X

RDX



4/11/10

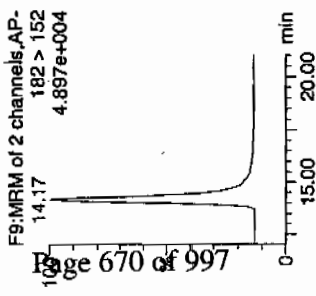
# Quantify Sample Report

GEL Laboratories, LLC / Analyst: Michael A. Penny

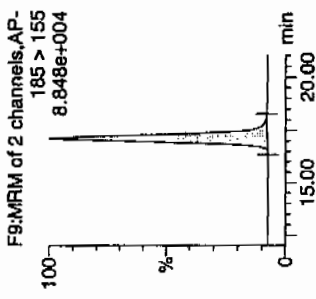
Printed: Sun Apr 11 11:47:08 2010, Page 42 of 97

Dataset: C:\MASSLYNX\New\_Exp.PRO\040810expA2.qld, Time: Sun Apr 11 11:45:05 2010

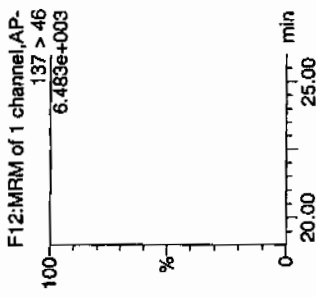
## 24-dinitrotoluene



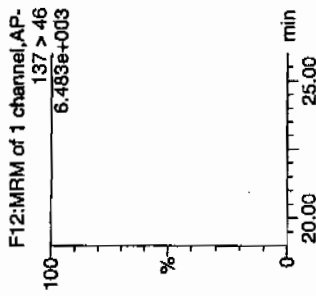
## 26-dinitrotoluene-d3



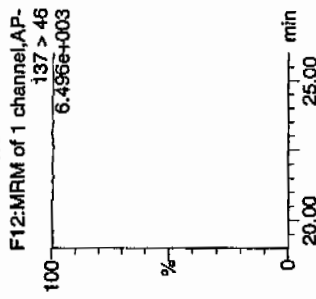
## 2-Nitrotoluene



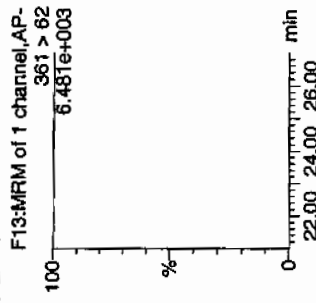
## 4-Nitrotoluene



## 3-Nitrotoluene



## PETN



ID	Name	Trace	RT	Area	S Area	Abs. Resp	Flags	Mod Date	Mod Time	Conc mg/ml	% Rec	% Dev	SN
248012005	HMX	176 > 102		5713.771									
248012005	RDX	176 > 102		5713.771									
248012005	135-Trinitrobenzene	213 > 183		5713.771									
248012005	13-Dinitrobenzene-d4	172 > 142	11.93	5713.771		5713.771	bb			439.6528	87.9	-12.1	327.5
248012005	13-Dinitrobenzene	168 > 138		5713.771									
248012005	Tetryl	241 > 181		5713.771									
248012005	Nitrobenzene	123 > 46		5713.771									
248012005	4-Amino-26-dinitrotoluene	197 > 167		33495.875									
248012005	2-Amino-46-dinitrotoluene	197 > 180		33495.875									
248012005	246-Trinitrotoluene	227 > 210		33495.875									
248012005	34-dinitrotoluene	182 > 152	14.17	17686.189		17686.189	bb			257.4206	103.0	3.0	509.7
248012005	26-dinitrotoluene	182 > 152		33495.875				MM-	11-Apr-10	11:40:27			
248012005	24-dinitrotoluene	182 > 152		33495.875									
248012005	26-dinitrotoluene-d3	185 > 155	17.14	33495.875		33495.875	bb			424.2284	84.8	-15.2	4010.6
248012005	2-Nitrotoluene	137 > 46		33495.875									
248012005	4-Nitrotoluene	137 > 46		33495.875									
248012005	3-Nitrotoluene	137 > 46		33495.875									
248012005	PETN	361 > 62		33495.875									

1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-8480

Lab Code: GEL

GEL Job No (SDG) 10-2027

Matrix: SOIL

GEL Sample ID: 248012005

Sample Amount 2

Moisture: 10.8

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958246

Concentrated Extract Volume (mL) 10

Date Extracted: 02-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03310066.wiff

Date Analyzed: 01-APR-10 01:42

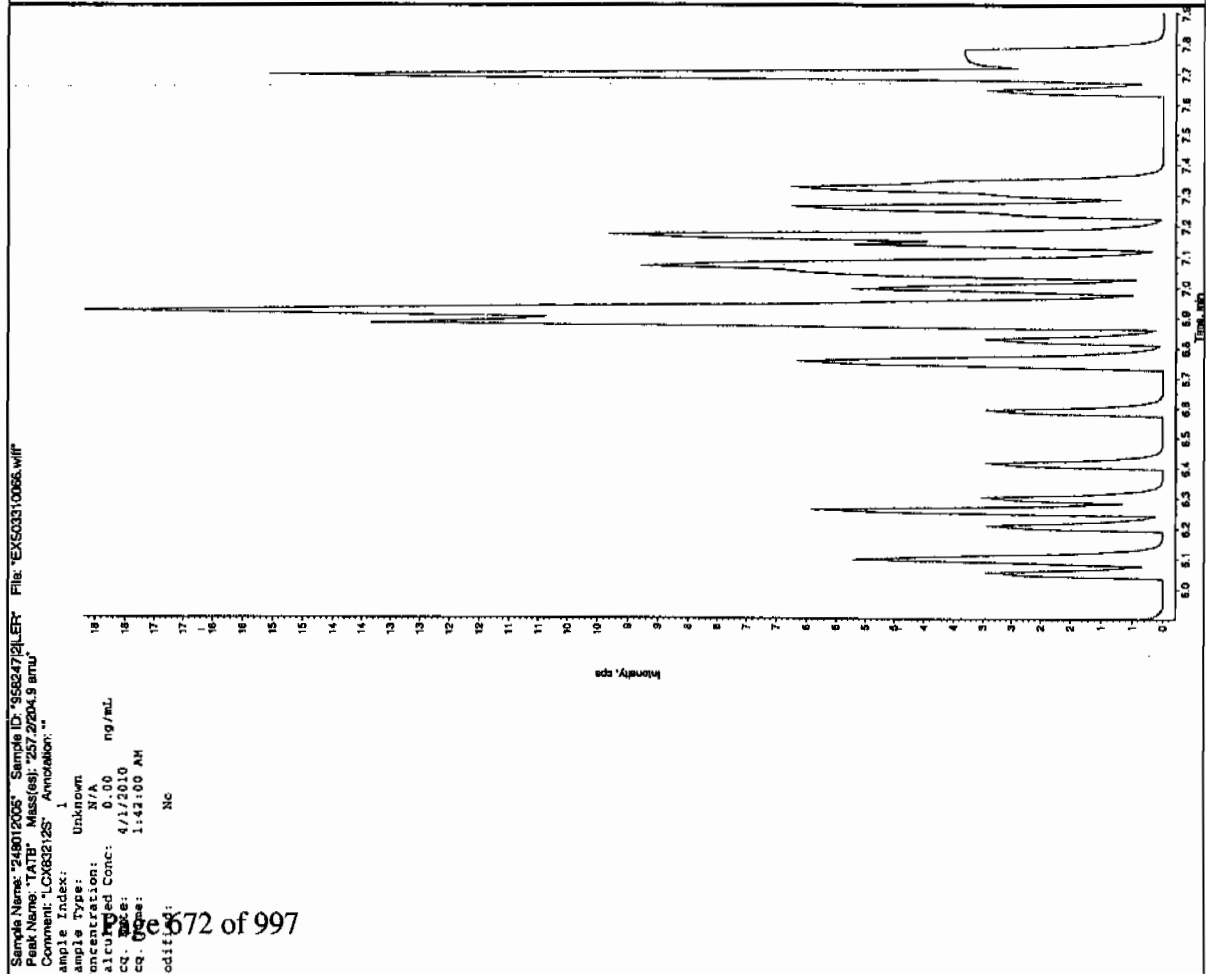
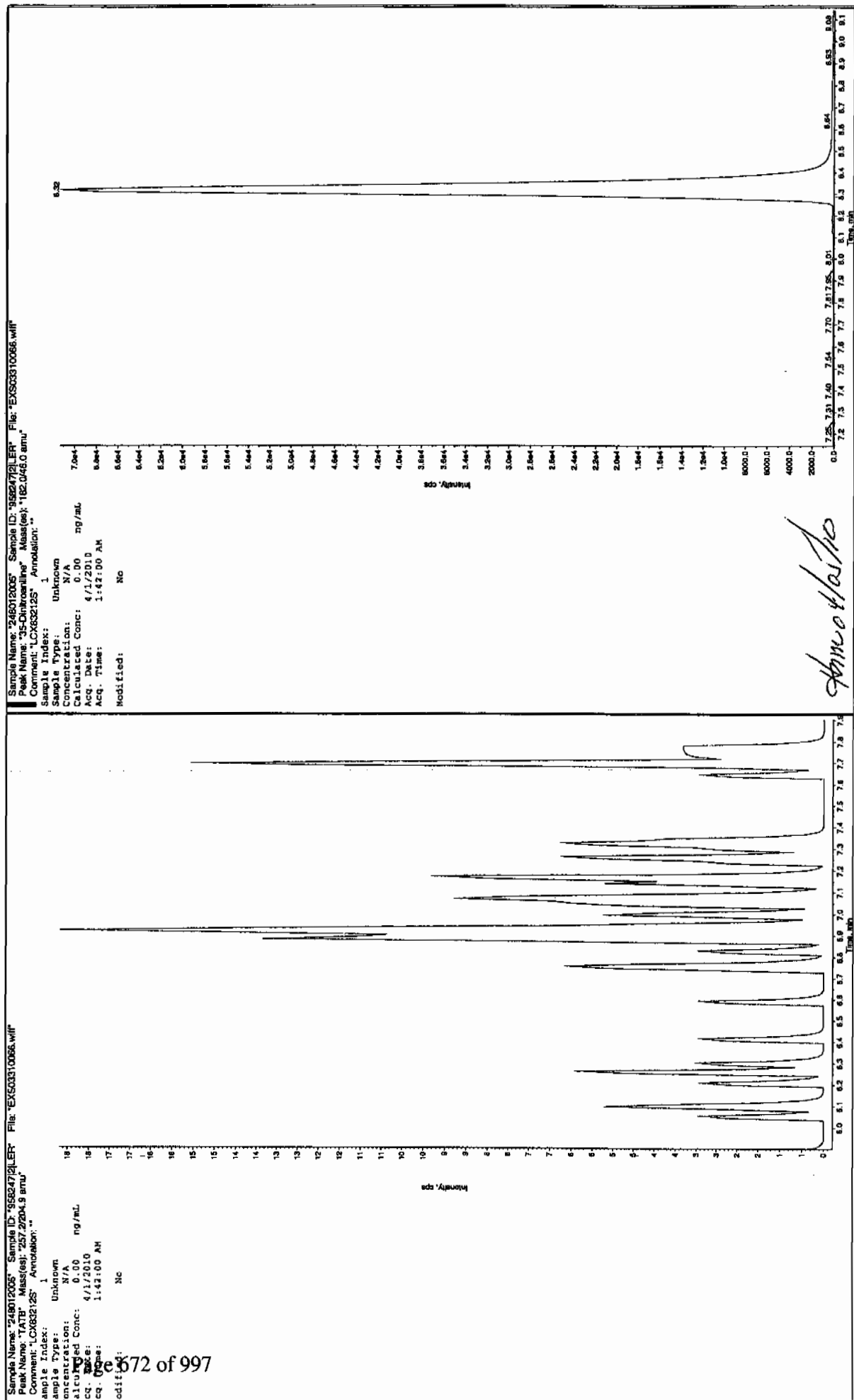
Units: ug/kg

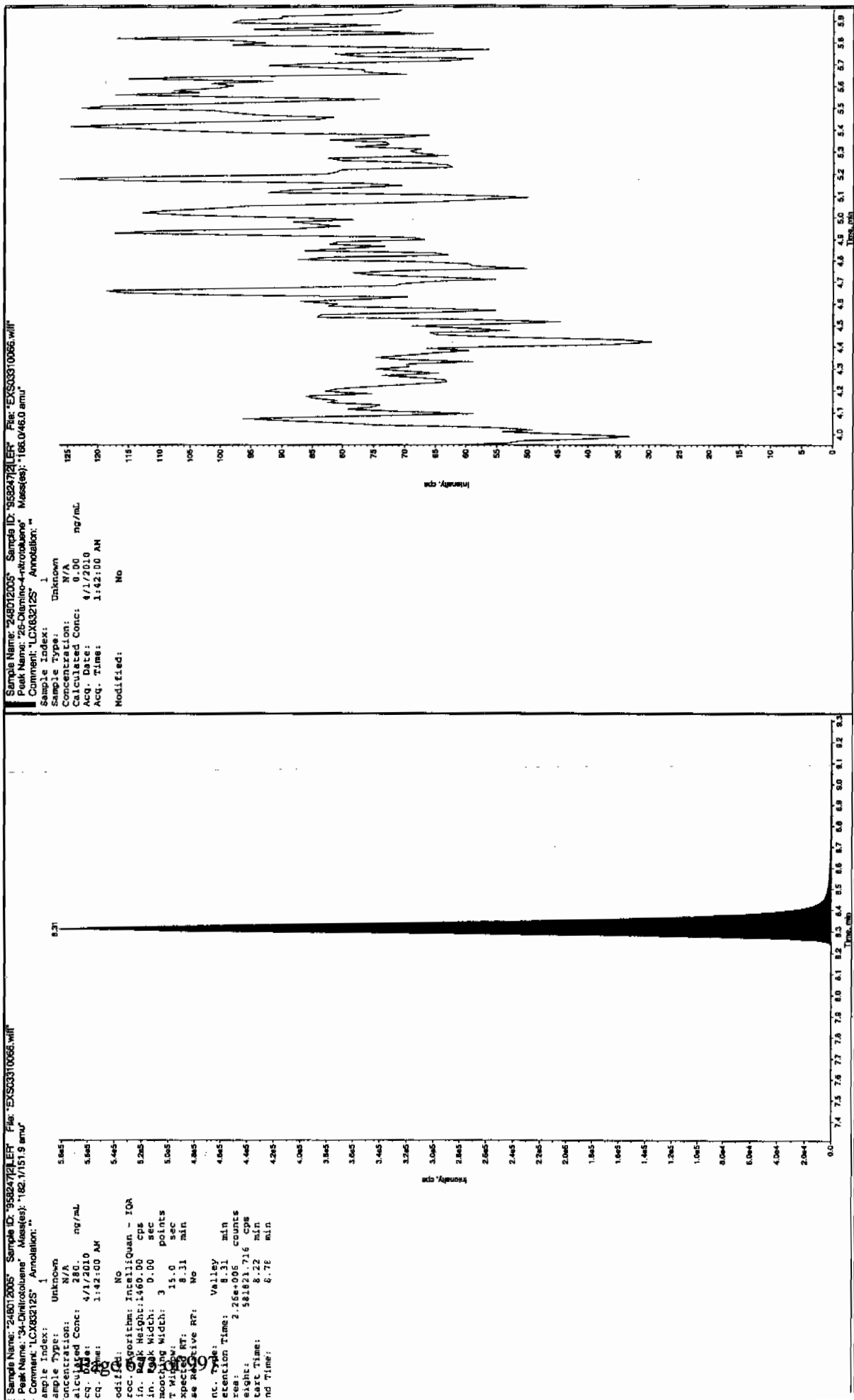
Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

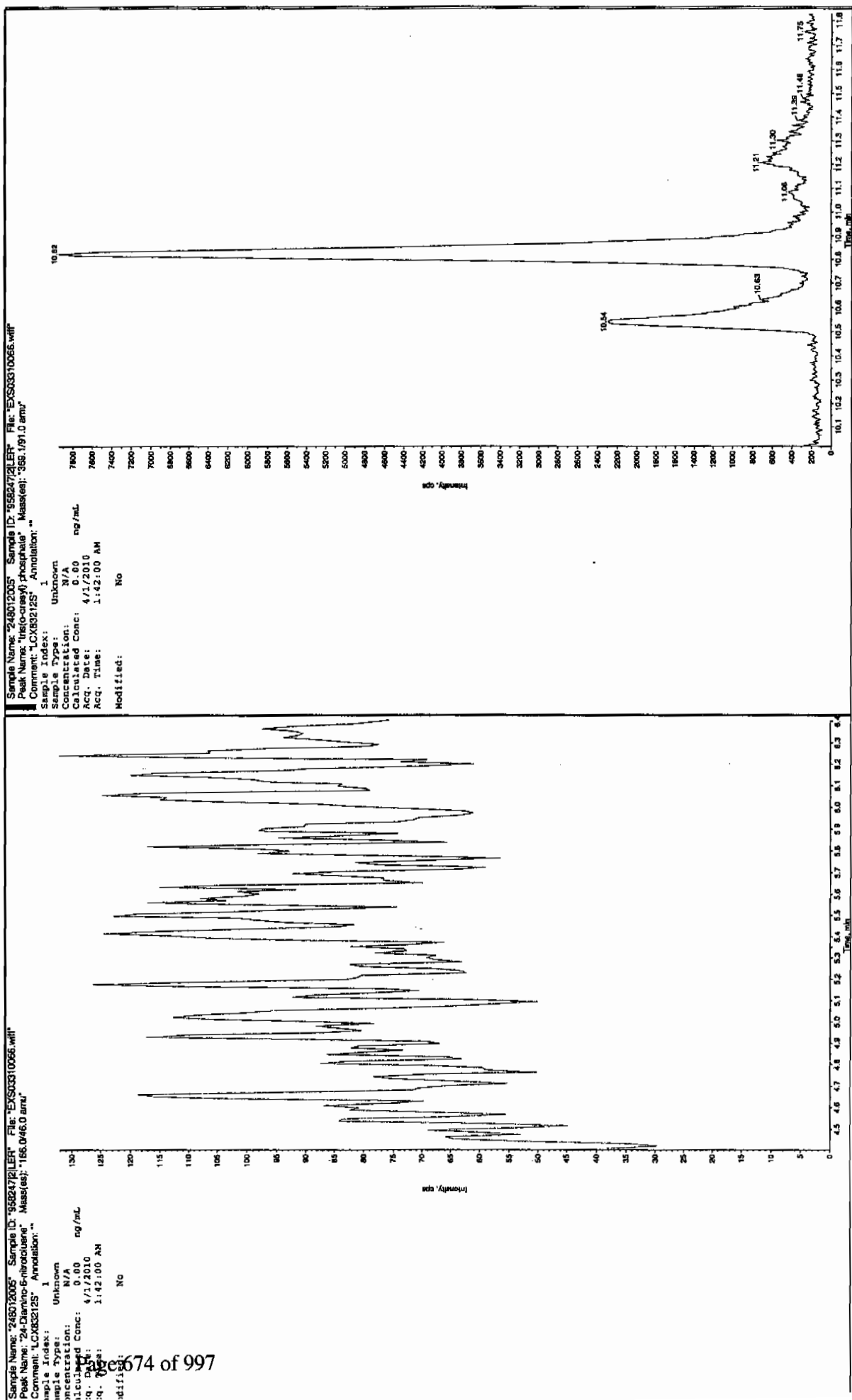
\*Concentration =

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

Run 418710







EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-8474

Lab Code: GEL

GEL Job No (SDG) 10-2027

Matrix: SOIL

GEL Sample ID: 248012006

Sample Amount 2

Moisture: 12.8

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958246

Concentrated Extract Volume (mL) 10

Date Extracted: 02-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0408096a

Date Analyzed: 10-APR-10 20:18

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



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Name: C:\MASSLYN\NEW\_EXP.PRO\PRO\Data\EXP0408096a

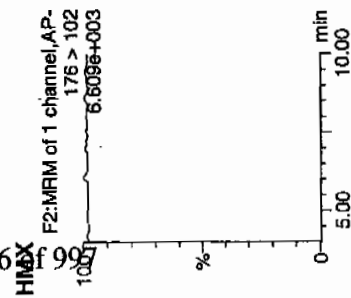
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Time: 20:18:20

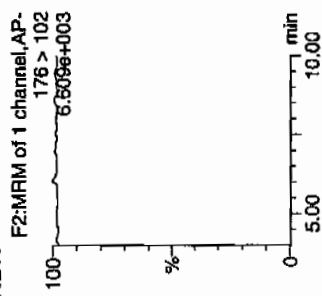
100248012006

Vlak: 3:5.B

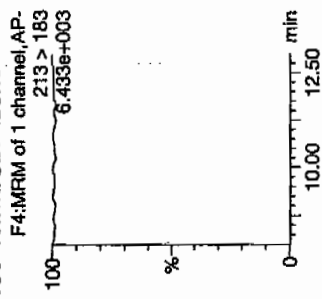
576



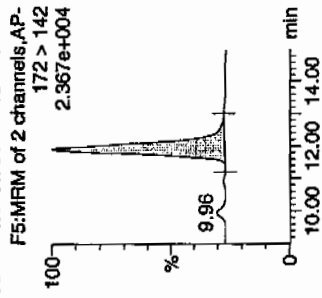
## RDX



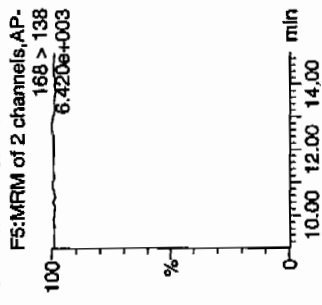
### 135-Trinitrobenzene



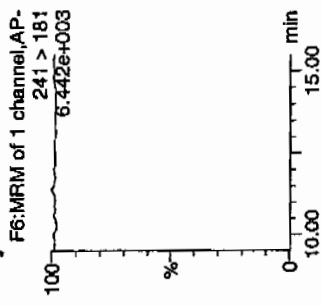
**13-Dinitrobenzene-d4**



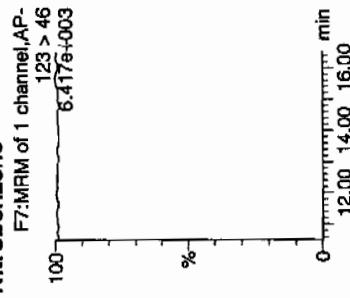
### 13-Dinitrobenzene



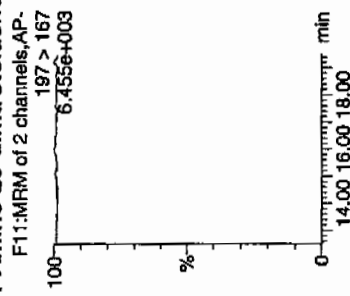
## Tetryl



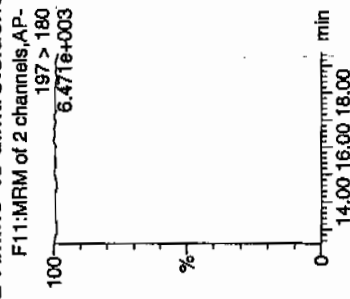
## Nitrobenzene



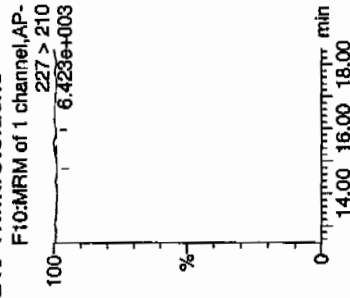
### 4-Amino-2,6-dinitrotoluene



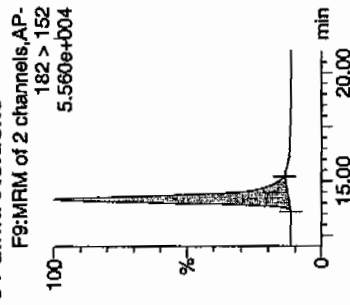
## 2-Amino-4,6-dinitrotoluene



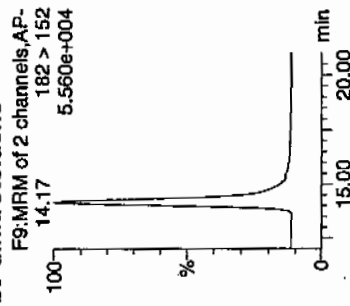
## 246-Trinitrotoluene



### 34-dinitrotoluene

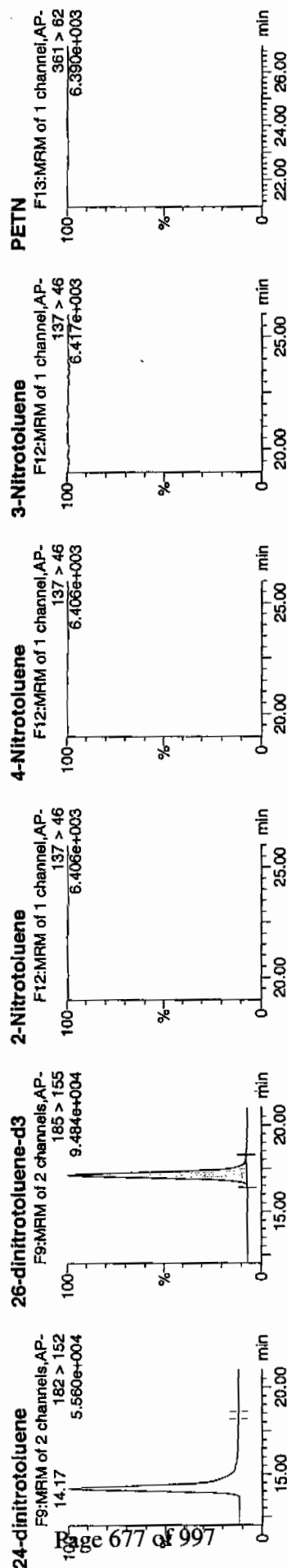


## 2,6-dinitrotoluene



2/11/12

Dataset: C:\MASSLYN\New\_Exp.PRO\040810expA2.qld, Time: Sun Apr 11 11:45:05 2010



ID	Name	Trace	Area	IS Area	Abs Resp	Flags	Mod Date	Mod Time	%Norm	%Rec	%Dev	SN
248012006	HMX	176 > 102		6556.367								
248012006	RDX	176 > 102		6556.367								
248012006	135-Trinitrobenzene	213 > 183		6556.367								
248012006	13-Dinitrobenzene-d4	172 > 142	11.92	6556.367	6556.367	bb			504.4873	100.9	0.9	385.3
248012006	13-Dinitrobenzene	168 > 138		6556.367								
248012006	Tetryl	241 > 181		6556.367								
248012006	Nitrobenzene	123 > 46		6556.367								
248012006	4-Amino-26-dinitrotoluene	197 > 167		36139.023								
248012006	2-Amino-46-dinitrotoluene	197 > 180		36139.023								
248012006	246-Trinitrotoluene	227 > 210		36139.023			MM- 11-Apr-10	11:34:24				
248012006	34-dinitrotoluene	182 > 152	14.17	20545.242	284.253	bb			277.1630	110.9	10.9	863.4
248012006	26-dinitrotoluene	182 > 152		36139.023								
248012006	24-dinitrotoluene	182 > 152		36139.023			MM- 11-Apr-10	11:42:53				
248012006	26-dinitrotoluene-d3	185 > 155	17.12	36139.023	36139.023	bb			457.7041	91.5	-8.5	1459.0
248012006	2-Nitrotoluene	137 > 46		36139.023								
248012006	4-Nitrotoluene	137 > 46		36139.023								
248012006	3-Nitrotoluene	137 > 46		36139.023								
248012006	PETN	361 > 62		36139.023								

1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-8474

Lab Code: GEL

GEL Job No (SDG) 10-2027

Matrix: SOIL

GEL Sample ID: 248012006

Sample Amount 2

Moisture: 12.8

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958246

Concentrated Extract Volume (mL) 10

Date Extracted: 02-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03310067.wiff

Date Analyzed: 01-APR-10 01:57

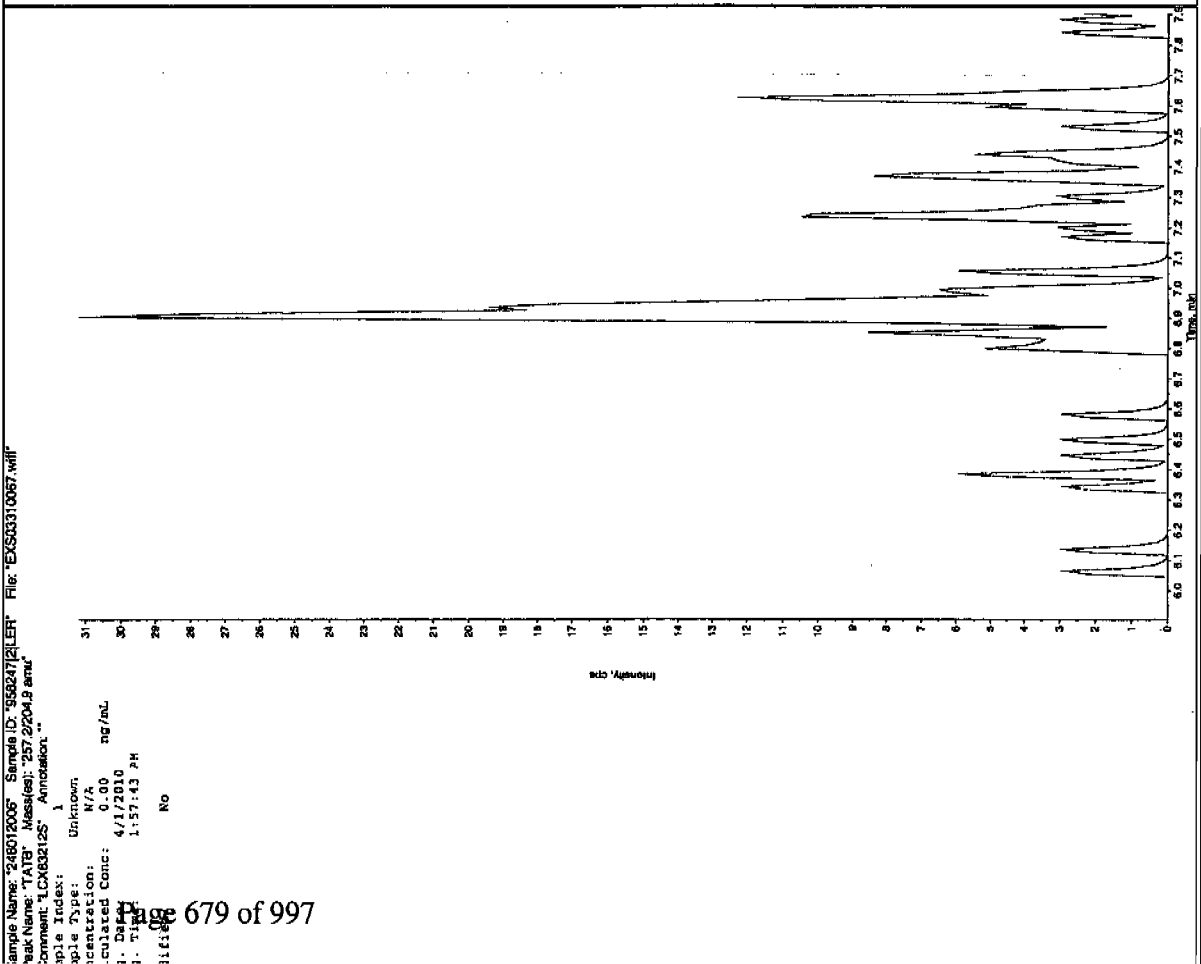
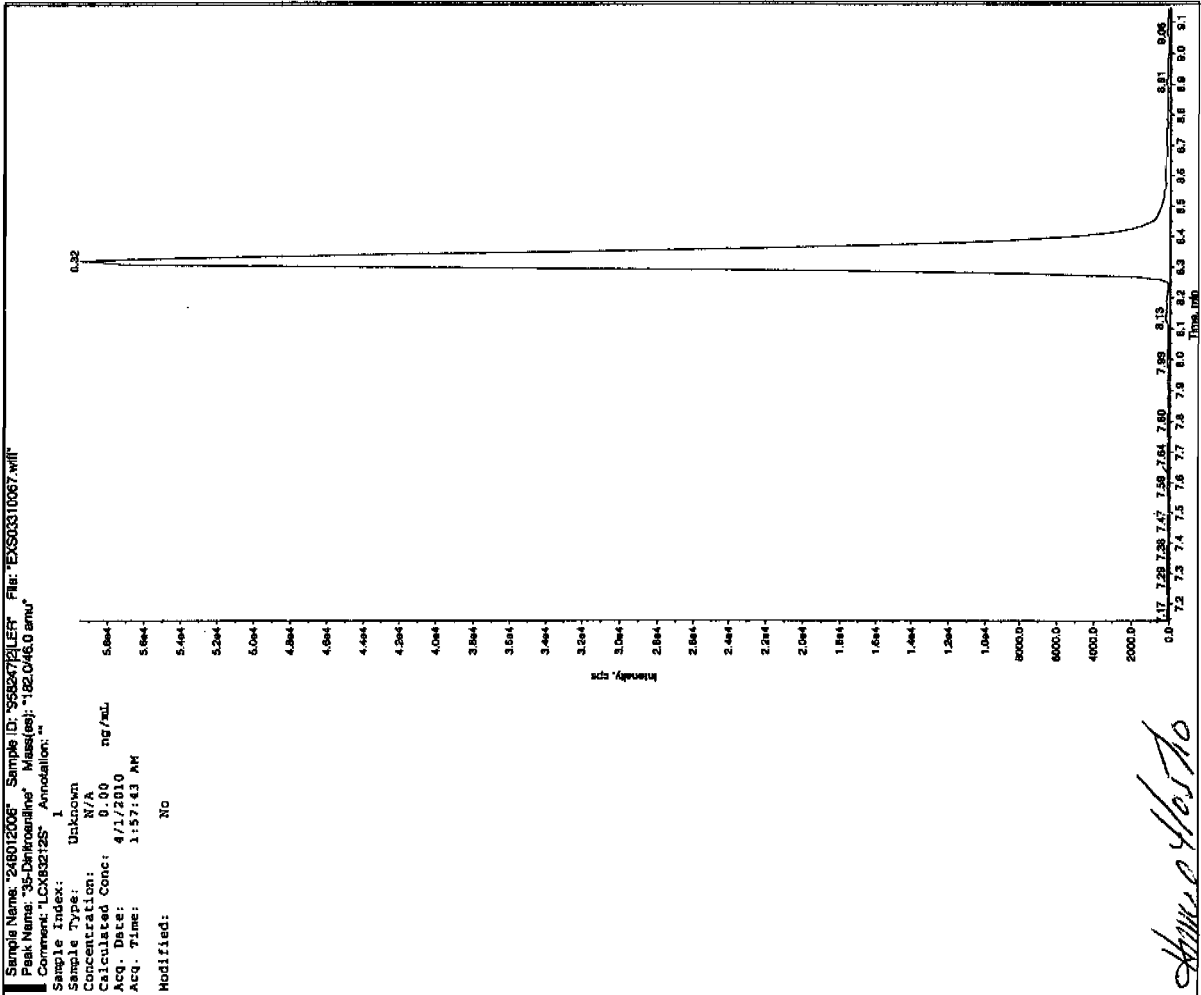
Units: ug/kg

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

\*Concentration =

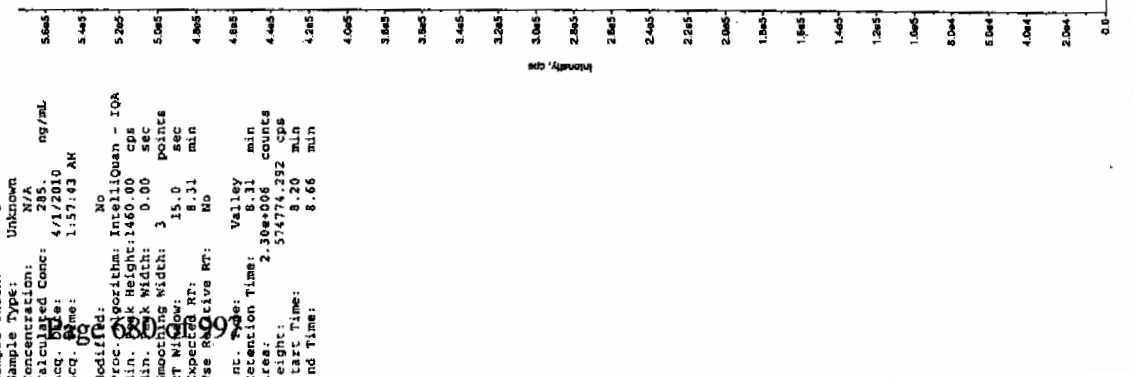
Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor

See 41510

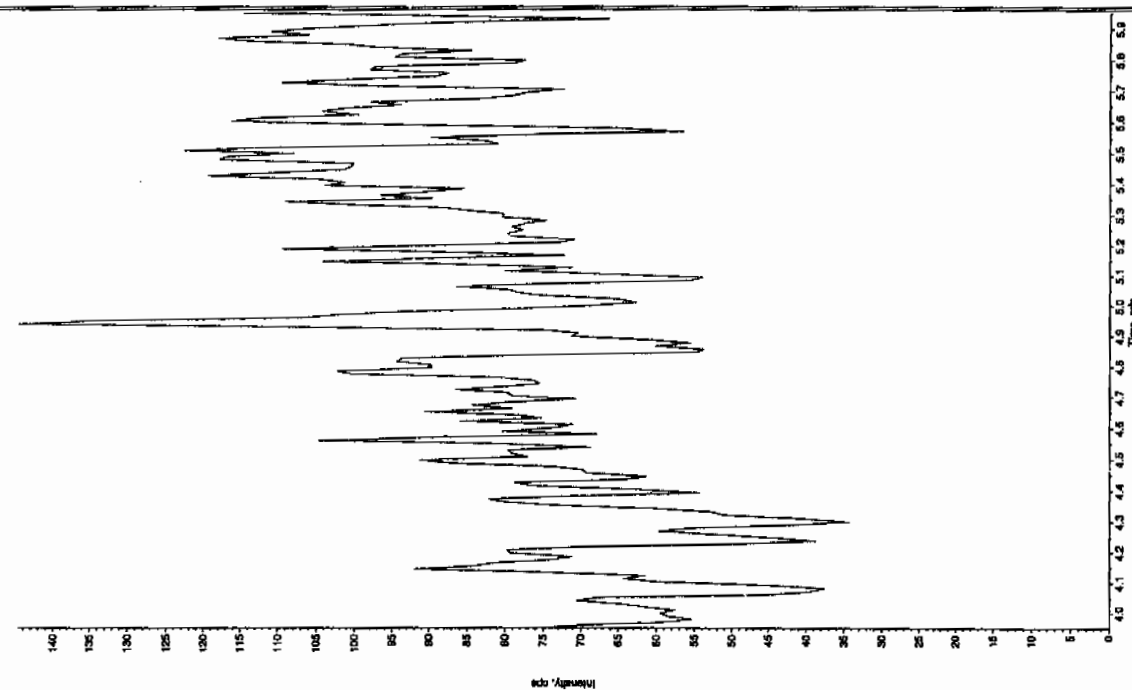


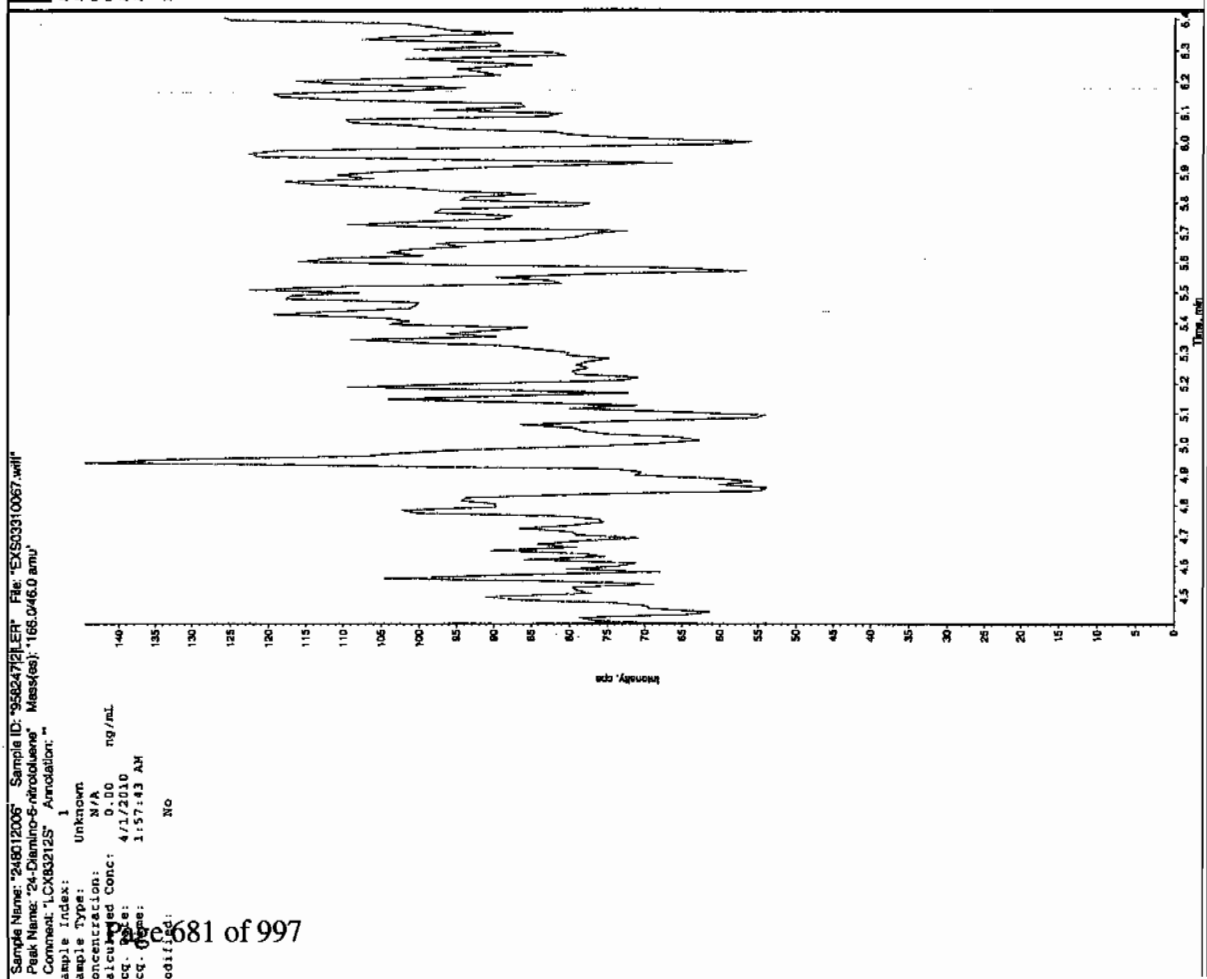
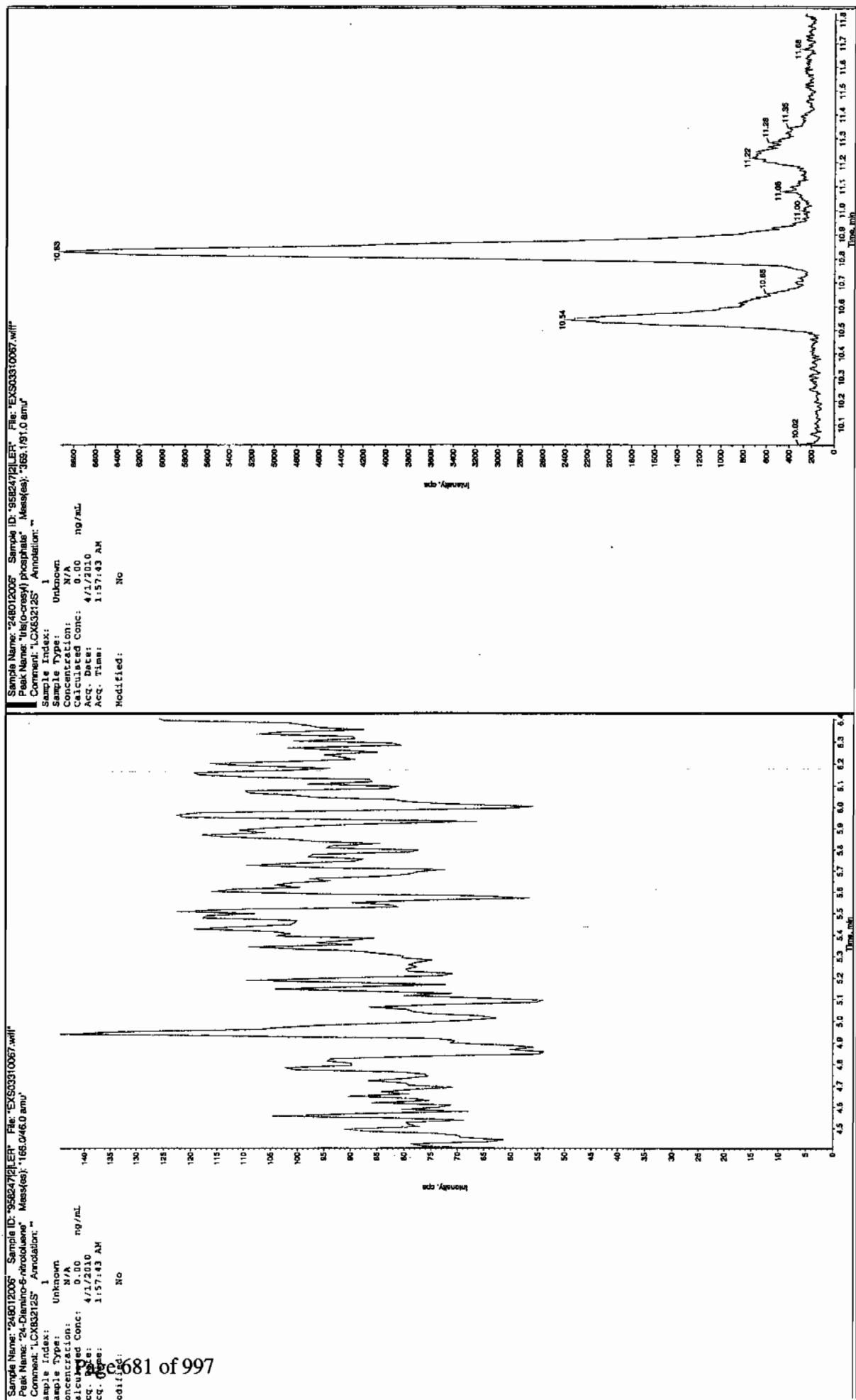
EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "249012006" Sample ID: "9562472\LER" File: "EX503310067.wiff"  
Peak Name: "34-Dinitrotoluene" Mass(es): "182 1/151.9 amu"  
Comment: "LCX832125" Annotation: ""



Sample Name: "248012006" Sample ID: "958247124LER" File: "EXS03310067.wiff"  
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"  
Comment: "LCX83212S" Annotation: ""





1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-8478

Lab Code: GEL

GEL Job No (SDG) 10-2027

Matrix: SOIL

GEL Sample ID: 248012007

Sample Amount 2

Moisture: 4.7

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958246

Concentrated Extract Volume (mL) 10

Date Extracted: 02-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0408097a

Date Analyzed: 10-APR-10 20:47

Units: ug/kg

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

\*Concentration =

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

# Quantify Sample Report

GEL Laboratories, LLC / Analyst: Michael A. Penny

Printed: Sun Apr 11 11:47:08 2010, Page 45 of 97

Dataset: C:\MASSLYNX\New\_Exp.PRO\040810expA2.qld, Time: Sun Apr 11 11:45:05 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0408097a

Date: 10-Apr-2010

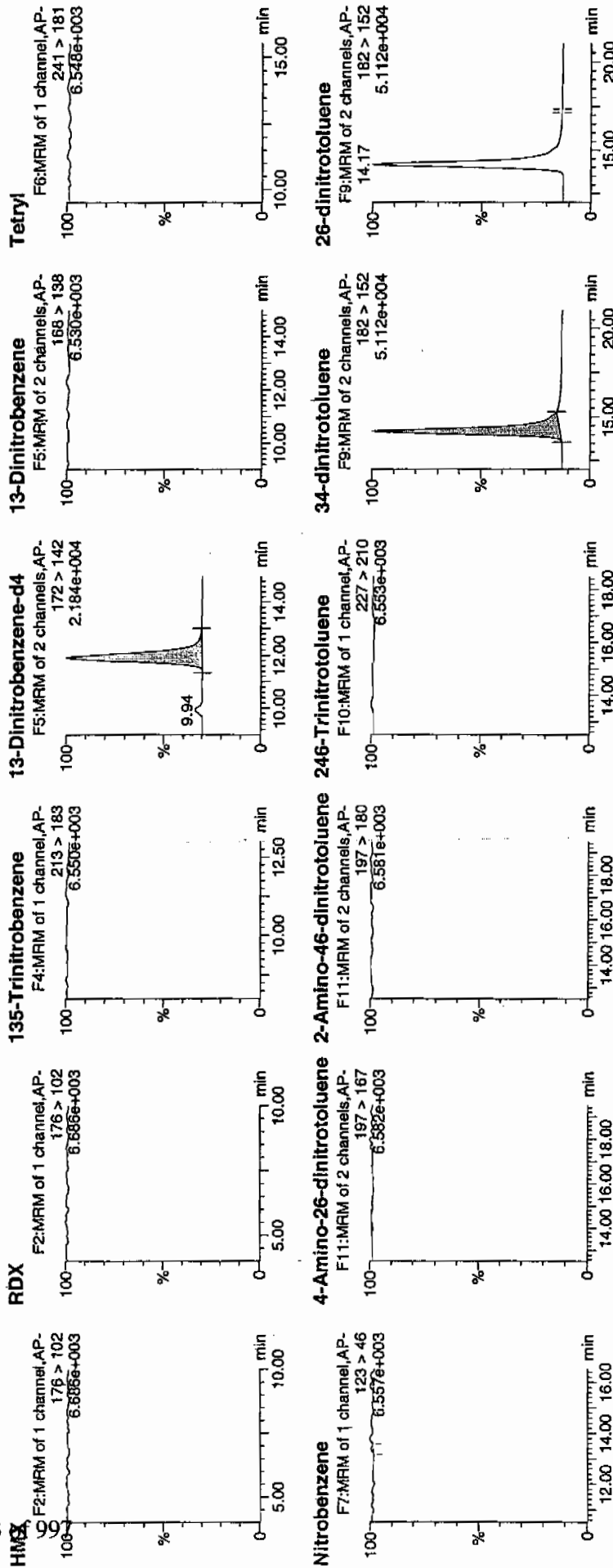
Time: 20:47:50

ID: 248012007

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LANC / 83247 / 8022 / 21



Handwritten: 04/12/10

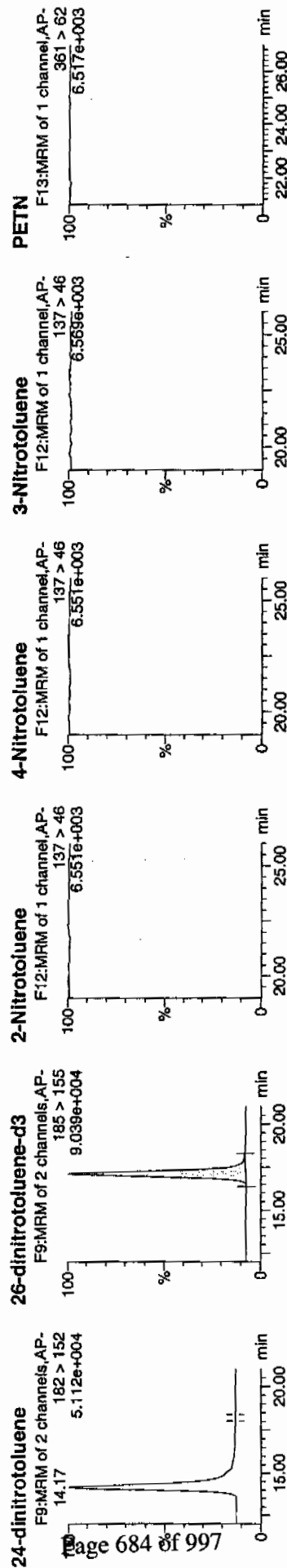


# Quantify Sample Report

GEL Laboratories, LLC / Analyst: Michael A. Penny

Printed: Sun Apr 11 11:47:08 2010, Page 46 of 97

Dataset: C:\MASSLYNX\New\_Exp.PRO\040810expA2.qld, Time: Sun Apr 11 11:45:05 2010



ID	Name	Trace	RT	Area	S Area	Abs. Resp	Flags	Mod Date	Mod Time	Intens	%Area	%Dev	Ratio
248012007	HMX	176 > 102		5992.759									
248012007	RDX	176 > 102		5992.759									
248012007	135-Trinitrobenzene	213 > 183		5992.759									
248012007	13-Dinitrobenzene-d4	172 > 142	11.92	5992.759		5992.759	bb	MM-	11-Apr-10	11:33:54	461.1198	92.2	-7.8
248012007	13-Dinitrobenzene	168 > 138		5992.759									322.4
248012007	Tetryl	241 > 181		5992.759									
248012007	Nitrobenzene	123 > 46		5992.759									
248012007	4-Amino-26-dinitrotoluene	197 > 167		34285.094									
248012007	2-Amino-46-dinitrotoluene	197 > 180		34285.094									
248012007	246-Trinitrotoluene	227 > 210		34285.094									
248012007	34-dinitrotoluene	182 > 152	14.17	19342.771		19342.771	bb	MM-	11-Apr-10	11:40:19	275.0513	110.0	10.0
248012007	26-dinitrotoluene	182 > 152		34285.094									
248012007	24-dinitrotoluene	182 > 152		34285.094									
248012007	26-dinitrotoluene-d3	185 > 155	17.12	34285.094		34285.094	bb	MM-	11-Apr-10	11:42:56	434.2239	86.8	-13.2
248012007	2-Nitrotoluene	137 > 46		34285.094									1579.0
248012007	4-Nitrotoluene	137 > 46		34285.094									
248012007	3-Nitrotoluene	137 > 46		34285.094									
248012007	PETN	361 > 62		34285.094									

1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-8478

Lab Code: GEL

GEL Job No (SDG) 10-2027

Matrix: SOIL

GEL Sample ID: 248012007

Sample Amount 2

Moisture: 4.7

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958246

Concentrated Extract Volume (mL) 10

Date Extracted: 02-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03310068.wiff

Date Analyzed: 01-APR-10 02:13

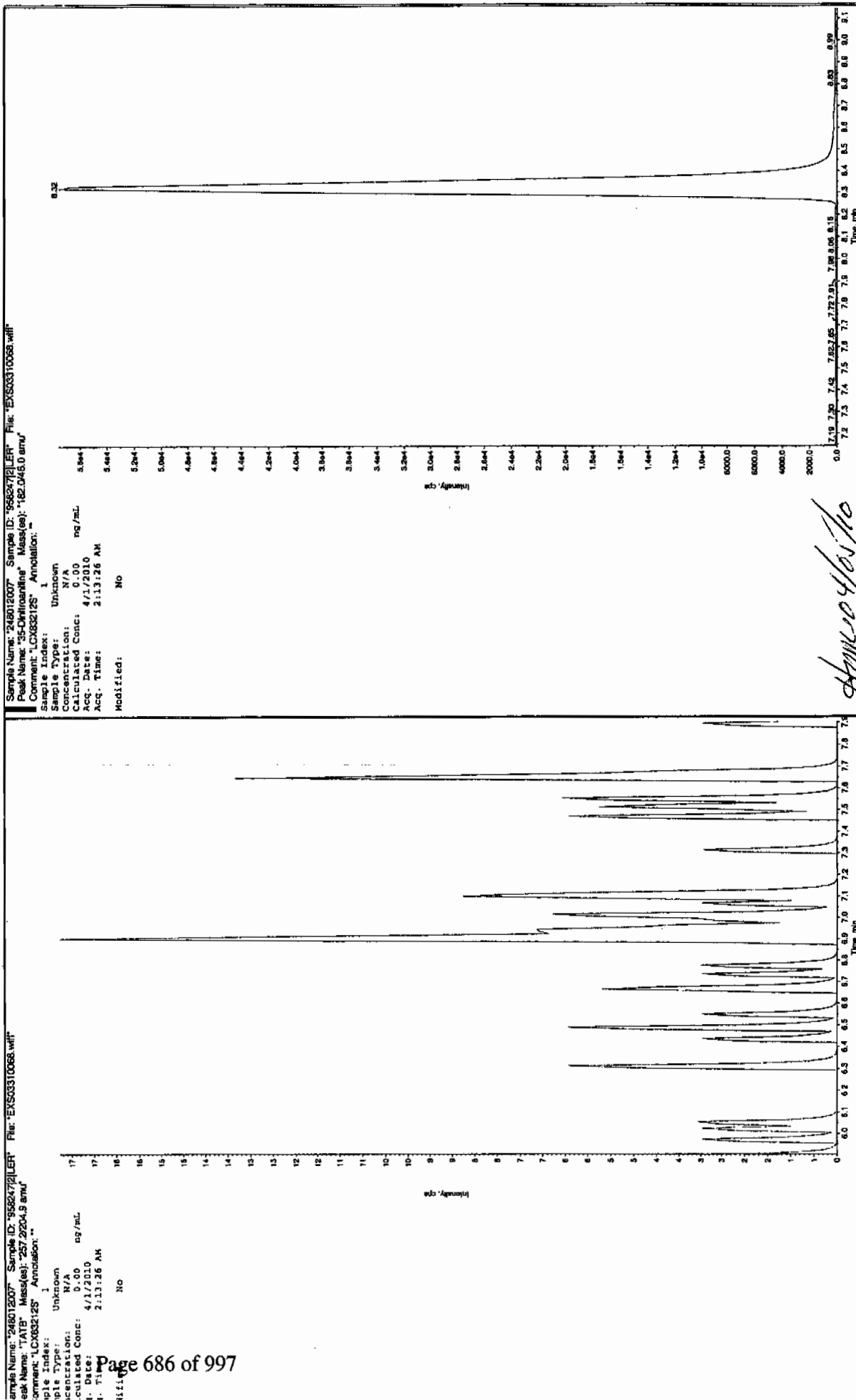
Units: ug/kg

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

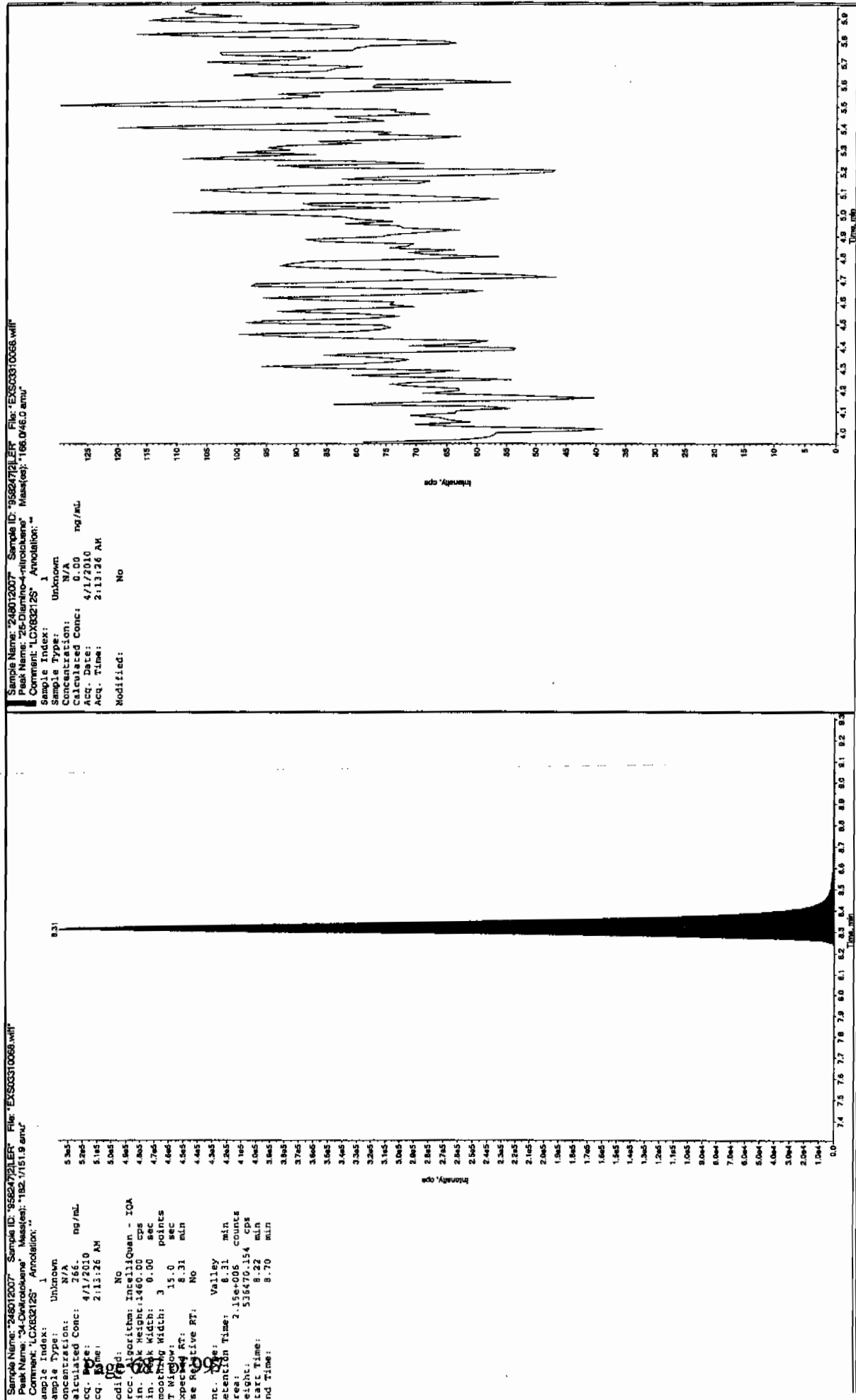
\*Concentration =

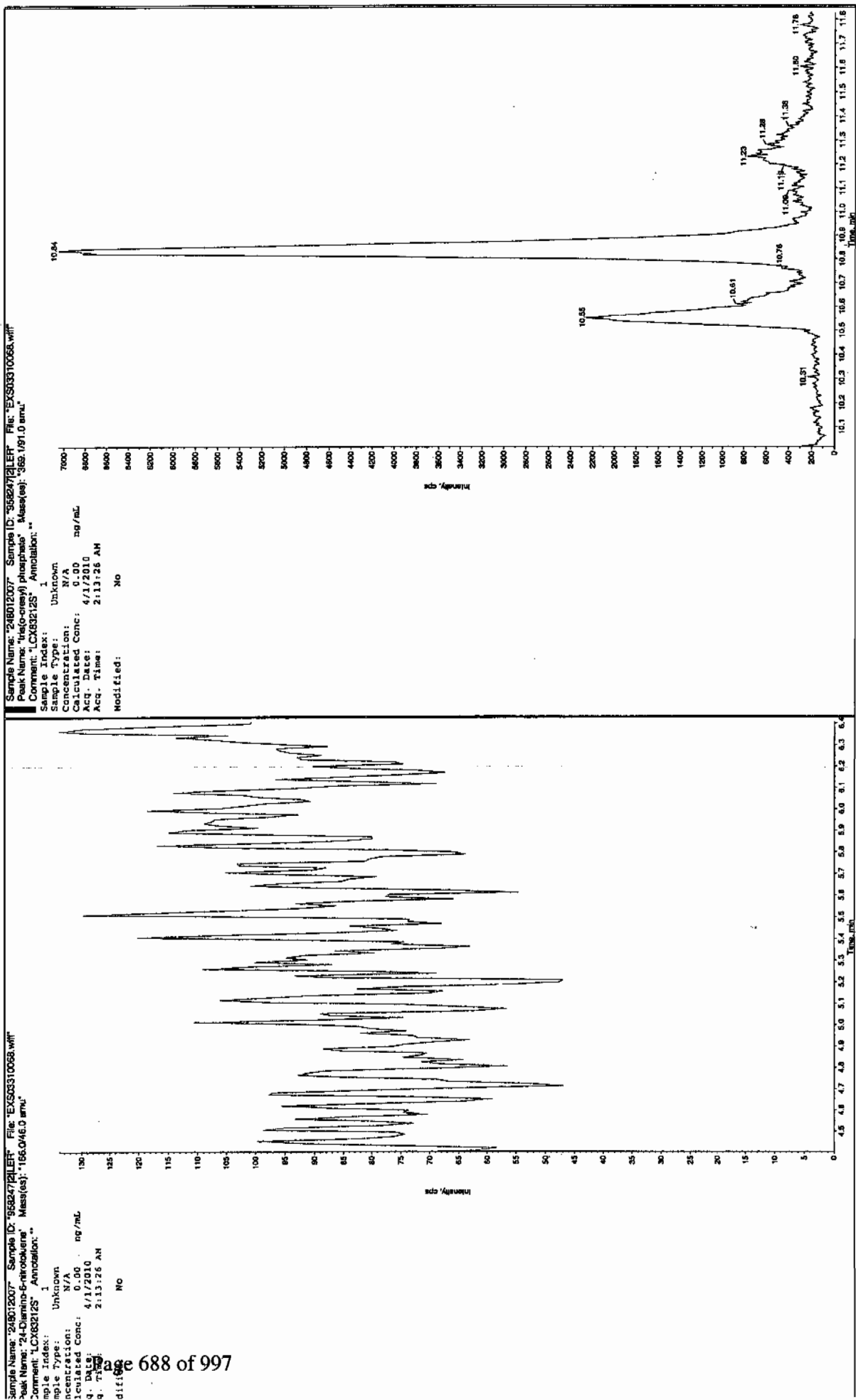
Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor

404 415/10



DEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4





1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-8483

Lab Code: GEL

GEL Job No (SDG) 10-2027

Matrix: SOIL

GEL Sample ID: 248012008

Sample Amount 2

Moisture: 2.3

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958246

Concentrated Extract Volume (mL) 10

Date Extracted: 02-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0408101a

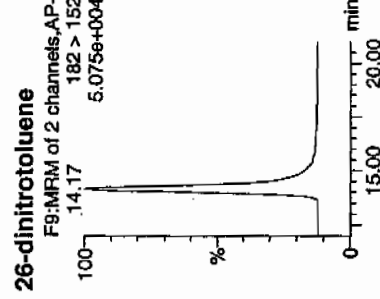
Date Analyzed: 10-APR-10 22:45

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 =

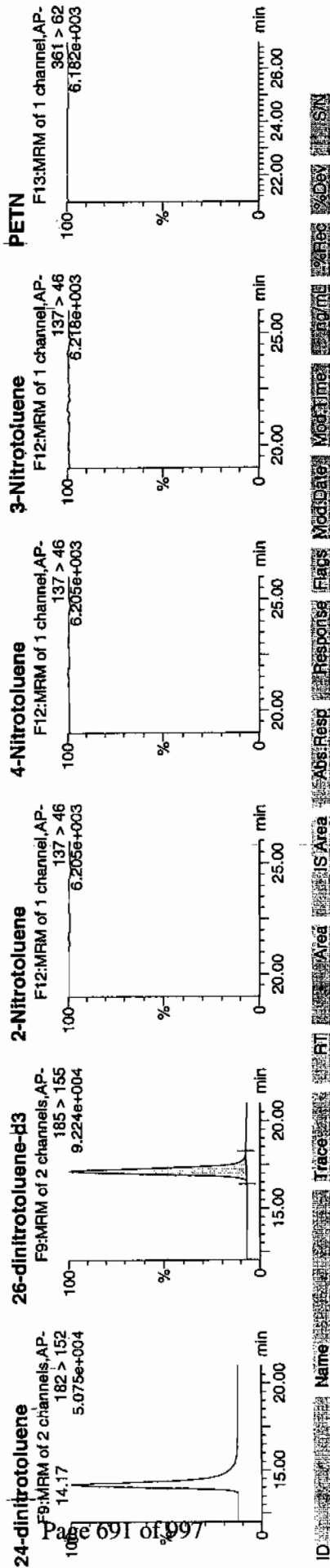
Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor



James 4/12/10

**Quantify Sample Report**  
 GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp\PRO\040810expA2.qld, Time: Sun Apr 11 11:45:05 2010



ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	%Rec	%Dev	SN
248012008	HMX	176 > 102		6021.337									
248012008	RDX	176 > 102		6021.337									
248012008	135-Trinitrobenzene	213 > 183		6021.337									
248012008	13-Dinitrobenzene-d4	172 > 142	11.89	6021.337									
248012008	13-Dinitrobenzene	168 > 138		6021.337									
248012008	Tetryl	241 > 181		6021.337									
248012008	Nitrobenzene	123 > 46		6021.337									
248012008	4-Amino-26-dinitrotoluene	197 > 167		6021.337									
248012008	2-Amino-46-dinitrotoluene	197 > 180		35280.027									
248012008	246-Trinitrotoluene	227 > 210		35280.027									
248012008	34-dinitrotoluene	182 > 152	14.17	18753.531									
248012008	26-dinitrotoluene	182 > 152		35280.027									
248012008	24-dinitrotoluene	182 > 152		35280.027									
248012008	26-dinitrotoluene-d3	185 > 155	17.12	35280.027									
248012008	2-Nitrotoluene	137 > 46		35280.027									
248012008	4-Nitrotoluene	137 > 46		35280.027									
248012008	3-Nitrotoluene	137 > 46		35280.027									
248012008	PETN	361 > 62		35280.027									



1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-8483

Lab Code: GEL

GEL Job No (SDG) 10-2027

Matrix: SOIL

GEL Sample ID: 248012008

Sample Amount 2

Moisture: 2.3

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958246

Concentrated Extract Volume (mL) 10

Date Extracted: 02-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03310069.wiff

Date Analyzed: 01-APR-10 02:29

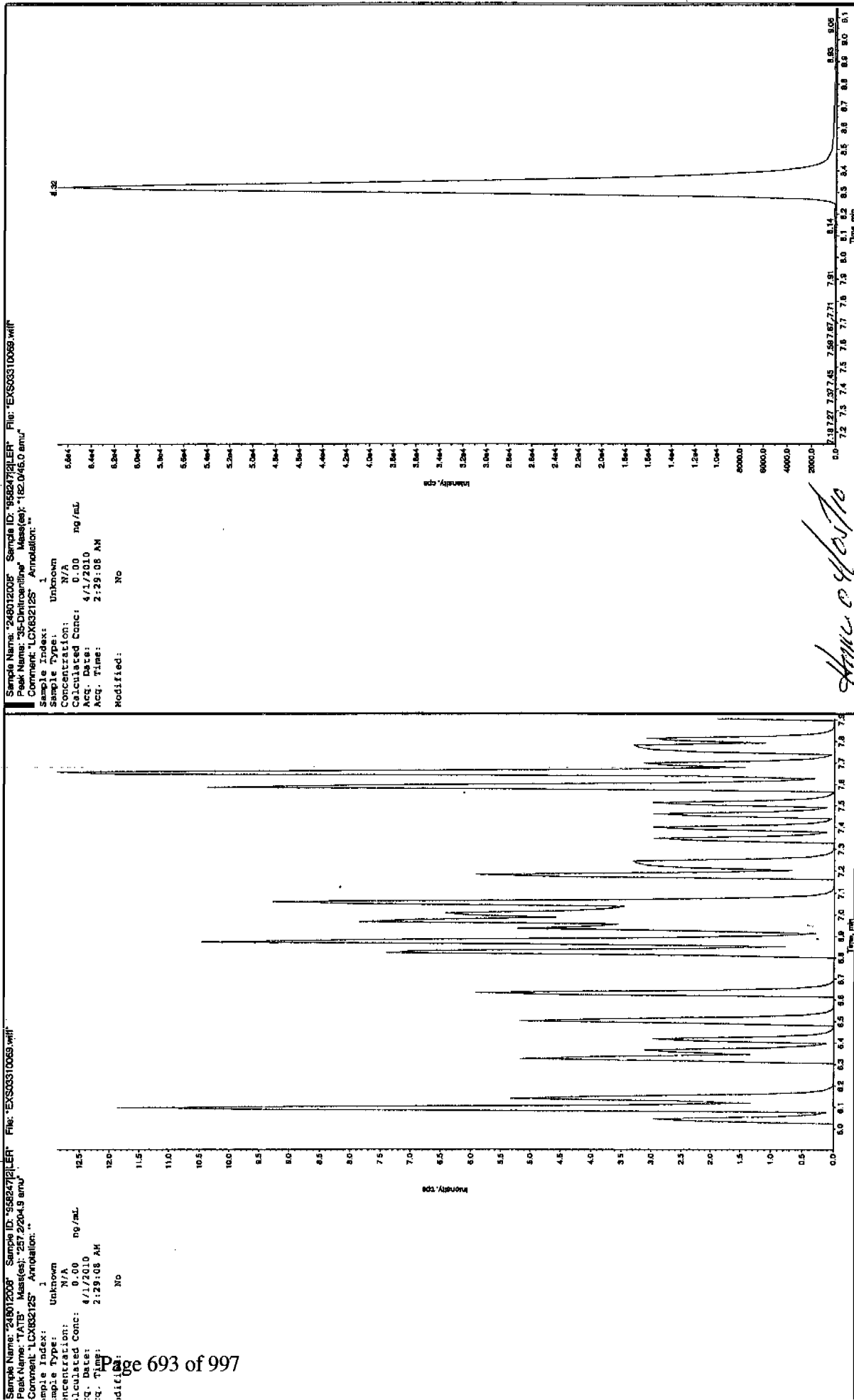
Units: ug/kg

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

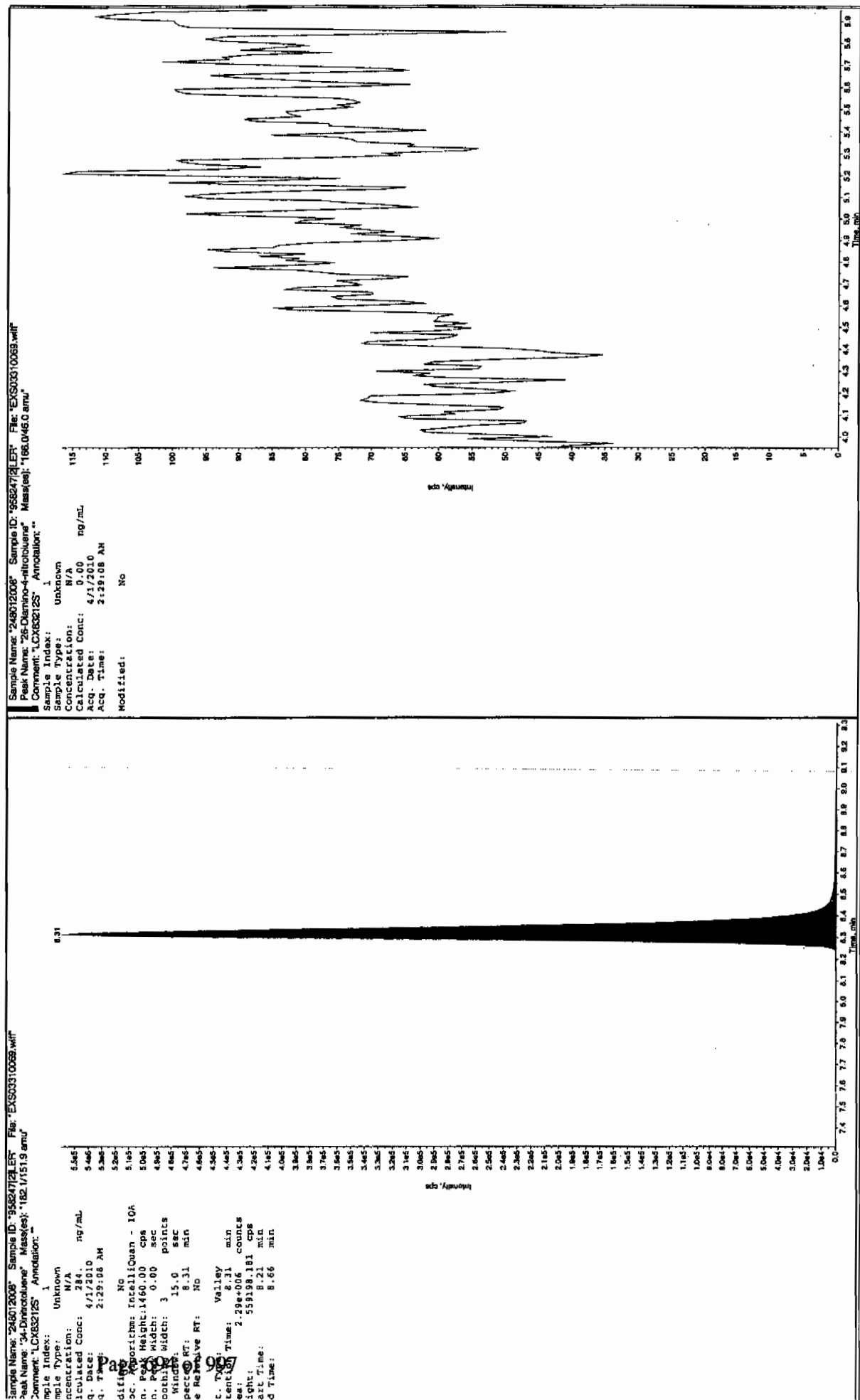
\*Concentration =

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

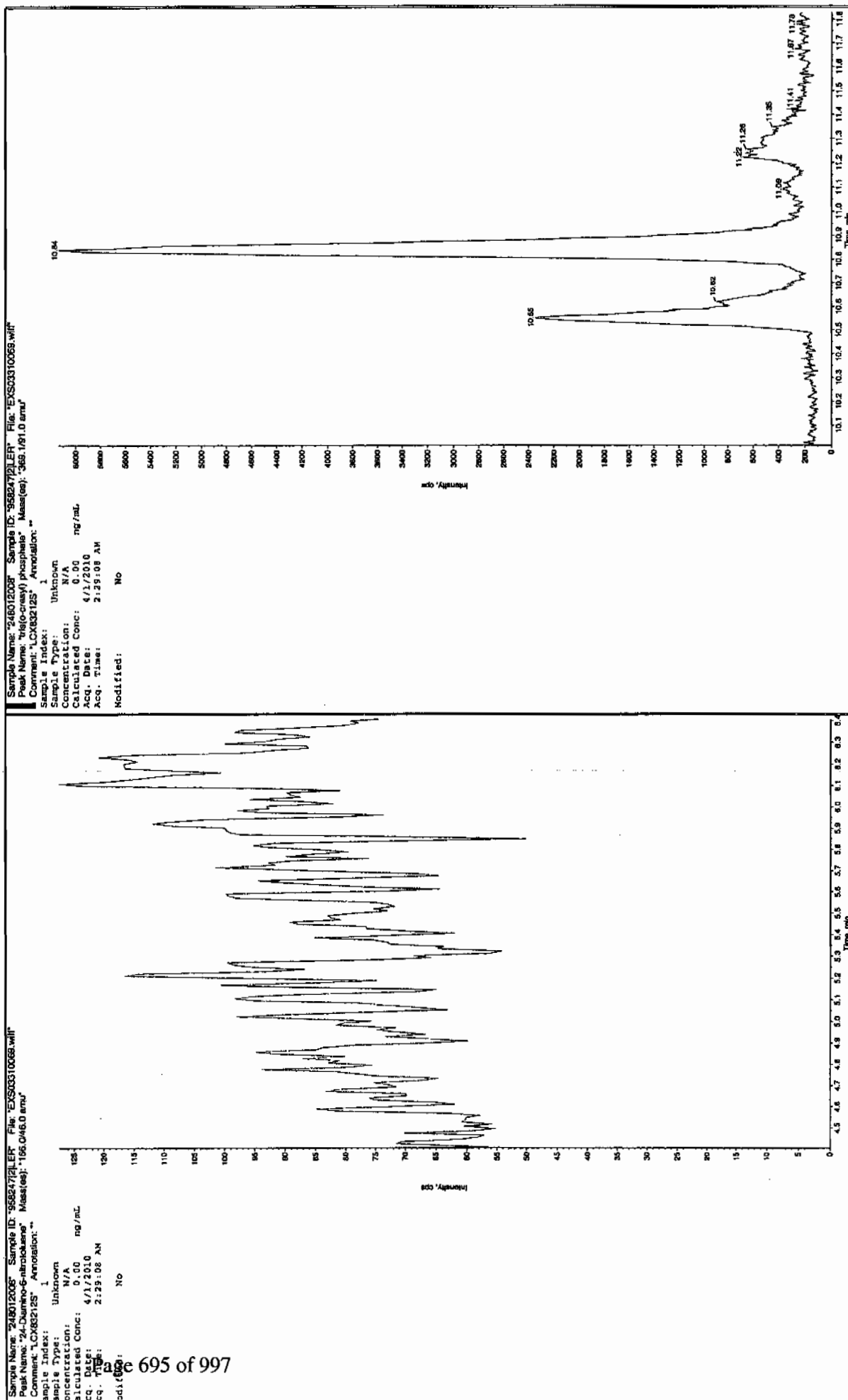
Run 415110



Run 0415110



3EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4



1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-8482

Lab Code: GEL

GEL Job No (SDG) 10-2027

Matrix: SOIL

GEL Sample ID: 248012009

Sample Amount 2

Moisture: 5.0

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958246

Concentrated Extract Volume (mL) 10

Date Extracted: 02-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0408102a

Date Analyzed: 10-APR-10 23:15

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	184	J
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\040810expA2.qld, Time: Sun Apr 11 11:45:05 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0408102a

Date: 10-Apr-2010

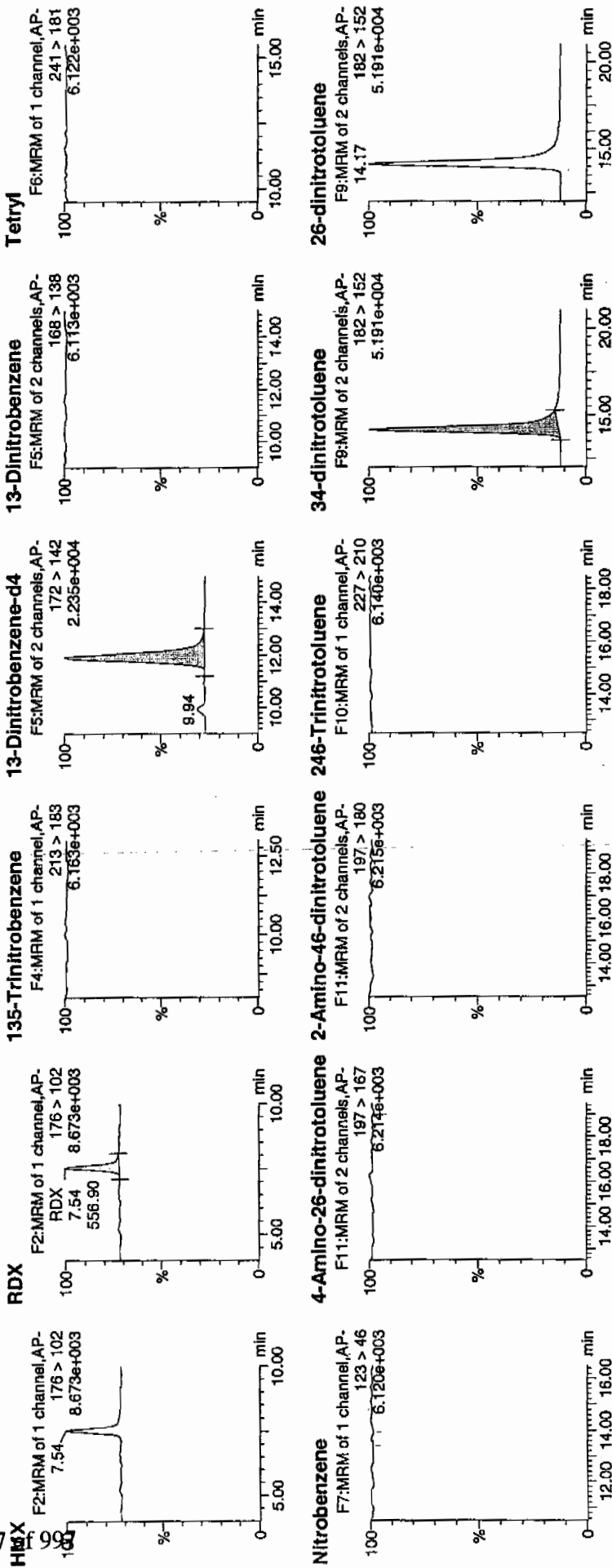
Time: 23:15:24

ID: 248012009

Vol: 3:5,E

4/11/10

195247 / 21



Handwritten signature

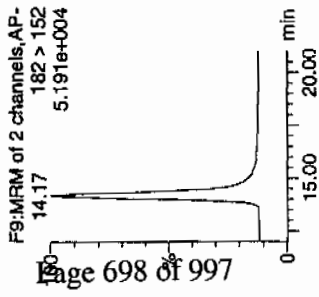
# Quantify Sample Report

GEL Laboratories, LLC / Analyst: Michael A. Penny

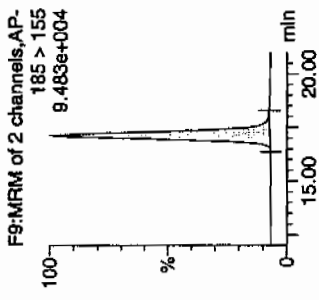
Printed: Sun Apr 11 11:47:08 2010, Page 56 of 97

Dataset: C:\MASSLYNX\New\_Exp.PRO\040810expA2.qld, Time: Sun Apr 11 11:45:05 2010

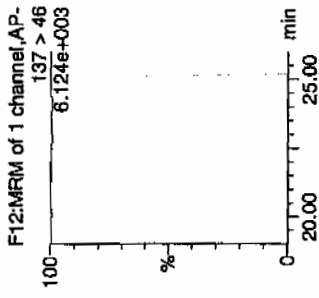
## 24-dinitrotoluene



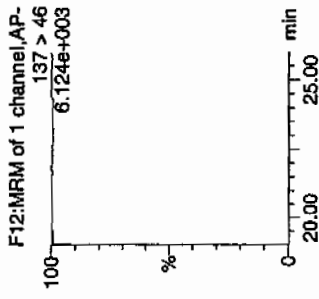
## 26-dinitrotoluene-d3



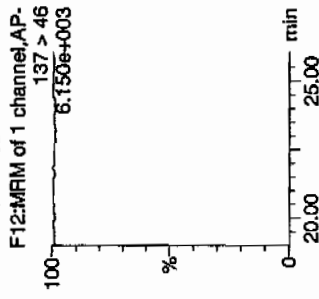
## 2-Nitrotoluene



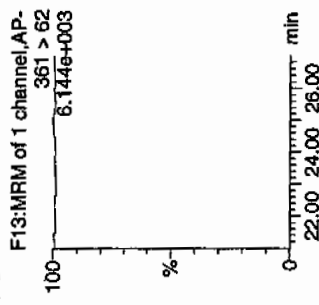
## 4-Nitrotoluene



## 3-Nitrotoluene



## PETN



ID	Name	Trace	RT	Area	IS Area	Abs Resp	Flags	Mod	Date	Mod	Time	%Rec	%Day	SN
248012009	HMX	176 > 102			6226.210									
248012009	RDX	176 > 102	7.54	556.901	6226.210	556.901	44.722	bb				18.3524		107.3
248012009	135-Trinitrobenzene	213 > 183			6226.210									
248012009	13-Dinitrobenzene-d4	172 > 142	11.92	6226.210		6226.210	6226.210	bb				479.0830	95.8	336.5
248012009	13-Dinitrobenzene	168 > 138			6226.210									
248012009	Tetryl	241 > 181			6226.210									
248012009	Nitrobenzene	123 > 46			6226.210									
248012009	4-Amino-26-dinitrotoluene	197 > 167			36529.078									
248012009	2-Amino-46-dinitrotoluene	197 > 180			36529.078									
248012009	246-Trinitrotoluene	227 > 210			36529.078									
248012009	34-dinitrotoluene	182 > 152	14.17	19521.629	36529.078	19521.629	267.207	bb	MM-	11-Apr-10	11:33:57	260.5420	104.2	667.7
248012009	26-dinitrotoluene	182 > 152			36529.078									
248012009	24-dinitrotoluene	182 > 152			36529.078									
248012009	26-dinitrotoluene-d3	185 > 155	17.11	36529.078		36529.078	36529.078	bb				462.6442	92.5	2479.2
248012009	2-Nitrotoluene	137 > 46			36529.078									
248012009	4-Nitrotoluene	137 > 46			36529.078									
248012009	3-Nitrotoluene	137 > 46			36529.078									
248012009	PETN	361 > 62			36529.078									

1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-8482

Lab Code: GEL

GEL Job No (SDG) 10-2027

Matrix: SOIL

GEL Sample ID: 248012009

Sample Amount 2

Moisture: 5.0

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958246

Concentrated Extract Volume (mL) 10

Date Extracted: 02-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03310070.wiff

Date Analyzed: 01-APR-10 02:44

Units: ug/kg

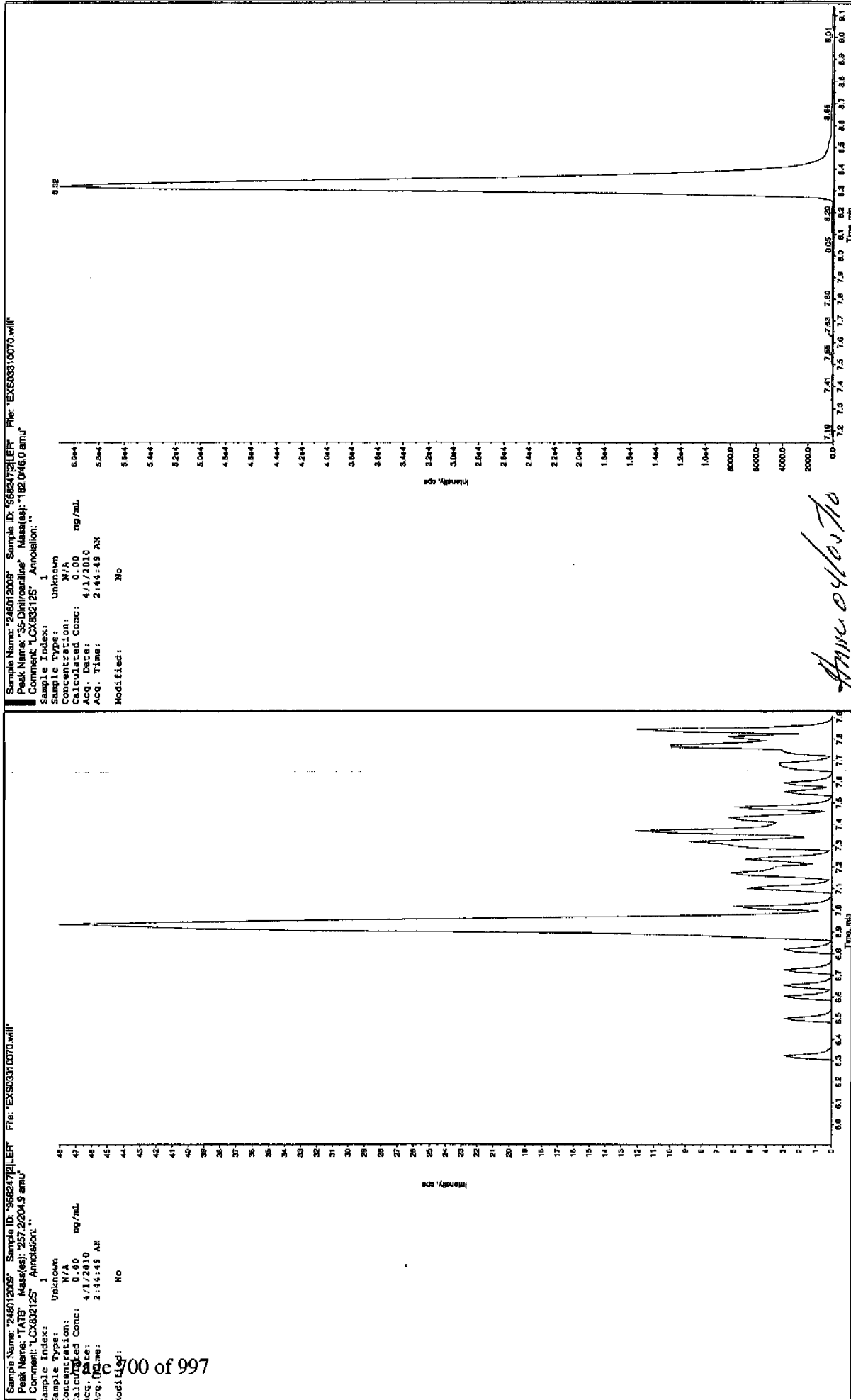
Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

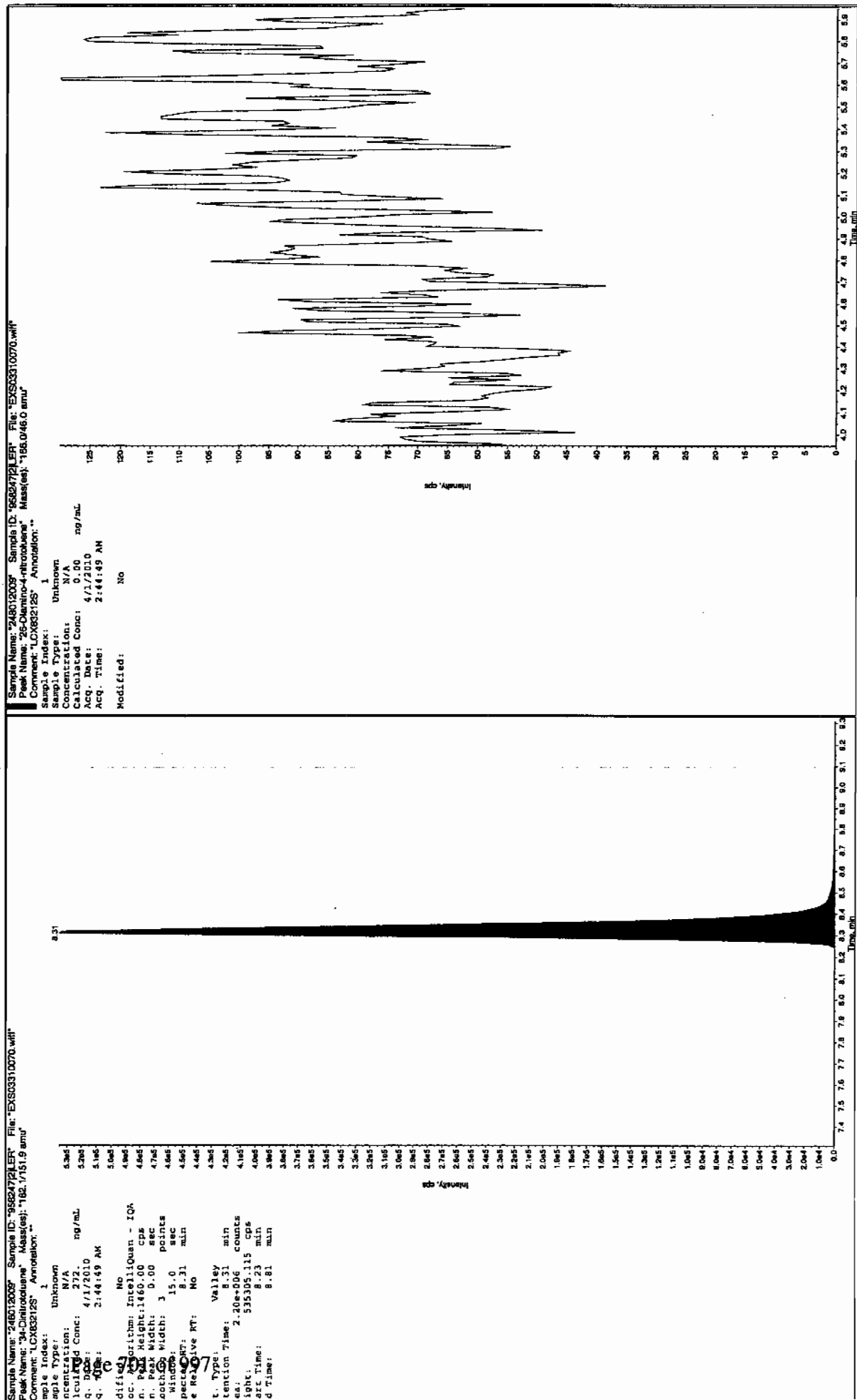
\*Concentration =

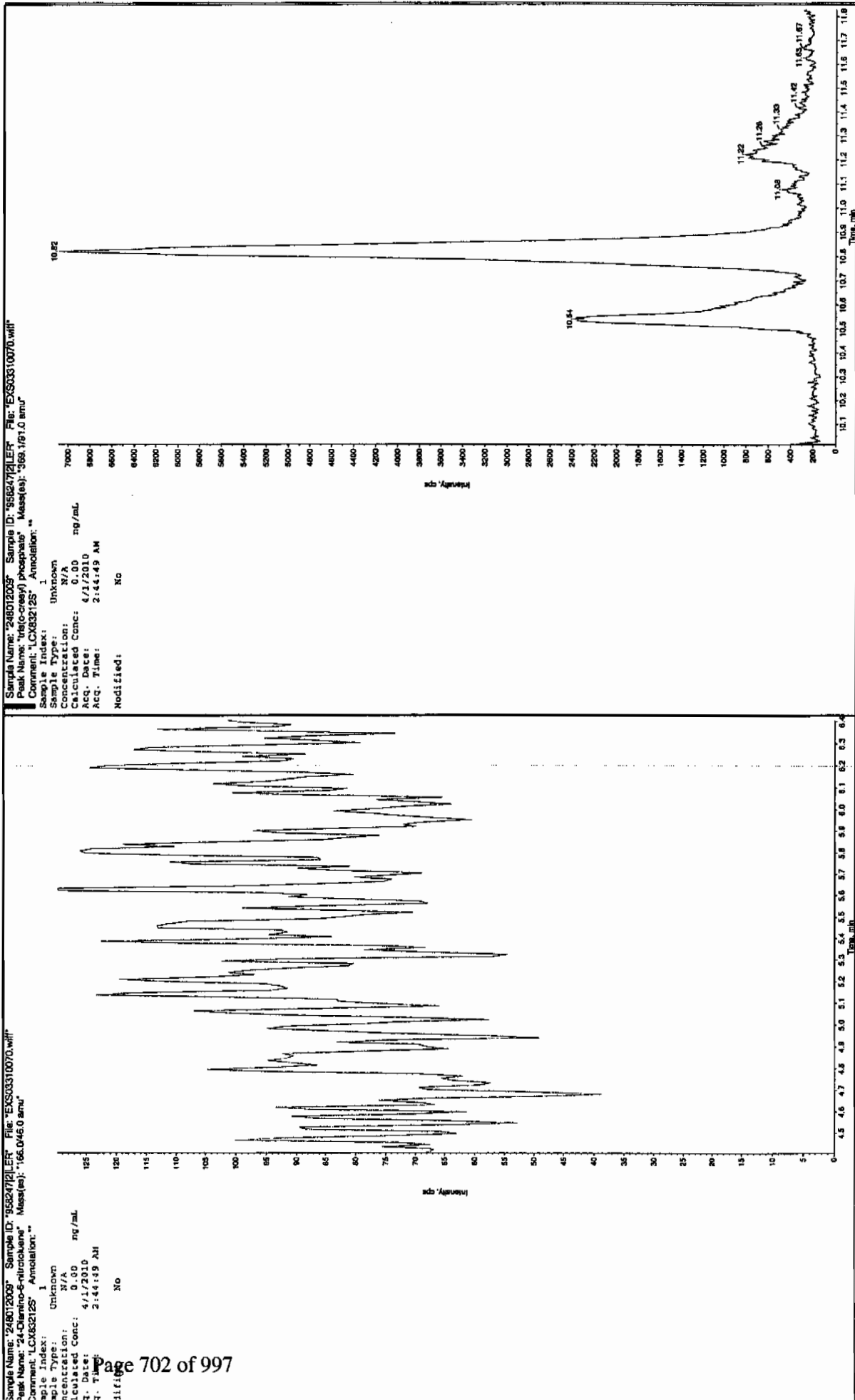
Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor



ben 416710







REL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

# STANDARDS DATA

SW846 8321A Modified-Explosives  
Calibration Standard Concentration Levels

	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	CCV
3,4-Dinitrotoluene (Surrogate)	12.5	25	100	200	400	500		300
<b>Primary Analytes</b>								
HMX	25	50	200	400	800	1000	na	600
RDX	25	50	200	400	800	1000	na	600
DNX	25	50	200	400	800	1000	na	600
MXN	25	50	200	400	800	1000	na	600
TNX	25	50	200	400	800	1000	na	600
1,3,5-Trinitrobenzene	25	50	200	400	800	1000	na	600
1,3-Dinitrobenzene	25	50	200	400	800	1000	na	600
Nitrobenzene	25	50	200	400	800	1000	na	600
Tetryl	25	50	200	400	800	1000	na	600
Nitroglycerin	50	100	200	400	800	1000	na	600
2,4,6-Trinitrotoluene	25	50	200	400	800	1000	na	600
2-Amino-4,6-dinitrotoluene	25	50	200	400	800	1000	na	600
4-Amino-2,6-dinitrotoluene	25	50	200	400	800	1000	na	600
2,4-Dinitrotoluene	25	50	200	400	800	1000	na	600
2,6-Dinitrotoluene	25	50	200	400	800	1000	na	600
2-Nitrotoluene	25	50	200	400	800	1000	na	600
4-Nitrotoluene	25	50	200	400	800	1000	an	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: 10-2027

Lab Code: GEL

Run Date: 08-APR-10.09-APR-10.31-MAR-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:	EXP0408003a	EXP0408004a	EXP0408005a	EXP0408006a	EXP0408007a	EXP0408008a			
Data File:									
1,3,5-Trinitrobenzene	4.687	4.464	3.962	4.008	4.099	4.121	4.224	6.807	
1,3-Dinitrobenzene-d4	13.523	13.591	13.387	13.023	12.673	11.779	12.996	5.301	
2,4,6-Trinitrotoluene	.332	.381	.371	.383	.429	.412	0.385	8.792	
2,4-Dinitrotoluene	.302	.264	.237	.241	.272	.273	0.265	9.006	
2,6-Dinitrotoluene	1.178	1.135	1.114	1.112	1.154	1.132	1.138	2.211	
2,6-Dinitrotoluene-d3	82.492	84.272	82.213	78.859	74.94	70.968	78.957	6.49	
2-Amino-4,6-dinitrotoluene	.404	.418	.456	.474	.496	.493	0.457	8.404	
3,4-Dinitrotoluene	.965	1.047	1.023	1.004	1.066	1.048	1.026	3.585	
4-Amino-2,6-dinitrotoluene	.311	.305	.298	.303	.328	.321	0.311	3.669	
HMX	3.229	3.048	3.107	3.23	3.277	3.275	3.194	2.968	
Nitrobenzene	.708	.557	.552	.603	.597	.59	0.601	9.362	
RDX	2.156	2.344	2.394	2.481	2.636	2.61	2.437	7.364	
Tetryl	.912	1.015	.955	1.05	1.137	1.108	1.030	8.455	
m-Dinitrobenzene	1.273	1.293	1.249	1.293	1.314	1.306	1.288	1.832	
m-Nitrotoluene	.063	.061	.049	.049	.049	.057	0.055	11.935	
o-Nitrotoluene	.089	.079	.071	.074	.076	.073	0.077	8.462	
p-Nitrotoluene	.038	.043	.037	.038	.039	.038	0.039	5.09	

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

Lab Code: GEL

LCMSMS Instrument ID: LCMSMS

Method: 8321A Modified

GEL Job No: 10-2027

Run Date: 08-APR-10.09-APR-10.31-MAR-10

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:	EXP0408003a	EXP0408004a	EXP0408005a	EXP0408006a	EXP0408007a	EXP0408008a					
Parname:											
PETN	1630.9	3370.45	12155.9	21436.3	37797.5	42677.4	.732	-.0001338	3.275	.9999	

Quadratic Fit:  $y = Ax^2 + Bx + C$   
 where  $X^2$  column above is coefficient A  
 X column above is coefficient B  
 intercept is C

COD is Coefficient of Determination

Q column used to flag COD outside of Limit (<0.990)

\* Values outside of QC Limit

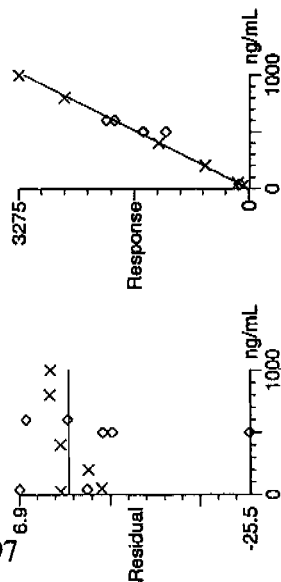
# Quantify Calibration Report

GEL Laboratories, LLC / Analyst : Michael A. Penny

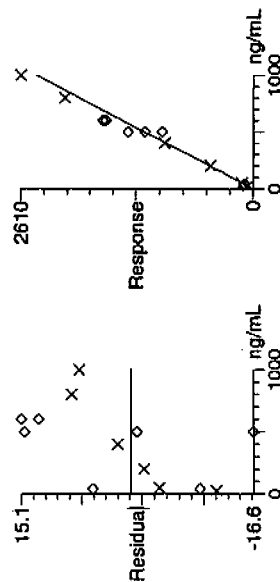
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Method: C:\MASSLYNX\New\_Exp.PRO\MethDB\040810expa.mdb, Time: Fri Apr 09 10:24:44 2010  
 Calibration: Untitled, Time: Fri Apr 09 10:54:52 2010

Compound name: HMX  
 Response Factor: 3.19424  
 RRF SD: 0.0948173, % Relative SD: 2.96839  
 Response type: Internal Std ( Ref 4 ), Area \* ( IS Conc. / IS Area )  
 Curve type: RF



Compound name: RDX  
 Response Factor: 2.43687  
 RRF SD: 0.179446, % Relative SD: 7.36382  
 Response type: Internal Std ( Ref 4 ), Area \* ( IS Conc. / IS Area )  
 Curve type: RF

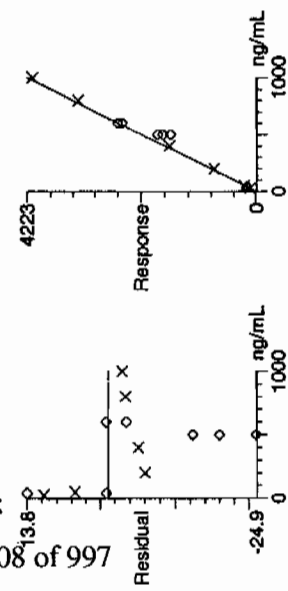




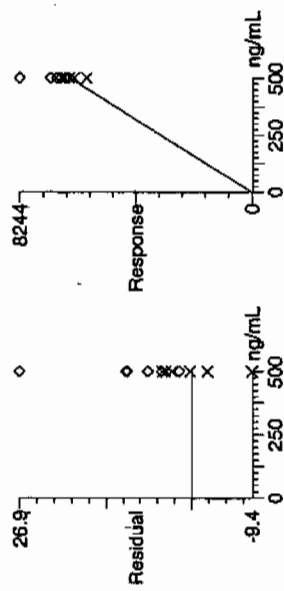
Quantify Calibration Report  
GEL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp\_PRO\040810expA.qld, Time: Fri Apr 09 10:54:52 2010

Compound name: 135-Trinitrobenzene  
Response Factor: 4.22335  
RRF SD: 0.287497, % Relative SD: 6.80733  
Response type: Internal Std (Ref 4), Area \* (IS Conc. / IS Area)  
Curve type: RF



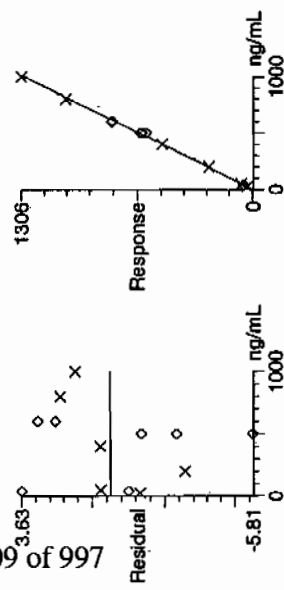
Compound name: 13-Dinitrobenzene-d4  
Response Factor: 12.9961  
RRF SD: 0.688911, % Relative SD: 5.30091  
Response type: External Std, Area  
Curve type: RF



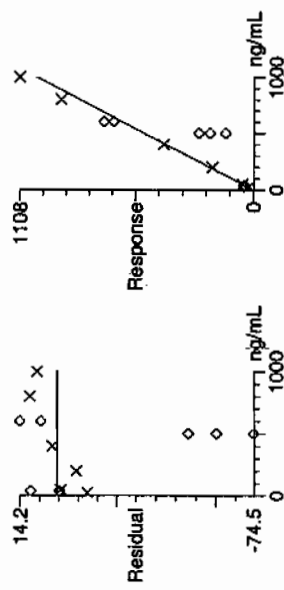
**Quantify Calibration Report**  
 GEL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: C:\MASSLYN\New\_Exp.PRO\040810expA.qld, Time: Fri Apr 09 10:54:52 2010

Compound name: 13-Dinitrobenzene  
 Response Factor: 1.28787  
 RRF SD: 0.0235993, % Relative SD: 1.83243  
 Response type: Internal Std ( Ref 4 ), Area \* ( IS Conc. / IS Area )  
 Curve type: RF



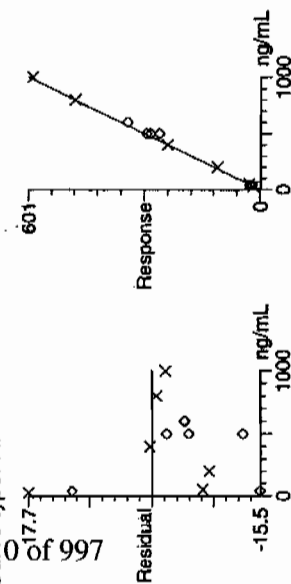
Compound name: Tetraol  
 Response Factor: 1.02957  
 RRF SD: 0.0870508, % Relative SD: 8.45507  
 Response type: Internal Std ( Ref 4 ), Area \* ( IS Conc. / IS Area )  
 Curve type: RF



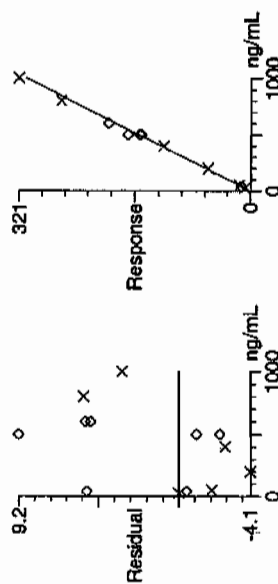
**Quantify Calibration Report**  
 GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp\_PRO\040810expA.qld, Time: Fri Apr 09 10:54:52 2010

Compound name: Nitrobenzene  
 Response Factor: 0.601003  
 RRF SD: 0.0562669, % Relative SD: 9.36216  
 Response type: Internal Std ( Ref 4 ), Area \* ( IS Conc. / IS Area )  
 Curve type: RF



Compound name: 4-Amino-26-dinitrotoluene  
 Response Factor: 0.311292  
 RRF SD: 0.0114211, % Relative SD: 3.66892  
 Response type: Internal Std ( Ref 14 ), Area \* ( IS Conc. / IS Area )  
 Curve type: RF



# Quantify Calibration Report

GEL Laboratories, LLC / Analyst: Michael A. Penny

Printed: Fri Apr 09 10:56:07 2010, Page 5 of 9

Dataset: C:\MASSLYNX\New\_Exp.PRO\040810expA.qld, Time: Fri Apr 09 10:54:52 2010

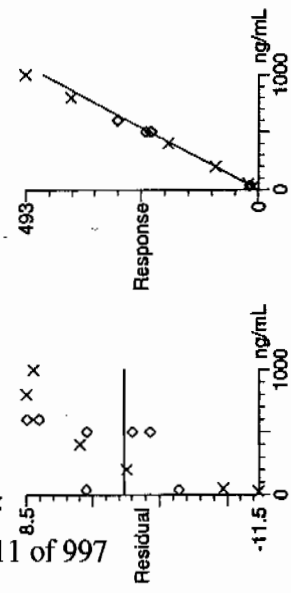
Compound name: 2-Amino-46-dinitrotoluene

Response Factor: 0.45683

R<sup>2</sup> SD: 0.0383897, % Relative SD: 8.4035

Response type: Internal Std ( Ref 14 ), Area \* ( IS Conc. / IS Area )

Curve type: RF



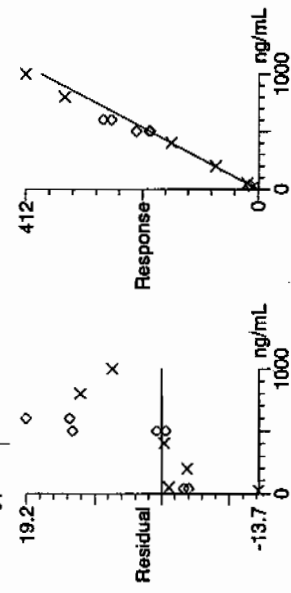
Compound name: 246-Trinitrotoluene

Response Factor: 0.384794

R<sup>2</sup> SD: 0.038323, % Relative SD: 8.79231

Response type: Internal Std ( Ref 14 ), Area \* ( IS Conc. / IS Area )

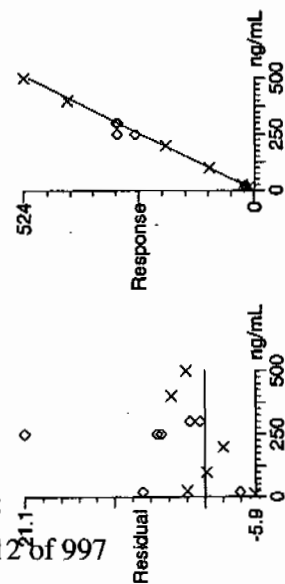
Curve type: RF



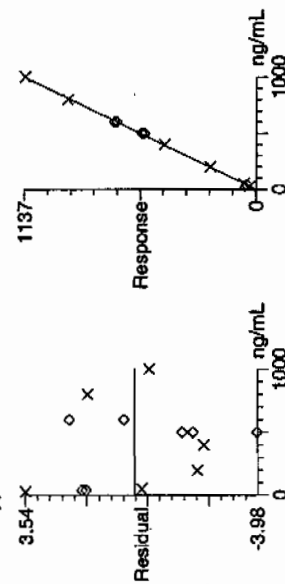
**Quantify Calibration Report**  
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp\PRO1040810expA.qld, Time: Fri Apr 09 10:54:52 2010

Compound name: 34-dinitrotoluene  
Response Factor: 1.02558  
RRF SD: 0.0367625, % Relative SD: 3.58456  
Response type: Internal Std ( Ref 14 ), Area \* ( IS Conc. / IS Area )  
Curve type: RIF



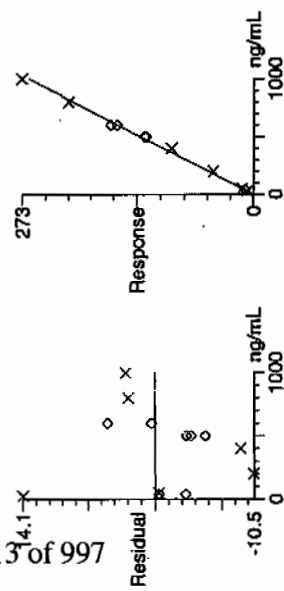
Compound name: 26-dinitrotoluene  
Response Factor: 1.13734  
RRF SD: 0.0251449, % Relative SD: 2.21085  
Response type: Internal Std ( Ref 14 ), Area \* ( IS Conc. / IS Area )  
Curve type: RIF



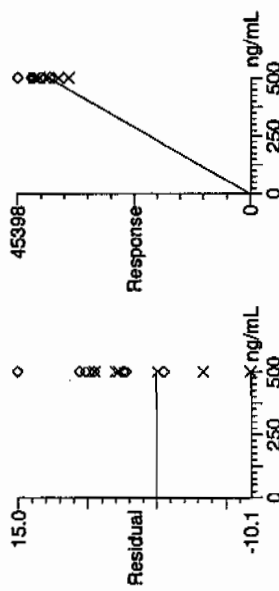
Quantify Calibration Report  
GEL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp.PRO\040810expA.qld, Time: Fri Apr 09 10:54:52 2010

Compound name: 24-dinitrotoluene  
Response Factor: 0.264734  
RRF SD: 0.0238421, % Relative SD: 9.00607  
Response type: Internal Std (Ref 14), Area \* (IS Conc. / IS Area)  
Curve type: RF



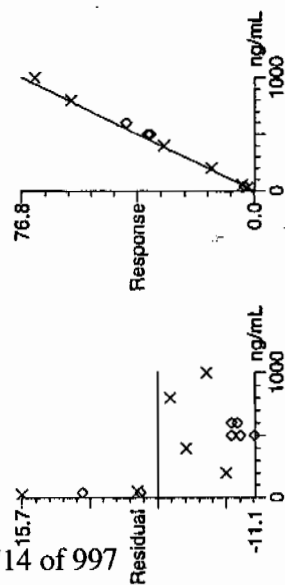
Compound name: 26-dinitrotoluene-d3  
Response Factor: 78.9572  
RRF SD: 5.12457, % Relative SD: 6.49031  
Response type: External Std, Area  
Curve type: RF



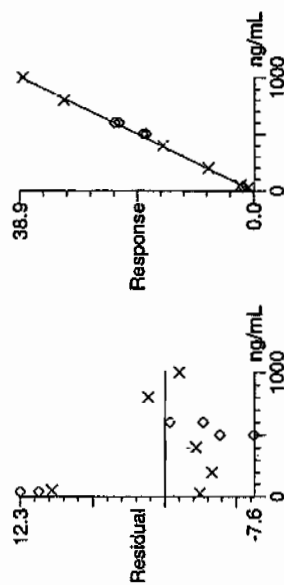
# Quantify Calibration Report GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp.PRO\040810expA.qld, Time: Fri Apr 09 10:54:52 2010

Compound name: 2-Nitrotoluene  
Response Factor: 0.0767614  
RRF SD: 0.00649593, % Relative SD: 8.46249  
Response type: Internal Std ( Ref 14 ), Area \* ( IS Conc. / IS Area )  
Curve type: RF



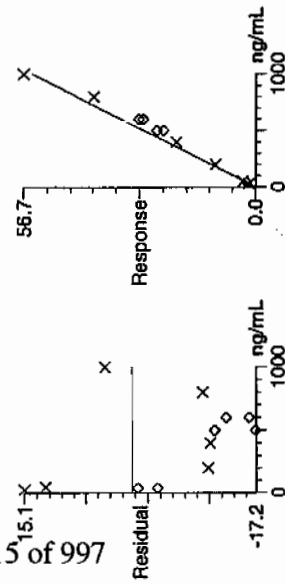
Compound name: 4-Nitrotoluene  
Response Factor: 0.0388638  
RRF SD: 0.00197819, % Relative SD: 5.09006  
Response type: Internal Std ( Ref 14 ), Area \* ( IS Conc. / IS Area )  
Curve type: RF



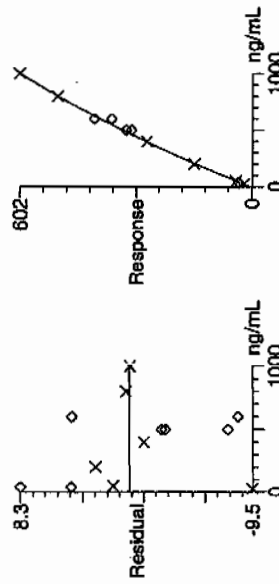
**Quantify Calibration Report**  
GEL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp.PRO\040810expA.qld, Time: Fri Apr 09 10:54:52 2010

Compound name: 3-Nitrotoluene  
Response Factor: 0.0545972  
RF SD: 0.00651612, % Relative SD: 11.9349  
Response type: Internal Std ( Ref 14 ), Area \* ( IS Conc. / IS Area )  
Curve type: RF



Compound name: PETN  
Coefficient of Determination: 0.999915  
Calibration curve:  $-0.000133771 \cdot x^2 + 0.732159 \cdot x + 3.27481$   
Response type: Internal Std ( Ref 14 ), Area \* ( IS Conc. / IS Area )  
Curve type: 2nd Order, Origin: Exclude, Weighting: Null, Axis trans: None





7

# Explosives Initial Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2027

Lab Code: GEL

GEL Sample ID: WXXICV

GEL Data File EXP0408010a

Analysis Date: 09-APR-10 01:58

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	600	581.429	97	
1,3-Dinitrobenzene-d4	500	523.283	105	
2,4,6-Trinitrotoluene	600	678.465	113	
2,4-Dinitrotoluene	600	629.676	105	
2,6-Dinitrotoluene	600	612.703	102	
2,6-Dinitrotoluene-d3	500	516.716	103	
2-Amino-4,6-dinitrotoluene	600	650.562	108	
3,4-Dinitrotoluene	300	305.309	102	
4-Amino-2,6-dinitrotoluene	600	631.912	105	
HMX	600	600.63	100	
Nitrobenzene	600	573.106	96	
PETN	600	549.302	92	
RDX	600	676.458	113	
Tetryl	600	637.74	106	
m-Dinitrobenzene	600	613.434	102	
m-Nitrotoluene	600	502.386	84	
o-Nitrotoluene	600	545.024	91	
p-Nitrotoluene	600	597.413	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

Quantify Sample Report  
GEL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp\PRO\040810expA.qld, Time: Fri Apr 09 10:54:52 2010

Name: C:\MASSLYNX\NEW\_EXP\PRO\Data\EXP0408010a

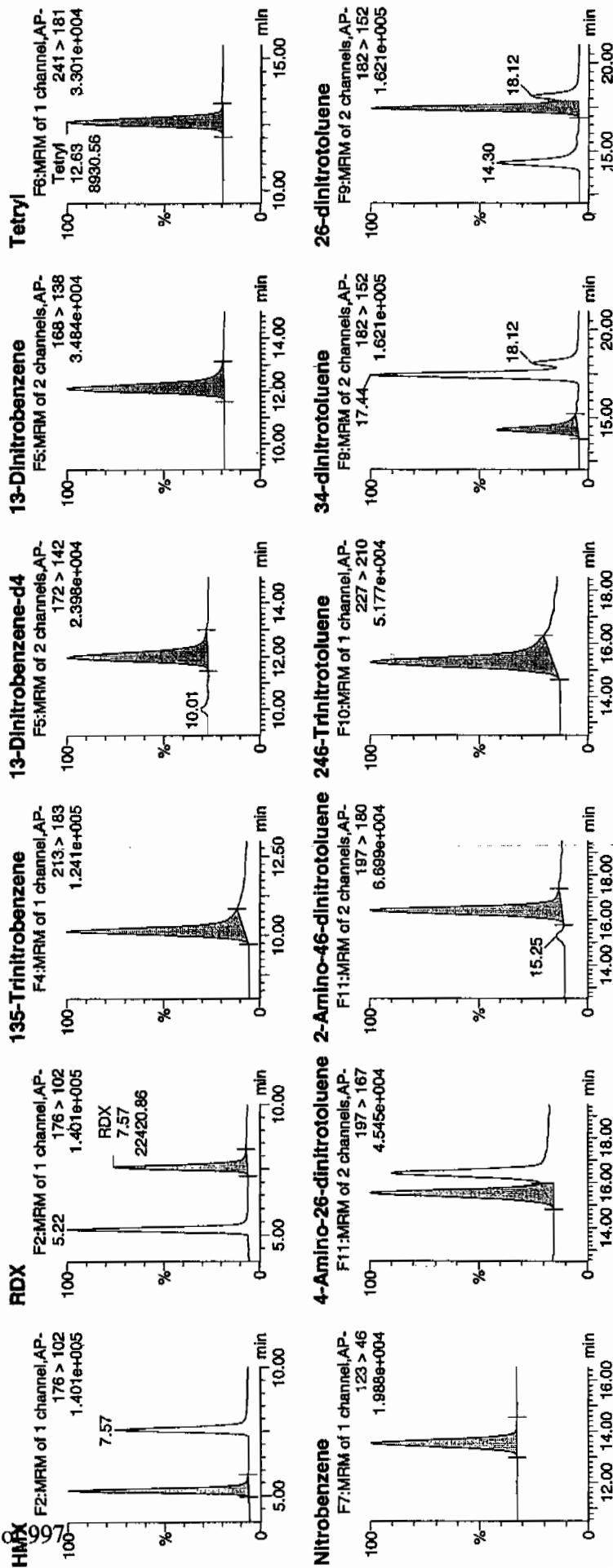
Date: 09-Apr-2010

Time: 01:58:08

ID: WXX100408-07ICV

Vial: 1:1,B

4/10/10

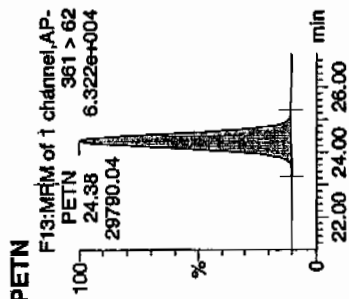
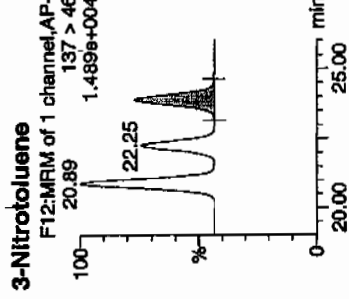
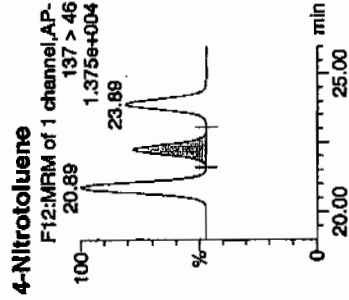
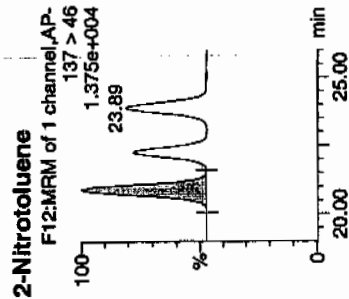
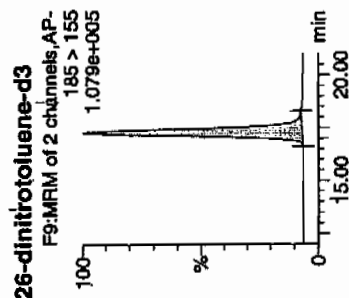
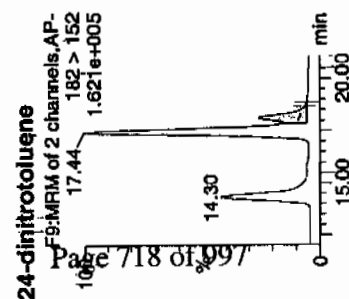


4/10/10

## Quantify Sample Report

**GEL Laboratories, LLC / Analyst : Michael A. Penny**

Dataset: C:\MASSLYNX\New Exp.PRO\040810expA.qld, Time: Fri Apr 09 10:54:52 2010



ID	Name	Trace	FW	Area	IS Area	Abundance	Residuals	Peak	PK Date	PK Time	Conc (µg/L)	Conc (ppb)	Conc (ng/mL)
WXX100408-07ICV	HMX	176 > 102	5.22	26094.779	6800.638	26094.779	1918.554	db			600.6298	100.1	0.1
WXX100408-07ICV	RDX	176 > 102	7.57	22420.859	6800.638	22420.859	1648.438	bb			676.4583	112.7	12.7
WXX100408-07ICV	135-Trinitrobenzene	213 > 183	10.14	33398.980	6800.638	33398.980	2455.577	bb			581.4289	96.9	-3.1
WXX100408-07ICV	13-Dinitrobenzene-d4	172 > 142	11.97	6800.638		6800.638	6800.638	bb			523.2830	104.7	4.7
WXX100408-07ICV	13-Dinitrobenzene	168 > 138	12.14	10745.340	6800.638	10745.340	790.024	bb			613.4342	102.2	2.2
WXX100408-07ICV	Tetryl	241 > 181	12.63	8930.563	6800.638	8930.563	656.597	bb			637.7400	106.3	6.3
WXX100408-07ICV	Nitrobenzene	123 > 46	13.54	4684.807	6800.638	4684.807	344.439	bb			573.1062	95.5	-4.5
WXX100408-07ICV	4-Amino-26-dinitrotoluene	197 > 157	15.53	16050.857	40798.398	16050.857	196.709	MM	09-Apr-10	10:44:14	631.9118	105.3	5.3
WXX100408-07ICV	2-Amino-46-dinitrotoluene	197 > 180	16.41	24250.242	40798.398	24250.242	297.196	bb			650.5618	108.4	8.4
WXX100408-07ICV	246-Trinitrotoluene	227 > 210	15.31	21302.396	40798.398	21302.396	261.069	bb			678.4851	113.1	13.1
WXX100408-07ICV	34-dinitrotoluene	182 > 152	14.30	25549.520	40798.398	25549.520	313.119	bb			305.3093	101.8	1.8
WXX100408-07ICV	26-dinitrotoluene	182 > 152	17.44	56860.898	40798.398	56860.898	696.852	MM	09-Apr-10	10:46:50	612.7030	102.1	2.1
WXX100408-07ICV	24-dinitrotoluene	182 > 152	18.12	13601.919	40798.398	13601.919	166.697	MM	09-Apr-10	10:49:28	629.6758	104.9	4.9
WXX100408-07ICV	26-dinitrotoluene-d3	185 > 155	17.29	40798.398		40798.398	40798.398	bb			516.7156	103.3	3.3
WXX100408-07ICV	2-Nitrotoluene	137 > 46	20.89	3413.753	40798.398	3413.753	41.837	bb			545.0244	90.8	-9.2
WXX100408-07ICV	4-Nitrotoluene	137 > 46	22.26	1894.492	40798.398	1894.492	23.218	bb			597.4125	99.6	-0.4
WXX100408-07ICV	3-Nitrotoluene	137 > 46	23.89	2238.110	40798.398	2238.110	27.429	bb			502.3861	83.7	-16.3
WXX100408-07ICV	PETN	361 > 62	24.38	29790.043	40798.398	29790.043	365.088	bb			549.3025	91.6	-8.4

# GRAND MEAN AVERAGE

Vendor: Restek  
 Date of Analysis: 04/09/10  
 Time of Injection: 0158  
 Standard Number: WXX100408-07ICV  
 Data File: EXP0408010a

HMX	100.1
RDX	112.7
135-TNB	96.9
13-DNB	102.2
Tetryl	106.3
Nitrobenzene	95.5
4A-26-DNT	105.3
2A-46-DNT	108.4
246-TNT	113.1
34-DNT(surr)	101.8
26-DNT	102.1
24-DNT	104.9
2-NT	90.8
4-NT	99.6
3-NT	83.7
PETN	91.6

*MITT*  
*4/10/10*

Total 1615.0

Average 100.9

*Sum 04/11/10*

ICV Limits 85-115%

CRI Limits 70-130%

CCV Limits 85-115%

No single analyte > +/- 60%

Form 6

Explosives Initial Calibration

Lab Name: GEL Laboratories LLC

GEL Job No: 10-2027

Lab Code: GEL

Run Date: 08-APR-10.09-APR-10.31-MAR-10

LCMSMS Instrument ID: LCMSMS4

HPLC Column: YMC J-Sphere ODS-H8Q

Method: 8321A Modified

Calibration Type: 2nd Order

Calibration Level:	19	20	21	22	23	24	25	X	X^2	Intercept	COD	Q
Data File:	EXS03310003.wif	EXS03310004.wif	EXS03310005.wif	EXS03310006.wif	EXS03310007.wif	EXS03310008.wif	EXS03310009.wif					
Parname:												
2,4-Diamino-6-nitrotoluene	100000	212000	510000	954000	1540000	1660000	3440000	36100	1860	-085	.997	
3,4-Dinitrotoluene	197000	416000	981000	1900000	2870000	3740000	6880000	-24900	8650	-1.76	.9984	
3,5-Dinitroaniline	327000	689000	1570000	2920000	4950000	5840000	10100000	-47600	6910	-908	.9987	
TATB	33600	68300	180000	356000	588000	726000	1480000	-6740	757	-007	.9995	
tris(o-cresyl) phosphate	1070000	2110000	4990000	9200000	13600000	16900000	28300000	146000	19800	-2.85	.9999	

Quadratic Fit:  $y = Ax^2 + Bx + C$   
 where  $X^2$  column above is coefficient A  
 X column above is coefficient B  
 intercept is C

COD is Coefficient of Determination  
 Q column used to flag COD outside of Limit (<0.990)  
 \* Values outside of QC Limit

Explosives Initial Calibration

Lab Name: GEL Laboratories LLC

Lab Code: GEL

LCMSMS Instrument ID: LCMSMS4

Method: 8321A Modified

GEL Job No: 10-2027

Run Date: 08-APR-10.09-APR-10.31-MAR-10

HPLC Column: YMC J-Sphere ODS-H8Q

Calibration Type: Linear

Calibration Level:	19	20	21	22	23	24	25	Slope	Intercept	COD	Q
Data File:	EXS03310003.w	EXS03310004.w	EXS03310005.w	EXS03310006.w	EXS03310007.w	EXS03310008.w	EXS03310009.w				
Parname											
2,6-Diamino-4-nitrotoluene	116000	252000	620000	1100000	1520000	2110000	4370000	2150	10600	.9991	

Linear fit :  $Y = mx + b$   
where b is Intercept and m is slope

COD is Coefficient of Determination

Q column used to flag COD values outside of Limit (<0.990)

\* Values outside of QC Limit

0331110ICAL

Peak Name: TATB  
No Internal Standard  
Q1/Q3 Masses: 257.20/204.90 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	-6.74e+003			
a1	757			
a2	-0.00697			
Correlation coefficient 0.9995				
Use Area				

Peak Name: 35-Dinitroaniline  
No Internal Standard  
Q1/Q3 Masses: 182.00/46.00 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	-4.76e+004			
a1	6.91e+003			
a2	-0.908			
Correlation coefficient 0.9987				
Use Area				

Peak Name: 34-Dinitrotoluene  
No Internal Standard  
Q1/Q3 Masses: 182.08/151.90 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	-2.49e+004			
a1	8.65e+003			
a2	-1.76			
Correlation coefficient 0.9984				
Use Area				

Peak Name: 26-Diamino-4-nitrotoluene  
No Internal Standard  
Q1/Q3 Masses: 165.97/46.00 amu

Fit	Linear	Weighting	None	Iterate No
Intercept	1.06e+004			
Slope	2.15e+003			
Correlation coefficient 0.9991				
Use Area				

Peak Name: 24-Diamino-6-nitrotoluene  
No Internal Standard  
Q1/Q3 Masses: 165.97/46.00 amu

*han*  
*4/15/10*

*4/15/10*  
*04/15/10*

033110ICAL  
Iterate No

None

weighting

Fit Quadratic  
a0 3.61e+004  
a1 1.86e+003  
a2 -0.0854

Correlation coefficient 0.9970  
Use Area

Peak Name: tris(o-cresyl) phosphate  
No Internal Standard  
Q1/Q3 Masses: 369.15/91.00 amu

Iterate No

None

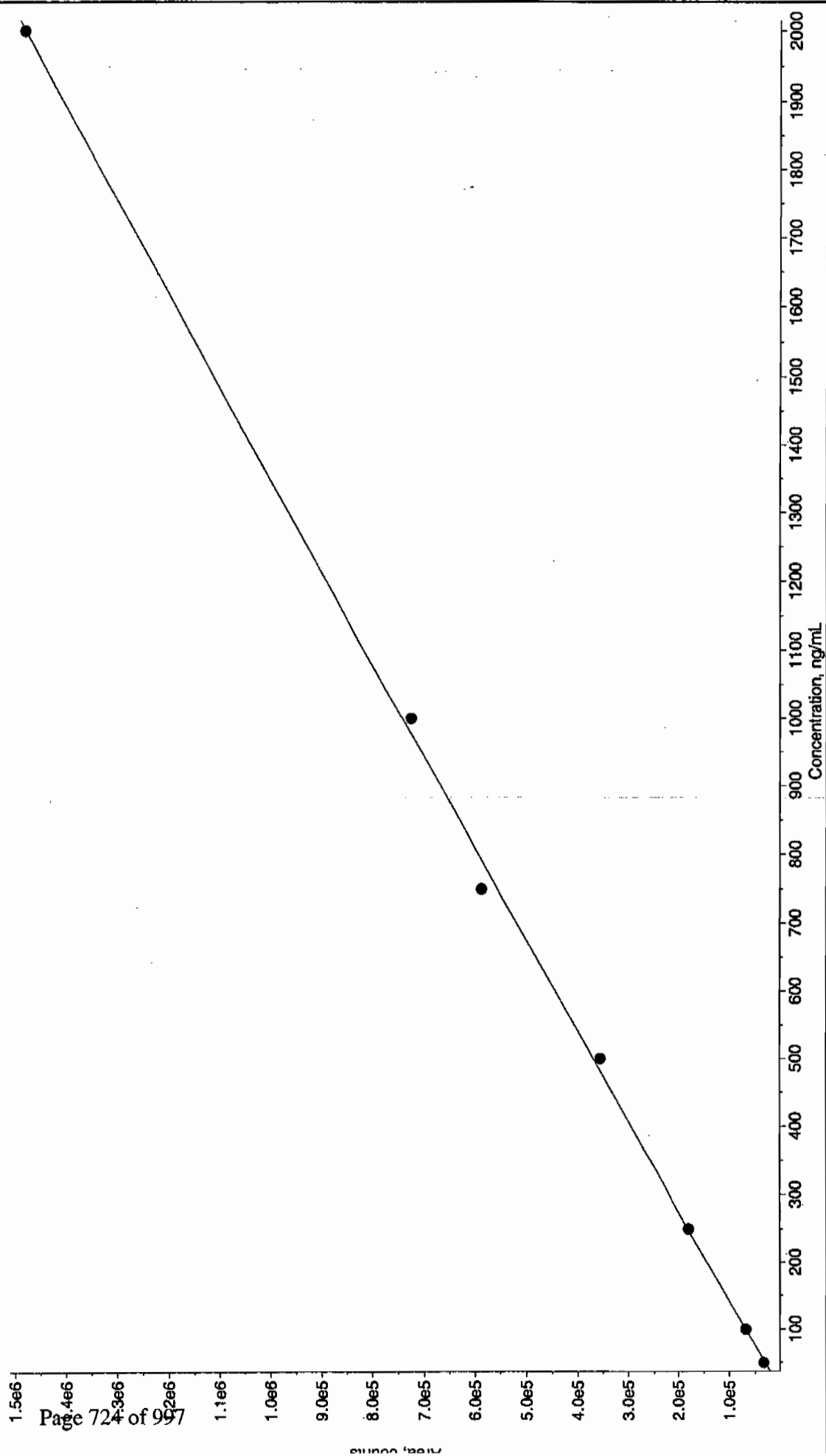
weighting

Fit Quadratic  
a0 1.46e+005  
a1 1.98e+004  
a2 -2.85

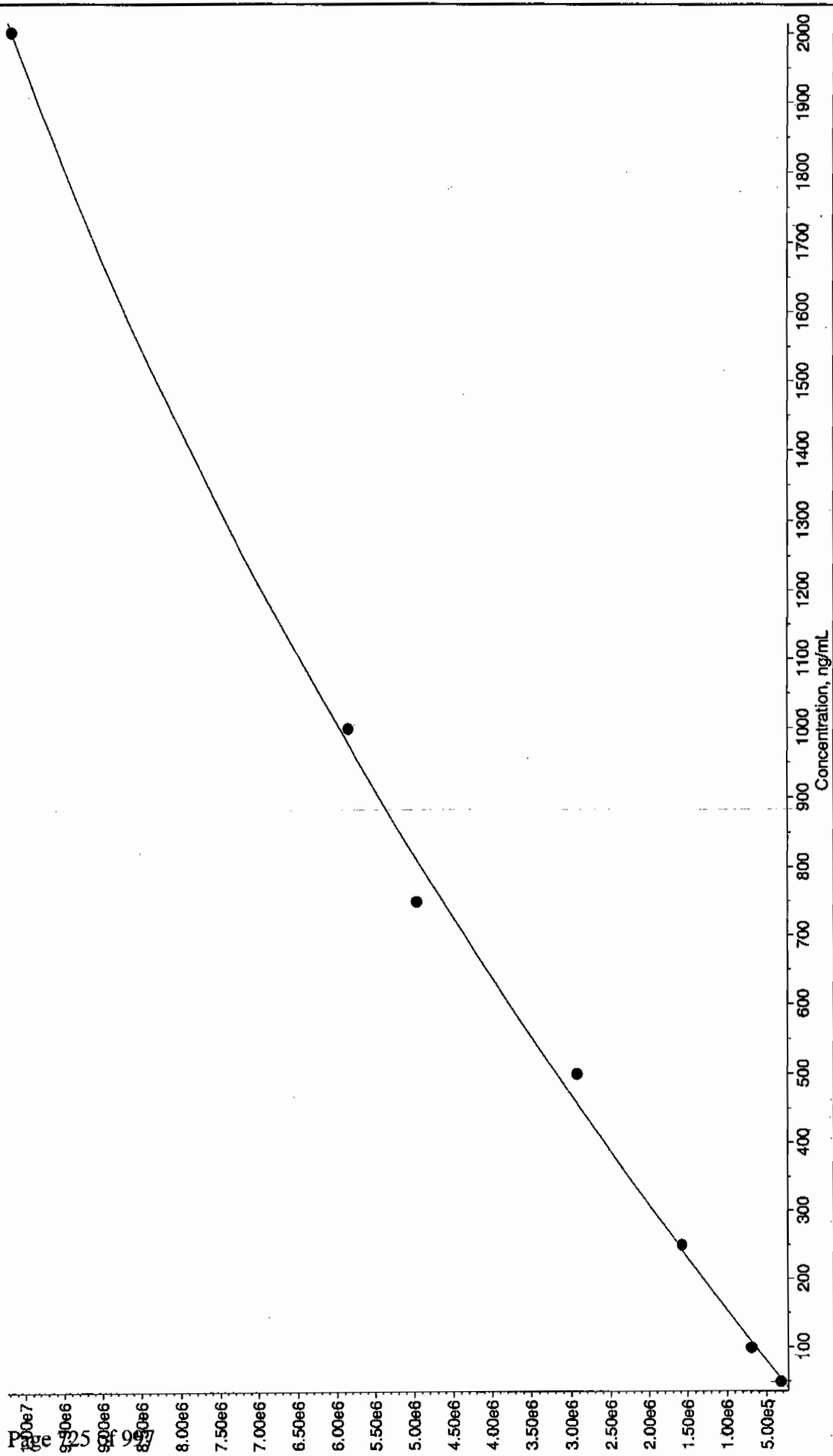
Correlation coefficient 0.9999  
Use Area



033110.rdb (TATB): "Quadratic" Regression ("No" weighting):  $y = -0.00697 x^2 + 757 x + -6.74e+003$  ( $r = 0.9995$ )

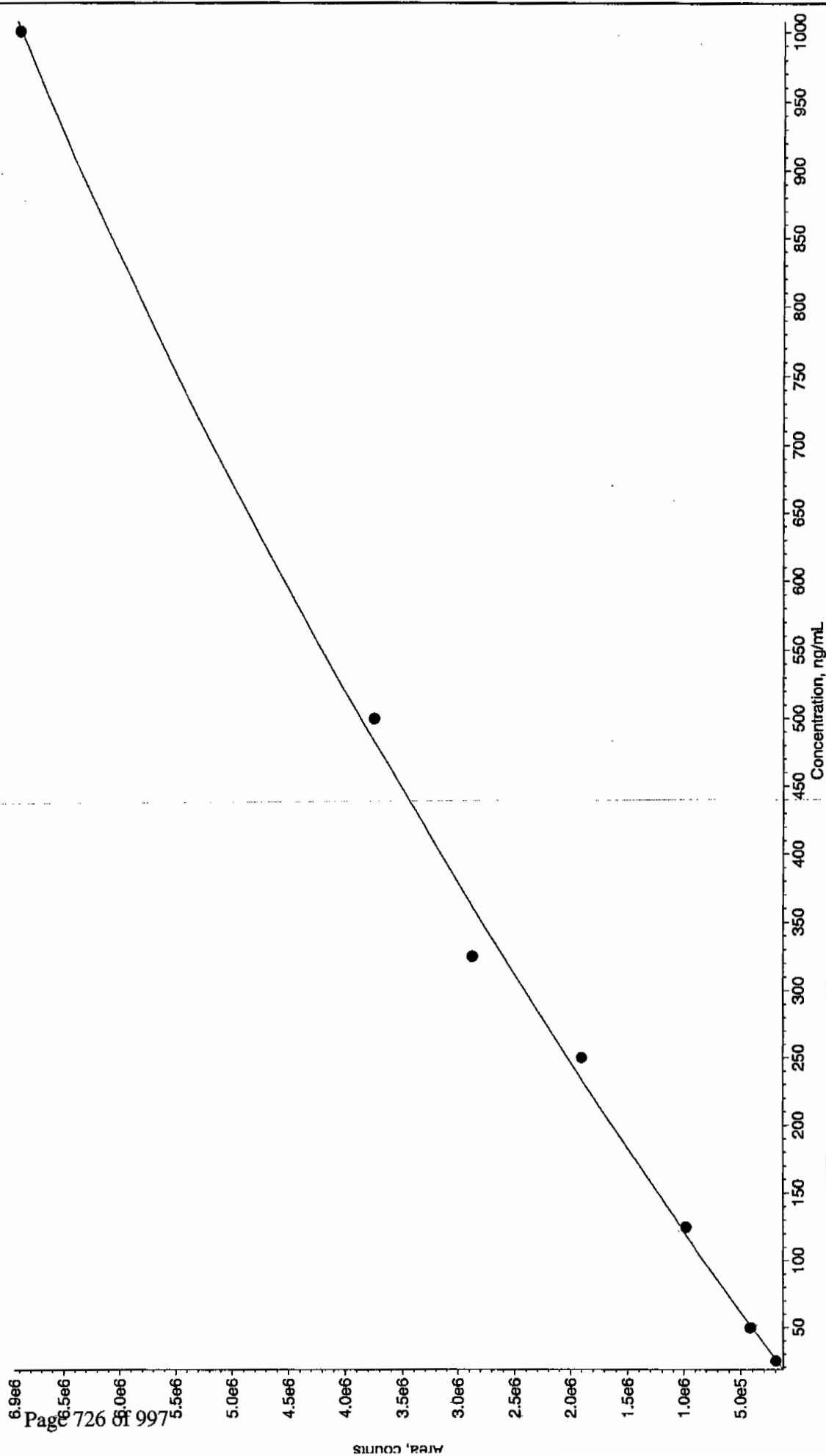


033110.rdb (35-Dinitroaniline): "Quadratic" Regression ("No" weighting):  $y = -0.908 x^2 + 6.91e+003 x + -4.76e+004$  ( $r = 0.9987$ )



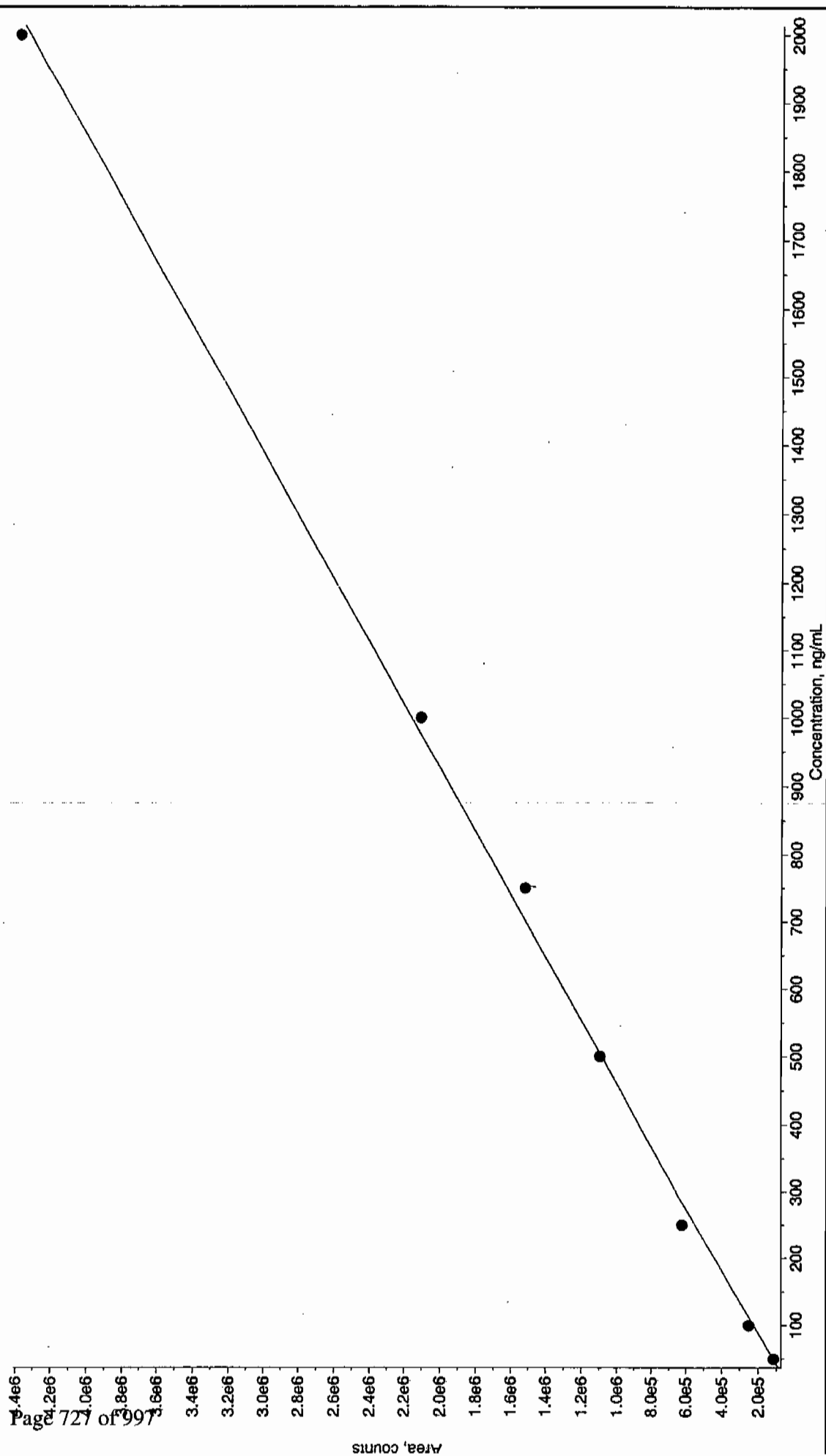
GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

033110.rdb (34-Dinitrotoluene): "Quadratic" Regression ("No" weighting):  $y = -1.76 x^2 + 8.65e+003 x + -2.49e+004$  ( $r = 0.9984$ )

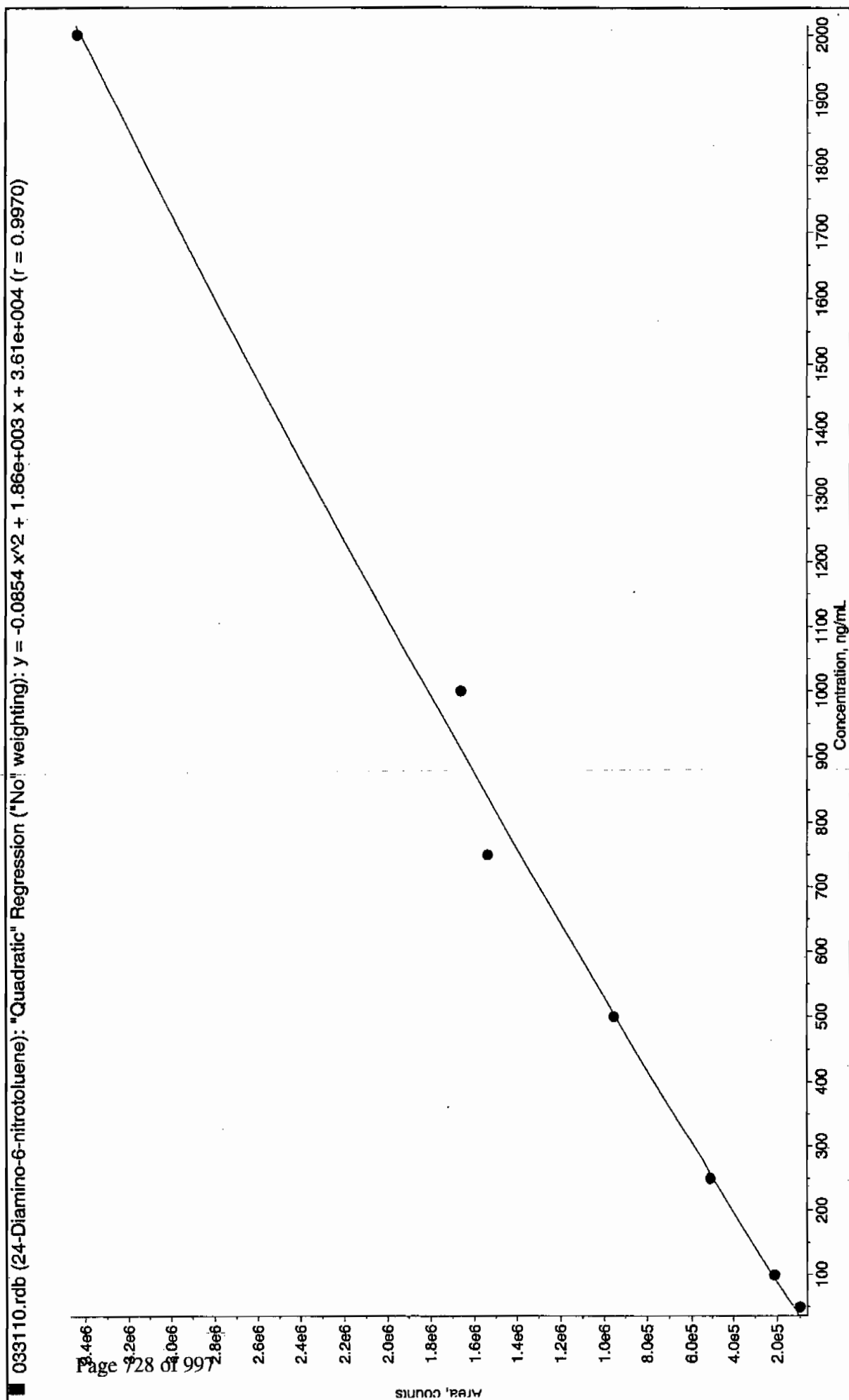


GEL SOP GL-OA-E-056, Method 8321A-Modified ICMSMS#4

033110.rdb (26-Diamino-4-nitrotoluene): "Linear" Regression ("No" weighting):  $y = 2.15e+003 x + 1.06e+004$  ( $r = 0.9991$ )

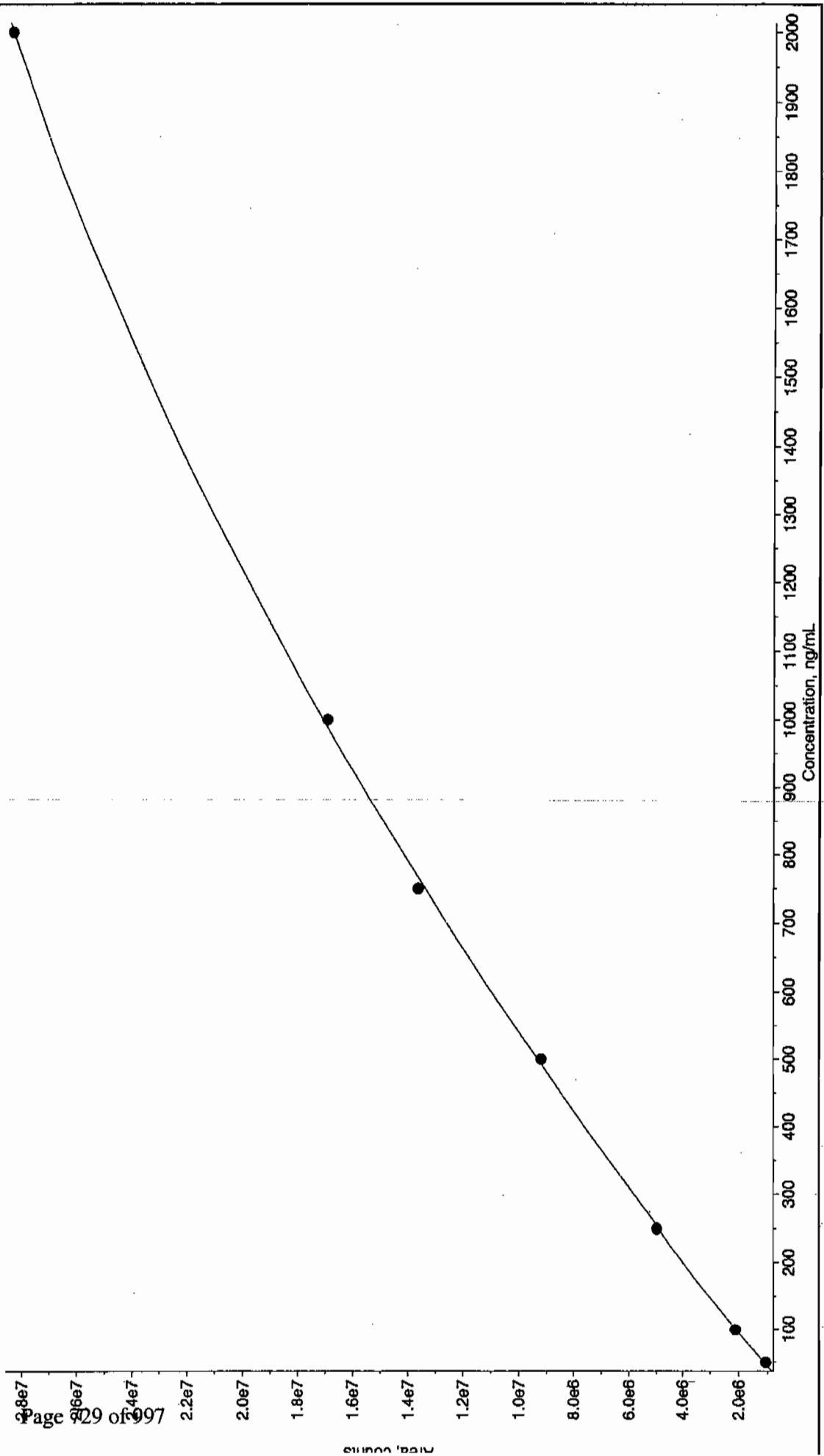


GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4



Page 728 of 997

033110.rdb (tris(o-cresyl) phosphate): "Quadratic" Regression ("No" weighting):  $y = -2.85 x^2 + 1.98e+004 x + 1.46e+005$  ( $r = 0.9999$ )



7

# Explosives Initial Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2027

Lab Code: GEL

GEL Sample ID: WXXICV

GEL Data File EXS03310011.wiff

Analysis Date: 31-MAR-10 11:17

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
TATB	500	483	97	
tris(o-cresyl) phosphate	500	481	96	
2,4-Diamino-6-nitrotoluene	500	461	92	
2,6-Diamino-4-nitrotoluene	500	505	101	
3,4-Dinitrotoluene	250	221	88	
3,5-Dinitroaniline	500	463	93	

## Recovery Limits:

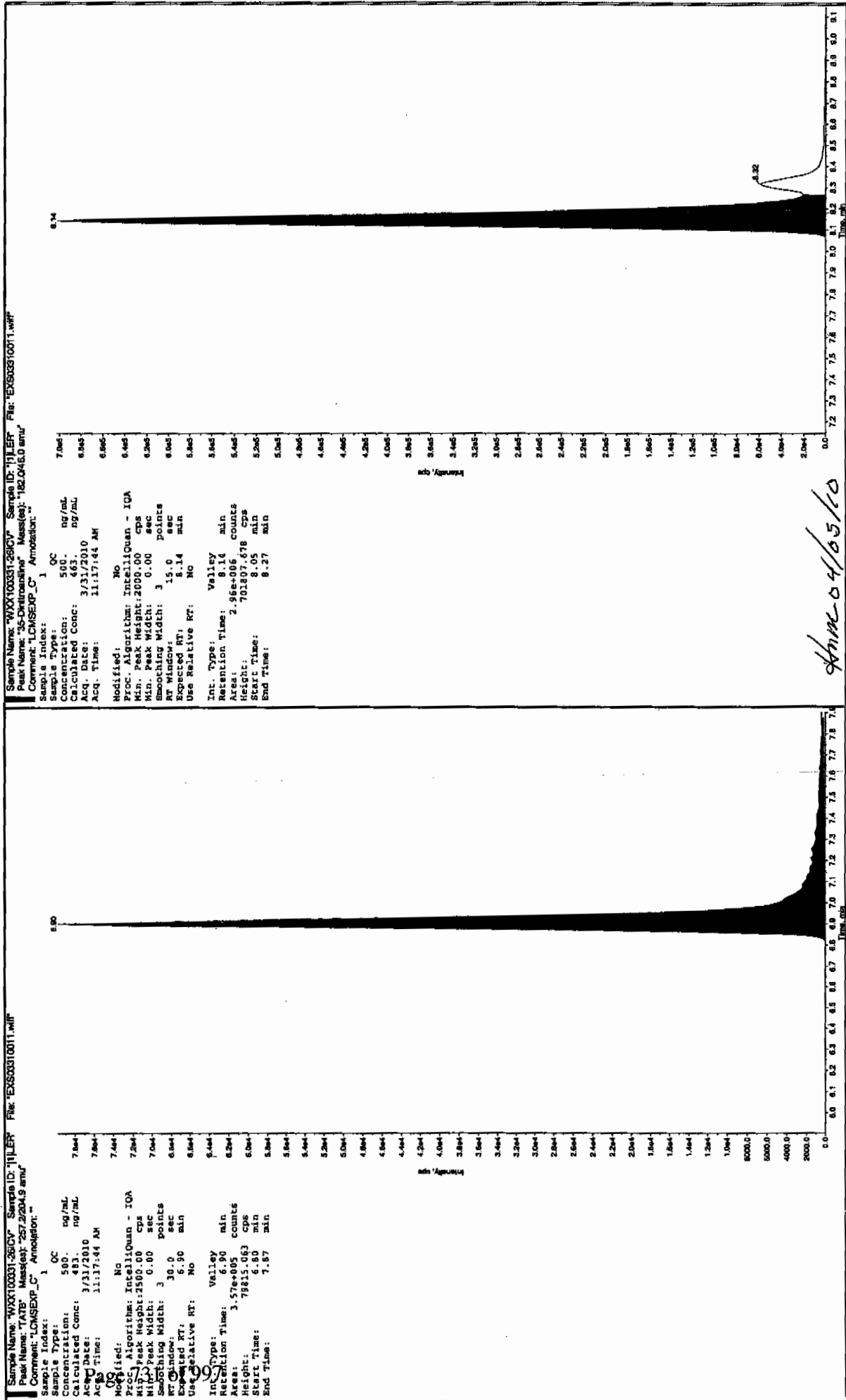
3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 70-130%

Other Target Analytes 80-120%

# Column used to flag Recovery outside of Limits

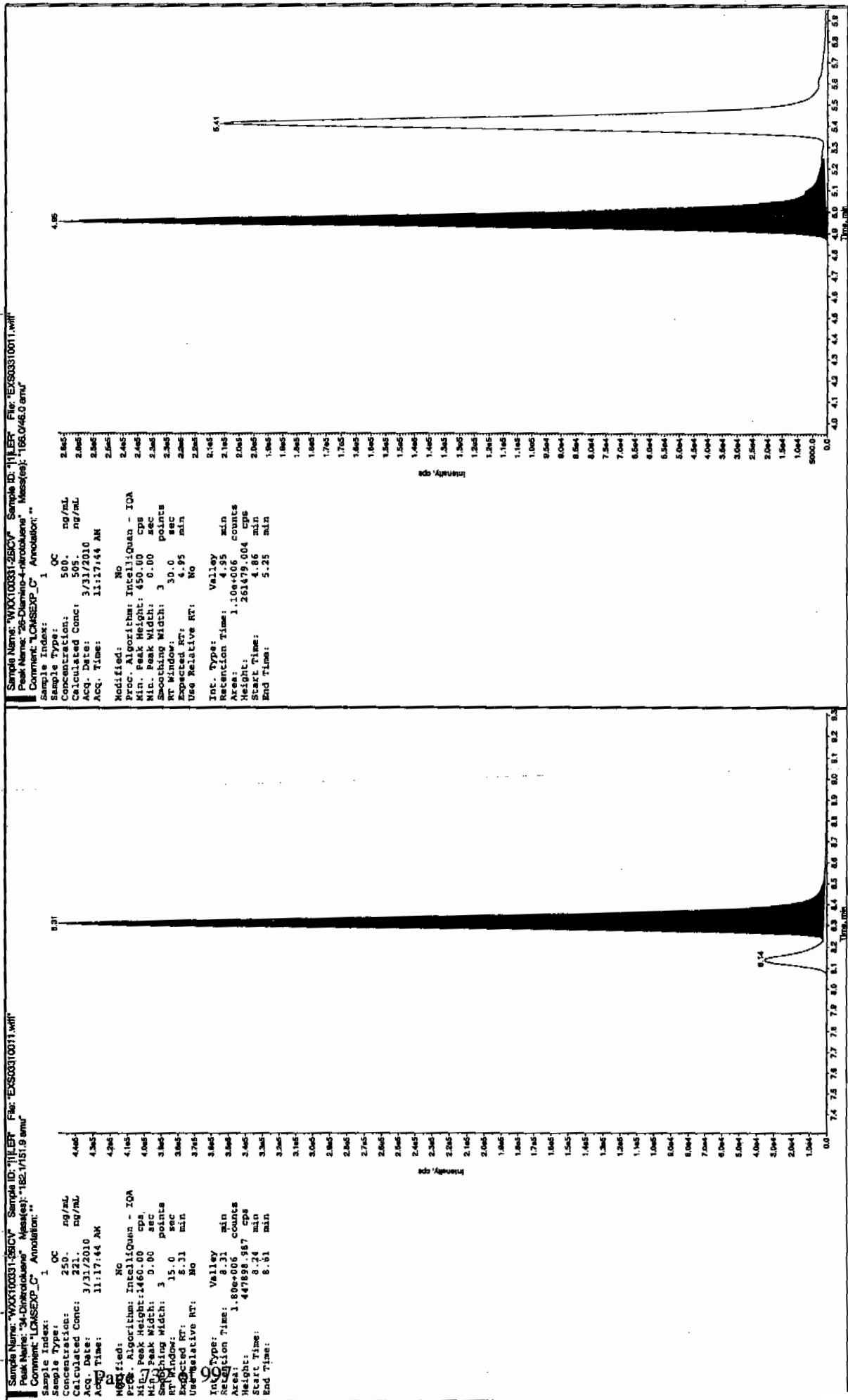
\* Value outside of Recovery Limits

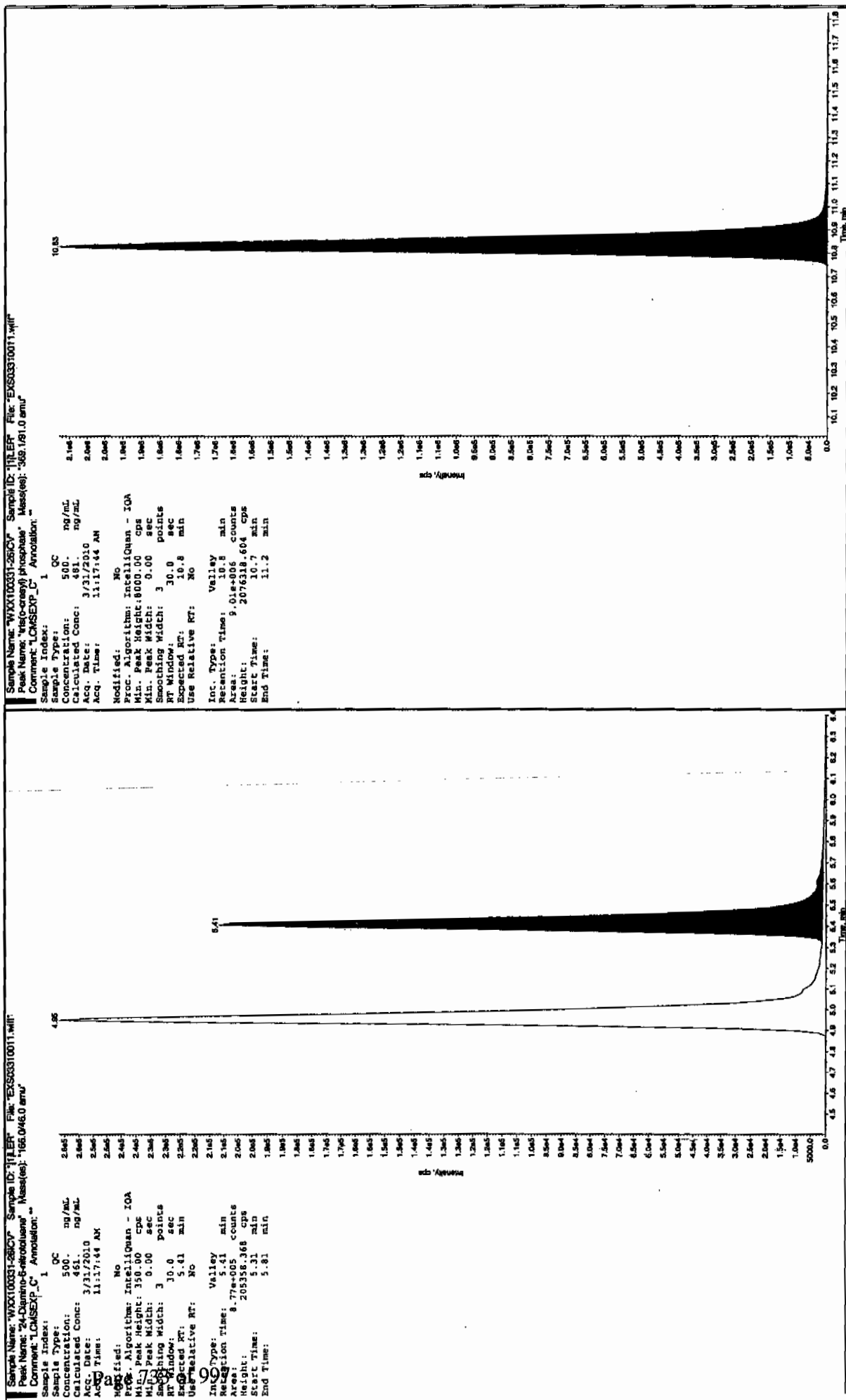
Scan 4/5/10



Scan 04/05/10







7B  
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2027

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0408012a

Analysis Date: 09-APR-10 02:57

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	40.125	100	
1,3-Dinitrobenzene-d4	500	550.578	110	
2,4,6-Trinitrotoluene	40	38.456	96	
2,4-Dinitrotoluene	40	38.733	97	
2,6-Dinitrotoluene	40	40.684	102	
2,6-Dinitrotoluene-d3	500	538.431	108	
2-Amino-4,6-dinitrotoluene	40	38.144	95	
3,4-Dinitrotoluene	20	21.449	107	
4-Amino-2,6-dinitrotoluene	40	42.093	105	
HMX	40	42.773	107	
Nitrobenzene	40	44.561	111	
PETN	40	43.336	108	
RDX	40	42.104	105	
Tetryl	40	39.686	99	
m-Dinitrobenzene	40	41.454	104	
m-Nitrotoluene	40	38.638	97	
o-Nitrotoluene	40	40.786	102	
p-Nitrotoluene	40	44.935	112	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

Quantify Sample Report

GEL Laboratories, LLC / Analyst: Michael A. Penny

Printed: Fri Apr 09 10:56:07 2010, Page 23 of 51

Dataset: C:\MASSLYNX\New\_Exp.PRO\040810expA.qld, Time: Fri Apr 09 10:54:52 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0408012a

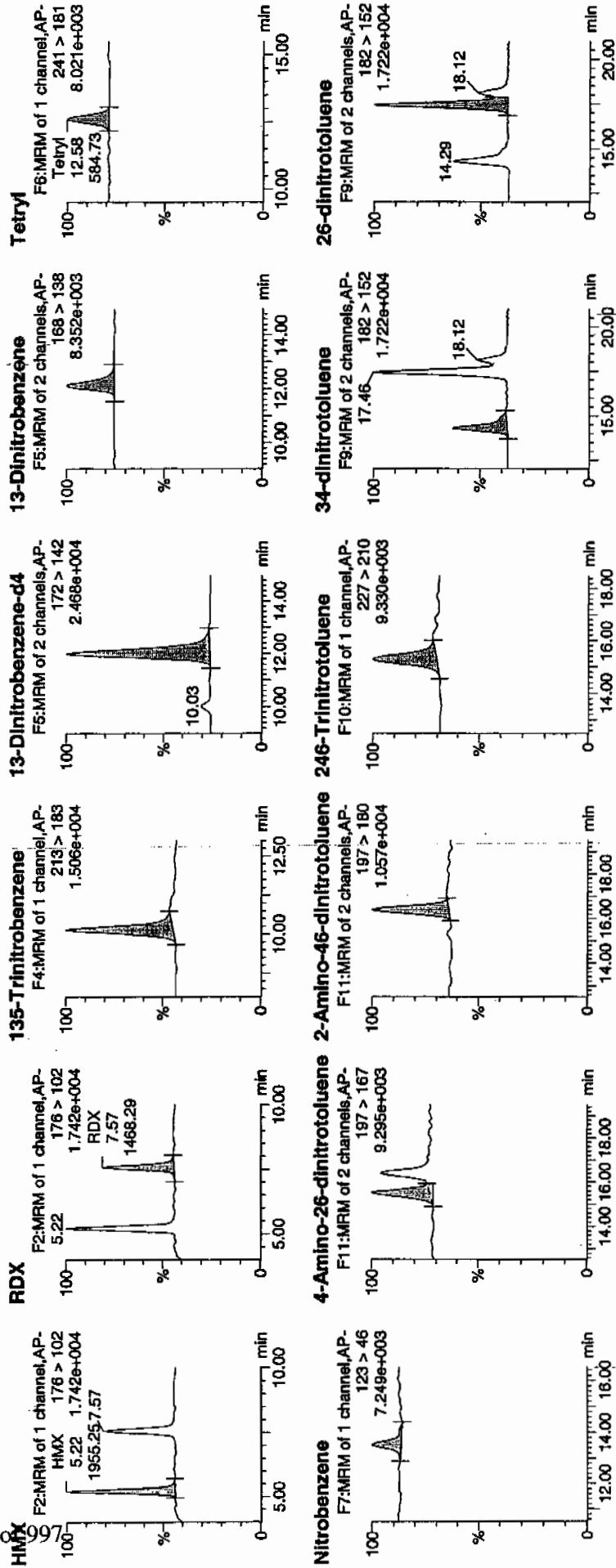
Date: 09-Apr-2010

Time: 02:57:06

ID: WXX100408-08CRI

Vial: 1:1,C

MTT  
4/10/10



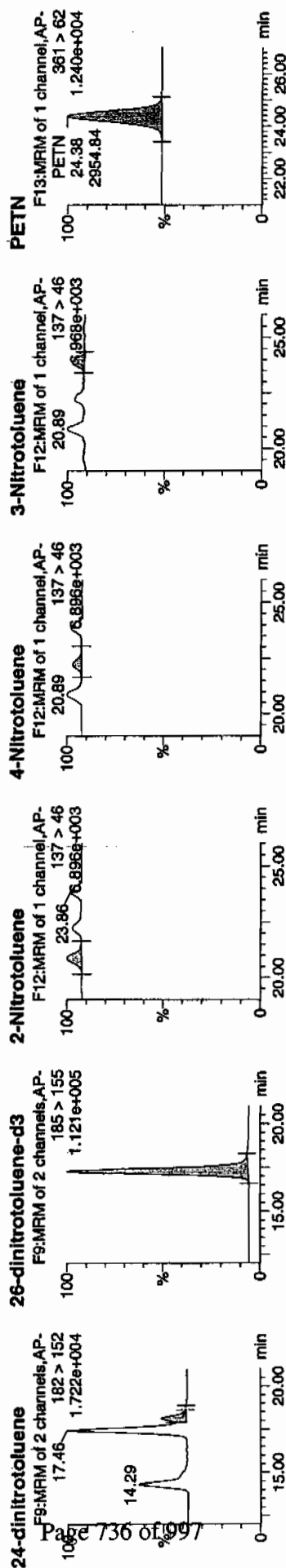
MTT  
4/10/10

# Quantify Sample Report

GEL Laboratories, LLC / Analyst: Michael A. Penny

Printed: Fri Apr 09 10:56:07 2010, Page 24 of 51

Dataset: C:\MASSLYNX\New\_Exp\_PRO\040810expA.qld, Time: Fri Apr 09 10:54:52 2010



ID	Name	Trace	RT	Area	Height	Area%	Height%	Acq. Date	Acq. Time	Response	Height	Area%	Height%	Acq. Date	Acq. Time	Response	Height	Area%	Height%
WXX100408-08CRI	HMZ	176 > 102	5.22	1955.254	7155.368	1955.254	136.628	bb				42.7734	106.9	6.9	205.0				
WXX100408-08CRI	RDX	176 > 102	7.57	1468.288	7155.368	1468.288	102.600	bb				42.1035	105.3	5.3	134.3				
WXX100408-08CRI	135-Trinitrobenzene	213 > 183	10.13	2425.125	7155.368	2425.125	169.462	bb				40.1250	100.3	0.3	134.0				
WXX100408-08CRI	13-Dinitrobenzene-d4	172 > 142	11.97	7155.368		7155.368	7155.368	bb				550.5781	110.1	10.1	503.1				
WXX100408-08CRI	13-Dinitrobenzene	168 > 138	12.10	764.006	7155.368	764.006	53.387	bb				41.4536	103.6	3.6	129.7				
WXX100408-08CRI	Tetryl	241 > 181	12.58	584.727	7155.368	584.727	40.859	bb				39.6858	99.2	-0.8	63.7				
WXX100408-08CRI	Nitrobenzene	129 > 46	13.53	383.258	7155.368	383.258	26.781	bb				44.5607	111.4	11.4	21.5				
WXX100408-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.52	1114.118	42512.996	1114.118	13.103	MM	09-Apr-10	10:44:22		42.0831	105.2	5.2	45.7				
WXX100408-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.40	1481.604	42512.996	1481.604	17.425	bb				38.1440	95.4	-4.6	61.2				
WXX100408-08CRI	246-Trinitrotoluene	227 > 210	15.30	1258.172	42512.996	1258.172	14.797	bb				38.4557	96.1	-3.9	102.4				
WXX100408-08CRI	34-dinitrotoluene	182 > 152	14.29	1870.371	42512.996	1870.371	21.998	bb				21.4490	107.2	7.2	70.8				
WXX100408-08CRI	26-dinitrotoluene	182 > 152	17.46	3934.310	42512.996	3934.310	46.272	MM	09-Apr-10	10:46:56		40.6842	101.7	1.7	174.3				
WXX100408-08CRI	24-dinitrotoluene	182 > 152	18.12	871.853	42512.996	871.853	10.254	MM	09-Apr-10	10:51:02		38.7930	96.8	-3.2	36.8				
WXX100408-08CRI	26-dinitrotoluene-d3	185 > 155	17.29	42512.996		42512.996	42512.996	bb				538.4311	107.7	7.7	2811.2				
WXX100408-08CRI	2-Nitrotoluene	137 > 46	20.89	266.200	42512.996	266.200	3.131	bb				40.7862	102.0	2.0	57.8				
WXX100408-08CRI	4-Nitrotoluene	137 > 46	22.23	148.485	42512.996	148.485	1.746	bb				44.9351	112.3	12.3	33.1				
WXX100408-08CRI	3-Nitrotoluene	137 > 46	23.86	179.365	42512.996	179.365	2.110	bb				38.6381	96.6	-3.4	34.4				
WXX100408-08CRI	PETN	361 > 62	24.38	2954.841	42512.996	2954.841	34.752	bb				43.3357	108.3	8.3	1075.4				

# GRAND MEAN AVERAGE

Vendor: UltraScientific  
 Date of Analysis 04/09/10  
 Time of Injection 0257  
 Standard Number WXX100408-08CRI  
 Data File EXP0408012a

HMX	106.9
RDX	105.3
135-TNB	100.3
13-DNB	103.6
Tetryl	99.2
Nitrobenzene	111.4
4A-26-DNT	105.2
2A-46-DNT	95.4
246-TNT	96.1
34-DNT(surr)	107.2
26-DNT	101.7
24-DNT	96.8
2-NT	102.0
4-NT	112.3
3-NT	96.6
PETN	108.3

*Handwritten:* 103.0  
4/9/10

Total 1648.3

Average 103.0

*Handwritten:* HMM-04/11/10

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): 10-2027

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0408023a

Analysis Date: 09-APR-10 08:21

LCMSMS ID: 903

Column ID Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
2,4,6-Trinitrotoluene	600	715.187	119	
2,4-Dinitrotoluene	600	602.1	100	
2,6-Dinitrotoluene	600	602.02	100	
2,6-Dinitrotoluene-d3	500	495.787	99	
2-Amino-4,6-dinitrotoluene	600	644.303	107	
3,4-Dinitrotoluene	300	301.84	101	
4-Amino-2,6-dinitrotoluene	600	630.065	105	
HMX	600	635.768	106	
Nitrobenzene	600	572.021	95	
PETN	600	626.401	104	
RDX	600	690.522	115	
Tetryl	600	685.312	114	
m-Dinitrobenzene	600	617.8	103	
m-Nitrotoluene	600	521.623	87	
o-Nitrotoluene	600	549.165	92	
p-Nitrotoluene	600	580.011	97	
1,3,5-Trinitrobenzene	600	602.085	100	
1,3-Dinitrobenzene-d4	500	509.39	102	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 70-130%

Other Target Analytes 80-120%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

Quantify Sample Report  
GEL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp.PRO\040810expA.qld, Time: Fri Apr 09 10:54:52 2010

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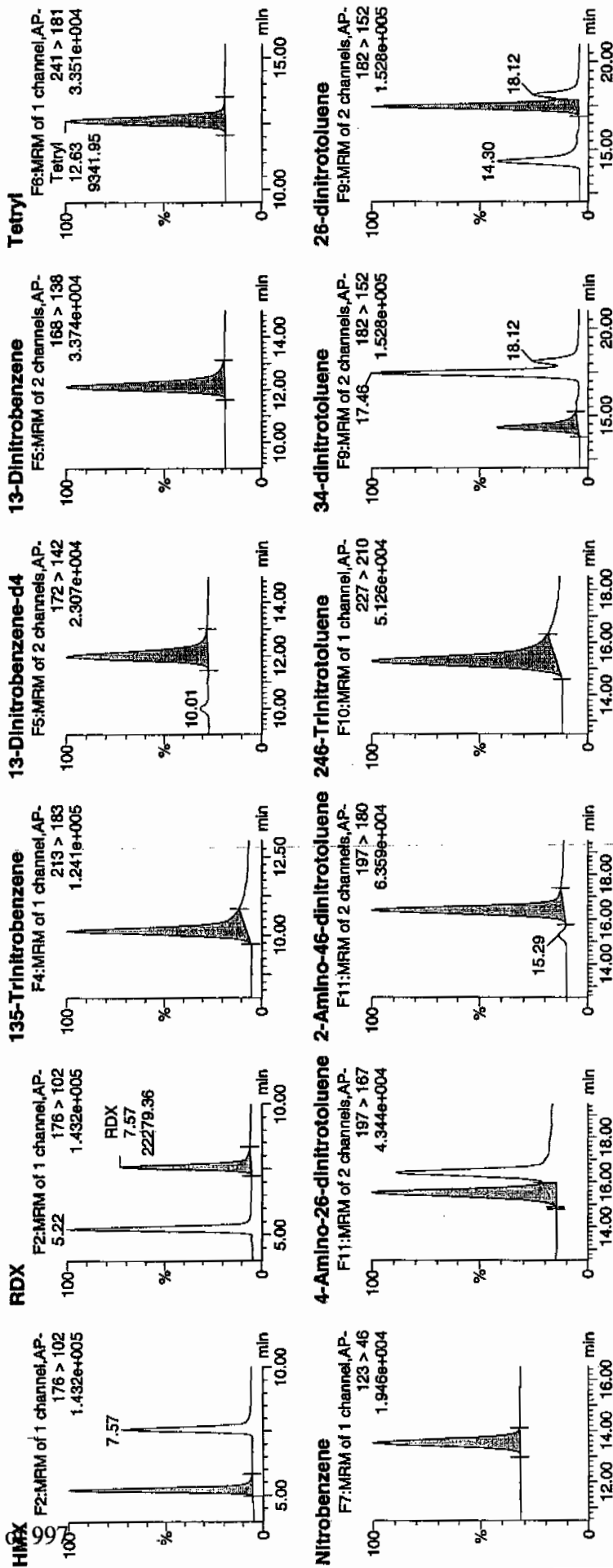
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Time: 08:21:23

ID: WXX100408-07CCV

View: 1:1,B

4/12/10



4/11/10





GRAND MEAN AVERAGE

Vendor: Restek  
 Date of Analysis: 04/09/10  
 Time of Injection: 0821  
 Standard Number: WXX100408-07CCV  
 Data File: EXP0408023a

HMX	106.0
RDX	115.1
135-TNB	100.3
13-DNB	103.0
Tetryl	114.2
Nitrobenzene	95.3
4A-26-DNT	105.0
2A-46-DNT	107.4
246-TNT	119.2
34-DNT(surr)	100.6
26-DNT	100.3
24-DNT	100.3
2-NT	91.5
4-NT	96.7
3-NT	86.9
PETN	104.4
Total	1646.2

*Handwritten:* 102.9  
4/10/10

Average

102.9

*Handwritten:* 04/11/10

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): 10-2027

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0408025a

Analysis Date: 09-APR-10 09:20

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
2,6-Dinitrotoluene-d3	500	534.081	107	
2-Amino-4,6-dinitrotoluene	40	41.315	103	
3,4-Dinitrotoluene	20	19.176	96	
4-Amino-2,6-dinitrotoluene	40	39.827	100	
HMX	40	38.969	97	
Nitrobenzene	40	33.805	85	
PETN	40	41.785	104	
RDX	40	36.3	91	
Tetryl	40	44.096	110	
m-Dinitrobenzene	40	39.708	99	
m-Nitrotoluene	40	39.704	99	
o-Nitrotoluene	40	43.509	109	
p-Nitrotoluene	40	44.305	111	
1,3,5-Trinitrobenzene	40	45.5	114	
1,3-Dinitrobenzene-d4	500	551.868	110	
2,4,6-Trinitrotoluene	40	38.744	97	
2,4-Dinitrotoluene	40	39.839	100	
2,6-Dinitrotoluene	40	40.632	102	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

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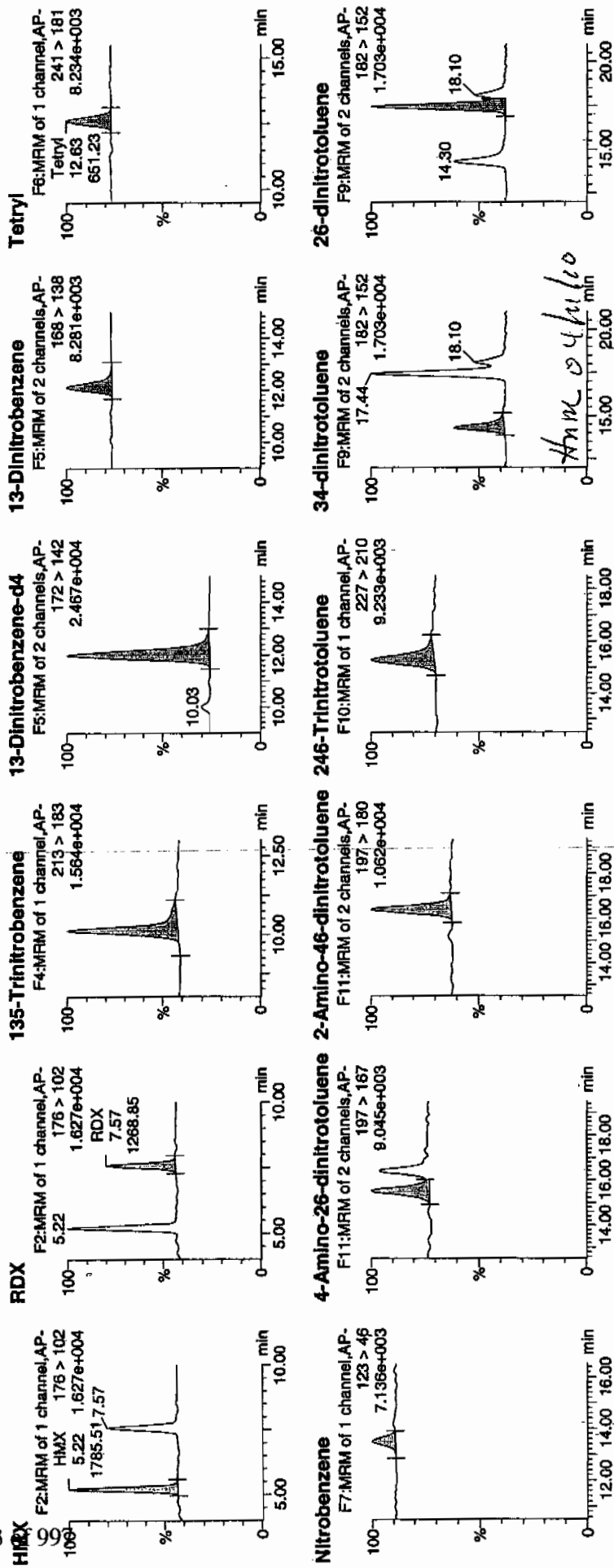
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Date: 09-Apr-2010

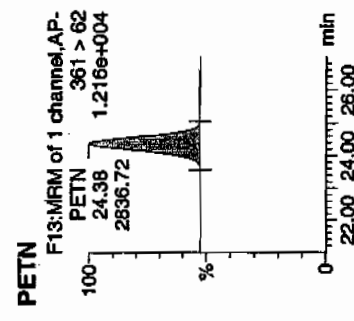
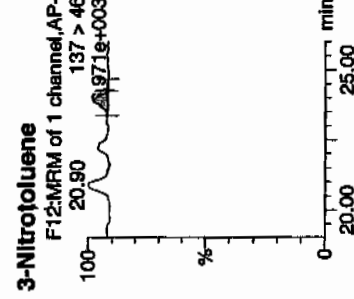
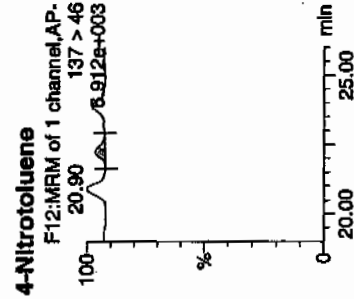
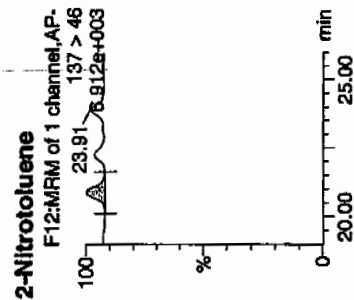
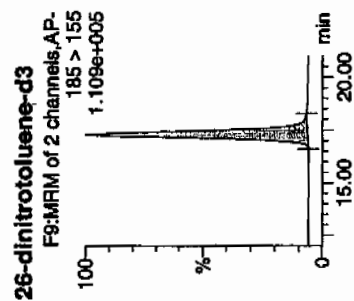
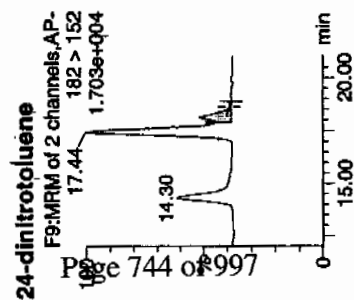
Time: 09:20:28

ID: SWXX100408-08CRI

Vial: 1:1,C



Dataset C:\MASSLYN\New\_Exp.PRO\040810expA.qld, Time: Fri Apr 09 10:54:52 2010



ID	Name	Trace	Height	Area	IS/MS	Area/Height	Response	Peak	Width	Mod. Time	Area	Height	Area/Height
WXX100408-08CRI	HMX	176 > 102	5.22	1785.509	7172.133	1785.509	124.475	bb	38.9688	97.4	-2.6	182.8	
WXX100408-08CRI	RDX	176 > 102	7.57	1268.851	7172.133	1268.851	88.457	bb	36.2995	90.7	-9.3	116.8	
WXX100408-08CRI	135-Trinitrobenzene	213 > 183	10.14	2756.432	7172.133	2756.432	192.163	bb	45.5001	113.8	13.8	137.2	
WXX100408-08CRI	13-Dinitrobenzene-d4	172 > 142	12.00	7172.133	7172.133	7172.133	7172.133	bb	551.8681	110.4	10.4	1479.4	
WXX100408-08CRI	13-Dinitrobenzene	168 > 138	12.14	733.552	7172.133	733.552	51.139	bb	39.7082	99.3	-0.7	102.6	
WXX100408-08CRI	Tetryl	241 > 181	12.63	651.230	7172.133	651.230	45.400	bb	44.0961	110.2	10.2	75.9	
WXX100408-08CRI	Nitrobenzene	123 > 46	13.54	291.435	7172.133	291.435	20.317	bb	33.8054	84.5	-15.5	26.1	
WXX100408-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.53	1045.621	42169.504	1045.621	12.398	MM	39.8270	99.6	-0.4	31.0	
WXX100408-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.41	1591.803	42169.504	1591.803	18.874	bb	41.3149	103.3	3.3	93.8	
WXX100408-08CRI	246-Trinitrotoluene	227 > 210	15.31	1257.368	42169.504	1257.368	14.908	bb	38.7441	96.9	-3.1	158.0	
WXX100408-08CRI	34-dinitrotoluene	182 > 152	14.30	1658.674	42169.504	1658.674	19.667	bb	19.1762	95.9	-4.1	79.4	
WXX100408-08CRI	26-dinitrotoluene	182 > 152	17.44	3897.471	42169.504	3897.471	46.212	MM	40.6316	101.6	1.6	214.1	
WXX100408-08CRI	24-dinitrotoluene	182 > 152	18.10	889.509	42169.504	889.509	10.547	MM	39.8393	99.6	-0.4	46.6	
WXX100408-08CRI	26-dinitrotoluene-d3	185 > 155	17.29	42169.504	42169.504	42169.504	42169.504	bb	534.0807	106.8	6.8	2957.1	
WXX100408-08CRI	2-Nitrotoluene	137 > 46	20.90	281.676	42169.504	281.676	3.340	bb	43.5089	108.8	8.8	67.2	
WXX100408-08CRI	4-Nitrotoluene	137 > 46	22.24	145.220	42169.504	145.220	1.722	bb	44.3050	110.8	10.8	36.0	
WXX100408-08CRI	3-Nitrotoluene	137 > 46	23.90	182.823	42169.504	182.823	2.168	MM	39.7038	99.3	-0.7	41.3	
WXX100408-08CRI	PETN	361 > 62	24.38	2836.721	42169.504	2836.721	33.635	bb	41.7853	104.5	4.5	1189.4	

# GRAND MEAN AVERAGE

Vendor: UltraScientific  
 Date of Analysis 04/09/10  
 Time of Injection 0920  
 Standard Number WXX100408-08CRI  
 Data File EXP0408025a

HMX	97.4
RDX	90.7
135-TNB	113.8
13-DNB	99.3
Tetryl	110.2
Nitrobenzene	84.5
4A-26-DNT	99.6
2A-46-DNT	103.3
246-TNT	96.9
34-DNT(surr)	95.9
26-DNT	101.6
24-DNT	99.6
2-NT	108.8
4-NT	110.8
3-NT	99.3
PETN	104.5

*Handwritten:*  
 4/10/10

Total 1616.2

Average 101.0

*Handwritten:* 4/10/10  
 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): 10-2027

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0408036a

Analysis Date: 09-APR-10 14:44

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
RDX	600	715.89	119	
Tetryl	600	687.697	115	
m-Dinitrobenzene	600	604.247	101	
m-Nitrotoluene	600	522.415	87	
o-Nitrotoluene	600	540.297	90	
p-Nitrotoluene	600	575.108	96	
1,3,5-Trinitrobenzene	600	615.039	103	
1,3-Dinitrobenzene-d4	500	422.177	84	
2,4,6-Trinitrotoluene	600	700.231	117	
2,4-Dinitrotoluene	600	598.551	100	
2,6-Dinitrotoluene	600	601.126	100	
2,6-Dinitrotoluene-d3	500	415.826	83	
2-Amino-4,6-dinitrotoluene	600	671.115	112	
3,4-Dinitrotoluene	300	297.202	99	
4-Amino-2,6-dinitrotoluene	600	629.291	105	
HMX	600	668.293	111	
Nitrobenzene	600	565.065	94	
PETN	600	633.087	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

Quantify Sample Report  
GEL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp\_PRO\040810expA1.qld, Time: Sat Apr 10 11:40:36 2010

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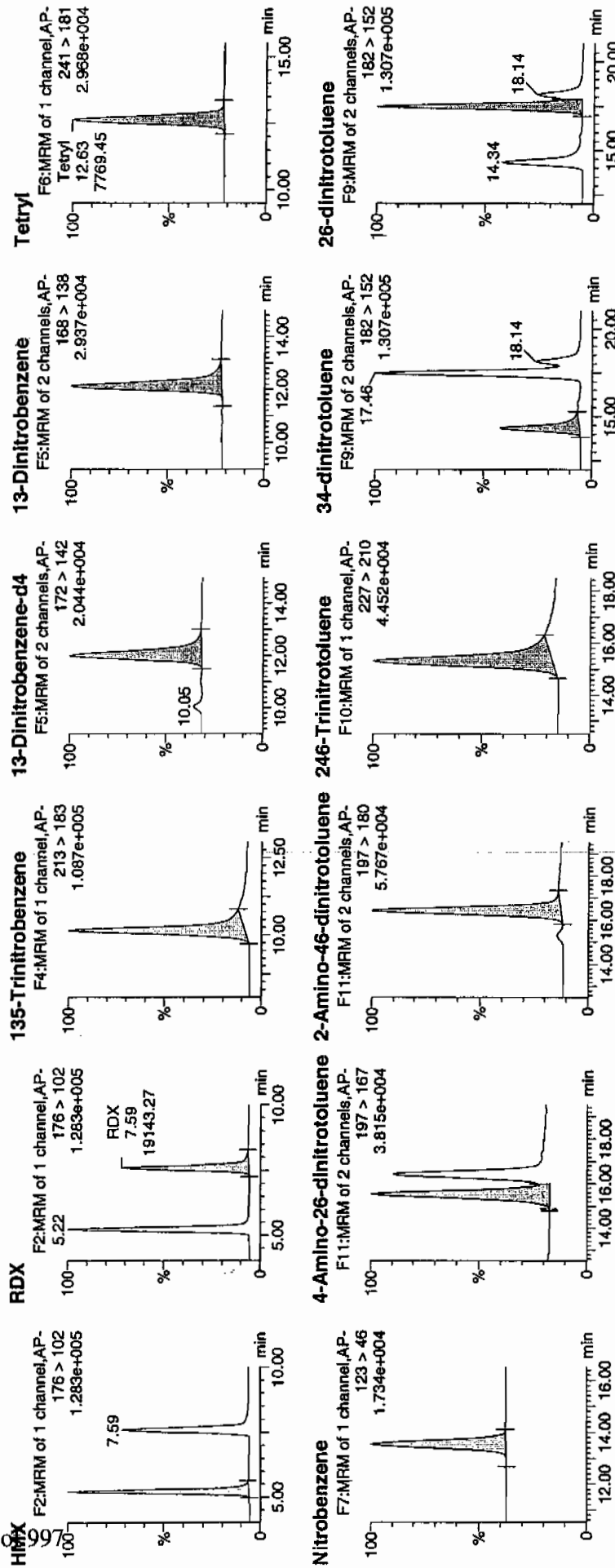
Date: 09-Apr-2010

Time: 14:44:48

ID: WXX100408-07CCV

Vial: 1:1,B

MMT  
4/10/10



MMT 04/11/10



**2,4-dinitrotoluene**

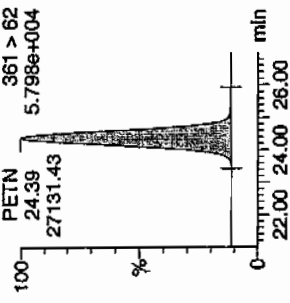
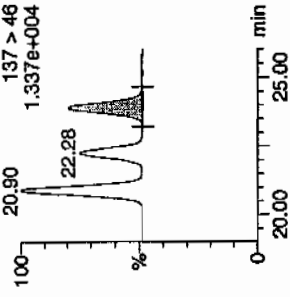
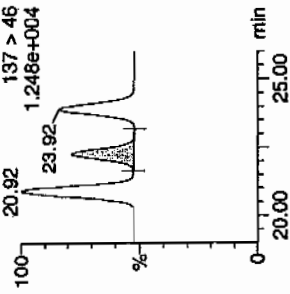
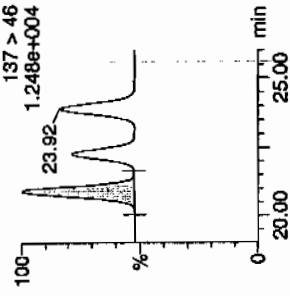
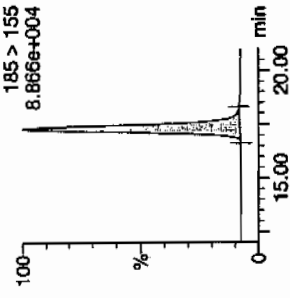
F9:MRM of 2 channels, AP-

F12:MRM of 1 channel,AP-

F12:MRM of 1 channel, A.P.-

F12:MRM of 1 channel,AP-

**F13:MRM of 1 channel,AP-**



Lab	Name	Trace	RT	Area	S Area	Abs Resp	Response	Flags	Mod Date	Mod Time	Inj Vol	AcqSec	PB	SN
WXX100408-07CCV	HMX	176 > 102	5.22	23424.582	5486.660	23424.582	2134.685	bb			668.2927	111.4	11.4	955.9
WXX100408-07CCV	RDX	176 > 102	7.59	19143.270	5486.660	19143.270	1744.529	bb			715.8904	119.3	19.3	670.4
WXX100408-07CCV	135-Trinitrobenzene	213 > 183	10.14	28503.471	5486.660	28503.471	2597.525	bb			615.0391	102.5	2.5	608.2
WXX100408-07CCV	13-Dinitrobenzene-d4	172 > 142	12.00	5486.660		5486.660	5486.660	bb			422.1774	84.4	-15.6	856.5
WXX100408-07CCV	13-Dinitrobenzene	168 > 138	12.14	8539.355	5486.660	8539.355	778.192	bb			604.2470	100.7	0.7	640.0
WXX100408-07CCV	Tetryl	241 > 181	12.63	7769.454	5486.660	7769.454	708.031	bb			687.6967	114.6	14.6	505.4
WXX100408-07CCV	Nitrobenzene	123 > 46	13.54	3726.606	5486.660	3726.606	339.606	bb			565.0651	94.2	-5.8	329.8
WXX100408-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.53	12863.338	32832.465	12863.338	195.894	MM	10-Apr-10	11:39:04	629.2910	104.9	4.9	336.0
WXX100408-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.41	20131.918	32832.465	20131.918	306.586	bb			671.1155	111.9	11.9	952.0
WXX100408-07CCV	246-Trinitrotoluene	227 > 210	15.31	17693.051	32832.465	17693.051	269.444	bb			700.2311	116.7	16.7	1173.6
WXX100408-07CCV	34-dinitrotoluene	182 > 152	14.34	20014.955	32832.465	20014.955	304.804	bb			297.2019	99.1	-0.9	440.5
WXX100408-07CCV	26-dinitrotoluene	182 > 152	17.46	44894.105	32832.465	44894.105	683.685	MM	10-Apr-10	11:35:00	601.1256	100.2	0.2	1130.5
WXX100408-07CCV	24-dinitrotoluene	182 > 152	18.14	10405.064	32832.465	10405.064	158.457	MM	10-Apr-10	11:34:31	598.5511	99.8	-0.2	239.4
WXX100408-07CCV	26-dinitrotoluene-d3	185 > 155	17.29	32832.465		32832.465	32832.465	bb			415.8263	83.2	-16.8	3041.7
WXX100408-07CCV	2-Nitrotoluene	137 > 46	20.92	2723.384	32832.465	2723.384	41.474	bb			540.2967	90.0	-10.0	635.6
WXX100408-07CCV	4-Nitrotoluene	137 > 46	22.28	1467.669	32832.465	1467.669	22.351	bb			575.1078	95.9	-4.1	349.0
WXX100408-07CCV	3-Nitrotoluene	137 > 46	23.92	1872.924	32832.465	1872.924	28.522	bb			522.4154	87.1	-12.9	163.1
WXX100408-07CCV	PETN	361 > 62	24.39	27131.430	32832.465	27131.430	413.180	bb			639.0871	105.5	5.5	12891.7

# GRAND MEAN AVERAGE

Vendor: Restek  
 Date of Analysis: 04/09/10  
 Time of Injection: 1444  
 Standard Number: WXX100408-07CCV  
 Data File: EXP0408036a

HMX	111.4
RDX	119.3
135-TNB	102.5
13-DNB	100.7
Tetryl	114.6
Nitrobenzene	94.2
4A-26-DNT	104.9
2A-46-DNT	111.9
246-TNT	116.7
34-DNT(surr)	99.1
26-DNT	100.2
24-DNT	99.8
2-NT	90.0
4-NT	95.9
3-NT	87.1
PETN	105.5

*1107  
4/9/10*

Total 1653.8

Average 103.4

*1107 04/11/10*

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): 10-2027

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0408038a

Analysis Date: 09-APR-10 15:43

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
o-Nitrotoluene	40	40.293	101	
p-Nitrotoluene	40	48.523	121	
1,3,5-Trinitrobenzene	40	42.597	106	
1,3-Dinitrobenzene-d4	500	488.04	98	
2,4,6-Trinitrotoluene	40	44.653	112	
2,4-Dinitrotoluene	40	41.901	105	
2,6-Dinitrotoluene	40	40.578	101	
2,6-Dinitrotoluene-d3	500	467.068	93	
2-Amino-4,6-dinitrotoluene	40	43.801	110	
3,4-Dinitrotoluene	20	20.469	102	
4-Amino-2,6-dinitrotoluene	40	40.006	100	
HMX	40	42.186	105	
Nitrobenzene	40	41.813	105	
PETN	40	40.909	102	
RDX	40	39.856	100	
Tetryl	40	45.95	115	
m-Dinitrobenzene	40	39.657	99	
m-Nitrotoluene	40	41.758	104	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

Quantify Sample Report  
GEL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp.PRO\040810expA1.qld, Time: Sat Apr 10 11:40:36 2010

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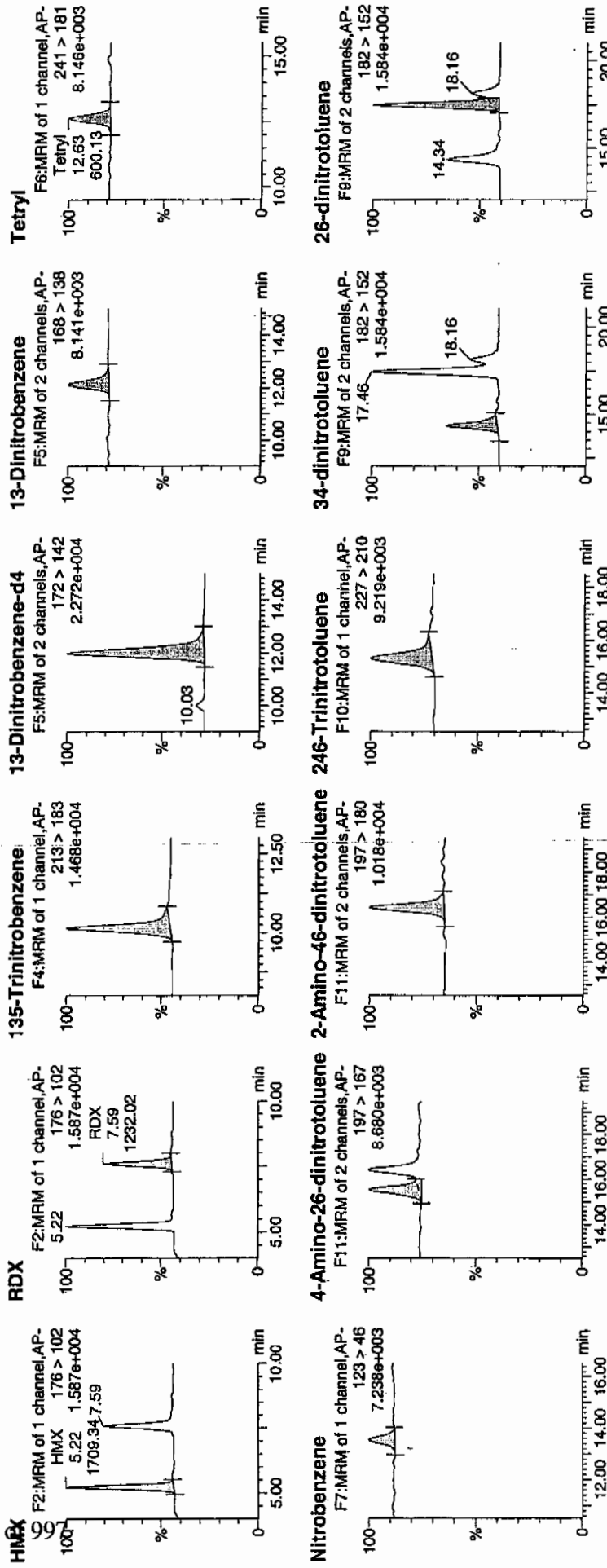
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Time: 15:43:52

ID: WXX100408-08CRI

Vial: 1:1,C

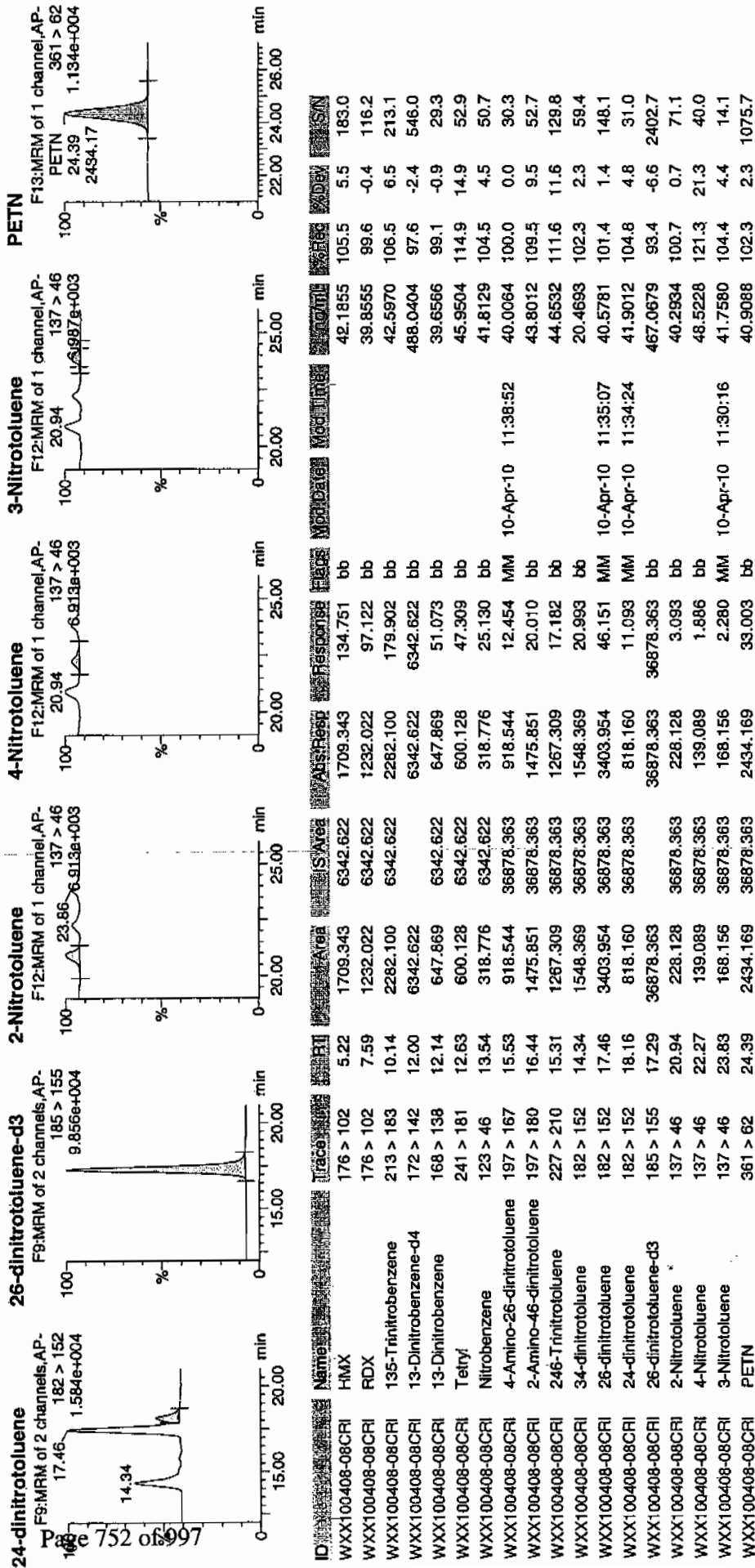
μg  
1/10



start  
04/11/10

Quantify Sample Report  
GEL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: C:\MASSLYN\New\_Exp\PRO\040810expA1.qld, Time: Sat Apr 10 11:40:36 2010



GRAND MEAN AVERAGE

Vendor: UltraScientific  
 Date of Analysis 04/09/10  
 Time of Injection 1543  
 Standard Number WXX100408-08CRI  
 Data File EXP0408038a

HMX	105.5
RDX	99.6
135-TNB	106.5
13-DNB	99.1
Tetryl	114.9
Nitrobenzene	104.5
4A-26-DNT	100.0
2A-46-DNT	109.5
246-TNT	111.6
34-DNT(surr)	102.3
26-DNT	101.4
24-DNT	104.8
2-NT	100.7
4-NT	121.3
3-NT	104.4
PETN	102.3
Total	1688.4

not  
4/10/10

Average

105.5

*Handwritten signature*

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

7A  
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2027

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0408046a

Analysis Date: 09-APR-10 19:43

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	600	626.151	104	
1,3-Dinitrobenzene-d4	500	411.022	82	
2,4,6-Trinitrotoluene	600	720.578	120	*
2,4-Dinitrotoluene	600	610.114	102	
2,6-Dinitrotoluene	600	610.942	102	
2,6-Dinitrotoluene-d3	500	390.069	78	*
2-Amino-4,6-dinitrotoluene	600	714.631	119	
3,4-Dinitrotoluene	300	314.02	105	
4-Amino-2,6-dinitrotoluene	600	619.274	103	
HMX	600	698.805	116	
Nitrobenzene	600	573.858	96	
PETN	600	681.011	114	
RDX	600	745.866	124	*
Tetryl	600	716.114	119	
m-Dinitrobenzene	600	600.408	100	
m-Nitrotoluene	600	529.621	88	
o-Nitrotoluene	600	550.66	92	
p-Nitrotoluene	600	590.579	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

Dataset: C:\MASSLYNX\New\_Exp.PRO\040810expA1.qld, Time: Sat Apr 10 11:40:36 2010

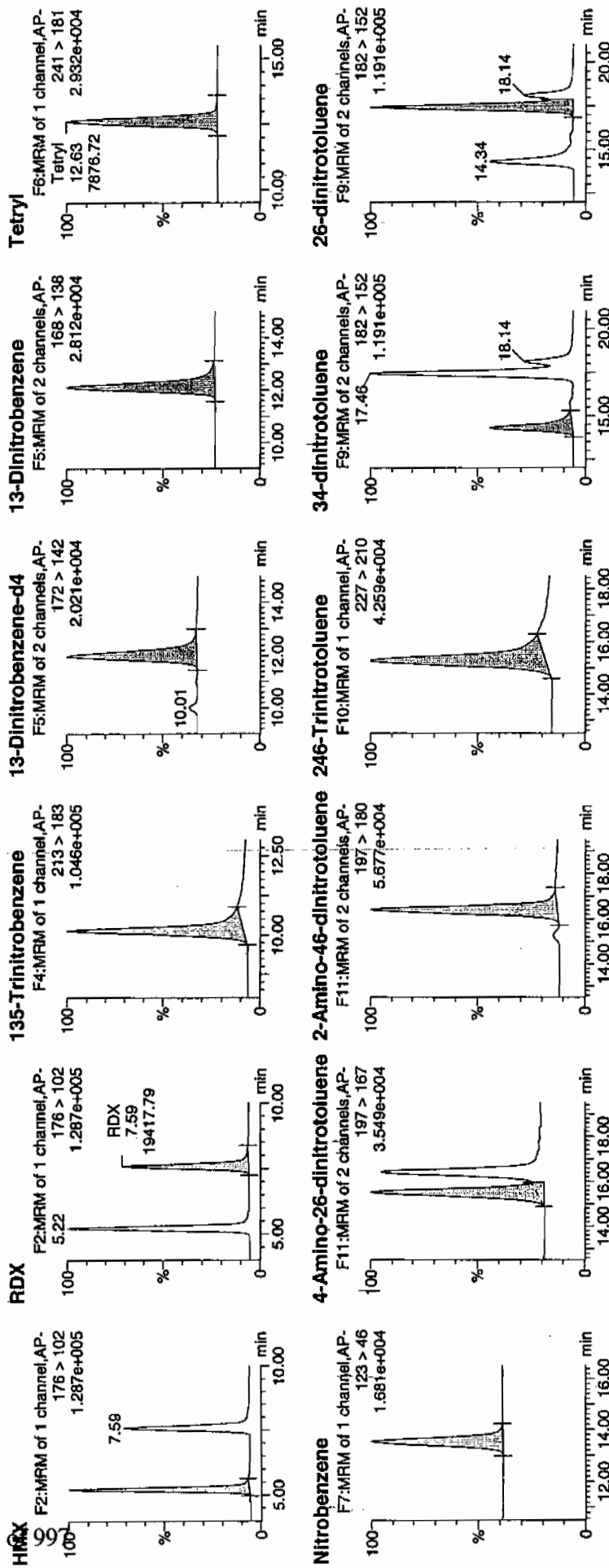
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Date: 09-Apr-2010

Time: 19:43:09

ID: WXX100408-07CCV

View: 1:1,B



show 04/10/10



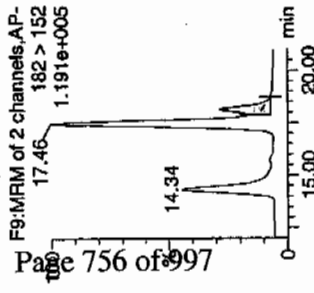
# Quantify Sample Report

GEL Laboratories, LLC / Analyst: Michael A. Penny

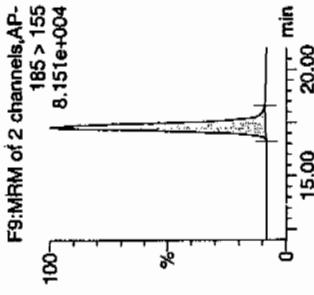
Printed: Sat Apr 10 11:42:30 2010, Page 42 of 99

Dataset: C:\MASSLYNX\New\_Exp.PRO\040810expA1.qld, Time: Sat Apr 10 11:40:36 2010

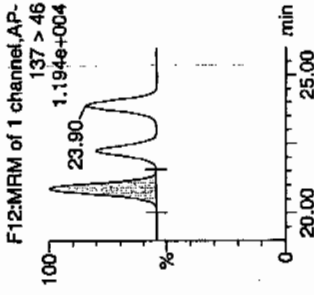
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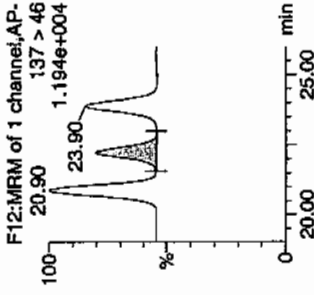
## 26-dinitrotoluene-d3



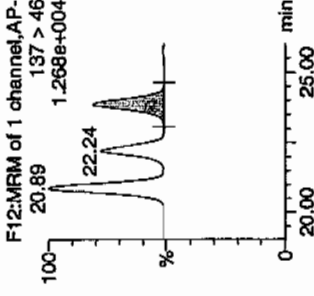
## 2-Nitrotoluene



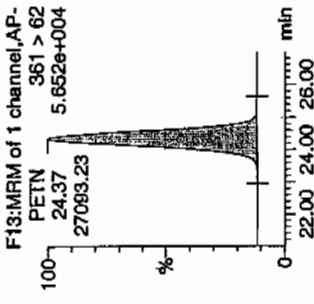
## 4-Nitrotoluene



## 3-Nitrotoluene



## PETN



ID	Name	Trace	RT	Area	IS:Area	Abs:Resp	Flags	Mod:Date	Mod:Time	Ratio	%Rec	Code	SSN
WXX100408-07CCV	HMX	176 > 102	5.22	23846.848	5341.678	23846.848	bb			698.8053	116.5	16.5	2793.1
WXX100408-07CCV	RDX	176 > 102	7.59	19417.789	5341.678	19417.789	bb			745.8655	124.3	24.3	1942.5
WXX100408-07CCV	135-Trinitrobenzene	213 > 183	10.14	28251.629	5341.678	28251.629	bb			626.1507	104.4	4.4	3005.7
WXX100408-07CCV	13-Dinitrobenzene-d4	172 > 142	11.97	5341.678	5341.678	5341.678	bb			411.0216	82.2	-17.8	549.3
WXX100408-07CCV	13-Dinitrobenzene	168 > 138	12.14	8260.887	5341.678	8260.887	bb			600.4080	100.1	0.1	773.1
WXX100408-07CCV	Tetryl	241 > 181	12.63	7876.723	5341.678	7876.723	bb			716.1143	119.4	19.4	646.1
WXX100408-07CCV	Nitrobenzene	123 > 46	13.54	3684.591	5341.678	3684.591	bb			573.8582	95.6	-4.4	346.3
WXX100408-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.53	11874.462	30798.709	11874.462	MM	10-Apr-10	11:38:34	619.2739	103.2	3.2	467.1
WXX100408-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.41	20109.385	30798.709	20109.385	bb			714.6310	119.1	19.1	591.6
WXX100408-07CCV	246-Trinitrotoluene	227 > 210	15.31	17079.340	30798.709	17079.340	bb			720.5776	120.1	20.1	938.9
WXX100408-07CCV	34-dinitrotoluene	182 > 152	14.34	19837.617	30798.709	19837.617	bb			314.0201	104.7	4.7	600.8
WXX100408-07CCV	26-dinitrotoluene	182 > 152	17.46	42800.914	30798.709	42800.914	MM	10-Apr-10	11:35:20	610.9419	101.8	1.8	1478.7
WXX100408-07CCV	24-dinitrotoluene	182 > 152	18.14	9949.095	30798.709	9949.095	MM	10-Apr-10	11:34:13	610.1140	101.7	1.7	344.3
WXX100408-07CCV	26-dinitrotoluene-d3	185 > 155	17.29	30798.709	30798.709	30798.709	bb			390.0686	78.0	-22.0	1409.6
WXX100408-07CCV	2-Nitrotoluene	137 > 46	20.90	2603.687	30798.709	2603.687	bb			550.6596	91.8	-8.2	150.7
WXX100408-07CCV	4-Nitrotoluene	137 > 46	22.25	1413.793	30798.709	1413.793	bb			590.5789	98.4	-1.6	85.8
WXX100408-07CCV	3-Nitrotoluene	137 > 46	23.88	1781.142	30798.709	1781.142	bb			529.6212	88.3	-11.7	81.1
WXX100408-07CCV	PETN	361 > 62	24.37	27093.227	30798.709	27093.227	bb			681.0113	113.5	13.5	552.1

GRAND MEAN AVERAGE

Vendor: Restek  
 Date of Analysis: 04/09/10  
 Time of Injection: 1943  
 Standard Number: WXX100408-07CCV  
 Data File: EXP0408046a

HMX	116.5
RDX	124.3
135-TNB	104.4
13-DNB	100.1
Tetryl	119.4
Nitrobenzene	95.6
4A-26-DNT	103.2
2A-46-DNT	119.1
246-TNT	120.1
34-DNT(surr)	104.7
26-DNT	101.8
24-DNT	101.7
2-NT	91.8
4-NT	98.4
3-NT	88.3
PETN	113.5

*not  
4/10/10*

Total 1702.9

Average 106.4

*Handwritten signature*

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): 10-2027

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0408048a

Analysis Date: 09-APR-10 20:42

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	46.817	117	
1,3-Dinitrobenzene-d4	500	425.431	85	
2,4,6-Trinitrotoluene	40	45.785	114	
2,4-Dinitrotoluene	40	39.222	98	
2,6-Dinitrotoluene	40	40.808	102	
2,6-Dinitrotoluene-d3	500	413.788	83	
2-Amino-4,6-dinitrotoluene	40	41.709	104	
3,4-Dinitrotoluene	20	19.877	99	
4-Amino-2,6-dinitrotoluene	40	40.41	101	
HMX	40	49.707	124	
Nitrobenzene	40	37.314	93	
PETN	40	45.798	114	
RDX	40	48.995	122	
Tetryl	40	47.57	119	
m-Dinitrobenzene	40	38.146	95	
m-Nitrotoluene	40	37.735	94	
o-Nitrotoluene	40	38.37	96	
p-Nitrotoluene	40	36.579	91	

**Recovery Limits:**

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

# Quantify Sample Report

GEL Laboratories, LLC / Analyst: Michael A. Penny

Printed: Sat Apr 10 11:42:30 2010, Page 45 of 99

Dataset: C:\MASSLYNX\New\_Exp.PRO\040810expA1.qld, Time: Sat Apr 10 11:40:36 2010

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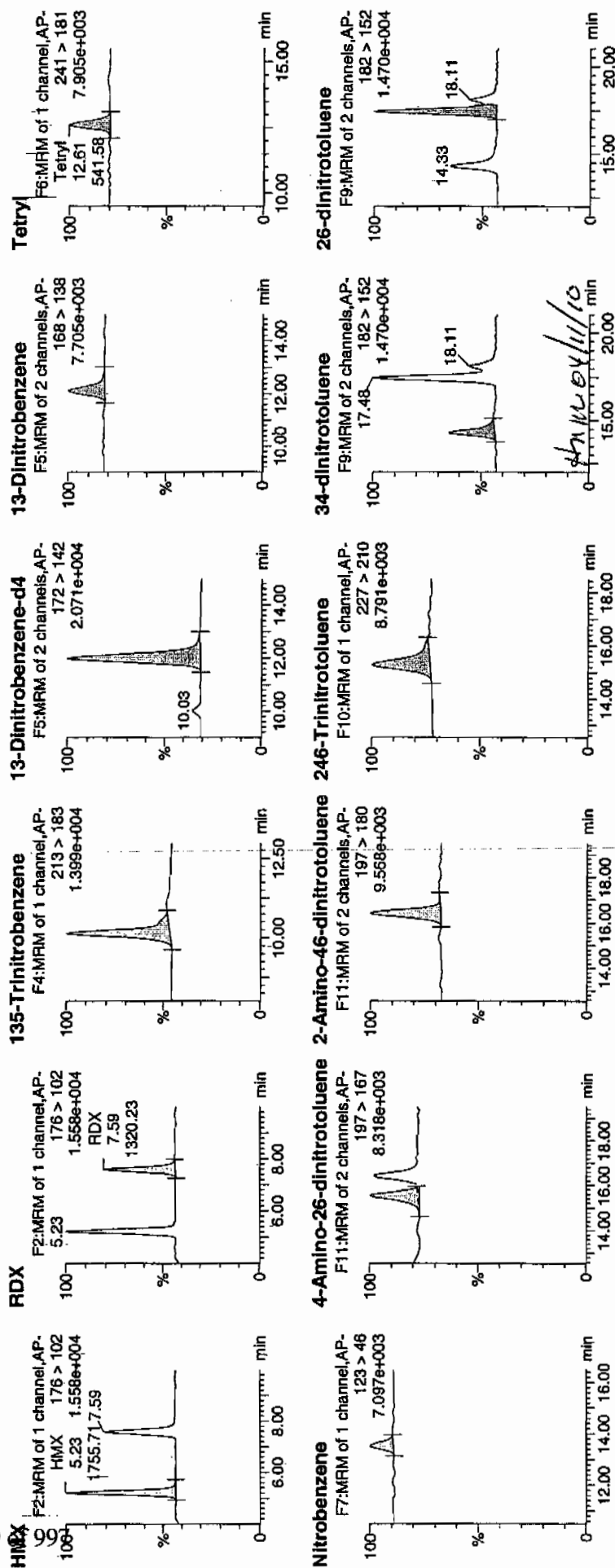
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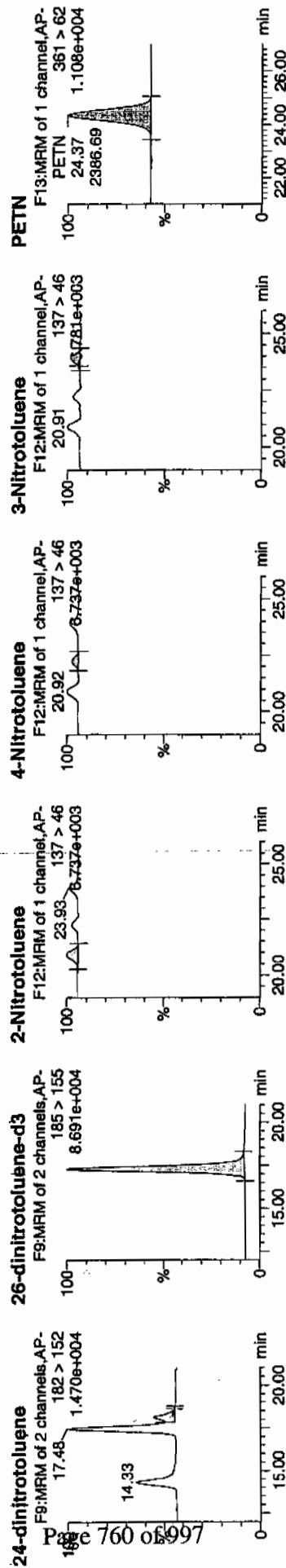
ID: WXX100408-08CRI

View: 1:1,C

4/10/10



Dataset: C:\MASSLYNX\New\_Exp.PRO\040810expA1.qld, Time: Sat Apr 10 11:40:36 2010



ID	Name	Trace	RT	Area	S Area	Abs Resp	Response	Flags	Mod time	Exp time	Conc	MSN		
WXX100408-08CRI	HMX	176 > 102	5.23	1755.715	5528.944	1755.715	158.775	bb		49.7067	124.3	24.3	253.8	
WXX100408-08CRI	RDX	176 > 102	7.59	1320.235	5528.944	1320.235	119.393	bb		48.9945	122.5	22.5	167.2	
WXX100408-08CRI	135-Trinitrobenzene	213 > 183	10.14	2186.401	5528.944	2186.401	197.723	bb		46.8167	117.0	17.0	134.1	
WXX100408-08CRI	13-Dinitrobenzene-d4	172 > 142	12.00	5528.944		5528.944	5528.944	bb		425.4310	85.1	-14.9	244.1	
WXX100408-08CRI	13-Dinitrobenzene	168 > 138	12.13	543.243	5528.944	543.243	49.127	bb		38.1460	95.4	-4.6	40.7	
WXX100408-08CRI	Tetryl	241 > 181	12.61	541.575	5528.944	541.575	48.976	bb		47.5898	118.9	18.9	43.5	
WXX100408-08CRI	Nitrobenzene	123 > 46	13.53	247.982	5528.944	247.982	22.426	bb		37.3139	93.3	-6.7	21.6	
WXX100408-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.54	821.968	32671.566	821.968	12.579	MM	10-Apr-10	11:38:26	40.4098	101.0	1.0	26.3
WXX100408-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.42	1245.053	32671.566	1245.053	19.054	bb		41.7094	104.3	4.3	75.5	
WXX100408-08CRI	246-Trinitrotoluene	227 > 210	15.30	1151.209	32671.566	1151.209	17.618	bb		45.7853	114.5	14.5	99.7	
WXX100408-08CRI	34-dinitrotoluene	182 > 152	14.33	1332.043	32671.566	1332.043	20.385	bb		19.8769	99.4	-0.6	54.0	
WXX100408-08CRI	26-dinitrotoluene	182 > 152	17.48	3032.749	32671.566	3032.749	46.413	MM	10-Apr-10	11:35:30	40.8081	102.0	2.0	171.2
WXX100408-08CRI	24-dinitrotoluene	182 > 152	18.11	678.479	32671.566	678.479	10.383	MM	10-Apr-10	11:34:04	39.2217	98.1	-1.9	34.6
WXX100408-08CRI	26-dinitrotoluene-d3	185 > 155	17.30	32671.566		32671.566	32671.566	bb		413.7885	82.8	-17.2	3953.5	
WXX100408-08CRI	2-Nitrotoluene	137 > 46	20.92	192.459	32671.566	192.459	2.945	bb		38.3703	95.9	-4.1	53.9	
WXX100408-08CRI	4-Nitrotoluene	137 > 46	22.24	92.891	32671.566	92.891	1.422	bb		36.5787	91.4	-8.6	30.6	
WXX100408-08CRI	3-Nitrotoluene	137 > 46	23.95	134.623	32671.566	134.623	2.060	MM	10-Apr-10	11:30:24	37.7354	94.3	-5.7	30.4
WXX100408-08CRI	PETN	361 > 62	24.37	2386.693	32671.566	2386.693	36.526	bb		45.7979	114.5	14.5	598.9	

GRAND MEAN AVERAGE

Vendor: UltraScientific  
 Date of Analysis 04/09/10  
 Time of Injection 2042  
 Standard Number WXX100408-08CRI  
 Data File EXP0408048a

HMX	124.3
RDX	122.5
135-TNB	117.0
13-DNB	95.4
Tetryl	118.9
Nitrobenzene	93.3
4A-26-DNT	101.0
2A-46-DNT	104.3
246-TNT	114.5
34-DNT(surr)	99.4
26-DNT	102.0
24-DNT	98.1
2-NT	95.9
4-NT	91.4
3-NT	94.3
PETN	114.5
Total	1686.8

*Handwritten: 4/9/10*

Average

105.4

*Handwritten: HMX 04/09/10*

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): 10-2027

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0408059a

Analysis Date: 10-APR-10 02:06

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
2,6-Dinitrotoluene	600	605.131	101	
2,6-Dinitrotoluene-d3	500	399.227	80	*
2-Amino-4,6-dinitrotoluene	600	658.874	110	
3,4-Dinitrotoluene	300	306.732	102	
4-Amino-2,6-dinitrotoluene	600	652.267	109	
HMX	600	711.322	119	
Nitrobenzene	600	579.312	97	
PETN	600	690.737	115	
RDX	600	755.934	126	*
Tetryl	600	720.544	120	*
m-Dinitrobenzene	600	636.143	106	
m-Nitrotoluene	600	533.946	89	
o-Nitrotoluene	600	552.318	92	
p-Nitrotoluene	600	573.913	96	
1,3,5-Trinitrobenzene	600	637.472	106	
1,3-Dinitrobenzene-d4	500	406.896	81	
2,4,6-Trinitrotoluene	600	750.861	125	*
2,4-Dinitrotoluene	600	611.885	102	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 70-130%

Other Target Analytes 80-120%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

**Quantify Sample Report**  
GEL Laboratories, LLC / Analyst: Michael A. Penny

Printed: Sat Apr 10 11:42:30 2010, Page 67 of 99

Dataset: C:\MASSLYN\New\_Exp.PRO\040810expA1.qld, Time: Sat Apr 10 11:40:36 2010

Name: C:\MASSLYN\NEW\_EXP.PRO\Data\EXP0408059a

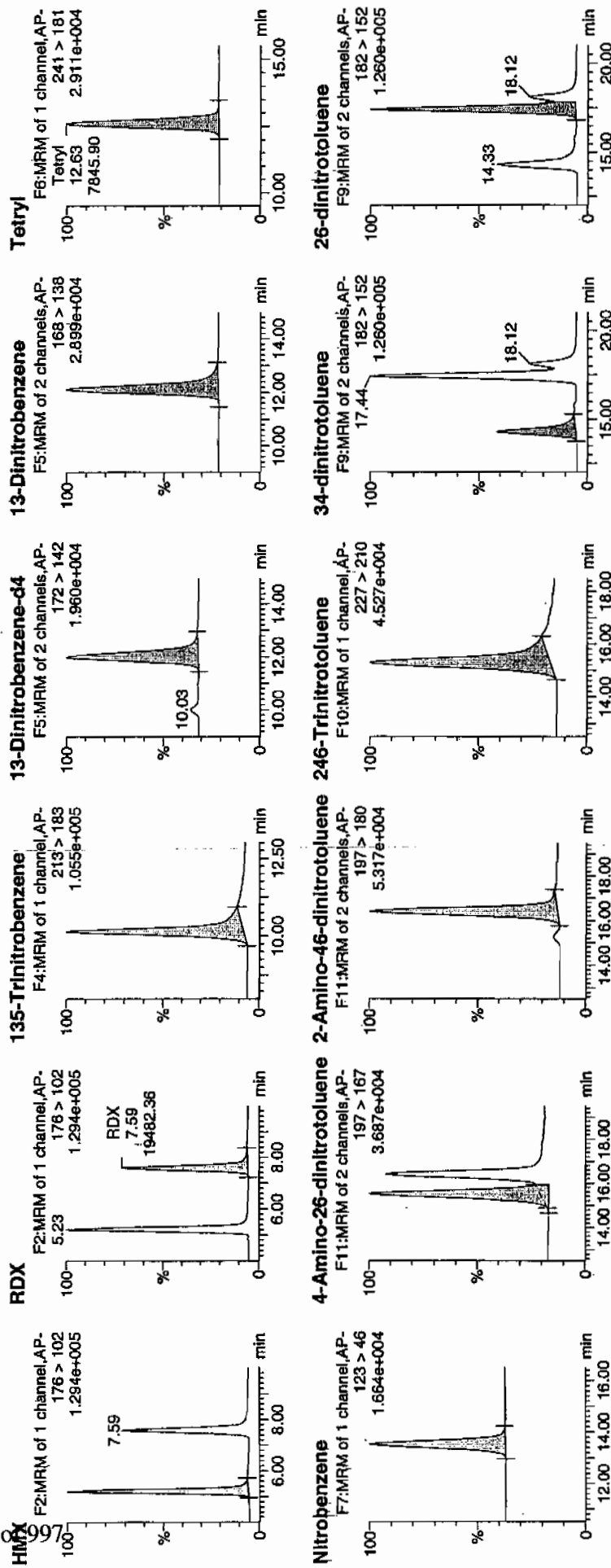
Date: 10-Apr-2010

Time: 02:06:36

ID: WXX100408-07CCV

Vial: 1:1,B

*WXX*  
*4/10/10*

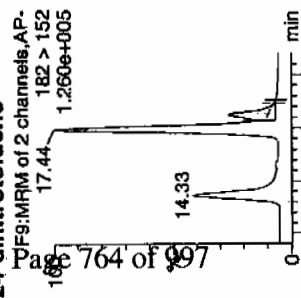


*4/10/10*

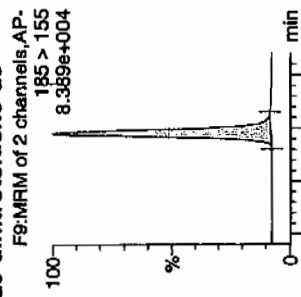


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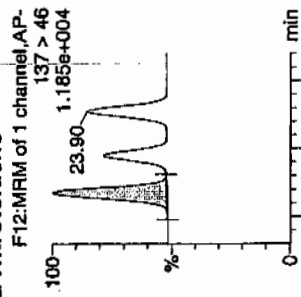
## 24-dinitrotoluene



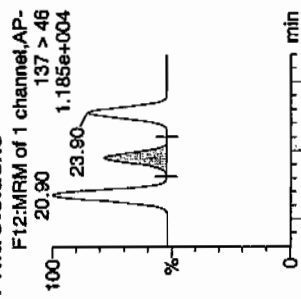
## 26-dinitrotoluene-d3



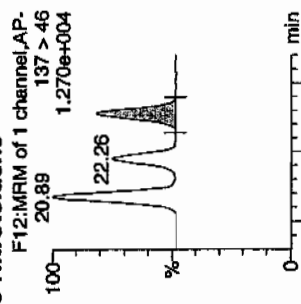
## 2-Nitrotoluene



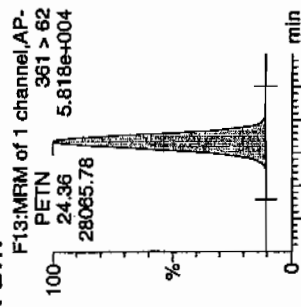
## 4-Nitrotoluene



## 3-Nitrotoluene



## PETN



ID	Name	Trace	RT	Area	S Area	Abs Resp	Response	Flags	Moisture	Moisture	Area	%Dev	SA
WXX100408-07CCV	HMX	176 > 102	5.23	24030.314	5288.059	24030.314	2272.130	bb			711.3217	118.6	1694.3
WXX100408-07CCV	RDX	176 > 102	7.59	19482.361	5288.059	19482.361	1842.109	bb			755.9338	126.0	1174.8
WXX100408-07CCV	135-Trinitrobenzene	213 > 183	10.14	28473.727	5288.059	28473.727	2692.266	bb			637.4719	106.2	6.2
WXX100408-07CCV	13-Dinitrobenzene	172 > 142	12.00	5288.059	5288.059	5288.059	5288.059	bb			406.8959	81.4	-18.6
WXX100408-07CCV	19-Dinitrobenzene	168 > 138	12.14	8664.705	5288.059	8664.705	819.271	bb			636.1433	106.0	6.0
WXX100408-07CCV	Tetryl	241 > 181	12.63	7845.897	5288.059	7845.897	741.850	bb			720.5445	120.1	20.1
WXX100408-07CCV	Nitrobenzene	123 > 46	13.53	3682.273	5288.059	3682.273	348.169	bb			579.3123	96.6	-3.4
WXX100408-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.52	12800.769	31521.859	12800.769	203.046	MM	10-Apr-10	11:37:42	652.2673	108.7	8.7
WXX100408-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.40	18975.732	31521.859	18975.732	300.993	bb			658.8739	109.8	9.8
WXX100408-07CCV	246-Trinitrotoluene	227 > 210	15.30	18214.992	31521.859	18214.992	288.926	bb			750.8607	125.1	25.1
WXX100408-07CCV	34-dinitrotoluene	182 > 152	14.33	19832.203	31521.859	19832.203	314.579	bb			306.7323	102.2	2.2
WXX100408-07CCV	26-dinitrotoluene	182 > 152	17.44	43389.195	31521.859	43389.195	688.240	MM	10-Apr-10	11:36:00	605.1306	100.9	0.9
WXX100408-07CCV	24-dinitrotoluene	182 > 152	18.12	10212.255	31521.859	10212.255	161.987	MM	10-Apr-10	11:33:20	611.8850	102.0	2.0
WXX100408-07CCV	26-dinitrotoluene-d3	185 > 155	17.29	31521.859	31521.859	31521.859	31521.859	bb			399.2273	79.8	-20.2
WXX100408-07CCV	2-Nitrotoluene	137 > 46	20.90	2672.846	31521.859	2672.846	42.397	bb			552.3178	92.1	-7.9
WXX100408-07CCV	4-Nitrotoluene	137 > 46	22.26	1406.156	31521.859	1406.156	22.304	bb			573.9133	95.7	-4.3
WXX100408-07CCV	3-Nitrotoluene	137 > 46	23.90	1837.850	31521.859	1837.850	29.152	bb			533.9463	89.0	-11.0
WXX100408-07CCV	PETN	361 > 62	24.36	28065.779	31521.859	28065.779	445.180	bb			690.7370	115.1	15.1

# GRAND MEAN AVERAGE

Vendor: Restek  
 Date of Analysis: 04/10/10  
 Time of Injection: 0206  
 Standard Number: WXX100408-07CCV  
 Data File: EXP0408059a

HMX	118.6
RDX	126.0
135-TNB	106.2
13-DNB	106.0
Tetryl	120.1
Nitrobenzene	96.6
4A-26-DNT	108.7
2A-46-DNT	109.8
246-TNT	125.1
34-DNT(surr)	102.2
26-DNT	100.9
24-DNT	102.0
2-NT	92.1
4-NT	95.7
3-NT	89.0
PETN	115.1
Total	1714.1

WAT  
4/10/10

Ann 04/11/10

Average

107.1

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): 10-2027

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0408061a

Analysis Date: 10-APR-10 03:05

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
4-Amino-2,6-dinitrotoluene	40	42.51	106	
HMX	40	47.562	119	
Nitrobenzene	40	35.292	88	
PETN	40	48.648	122	
RDX	40	45.14	113	
Tetryl	40	47.002	118	
m-Dinitrobenzene	40	40.574	101	
m-Nitrotoluene	40	32.853	82	
o-Nitrotoluene	40	40.889	102	
p-Nitrotoluene	40	37.144	93	
1,3,5-Trinitrobenzene	40	46.393	116	
1,3-Dinitrobenzene-d4	500	441.96	88	
2,4,6-Trinitrotoluene	40	47.365	118	
2,4-Dinitrotoluene	40	44.761	112	
2,6-Dinitrotoluene	40	41.465	104	
2,6-Dinitrotoluene-d3	500	430.1	86	
2-Amino-4,6-dinitrotoluene	40	46.162	115	
3,4-Dinitrotoluene	20	21.13	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

Quantify Sample Report  
GEL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp.PRO\040810expA1.qld, Time: Sat Apr 10 11:40:36 2010

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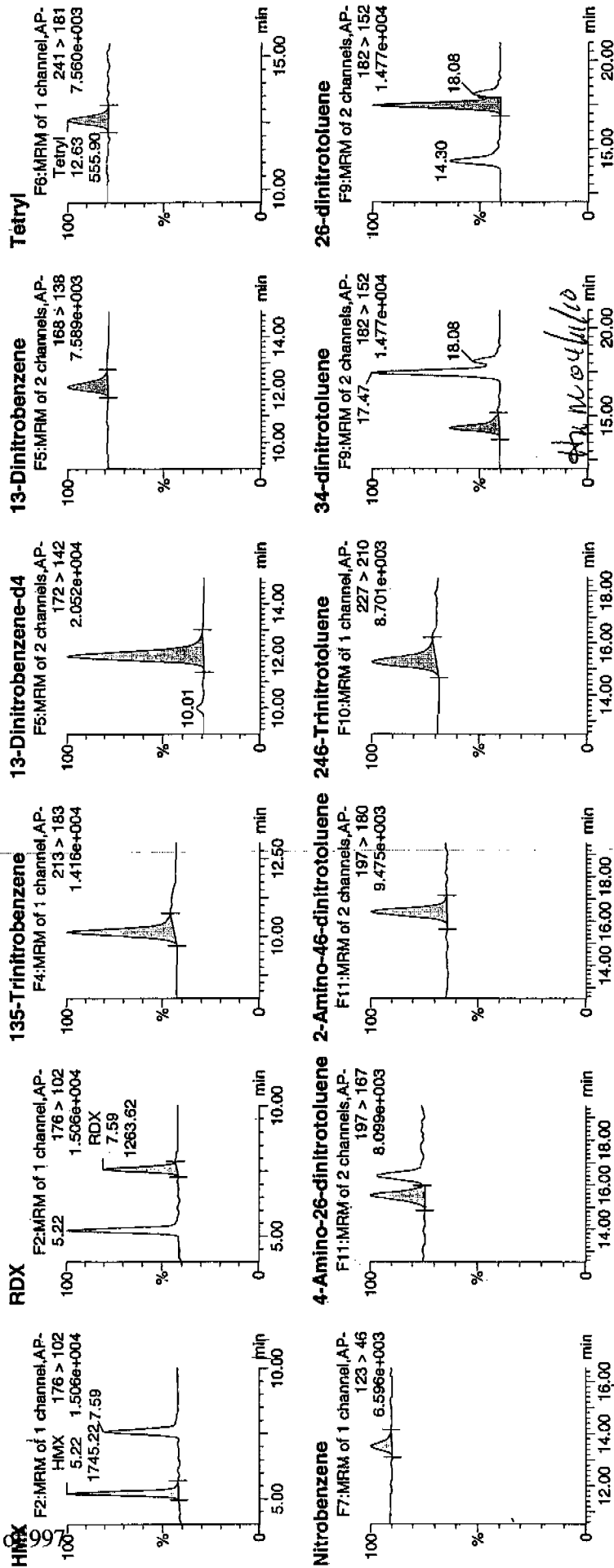
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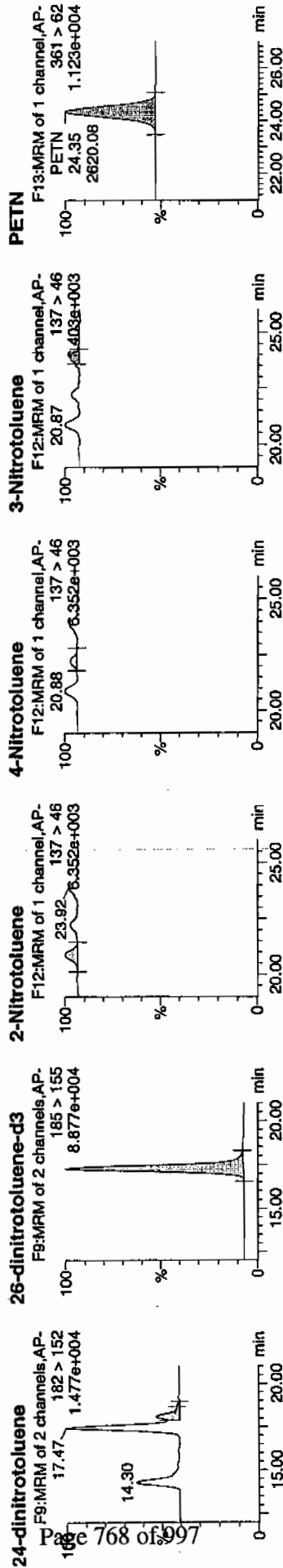
ID: WXX100408-08CRI

View: 1:1,C

WXX  
4/10/10



Dataset: C:\MASSLYN\New\_Exp.PRO\040810expA1.qld, Time: Sat Apr 10 11:40:36 2010



ID	Name	Trace	RT	Area	S Area	Abs Resp	Response	Flags	Mod Date	Mod Time	File	Doc	Dev	SN
WYXX100408-08CRI	HMx	176 > 102	5.22	1745.218	5743.754	1745.218	151.923	bb			47.5616	118.9	18.9	215.4
WYXX100408-08CRI	RDX	176 > 102	7.59	1263.616	5743.754	1263.616	109.999	bb			45.1396	112.8	12.8	140.6
WYXX100408-08CRI	135-Trinitrobenzene	213 > 183	10.13	2250.808	5743.754	2250.808	195.935	bb			46.3933	116.0	16.0	125.9
WYXX100408-08CRI	13-Dinitrobenzene-d4	172 > 142	11.97	5743.754		5743.754	5743.754	bb			441.9598	88.4	-11.6	425.1
WYXX100408-08CRI	13-Dinitrobenzene	168 > 138	12.10	600.272	5743.754	600.272	52.254	bb			40.5742	101.4	1.4	50.7
WYXX100408-08CRI	Tetryl	241 > 181	12.63	555.897	5743.754	555.897	48.391	bb			47.0016	117.5	17.5	44.6
WYXX100408-08CRI	Nitrobenzene	123 > 46	13.54	243.654	5743.754	243.654	21.210	bb			35.2916	88.2	-11.8	20.9
WYXX100408-08CRI	4-Amino-2,6-dinitrotoluene	197 > 167	15.53	898.775	33959.496	898.775	13.233	MM	10-Apr-10	11:37:24	42.5100	106.3	6.3	48.0
WYXX100408-08CRI	2-Amino-4,6-dinitrotoluene	197 > 180	16.41	1432.301	33959.496	1432.301	21.088	bb			46.1624	115.4	15.4	39.1
WYXX100408-08CRI	2,4,6-Trinitrotoluene	227 > 210	15.28	1237.884	33959.496	1237.884	18.226	bb			47.3654	118.4	18.4	23.7
WYXX100408-08CRI	3,4-dinitrotoluene	182 > 152	14.30	1471.854	33959.496	1471.854	21.671	bb			21.1302	105.7	5.7	67.8
WYXX100408-08CRI	2,6-dinitrotoluene	182 > 152	17.47	3203.022	33959.496	3203.022	47.159	MM	10-Apr-10	11:36:06	41.4647	103.7	3.7	175.2
WYXX100408-08CRI	2,4-dinitrotoluene	182 > 152	18.08	804.818	33959.496	804.818	11.850	MM	10-Apr-10	11:33:08	44.7607	111.9	11.9	37.0
WYXX100408-08CRI	2,6-dinitrotoluene-d3	185 > 155	17.27	33959.496		33959.496	33959.496	bb			430.1002	86.0	-14.0	2024.8
WYXX100408-08CRI	2-Nitrotoluene	137 > 46	20.88	213.177	33959.496	213.177	3.139	bb			40.8890	102.2	2.2	49.3
WYXX100408-08CRI	4-Nitrotoluene	137 > 46	22.23	98.046	33959.496	98.046	1.444	bb			37.1444	92.9	-7.1	25.1
WYXX100408-08CRI	3-Nitrotoluene	137 > 46	24.00	121.825	33959.496	121.825	1.794	db			32.8530	82.1	-17.9	11.1
WYXX100408-08CRI	PETN	361 > 62	24.35	2620.083	33959.496	2620.083	38.577	bb			48.6484	121.6	21.6	379.5

# GRAND MEAN AVERAGE

Vendor: UltraScientific  
 Date of Analysis 04/10/10  
 Time of Injection 0305  
 Standard Number WXX100408-08CRI  
 Data File EXP0408061a

HMX	118.9
RDX	112.8
135-TNB	116.0
13-DNB	101.4
Tetryl	117.5
Nitrobenzene	88.2
4A-26-DNT	106.3
2A-46-DNT	115.4
246-TNT	118.4
34-DNT(surr)	105.7
26-DNT	103.7
24-DNT	111.9
2-NT	102.2
4-NT	92.9
3-NT	82.1
PETN	121.6

*4/10/10*

Total 1715.0

Average 107.2

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): 10-2027

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0408072a

Analysis Date: 10-APR-10 08:30

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
m-Dinitrobenzene	600	587.331	98	
m-Nitrotoluene	600	507.624	85	
o-Nitrotoluene	600	528.075	88	
p-Nitrotoluene	600	578.663	96	
1,3,5-Trinitrobenzene	600	582.253	97	
1,3-Dinitrobenzene-d4	500	448.35	90	
2,4,6-Trinitrotoluene	600	753.785	126	*
2,4-Dinitrotoluene	600	638.151	106	
2,6-Dinitrotoluene	600	616.994	103	
2,6-Dinitrotoluene-d3	500	402.197	80	
2-Amino-4,6-dinitrotoluene	600	686.265	114	
3,4-Dinitrotoluene	300	310.058	103	
4-Amino-2,6-dinitrotoluene	600	642.746	107	
HMX	600	660.224	110	
Nitrobenzene	600	526.993	88	
PETN	600	719.605	120	
RDX	600	678.872	113	
Tetryl	600	856.18	143	*

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\040810expA1.qld, Time: Sat Apr 10 11:40:36 2010

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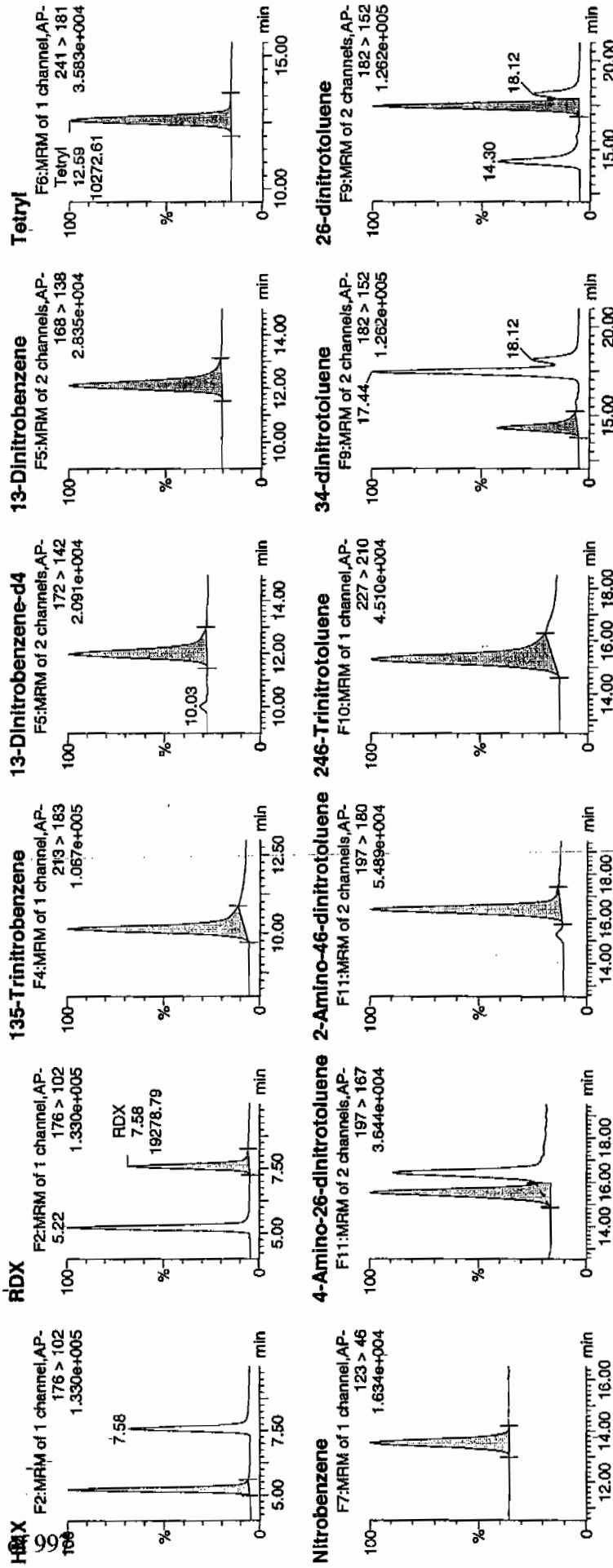
Date: 10-Apr-2010

Time: 08:30:12

ID: WXX100408-07CCV

Vial: 1:1,B

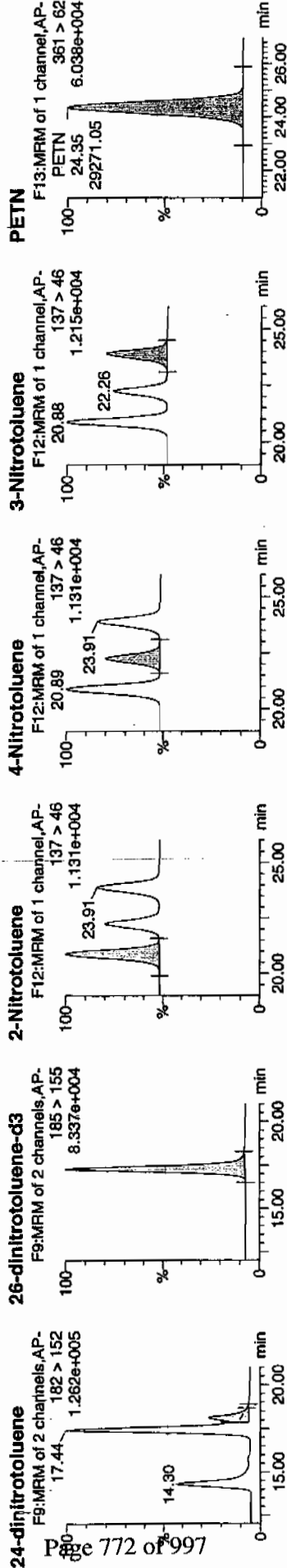
10/10/10



thm 04/10/10



Dataset: C:\MASSLYN\New\_Exp.PRO\040810expA1.qld, Time: Sat Apr 10 11:40:36 2010



ID	Name	Trace	RT	IS Area	Abt Resp	Response	Flags	Mod Date	Mod Time	Int Comp	%Rec	%Dev	MSN
WXX100408-07CCV	HMX	176 > 102	5.22	24576.387	5826.798	24576.387	2108.910	bb		660.2235	110.0	10.0	2536.6
WXX100408-07CCV	RDX	176 > 102	7.58	19278.787	5826.798	19278.787	1654.321	bb		678.8725	113.1	13.1	1691.0
WXX100408-07CCV	135-Trinitrobenzene	213 > 183	10.13	28656.854	5826.798	28656.854	2459.057	bb		582.2528	97.0	-3.0	2546.3
WXX100408-07CCV	13-Dinitrobenzene-d4	172 > 142	11.98	5826.798		5826.798	5826.798	bb		448.3498	89.7	-10.3	468.6
WXX100408-07CCV	13-Dinitrobenzene	168 > 138	12.11	8814.859	5826.798	8814.859	756.407	bb		587.3309	97.9	-2.1	882.3
WXX100408-07CCV	Tetryl	241 > 181	12.59	10272.608	5826.798	10272.608	881.497	bb		856.1803	142.7	42.7	680.1
WXX100408-07CCV	Nitrobenzene	123 > 46	13.54	3690.978	5826.798	3690.978	316.724	bb		526.9926	87.8	-12.2	293.6
WXX100408-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.53	12707.749	31756.346	12707.749	200.082	MM	10-Apr-10 11:37:15	642.7461	107.1	7.1	272.5
WXX100408-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.41	19911.619	31756.346	19911.619	313.506	bb		686.2847	114.4	14.4	1139.7
WXX100408-07CCV	246-Trinitrotoluene	227 > 210	18.28	18421.951	31756.346	18421.951	290.051	bb		753.7846	125.6	25.6	829.6
WXX100408-07CCV	34-dinitrotoluene	182 > 152	14.30	20196.369	31756.346	20196.369	317.989	bb		310.0582	103.4	3.4	821.6
WXX100408-07CCV	26-dinitrotoluene	182 > 152	17.44	44568.953	31756.346	44568.953	701.733	MM	10-Apr-10 11:36:17	616.9945	102.8	2.8	2086.3
WXX100408-07CCV	24-dinitrotoluene	182 > 152	18.12	10729.860	31756.346	10729.860	168.940	MM	10-Apr-10 11:32:52	638.1510	106.4	6.4	452.2
WXX100408-07CCV	26-dinitrotoluene-d3	185 > 155	17.27	31756.346		31756.346	31756.346	bb		402.1971	80.4	-19.6	2632.8
WXX100408-07CCV	2-Nitrotoluene	137 > 46	20.89	2574.537	31756.346	2574.537	40.536	bb		528.0749	88.0	-12.0	350.0
WXX100408-07CCV	4-Nitrotoluene	137 > 46	22.26	1428.339	31756.346	1428.339	22.489	bb		578.6626	96.4	-3.6	203.4
WXX100408-07CCV	3-Nitrotoluene	137 > 46	23.91	1760.246	31756.346	1760.246	27.715	bb		507.6240	84.6	-15.4	82.9
WXX100408-07CCV	PETN	361 > 62	24.35	29271.053	31756.346	29271.053	460.869	bb		719.6051	119.9	19.9	6628.8

GRAND MEAN AVERAGE

Vendor: Restek  
 Date of Analysis: 04/10/10  
 Time of Injection: 0830  
 Standard Number: WXX100408-07CCV  
 Data File: EXP0408072a

HMX	110.0
RDX	113.1
135-TNB	97.0
13-DNB	97.9
Tetryl	142.7
Nitrobenzene	87.8
4A-26-DNT	107.1
2A-46-DNT	114.4
246-TNT	125.6
34-DNT(surr)	103.4
26-DNT	102.8
24-DNT	106.4
2-NT	88.0
4-NT	96.4
3-NT	84.6
PETN	119.9
Total	1697.1

*WXX  
4/10/10*

Average

106.1

*WXX-04/10/10*  
 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): 10-2027

Lab Code: GEI

GEL Sample ID: WXXCRI

GEL Data File EXP0408074a

Analysis Date: 10-APR-10 09:29

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	46.83	117	
1,3-Dinitrobenzene-d4	500	462.781	93	
2,4,6-Trinitrotoluene	40	43.139	108	
2,4-Dinitrotoluene	40	40.465	101	
2,6-Dinitrotoluene	40	41.672	104	
2,6-Dinitrotoluene-d3	500	459.746	92	
2-Amino-4,6-dinitrotoluene	40	40.75	102	
3,4-Dinitrotoluene	20	19.792	99	
4-Amino-2,6-dinitrotoluene	40	41.358	103	
HMX	40	50.292	126	
Nitrobenzene	40	40.128	100	
PETN	40	47.507	119	
RDX	40	46.162	115	
Tetryl	40	47.137	118	
m-Dinitrobenzene	40	43.479	109	
m-Nitrotoluene	40	30.676	77	
o-Nitrotoluene	40	37.061	93	
p-Nitrotoluene	40	36.459	91	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 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\PRO10040810expA1.qld, Time: Sat Apr 10 11:40:36 2010

Name: C:\MASSLYNX\NEW\_EXP\PRO1Data\EXP0408074a

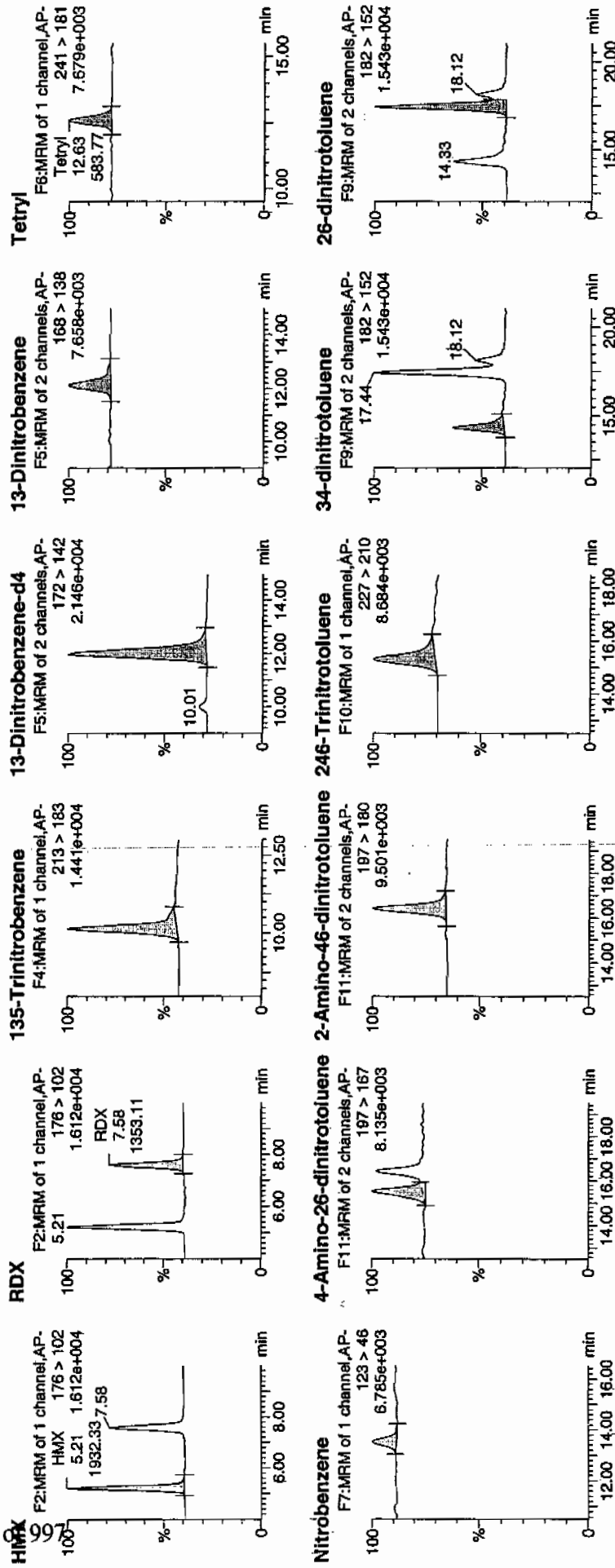
Date: 10-Apr-2010

Time: 09:29:16

ID: WXX100408-08CRI

Vial: 1:1,C

4/10/10



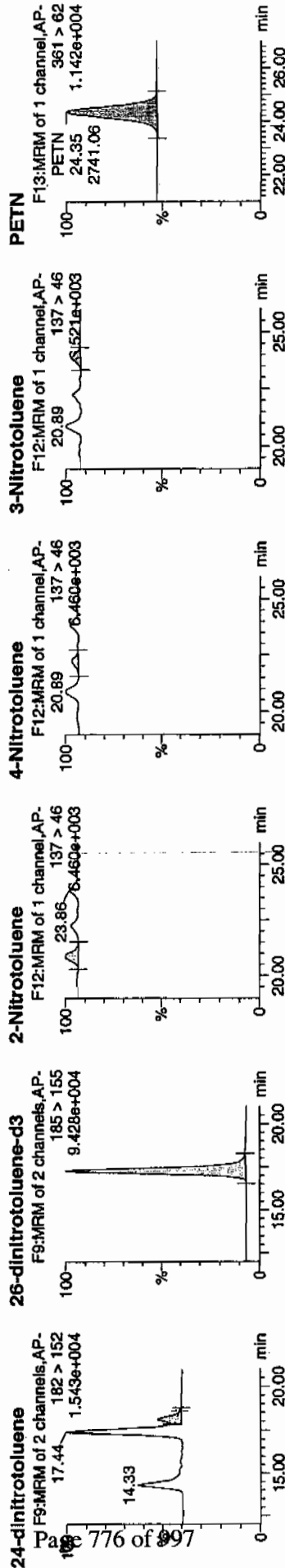
4/10/10

# Quantify Sample Report

GEL Laboratories, LLC / Analyst : Michael A. Penny

Printed: Sat Apr 10 11:42:30 2010, Page 98 of 99

Dataset: C:\MASSLYNX\New\_Exp.PRO\040810expA1.qld, Time: Sat Apr 10 11:40:36 2010



ID	Name	Trace	RT	Area	Spced	Response	Mass	Molecular	ModDate	ModTime	ModDev	SN
WXX100408-08CRI	HMX	176 > 102	5.21	1932.331	6014.345	160.644	bb	50.2917	125.7	25.7	269.5	
WXX100408-08CRI	RDX	176 > 102	7.58	1353.113	6014.345	112.490	bb	46.1620	115.4	15.4	170.3	
WXX100408-08CRI	135-Trinitrobenzene	213 > 183	10.14	2379.034	6014.345	197.780	bb	46.8301	117.1	17.1	320.6	
WXX100408-08CRI	13-Dinitrobenzene	172 > 142	11.97	6014.345	6014.345	6014.345	bb	462.7808	92.6	-7.4	585.4	
WXX100408-08CRI	13-Dinitrobenzene	168 > 138	12.14	673.543	6014.345	55.995	bb	43.4785	108.7	8.7	107.4	
WXX100408-08CRI	Tetryl	241 > 181	12.63	583.766	6014.345	48.531	bb	47.1373	117.8	17.8	43.9	
WXX100408-08CRI	Nitrobenzene	123 > 46	13.53	290.097	6014.345	24.117	bb	40.1280	100.3	0.3	26.9	
WXX100408-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.52	934.681	36300.254	12.874	MM	41.3576	103.4	3.4	52.1	
WXX100408-08CRI	2-Amino-48-dinitrotoluene	197 > 180	16.40	1351.508	36300.254	18.616	bb	40.7497	101.9	1.9	110.4	
WXX100408-08CRI	246-Trinitrotoluene	227 > 210	15.30	1205.129	36300.254	16.599	bb	43.1386	107.8	7.8	53.1	
WXX100408-08CRI	34-dinitrotoluene	182 > 152	14.33	1473.642	36300.254	20.298	bb	19.7917	99.0	-1.0	73.1	
WXX100408-08CRI	26-dinitrotoluene	182 > 152	17.44	3440.934	36300.254	47.395	MM	41.6722	104.2	4.2	191.5	
WXX100408-08CRI	24-dinitrotoluene	182 > 152	18.12	777.731	36300.254	10.712	MM	40.4650	101.2	1.2	39.8	
WXX100408-08CRI	26-dinitrotoluene-d3	185 > 155	17.26	36300.254	36300.254	36300.254	bb	459.7461	91.9	-8.1	3232.9	
WXX100408-08CRI	2-Nitrotoluene	137 > 46	20.89	206.536	36300.254	2.845	bb	37.0606	92.7	-7.3	64.5	
WXX100408-08CRI	4-Nitrotoluene	137 > 46	22.25	102.871	36300.254	1.417	bb	36.4593	91.1	-8.9	34.7	
WXX100408-08CRI	3-Nitrotoluene	137 > 46	23.85	121.594	36300.254	1.675	bb	30.6762	76.7	-23.3	14.3	
WXX100408-08CRI	PETN	361 > 62	24.35	2741.064	36300.254	37.755	bb	47.5068	118.8	18.8	161.9	

# GRAND MEAN AVERAGE

Vendor: UltraScientific  
 Date of Analysis: 04/10/10  
 Time of Injection: 0929  
 Standard Number: WXX100408-08CRI  
 Data File: EXP0408074a

HMX	125.7
RDX	115.4
135-TNB	117.1
13-DNB	108.7
Tetryl	117.8
Nitrobenzene	100.3
4A-26-DNT	103.4
2A-46-DNT	101.9
246-TNT	107.8
34-DNT(surr)	99.0
26-DNT	104.2
24-DNT	101.2
2-NT	92.7
4-NT	91.1
3-NT	76.7
PETN	118.8
Total	1681.8

uaf  
4/10/10

Handwritten: 04/10/10

Average

105.1

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): 10-2027

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0408085a

Analysis Date: 10-APR-10 14:53

LCMSMS ID: 903

Column ID Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	600	636.106	106	
1,3-Dinitrobenzene-d4	500	371.009	74	*
2,4,6-Trinitrotoluene	600	748.482	125	*
2,4-Dinitrotoluene	600	589.616	98	
2,6-Dinitrotoluene	600	594.847	99	
2,6-Dinitrotoluene-d3	500	366.196	73	*
2-Amino-4,6-dinitrotoluene	600	651.106	109	
3,4-Dinitrotoluene	300	290.529	97	
4-Amino-2,6-dinitrotoluene	600	623.686	104	
HMX	600	695.105	116	
Nitrobenzene	600	579.84	97	
PETN	600	689.507	115	
RDX	600	723.103	121	*
Tetryl	600	762.469	127	*
m-Dinitrobenzene	600	619.292	103	
m-Nitrotoluene	600	493.304	82	
o-Nitrotoluene	600	535.244	89	
p-Nitrotoluene	600	572.407	95	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 70-130%

Other Target Analytes 80-120%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

Quantify Sample Report  
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp\PRO\040810expA2.qld, Time: Sun Apr 11 11:45:05 2010

Name: C:\MASSLYNX\NEW\_EXP\PRO\data\EXP0408085a

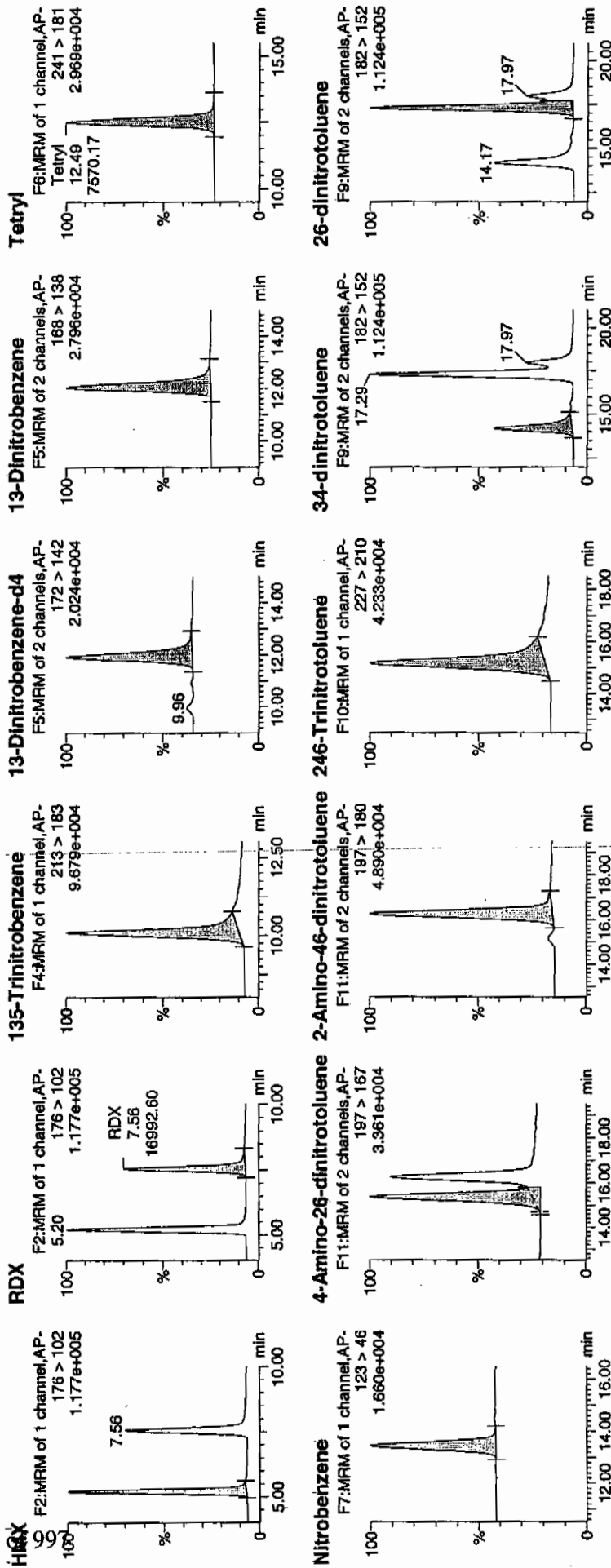
Date: 10-Apr-2010

Time: 14:53:57

ID: WXX100410-07CCV

Vol: 1:1,B

11/11/10



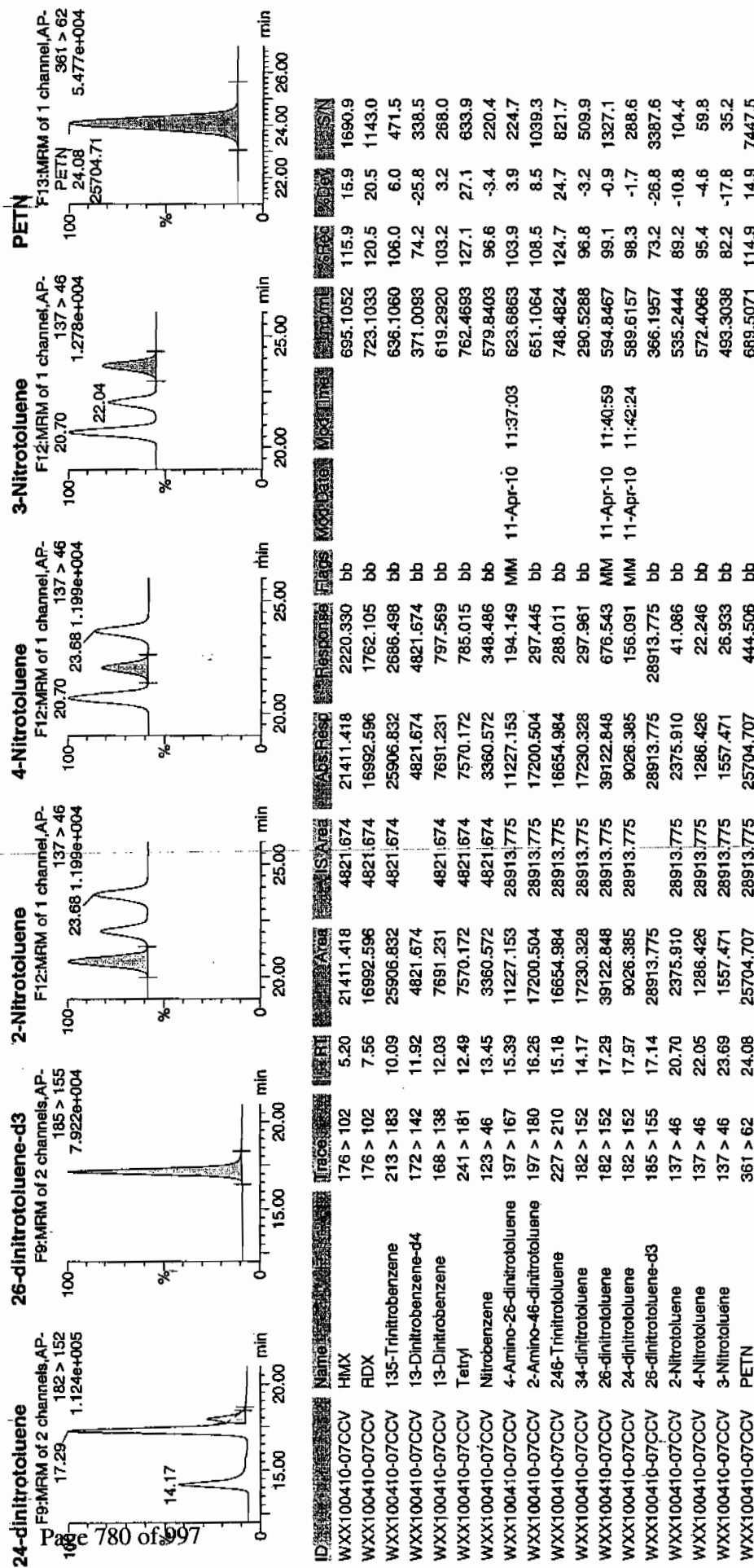
4/11/10



Printed: Sun Apr 11 11:47:08 2010, Page 22 of 97

Quantify Sample Report  
GEL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp\_PROV040810expA2.qld, Time: Sun Apr 11 11:45:05 2010



# GRAND MEAN AVERAGE

Vendor: Restek  
 Date of Analysis: 04/10/10  
 Time of Injection: 1453  
 Standard Number: WXX100410-07CCV  
 Data File: EXP0408085a

HMX	115.9
RDX	120.5
135-TNB	106.0
13-DNB	103.2
Tetryl	127.1
Nitrobenzene	96.6
4A-26-DNT	103.9
2A-46-DNT	108.5
246-TNT	124.7
34-DNT(surr)	96.8
26-DNT	99.1
24-DNT	98.3
2-NT	89.2
4-NT	95.4
3-NT	82.2
PETN	114.9
Total	1682.3

not  
4/11/10

Average

105.1

Handwritten: 4/11/10

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): 10-2027

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0408087a

Analysis Date: 10-APR-10 15:52

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3-Dinitrobenzene-d4	500	444.755	89	
2,4,6-Trinitrotoluene	40	47.969	120	
2,4-Dinitrotoluene	40	39.334	98	
2,6-Dinitrotoluene	40	39.88	100	
2,6-Dinitrotoluene-d3	500	421.031	84	
2-Amino-4,6-dinitrotoluene	40	42.049	105	
3,4-Dinitrotoluene	20	20.099	100	
4-Amino-2,6-dinitrotoluene	40	40.256	101	
HMX	40	43.574	109	
Nitrobenzene	40	41.715	104	
PETN	40	48.304	121	
RDX	40	44.899	112	
Tetryl	40	46.92	117	
m-Dinitrobenzene	40	40.108	100	
m-Nitrotoluene	40	37.251	93	
o-Nitrotoluene	40	35.231	88	
p-Nitrotoluene	40	34.204	86	
1,3,5-Trinitrobenzene	40	49.672	124	

**Recovery Limits:**

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New\_Exp.PRO\040810expA2.qld, Time: Sun Apr 11 11:45:05 2010

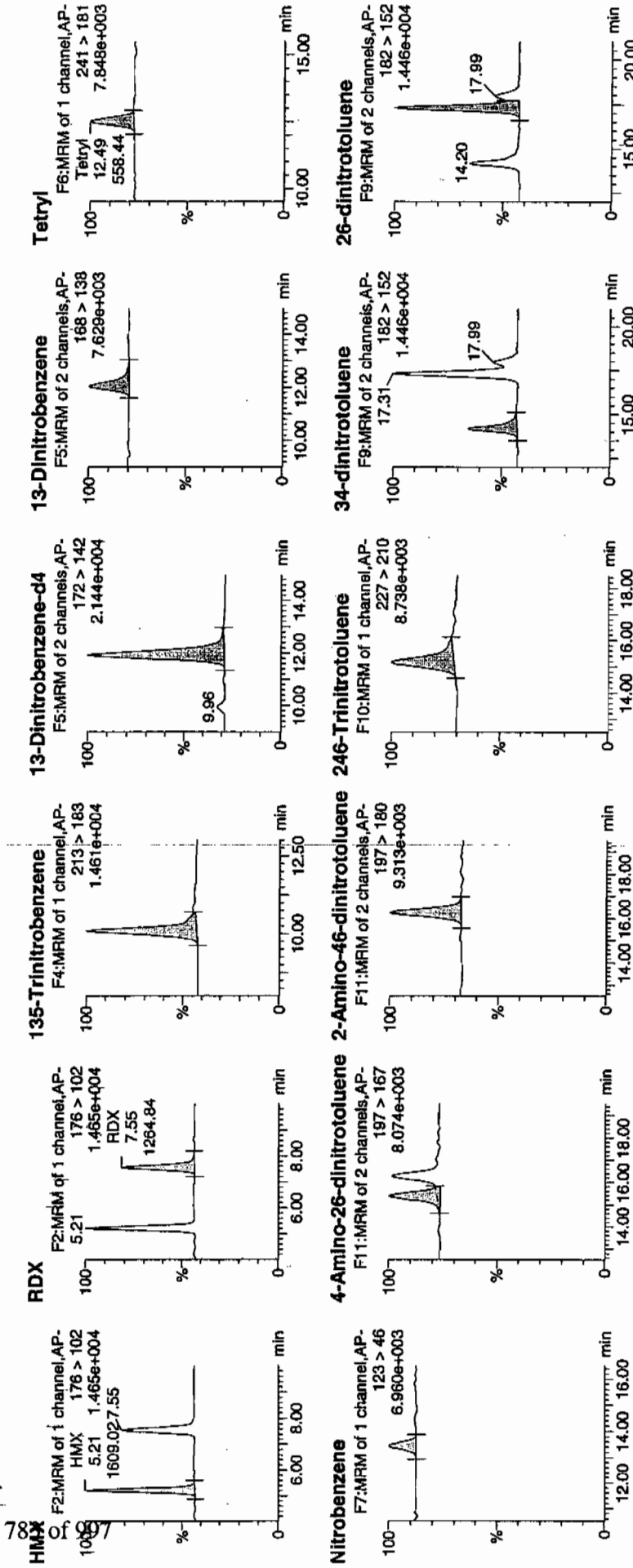
Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0408087a

Date: 10-Apr-2010

Time: 15:52:53

ID: WXX100410-08CRI

Vial: 1;1,C



Handwritten note: *Handwritten signature and date 04/11/10*

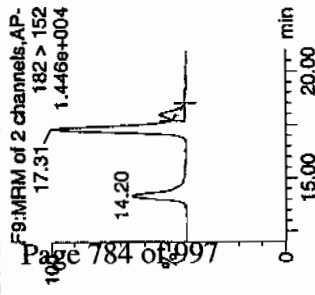
# Quantify Sample Report

GEL Laboratories, LLC / Analyst: Michael A. Penny

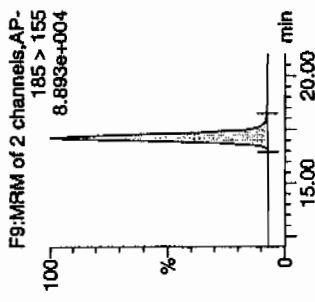
Printed: Sun Apr 11 11:47:08 2010, Page 26 of 97

Dataset: C:\MASSLYNX\New\_Exp.PRO\040810expA2.qld, Time: Sun Apr 11 11:45:05 2010

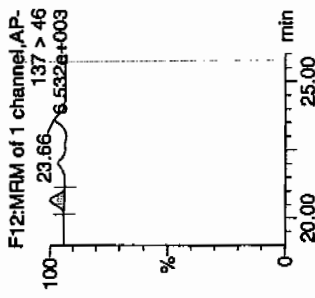
## 24-dinitrotoluene



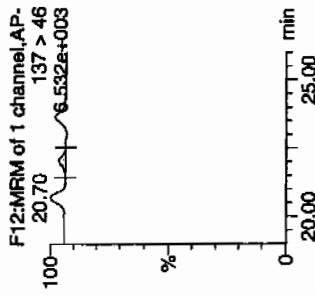
## 26-dinitrotoluene-d3



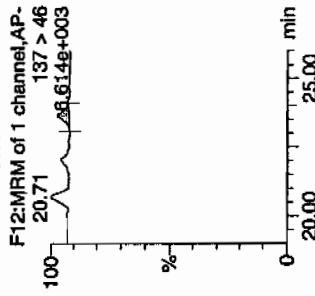
## 2-Nitrotoluene



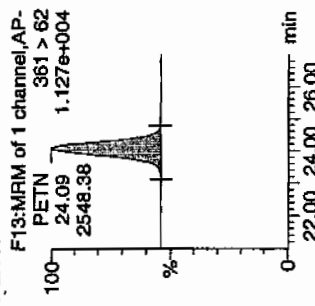
## 4-Nitrotoluene



## 3-Nitrotoluene



## PETN



ID	Name	Trace	RT	Area	IS Area	Area Resp	Response	Flags	Mod Date	Mod Time	Mod User	Mod User
WXX100410-08CRI	HMIX	176 > 102	5.21	1609.024	5780.081	1609.024	139.187	bb	43.5744	108.9	8.9	133.4
WXX100410-08CRI	RDX	176 > 102	7.55	1264.841	5780.081	1264.841	109.414	bb	44.8994	112.2	12.2	89.0
WXX100410-08CRI	135-Trinitrobenzene	218 > 183	10.09	2425.127	5780.081	2425.127	209.783	bd	49.6722	124.2	24.2	294.1
WXX100410-08CRI	13-Dinitrobenzene-d4	172 > 142	11.92	5780.081		5780.081	5780.081	bb	444.7551	89.0	-11.0	1113.8
WXX100410-08CRI	13-Dinitrobenzene	168 > 138	12.03	597.128	5780.081	597.128	51.654	bb	40.1080	100.3	0.3	57.3
WXX100410-08CRI	Tetryl	241 > 181	12.49	558.444	5780.081	558.444	48.308	bb	46.9202	117.3	17.3	42.1
WXX100410-08CRI	Nitrobenzene	123 > 46	13.45	289.821	5780.081	289.821	25.071	bb	41.7147	104.3	4.3	22.9
WXX100410-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.38	833.179	33243.383	833.179	12.532	MM	40.2564	100.6	0.6	40.4
WXX100410-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.25	1277.164	33243.383	1277.164	19.209	bb	42.0491	105.1	5.1	94.2
WXX100410-08CRI	246-Trinitrotoluene	227 > 210	15.17	1227.224	33243.383	1227.224	18.458	bb	47.9690	119.9	19.9	91.5
WXX100410-08CRI	34-dinitrotoluene	182 > 152	14.20	1370.500	33243.383	1370.500	20.613	bb	20.0990	100.5	0.5	67.1
WXX100410-08CRI	26-dinitrotoluene	182 > 152	17.31	3015.613	33243.383	3015.613	45.357	MM	39.8795	99.7	-0.3	171.7
WXX100410-08CRI	24-dinitrotoluene	182 > 152	17.99	692.322	33243.383	692.322	10.413	MM	39.3335	98.3	-1.7	32.3
WXX100410-08CRI	26-dinitrotoluene-d3	185 > 155	17.13	33243.383		33243.383	33243.383	bb	421.0306	84.2	-15.8	1483.9
WXX100410-08CRI	2-Nitrotoluene	137 > 46	20.70	179.806	33243.383	179.806	2.704	bb	35.2311	88.1	-11.9	47.3
WXX100410-08CRI	4-Nitrotoluene	137 > 46	22.06	88.380	33243.383	88.380	1.329	bb	34.2037	85.5	-14.5	23.4
WXX100410-08CRI	3-Nitrotoluene	137 > 46	23.66	135.222	33243.383	135.222	2.034	bb	37.2513	93.1	-6.9	20.4
WXX100410-08CRI	PETN	361 > 62	24.09	2548.383	33243.383	2548.383	38.329	bb	48.3044	120.8	20.8	505.8

# GRAND MEAN AVERAGE

Vendor: UltraScientific  
 Date of Analysis 04/10/10  
 Time of Injection 1552  
 Standard Number WXX100410-08CRI  
 Data File EXP0408087a

HMX	108.9
RDX	112.2
135-TNB	124.2
13-DNB	100.3
Tetryl	117.3
Nitrobenzene	104.3
4A-26-DNT	100.6
2A-46-DNT	105.1
246-TNT	119.9
34-DNT(surr)	100.5
26-DNT	99.7
24-DNT	98.3
2-NT	88.1
4-NT	85.5
3-NT	93.1
PETN	120.8

*not  
4/11/10*

Total 1678.8

*done 04/11/10*

Average 104.9

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): 10-2027

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0408098a

Analysis Date: 10-APR-10 21:17

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
2-Amino-4,6-dinitrotoluene	600	749.422	125	*
3,4-Dinitrotoluene	300	310.007	103	
4-Amino-2,6-dinitrotoluene	600	634.972	106	
HMX	600	661.858	110	
Nitrobenzene	600	525.792	88	
PETN	600	688.502	115	
RDX	600	680.282	113	
Tetryl	600	768.016	128	*
m-Dinitrobenzene	600	586.468	98	
m-Nitrotoluene	600	477.054	80	*
o-Nitrotoluene	600	525.095	88	
p-Nitrotoluene	600	585.867	98	
1,3,5-Trinitrobenzene	600	603.626	101	
1,3-Dinitrobenzene-d4	500	428.998	86	
2,4,6-Trinitrotoluene	600	755.113	126	*
2,4-Dinitrotoluene	600	601.811	100	
2,6-Dinitrotoluene	600	602.552	100	
2,6-Dinitrotoluene-d3	500	393.84	79	*

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\040810expA2.qld, Time: Sun Apr 11 11:45:05 2010

Name: C:\MASSLYNX\NEW\_EXP\PRO\Data\EXP0408098a

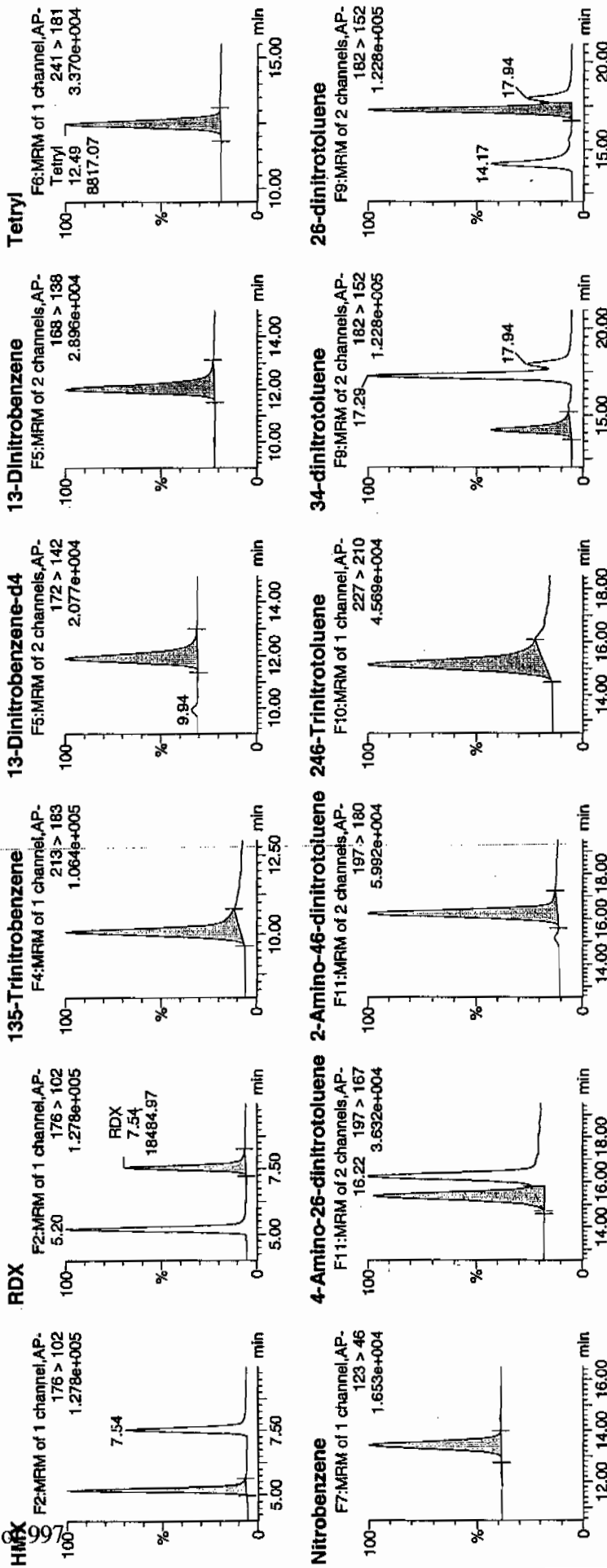
Date: 10-Apr-2010

Time: 21:17:19

ID: WXX100410-07CCV

Vial: 1:1,B

WAT  
4/11/10



WAT  
4/11/10



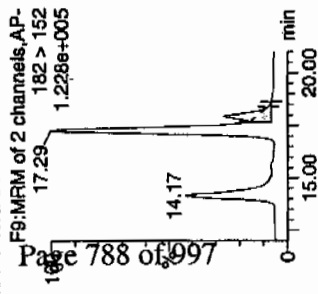
# Quantify Sample Report

GEL Laboratories, LLC / Analyst: Michael A. Penny

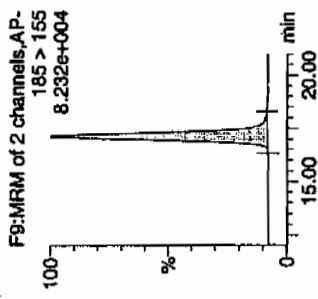
Printed: Sun Apr 11 11:47:08 2010, Page 48 of 97

Dataset: C:\MASSLYNX\New\_Exp\_PRO\040810expA2.qld, Time: Sun Apr 11 11:45:05 2010

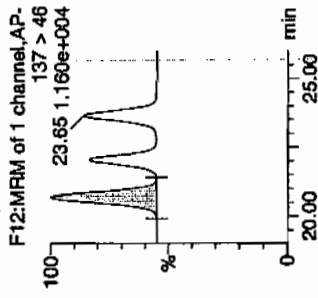
## 24-dinitrotoluene



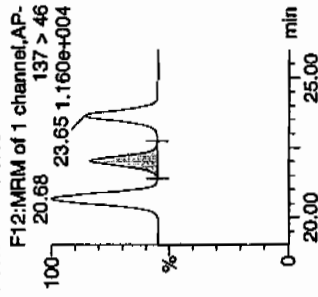
## 26-dinitrotoluene-d3



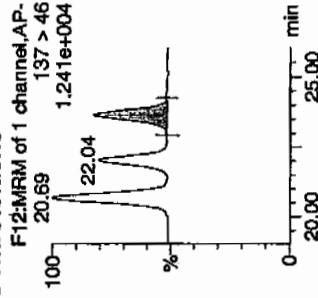
## 2-Nitrotoluene



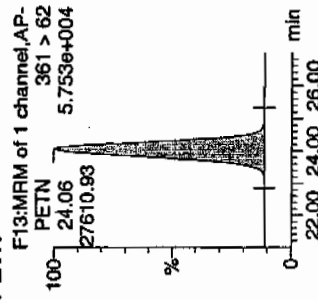
## 4-Nitrotoluene



## 3-Nitrotoluene



## PETN



ID	Name	Trace	Area	Isolated	Response	Flags	Mod	Time	Area	Mod	Time	Area	Mod	Time
WXX100410-07CCV	HMV	176 > 102	5.20	23573.832	5575.298	23573.832	2114.132	bb	661.8583	110.3	10.3	1652.1		
WXX100410-07CCV	RDX	176 > 102	7.54	18484.973	5575.298	18484.973	1657.757	bb	680.2824	113.4	13.4	1116.8		
WXX100410-07CCV	135-Trinitrobenzene	213 > 183	10.08	28426.451	5575.298	28426.451	2549.321	bb	603.6255	100.6	0.6	1655.4		
WXX100410-07CCV	13-Dinitrobenzene-d4	172 > 142	11.90	5575.298	5575.298	5575.298	5575.298	bb	428.9978	85.8	-14.2	615.5		
WXX100410-07CCV	13-Dinitrobenzene	168 > 138	12.04	8422.001	5575.298	8422.001	755.296	bb	586.4685	97.7	-2.3	513.2		
WXX100410-07CCV	Tetryl	241 > 181	12.49	8817.065	5575.298	8817.065	790.726	bb	768.0163	128.0	28.0	546.7		
WXX100410-07CCV	Nitrobenzene	123 > 46	13.41	3523.622	5575.298	3523.622	316.003	bb	525.7923	87.6	-12.4	206.9		
WXX100410-07CCV	4-Amino-26-dinitrotoluene	187 > 167	15.36	12293.203	31096.508	12293.203	197.662	MM	634.9723	105.8	5.8	266.4		
WXX100410-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.22	21292.291	31096.508	21292.291	342.358	bb	749.4219	124.9	24.9	878.5		
WXX100410-07CCV	246-Trinitrotoluene	227 > 210	15.14	18070.973	31096.508	18070.973	290.563	bb	755.1133	125.9	25.9	371.2		
WXX100410-07CCV	34-dinitrotoluene	182 > 152	14.17	19773.480	31096.508	19773.480	317.937	bb	310.0073	103.3	3.3	497.1		
WXX100410-07CCV	26-dinitrotoluene	182 > 152	17.29	42621.277	31096.508	42621.277	685.306	MM	602.5515	100.4	0.4	1250.3		
WXX100410-07CCV	24-dinitrotoluene	182 > 152	17.94	9908.590	31096.508	9908.590	159.320	MM	601.8111	100.3	0.3	262.4		
WXX100410-07CCV	26-dinitrotoluene-d3	185 > 155	17.11	31096.508	31096.508	31096.508	31096.508	bb	393.8402	78.8	-21.2	2049.1		
WXX100410-07CCV	2-Nitrotoluene	137 > 46	20.68	2506.817	31096.508	2506.817	40.307	bb	525.0951	87.5	-12.5	356.2		
WXX100410-07CCV	4-Nitrotoluene	137 > 46	22.04	1416.075	31096.508	1416.075	22.769	bb	585.8673	97.6	-2.4	226.3		
WXX100410-07CCV	3-Nitrotoluene	137 > 46	23.66	1619.868	31096.508	1619.868	26.046	bb	477.0537	79.5	-20.5	66.5		
WXX100410-07CCV	PETN	361 > 62	24.06	27610.934	31096.508	27610.934	443.956	bb	688.5018	114.8	14.8	2179.7		

# GRAND MEAN AVERAGE

Vendor: Restek  
 Date of Analysis: 04/10/10  
 Time of Injection: 2117  
 Standard Number: WXX100410-07CCV  
 Data File: EXP0408098a

HMX	110.3
RDX	113.4
135-TNB	100.6
13-DNB	97.7
Tetryl	128.0
Nitrobenzene	87.6
4A-26-DNT	105.8
2A-46-DNT	124.9
246-TNT	125.9
34-DNT(surr)	103.3
26-DNT	100.4
24-DNT	100.3
2-NT	87.5
4-NT	97.6
3-NT	79.5
PETN	114.8

*Handwritten:* 11/1/10

Total 1677.6

*Handwritten:* 04/11/10

Average 104.9

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): 10-2027

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0408100a

Analysis Date: 10-APR-10 22:16

LCMSMS ID: 903

Column ID Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
PETN	40	52.652	132	*
RDX	40	41.618	104	
Tetryl	40	46.813	117	
m-Dinitrobenzene	40	40.978	102	
m-Nitrotoluene	40	44.372	111	
o-Nitrotoluene	40	34.205	86	
p-Nitrotoluene	40	43.836	110	
1,3,5-Trinitrobenzene	40	49.218	123	
1,3-Dinitrobenzene-d4	500	454.205	91	
2,4,6-Trinitrotoluene	40	50.277	126	
2,4-Dinitrotoluene	40	44.306	111	
2,6-Dinitrotoluene	40	41.252	103	
2,6-Dinitrotoluene-d3	500	413.828	83	
2-Amino-4,6-dinitrotoluene	40	45.114	113	
3,4-Dinitrotoluene	20	20.385	102	
4-Amino-2,6-dinitrotoluene	40	38.377	96	
HMX	40	45.045	113	
Nitrobenzene	40	39.471	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 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\040810expA2.qld, Time: Sun Apr 11 11:45:05 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0408100a

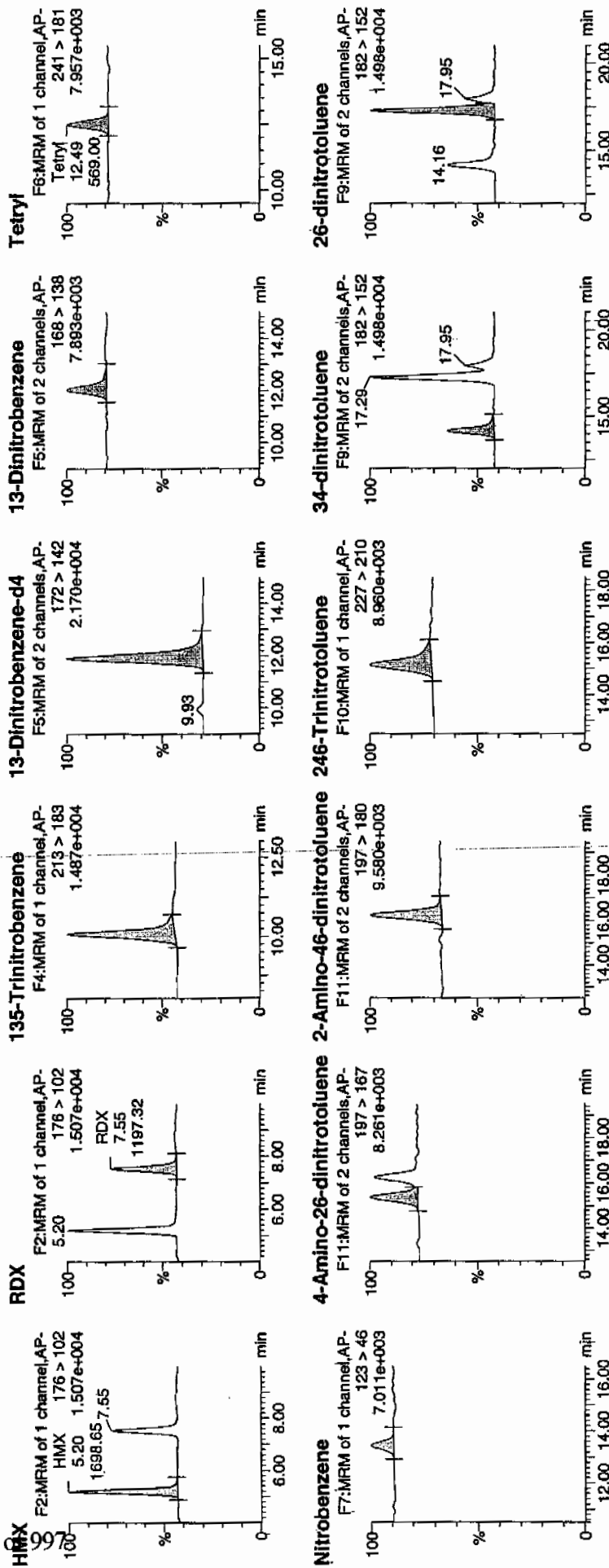
Date: 10-Apr-2010

Time: 22:16:22

ID: WXX100410-08CRI

Vol: 1:1,C

WXX  
4/11/10



WXX  
4/11/10

GEL SOP GL-QA-E-056, Method 8321A-Modified / MM = Manual Modification

# GRAND MEAN AVERAGE

Vendor: UltraScientific  
 Date of Analysis 04/10/10  
 Time of Injection 2216  
 Standard Number WXX100410-08CRI  
 Data File EXP0408100a

HMX	112.6
RDX	104.0
135-TNB	123.0
13-DNB	102.4
Tetryl	117.0
Nitrobenzene	98.7
4A-26-DNT	95.9
2A-46-DNT	112.8
246-TNT	125.7
34-DNT(surr)	101.9
26-DNT	103.1
24-DNT	110.8
2-NT	85.5
4-NT	109.6
3-NT	110.9
PETN	131.6
Total	1745.5

WXX  
4/10/10

Average

109.1

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): 10-2027

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0408107a

Analysis Date: 11-APR-10 01:42

LCMSMS ID: 903

Column ID Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
o-Nitrotoluene	600	588.163	98	
p-Nitrotoluene	600	547.16	91	
1,3,5-Trinitrobenzene	600	611.107	102	
1,3-Dinitrobenzene-d4	500	422.479	84	
2,4,6-Trinitrotoluene	600	775.43	129	*
2,4-Dinitrotoluene	600	578.962	96	
2,6-Dinitrotoluene	600	615.772	103	
2,6-Dinitrotoluene-d3	500	395.737	79	*
2-Amino-4,6-dinitrotoluene	600	706.692	118	
3,4-Dinitrotoluene	300	350.467	117	
4-Amino-2,6-dinitrotoluene	600	646.193	108	
HMX	600	717.969	120	
Nitrobenzene	600	555.155	93	
PETN	600	737.11	123	*
RDX	600	723.373	121	*
Tetryl	600	757.322	126	*
m-Dinitrobenzene	600	592.316	99	
m-Nitrotoluene	600	478.023	80	*

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 70-130%

Other Target Analytes 80-120%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New\_Exp.PRO\040810expA2.qld, Time: Sun Apr 11 11:45:05 2010

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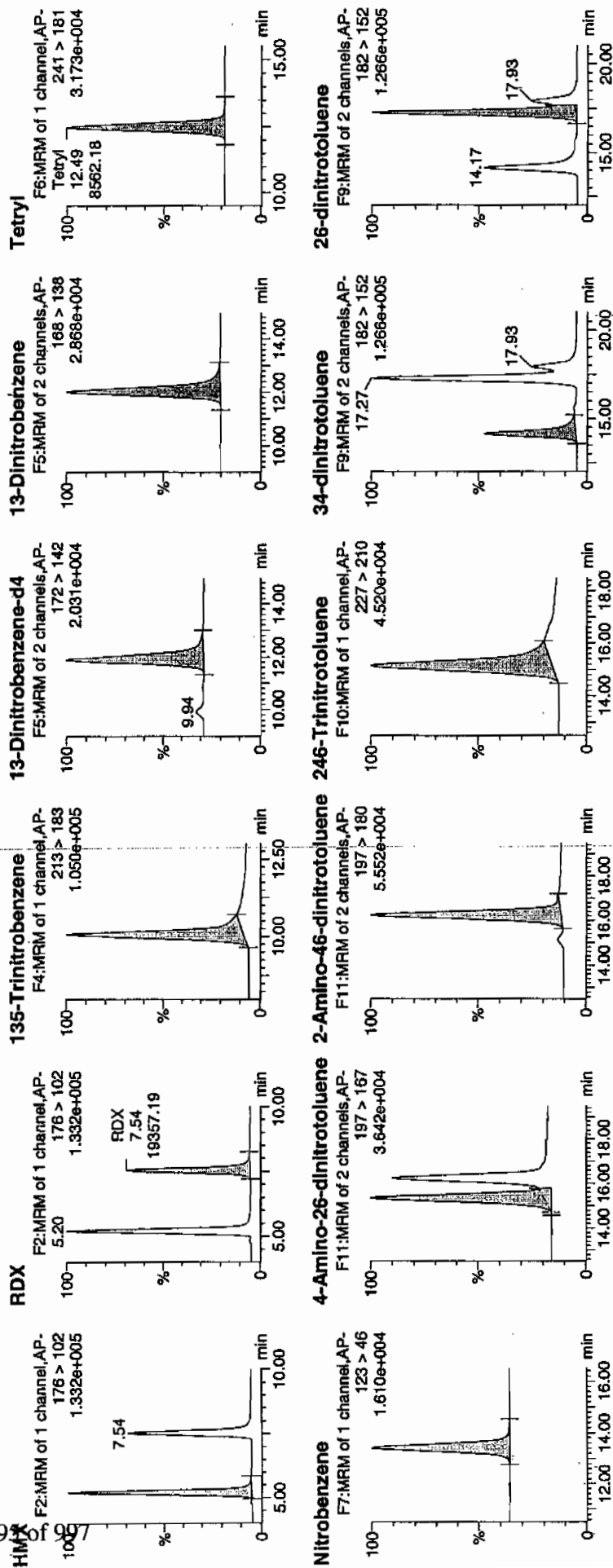
Date: 11-Apr-2010

Time: 01:42:52

ID: SWXX100410-07CCV

Vial: 1:1,B

MM  
4/11/10

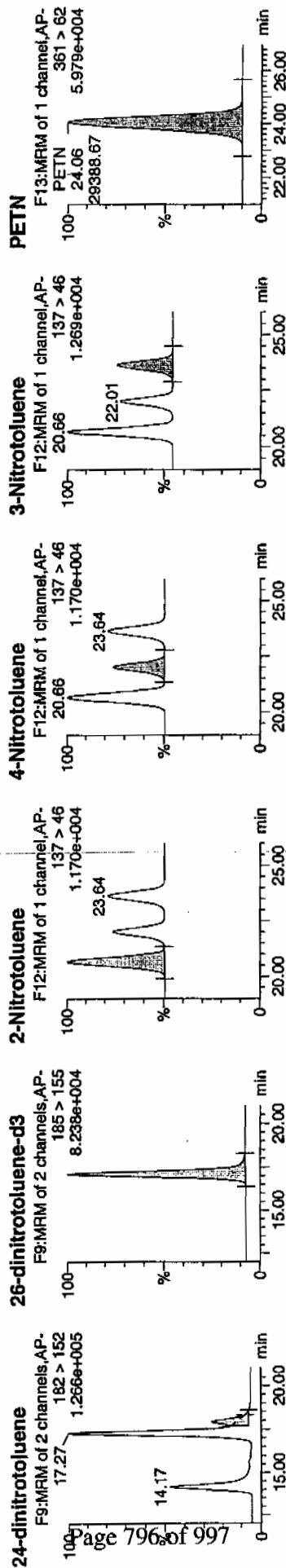


MM  
4/11/10



Dataset: C:\MASSLYN\New\_Exp.PRO\b40810expA2.qld, Time: Sun Apr 11 11:45:05 2010

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ID	Name	Trace	H <sub>i</sub>	Area	SABA	Abs Resp	Response	Flags	Mob Data	Mob Time	Q <sub>10M</sub>	%Dev	SSN	
WXX100410-07CCV	HMX	176 > 102	5.20	25183.777	5490.582	25183.777	2293.361	db			717.9885	119.7	19.7	2346.3
WXX100410-07CCV	RDX	176 > 102	7.54	19357.186	5490.582	19357.186	1762.763	bb			723.3730	120.6	20.6	1583.2
WXX100410-07CCV	135-Trinitrobenzene	213 > 183	10.07	28341.465	5490.582	28341.465	2580.916	bb			611.1066	101.9	1.9	1403.4
WXX100410-07CCV	13-Dinitrobenzene-d4	172 > 142	11.89	5490.582	5490.582	5490.582	5490.582	bb			422.4792	84.5	-15.5	181.9
WXX100410-07CCV	13-Dinitrobenzene	168 > 138	12.03	8376.726	5490.582	8376.726	762.827	bb			592.3159	98.7	-1.3	560.4
WXX100410-07CCV	Tetryl	241 > 181	12.49	8562.182	5490.582	8562.182	779.715	bb			757.3220	126.2	26.2	490.3
WXX100410-07CCV	Nitrobenzene	123 > 46	13.41	3663.865	5490.582	3663.865	333.650	bb			555.1548	92.5	-7.5	387.7
WXX100410-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.36	12570.697	31246.273	12570.697	201.155	MM	11-Apr-10	11:37:46	646.1934	107.7	7.7	548.0
WXX100410-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.23	20174.973	31246.273	20174.973	322.838	bb			706.6922	117.8	17.8	945.1
WXX100410-07CCV	246-Trinitrotoluene	227 > 210	15.14	18646.559	31246.273	18646.559	298.381	bb			775.4301	129.2	29.2	662.0
WXX100410-07CCV	34-dinitrotoluene	182 > 152	14.17	22461.801	31246.273	22461.801	359.432	bb			350.4667	116.8	16.8	352.0
WXX100410-07CCV	26-dinitrotoluene	182 > 152	17.27	43766.207	31246.273	43766.207	700.343	MM	11-Apr-10	11:39:57	615.7722	102.6	2.6	787.9
WXX100410-07CCV	24-dinitrotoluene	182 > 152	17.93	9578.303	31246.273	9578.303	153.271	MM	11-Apr-10	11:43:35	578.9823	96.5	-3.5	162.2
WXX100410-07CCV	26-dinitrotoluene-d3	185 > 155	17.12	31246.273	31246.273	31246.273	31246.273	bb			395.7370	79.1	-20.9	3090.2
WXX100410-07CCV	2-Nitrotoluene	137 > 46	20.66	2821.429	31246.273	2821.429	45.148	bb			588.1632	98.0	-2.0	617.4
WXX100410-07CCV	4-Nitrotoluene	137 > 46	22.01	1328.886	31246.273	1328.886	21.265	bb			547.1598	91.2	-8.8	320.2
WXX100410-07CCV	3-Nitrotoluene	137 > 46	23.65	1630.978	31246.273	1630.978	26.099	bb			478.0234	79.7	-20.3	190.4
WXX100410-07CCV	PETN	361 > 62	24.06	29388.670	31246.273	29388.670	470.275	bb			737.1103	122.9	22.9	9396.1

# GRAND MEAN AVERAGE

Vendor: Restek  
 Date of Analysis: 04/11/10  
 Time of Injection: 0142  
 Standard Number: WXX100410-07CCV  
 Data File: EXP0408107a

HMX	119.7
RDX	120.6
135-TNB	101.9
13-DNB	98.7
Tetryl	126.2
Nitrobenzene	92.5
4A-26-DNT	107.7
2A-46-DNT	117.8
246-TNT	129.2
34-DNT(surr)	116.8
26-DNT	102.6
24-DNT	96.5
2-NT	98.0
4-NT	91.2
3-NT	79.7
PETN	122.9
Total	1722.0

WAT  
4/11/10

Average

107.6

ICV Limits 85-115%

CRI Limits 70-130%

CCV Limits 85-115%

No single analyte > +/- 60%

7B  
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2027

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0408109a

Analysis Date: 11-APR-10 02:41

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	46.822	117	
1,3-Dinitrobenzene-d4	500	457.172	91	
2,4,6-Trinitrotoluene	40	50.631	127	
2,4-Dinitrotoluene	40	38.936	97	
2,6-Dinitrotoluene	40	40.782	102	
2,6-Dinitrotoluene-d3	500	438.501	88	
2-Amino-4,6-dinitrotoluene	40	41.564	104	
3,4-Dinitrotoluene	20	20.26	101	
4-Amino-2,6-dinitrotoluene	40	42.035	105	
HMX	40	48.764	122	
Nitrobenzene	40	38.239	96	
PETN	40	54.13	135	*
RDX	40	44.404	111	
Tetryl	40	55.433	139	*
m-Dinitrobenzene	40	41.871	105	
m-Nitrotoluene	40	38.857	97	
o-Nitrotoluene	40	38.013	95	
p-Nitrotoluene	40	43.648	109	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

Quantify Sample Report  
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp.PRO\040810expA2.qtd, Time: Sun Apr 11 11:45:05 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0408109a

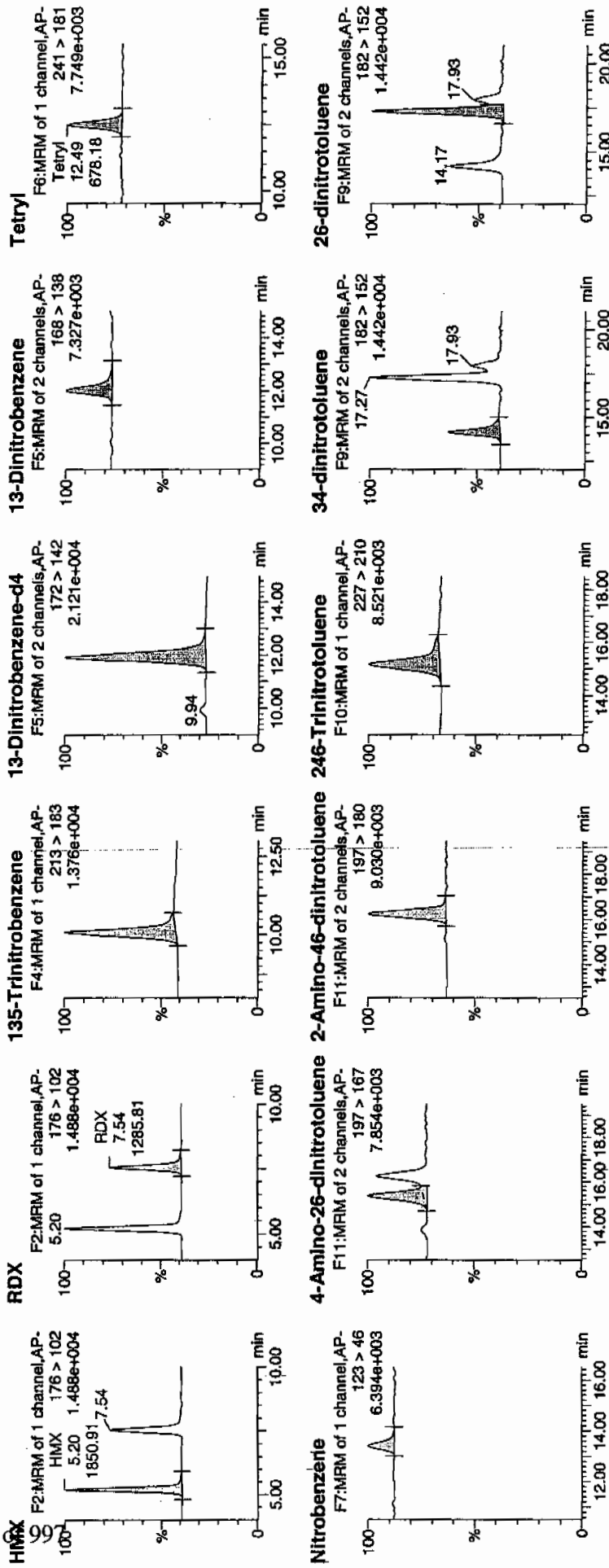
Date: 11-Apr-2010

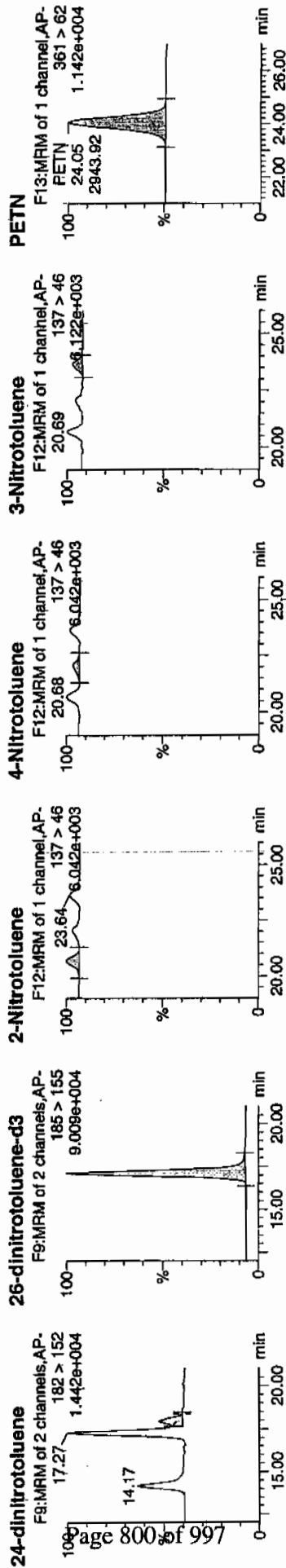
Time: 02:41:56

ID: WXX100410-08CRI

Vial: 1:1,C

11/11/10  
4/11/10





Name	Trace	RT	Area	IS Area	ABS Area	Response	Flags	Mod Date	Mod Time	Home	22560	22567	22570
HMX	176 > 102	5.20	1850.906	5941.449	1850.906	155.762	bb			48.7635	121.9	21.9	401.6
RDX	176 > 102	7.54	1285.814	5941.449	1285.814	108.207	bb			44.4042	111.0	11.0	246.4
135-Trinitrobenzene	213 > 183	10.07	2349.771	5941.449	2349.771	197.744	bb			46.8216	117.1	17.1	266.4
13-Dinitrobenzene-d4	172 > 142	11.92	5941.449		5941.449	5941.449	bb			457.1717	91.4	-8.6	256.3
13-Dinitrobenzene	168 > 138	12.00	640.779	5941.449	640.779	53.924	bb			41.8710	104.7	4.7	86.4
Tetryl	241 > 181	12.49	678.176	5941.449	678.176	57.072	bb			55.4325	138.6	38.6	74.8
Nitrobenzene	123 > 46	13.41	273.090	5941.449	273.090	22.982	bb			38.2390	95.6	-4.4	28.2
4-Amino-2,6-dinitrotoluene	197 > 167	15.36	906.098	34622.781	906.098	13.085	MM	11-Apr-10	11:37:55	42.0353	105.1	5.1	37.1
2-Amino-4,6-dinitrotoluene	197 > 180	16.23	1314.819	34622.781	1314.819	18.988	bb			41.5842	103.9	3.9	101.8
246-Trinitrotoluene	227 > 210	15.14	1349.075	34622.781	1349.075	19.482	bb			50.6310	126.6	26.6	156.9
34-dinitrotoluene	182 > 152	14.17	1438.829	34622.781	1438.829	20.779	bb			20.2804	101.3	1.3	88.8
26-dinitrotoluene	182 > 152	17.27	3211.783	34622.781	3211.783	46.383	MM	11-Apr-10	11:39:49	40.7815	102.0	2.0	227.2
24-dinitrotoluene	182 > 152	17.93	713.761	34622.781	713.761	10.308	MM	11-Apr-10	11:43:46	38.9360	97.3	-2.7	46.1
26-dinitrotoluene-d3	185 > 155	17.12	34622.781		34622.781	34622.781	bb			438.5008	87.7	-12.3	2433.0
2-Nitrotoluene	137 > 46	20.68	202.052	34622.781	202.052	2.918	bb			38.0126	95.0	-5.0	52.4
4-Nitrotoluene	137 > 46	22.07	117.463	34622.781	117.463	1.696	bb			43.6479	109.1	9.1	26.4
3-Nitrotoluene	137 > 46	23.65	146.904	34622.781	146.904	2.121	bb			38.8572	97.1	-2.9	5.8
PETN	361 > 62	24.05	2943.921	34622.781	2943.921	42.514	bb			54.1295	135.3	35.3	545.9

# GRAND MEAN AVERAGE

Vendor: UltraScientific  
 Date of Analysis 04/11/10  
 Time of Injection 0241  
 Standard Number WXX100410-08CRI  
 Data File EXP0408109a

HMX	121.9
RDX	111.0
135-TNB	117.1
13-DNB	104.7
Tetryl	138.6
Nitrobenzene	95.6
4A-26-DNT	105.1
2A-46-DNT	103.9
246-TNT	126.6
34-DNT(surr)	101.3
26-DNT	102.0
24-DNT	97.3
2-NT	95.0
4-NT	109.1
3-NT	97.1
PETN	135.3
Total	1761.6

*WAT*  
*4/12/10*

Average 110.1

*from 04/12/10*

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): 10-2027

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS03310013.wiff

Analysis Date: 31-MAR-10 11:49

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	100	82.3	82	
2,6-Diamino-4-nitrotoluene	100	94.8	95	
3,4-Dinitrotoluene	50	49.1	98	
3,5-Dinitroaniline	100	96.6	97	
TATB	100	94.1	94	
tris(o-cresyl) phosphate	100	99.5	100	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

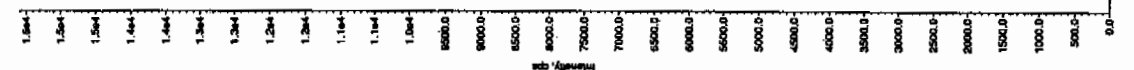
San 41510

Sample Name: "WXX100331-2708" Sample ID: "1111" File: "EX503310013.wif"  
Peak Name: "TATP" Name(s): "257.2024.8 amu"  
Comment: "LONSEXP\_C" Annotation: "

Sample Index: 1  
Sample Type: QC  
Concentration: 100. ng/mL  
Calculated Conc: 94.1 ng/mL  
Acq. Date: 3/31/2010  
Acq. Time: 11:49:08 AM

Modified: No  
Proc. Algorithm: IntelliQuan - IOA  
Min. Peak Height: 2500.00 cps  
Min. Peak Width: 0.00 sec  
Smoother Width: 30.0 points  
RT Window: 15.0 sec  
Expected RT: 6.30 min  
Use Relative RT: No

Int. Type: Valley  
Retention Time: 6.91 min  
Area: 6.44e+004 counts  
Height: 15590.504 cps  
Start Time: 6.82 min  
End Time: 7.19 min

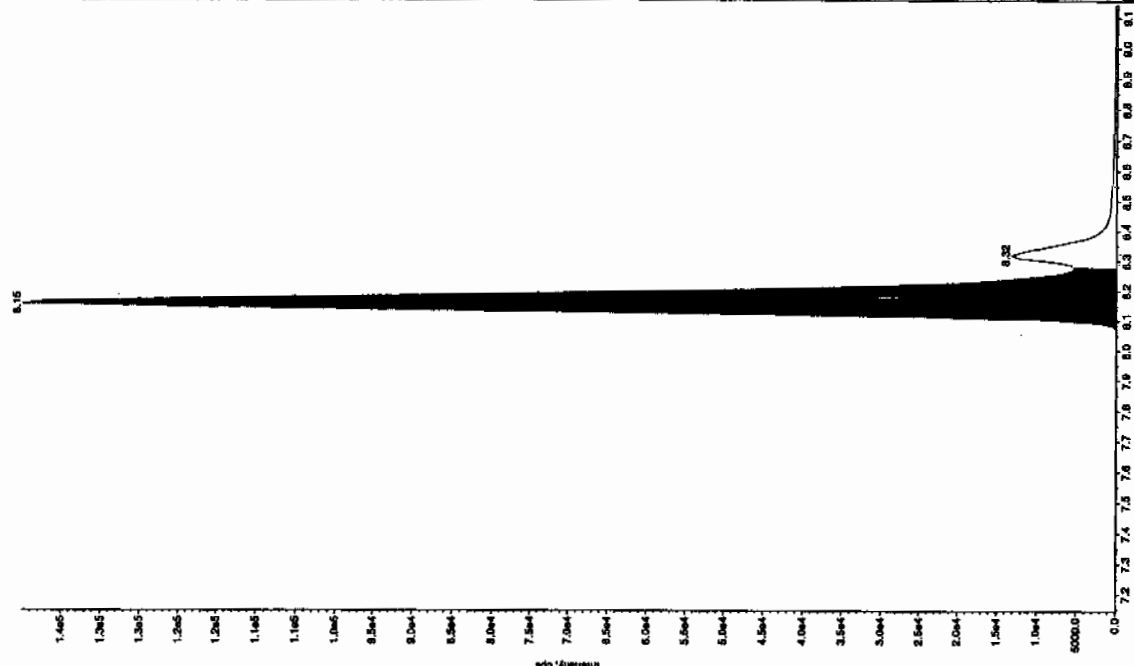


Sample Name: "WXX100331-2708" Sample ID: "1111" File: "EX503310013.wif"  
Peak Name: "35-DNA" Name(s): "182.0460 amu"  
Comment: "LONSEXP\_C" Annotation: "

Sample Index: 1  
Sample Type: QC  
Concentration: 100. ng/mL  
Calculated Conc: 96.6 ng/mL  
Acq. Date: 3/31/2010  
Acq. Time: 11:49:08 AM

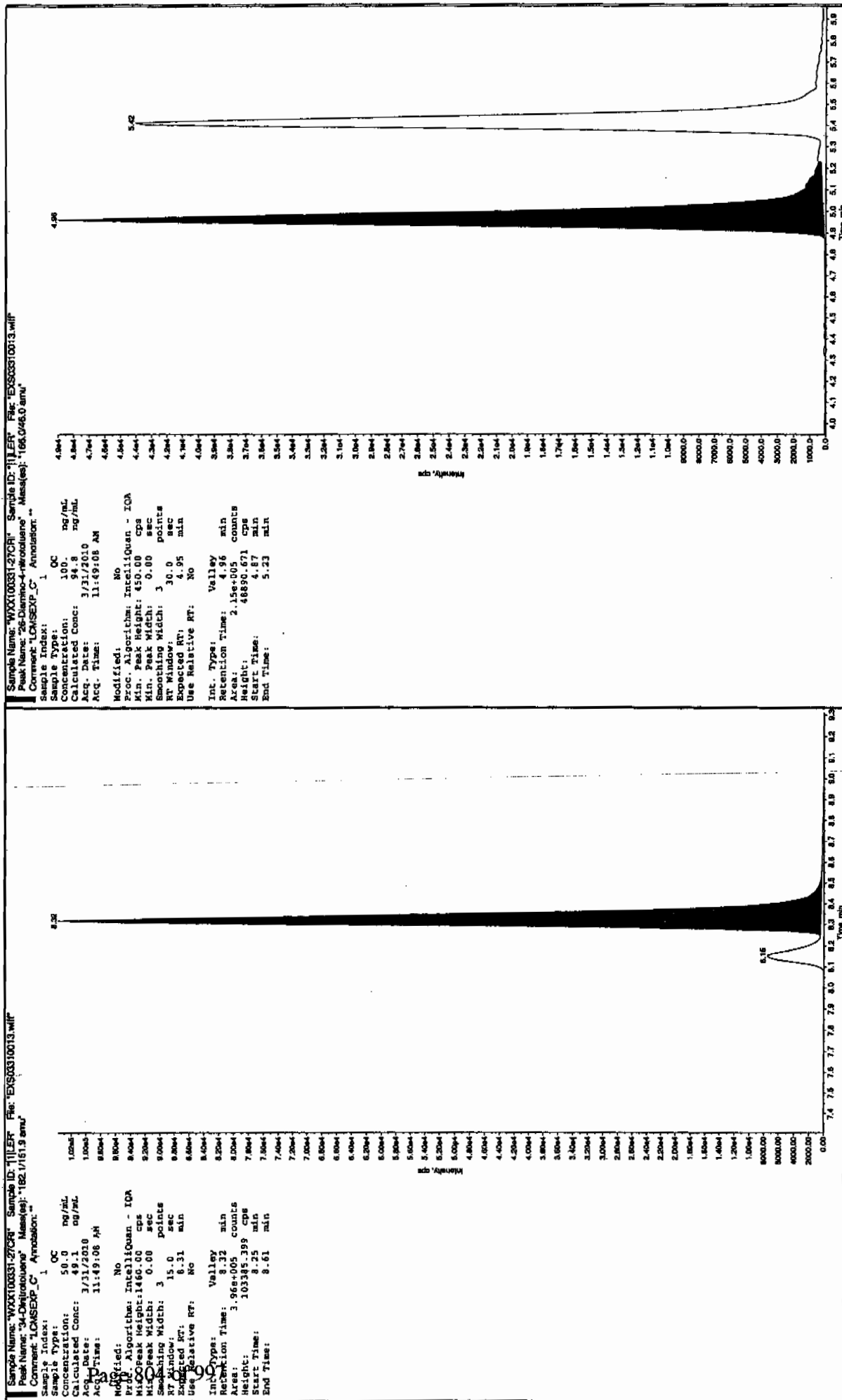
Modified: No  
Proc. Algorithm: IntelliQuan - IOA  
Min. Peak Height: 2000.00 cps  
Min. Peak Width: 0.00 sec  
Smoother Width: 30.0 points  
RT Window: 15.0 sec  
Expected RT: 8.14 min  
Use Relative RT: No

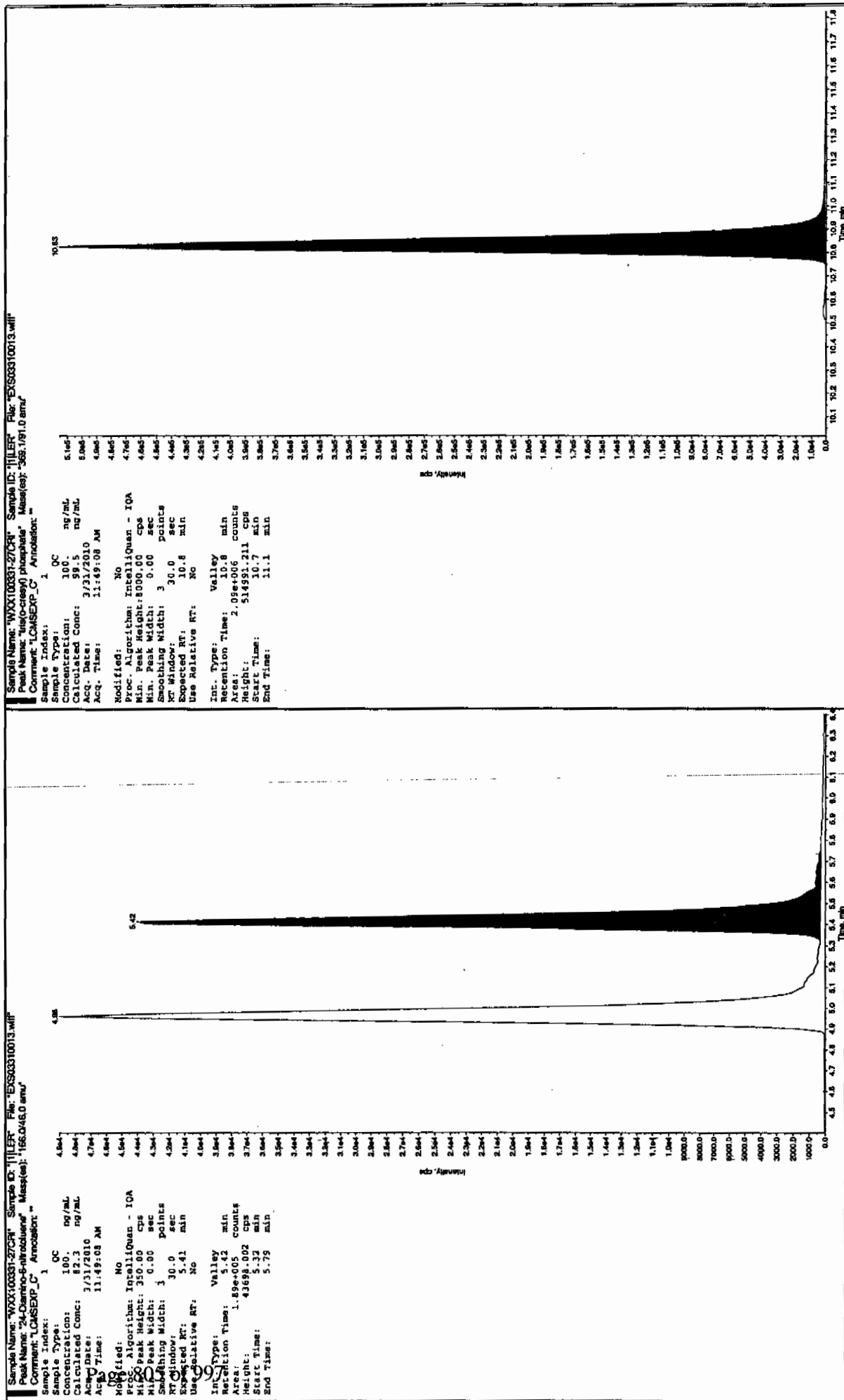
Int. Type: Valley  
Retention Time: 8.15 min  
Area: 6.11e+005 counts  
Height: 139893.921 cps  
Start Time: 8.03 min  
End Time: 8.28 min



Ann 04/05/10







7A  
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2027

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS03310024.wiff

Analysis Date: 31-MAR-10 14:41

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	500	455	91	
2,6-Diamino-4-nitrotoluene	500	496	99	
3,4-Dinitrotoluene	250	217	87	
3,5-Dinitroaniline	500	439	88	
TATB	500	467	93	
tris(o-cresyl) phosphate	500	479	96	

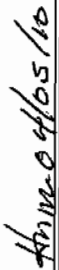
Recovery Limits:

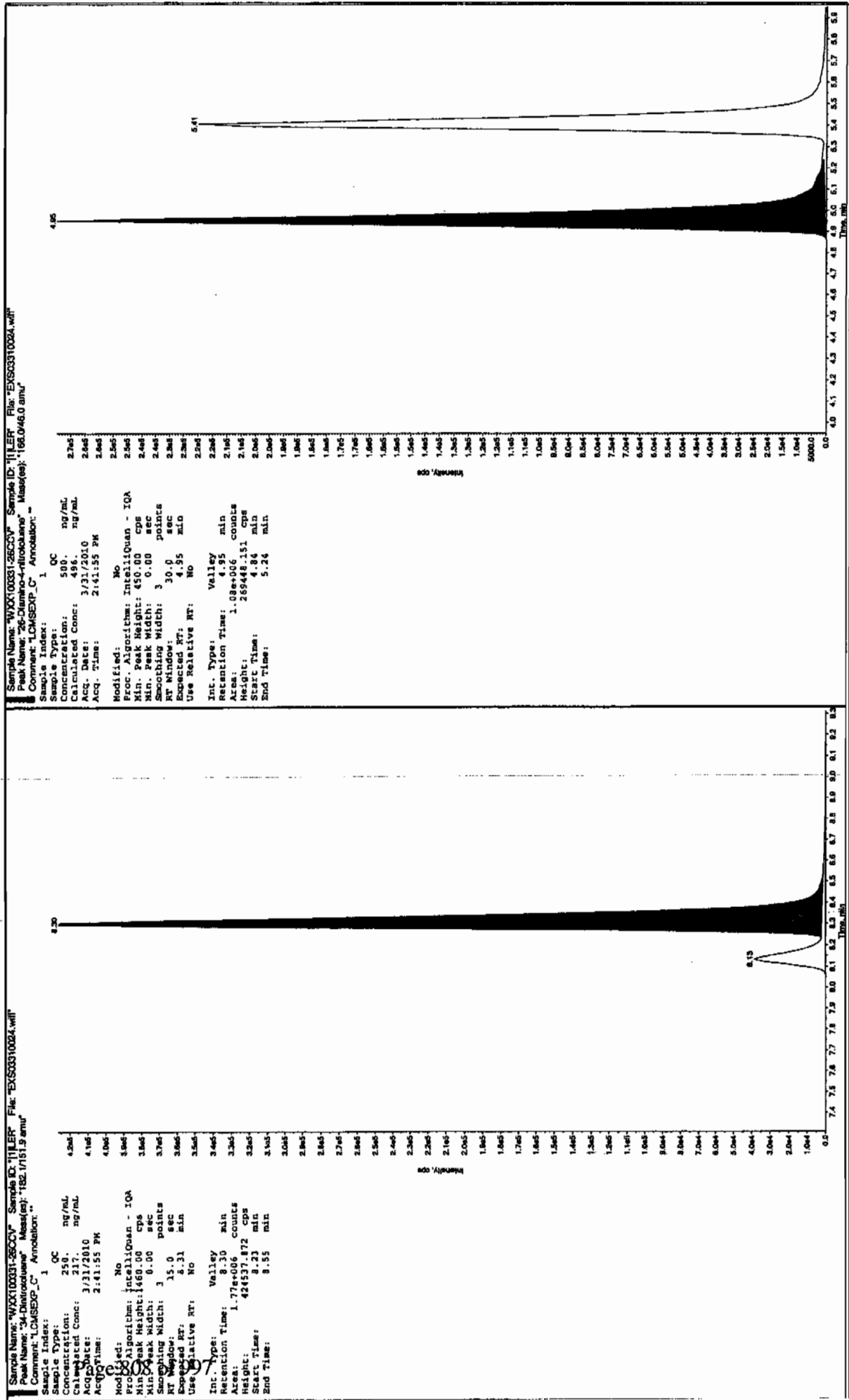
3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 70-130%

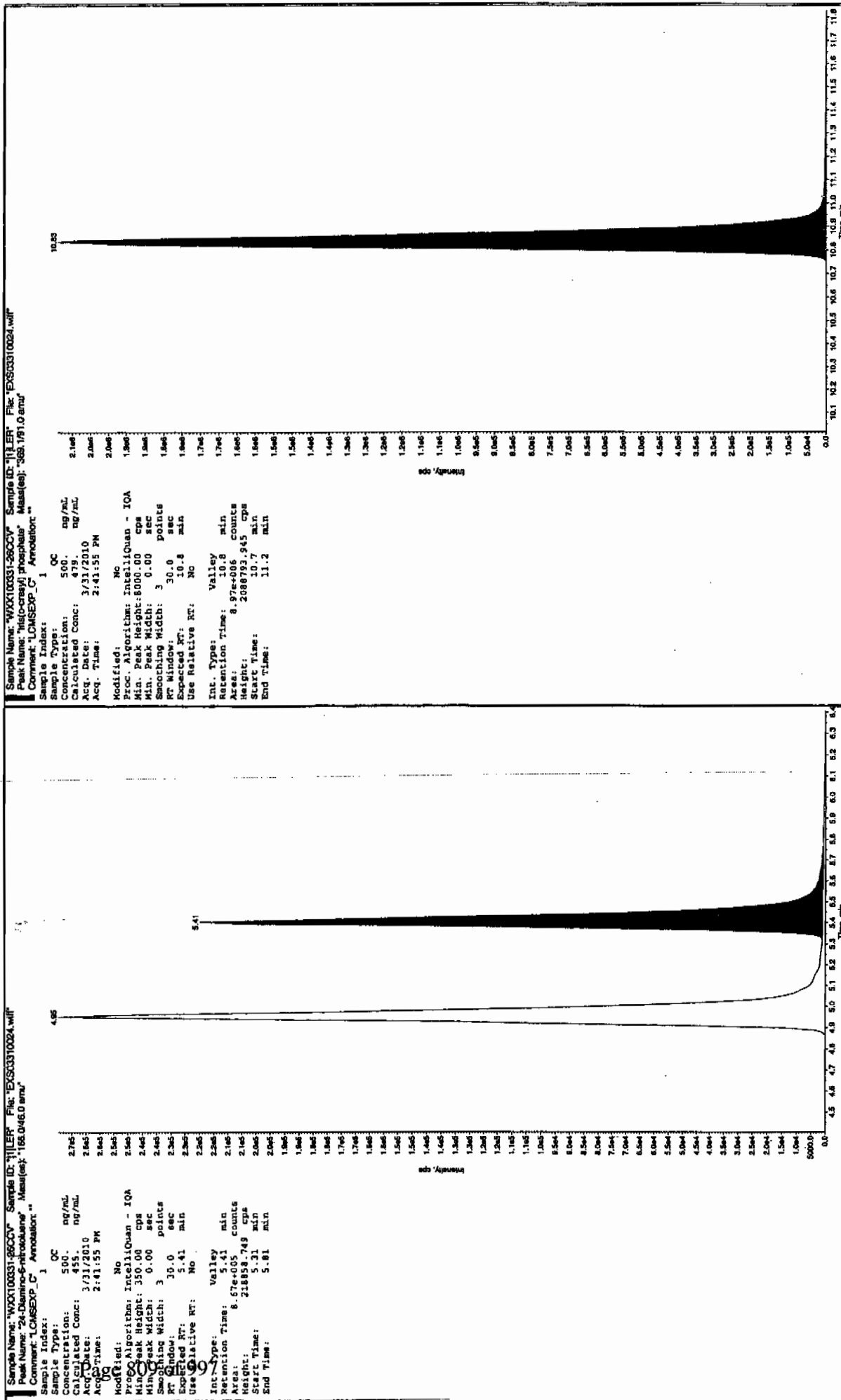
Other Target Analytes 80-120%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits







**7B**  
**Explosives CRI Standard**

**Lab Name:** GEL Laboratories LLC

**GEL Job No (SDG):** 10-2027

**Lab Code:** GEL

**GEL Sample ID:** WXXCRI

**GEL Data File** EXS03310026.wiff

**Analysis Date:** 31-MAR-10 15:13

**LCMSMS ID:** 1358

**Column ID:** JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	100	75.4	75	
2,6-Diamino-4-nitrotoluene	100	92.1	92	
3,4-Dinitrotoluene	50	49.5	99	
3,5-Dinitroaniline	100	104	104	
TATB	100	96	96	
tris(o-cresyl) phosphate	100	97.6	98	

**Recovery Limits:**

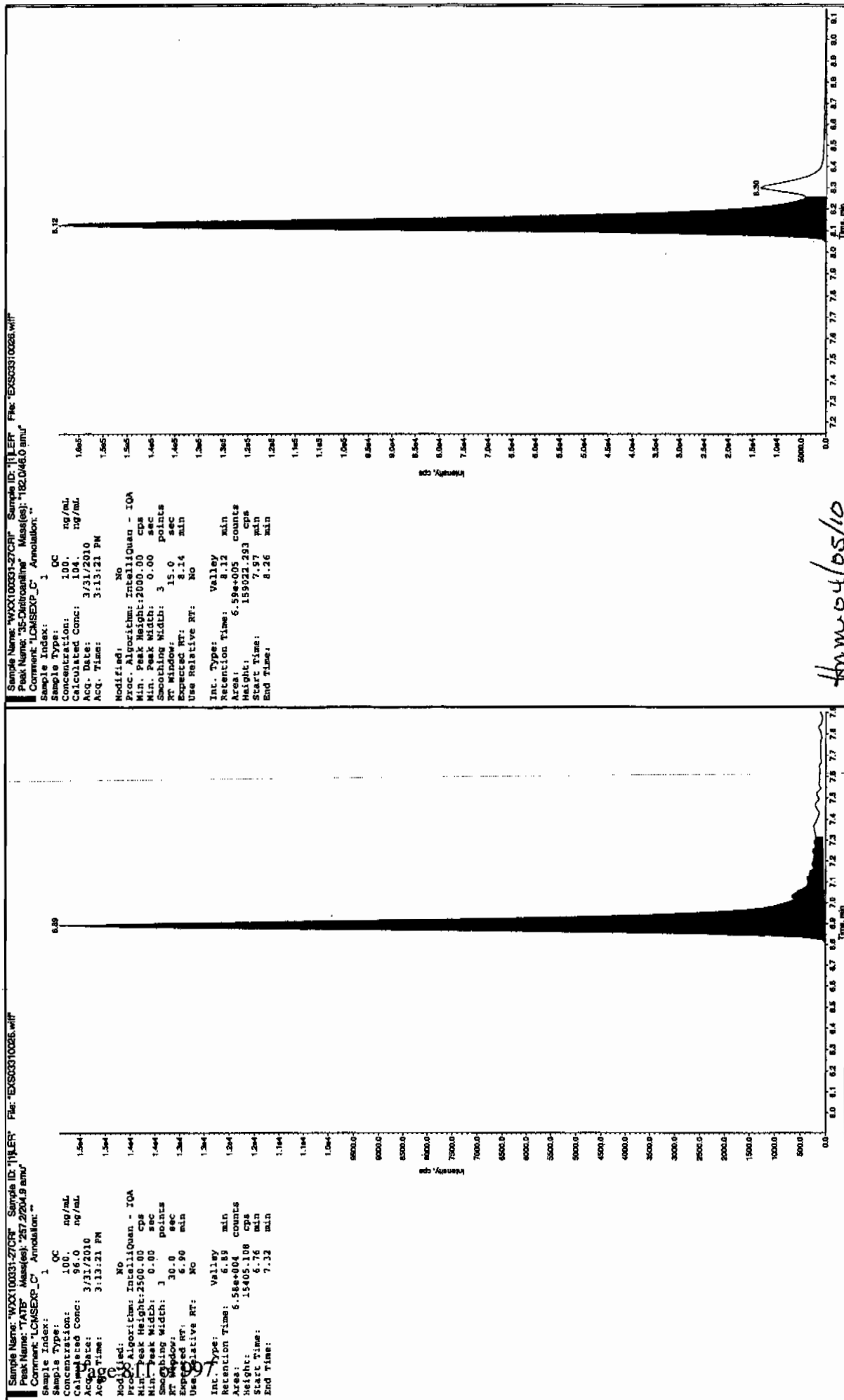
3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

# Column used to flag Recovery outside of Limits

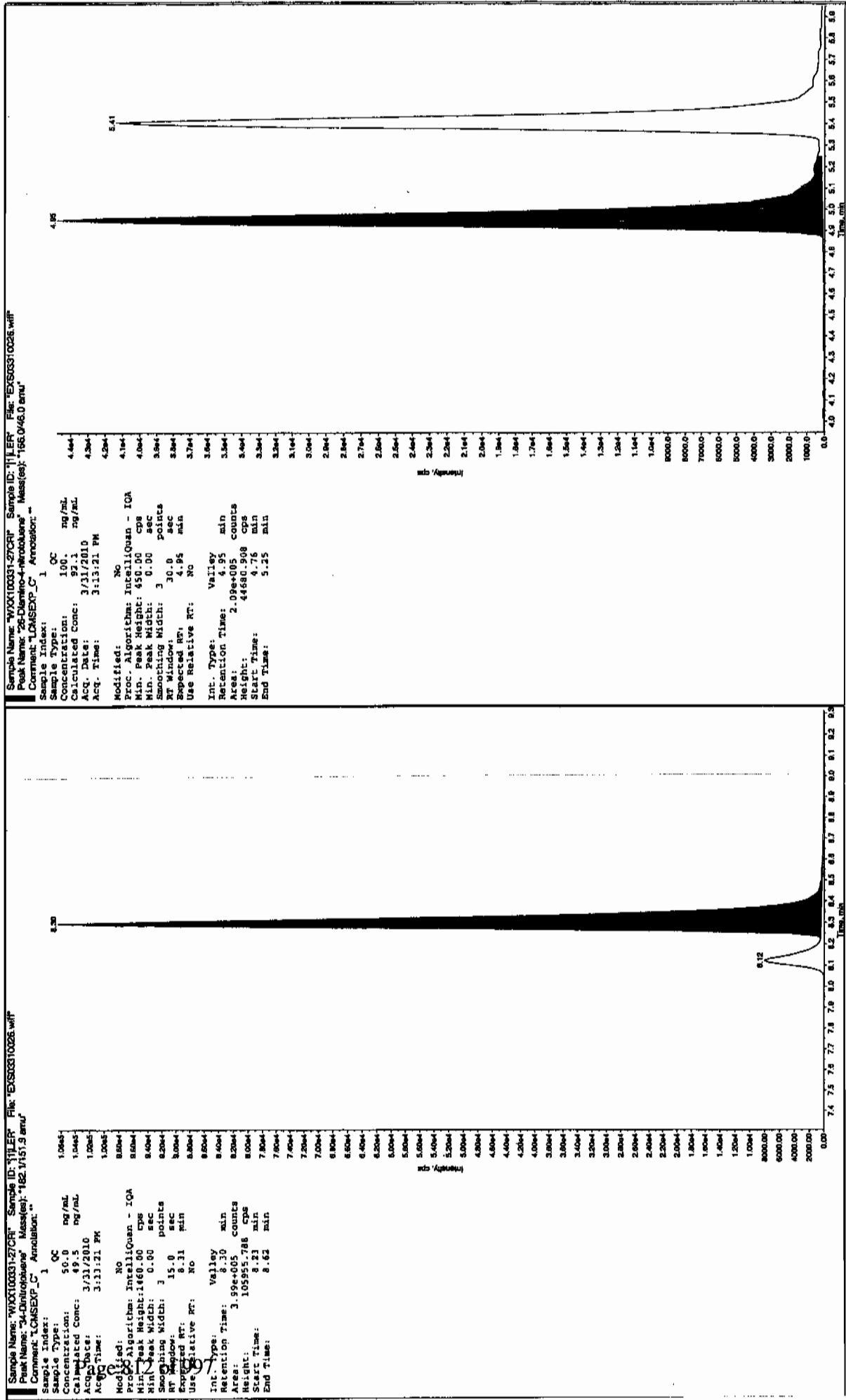
\* Value outside of Recovery Limits

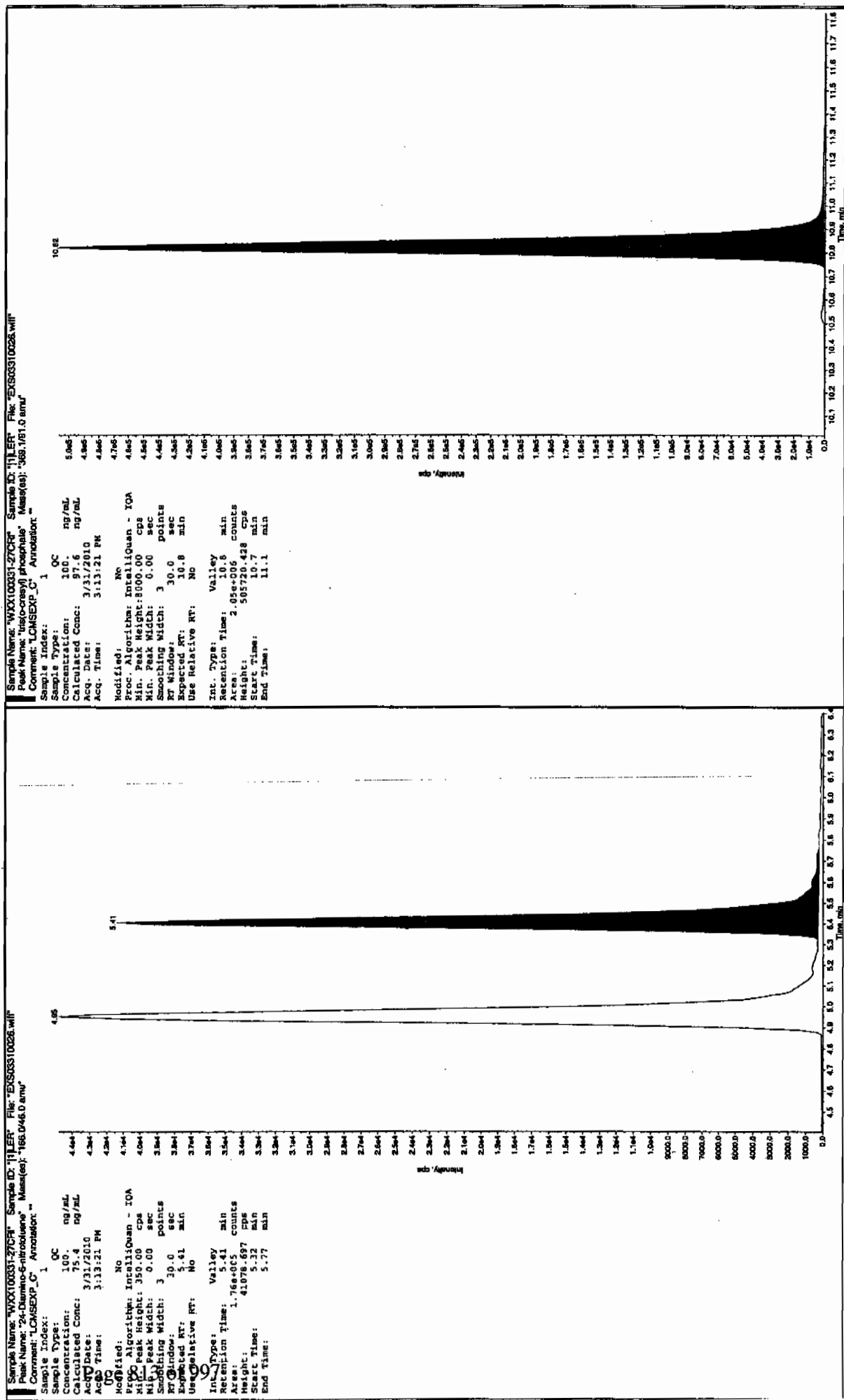
8/24 4/15/10



GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4







7A  
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2027

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS03310036.wiff

Analysis Date: 31-MAR-10 17:50

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	500	519	104	
2,6-Diamino-4-nitrotoluene	500	489	98	
3,4-Dinitrotoluene	250	227	91	
3,5-Dinitroaniline	500	496	99	
TATB	500	488	98	
tris(o-cresyl) phosphate	500	483	97	

Recovery Limits:

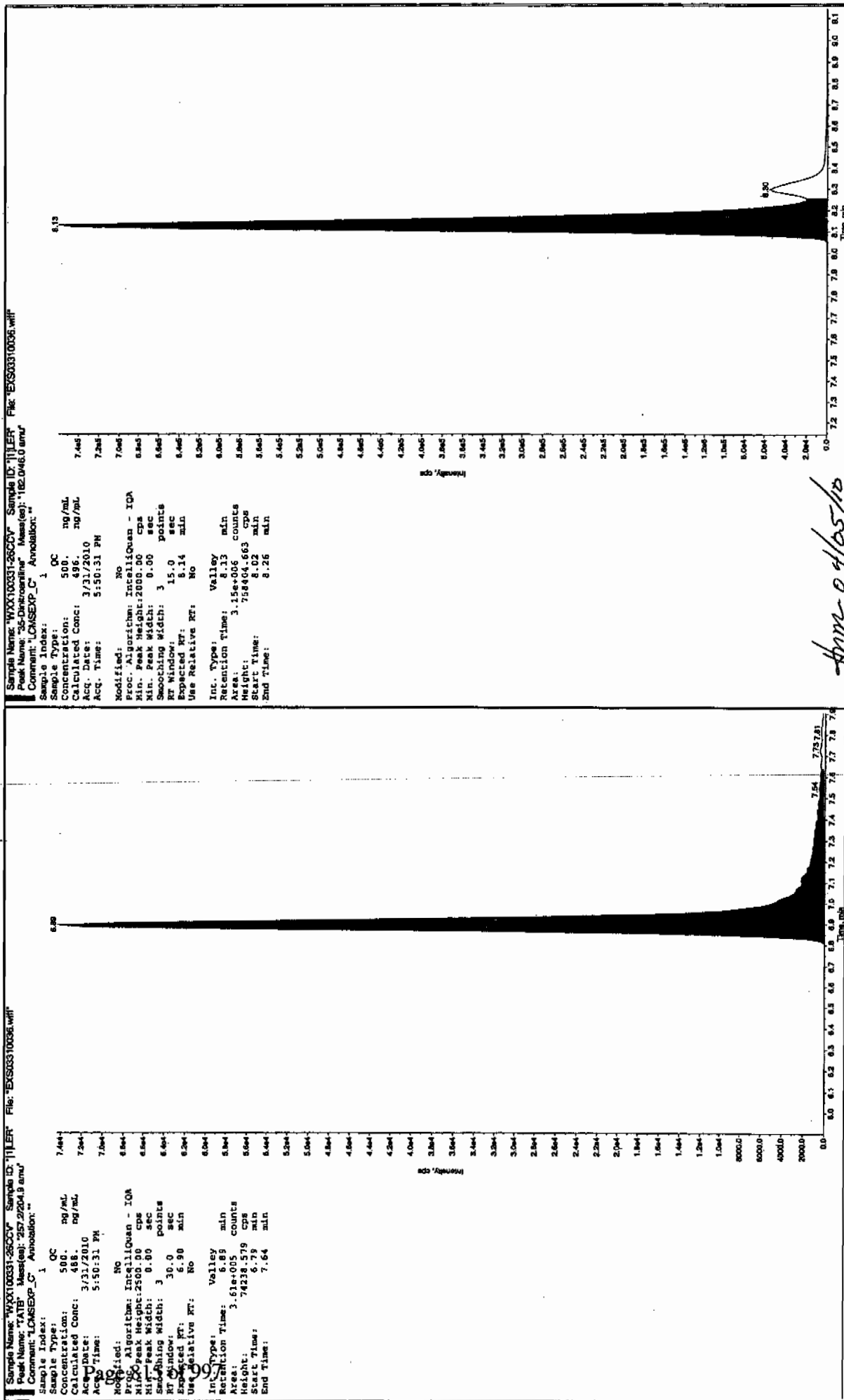
3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 70-130%

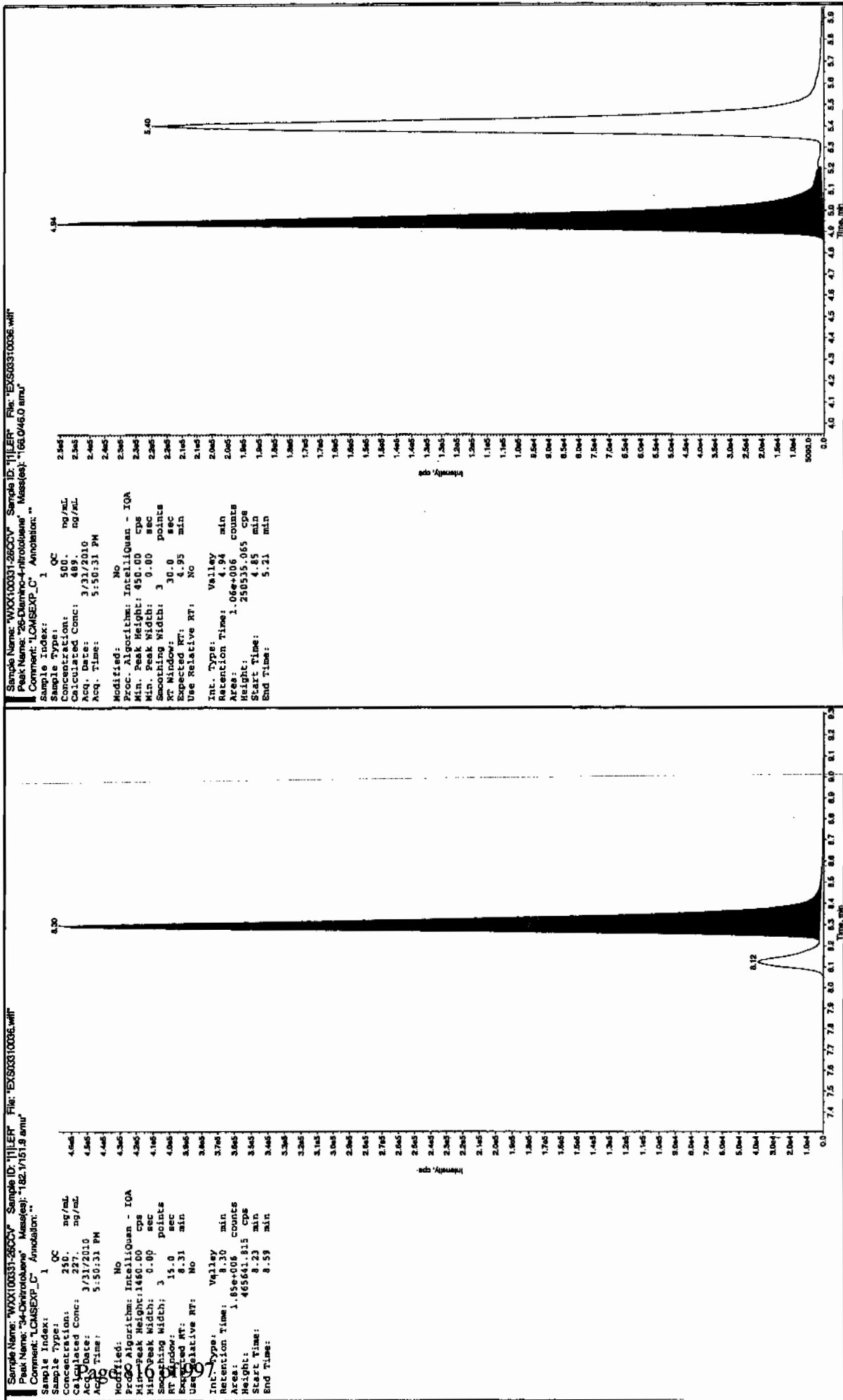
Other Target Analytes 80-120%

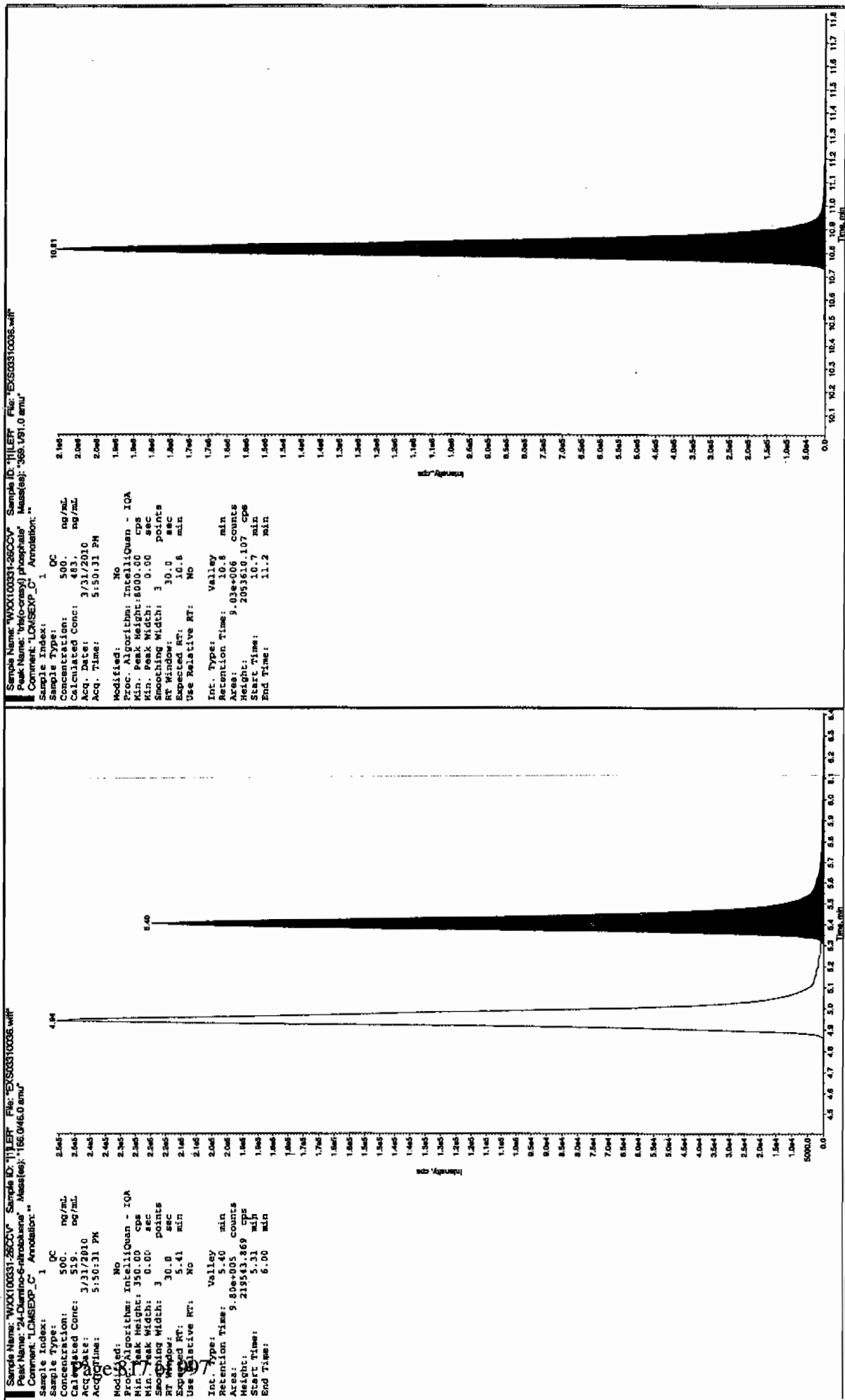
# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

File 415710







7B  
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2027

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS03310038.wiff

Analysis Date: 31-MAR-10 18:21

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	100	82.4	82	
2,6-Diamino-4-nitrotoluene	100	100	100	
3,4-Dinitrotoluene	50	46.8	94	
3,5-Dinitroaniline	100	100	100	
TATB	100	97.2	97	
tris(o-cresyl) phosphate	100	99.6	100	

Recovery Limits:

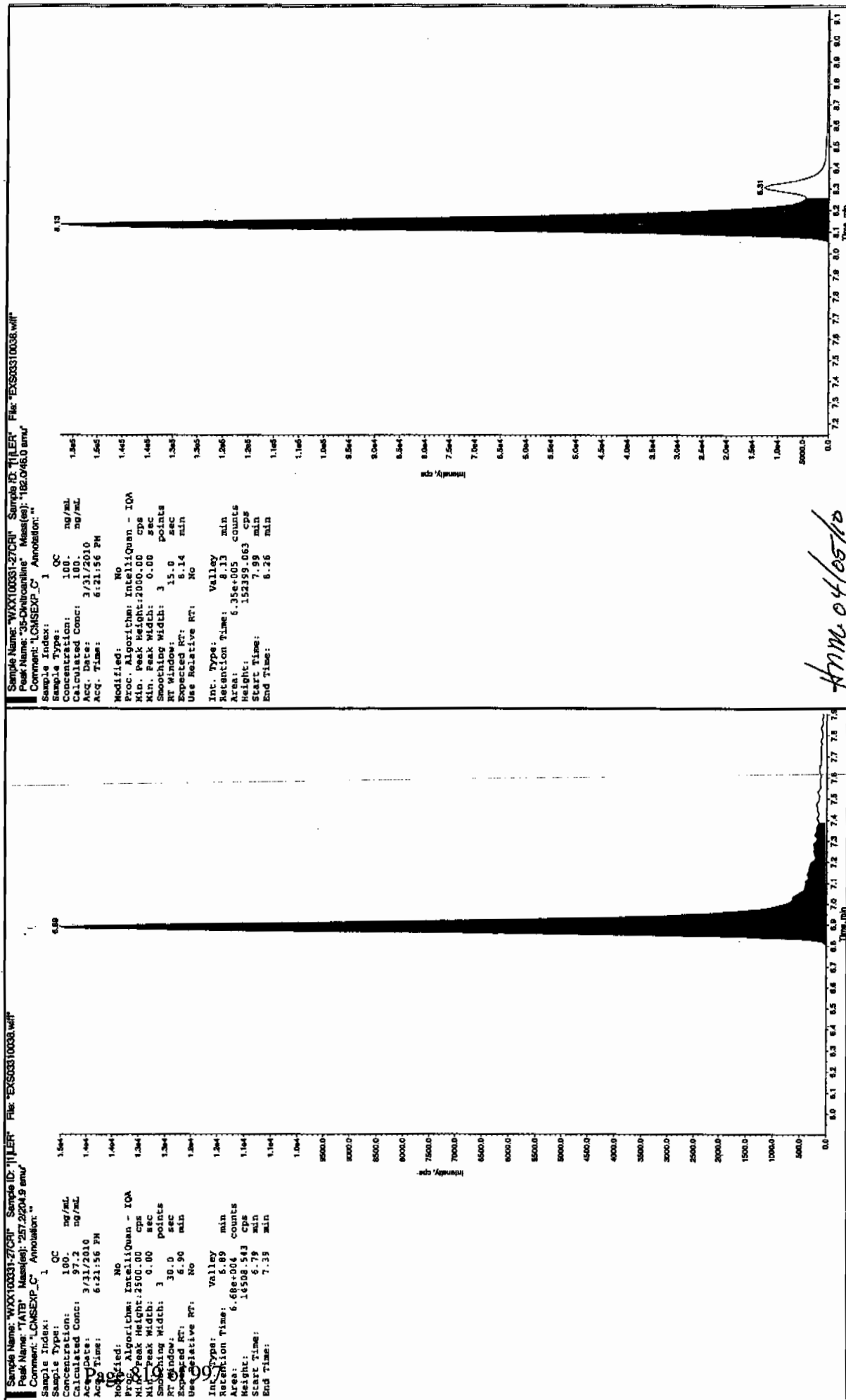
3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

# Column used to flag Recovery outside of Limits

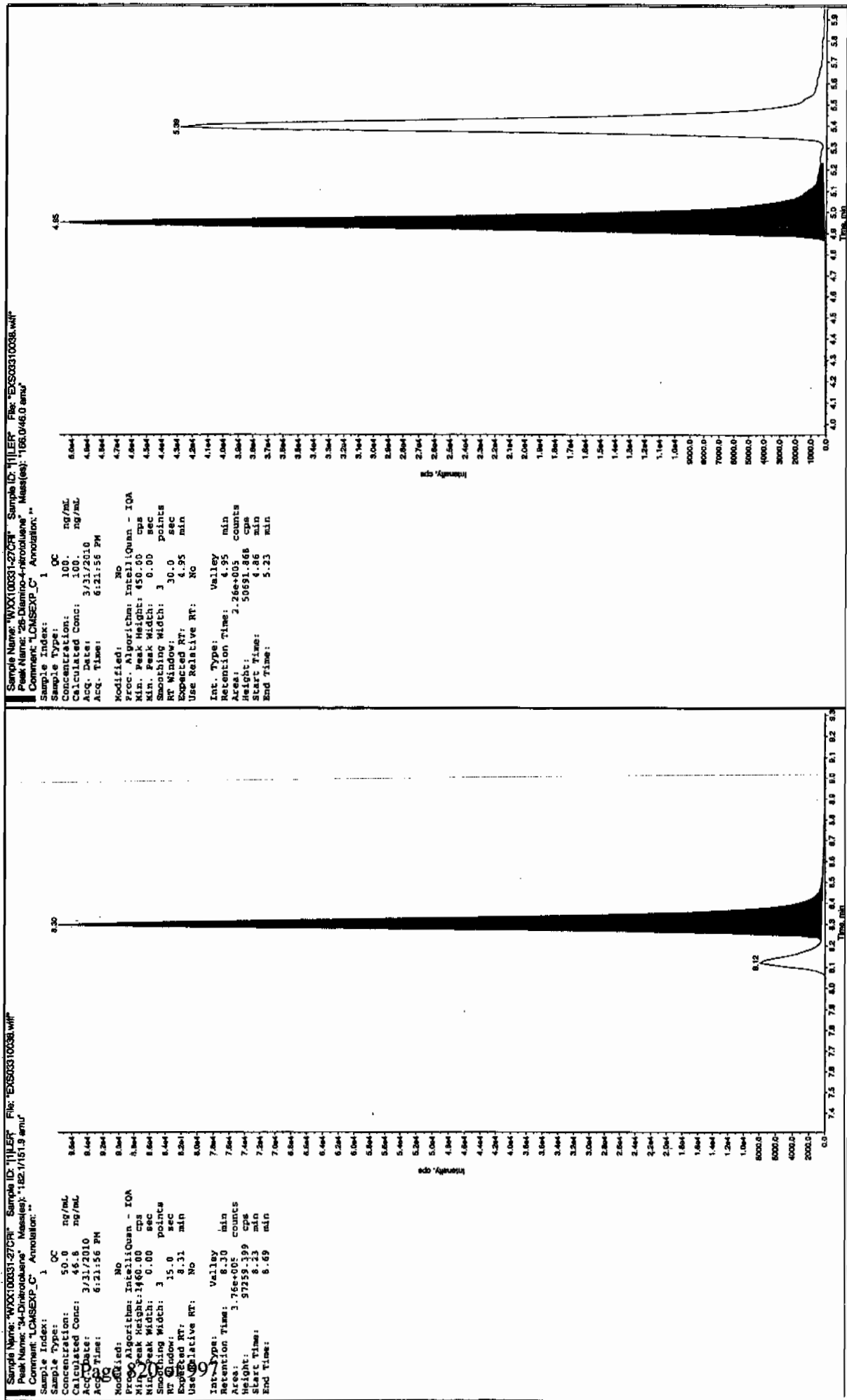
\* Value outside of Recovery Limits

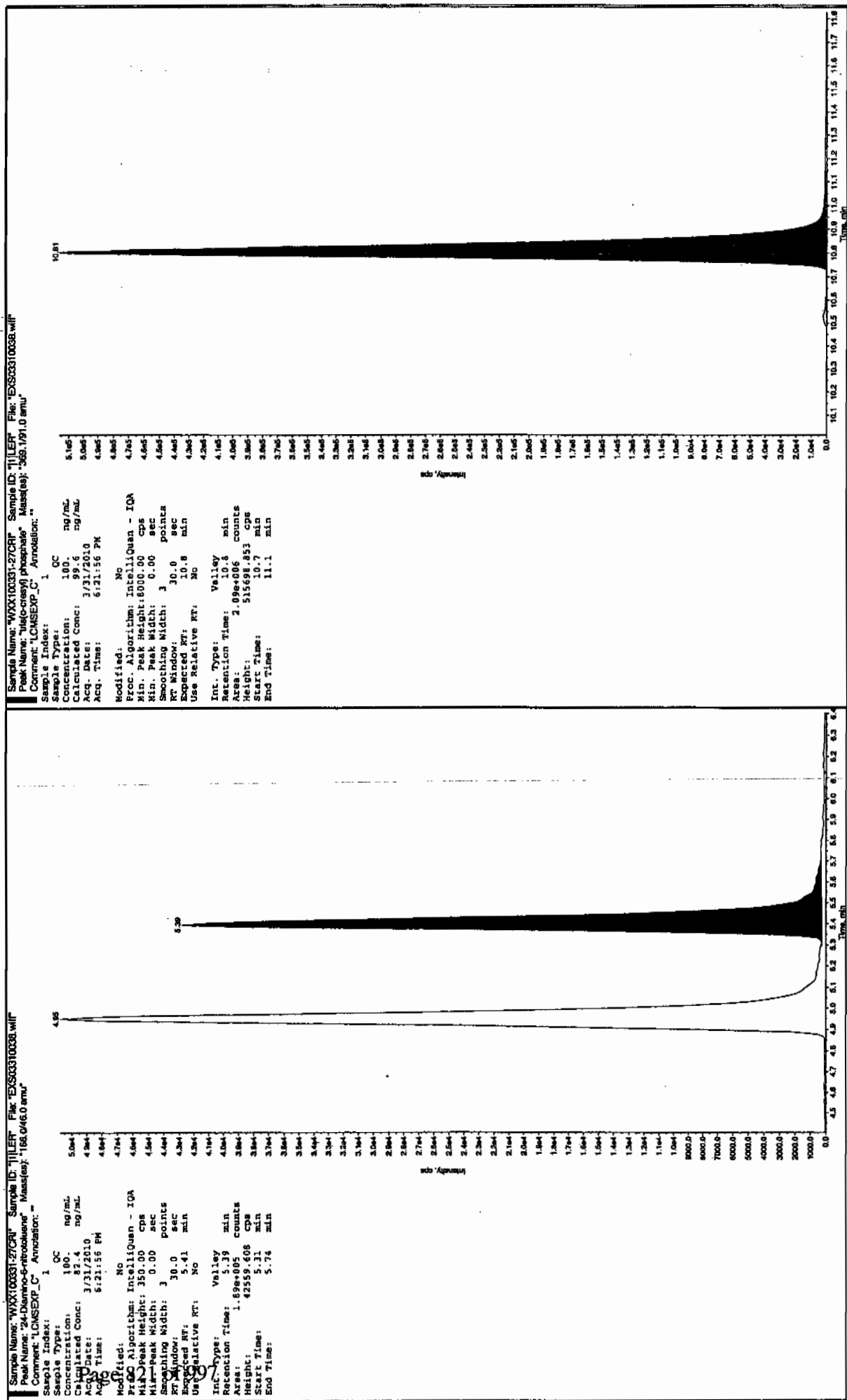
Run 415110



Amu 04/05/10







7A  
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2027

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS03310048.wiff

Analysis Date: 31-MAR-10 20:59

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	500	535	107	
2,6-Diamino-4-nitrotoluene	500	524	105	
3,4-Dinitrotoluene	250	243	97	
3,5-Dinitroaniline	500	487	97	
TATB	500	483	97	
tris(o-cresyl) phosphate	500	498	100	

Recovery Limits:

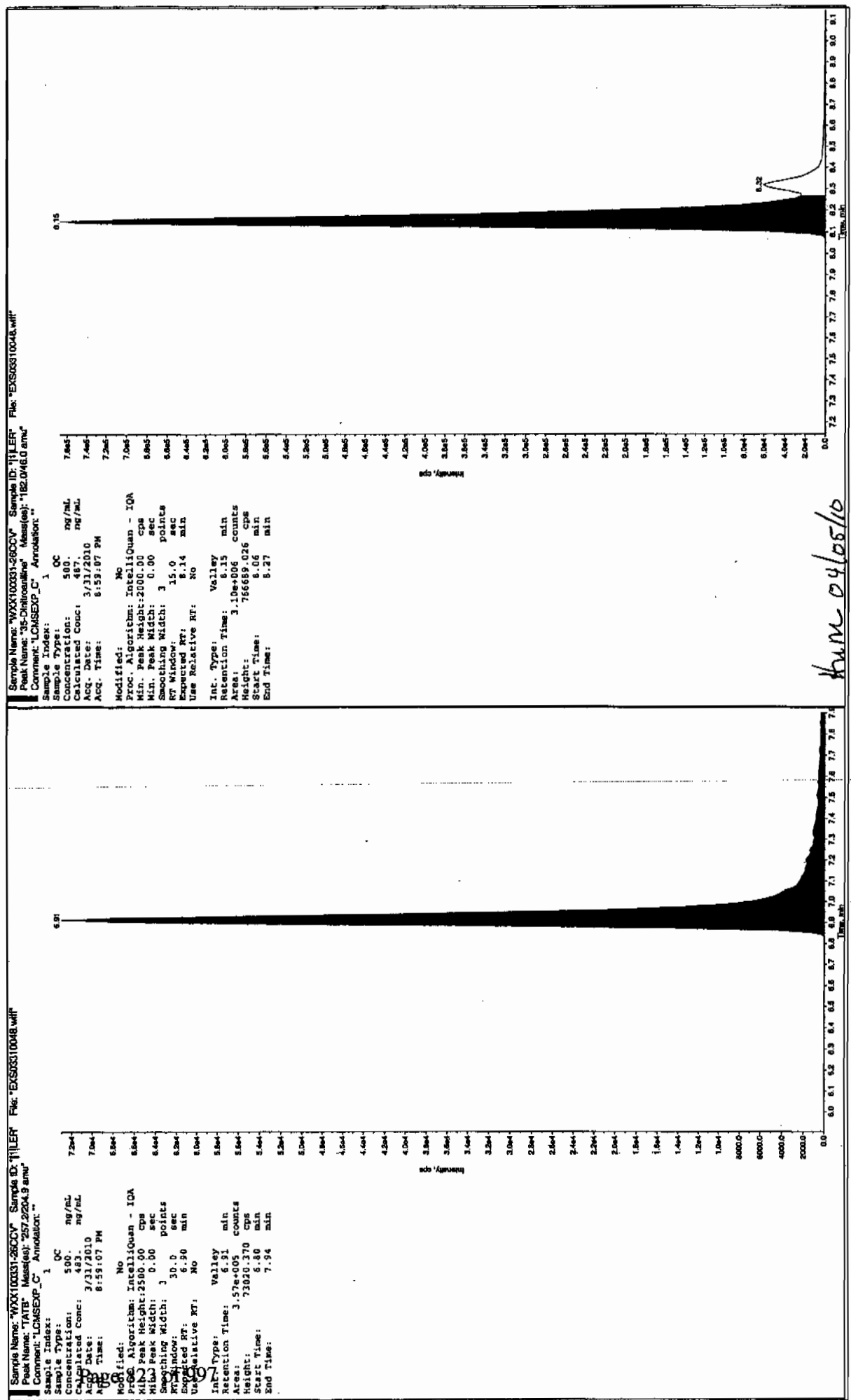
3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 70-130%

Other Target Analytes 80-120%

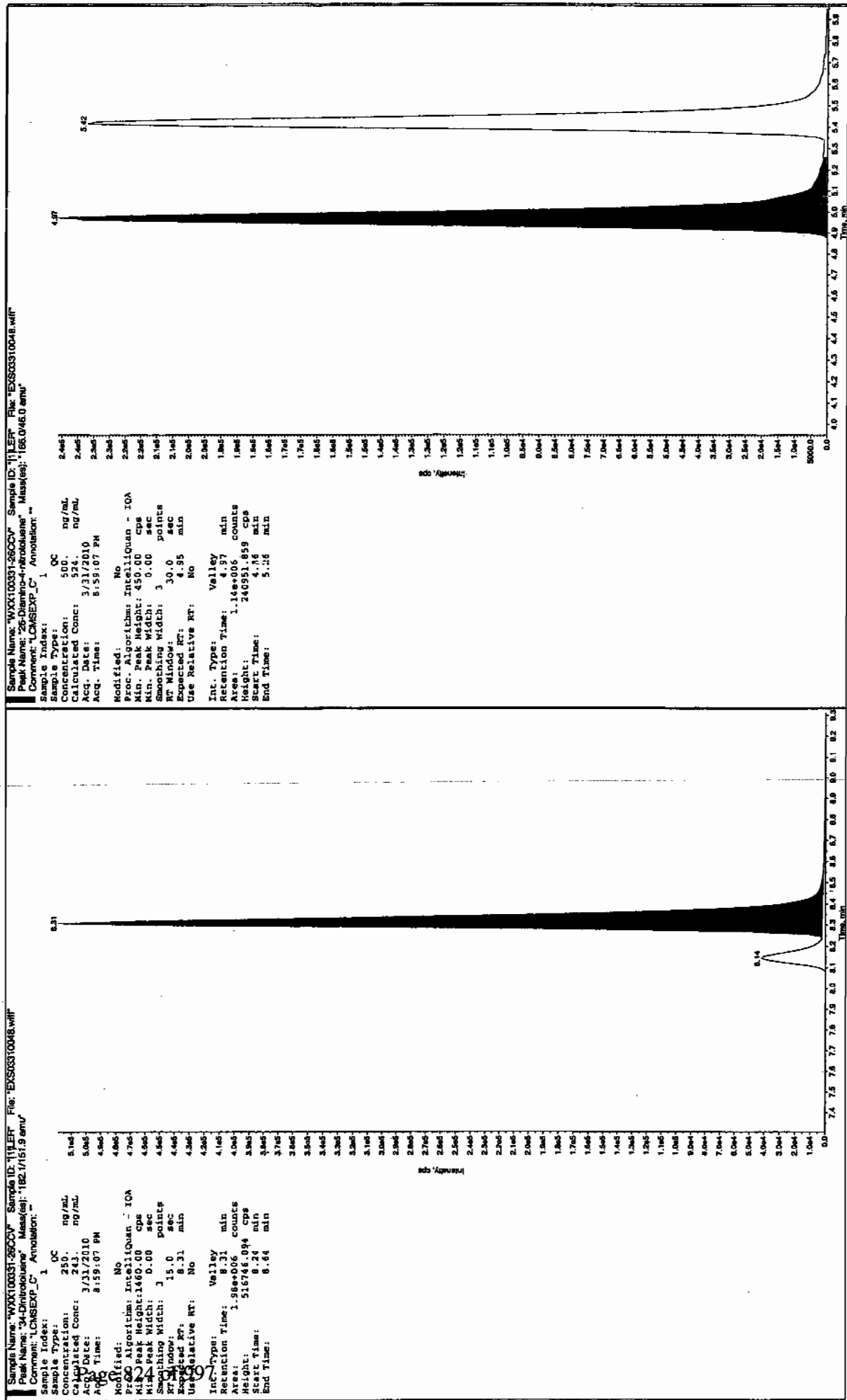
# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

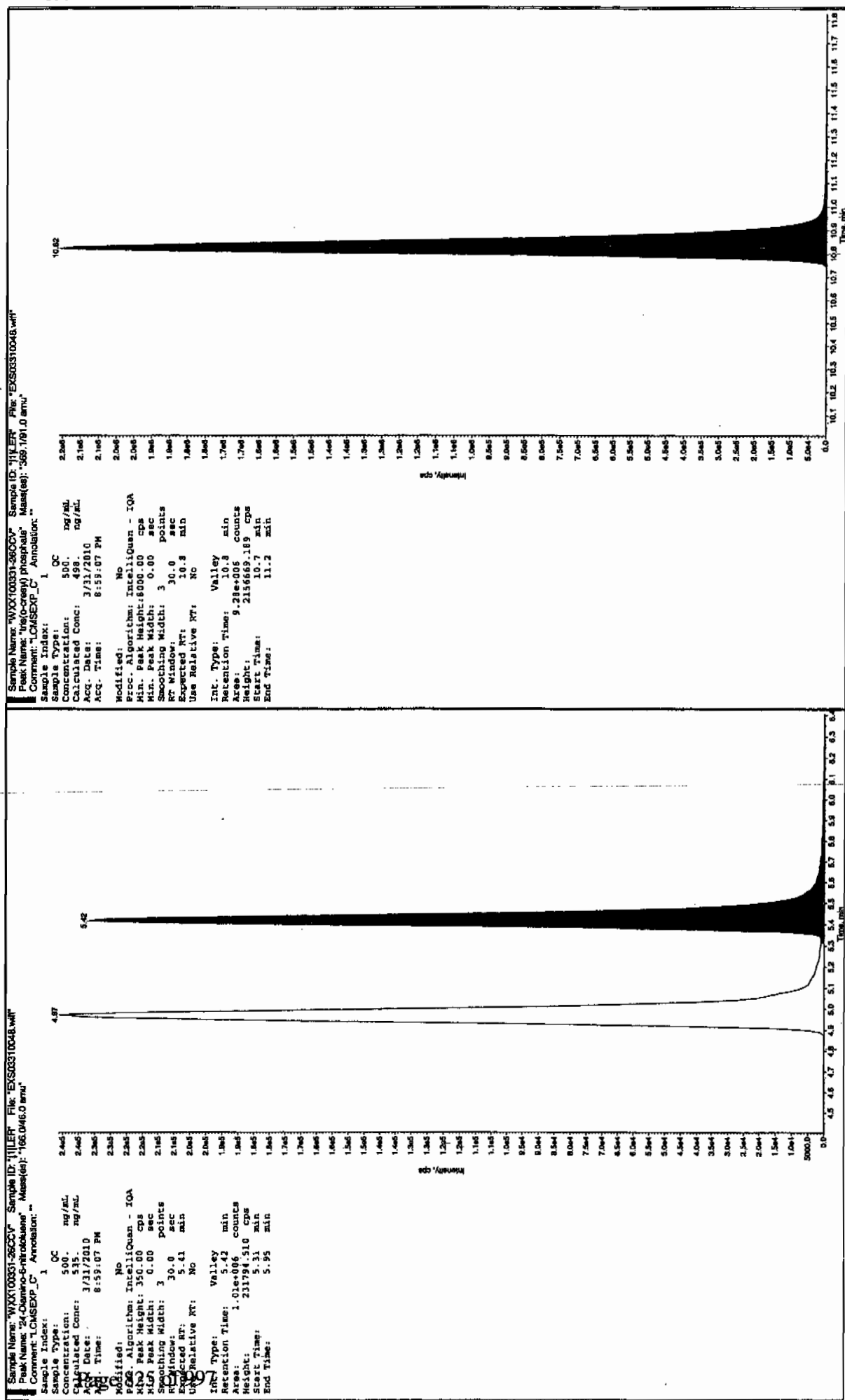
Jan 4/15/10



Hum 04/05/10



\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4



**7B**  
**Explosives CRI Standard**

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2027

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS03310050.wiff

Analysis Date: 31-MAR-10 21:30

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	100	88.6	89	
2,6-Diamino-4-nitrotoluene	100	103	103	
3,4-Dinitrotoluene	50	48.4	97	
3,5-Dinitroaniline	100	106	106	
TATB	100	98.5	99	
tris(o-cresyl) phosphate	100	101	101	

**Recovery Limits:**

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,

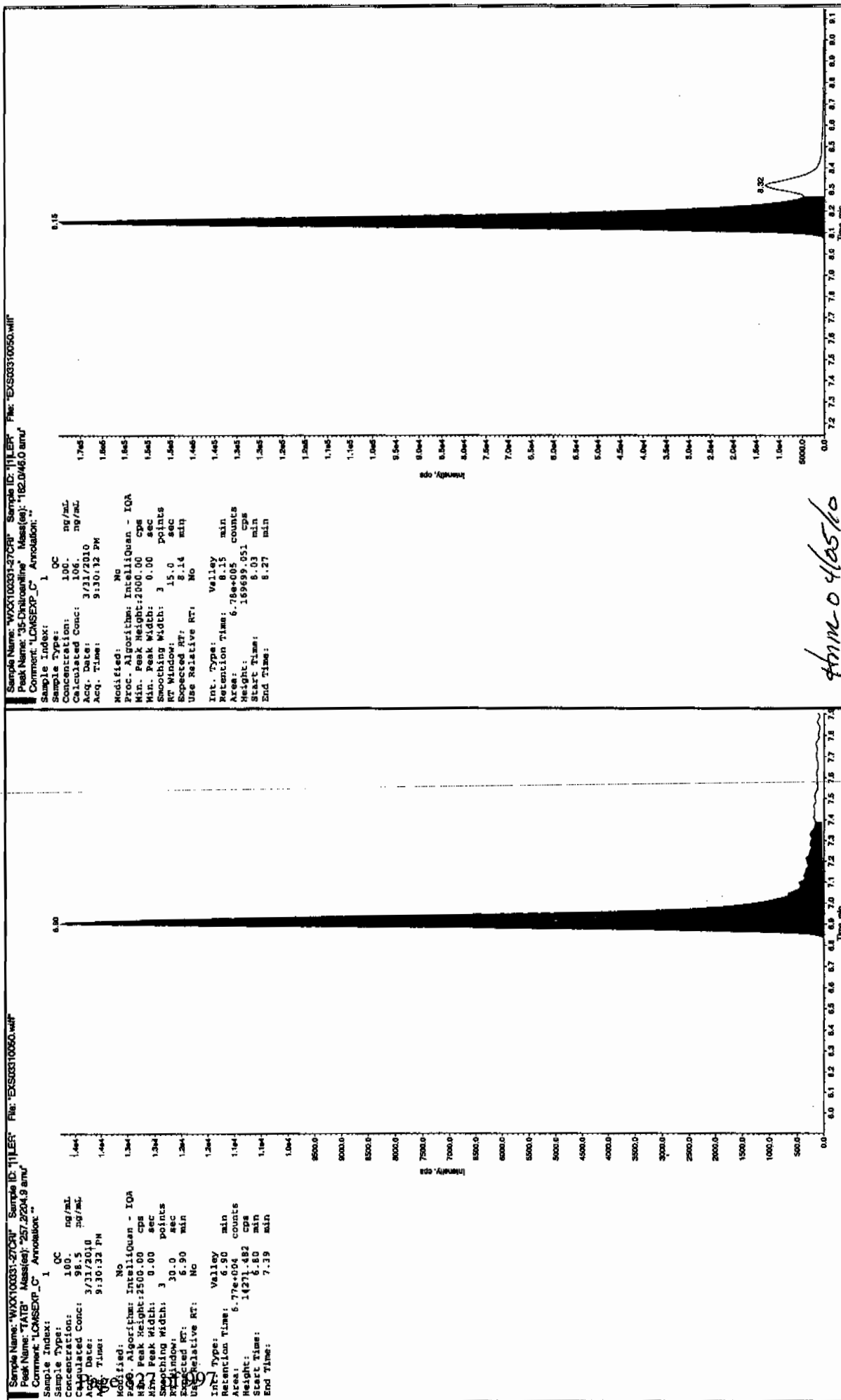
2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

# Column used to flag Recovery outside of Limits

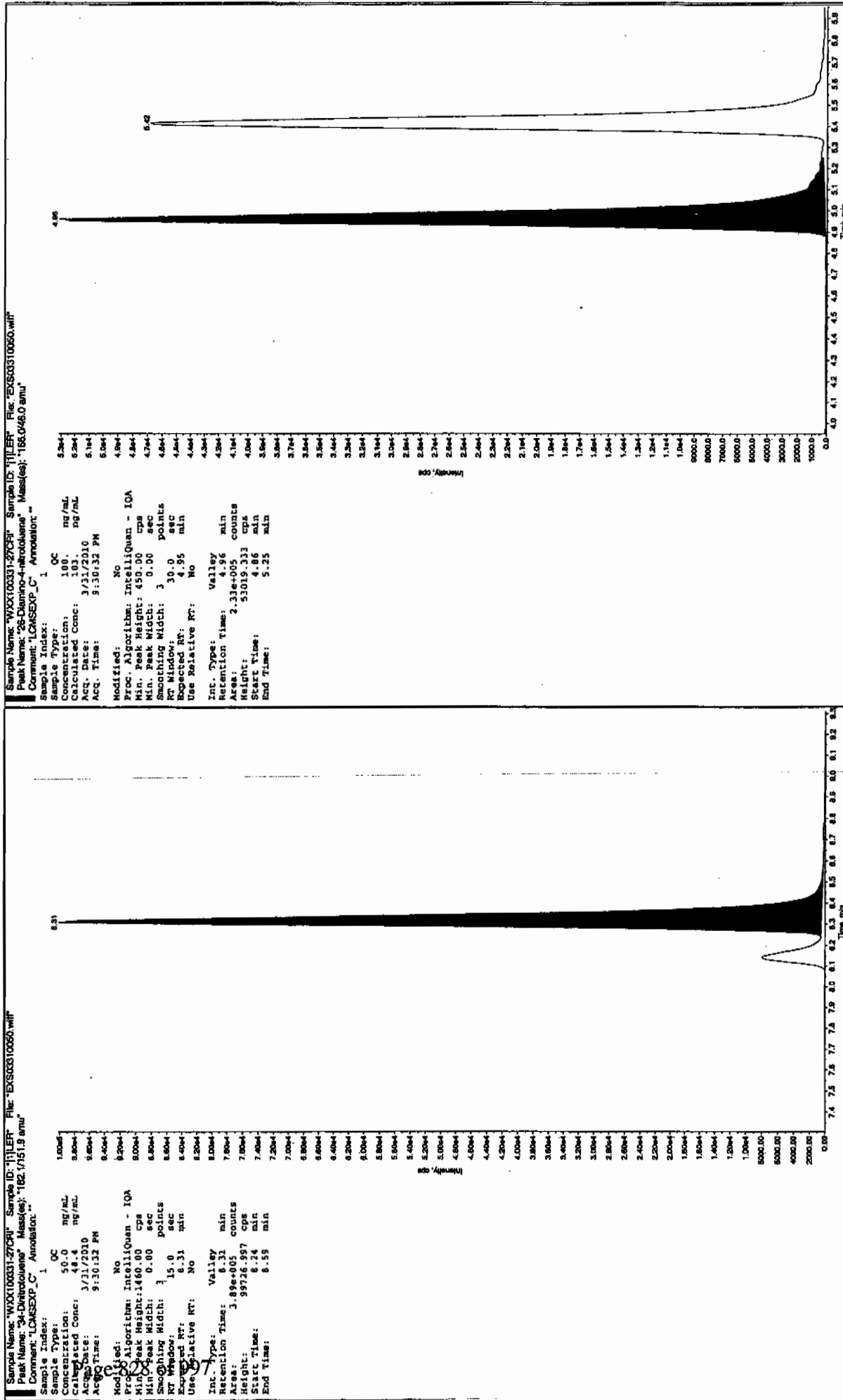
\* Value outside of Recovery Limits

dan 4/15/10



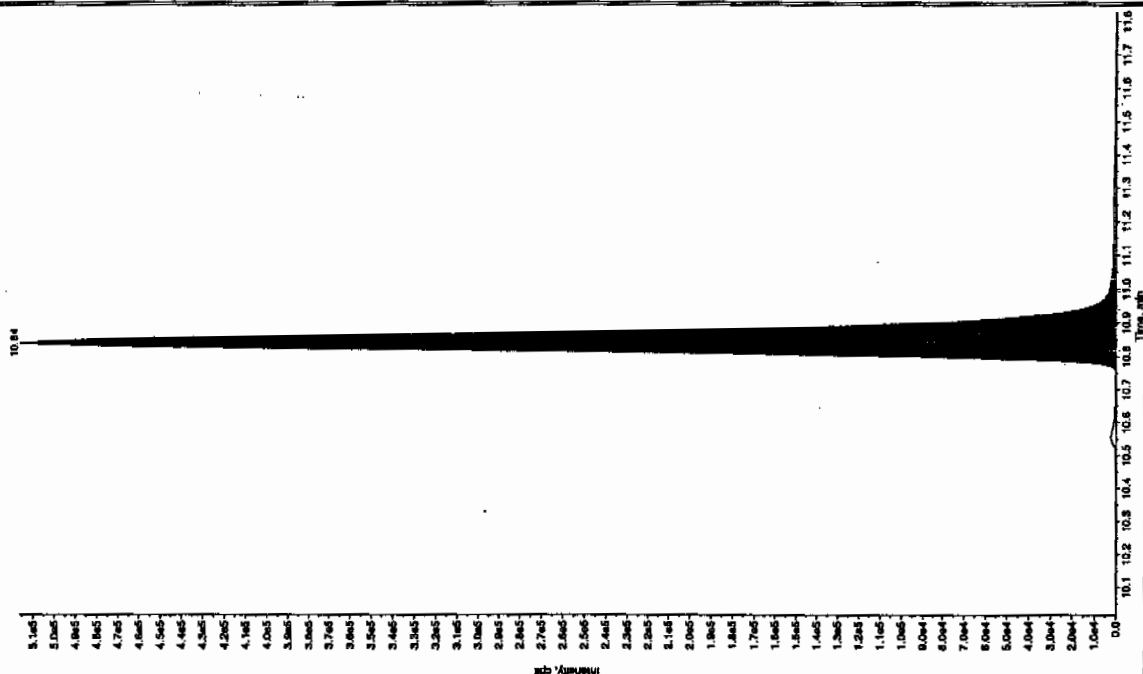
4mm-040510





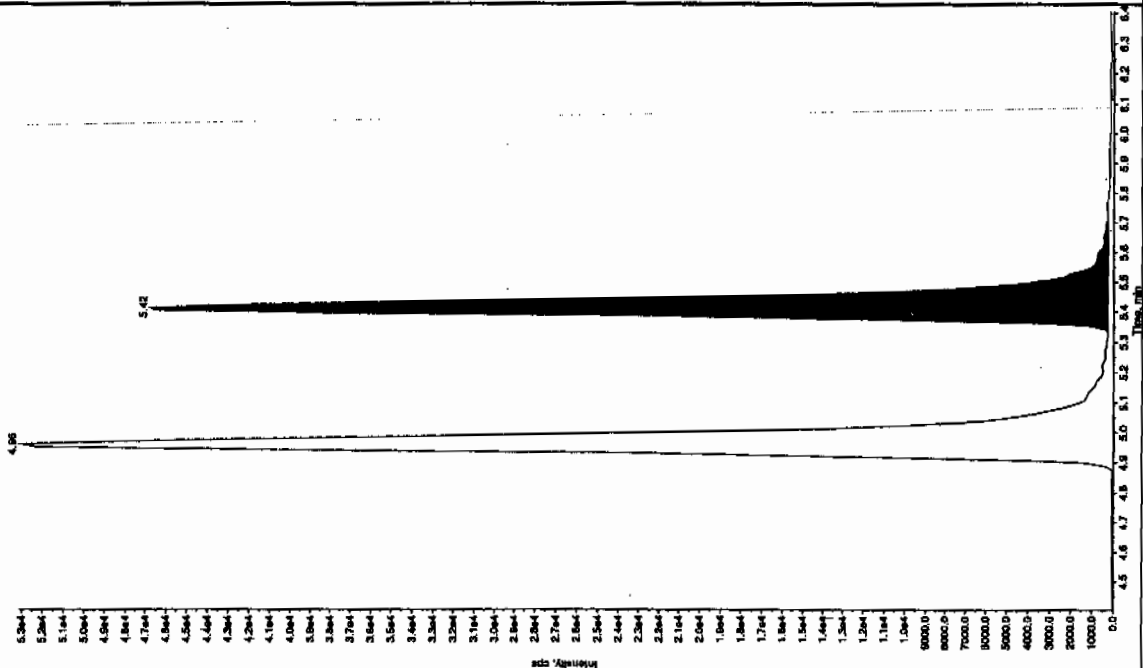
Sample Name: "WXX10031-2709" Sample ID: "11111" File: "EXS0310050.wif"  
 Peak Name: "2-Ethyl-2-methylpropane" Mass(es): "385.181.0 amu"  
 Comment: "LCMS-EXP\_0 Annotation: "

Sample Index: 1 QC  
 Sample Type: 100. ng/mL  
 Calculated Conc: 101. ng/mL  
 Acq. Date: 3/31/2010  
 Acq. Time: 9:30:32 PM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IOA  
 Min. Peak Height: 8000.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 RT Window: 30.0 sec  
 Expected RT: 10.6 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 10.6 min  
 Area: 2.11e6 counts  
 Height: 51576.312 cps  
 Start Time: 10.7 min  
 End Time: 11.2 min



Sample Name: "WXX10031-2709" Sample ID: "11111" File: "EXS0310050.wif"  
 Peak Name: "2-Ethyl-2-methylpropane" Mass(es): "166.046.0 amu"  
 Comment: "LCMS-EXP\_0 Annotation: "

Sample Index: 1 QC  
 Sample Type: 100. ng/mL  
 Calculated Conc: 88.6 ng/mL  
 Acq. Date: 3/31/2010  
 Acq. Time: 9:30:32 PM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IOA  
 Min. Peak Height: 350.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 RT Window: 30.0 sec  
 Expected RT: 5.41 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 5.41 min  
 Area: 2.00e6 counts  
 Height: 46521.076 cps  
 Start Time: 5.32 min  
 End Time: 5.73 min



7A  
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2027

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS03310061.wiff

Analysis Date: 01-APR-10 00:23

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	500	466	93	
2,6-Diamino-4-nitrotoluene	500	570	114	
3,4-Dinitrotoluene	250	239	96	
3,5-Dinitroaniline	500	502	100	
TATB	500	505	101	
tris(o-cresyl) phosphate	500	497	99	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,

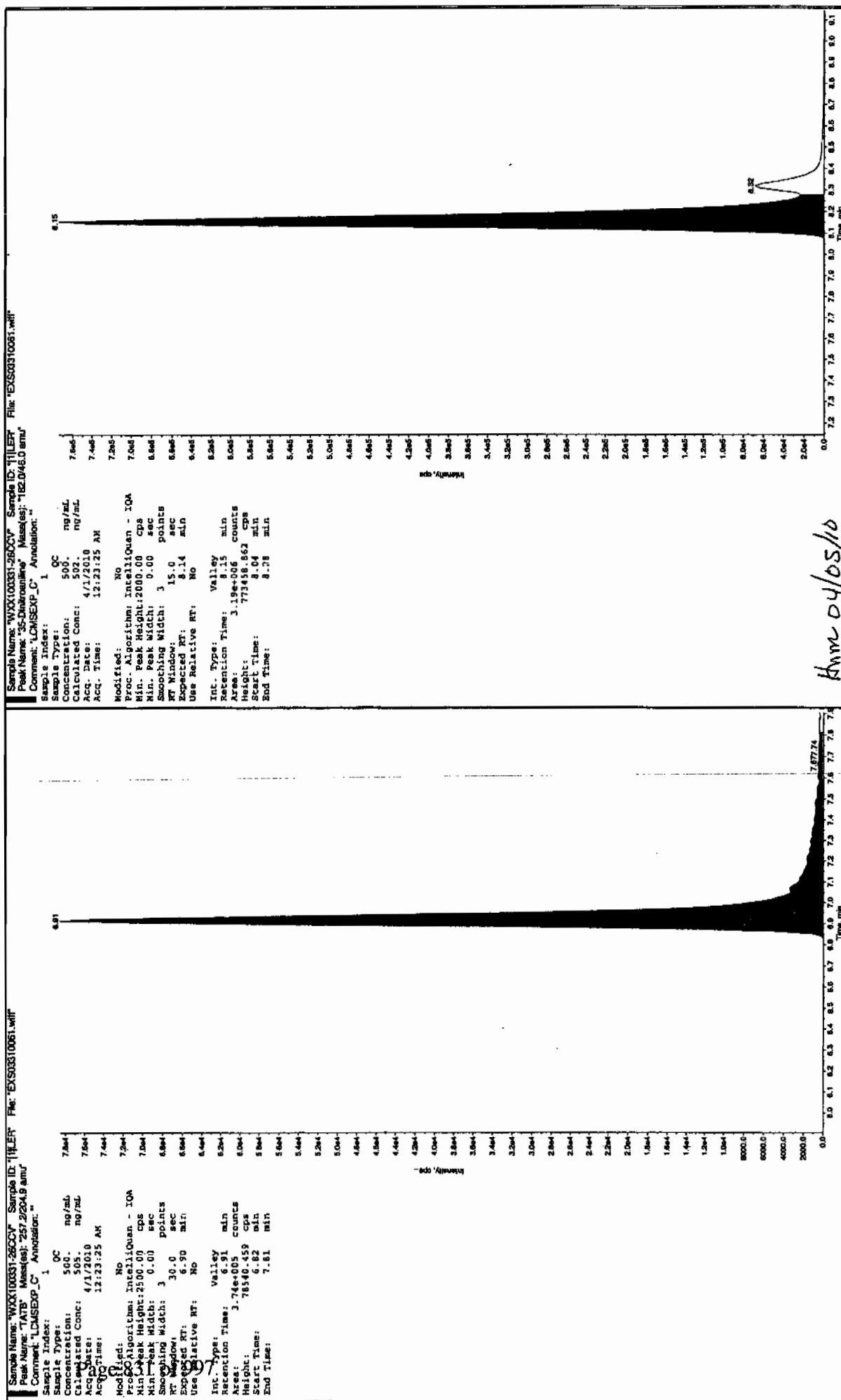
2,4-Diamino-6-nitrotoluene 70-130%

Other Target Analytes 80-120%

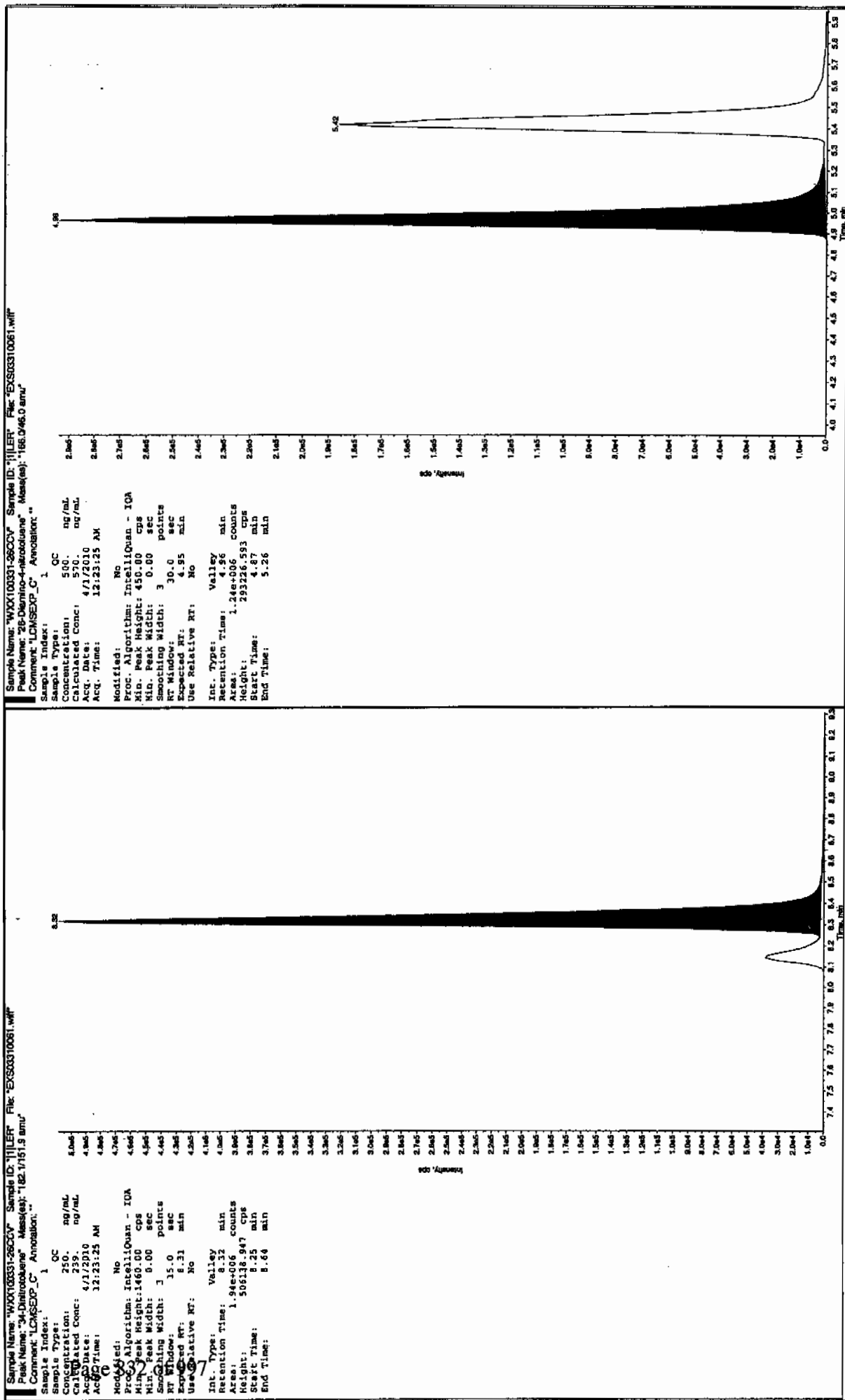
# Column used to flag Recovery outside of Limits

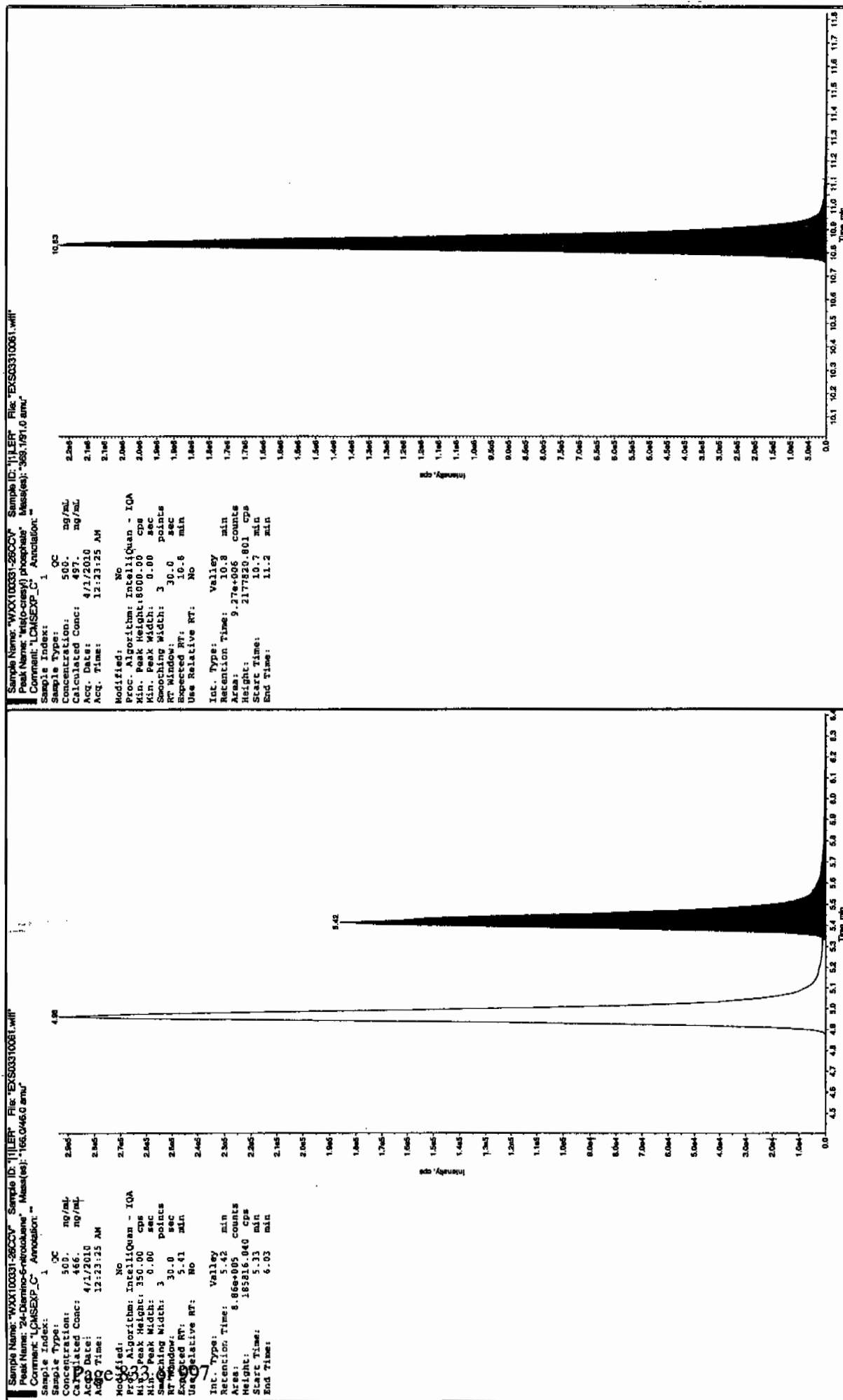
\* Value outside of Recovery Limits

Gen 415710



Ann 04/05/10





7B  
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2027

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS03310063.wiff

Analysis Date: 01-APR-10 00:54

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	100	83.4	83	
2,6-Diamino-4-nitrotoluene	100	108	108	
3,4-Dinitrotoluene	50	49.1	98	
3,5-Dinitroaniline	100	104	104	
TATB	100	102	102	
tris(o-cresyl) phosphate	100	102	102	

Recovery Limits:

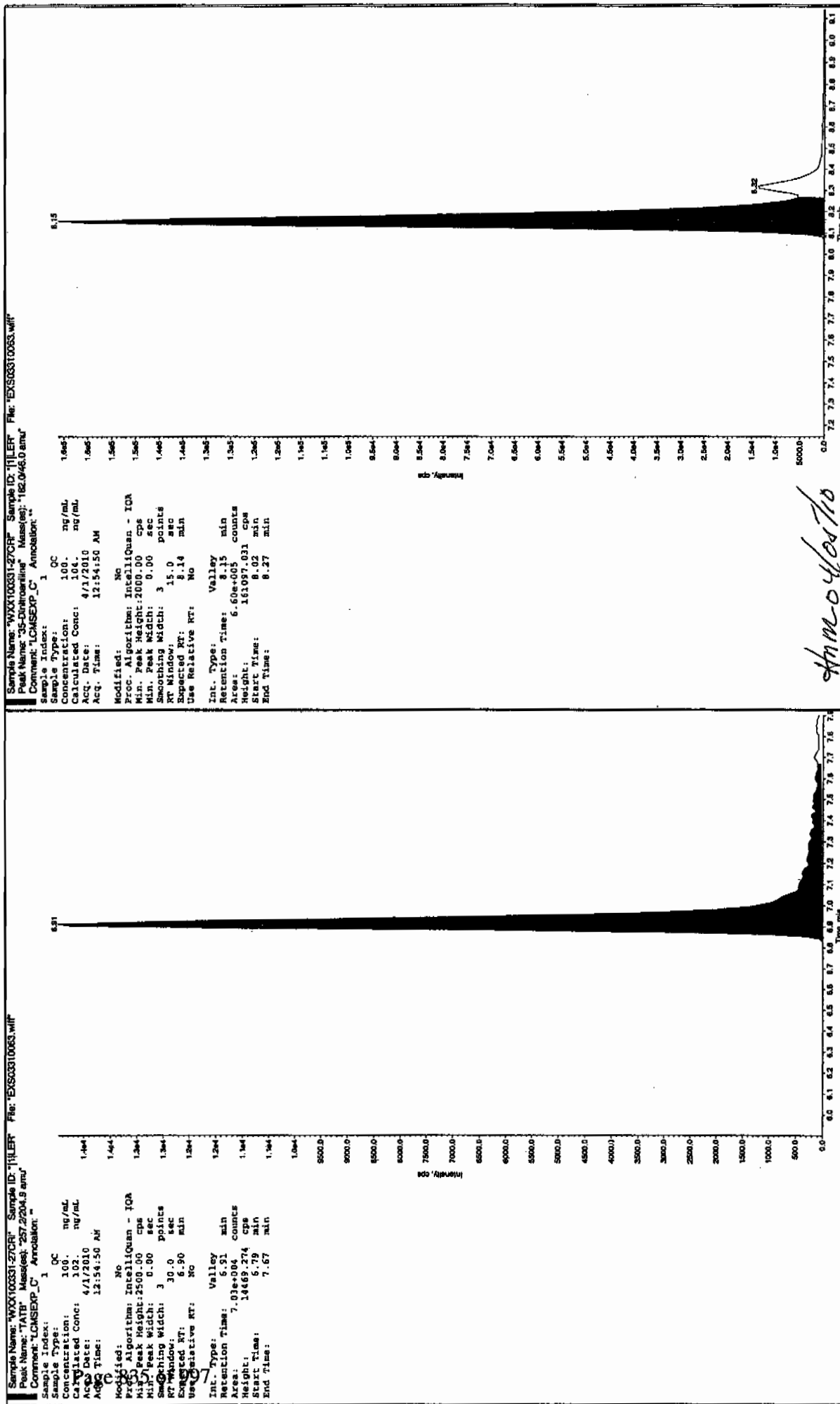
3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

# Column used to flag Recovery outside of Limits

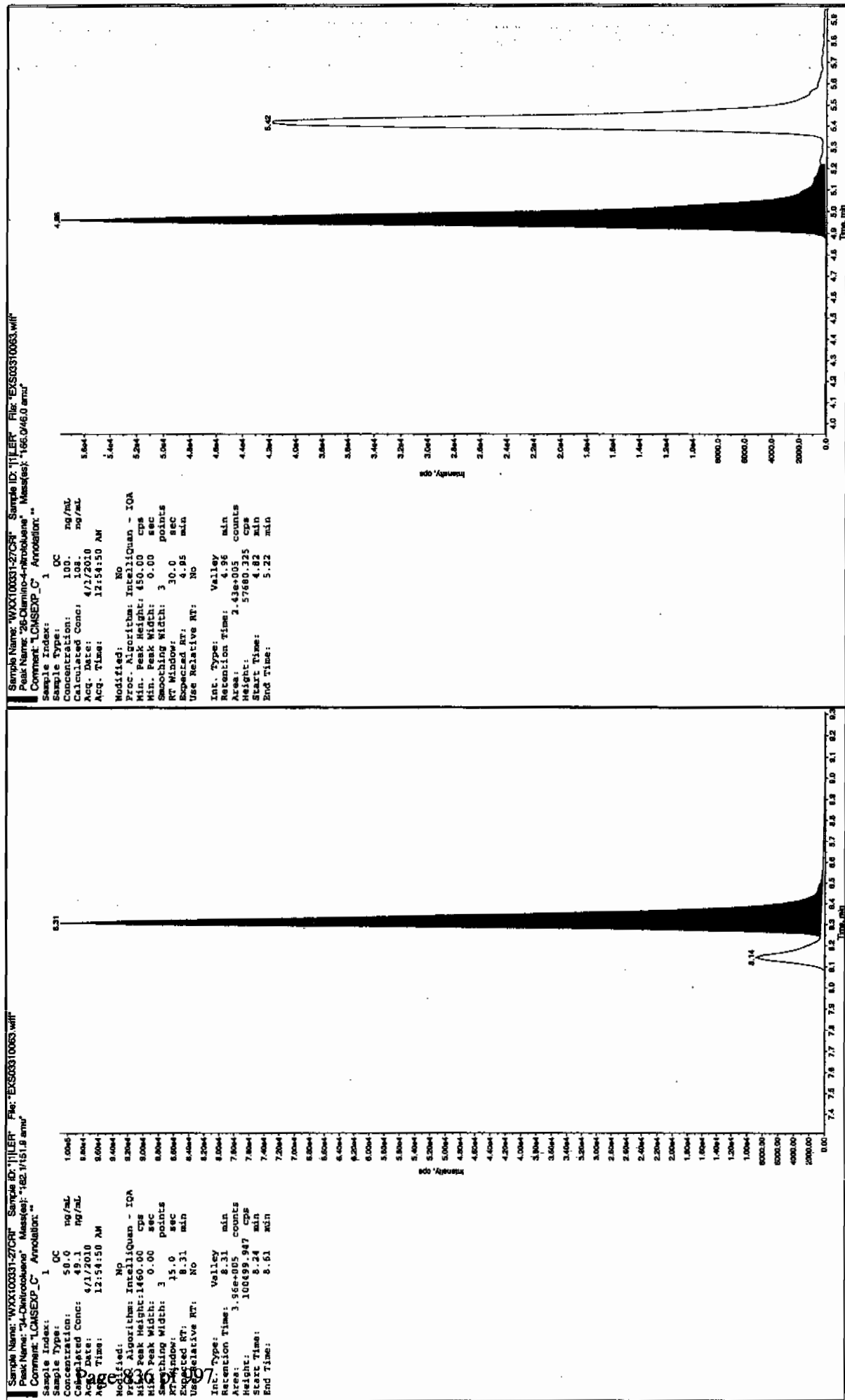
\* Value outside of Recovery Limits

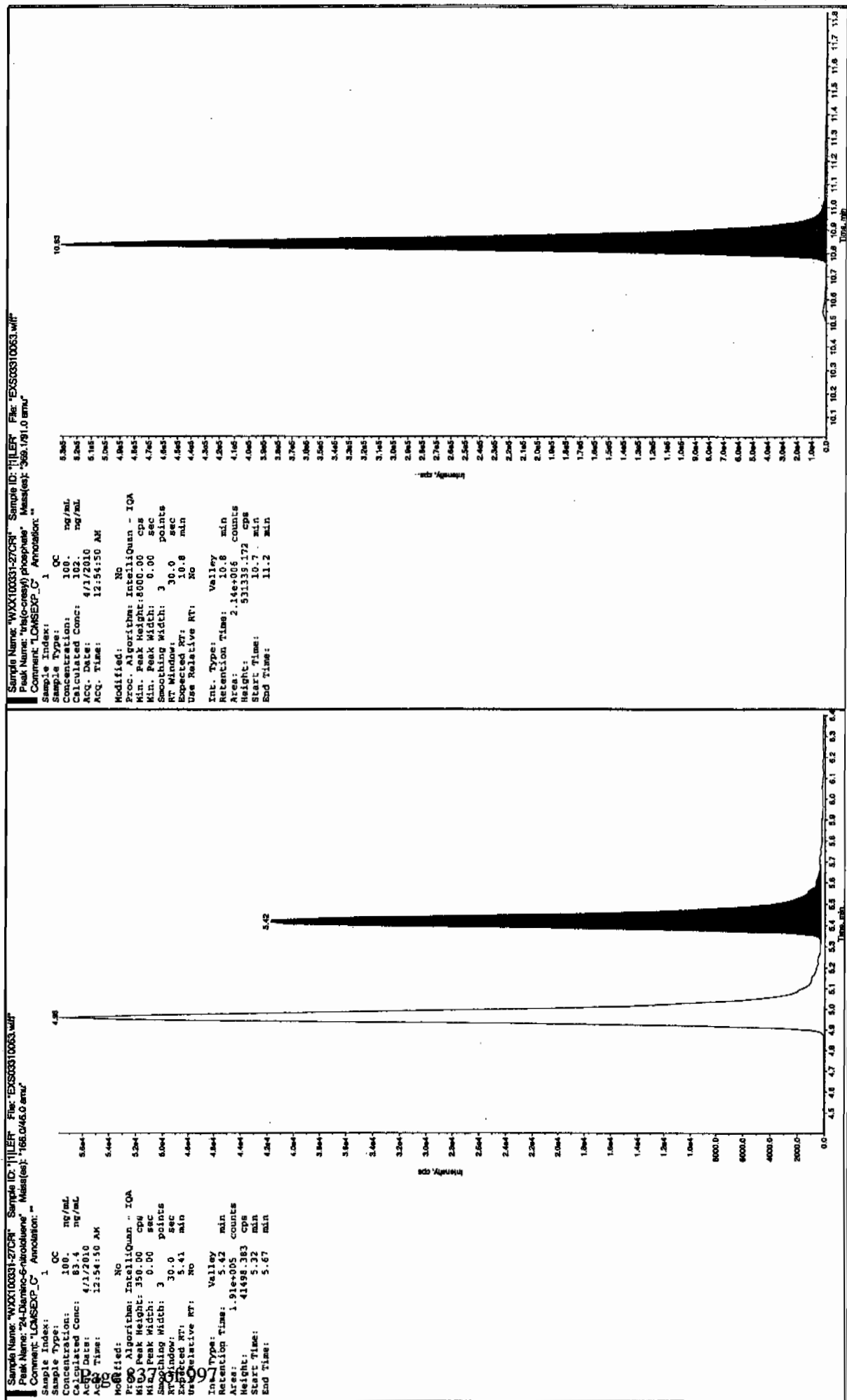
See 4/5/10



Handwritten signature: Hm-o4/05/10







7A  
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2027

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS03310074.wiff

Analysis Date: 01-APR-10 03:47

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
tris(o-cresyl) phosphate	500	491	98	
2,4-Diamino-6-nitrotoluene	500	612	122	
2,6-Diamino-4-nitrotoluene	500	591	118	
3,4-Dinitrotoluene	250	255	102	
3,5-Dinitroaniline	500	512	102	
TATB	500	519	104	

Recovery Limits:

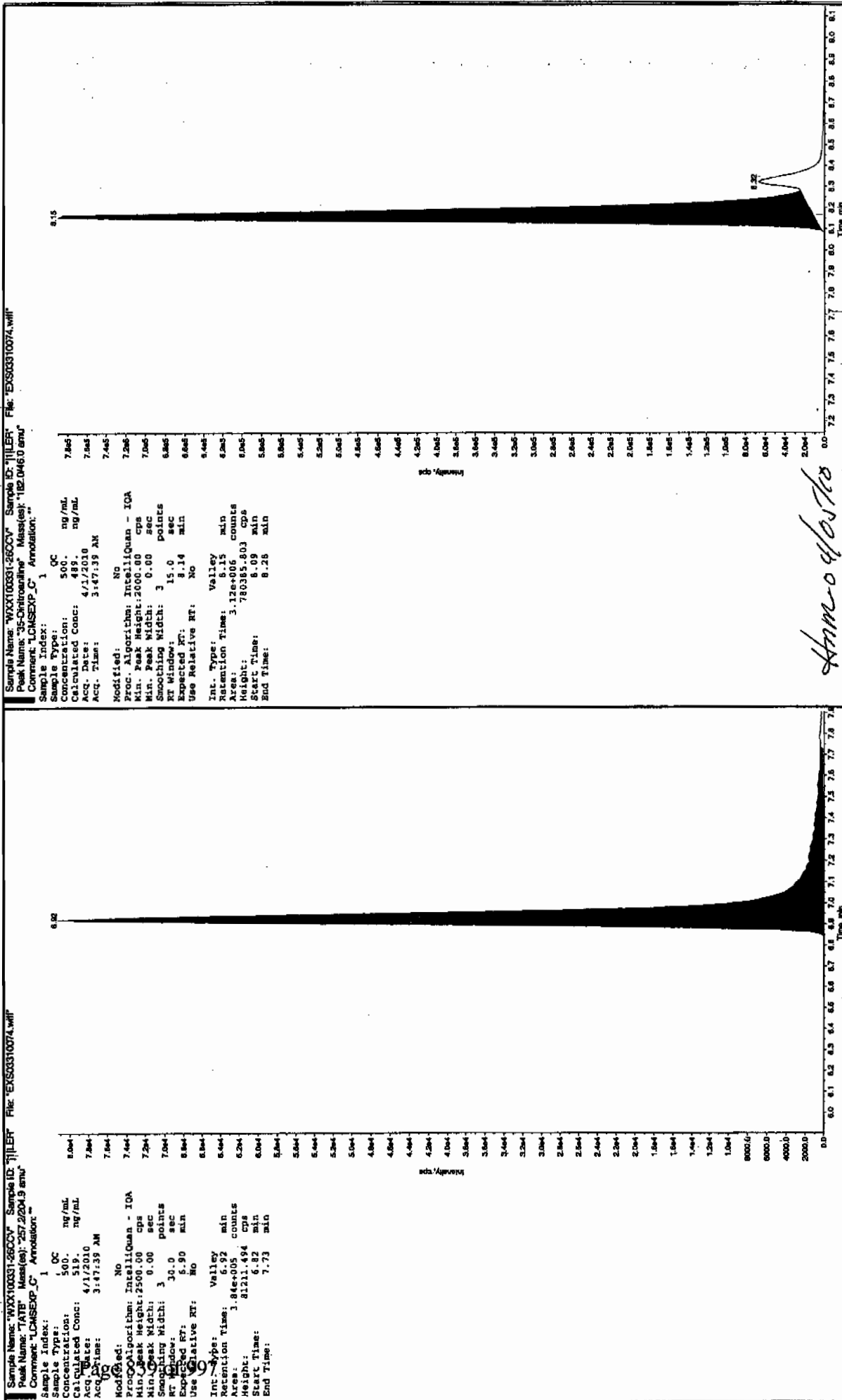
3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 70-130%

Other Target Analytes 80-120%

# Column used to flag Recovery outside of Limits

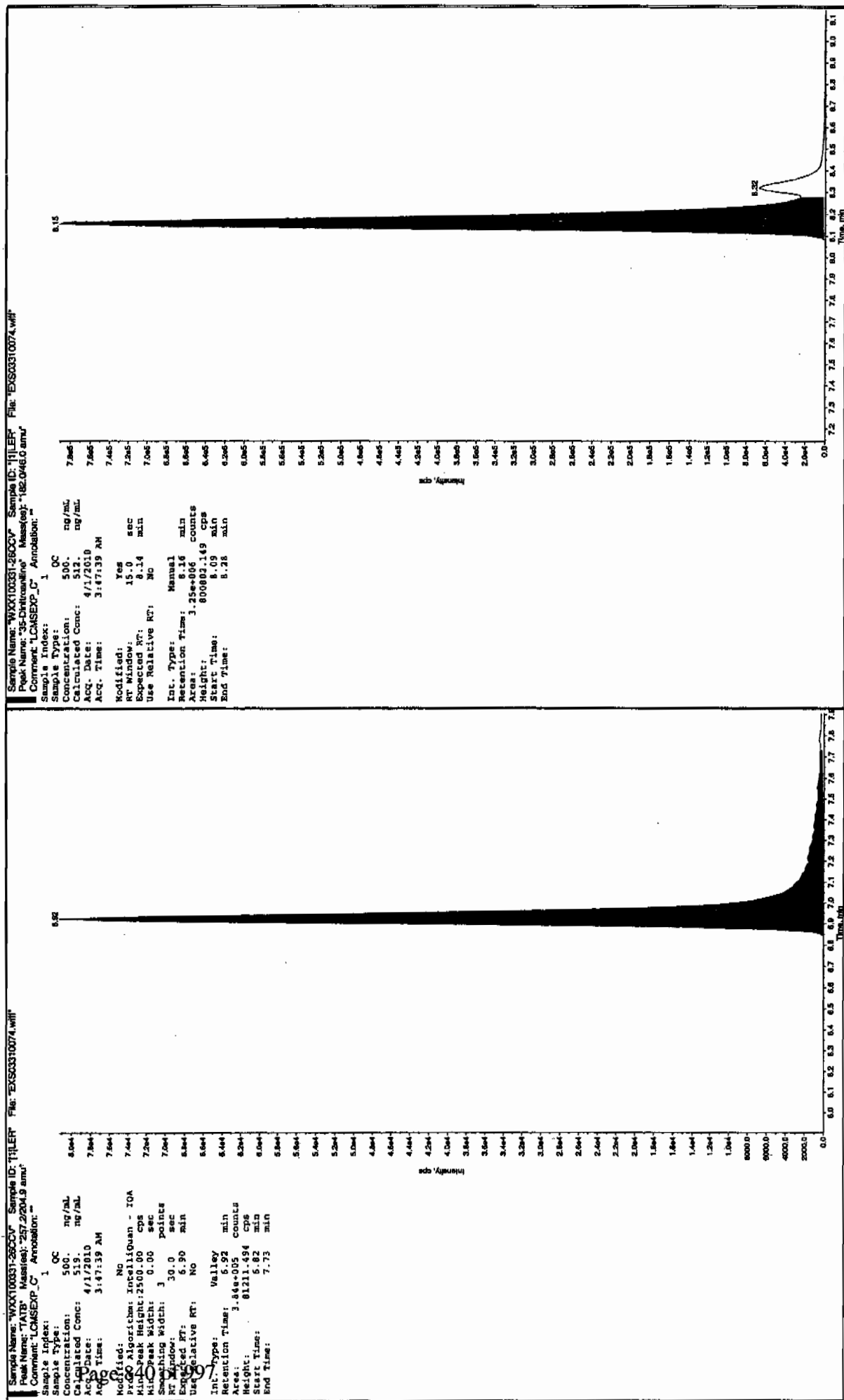
\* Value outside of Recovery Limits

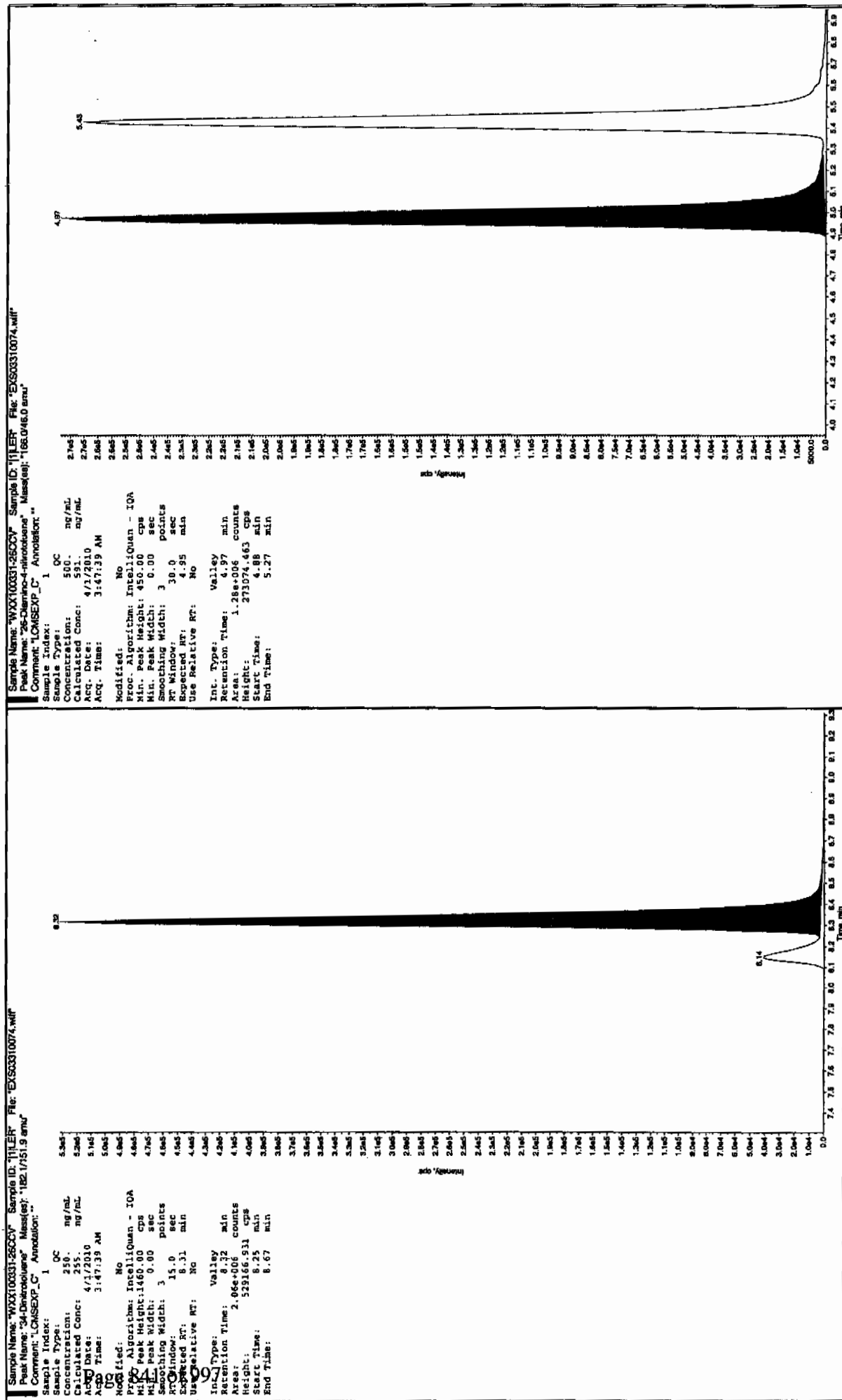
Before Jan 4/18/10

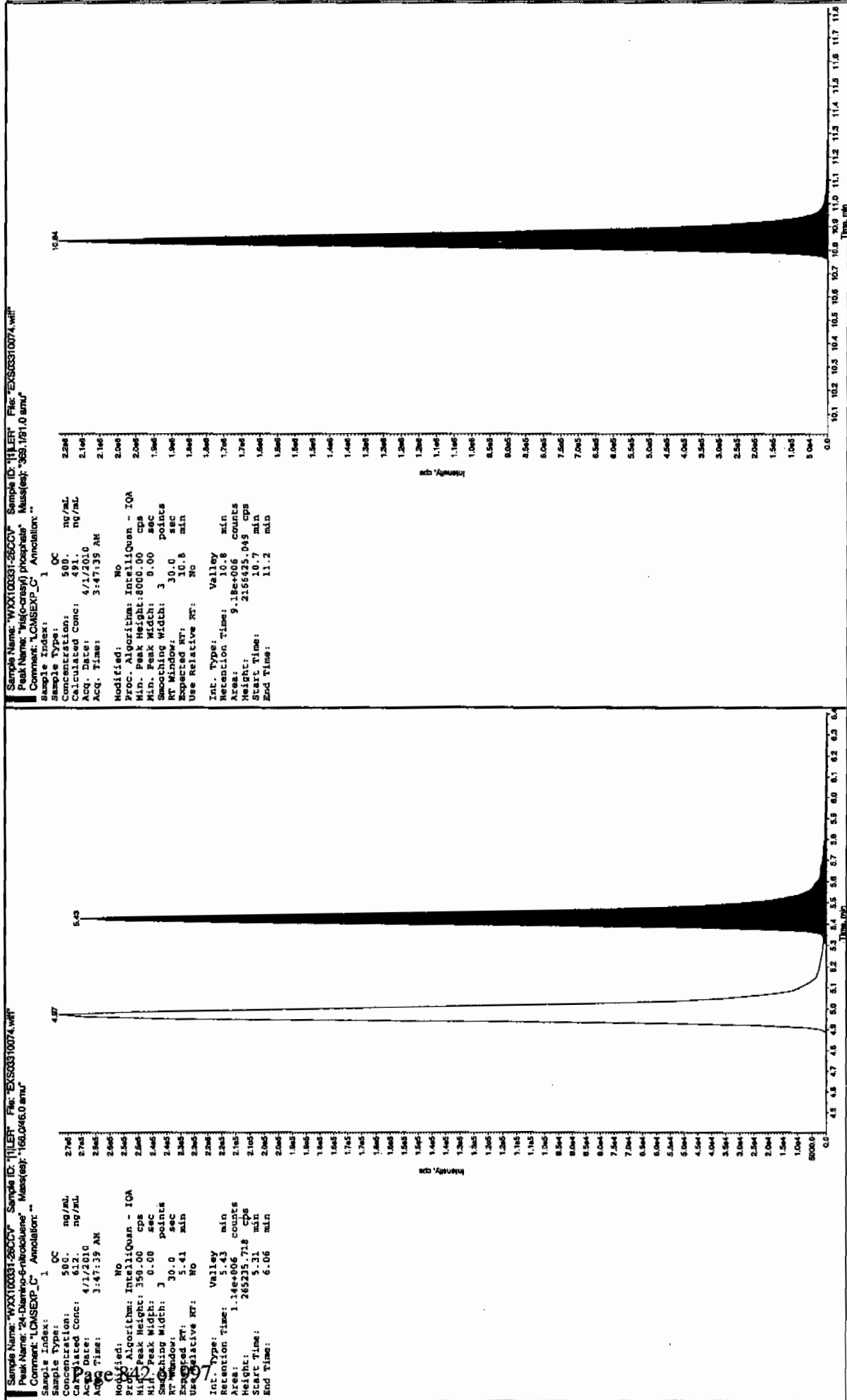


After 04/18/10

after scan 41510







7B  
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2027

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS03310076.wiff

Analysis Date: 01-APR-10 04:19

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,6-Diamino-4-nitrotoluene	100	109	109	
3,4-Dinitrotoluene	50	50.2	100	
3,5-Dinitroaniline	100	102	102	
TATB	100	100	100	
tris(o-cresyl) phosphate	100	102	102	
2,4-Diamino-6-nitrotoluene	100	93	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 50-150%

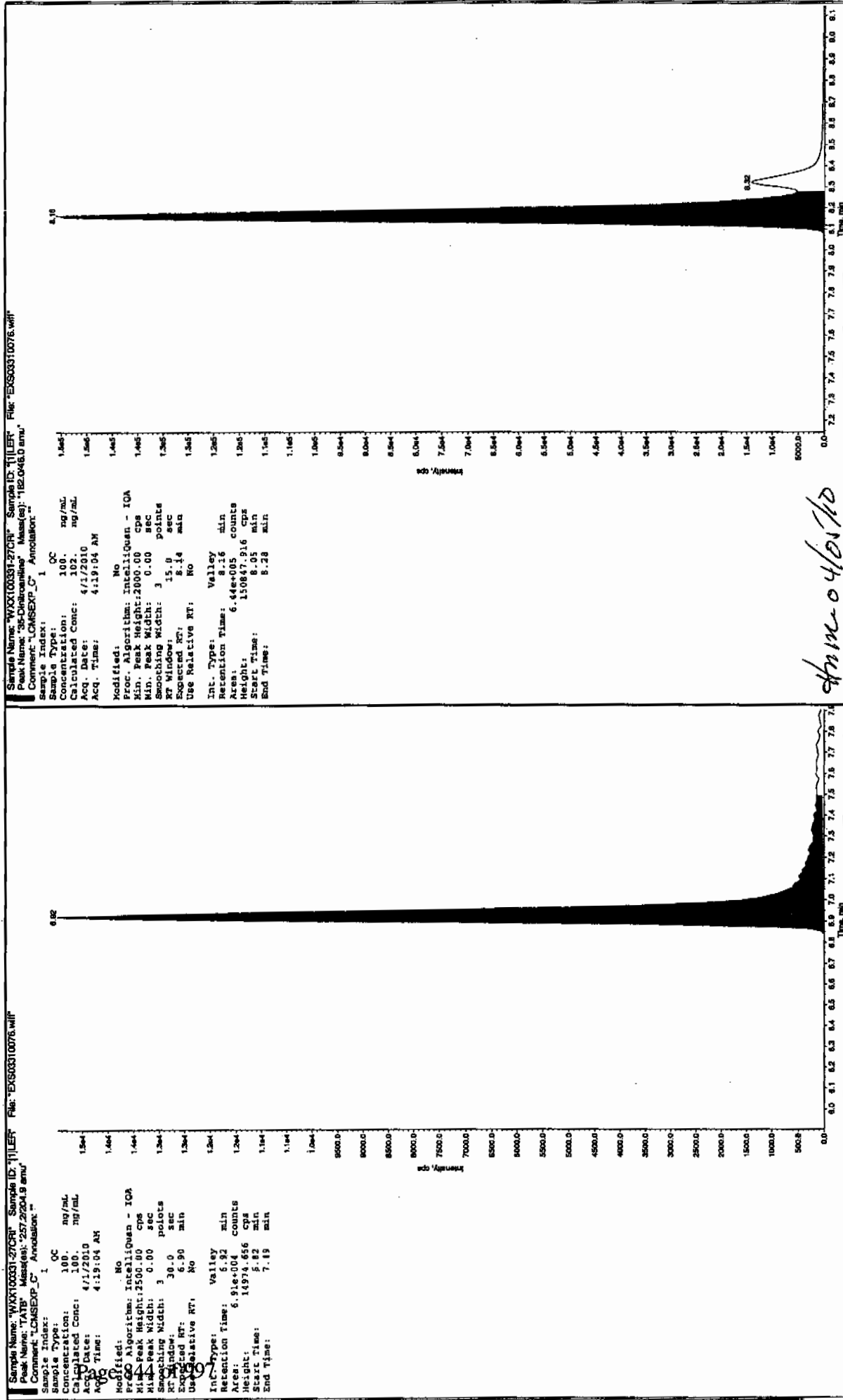
Other Target Analytes 70-130%

# Column used to flag Recovery outside of Limits

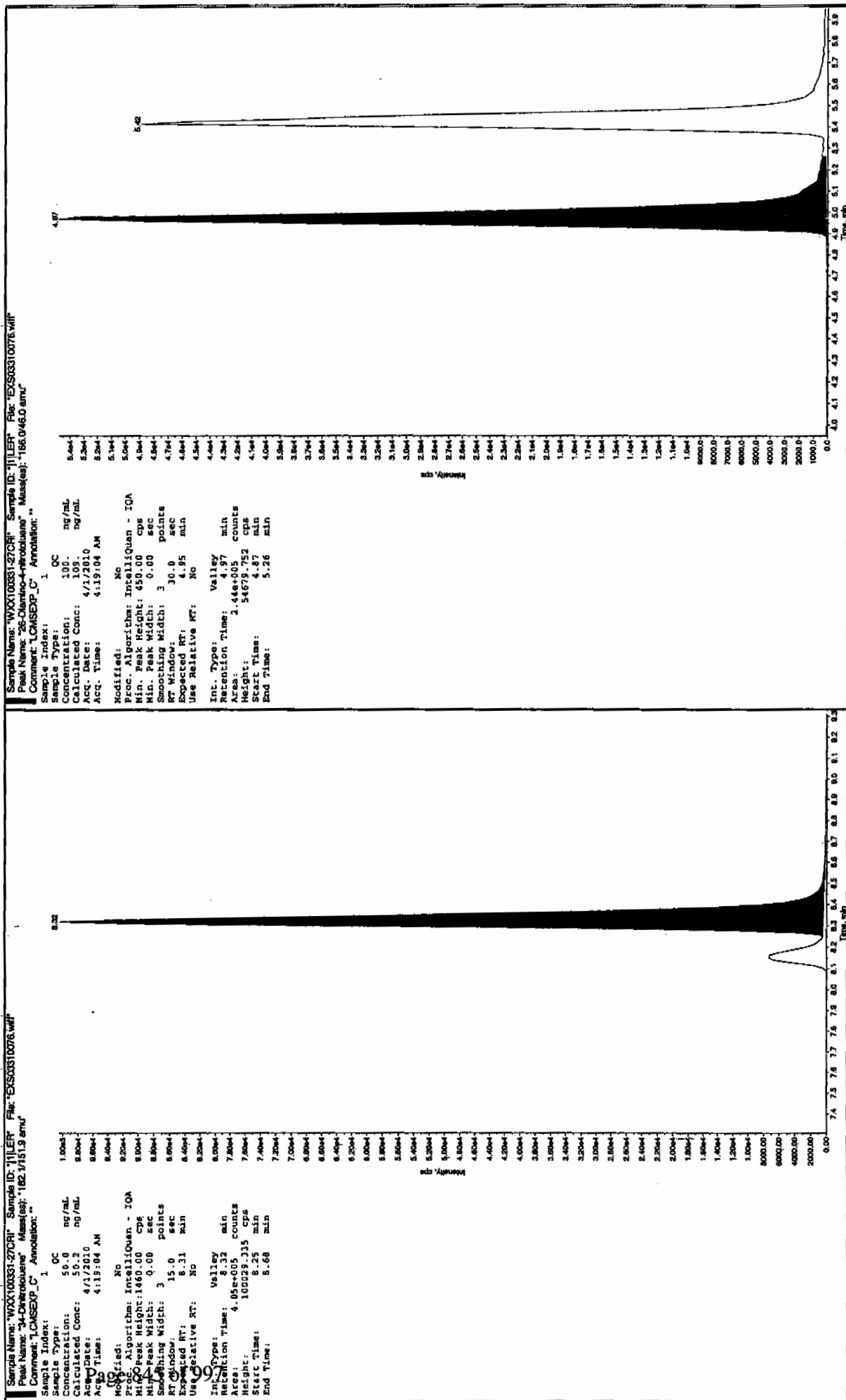
\* Value outside of Recovery Limits



for 415110

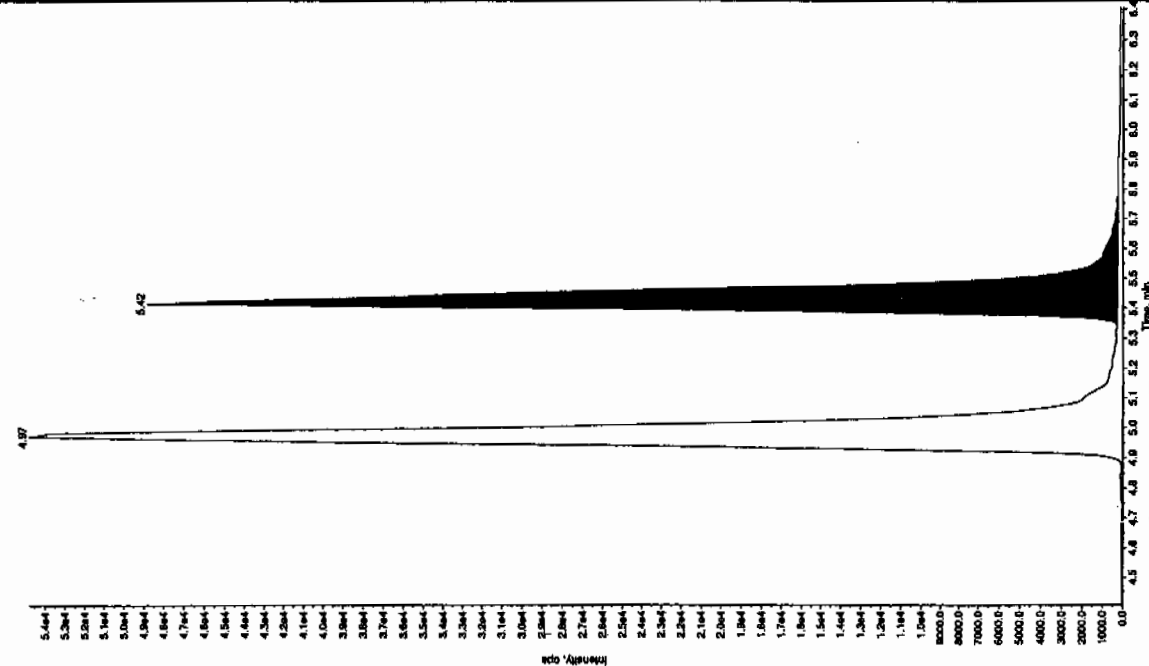


for 415110

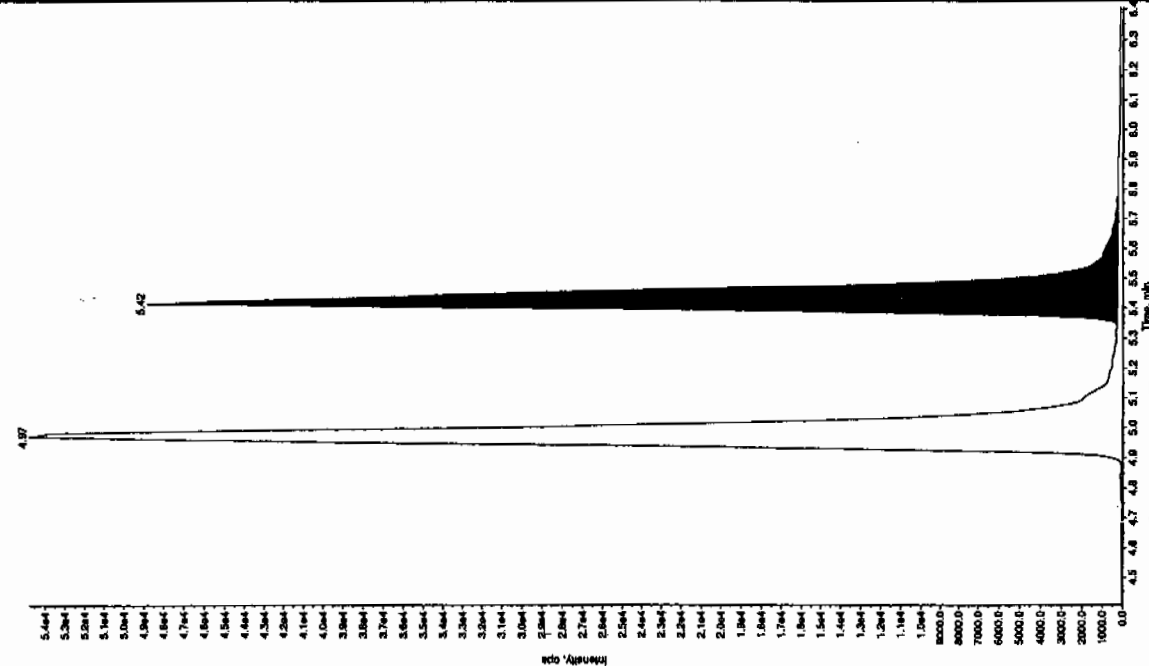


Sample Name: "WXX100331-27CR1" Sample ID: "111ER" File: "EXS03310076.wiff"  
 Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.046.0 amu"  
 Comment: "LCMSEXP\_C" Annotation: ""

Sample Index: 1  
 Sample Type: QC  
 Concentration: 100. ng/mL  
 Calculated Conc: 102. ng/mL  
 Acq. Date: 4/17/2010  
 Acq. Time: 4:19:04 AM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IOA  
 Min. Peak Height: 8000.00 cps  
 Min. Peak Width: 0.00 sec  
 Sampling Width: 3.00 points  
 RT Window: 30.0 sec  
 Expected RT: 10.8 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 10.8 min  
 Area: 2.11e+006 counts  
 Height: 522335.449 cps  
 Start Time: 10.7 min  
 End Time: 11.2 min



Sample Index: 1  
 Sample Type: QC  
 Concentration: 100. ng/mL  
 Calculated Conc: 93.0 ng/mL  
 Acq. Date: 4/17/2010  
 Acq. Time: 4:19:04 AM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IOA  
 Min. Peak Height: 350.00 cps  
 Min. Peak Width: 0.00 sec  
 Sampling Width: 3.00 points  
 RT Window: 30.0 sec  
 Expected RT: 5.41 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 5.42 min  
 Area: 2.09e+005 counts  
 Height: 48589.977 cps  
 Start Time: 5.33 min  
 End Time: 5.60 min



\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

# QUALITY CONTROL

1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: MB for batch 958246

Lab Code: GEL

GEL Job No (SDG) 10-2027

Matrix: SOIL

GEL Sample ID: 1202055003

Sample Amount 2

Moisture:

Amount Units g

Date Received: 26-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958246

Concentrated Extract Volume (mL) 10

Date Extracted: 02-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0408077a

Date Analyzed: 10-APR-10 10:57

Units: ug/kg

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

\*Concentration =

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

Dataset: C:\MASSLYNX\New\_Exp\PRO\040810expA2.qid, Time: Sun Apr 11 11:45:05 2010

Name: C:\MASSLYNX\NEW\_EXP\PRO\Data\EXP0408077a

Date: 10-Apr-2010

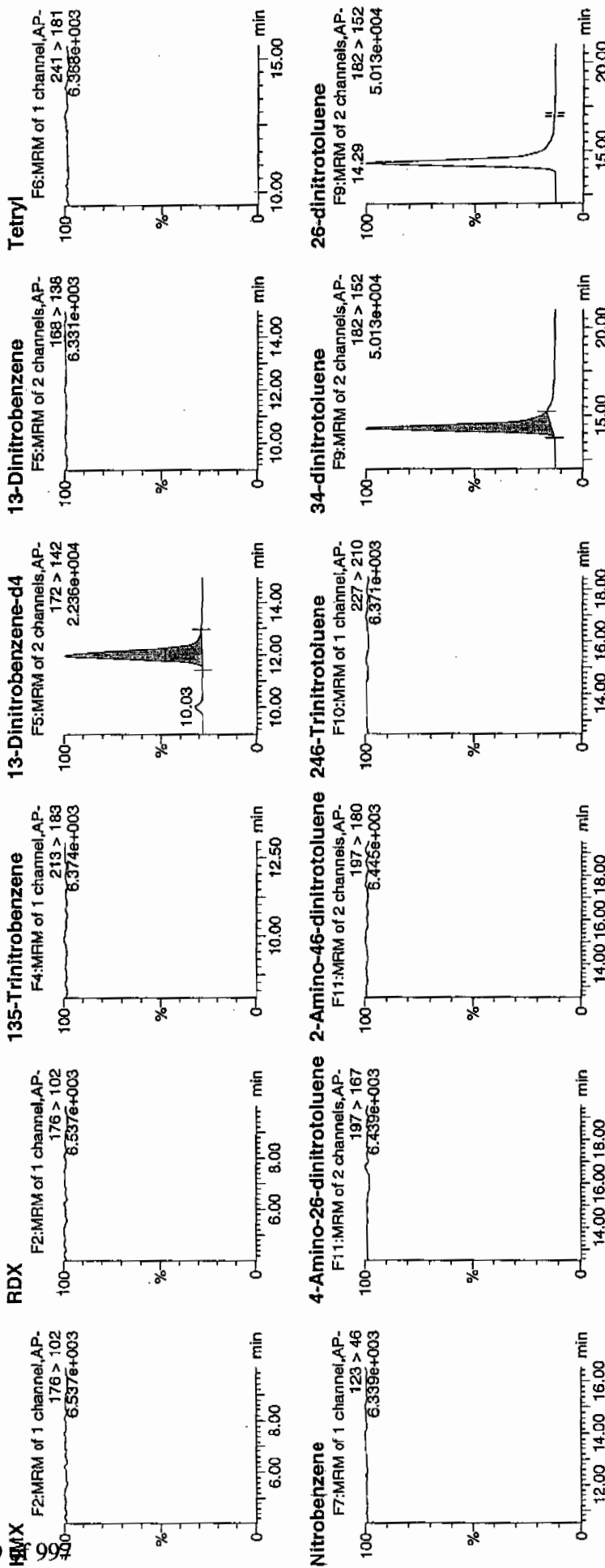
Time: 10:57:56

ID: 1202055003

Val: 3:3,A

LAB 1958247 / 8022 / MB 121

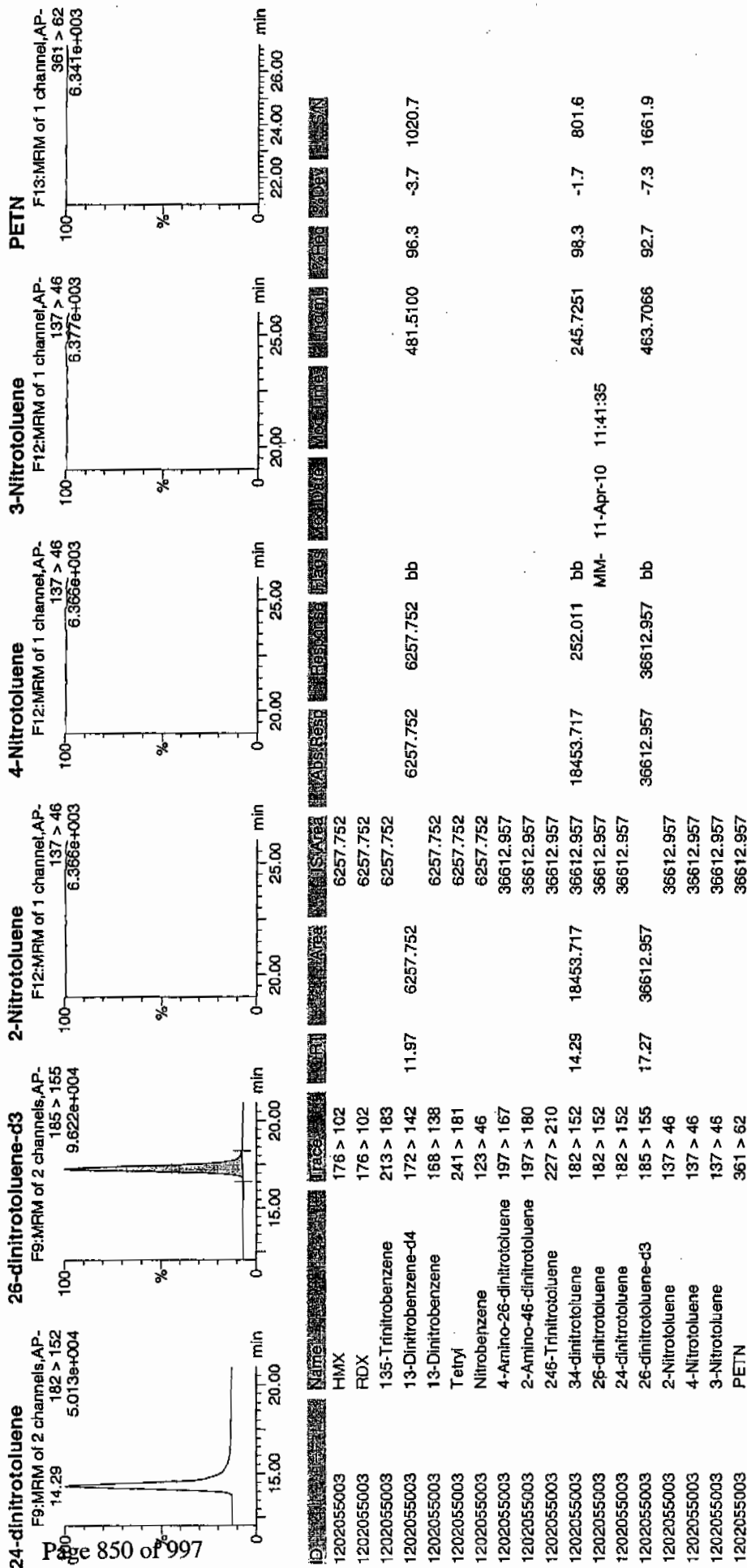
not  
4/11/10



none  
04/12/10

Quantify Sample Report  
GEL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp\PRO1040810expA2.qld, Time: Sun Apr 11 11:45:05 2010



1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: MB for batch 958246

Lab Code: GEL

GEL Job No (SDG) 10-2027

Matrix: SOIL

GEL Sample ID: 1202055003

Sample Amount 2

Moisture:

Amount Units g

Date Received: 26-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958246

Concentrated Extract Volume (mL) 10

Date Extracted: 02-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03310051.wiff

Date Analyzed: 31-MAR-10 21:46

Units: ug/kg

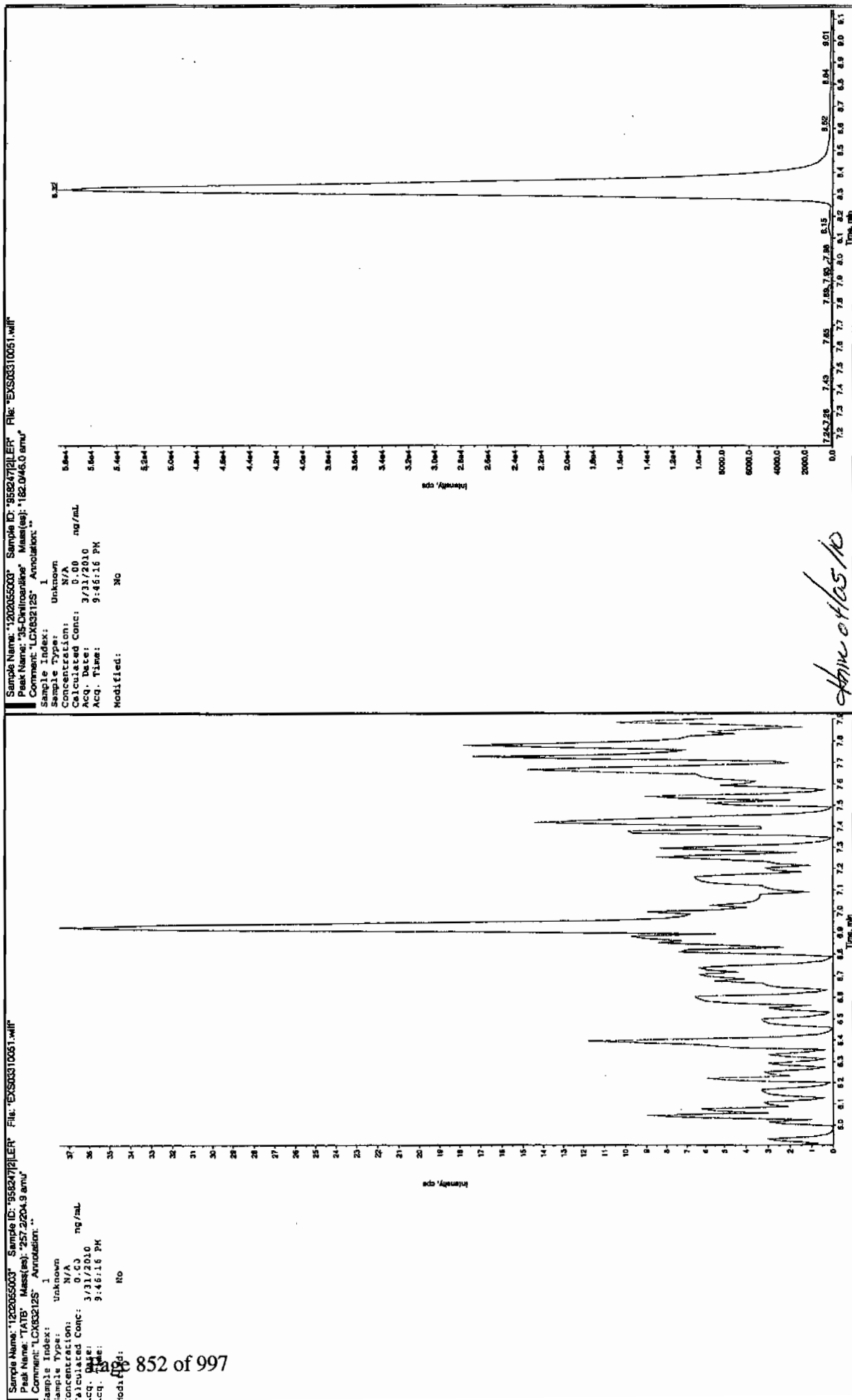
Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

\*Concentration =

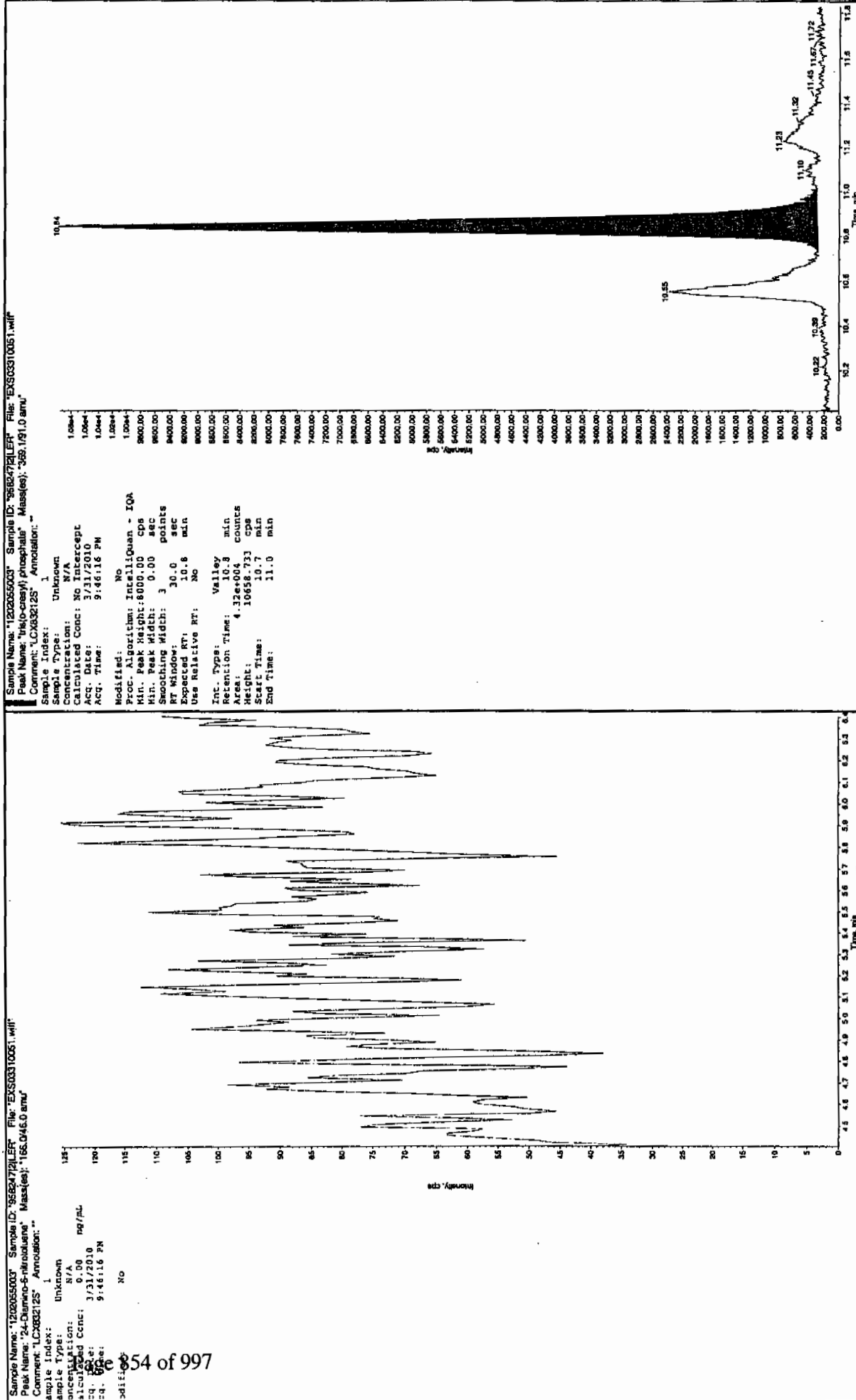
Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor



LCR 45710







1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: LCS for batch 958246

Lab Code: GEL

GEL Job No (SDG) 10-2027

Matrix: SOIL

GEL Sample ID: 1202055004

Sample Amount 2

Moisture:

Amount Units g

Date Received: 26-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958246

Concentrated Extract Volume (mL) 10

Date Extracted: 02-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0408078a

Date Analyzed: 10-APR-10 11:27

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	5300	
121-14-2	2,4-Dinitrotoluene	4950	
121-82-4	RDX	5270	
19406-51-0	4-Amino-2,6-dinitrotoluene	5180	
2691-41-0	HMX	5130	
35572-78-2	2-Amino-4,6-dinitrotoluene	5310	
479-45-8	Tetryl	2140	
606-20-2	2,6-Dinitrotoluene	4980	
78-11-5	PETN	5490	
88-72-2	o-Nitrotoluene	4260	
98-95-3	Nitrobenzene	4490	
99-08-1	m-Nitrotoluene	3970	
99-35-4	1,3,5-Trinitrobenzene	4440	
99-65-0	m-Dinitrobenzene	4910	
99-99-0	p-Nitrotoluene	4470	

\*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\040810expA2.qld, Time: Sun Apr 11 11:45:05 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0408078a

Date: 10-Apr-2010

Time: 11:27:30

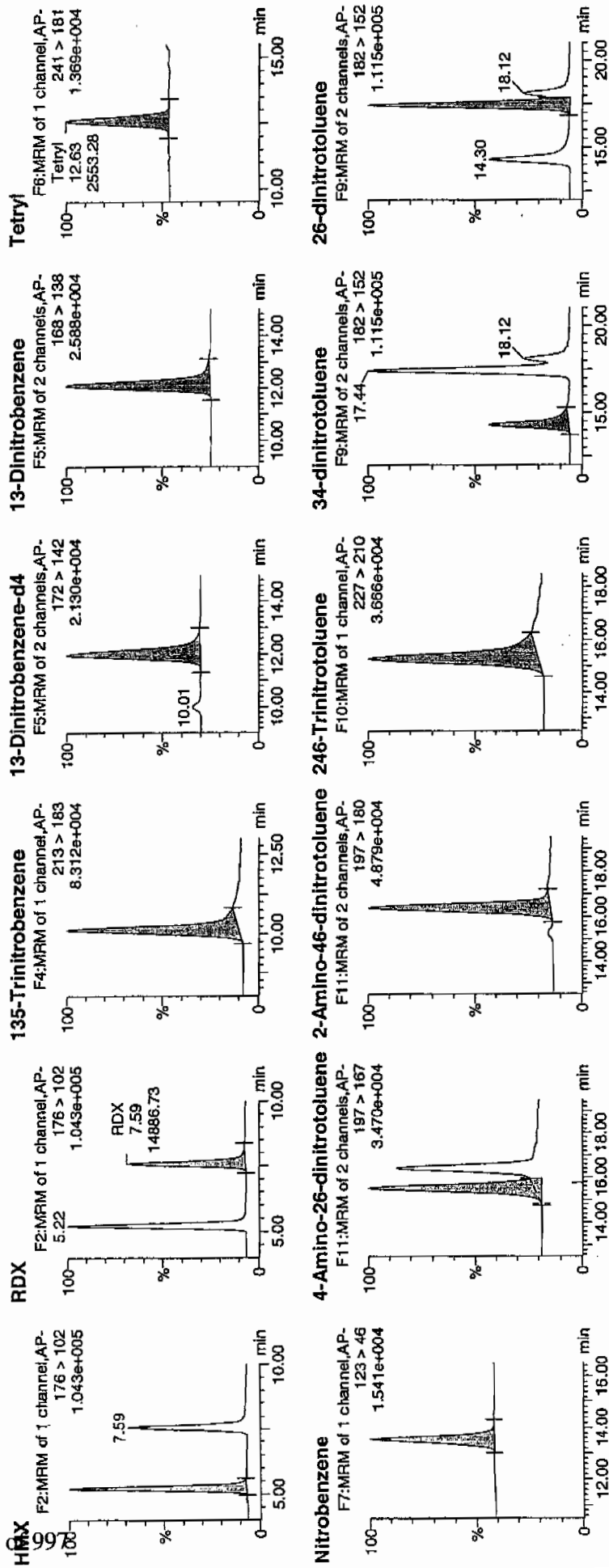
ID: 1202055004

V8: 3:3,B

WAV/958247/8032/121

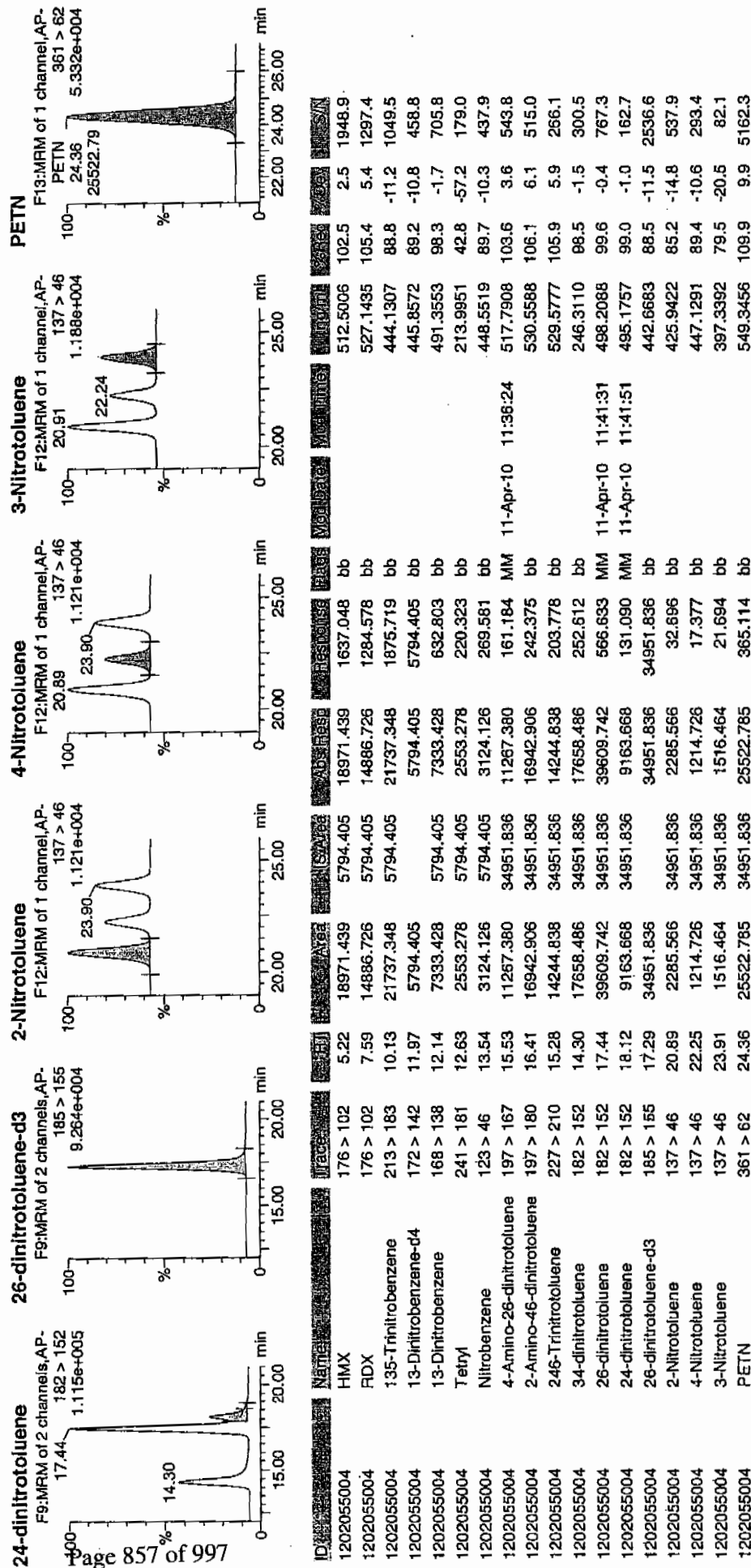
4/11/10

↓ Tetra



4/11/10

Dataset: C:\MASSLYNX\New\_Exp.PRO\040810expA2.qld, Time: Sun Apr 11 11:45:05 2010



1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: LCS for batch 958246

Lab Code: GEL

GEL Job No (SDG) 10-2027

Matrix: SOIL

GEL Sample ID: 1202055004

Sample Amount 2

Moisture:

Amount Units g

Date Received: 26-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958246

Concentrated Extract Volume (mL) 10

Date Extracted: 02-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03310052.wiff

Date Analyzed: 31-MAR-10 22:02

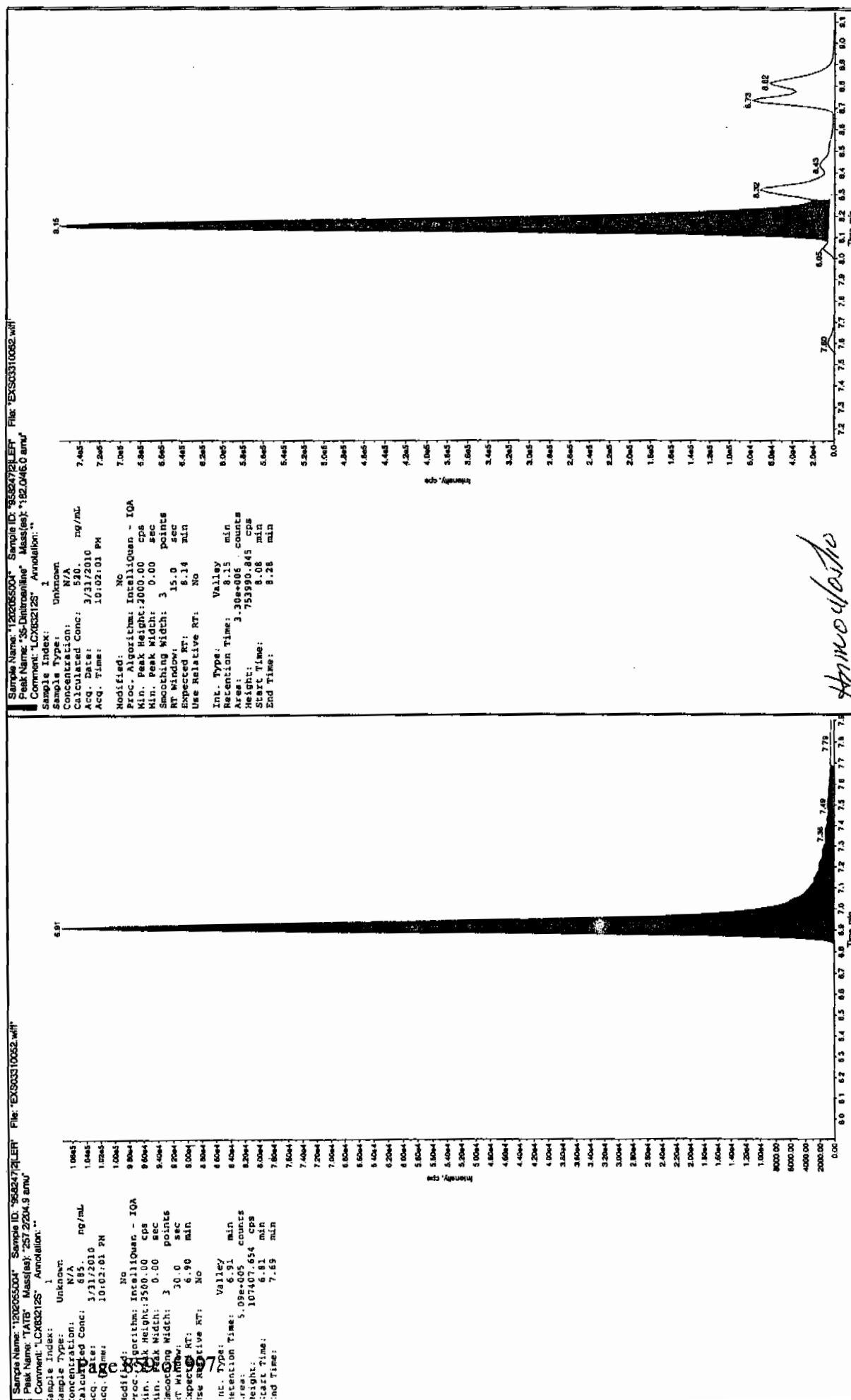
Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	6850	
59229-75-3	2,6-Diamino-4-nitrotoluene	5530	
618-87-1	3,5-Dinitroaniline	5200	
6629-29-4	2,4-Diamino-6-nitrotoluene	5420	
78-30-8	tris(o-cresyl) phosphate	5010	

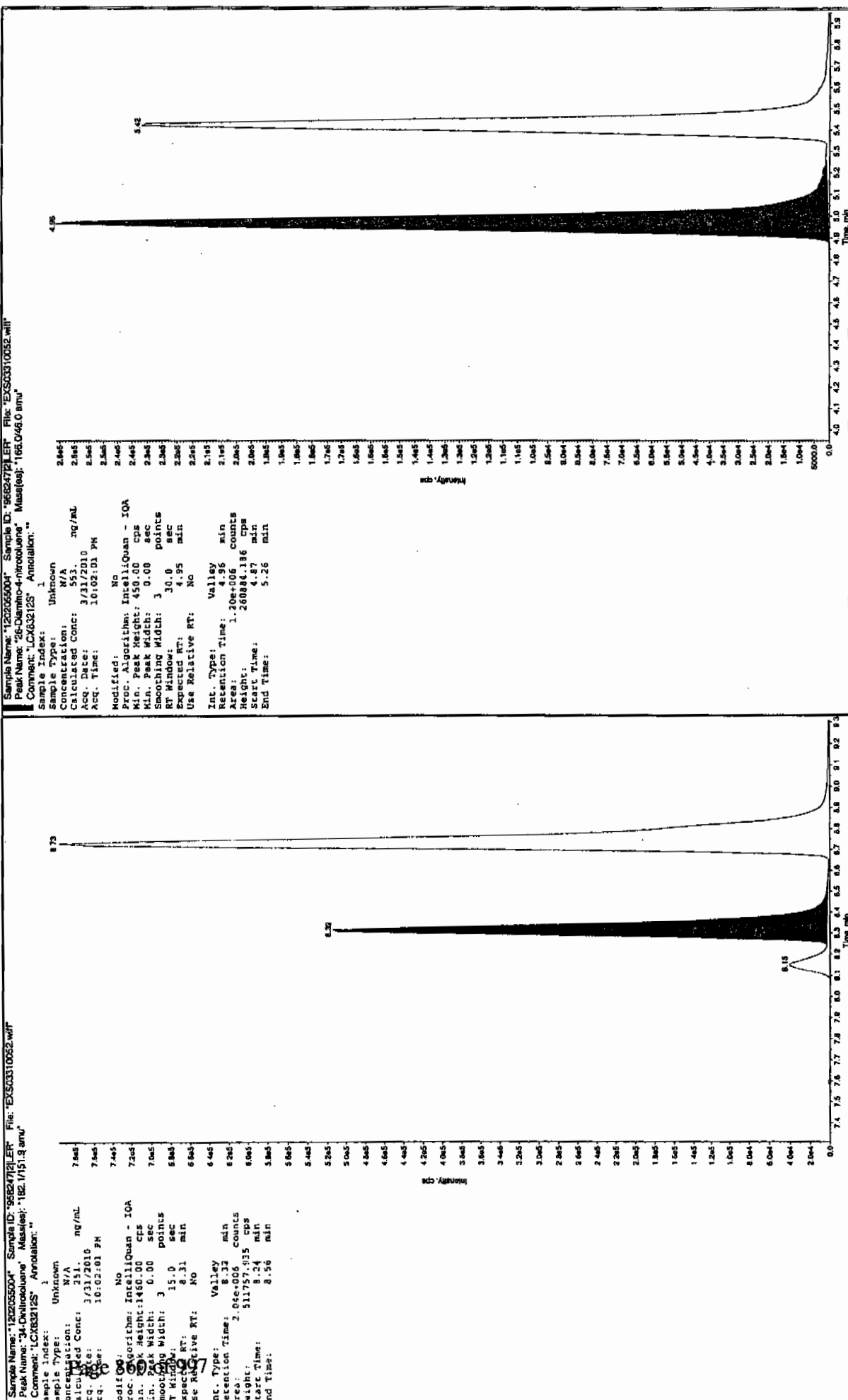
\*Concentration =

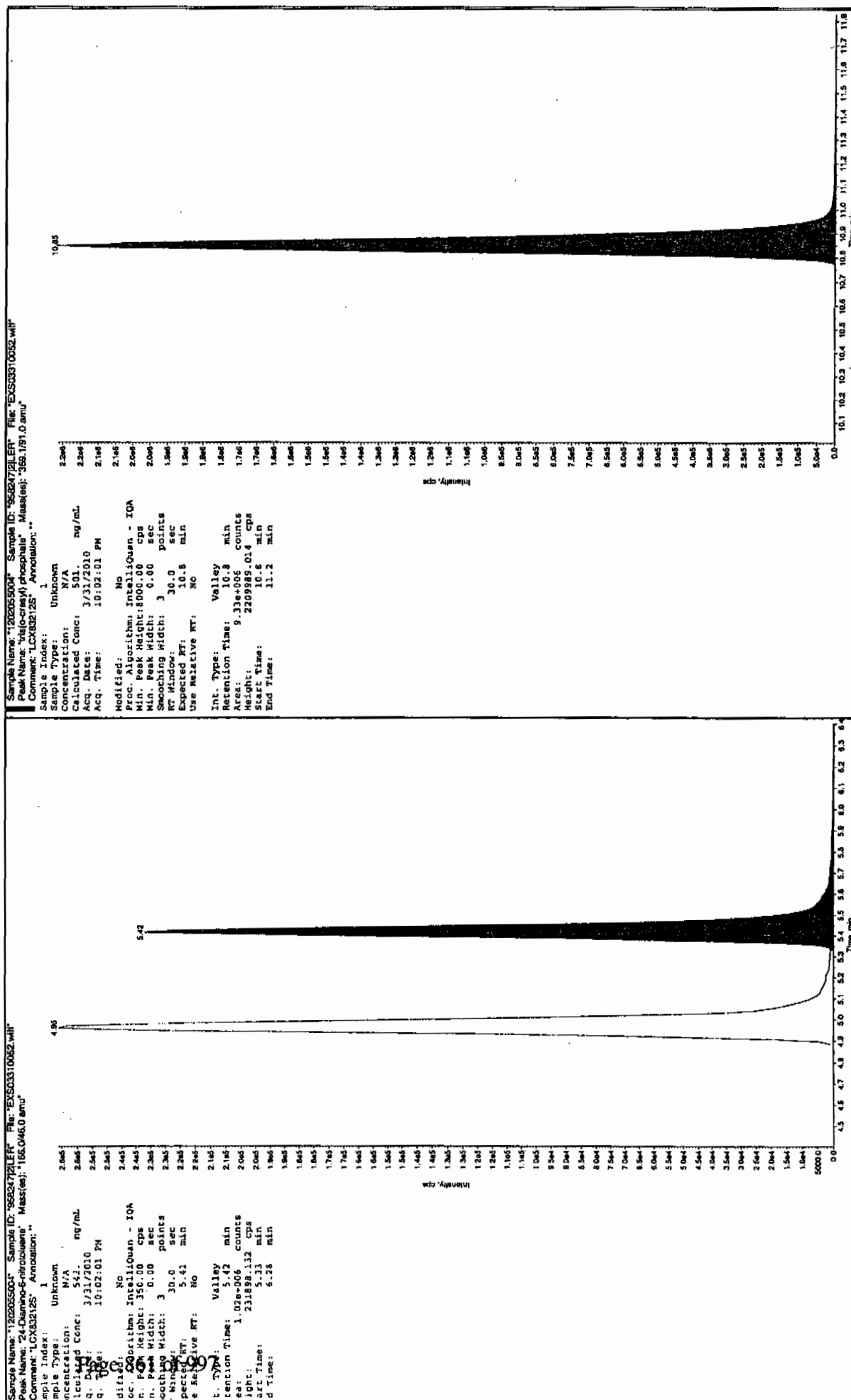
Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor

San 415710









# MISCELLANEOUS DATA

# Prep Logbook Nitroaromatics and Nitramines by High Performance Liquid Chromatography (HPLC)

Batch ID: 958246 Verified by: \_\_\_\_\_  
 Analyst: Sirena White  
 Method: SW846 8330 PREP  
 Lab SOP: GL-OA-E-033 REV# 17  
 Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Aliquot (g)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1202055003 MB	02-MAR-2010 16:54:00	2	10	5
1202055004 LCS	02-MAR-2010 16:54:00	2	10	5
248004002	02-MAR-2010 16:54:00	2	10	5
1202055005 MS (248004002)	02-MAR-2010 16:54:00	2	10	5
1202055006 MSD (248004002)	02-MAR-2010 16:54:00	2	10	5
248004003	02-MAR-2010 16:54:00	2	10	5
248004004	02-MAR-2010 16:54:00	2	10	5
248004005	02-MAR-2010 16:54:00	2	10	5
248004006	02-MAR-2010 16:54:00	2	10	5
248012002	02-MAR-2010 16:54:00	2	10	5
248012003	02-MAR-2010 16:54:00	2	10	5
248012004	02-MAR-2010 16:54:00	2	10	5
248012005	02-MAR-2010 16:54:00	2	10	5
248012006	02-MAR-2010 16:54:00	2	10	5
248012007	02-MAR-2010 16:54:00	2	10	5
248012008	02-MAR-2010 16:54:00	2	10	5
248012009	02-MAR-2010 16:54:00	2	10	5
248013001	02-MAR-2010 16:54:00	2	10	5
248013002	02-MAR-2010 16:54:00	2	10	5
248013003	02-MAR-2010 16:54:00	2	10	5
248013004	02-MAR-2010 16:54:00	2	10	5

Comments:

Type	Sample Id	Description	Serial Number	Spike Amt	Units	Comments
LCS	1202055004	8321 Explosives LCS	DX100225-03	.1	mL	Final Solvent: ACN
LCS	1202055004	8321 LANL Explosives Mix 10mg/L	UX100223-02.01	1	mL	
MS	1202055005	8321 Explosives LCS	DX100225-03	.1	mL	
MS	1202055005	8321 LANL Explosives Mix 10mg/L	UX100223-02.01	1	mL	
MSD	1202055006	8321 Explosives LCS	DX100225-03	.1	mL	
MSD	1202055006	8321 LANL Explosives Mix 10mg/L	UX100223-02.01	1	mL	
SURR	All	3,4-Dinitrotoluene (8330 Surrogate)	DXP00301-02	.05	mL	

GEL ORGANIC RUN LOG

INSTRUMENT ID: LCMSMS #1

Date: 04/08/10  
 Extr. Injection Volume: 50ul  
 Sequence Number: 040810expA  
 Initial Calibration Date: 04/08/10  
 Method: SW846 8321A-Modified  
 Int. Std.: UXX100324-02.2  
 Mobile Phase Lot#: 1296548, 1289686  
 Standard-Samp Reagent Lot#: 1292884, 1293274  
 Reviewed BY: *Yun*  
 Date: *04/12/10*  
 SOP: GL-OA-E-056 Rev.12  
 Alt Check Std. ID: WXX100408-07 & WXX100410-07

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC_Flag
EXP0408001a	XIBLK01	MAP	4/8/10 21:32			1		USE	B
EXP0408002a	XIBLK01	MAP	4/8/10 22:02			1		USE	B
EXP0408003a	WXXICAL-01	MAP	4/8/10 22:31			1		USE	I
EXP0408004a	WXXICAL-02	MAP	4/8/10 23:01			1		USE	I
EXP0408005a	WXXICAL-03	MAP	4/8/10 23:30			1		USE	I
EXP0408006a	WXXICAL-04	MAP	4/9/10 0:00			1		USE	I
EXP0408007a	WXXICAL-05	MAP	4/9/10 0:29			1		USE	I
EXP0408008a	WXXICAL-06	MAP	4/9/10 0:59			1		USE	I
EXP0408009a	XIBLK02	MAP	4/9/10 1:28			1		USE	I
EXP0408010a	WXXICV	MAP	4/9/10 1:58			1		USE	B
EXP0408011a	XIBLK03	MAP	4/9/10 2:27			1		USE	C
EXP0408012a	WXXCRI	MAP	4/9/10 2:57			1		USE	B
EXP0408013a	1202053627	MAP	4/9/10 3:26	957700	10-2009	2	LANL	USE	C
EXP0408014a	1202053628	MAP	4/9/10 3:56	957700	10-2009	2	LANL	USE	S
EXP0408015a	247897001	MAP	4/9/10 4:25	957700	10-2009	2	LANL	USE	S
EXP0408016a	1202053629	MAP	4/9/10 4:55	957700	10-2009	2	LANL	USE	S
EXP0408017a	1202053630	MAP	4/9/10 5:24	957700	10-2009	2	LANL	USE	S
EXP0408018a	247897002	MAP	4/9/10 5:54	957700	10-2009	2	LANL	USE	S
EXP0408019a	247897003	MAP	4/9/10 6:23	957700	10-2009	2	LANL	USE	S
EXP0408020a	247897004	MAP	4/9/10 6:52	957700	10-2009	2	LANL	USE	S
EXP0408021a	247897005	MAP	4/9/10 7:22	957700	10-2009	2	LANL	USE	S
EXP0408022a	247897006	MAP	4/9/10 7:51	957700	10-2009	2	LANL	USE	S
EXP0408023a	WXXCCV	MAP	4/9/10 8:21			1		USE	C
EXP0408024a	XIBLK04	MAP	4/9/10 8:50			1		USE	B
EXP0408025a	WXXCRI	MAP	4/9/10 9:20			1		USE	C
EXP0408026a	247897007	MAP	4/9/10 9:49	957700	10-2009	2	LANL	USE	S
EXP0408027a	247897008	MAP	4/9/10 10:19	957700	10-2009	2	LANL	USE	S
EXP0408028a	247897009	MAP	4/9/10 10:48	957700	10-2009	2	LANL	DUSE-RA	S
EXP0408029a	247897010	MAP	4/9/10 11:18	957700	10-2009	2	LANL	DUSE-RA	S

EXP0408030a	247897011	MAP	4/9/10 11:47	957700	10-2009	2	LANL	DUSE-RA	S
EXP0408031a	247897012	MAP	4/9/10 12:17	957700	10-2009	2	LANL	USE	S
EXP0408032a	247897013	MAP	4/9/10 12:46	957700	10-2009	2	LANL	USE	S
EXP0408033a	247897014	MAP	4/9/10 13:16	957700	10-2009	2	LANL	USE	S
EXP0408034a	247897015	MAP	4/9/10 13:45	957700	10-2009	2	LANL	USE	S
EXP0408035a	247897016	MAP	4/9/10 14:15	957700	10-2009	2	LANL	USE	S
EXP0408036a	WXXCCV	MAP	4/9/10 14:44			1		USE	C
EXP0408037a	XIBLK05	MAP	4/9/10 15:14			1		USE	B
EXP0408038a	WXXCRI	MAP	4/9/10 15:43			1		USE	C
EXP0408039a	247897017	MAP	4/9/10 16:13	957700	10-2009	2	LANL	USE	S
EXP0408040a	247897018	MAP	4/9/10 16:46	957700	10-2009	2	LANL	USE	S
EXP0408041a	247897019	MAP	4/9/10 17:15	957700	10-2009	2	LANL	USE	S
EXP0408042a	247897020	MAP	4/9/10 17:45	957700	10-2009	2	LANL	USE	S
EXP0408043a	247897009	MAP	4/9/10 18:14	957700	10-2009	2	LANL	DUSE	S
EXP0408044a	247897010	MAP	4/9/10 18:44	957700	10-2009	2	LANL	DUSE	S
EXP0408045a	247897011	MAP	4/9/10 19:13	957700	10-2009	2	LANL	DUSE	S
EXP0408046a	WXXCCV	MAP	4/9/10 19:43			1		USE	C
EXP0408047a	XIBLK06	MAP	4/9/10 20:12			1		USE	B
EXP0408048a	WXXCRI	MAP	4/9/10 20:42			1		USE	C
EXP0408049a	1202053631	MAP	4/9/10 21:11	957702	10-2012	2	LANL	USE	S
EXP0408050a	1202053632	MAP	4/9/10 21:41	957702	10-2012	2	LANL	USE	S
EXP0408051a	247904001	MAP	4/9/10 22:10	957702	10-2012	2	LANL	USE	S
EXP0408052a	1202053633	MAP	4/9/10 22:40	957702	10-2012	2	LANL	USE	S
EXP0408053a	1202053634	MAP	4/9/10 23:09	957702	10-2012	2	LANL	USE	S
EXP0408054a	247904002	MAP	4/9/10 23:39	957702	10-2012	2	LANL	USE	S
EXP0408055a	247904003	MAP	4/10/10 0:08	957702	10-2012	2	LANL	USE	S
EXP0408056a	247904004	MAP	4/10/10 0:38	957702	10-2012	2	LANL	USE	S
EXP0408057a	247904005	MAP	4/10/10 1:07	957702	10-2012	2	LANL	USE	S
EXP0408058a	247904006	MAP	4/10/10 1:37	957702	10-2012	2	LANL	USE	S
EXP0408059a	WXXCCV	MAP	4/10/10 2:06			1		USE	C
EXP0408060a	XIBLK07	MAP	4/10/10 2:36			1		USE	B
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EXP0408062a	247904007	MAP	4/10/10 3:35	957702	10-2012	2	LANL	USE	S
EXP0408063a	247904008	MAP	4/10/10 4:04	957702	10-2012	2	LANL	USE	S
EXP0408064a	247904009	MAP	4/10/10 4:34	957702	10-2012	2	LANL	USE	S
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EXP0408067a	247904012	MAP	4/10/10 6:02	957702	10-2012	2	LANL	USE	S
EXP0408068a	247904013	MAP	4/10/10 6:32	957702	10-2012	2	LANL	USE	S
EXP0408069a	247904014	MAP	4/10/10 7:01	957702	10-2012	2	LANL	USE	S
EXP0408070a	247904015	MAP	4/10/10 7:31	957702	10-2012	2	LANL	USE	S
EXP0408071a	247904016	MAP	4/10/10 8:00	957702	10-2012	2	LANL	USE	S
EXP0408072a	WXXCCV	MAP	4/10/10 8:30			1		USE	C
EXP0408073a	XIBLK08	MAP	4/10/10 8:59			1		USE	B
EXP0408074a	WXXCRI	MAP	4/10/10 9:29			1		USE	C
EXP0408075a	247904017	MAP	4/10/10 9:58	957702	10-2012	2	LANL	USE	S
EXP0408076a	XIBLK09	MAP	4/10/10 10:28			1		USE	B
EXP0408077a	1202055003	MAP	4/10/10 10:57	958247	Various	2	LANL	USE	S
EXP0408078a	1202055004	MAP	4/10/10 11:27	958247	Various	2	LANL	USE	S
EXP0408079a	248004002	MAP	4/10/10 11:57	958247	10-2024	2	LANL	USE	S
EXP0408080a	1202055005	MAP	4/10/10 12:26	958247	10-2024	2	LANL	USE	S
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EXP0408086a	XIBLK10	MAP	4/10/10 15:23			1		USE	B
EXP0408087a	WXXCRI	MAP	4/10/10 15:52			1		USE	C
EXP0408088a	248004003	MAP	4/10/10 16:22	958247	10-2024	2	LANL	USE	S
EXP0408089a	248004004	MAP	4/10/10 16:51	958247	10-2024	2	LANL	USE	S
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EXP0408091a	248004006	MAP	4/10/10 17:50	958247	10-2024	2	LANL	USE	S
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EXP0408093a	248012003	MAP	4/10/10 18:49	958247	10-2027	2	LANL	USE	S
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EXP0408097a	248012007	MAP	4/10/10 20:47	958247	10-2027	2	LANL	USE	S
EXP0408098a	WXXCCV	MAP	4/10/10 21:17			1		USE	C
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EXP0408100a	WXXCRI	MAP	4/10/10 22:16			1		USE	C
EXP0408101a	248012008	MAP	4/10/10 22:45	958247	10-2027	2	LANL	USE	S
EXP0408102a	248012009	MAP	4/10/10 23:15	958247	10-2027	2	LANL	USE	S
EXP0408103a	248013001	MAP	4/10/10 23:44	958247	10-2034	2	LANL	USE	S

EXP0408104a	248013002	MAP	4/11/10 0:14	958247	10-2034	2	LANL	USE	S
EXP0408105a	248013003	MAP	4/11/10 0:43	958247	10-2034	2	LANL	USE	S
EXP0408106a	248013004	MAP	4/11/10 1:13	958247	10-2034	2	LANL	USE	S
EXP0408107a	WXXCCV	MAP	4/11/10 1:42			1		USE	C
EXP0408108a	XIBLK12	MAP	4/11/10 2:12			1		USE	B
EXP0408109a	WXXCRI	MAP	4/11/10 2:41			1		USE	C
EXP0408110a	1202055078	MAP	4/11/10 3:11	958282	Various	2	LANL	DUSE-RA	S
EXP0408111a	1202055079	MAP	4/11/10 3:40	958282	Various	2	LANL	USE	S
EXP0408112a	248017003	MAP	4/11/10 4:10	958282	10-2039	2	LANL	DUSE-RA	S
EXP0408113a	1202055080	MAP	4/11/10 4:39	958282	10-2039	2	LANL	USE	S
EXP0408114a	1202055081	MAP	4/11/10 5:09	958282	10-2039	2	LANL	DUSE-RA	S
EXP0408115a	248042002	MAP	4/11/10 5:38	958282	10-2057	2	LANL	DUSE-RA	S
EXP0408116a	248042008	MAP	4/11/10 6:08	958282	10-2057	2	LANL	DUSE-RA	S
EXP0408117a	248042010	MAP	4/11/10 6:37	958282	10-2057	2	LANL	USE	S
EXP0408118a	248047003	MAP	4/11/10 7:07	958282	10-2045	2	LANL	DUSE-RA	S
EXP0408119a	248047007	MAP	4/11/10 7:36	958282	10-2045	2	LANL	DUSE-RA	S
EXP0408120a	WXXCCV	MAP	4/11/10 8:06			1		USE	C
EXP0408121a	XIBLK13	MAP	4/11/10 8:35			1		USE	B
EXP0408122a	WXXCRI	MAP	4/11/10 9:05			1		USE	C
EXP0408123a	1202055028	MAP	4/11/10 9:34	958257	Various	2	LANL	USE	S
EXP0408124a	1202055031	MAP	4/11/10 10:04	958257	Various	2	LANL	USE	S
EXP0408125a	248027002	MAP	4/11/10 10:33	958257	10-2068	2	LANL	USE	S
EXP0408126a	1202055029	MAP	4/11/10 11:03	958257	10-2068	2	LANL	USE	S
EXP0408127a	1202055030	MAP	4/11/10 11:32	958257	10-2068	2	LANL	USE	S
EXP0408128a	248027003	MAP	4/11/10 12:02	958257	10-2068	2	LANL	USE	S
EXP0408129a	248027004	MAP	4/11/10 12:31	958257	10-2068	2	LANL	USE	S
EXP0408130a	248027005	MAP	4/11/10 13:01	958257	10-2068	2	LANL	USE	S
EXP0408131a	248027006	MAP	4/11/10 13:30	958257	10-2068	2	LANL	USE	S
EXP0408132a	248029001	MAP	4/11/10 14:00	958257	10-2071	2	LANL	USE	S
EXP0408133a	WXXCCV	MAP	4/11/10 14:29			1		USE	C
EXP0408134a	XIBLK14	MAP	4/11/10 14:59			1		USE	B
EXP0408135a	WXXCRI	MAP	4/11/10 15:28			1		USE	C
EXP0408136a	248029002	MAP	4/11/10 15:58	958257	10-2071	2	LANL	USE	S
EXP0408137a	248029003	MAP	4/11/10 16:27	958257	10-2071	2	LANL	USE	S
EXP0408138a	248029004	MAP	4/11/10 16:57	958257	10-2071	2	LANL	USE	S
EXP0408139a	248029005	MAP	4/11/10 17:26	958257	10-2071	2	LANL	USE	S
EXP0408140a	248029006	MAP	4/11/10 17:56	958257	10-2071	2	LANL	USE	S



EXP0408141a	248029007	MAP	4/11/10 18:25	958257	10-2071	2	LANL	USE	S
EXP0408142a	248029008	MAP	4/11/10 18:55	958257	10-2071	2	LANL	USE	S
EXP0408143a	248029009	MAP	4/11/10 19:24	958257	10-2071	2	LANL	USE	S
EXP0408144a	248068001	MAP	4/11/10 19:54	958257	10-2088	2	LANL	USE	S
EXP0408145a	248068002	MAP	4/11/10 20:23	958257	10-2088	2	LANL	USE	S
EXP0408146a	WXXCCV	MAP	4/11/10 20:53			1		USE	C
EXP0408147a	XIBLK15	MAP	4/11/10 21:22			1		USE	B
EXP0408148a	WXXCRI	MAP	4/11/10 21:52			1		USE	C
EXP0408149a	1202055038	MAP	4/11/10 22:21	958267	10-2077	2	LANL	USE	S
EXP0408150a	1202055039	MAP	4/11/10 22:51	958267	10-2077	2	LANL	USE	S
EXP0408151a	248052001	MAP	4/11/10 23:20	958267	10-2077	2	LANL	USE	S
EXP0408152a	1202055040	MAP	4/11/10 23:50	958267	10-2077	2	LANL	USE	S
EXP0408153a	1202055041	MAP	4/12/10 0:19	958267	10-2077	2	LANL	USE	S
EXP0408154a	248052002	MAP	4/12/10 0:49	958267	10-2077	2	LANL	USE	S
EXP0408155a	248052003	MAP	4/12/10 1:18	958267	10-2077	2	LANL	USE	S
EXP0408156a	248052004	MAP	4/12/10 1:48	958267	10-2077	2	LANL	USE	S
EXP0408157a	248052005	MAP	4/12/10 2:17	958267	10-2077	2	LANL	USE	S
EXP0408158a	248052006	MAP	4/12/10 2:47	958267	10-2077	2	LANL	USE	S
EXP0408159a	WXXCCV	MAP	4/12/10 3:16			1		USE	C
EXP0408160a	XIBLK16	MAP	4/12/10 3:46			1		USE	B
EXP0408161a	WXXCRI	MAP	4/12/10 4:15			1		USE	C
EXP0408162a	248052007	MAP	4/12/10 4:45	958267	10-2077	2	LANL	USE	S
EXP0408163a	248052008	MAP	4/12/10 5:14	958267	10-2077	2	LANL	USE	S
EXP0408164a	248052009	MAP	4/12/10 5:44	958267	10-2077	2	LANL	USE	S
EXP0408165a	248052010	MAP	4/12/10 6:13	958267	10-2077	2	LANL	USE	S
EXP0408166a	248052011	MAP	4/12/10 6:43	958267	10-2077	2	LANL	USE	S
EXP0408167a	248052012	MAP	4/12/10 7:12	958267	10-2077	2	LANL	USE	S
EXP0408168a	248052013	MAP	4/12/10 7:42	958267	10-2077	2	LANL	USE	S
EXP0408169a	248052014	MAP	4/12/10 8:11	958267	10-2077	2	LANL	USE	S
EXP0408170a	248052015	MAP	4/12/10 8:41	958267	10-2077	2	LANL	USE	S
EXP0408171a	248052016	MAP	4/12/10 9:10	958267	10-2077	2	LANL	USE	S
EXP0408172a	WXXCCV	MAP	4/12/10 9:40			1		USE	C
EXP0408173a	XIBLK17	MAP	4/12/10 10:09			1		USE	B
EXP0408174a	WXXCRI	MAP	4/12/10 10:39			1		USE	C

GEL ORGANIC RUN LOG INSTRUMENT ID: LCMSMS4

Date: 03/31/10  
 Extr. Injection Volume: 10uL  
 Sequence Number: 033110exs  
 Initial Calibration Date: 033110

Method: 8321A-Modified  
 Int. Std.: N/A  
 Mobile Phase Lot#: 1268566, 1268568  
 Standard-Samp Reagent Lot#: 1292884, 1284736

Reviewed By: *Howe*  
 Date: *05/10*  
 SOP: GL-OA-E-056 Rev.12  
 Alt Check Std. ID: WXX100331-26

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DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC Flag
EXS03310001.wiff	XIBLK01	LER	3/31/2010 8:40			1		USE	B
EXS03310002.wiff	XIBLK01	LER	3/31/2010 8:56			1		USE	B
EXS03310003.wiff	WXXICAL-19	LER	3/31/2010 9:12			1		USE	I
EXS03310004.wiff	WXXICAL-20	LER	3/31/2010 9:27			1		USE	I
EXS03310005.wiff	WXXICAL-21	LER	3/31/2010 9:43			1		USE	I
EXS03310006.wiff	WXXICAL-22	LER	3/31/2010 9:59			1		USE	I
EXS03310007.wiff	WXXICAL-23	LER	3/31/2010 10:14			1		USE	I
EXS03310008.wiff	WXXICAL-24	LER	3/31/2010 10:30			1		USE	I
EXS03310009.wiff	WXXICAL-25	LER	3/31/2010 10:46			1		USE	I
EXS03310010.wiff	XIBLK02	LER	3/31/2010 11:01			1		USE	B
EXS03310011.wiff	WXXICV	LER	3/31/2010 11:17			1		USE	C
EXS03310012.wiff	XIBLK03	LER	3/31/2010 11:33			1		USE	B
EXS03310013.wiff	WXXCRI	LER	3/31/2010 11:49			1		USE	C
EXS03310014.wiff	1202061351	LER	3/31/2010 12:04	961045	10-2210	2	LANL	USE	S
EXS03310015.wiff	1202061352	LER	3/31/2010 12:20	961045	10-2210	2	LANL	USE	S
EXS03310016.wiff	248541002	LER	3/31/2010 12:36	961045	10-2210	2	LANL	USE	S
EXS03310017.wiff	1202061353	LER	3/31/2010 12:52	961045	10-2210	2	LANL	USE	S
EXS03310018.wiff	1202061354	LER	3/31/2010 13:07	961045	10-2210	2	LANL	USE	S
EXS03310019.wiff	248541003	LER	3/31/2010 13:23	961045	10-2210	2	LANL	USE	S
EXS03310020.wiff	248541004	LER	3/31/2010 13:39	961045	10-2210	2	LANL	USE	S
EXS03310021.wiff	248541005	LER	3/31/2010 13:54	961045	10-2210	2	LANL	USE	S
EXS03310022.wiff	248541006	LER	3/31/2010 14:10	961045	10-2210	2	LANL	USE	S
EXS03310023.wiff	248541007	LER	3/31/2010 14:26	961045	10-2210	2	LANL	USE	S
EXS03310024.wiff	WXXCCV	LER	3/31/2010 14:41			1		USE	C
EXS03310025.wiff	XIBLK04	LER	3/31/2010 14:57			1		USE	B
EXS03310026.wiff	WXXCRI	LER	3/31/2010 15:13			1		USE	C
EXS03310027.wiff	248541008	LER	3/31/2010 15:29	961045	10-2210	2	LANL	USE	S
EXS03310028.wiff	248541009	LER	3/31/2010 15:44	961045	10-2210	2	LANL	USE	S
EXS03310029.wiff	248541010	LER	3/31/2010 16:00	961045	10-2210	2	LANL	USE	S
EXS03310030.wiff	248541011	LER	3/31/2010 16:16	961045	10-2210	2	LANL	USE	S

EXS03310031.wiff	248541012	LER	3/31/2010 16:31	961045	10-2210	2	LANL	USE	S
EXS03310032.wiff	248541013	LER	3/31/2010 16:47	961045	10-2210	2	LANL	USE	S
EXS03310033.wiff	248541014	LER	3/31/2010 17:03	961045	10-2210	2	LANL	USE	S
EXS03310034.wiff	248541015	LER	3/31/2010 17:19	961045	10-2210	2	LANL	USE	S
EXS03310035.wiff	248541016	LER	3/31/2010 17:34	961045	10-2210	2	LANL	USE	S
EXS03310036.wiff	WXXCCV	LER	3/31/2010 17:50			1		USE	C
EXS03310037.wiff	XIBLK05	LER	3/31/2010 18:06			1		USE	B
EXS03310038.wiff	WXXCRI	LER	3/31/2010 18:21			1		USE	C
EXS03310039.wiff	1202052389	LER	3/31/2010 18:37	957192	VARIOUS	2	LANL	USE	S
EXS03310040.wiff	1202052390	LER	3/31/2010 18:53	957192	VARIOUS	2	LANL	USE	S
EXS03310041.wiff	247824003	LER	3/31/2010 19:09	957192	10-2005	2	LANL	USE	S
EXS03310042.wiff	247828003	LER	3/31/2010 19:24	957192	10-2000	2	LANL	USE	S
EXS03310043.wiff	1202052393	LER	3/31/2010 19:40	957192	10-2000	2	LANL	USE	S
EXS03310044.wiff	1202052394	LER	3/31/2010 19:56	957192	10-2000	2	LANL	USE	S
EXS03310045.wiff	247830002	LER	3/31/2010 20:11	957192	10-2007	2	LANL	USE	S
EXS03310046.wiff	1202052391	LER	3/31/2010 20:27	957192	10-2007	2	LANL	USE	S
EXS03310047.wiff	1202052392	LER	3/31/2010 20:43	957192	10-2007	2	LANL	USE	S
EXS03310048.wiff	WXXCCV	LER	3/31/2010 20:59			1		USE	C
EXS03310049.wiff	XIBLK06	LER	3/31/2010 21:14			1		USE	B
EXS03310050.wiff	WXXCRI	LER	3/31/2010 21:30			1		USE	C
EXS03310051.wiff	1202055003	LER	3/31/2010 21:46	958247	VARIOUS	2	LANL	USE	S
EXS03310052.wiff	1202055004	LER	3/31/2010 22:02	958247	VARIOUS	2	LANL	USE	S
EXS03310053.wiff	248004002	LER	3/31/2010 22:17	958247	10-2024	2	LANL	USE	S
EXS03310054.wiff	1202055005	LER	3/31/2010 22:33	958247	10-2024	2	LANL	USE	S
EXS03310055.wiff	1202055006	LER	3/31/2010 22:49	958247	10-2024	2	LANL	USE	S
EXS03310056.wiff	248004003	LER	3/31/2010 23:04	958247	10-2024	2	LANL	USE	S
EXS03310057.wiff	248004004	LER	3/31/2010 23:20	958247	10-2024	2	LANL	USE	S
EXS03310058.wiff	248004005	LER	3/31/2010 23:36	958247	10-2024	2	LANL	USE	S
EXS03310059.wiff	248004006	LER	3/31/2010 23:51	958247	10-2024	2	LANL	USE	S
EXS03310060.wiff	248012002	LER	4/1/2010 0:07	958247	10-2027	2	LANL	USE	S
EXS03310061.wiff	WXXCCV	LER	4/1/2010 0:23			1		USE	C
EXS03310062.wiff	XIBLK07	LER	4/1/2010 0:39			1		USE	B
EXS03310063.wiff	WXXCRI	LER	4/1/2010 0:54			1		USE	C
EXS03310064.wiff	248012003	LER	4/1/2010 1:10	958247	10-2027	2	LANL	USE	S
EXS03310065.wiff	248012004	LER	4/1/2010 1:26	958247	10-2027	2	LANL	USE	S
EXS03310066.wiff	248012005	LER	4/1/2010 1:42	958247	10-2027	2	LANL	USE	S
EXS03310067.wiff	248012006	LER	4/1/2010 1:57	958247	10-2027	2	LANL	USE	S

EXS03310068.wiff	248012007	LER	4/1/2010 2:13	958247	10-2027	2	LANL	USE	S
EXS03310069.wiff	248012008	LER	4/1/2010 2:29	958247	10-2027	2	LANL	USE	S
EXS03310070.wiff	248012009	LER	4/1/2010 2:44	958247	10-2027	2	LANL	USE	S
EXS03310071.wiff	248013001	LER	4/1/2010 3:00	958247	10-2034	2	LANL	USE	S
EXS03310072.wiff	248013002	LER	4/1/2010 3:16	958247	10-2034	2	LANL	USE	S
EXS03310073.wiff	248013003	LER	4/1/2010 3:31	958247	10-2034	2	LANL	USE	S
EXS03310074.wiff	WXXCCV	LER	4/1/2010 3:47			1		USE	C
EXS03310075.wiff	XIBLK08	LER	4/1/2010 4:03			1		USE	B
EXS03310076.wiff	WXXCRI	LER	4/1/2010 4:19			1		USE	C
EXS03310077.wiff	248013004	LER	4/1/2010 4:34	958247	10-2034	2	LANL	USE	S
EXS03310078.wiff	XIBLK09	LER	4/1/2010 4:50			1		USE	B
EXS03310079.wiff	1202073689	LER	4/1/2010 5:06	966289	VARIOUS	2	LANL	USE	S
EXS03310080.wiff	1202073690	LER	4/1/2010 5:21	966289	VARIOUS	2	LANL	USE	S
EXS03310081.wiff	249327010	LER	4/1/2010 5:37	966289	10-2428	2	LANL	USE	S
EXS03310082.wiff	1202073691	LER	4/1/2010 5:53	966289	10-2428	2	LANL	USE	S
EXS03310083.wiff	1202073692	LER	4/1/2010 6:09	966289	10-2428	2	LANL	USE	S
EXS03310084.wiff	249373002	LER	4/1/2010 6:24	966289	10-2453	2	LANL	USE	S
EXS03310085.wiff	249375003	LER	4/1/2010 6:40	966289	10-2445	2	LANL	USE	S
EXS03310086.wiff	249375009	LER	4/1/2010 6:56	966289	10-2445	2	LANL	USE	S
EXS03310087.wiff	WXXCCV	LER	4/1/2010 7:11			1		USE	C
EXS03310088.wiff	XIBLK10	LER	4/1/2010 7:27			1		USE	B
EXS03310089.wiff	WXXCRI	LER	4/1/2010 7:43			1		USE	C
EXS03310090.wiff	1202055034	LER	4/1/2010 7:59	958262	10-2074	2	LANL	USE	S
EXS03310091.wiff	1202055035	LER	4/1/2010 8:14	958262	10-2074	2	LANL	USE	S
EXS03310092.wiff	248043001	LER	4/1/2010 8:30	958262	10-2074	2	LANL	USE	S
EXS03310093.wiff	1202055036	LER	4/1/2010 8:46	958262	10-2074	2	LANL	USE	S
EXS03310094.wiff	1202055037	LER	4/1/2010 9:01	958262	10-2074	2	LANL	USE	S
EXS03310095.wiff	248043002	LER	4/1/2010 9:17	958262	10-2074	2	LANL	USE	S
EXS03310096.wiff	248043003	LER	4/1/2010 9:33	958262	10-2074	2	LANL	USE	S
EXS03310097.wiff	248043004	LER	4/1/2010 9:49	958262	10-2074	2	LANL	USE	S
EXS03310098.wiff	248043005	LER	4/1/2010 10:04	958262	10-2074	2	LANL	USE	S
EXS03310099.wiff	248043006	LER	4/1/2010 10:20	958262	10-2074	2	LANL	USE	S
EXS03310100.wiff	WXXCCV	LER	4/1/2010 10:36			1		USE	C
EXS03310101.wiff	XIBLK11	LER	4/1/2010 10:52			1		USE	B
EXS03310102.wiff	WXXCRI	LER	4/1/2010 11:07			1		USE	C
EXS03310103.wiff	248043007	LER	4/1/2010 11:23	958262	10-2074	2	LANL	USE	S
EXS03310104.wiff	248043008	LER	4/1/2010 11:39	958262	10-2074	2	LANL	USE	S

EXS03310105.wiff	248043009	LER	4/1/2010 11:54	958262	10-2074	2	LANL	USE	S
EXS03310106.wiff	248043010	LER	4/1/2010 12:10	958262	10-2074	2	LANL	USE	S
EXS03310107.wiff	248043011	LER	4/1/2010 12:26	958262	10-2074	2	LANL	USE	S
EXS03310108.wiff	248043012	LER	4/1/2010 12:41	958262	10-2074	2	LANL	USE	S
EXS03310109.wiff	248043013	LER	4/1/2010 12:57	958262	10-2074	2	LANL	USE	S
EXS03310110.wiff	248043014	LER	4/1/2010 13:13	958262	10-2074	2	LANL	USE	S
EXS03310111.wiff	248043015	LER	4/1/2010 13:29	958262	10-2074	2	LANL	USE	S
EXS03310112.wiff	248043016	LER	4/1/2010 13:44	958262	10-2074	2	LANL	USE	S
EXS03310113.wiff	WXXCCV	LER	4/1/2010 14:00			1		USE	C
EXS03310114.wiff	XIBLK12	LER	4/1/2010 14:16			1		USE	B
EXS03310115.wiff	WXXCRI	LER	4/1/2010 14:31			1		USE	C
EXS03310116.wiff	248043017	LER	4/1/2010 14:47	958262	10-2074	2	LANL	USE	S
EXS03310117.wiff	248043018	LER	4/1/2010 15:03	958262	10-2074	2	LANL	USE	S
EXS03310118.wiff	XIBLK13	LER	4/1/2010 15:19			1		USE	B
EXS03310119.wiff	1202064537	LER	4/1/2010 15:34	962415	10-2233	2	LANL	USE	S
EXS03310120.wiff	1202064538	LER	4/1/2010 15:50	962415	10-2233	2	LANL	USE	S
EXS03310121.wiff	248628002	LER	4/1/2010 16:06	962415	10-2233	2	LANL	USE	S
EXS03310122.wiff	1202064539	LER	4/1/2010 16:21	962415	10-2233	2	LANL	USE	S
EXS03310123.wiff	1202064540	LER	4/1/2010 16:37	962415	10-2233	2	LANL	USE	S
EXS03310124.wiff	248628003	LER	4/1/2010 16:53	962415	10-2233	2	LANL	USE	S
EXS03310125.wiff	248628004	LER	4/1/2010 17:08	962415	10-2233	2	LANL	USE	S
EXS03310126.wiff	WXXCCV	LER	4/1/2010 17:24			1		USE	C
EXS03310127.wiff	XIBLK14	LER	4/1/2010 17:40			1		USE	B
EXS03310128.wiff	WXXCRI	LER	4/1/2010 17:56			1		USE	C
EXS03310129.wiff	248628005	LER	4/1/2010 18:11	962415	10-2233	2	LANL	USE	S
EXS03310130.wiff	248628006	LER	4/1/2010 18:27	962415	10-2233	2	LANL	USE	S
EXS03310131.wiff	248628007	LER	4/1/2010 18:43	962415	10-2233	2	LANL	USE	S
EXS03310132.wiff	248628008	LER	4/1/2010 18:58	962415	10-2233	2	LANL	USE	S
EXS03310133.wiff	248628009	LER	4/1/2010 19:14	962415	10-2233	2	LANL	USE	S
EXS03310134.wiff	248628010	LER	4/1/2010 19:30	962415	10-2233	2	LANL	USE	S
EXS03310135.wiff	248628011	LER	4/1/2010 19:46	962415	10-2233	2	LANL	USE	S
EXS03310136.wiff	248628012	LER	4/1/2010 20:01	962415	10-2233	2	LANL	USE	S
EXS03310137.wiff	248628013	LER	4/1/2010 20:17	962415	10-2233	2	LANL	USE	S
EXS03310138.wiff	248628014	LER	4/1/2010 20:33	962415	10-2233	2	LANL	USE	S
EXS03310139.wiff	WXXCCV	LER	4/1/2010 20:48			1		USE	C
EXS03310140.wiff	XIBLK15	LER	4/1/2010 21:04			1		USE	B
EXS03310141.wiff	WXXCRI	LER	4/1/2010 21:20			1		USE	C

EXS03310142.wiff	248628015	LER	4/1/2010 21:36	962415	10-2233	2	LANL	USE	S
EXS03310143.wiff	XIBLK16	LER	4/1/2010 21:51			1		USE	B
EXS03310144.wiff	248541007	LER	4/1/2010 22:07	961045	10-2210	10	LANL	USE	S
EXS03310145.wiff	WXXCCV	LER	4/1/2010 22:23			1		USE	C
EXS03310146.wiff	XIBLK17	LER	4/1/2010 22:39			1		USE	B
EXS03310147.wiff	WXXCRI	LER	4/1/2010 22:54			1		USE	C

# Quantify Sample Report

GEL Laboratories, LLC / Analyst : Michael A. Penny

Printed: Sun Apr 11 11:47:08 2010, Page 11 of 97

Dataset: C:\MASSLYNX\New\_Exp.PRO\040810expA2.qld, Time: Sun Apr 11 11:45:05 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0408080a

Date: 10-Apr-2010

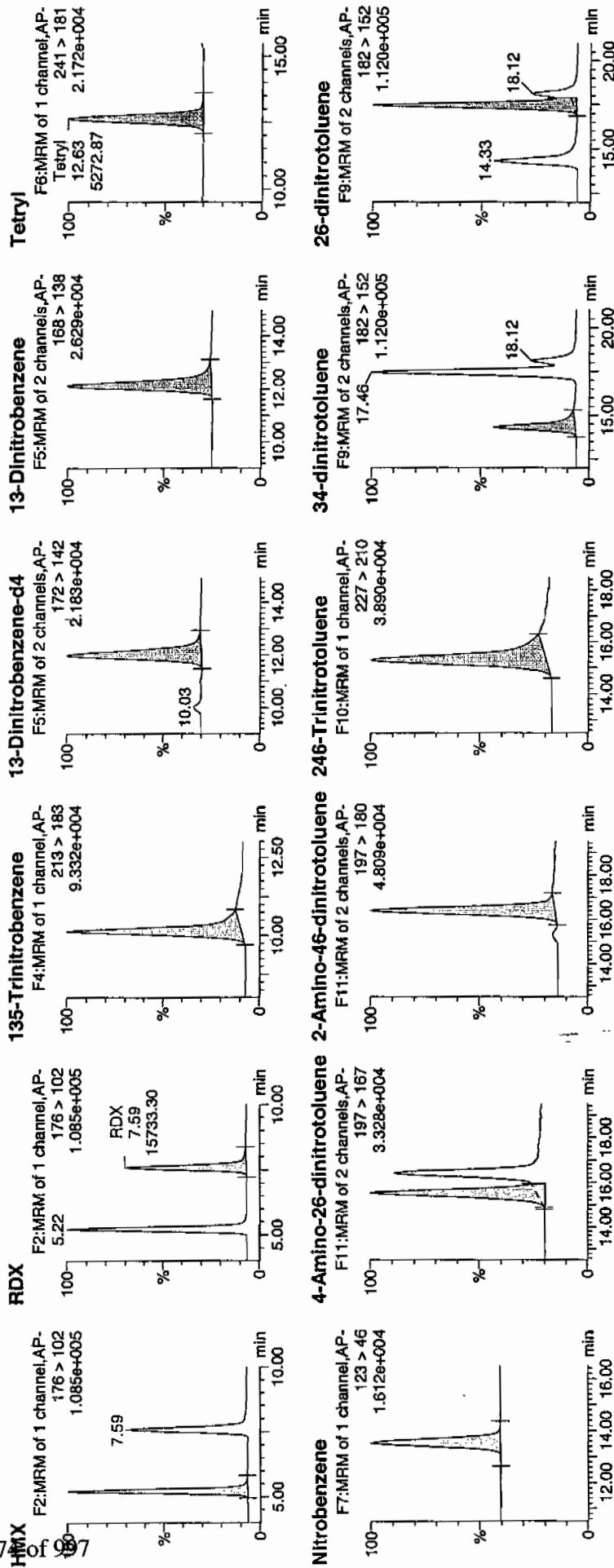
Time: 12:26:29

IP: 1202055005

Val: 3:3,D

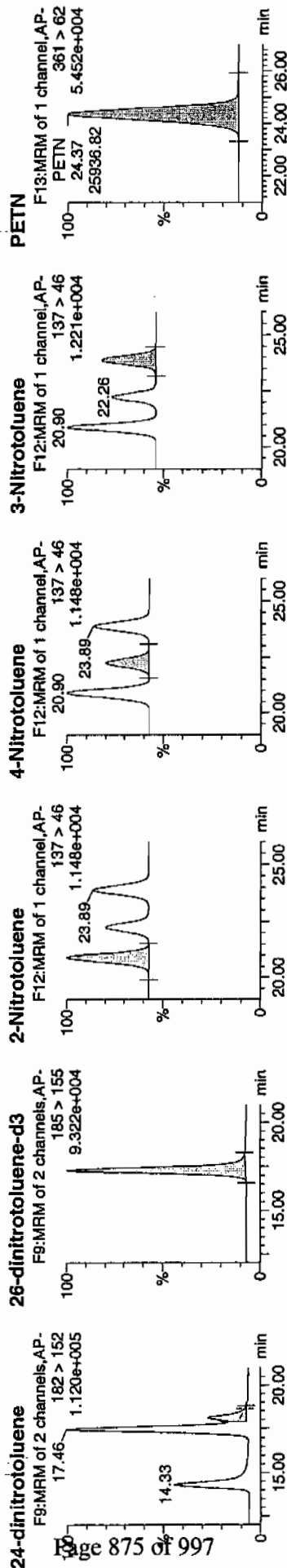
4/11/10

1248004002 us 121



4/12/10

Dataset: C:\MASSLYNX\New\_Exp\PRO040810expA2.qld, Time: Sun Apr 11 11:45:05 2010



ID	Name	Trace	RT	Area	S Area	Abs Resp	Response	Flags	Mod Date	Mod Time	Res	Dev	S/N
1202055005	HMX	176 > 102	5.22	20033.547	5986.743	20033.547	1673.159	db	523.8056	104.8	4.8	1522.4	
1202055005	RDX	176 > 102	7.59	15733.297	5986.743	15733.297	1314.011	bb	539.2220	107.8	7.8	1029.8	
1202055005	135-Trinitrobenzene	213 > 183	10.14	24850.355	5986.743	24850.355	2075.449	bb	491.4225	98.3	-1.7	4763.3	
1202055005	13-Dinitrobenzene-d4	172 > 142	12.00	5986.743		5986.743	5986.743	bb	460.6569	92.1	-7.9	571.4	
1202055005	13-Dinitrobenzene	168 > 138	12.10	7416.604	5986.743	7416.604	619.419	bb	480.9633	96.2	-3.8	223.2	
1202055005	Tetryl	241 > 181	12.63	5272.874	5986.743	5272.874	440.379	bb	427.7315	85.5	-14.5	430.2	
1202055005	Nitrobenzene	123 > 46	13.53	3352.280	5986.743	3352.280	279.975	bb	465.8464	93.2	-6.8	287.0	
1202055005	4-Amino-26-dinitrotoluene	197 > 167	15.52	11059.087	35050.543	11059.087	157.759	MM	506.7875	101.4	1.4	294.3	
1202055005	2-Amino-46-dinitrotoluene	197 > 180	16.40	16733.676	35050.543	16733.676	238.708	bb	522.5312	104.5	4.5	455.4	
1202055005	246-Trinitrotoluene	227 > 210	15.30	15327.816	35050.543	15327.816	218.653	bb	568.2346	113.6	13.6	719.9	
1202055005	34-dinitrotoluene	182 > 152	14.33	18314.344	35050.543	18314.344	261.256	bb	254.7399	101.9	1.9	647.5	
1202055005	26-dinitrotoluene	182 > 152	17.46	38701.047	35050.543	38701.047	552.075	MM	485.4085	97.1	-2.9	1591.4	
1202055005	24-dinitrotoluene	182 > 152	18.12	8659.059	35050.543	8659.059	123.522	MM	466.5905	93.3	-6.7	336.3	
1202055005	26-dinitrotoluene-d3	185 > 155	17.29	35050.543		35050.543	35050.543	bb	443.9184	88.8	-11.2	1531.3	
1202055005	2-Nitrotoluene	137 > 46	20.90	2306.562	35050.543	2306.562	32.903	bb	428.6446	85.7	-14.3	800.4	
1202055005	4-Nitrotoluene	137 > 46	22.26	1189.402	35050.543	1189.402	16.967	bb	436.5747	87.3	-12.7	424.7	
1202055005	3-Nitrotoluene	137 > 46	23.88	1562.493	35050.543	1562.493	22.289	bb	408.2467	81.6	-18.4	95.4	
1202055005	PETN	361 > 62	24.37	25936.818	35050.543	25936.818	369.992	bb	557.6974	111.5	11.5	5195.6	



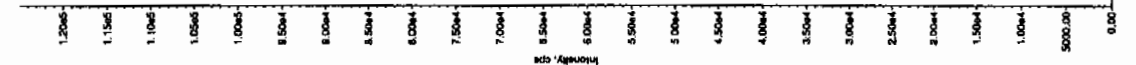
LC# 415710

Sample Name: "120205005" Sample ID: "96824721ER" File: "EXS0310064.wif"  
Peak Name: "TATB" Mass(es): "257.2204.9 amu"  
Comment: "LCX032125" Annotation: ""

Sample Index: 1  
Sample Type: Unknown  
Concentration: N/A  
Calculated Conc: 8.05 ng/mL  
Acq. Date: 3/31/2010  
Acq. Time: 10:33:27 PM

Modified: No  
Proc. Algorithm: IntelliQuan - IQA  
Min. Peak Height: 2500.00 cps  
Min. Peak Width: 0.00 sec  
Smoothing Width: 3 points  
RT Window: 30.0 sec  
Expected RT: 6.90 min  
Use Relative RT: No

Int. Type: Valley  
Retention Time: 6.91 min  
Area: 5.98e+005 counts  
Height: 124853.867 cps  
Start Time: 6.82 min  
End Time: 7.95 min

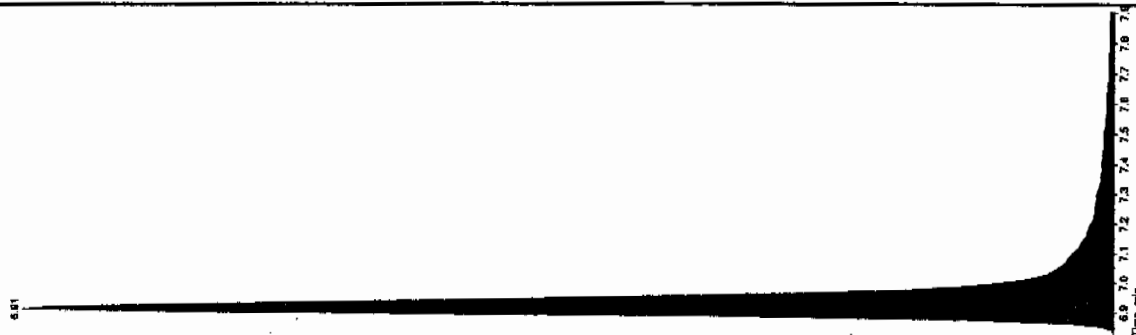


Sample Name: "120205005" Sample ID: "96824721ER" File: "EXS0310064.wif"  
Peak Name: "35-Dinitroaniline" Mass(es): "182.0460 amu"  
Comment: "LCX032125" Annotation: ""

Sample Index: 1  
Sample Type: Unknown  
Concentration: N/A  
Calculated Conc: 7.845 ng/mL  
Acq. Date: 3/31/2010  
Acq. Time: 10:33:27 PM

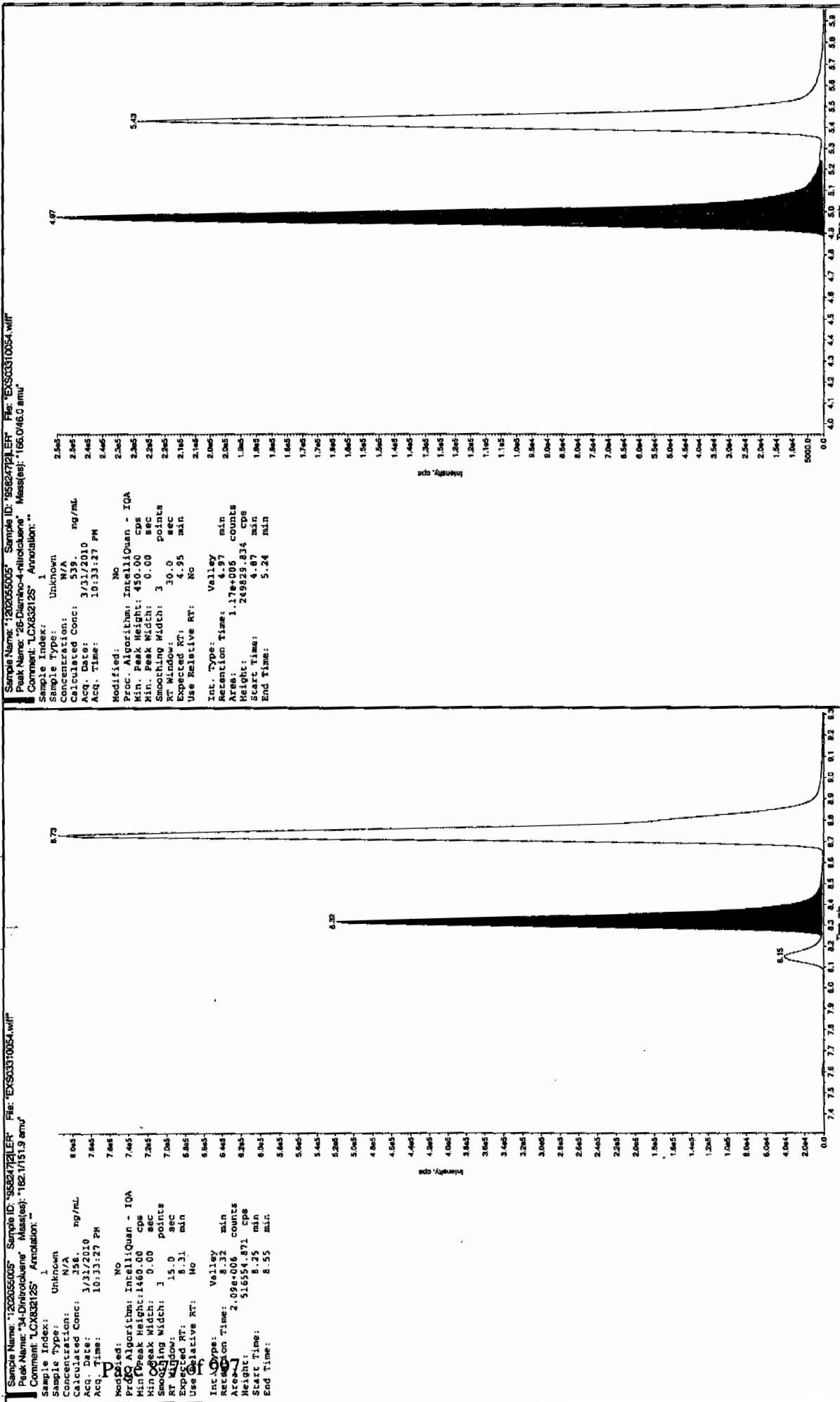
Modified: No  
Proc. Algorithm: IntelliQuan - IQA  
Min. Peak Height: 2000.00 cps  
Min. Peak Width: 0.00 sec  
Smoothing Width: 3 points  
RT Window: 15.0 sec  
Expected RT: 8.14 min  
Use Relative RT: No

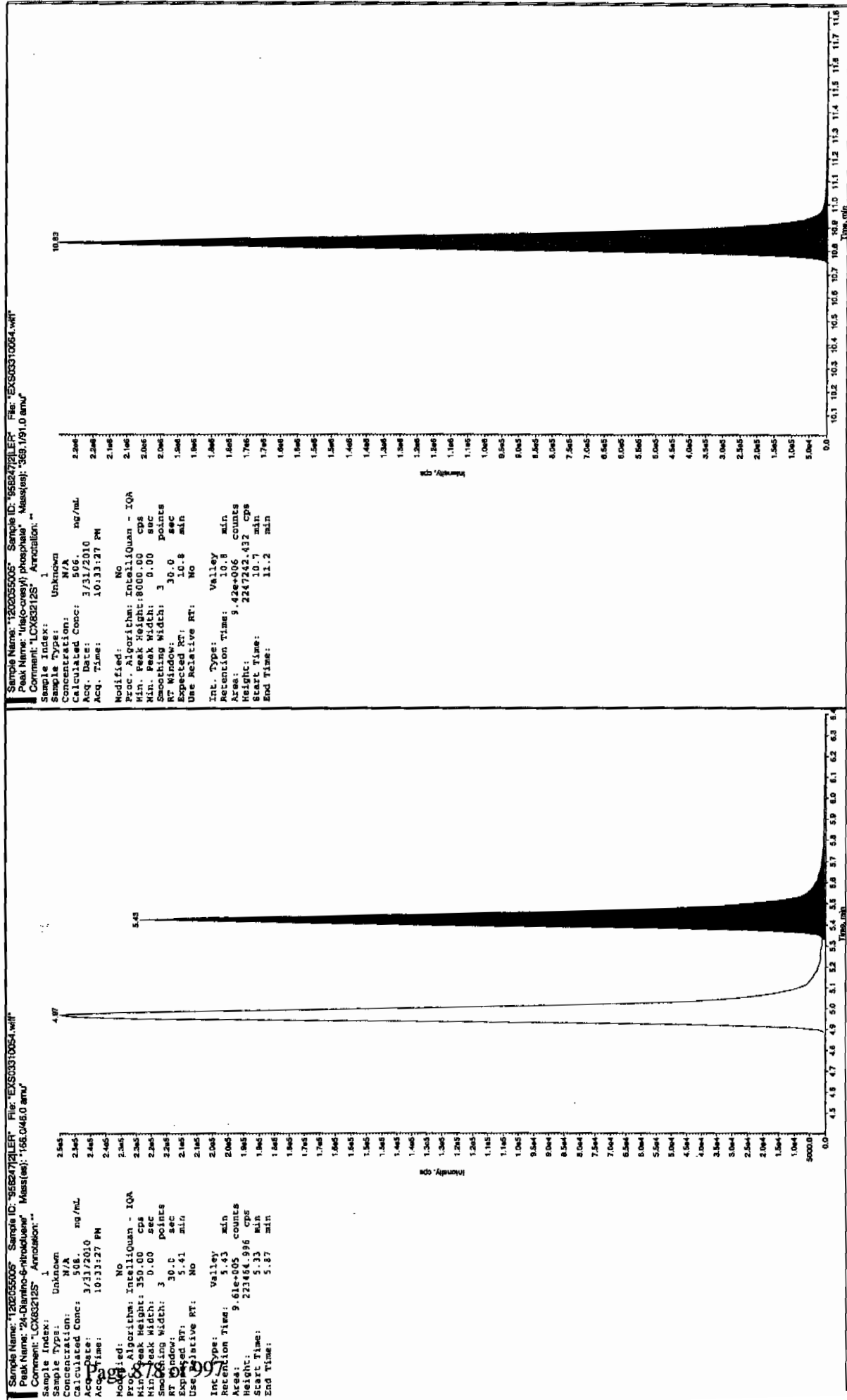
Int. Type: Valley  
Retention Time: 8.15 min  
Area: 3.08e+006 counts  
Height: 776195.740 cps  
Start Time: 8.08 min  
End Time: 8.28 min



Intensity, cps

Amw 04/05/10





Quantify Sample Report  
GEL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp.PRO\040810expA2.qld, Time: Sun Apr 11 11:45:05 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0408081a

Date: 10-Apr-2010

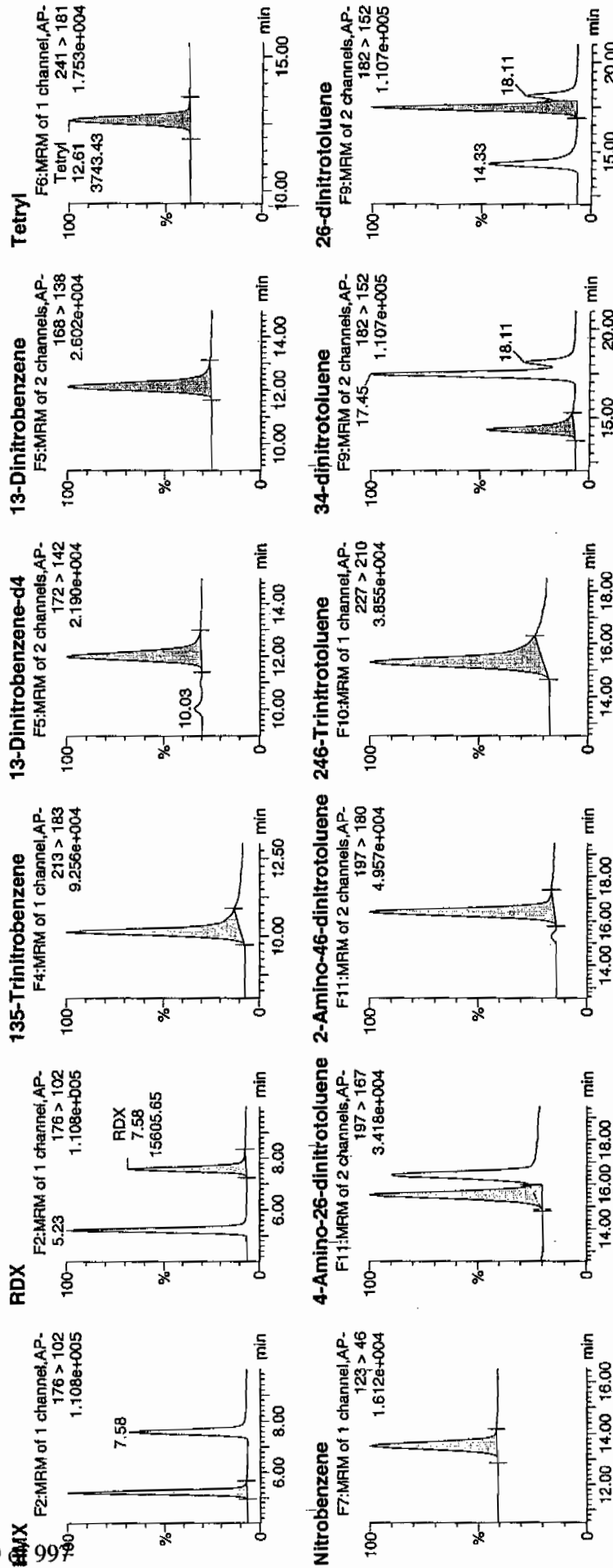
Time: 12:55:57

ID: 1202055006

Val: 3:3,E

LAUW/958247/8022/248004002MSD/21

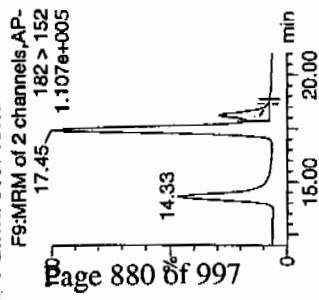
not  
4/14/10



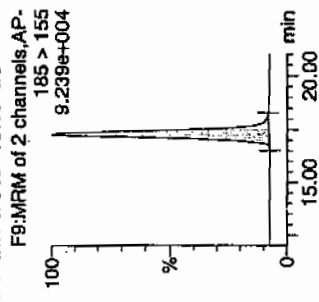
Amc 4/12/10

Dataset: C:\MASSLYNX\New\_Exp\PRO040810expA2.qld, Time: Sun Apr 11 11:45:05 2010

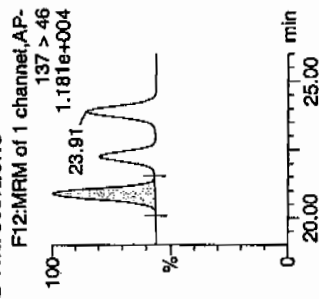
## 24-dinitrotoluene



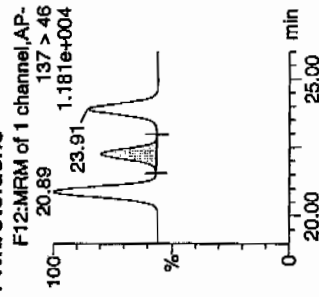
## 26-dinitrotoluene-d3



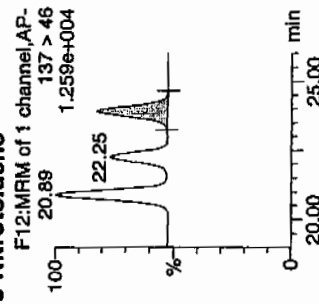
## 2-Nitrotoluene



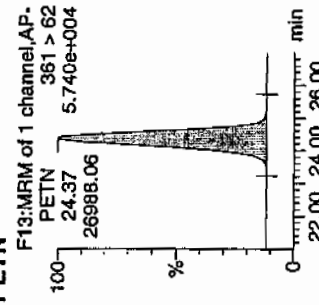
## 4-Nitrotoluene



## 3-Nitrotoluene

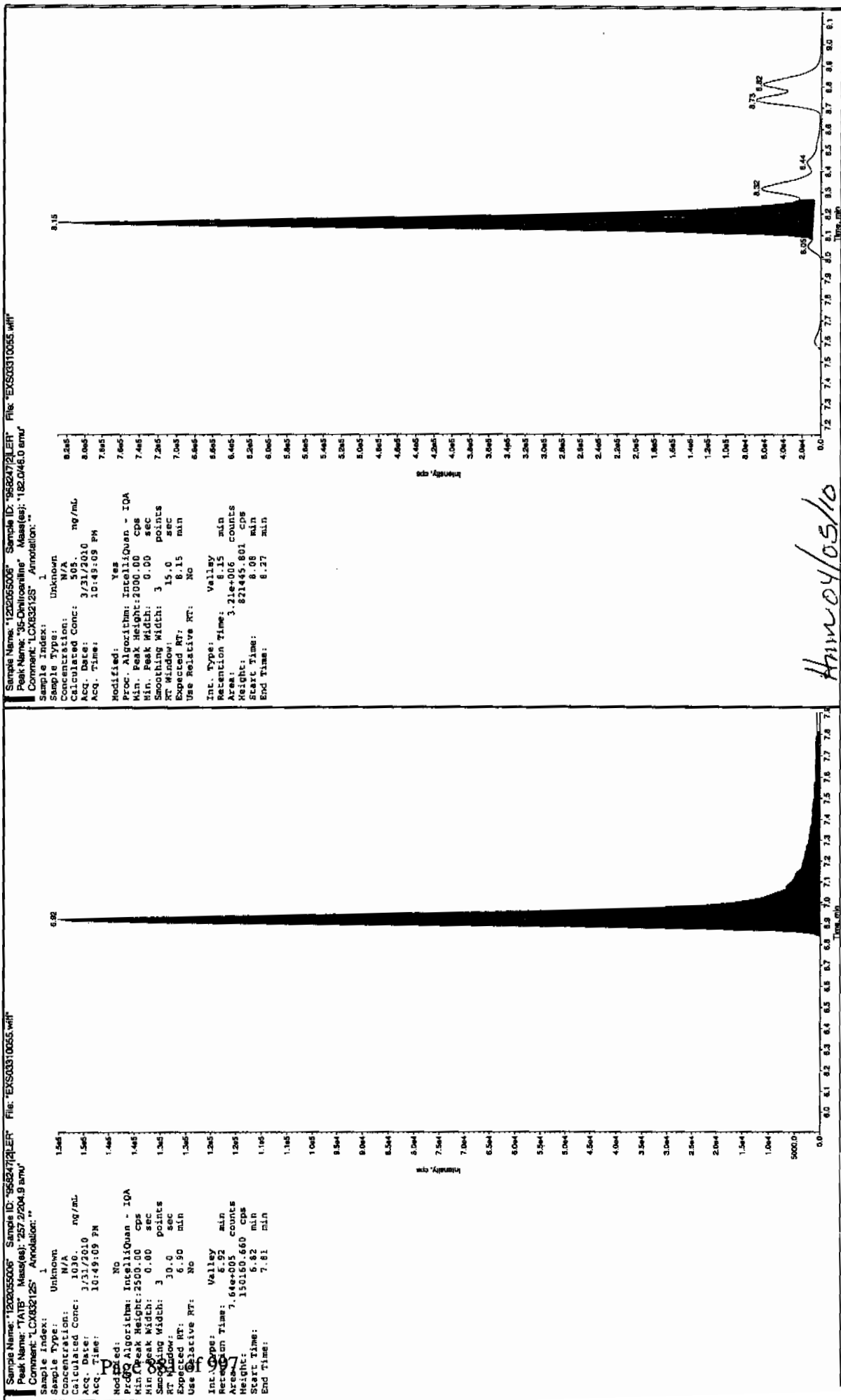


## PETN



ID	Name	Trace	RT	Area	SA Area	Abs Resp	Response	Flags	Mod Date	Mod Time	Int Name	Area	%Area	SN	
1202055006	HMX	176 > 102	5.23	20160.164	5987.363	20160.164	1683.560	db				527.0616	105.4	5.4	965.5
1202055006	ROX	176 > 102	7.58	15605.646	5987.363	15605.646	1303.215	bb				534.7917	107.0	7.0	636.9
1202055006	135-Trinitrobenzene	213 > 183	10.14	24299.012	5987.363	24299.012	2029.191	bb				480.4698	96.1	-3.9	2232.5
1202055006	13-Dinitrobenzene-d4	172 > 142	12.00	5987.363	5987.363	5987.363	5987.363	bb				460.7046	92.1	-7.9	563.6
1202055006	13-Dinitrobenzene	168 > 138	12.13	7326.109	5987.363	7326.109	611.798	bb				475.0456	95.0	-5.0	810.1
1202055006	Tetryl	241 > 181	12.61	3743.428	5987.363	3743.428	312.611	bb				303.6326	60.7	-39.3	459.5
1202055006	Nitrobenzene	123 > 46	13.53	3307.958	5987.363	3307.958	276.245	bb				459.6396	91.9	-8.1	285.5
1202055006	4-Amino-26-dinitrotoluene	197 > 167	15.51	11267.186	35078.289	11267.186	180.601	MM	11-Apr-10	11:36:42		515.9153	103.2	3.2	498.0
1202055006	2-Amino-46-dinitrotoluene	197 > 180	16.39	17477.846	35078.289	17477.846	249.126	bb				545.3372	109.1	9.1	677.3
1202055006	246-Trinitrotoluene	227 > 210	15.30	14991.603	35078.289	14991.603	213.688	bb				555.3309	111.1	11.1	771.4
1202055006	34-dinitrotoluene	182 > 152	14.33	19086.873	35078.289	19086.873	272.061	bb				265.2753	106.1	6.1	441.3
1202055006	26-dinitrotoluene	182 > 152	17.45	38713.906	35078.289	38713.906	551.821	MM	11-Apr-10	11:41:10		485.1857	97.0	-3.0	1028.1
1202055006	24-dinitrotoluene	182 > 152	18.11	9638.164	35078.289	9638.164	137.381	MM	11-Apr-10	11:42:14		518.9385	103.8	3.8	240.1
1202055006	26-dinitrotoluene-d3	185 > 155	17.30	35078.289	35078.289	35078.289	35078.289	bb				444.2698	88.9	-11.1	4931.5
1202055006	2-Nitrotoluene	137 > 46	20.89	2441.255	35078.289	2441.255	34.797	bb				453.3167	90.7	-9.3	455.8
1202055006	4-Nitrotoluene	137 > 46	22.26	1258.155	35078.289	1258.155	17.934	bb				461.4455	92.3	-7.7	244.3
1202055006	3-Nitrotoluene	137 > 46	23.92	1640.268	35078.289	1640.268	23.380	bb				428.2286	85.6	-14.4	225.3
1202055006	PETN	361 > 62	24.37	26988.061	35078.289	26988.061	384.683	bb				583.0469	116.6	16.6	7095.0

Scan 41810



Ann 04/05/10

Sample Name: "120205008" Sample ID: "95824721ER" File: "EXS0310085.wif"  
 Peak Name: "34-Dinitrofluorene" Mass(es): "182.17151.9 amu"  
 Comment: "LCX832125" Annotation: ""

Sample Index: 1

Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 554. ng/mL  
 Acq. Date: 3/31/2010  
 Acq. Time: 10:49:09 PM

Modified: No  
 Proc. Algorithm: IntelliQuan - IQA  
 Min. Peak Height: 450.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 RT Window: 30.0 sec  
 Expected RT: 4.95 min  
 Use Relative RT: No

Int. Type: Valley  
 Retention Time: 4.96 min  
 Area: 1.20e+006 counts  
 Height: 276075.226 cps  
 Start Time: 4.81 min  
 End Time: 5.27 min

8.73

8.31

9.14

Sample Name: "120205008" Sample ID: "95824721ER" File: "EXS0310085.wif"  
 Peak Name: "34-Dinitrofluorene" Mass(es): "182.17151.9 amu"  
 Comment: "LCX832125" Annotation: ""

Sample Index: 1

Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 260. ng/mL  
 Acq. Date: 3/31/2010  
 Acq. Time: 10:49:09 PM

Modified: No  
 Proc. Algorithm: IntelliQuan - IQA  
 Min. Peak Height: 1450.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 RT Window: 15.0 sec  
 Expected RT: 8.31 min  
 Use Relative RT: No

Int. Type: Valley  
 Retention Time: 8.31 min  
 Area: 2.11e+006 counts  
 Height: 55810.669 cps  
 Start Time: 8.24 min  
 End Time: 8.56 min

7.63

7.45

7.26

7.05

6.85

6.65

6.45

6.25

6.05

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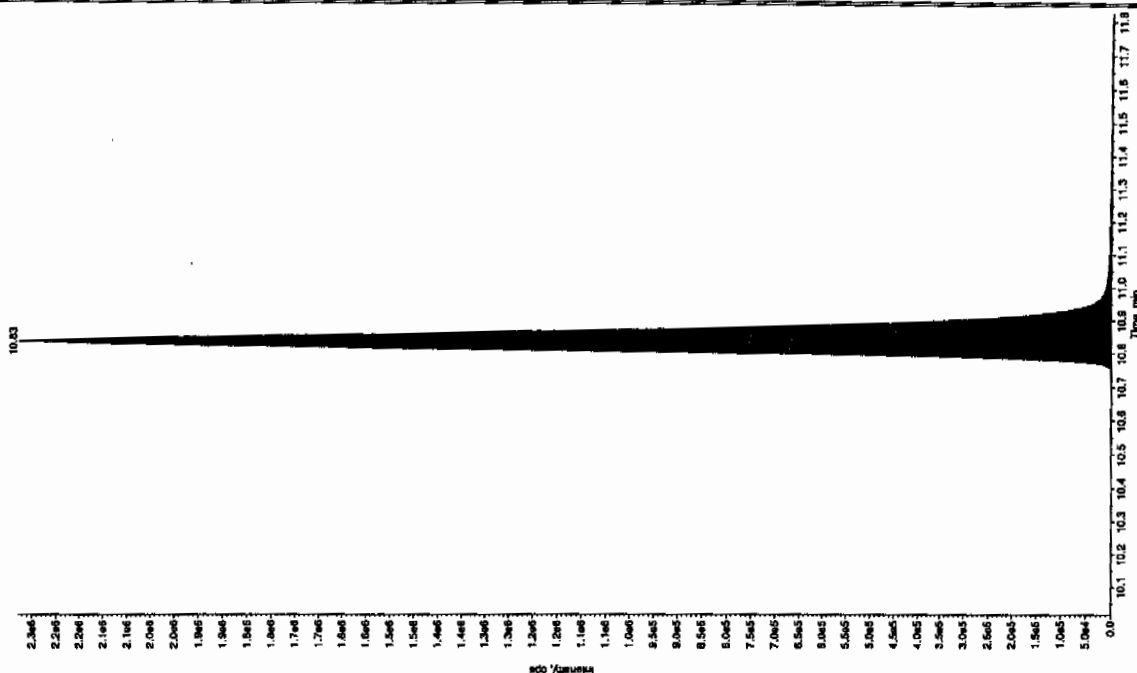
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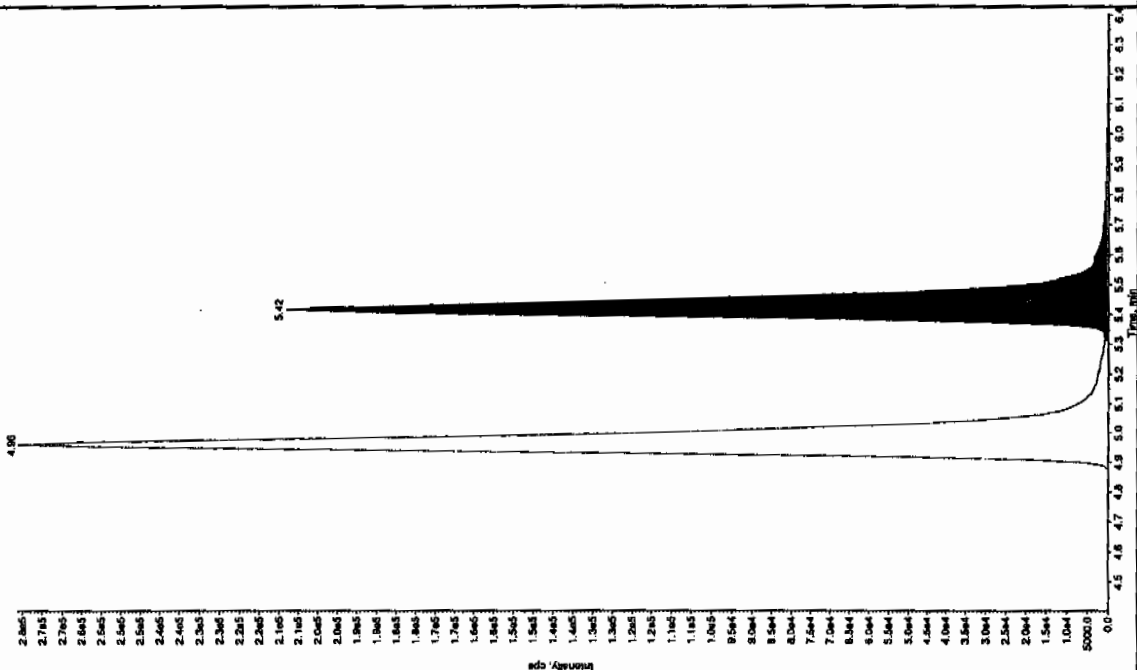
Sample Name: "120205005" Sample ID: "95824721ER" File: "EX50310055.wif"  
 Peak Name: "tris(o-cresyl) phosphates" Mass(es): "368.191.0 amu"  
 Comment: "LCX83212S" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 508. ng/mL  
 Acq. Date: 3/31/2010  
 Acq. Time: 10:49:09 PM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - ION  
 Min. Peak Height: 8000.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 RT Window: 30.0 sec  
 Expected RT: 10.8 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 10.8 min  
 Area: 9.46e+006 counts  
 Height: 2276540.039 cps  
 Start Time: 10.7 min  
 End Time: 11.2 min



Sample Name: "120205005" Sample ID: "95824721ER" File: "EX50310055.wif"  
 Peak Name: "24-Diamino-5-nitrotoluene" Mass(es): "166.046.0 amu"  
 Comment: "LCX83212S" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 490. ng/mL  
 Acq. Date: 3/31/2010  
 Acq. Time: 10:49:09 PM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - ION  
 Min. Peak Height: 350.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 RT Window: 30.0 sec  
 Expected RT: 5.41 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 5.42 min  
 Area: 9.29e+005 counts  
 Height: 208117.691 cps  
 Start Time: 5.31 min  
 End Time: 5.81 min





GEL Laboratories LLC  
Form GEL-DER

DER Report No.: 816015

Revision No.: 2

### DATA EXCEPTION REPORT

<b>Mo. Day Yr.</b> 11-APR-10	<b>Division:</b> Industrial	<b>Quality Criteria:</b> Specifications	<b>Type:</b> Process
<b>Instrument Type:</b> LC-MS/MS	<b>Test / Method:</b> SW846 8321A Modified	<b>Matrix Type:</b> Solid	<b>Client Code:</b> LANL
<b>Batch ID:</b> 958247	<b>Sample Numbers:</b> See Below		
<b>Potentially affected work order(s)(SDG):</b> 248004(10-2024),248012(10-2027),248013(10-2034) <b>Application Issues:</b> Failed Recovery for LCS/LCSD Failed RPD for MS/MSD, or PS/PSD			
<b>Specification and Requirements Exception Description:</b>		<b>DER Disposition:</b>	
1. The LCS (1202055004) did not meet spike recovery limits for Tetryl at 42.8%. The recovery limits are 51-112%.  2. The MS/MSD pair (1202055005/6) did not meet RPD acceptance limits for Tetryl at 33.9%. The acceptance limits are 0-30%.		1. While Tetryl did not meet in-house recovery limits, it did meet the DOD marginal exceedance limits of 41-122%. Since both the MS and MSD met acceptance limits for Tetryl, the data are reported with the appropriate DER. The discrepancy is noted in the case narrative.  2. Since all other RPD recoveries met acceptance criteria, the noted exception is attributed to vagaries in the extraction process. The data are reported with the appropriate DER. The discrepancy is noted in the case narrative.	

**Originator's Name:**

Michael Penny 11-APR-10

**Data Validator/Group Leader:**

Herbert Maier 12-APR-10

GC  
SEMIVOLATILE  
PCB  
ANALYSIS

**PCB Case Narrative**  
**Los Alamos National Laboratory (LANL)**  
**SDG 10-2027**

**Method/Analysis Information**

**Procedure:** Analysis of Polychlorinated Biphenyls by ECD  
**Analytical Method:** SW846 8082  
**Prep Method:** SW846 3550B  
**Analytical Batch Number:** 959468  
  
**Prep Batch Number:** 959464

**Sample Analysis**

The following samples were analyzed using the analytical protocol as established in SW846 8082:

<b>Sample ID</b>	<b>Client ID</b>
248012002	RE36-10-8490
1202057855	Method Blank (MB)
1202057856	Laboratory Control Sample (LCS)
1202057857	248130002(WST16-10-13288) Matrix Spike (MS)
1202057858	248130002(WST16-10-13288) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on a "dry weight" basis.

**Preparation/Analytical Method Verification**

**SOP Reference**

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-040 REV# 15.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 23.0.

**Calibration Information**

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the Target processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the Target software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

Due to software limitations, the Calibration Summary Form 6 may not indicate all the calibration files comprising the initial calibration. A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package.

**Initial Calibration**

All initial calibration requirements have been met for this sample delivery group (SDG).

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

**Continuing Calibration Verification (CCV) Requirements**

All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

### **Quality Control (QC) Information**

#### **Method Blank (MB) Statement**

The MB analyzed with this SDG met the acceptance criteria.

#### **Surrogate Recoveries**

All 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**

A LANL sample of similar matrix associated with another SDG (#10-2097) was selected for the matrix spike and matrix spike duplicate analysis. A Form III and QC raw data are included in the package summarizing the results.

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

The MS recoveries were within the established acceptance limits.

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

The MSD recoveries were within the established acceptance limits.

#### **MS/MSD Relative Percent Difference (RPD) Statement**

The RPD between the MS and MSD met the acceptance limits.

### **Technical Information**

#### **Holding Time Specifications**

GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

#### **Preparation/Analytical Method Verification**

All procedures were performed as stated in the SOP. All sample extracts were cleaned using alumina. Additionally, copper was added to all sample extracts to remove sulfur.

#### **Sample Dilutions**

The samples in this SDG did not require dilutions.

#### **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

SDG 10-2027-PCB

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 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>
ECD8A.I_1	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP I	30m x 0.25mm, 0.25um (Rtx-CLPesticide I)
ECD8A.I_2	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP II	30m x 0.25mm, 0.20um (Rtx-CLPesticide II)

#### **Certification Statement**

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

**Review Validation**

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Jimmi Cao

Date: 3/23/10

## Roadmap for LANL 10-2027 PCB

This roadmap was analyzed by jen01212 on 03-08-2010, 10:00.

This roadmap was reviewed by jim01140 on 03-09-2010, 08:15.

This roadmap was packaged by yml on 03-22-2010, 13:14.

This roadmap was validated by jim01140 on 03-23-2010, 10:15.

Front Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prebatchid	comment
<input type="checkbox"/>	N	/chem/ecd8a.i/030210.b/027f2701.d	248012002	sample	02-MAR-2010	13:39	10-2027.sub	RE36-10-8490	1.00000	959468	UPLOAD BOTH, USE HIGHER

Back Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prebatchid	comment
<input type="checkbox"/>	N	/chem/ecd8a.i/030210.b/027b2701.d	248012002	sample	02-MAR-2010	13:39	10-2027.sub	RE36-10-8490	1.00000	959468	UPLOAD BOTH, USE HIGHER

Front QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prebatchid	comment
<input type="checkbox"/>	N	/chem/ecd8a.i/030210.b/012f1201-3.d	1202057855	mb	02-MAR-2010	10:29	10-2027.sub	PBLK01	1.00000	959468	<input type="text"/>
<input type="checkbox"/>	N	/chem/ecd8a.i/030210.b/013f1301-3.d	1202057856	lcs	02-MAR-2010	10:41	10-2027.sub	PBLK01LCS	1.00000	959468	<input type="text"/>

Back QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prebatchid	comment
<input type="checkbox"/>	N	/chem/ecd8a.i/030210.b/012b1201-3.d	1202057855	mb	02-MAR-2010	10:29	10-2027.sub	PBLK01	1.00000	959468	<input type="text"/>
<input type="checkbox"/>	N	/chem/ecd8a.i/030210.b/013b1301-3.d	1202057856	lcs	02-MAR-2010	10:41	10-2027.sub	PBLK01LCS	1.00000	959468	<input type="text"/>

# SAMPLE DATA SUMMARY



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

SDG Number: 10-2027  
Lab Sample ID: 248012002

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8082  
Inst: ECD8A.I  
Analyst: JAOC  
Aliquot: 30.05 g  
Column: 1 CLP1  
2 CLP2

Matrix: R  
% Moisture: 5.1  
Project: LANL01004  
SOP Ref: GL-OA-E-040  
Dilution: 1  
Inj. Vol: 1 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.51	ug/kg	1.17	3.51	1
11104-28-2	Aroclor-1221	U	3.51	ug/kg	1.17	3.51	1
11141-16-5	Aroclor-1232	U	3.51	ug/kg	1.17	3.51	1
53469-21-9	Aroclor-1242	U	3.51	ug/kg	1.17	3.51	1
12672-29-6	Aroclor-1248	U	3.51	ug/kg	1.17	3.51	1
11097-69-1	Aroclor-1254	U	3.51	ug/kg	1.17	3.51	1
11096-82-5	Aroclor-1260	U	3.51	ug/kg	1.17	3.51	1

# QUALITY CONTROL SUMMARY

**PCB**  
**Surrogate Recovery Report**

Page 1 of 1

**SDG Number: 10-2027****Matrix Type: SOLID****CAP Column (1) : CLP1****CAP Column (2) : CLP2**

Sample ID	Client ID	4CMX 1	4CMX 2	DCB 1	DCB 2
		%REC #	%REC #	%REC #	%REC #
1202057855	MB for batch 959464	86	92	54	93
1202057856	LCS for batch 959464	86	91	43	94
248012002	RE36-10-8490	83	87	83	89

**Surrogate****Acceptance Limits**

4CMX = 4cmx

(32%-120%)

DCB = Decachlorobiphenyl

(30%-116%)

\* Recovery outside Acceptance Limits

# Column to be used to flag recovery values

D Sample Diluted

PCB

Page 1 of 1

**Quality Control Summary  
Spike Recovery Report**

SDG Number: 10-2027

Sample Type: Laboratory Control Sample

Client ID: LCS for batch 959464

Matrix: SOIL

Lab Sample ID:1202057856

Instrument: ECD8A.I

Analysis Date: 03/02/2010 10:41

Dilution: 1

Analyst: JAOC

Prep Batch ID: 959464

Inj. Vol: 1 uL

Batch ID: 959468

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	29.0	87	39-102
11096-82-5	LCS Aroclor-1260	33.3	0.0	32.8	98	45-118

PCB

Page 1 of 2

Quality Control Summary  
Spike Recovery Report

SDG Number: 10-2097

Sample Type: Matrix Spike

Client ID: WST16-10-13288MS

Matrix: R

Lab Sample ID:1202057857

%Moisture: 9.8

Instrument: ECD8A.I

Analysis Date: 03/02/2010 15:51

Dilution: 1

Analyst: JAOC

Prep Batch ID: 959464

Inj. Vol: 1 uL

Batch ID: 959468

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
12674-11-2	MS Aroclor-1016	36.8	0.00 U	31.5	86	23-119
11096-82-5	MS Aroclor-1260	36.8	0.00 U	34.5	94	28-124

PCB

Page 2 of 2

Quality Control Summary  
Spike Recovery Report

SDG Number: 10-2097

Sample Type: Matrix Spike Duplicate

Client ID: WST16-10-13288MSD

Matrix: R

Lab Sample ID: 1202057858

%Moisture: 9.8

Instrument: ECD8A.I

Analysis Date: 03/02/2010 16:04

Dilution: 1

Analyst: JAOC

Prep Batch ID: 959464

Inj. Vol: 1 uL

Batch ID: 959468

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits	Acceptance RPD %	Acceptance Limits
12674-11-2	MSD Aroclor-1016	36.8	0.00 U	30.2	82	23-119	4	0-28
11096-82-5	MSD Aroclor-1260	36.8	0.00 U	34.5	94	28-124	0	0-30

## Method Blank Summary

Page 1 of 1

SDG Number:	10-2027	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 959464	Instrument ID:	ECD8A.I_2	Data File:	012b1201-1.d
Lab Sample ID:	1202057855		ECD8A.I_1		012f1201-1.d
Column:	CLP2	Prep Date:	03/01/2010 23:33	Analyzed:	03/02/10 10:29
	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 959464	1202057856	013f1301-1.d 013b1301-1.d	03/02/10	1041
02 RE36-10-8490	248012002	027f2701.d 027b2701.d	03/02/10	1339

# SAMPLE DATA



## PCB

Page 1 of 1

Certificate of Analysis  
Sample Summary

SDG Number: 10-2027

Lab Sample ID: 248012002

Client ID: RE36-10-8490

Batch ID: 959468

Run Date: 03/02/2010 13:39

Prep Date: 03/01/2010 23:33

Data File: 027f2701.d

027b2701.d

Date Collected: 02/20/2010 12:00

Date Received: 02/25/2010 08:45

Client: LANL010

Method: SW846 8082

Inst: ECD8A.I

Analyst: JAOC

Aliquot: 30.05 g

Column: 1 CLP1

2 CLP2

Matrix: R

% Moisture: 5.1

Project: LANL01004

SOP Ref: GL-OA-E-040

Dilution: 1

Inj. Vol: 1 uL

Final Volume: 1 mL

Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.51	ug/kg	1.17	3.51	1
11104-28-2	Aroclor-1221	U	3.51	ug/kg	1.17	3.51	1
11141-16-5	Aroclor-1232	U	3.51	ug/kg	1.17	3.51	1
53469-21-9	Aroclor-1242	U	3.51	ug/kg	1.17	3.51	1
12672-29-6	Aroclor-1248	U	3.51	ug/kg	1.17	3.51	1
11097-69-1	Aroclor-1254	U	3.51	ug/kg	1.17	3.51	1
11096-82-5	Aroclor-1260	U	3.51	ug/kg	1.17	3.51	1

Data File: /chem/ecd8a.i/030210.b/027f2701.d  
Report Date: 03-Mar-2010 11:27

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GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/030210.b/027f2701.d  
Lab Smp Id: 248012002 Client Smp ID: RE36-10-8490  
Inj Date : 02-MAR-2010 13:39  
Operator : JAOC Inst ID: ecd8a.i  
Smp Info : |248012002|1|  
Misc Info : |ECD82P\_1S|959468|SVA|LANL|SOIL|RE36-10-8490|||  
Comment :  
Method : /chem/ecd8a.i/030210.b/ECD8-F-8082-020310a.m  
Meth Date : 03-Mar-2010 08:07 jen01212 Quant Type: ESTD  
Cal Date : 23-FEB-2010 11:32 Cal File: 017f1701.d  
Als bottle: 27  
Dil Factor: 1.00000  
Integrator: Falcon Compound Sublist: 10-2027.sub  
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt \* DF \* Uf \* Vt / (Vi \* Ws \* (100 - M) / 100) \* CpndVariable

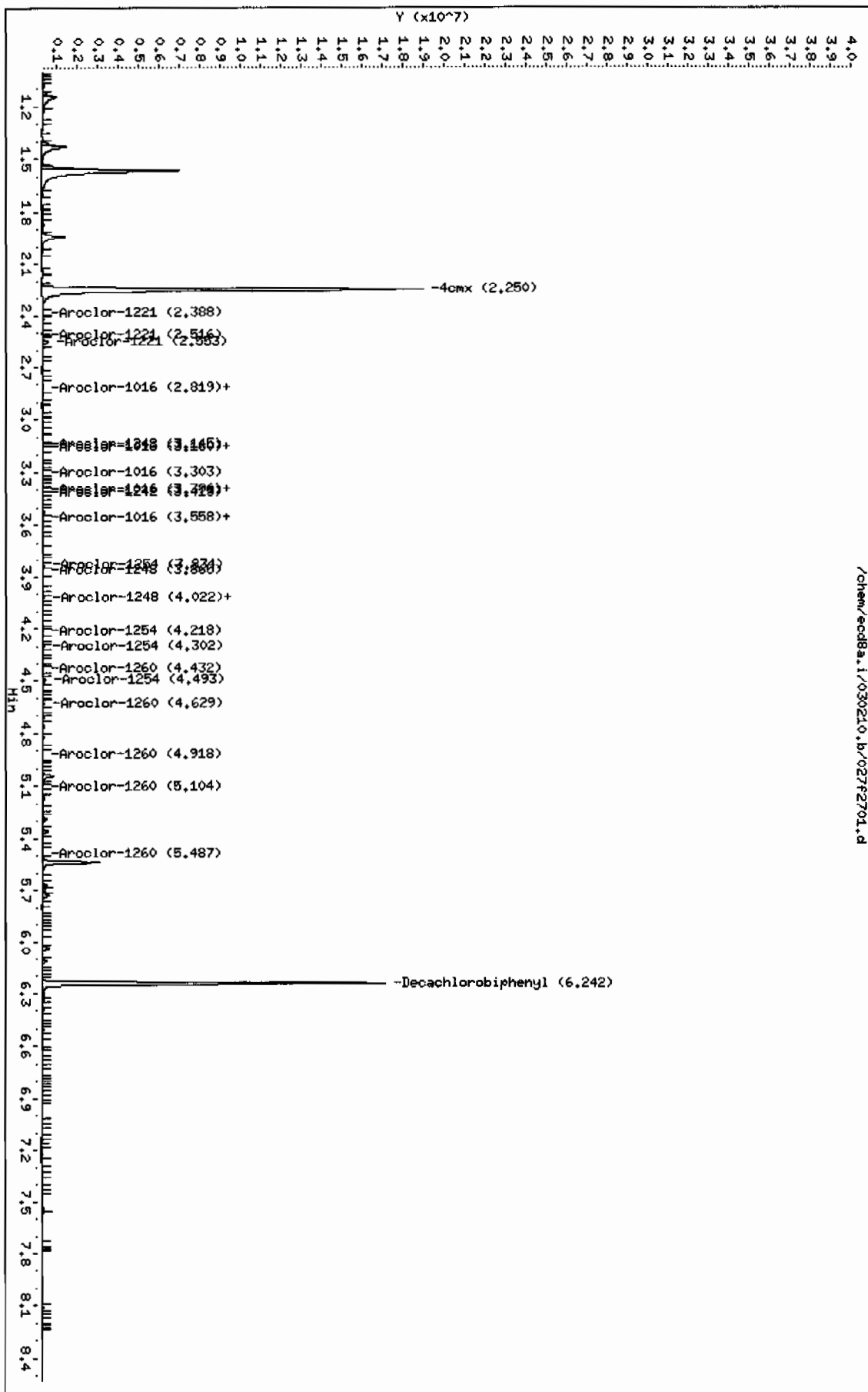
Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.05000	Weight of sample extracted (g)
M	5.14730	% Moisture

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						
2.250	2.251	-0.001	20926213	166.069	5.8 80.00- 120.00	100.00
-----						
\$ 12 Decachlorobiphenyl CAS #: 2051-24-3						
6.242	6.243	-0.001	14941828	165.436	5.8 80.00- 120.00	100.00
-----						

Data File: /chem/ecob8a.i/030210.b/0272701.d  
 Date: 02-MAR-2010 13:39  
 Client ID: RE36-10-8490  
 Sample Info: 1248012002111  
 Volume Injected (uL): 1.0  
 Column phase: CLP1

Instrument: ecob8a.i  
 Operator: JROC  
 Column diameter: 0.25



Data File: /chem/ecd8a.i/030210.b/027b2701.d  
 Report Date: 02-Mar-2010 16:02

Page 1

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/030210.b/027b2701.d  
 Lab Smp Id: 248012002 Client Smp ID: RE36-10-8490  
 Inj Date : 02-MAR-2010 13:39  
 Operator : JAOC Inst ID: ecd8a.i  
 Smp Info : |248012002|1|  
 Misc Info : |ECD82P\_1S|959468|SVA|LANL|SOIL|RE36-10-8490|||  
 Comment :  
 Method : /chem/ecd8a.i/030210.b/ECD8-B-8082-020310a.m  
 Meth Date : 02-Mar-2010 15:24 jen01212 Quant Type: ESTD  
 Cal Date : 23-FEB-2010 11:32 Cal File: 017b1701.d  
 Als bottle: 27  
 Dil Factor: 1.00000  
 Integrator: Falcon Compound Sublist: 10-2027.sub  
 Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt \* DF \* Uf \* Vt/(Vi \* Ws \* (100 - M)/100) \* CpndVariable

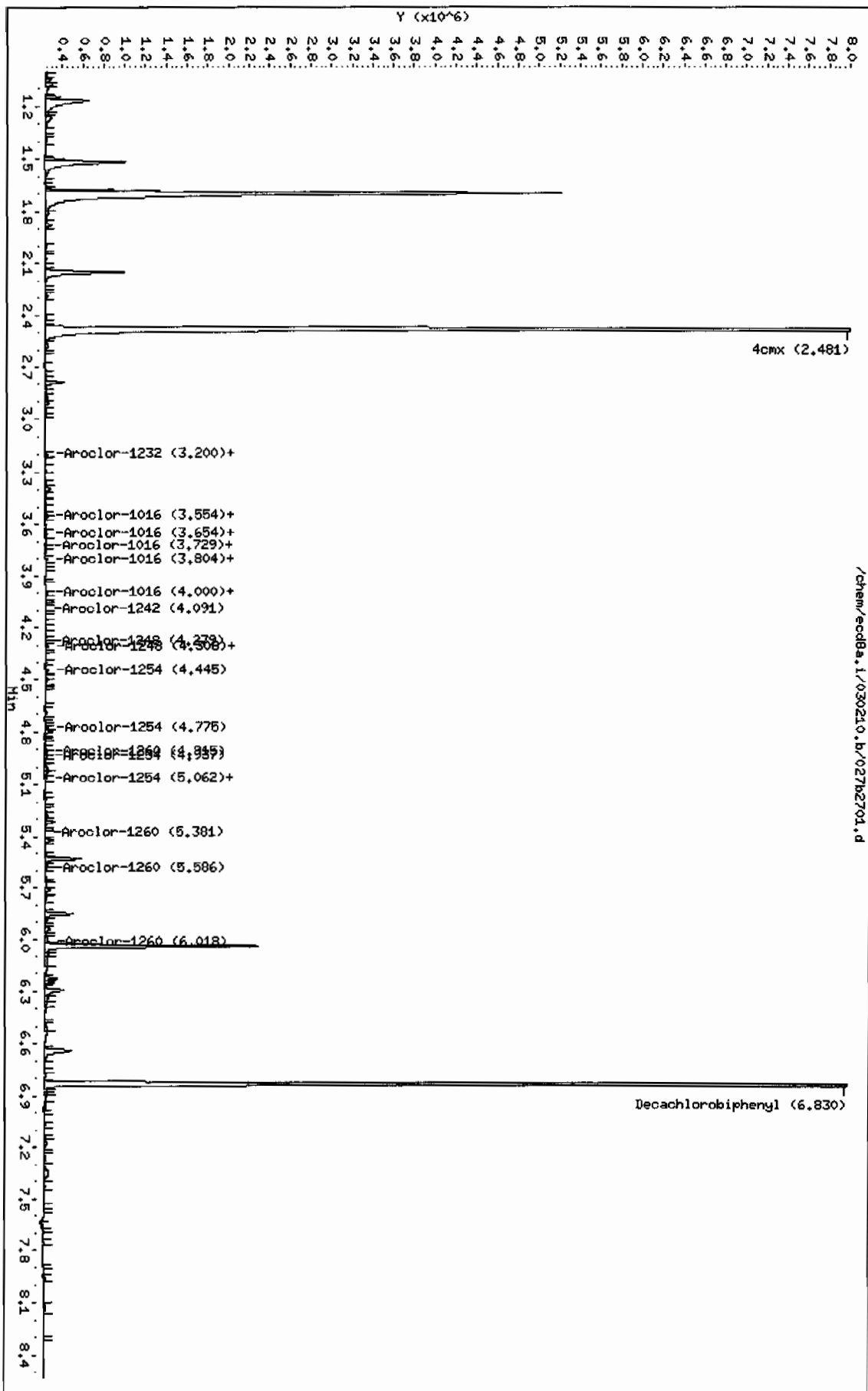
Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.05000	Weight of sample extracted (g)
M	5.14730	% Moisture

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	
2.481	2.482	-0.001	14425419 174.907	6.1	80.00- 120.00	100.00
-----						
\$ 12 Decachlorobiphenyl					CAS #: 2051-24-3	
6.830	6.832	-0.002	10970302 177.981	6.2	80.00- 120.00	100.00
-----						

Data File: /chem/ecod8a.i/030210.b/027b2701.d  
 Date : 02-MAR-2010 13:39  
 Client ID: RE36-10-8490  
 Sample Info: 1248012002141  
 Volume Injected (uL): 1.0  
 Column phase: CLP2

Instrument: ecod8a.i  
 Operator: JHOC  
 Column diameter: 0.25



# STANDARDS DATA

Report Date: 03-Mar-2010 11:00

### Calibration History

Method : /chem/ecd8a.i/030210.b/ECD8-F-8082-020310a.m  
Start Cal Date: 03-FEB-2010 10:24  
End Cal Date : 23-FEB-2010 11:32

#### Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 100.00000		
23-FEB-2010 10:43	AR1221	/chem/ecd8a.i/022310.b/013f1301.d
03-FEB-2010 15:46	AR1262	/chem/ecd8a.i/020310a.b/028f2801.d
03-FEB-2010 14:07	AR1248	/chem/ecd8a.i/020310a.b/020f2001.d
03-FEB-2010 12:53	AR1242	/chem/ecd8a.i/020310a.b/014f1401.d
03-FEB-2010 11:39	AR1254	/chem/ecd8a.i/020310a.b/008f0801.d
23-FEB-2010 09:28	AR1660	/chem/ecd8a.i/022310.b/007f0701.d

Cal Level: 2 , Cal Amount: 250.00000		
23-FEB-2010 10:55	AR1221	/chem/ecd8a.i/022310.b/014f1401.d
03-FEB-2010 15:58	AR1262	/chem/ecd8a.i/020310a.b/029f2901.d
03-FEB-2010 14:19	AR1248	/chem/ecd8a.i/020310a.b/021f2101.d
03-FEB-2010 13:05	AR1242	/chem/ecd8a.i/020310a.b/015f1501.d
03-FEB-2010 11:51	AR1254	/chem/ecd8a.i/020310a.b/009f0901.d
23-FEB-2010 09:41	AR1660	/chem/ecd8a.i/022310.b/008f0801.d

Cal Level: 3 , Cal Amount: 500.00000		
23-FEB-2010 11:07	AR1221	/chem/ecd8a.i/022310.b/015f1501.d
03-FEB-2010 16:11	AR1262	/chem/ecd8a.i/020310a.b/030f3001.d
03-FEB-2010 14:32	AR1248	/chem/ecd8a.i/020310a.b/022f2201.d
03-FEB-2010 13:18	AR1242	/chem/ecd8a.i/020310a.b/016f1601.d
03-FEB-2010 12:03	AR1254	/chem/ecd8a.i/020310a.b/010f1001.d
23-FEB-2010 09:53	AR1660	/chem/ecd8a.i/022310.b/009f0901.d

Cal Level: 4 , Cal Amount: 1000.00000		
03-FEB-2010 17:25	DDT	/chem/ecd8a.i/020310a.b/036f3601.d
03-FEB-2010 17:00	AR1268	/chem/ecd8a.i/020310a.b/034f3401.d
03-FEB-2010 16:23	AR1262	/chem/ecd8a.i/020310a.b/031f3101.d
23-FEB-2010 11:20	AR1221	/chem/ecd8a.i/022310.b/016f1601.d
03-FEB-2010 15:21	AR1232	/chem/ecd8a.i/020310a.b/026f2601.d
03-FEB-2010 14:44	AR1248	/chem/ecd8a.i/020310a.b/023f2301.d
03-FEB-2010 13:30	AR1242	/chem/ecd8a.i/020310a.b/017f1701.d
03-FEB-2010 12:16	AR1254	/chem/ecd8a.i/020310a.b/011f1101.d
23-FEB-2010 10:05	AR1660	/chem/ecd8a.i/022310.b/010f1001.d

Cal Level: 5 , Cal Amount: 4000.00000		
23-FEB-2010 11:32	AR1221	/chem/ecd8a.i/022310.b/017f1701.d
03-FEB-2010 16:36	AR1262	/chem/ecd8a.i/020310a.b/032f3201.d
03-FEB-2010 14:57	AR1248	/chem/ecd8a.i/020310a.b/024f2401.d

03-FEB-2010 13:42	AR1242	/chem/ecd8a.i/020310a.b/018f1801.d
03-FEB-2010 12:28	AR1254	/chem/ecd8a.i/020310a.b/012f1201.d
23-FEB-2010 10:18	AR1660	/chem/ecd8a.i/022310.b/011f1101.d

# Continuing Calibration

Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 1000		
02-MAR-2010 16:57	AR1660	/chem/ecd8a.i/030210.b/042f4201.d
Ccal Level: 4 , Ccal Amount: 1000		
02-MAR-2010 15:14	AR1660	/chem/ecd8a.i/030210.b/034f3401.d
Ccal Level: 4 , Ccal Amount: 1000		
02-MAR-2010 12:37	AR1660	/chem/ecd8a.i/030210.b/022f2201.d
Ccal Level: 4 , Ccal Amount: 1000		
02-MAR-2010 09:52	AR1268	/chem/ecd8a.i/030210.b/009f0901.d
Ccal Level: 4 , Ccal Amount: 1000		
02-MAR-2010 09:39	AR1262	/chem/ecd8a.i/030210.b/008f0801.d
Ccal Level: 4 , Ccal Amount: 1000		
02-MAR-2010 09:27	AR1221	/chem/ecd8a.i/030210.b/007f0701.d
Ccal Level: 4 , Ccal Amount: 1000		
02-MAR-2010 09:15	AR1232	/chem/ecd8a.i/030210.b/006f0601.d
Ccal Level: 4 , Ccal Amount: 1000		
02-MAR-2010 09:02	AR1248	/chem/ecd8a.i/030210.b/005f0501.d
Ccal Level: 4 , Ccal Amount: 1000		
02-MAR-2010 08:50	AR1242	/chem/ecd8a.i/030210.b/004f0401.d
Ccal Level: 4 , Ccal Amount: 1000		
02-MAR-2010 08:37	AR1254	/chem/ecd8a.i/030210.b/003f0301.d
Ccal Level: 4 , Ccal Amount: 1000		
02-MAR-2010 08:25	AR1660	/chem/ecd8a.i/030210.b/002f0201.d



Report Date: 03-Mar-2010 10:59

### Calibration History

Method : /chem/ecd8a.i/030210.b/ECD8-B-8082-020310a.m  
Start Cal Date: 03-FEB-2010 10:24  
End Cal Date : 23-FEB-2010 11:32

#### Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 100.00000		
23-FEB-2010 10:43	AR1221	/chem/ecd8a.i/022310.b/013b1301.d
03-FEB-2010 15:46	AR1262	/chem/ecd8a.i/020310a.b/028b2801.d
03-FEB-2010 14:07	AR1248	/chem/ecd8a.i/020310a.b/020b2001.d
03-FEB-2010 12:53	AR1242	/chem/ecd8a.i/020310a.b/014b1401.d
03-FEB-2010 11:39	AR1254	/chem/ecd8a.i/020310a.b/008b0801.d
23-FEB-2010 09:28	AR1660	/chem/ecd8a.i/022310.b/007b0701.d

Cal Level: 2 , Cal Amount: 250.00000		
23-FEB-2010 10:55	AR1221	/chem/ecd8a.i/022310.b/014b1401.d
03-FEB-2010 15:58	AR1262	/chem/ecd8a.i/020310a.b/029b2901.d
03-FEB-2010 14:19	AR1248	/chem/ecd8a.i/020310a.b/021b2101.d
03-FEB-2010 13:05	AR1242	/chem/ecd8a.i/020310a.b/015b1501.d
03-FEB-2010 11:51	AR1254	/chem/ecd8a.i/020310a.b/009b0901.d
23-FEB-2010 09:41	AR1660	/chem/ecd8a.i/022310.b/008b0801.d

Cal Level: 3 , Cal Amount: 500.00000		
23-FEB-2010 11:07	AR1221	/chem/ecd8a.i/022310.b/015b1501.d
03-FEB-2010 16:11	AR1262	/chem/ecd8a.i/020310a.b/030b3001.d
03-FEB-2010 14:32	AR1248	/chem/ecd8a.i/020310a.b/022b2201.d
03-FEB-2010 13:18	AR1242	/chem/ecd8a.i/020310a.b/016b1601.d
03-FEB-2010 12:03	AR1254	/chem/ecd8a.i/020310a.b/010b1001.d
23-FEB-2010 09:53	AR1660	/chem/ecd8a.i/022310.b/009b0901.d

Cal Level: 4 , Cal Amount: 1000.00000		
03-FEB-2010 17:25	DDT	/chem/ecd8a.i/020310a.b/036b3601.d
03-FEB-2010 17:00	AR1268	/chem/ecd8a.i/020310a.b/034b3401.d
03-FEB-2010 16:23	AR1262	/chem/ecd8a.i/020310a.b/031b3101.d
23-FEB-2010 11:20	AR1221	/chem/ecd8a.i/022310.b/016b1601.d
03-FEB-2010 15:21	AR1232	/chem/ecd8a.i/020310a.b/026b2601.d
03-FEB-2010 14:44	AR1248	/chem/ecd8a.i/020310a.b/023b2301.d
03-FEB-2010 13:30	AR1242	/chem/ecd8a.i/020310a.b/017b1701.d
03-FEB-2010 12:16	AR1254	/chem/ecd8a.i/020310a.b/011b1101.d
23-FEB-2010 10:05	AR1660	/chem/ecd8a.i/022310.b/010b1001.d

Cal Level: 5 , Cal Amount: 4000.00000		
23-FEB-2010 11:32	AR1221	/chem/ecd8a.i/022310.b/017b1701.d
03-FEB-2010 16:36	AR1262	/chem/ecd8a.i/020310a.b/032b3201.d
03-FEB-2010 14:57	AR1248	/chem/ecd8a.i/020310a.b/024b2401.d
03-FEB-2010 13:42	AR1242	/chem/ecd8a.i/020310a.b/018b1801.d
03-FEB-2010 12:28	AR1254	/chem/ecd8a.i/020310a.b/012b1201.d
23-FEB-2010 10:18	AR1660	/chem/ecd8a.i/022310.b/011b1101.d

Continuing Calibration  
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 1000		
02-MAR-2010 16:57	AR1660	/chem/ecd8a.i/030210.b/042b4201.d
Ccal Level: 4 , Ccal Amount: 1000		
02-MAR-2010 15:14	AR1660	/chem/ecd8a.i/030210.b/034b3401.d
Ccal Level: 4 , Ccal Amount: 1000		
02-MAR-2010 12:37	AR1660	/chem/ecd8a.i/030210.b/022b2201.d
Ccal Level: 4 , Ccal Amount: 1000		
02-MAR-2010 09:52	AR1268	/chem/ecd8a.i/030210.b/009b0901.d
Ccal Level: 4 , Ccal Amount: 1000		
02-MAR-2010 09:39	AR1262	/chem/ecd8a.i/030210.b/008b0801.d
Ccal Level: 4 , Ccal Amount: 1000		
02-MAR-2010 09:27	AR1221	/chem/ecd8a.i/030210.b/007b0701.d
Ccal Level: 4 , Ccal Amount: 1000		
02-MAR-2010 08:50	AR1242	/chem/ecd8a.i/030210.b/004b0401.d
Ccal Level: 4 , Ccal Amount: 1000		
02-MAR-2010 09:15	AR1232	/chem/ecd8a.i/030210.b/006b0601.d
Ccal Level: 4 , Ccal Amount: 1000		
02-MAR-2010 09:02	AR1248	/chem/ecd8a.i/030210.b/005b0501.d
Ccal Level: 4 , Ccal Amount: 1000		
02-MAR-2010 08:37	AR1254	/chem/ecd8a.i/030210.b/003b0301.d
Ccal Level: 4 , Ccal Amount: 1000		
02-MAR-2010 08:25	AR1660	/chem/ecd8a.i/030210.b/002b0201.d

## GEL Laboratories LLC

## COMPOUND LISTING

Method file : /chem/ecd8a.i/030210.b/ECD8-F-8082-020310a.m  
 Quant Method : ESTD Target Version : 3.50  
 Last Update : 03-Mar-2010 08:07 Number of Cpnds : 15  
 Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events Values

-----  
 Initial:Start Threshold 758.000000  
 Initial:End Threshold 379.000000  
 Initial:Area Threshold 734.000000  
 Initial:P-P Resolution 1.000000  
 Initial:Bunch Factor 2.000000  
 Initial:Negative Peaks OFF  
 Initial:Tension 1.500000  
 6.500:Bunch Factor 2.000000

Compound	RT	RT Window	RF
1 Aroclor-1016	2.808	2.778-2.838	4.551e+03
	3.161	3.131-3.191	5.610e+03
	3.304	3.274-3.334	2.392e+03
	3.397	3.367-3.427	2.141e+03
	3.559	3.529-3.589	3.099e+03
2 Aroclor-1221	2.391	2.361-2.421	1.568e+03
	2.506	2.476-2.536	9.154e+02
	2.538	2.508-2.568	3.573e+03
3 Aroclor-1232	2.538	2.508-2.568	2.601e+03
	2.810	2.780-2.840	2.261e+03
	3.305	3.275-3.335	1.243e+03
	3.559	3.529-3.589	1.479e+03
4 Aroclor-1242	3.621	3.591-3.651	9.227e+02
	2.809	2.779-2.839	3.974e+03
	3.160	3.130-3.190	4.796e+03
	3.396	3.366-3.426	1.805e+03
	3.414	3.384-3.444	1.889e+03
5 Aroclor-1248	3.559	3.529-3.589	2.645e+03
	3.146	3.116-3.176	2.990e+03
	3.396	3.366-3.426	3.823e+03
	3.558	3.528-3.588	5.000e+03
	3.864	3.834-3.894	5.990e+03
	4.024	3.994-4.054	4.826e+03

## GEL Laboratories LLC

## COMPOUND LISTING

Method file : /chem/ecd8a.i/030210.b/ECD8-F-8082-020310a.m

Compound	RT	RT Window	RF
6 Aroclor-1254	3.834	3.804-3.864	4.785e+03
	4.021	3.991-4.051	6.569e+03
	4.216	4.186-4.246	5.138e+03
	4.303	4.273-4.333	8.797e+03
7 Aroclor-1260	4.499	4.469-4.529	6.914e+03
	4.433	4.403-4.463	6.476e+03
	4.629	4.599-4.659	9.548e+03
	4.904	4.874-4.934	5.666e+03
8 Aroclor-1262	5.077	5.047-5.107	5.904e+03
	5.488	5.458-5.518	6.229e+03
	4.333	4.303-4.363	3.367e+03
	4.432	4.402-4.462	5.243e+03
9 Aroclor-1268	4.628	4.598-4.658	7.103e+03
	4.903	4.873-4.933	8.580e+03
	5.075	5.045-5.105	7.966e+03
	5.510	5.480-5.540	1.632e+04
M 10 Aroclor-Total	5.537	5.507-5.567	1.572e+04
	5.671	5.641-5.701	1.207e+04
	5.916	5.886-5.946	6.023e+03
	6.113	6.083-6.143	3.601e+04
\$ 11 4cmx	1.000	0.980-1.020	
\$ 12 Decachlorobiphenyl	2.251	2.221-2.281	1.260e+05
13 4,4'-DDT	6.243	6.213-6.273	9.032e+04
14 4,4'-DDD	4.852	4.832-4.872	2.393e+04
15 4,4'-DDE	4.658	4.638-4.678	1.570e+05
	4.234	4.214-4.254	1.340e+05

## GEL Laboratories LLC

## COMPOUND LISTING

Method file : /chem/ecd8a.i/030210.b/ECD8-B-8082-020310a.m  
 Quant Method : ESTD Target Version : 3.50  
 Last Update : 03-Mar-2010 08:08 Number of CpnDs : 15  
 Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events Values

```

-----
Initial:Start Threshold 733.000000
Initial:End Threshold   366.500000
Initial:Area Threshold  522.000000
Initial:P-P Resolution   0.000000
Initial:Bunch Factor     2.000000
Initial:Negative Peaks   OFF
Initial:Tension          2.000000
  9.000:Bunch Factor     2.000000
  
```

Compound	RT	RT Window	RF
1 Aroclor-1016	3.554	3.524-3.584	3.619e+03
	3.653	3.623-3.683	2.410e+03
	3.729	3.699-3.759	1.453e+03
	3.805	3.775-3.835	1.434e+03
	4.001	3.971-4.031	1.958e+03
2 Aroclor-1221	2.721	2.691-2.751	9.481e+02
	2.834	2.804-2.864	5.911e+02
	2.883	2.853-2.913	2.179e+03
3 Aroclor-1232	3.201	3.171-3.231	1.515e+03
	3.554	3.524-3.584	1.744e+03
	3.653	3.623-3.683	1.176e+03
	3.730	3.700-3.760	7.101e+02
4 Aroclor-1242	3.805	3.775-3.835	6.182e+02
	3.200	3.170-3.230	2.677e+03
	3.554	3.524-3.584	3.126e+03
	3.653	3.623-3.683	2.127e+03
	4.001	3.971-4.031	1.703e+03
5 Aroclor-1248	4.090	4.060-4.120	1.567e+03
	3.652	3.622-3.682	1.427e+03
	3.804	3.774-3.834	2.467e+03
	4.001	3.971-4.031	3.089e+03
	4.279	4.249-4.309	3.647e+03
	4.312	4.282-4.342	4.004e+03

## GEL Laboratories LLC

## COMPOUND LISTING

Method file : /chem/ecd8a.i/030210.b/ECD8-B-8082-020310a.m

Compound	RT	RT Window	RF
6 Aroclor-1254	4.307	4.277-4.337	3.450e+03
	4.446	4.416-4.476	3.910e+03
	4.775	4.745-4.805	5.500e+03
	4.937	4.907-4.967	4.011e+03
	5.062	5.032-5.092	2.549e+03
7 Aroclor-1260	4.915	4.885-4.945	3.967e+03
	5.063	5.033-5.093	4.809e+03
	5.380	5.350-5.410	3.680e+03
	5.588	5.558-5.618	3.826e+03
	6.018	5.988-6.048	5.994e+03
8 Aroclor-1262	4.914	4.884-4.944	3.276e+03
	5.062	5.032-5.092	3.827e+03
	5.379	5.349-5.409	5.446e+03
	5.587	5.557-5.617	5.047e+03
	6.016	5.986-6.046	7.196e+03
9 Aroclor-1268	6.013	5.983-6.043	1.138e+04
	6.045	6.015-6.075	1.041e+04
	6.224	6.194-6.254	8.192e+03
	6.421	6.391-6.451	4.057e+03
	6.650	6.620-6.680	2.464e+04
M 10 Aroclor-Total	1.000	0.980-1.020	
\$ 11 4cmx	2.482	2.452-2.512	8.247e+04
\$ 12 Decachlorobiphenyl	6.832	6.802-6.862	6.164e+04
13 4,4'-DDT	5.323	5.303-5.343	1.460e+04
14 4,4'-DDD	5.102	5.082-5.122	1.001e+05
15 4,4'-DDE	4.691	4.671-4.711	8.898e+04

GEL Laboratories LLC  
INITIAL CALIBRATION DATA

Start Cal Date : 03-FEB-2010 10:24  
 End Cal Date : 23-FEB-2010 11:32  
 Quant Method : ESTD  
 Origin : Disabled  
 Target Version : 3.50  
 Integrator : Falcon  
 Method file : /chem/ecd8a.i/030210.b/ECD8-F-8082-020310a.m  
 Cal Date : 03-Mar-2010 08:07 jen01212  
 Curve Type : Average

## Calibration File Names:

Level 1: /chem/ecd8a.i/022310.b/013f1301.d  
 Level 2: /chem/ecd8a.i/022310.b/014f1401.d  
 Level 3: /chem/ecd8a.i/022310.b/015f1501.d  
 Level 4: /chem/ecd8a.i/020310a.b/036f3601.d  
 Level 5: /chem/ecd8a.i/022310.b/017f1701.d

Compound	100.000	250.000	500.000	1000.000	4000.000	RRF	% RSD
1 Aroclor-1016(1)	5184	5051	4636	4164	3722	4551	13.432
(2)	5955	5983	5682	5356	5075	5610	6.983
(3)	2525	2613	2438	2236	2150	2392	8.137
(4)	2419	2376	2156	1934	1819	2141	12.343
(5)	3374	3397	3129	2891	2705	3099	9.729
2 Aroclor-1221(1)	1843	1746	1580	1468	1203	1568	15.964
(2)	1118	1046	917	835	660	915	19.675
(3)	4334	3992	3544	3325	2672	3573	17.859
3 Aroclor-1232(1)	++++	++++	++++	2601	++++	2601	0.000
(2)	++++	++++	++++	2261	++++	2261	0.000
(3)	++++	++++	++++	1243	++++	1243	0.000
(4)	++++	++++	++++	1479	++++	1479	0.000
(5)	++++	++++	++++	923	++++	923	0.000
4 Aroclor-1242(1)	4726	4372	4070	3706	2998	3974	16.680
(2)	5172	5152	4949	4680	4027	4796	9.873
(3)	2139	1968	1820	1683	1417	1805	15.251
(4)	2229	2050	1908	1759	1500	1889	14.735
(5)	3065	2855	2678	2500	2127	2645	13.507
5 Aroclor-1248(1)	3599	3150	2999	2805	2397	2990	14.793
(2)	4688	4030	3804	3549	3043	3823	15.884
(3)	6028	5281	4903	4737	4053	5000	14.533
(4)	7068	6330	5909	5676	4965	5990	13.024
(5)	5743	5075	4737	4591	3986	4826	13.394
6 Aroclor-1254(1)	5857	5096	4715	4450	3806	4785	15.921
(2)	7961	7038	6468	6172	5208	6569	15.558
(3)	6032	5571	5105	4741	4242	5138	13.582
(4)	10107	9649	8877	8173	7180	8797	13.271
(5)	7953	7619	6996	6322	5678	6914	13.452

## GEL Laboratories LLC

## INITIAL CALIBRATION DATA

Start Cal Date : 03-FEB-2010 10:24  
 End Cal Date : 23-FEB-2010 11:32  
 Quant Method : ESTD  
 Origin : Disabled  
 Target Version : 3.50  
 Integrator : Falcon  
 Method file : /chem/ecd8a.i/030210.b/ECD8-F-8082-020310a.m  
 Cal Date : 03-Mar-2010 08:07 jen01212  
 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
7 Aroclor-1260(1)	7011	7159	6444	6079	5685	6476	9.568
(2)	10286	10384	9540	9039	8493	9548	8.467
(3)	6319	6091	5552	5308	5058	5666	9.329
(4)	6626	6271	5777	5525	5322	5904	9.102
(5)	6986	6455	6034	5888	5781	6229	7.946
8 Aroclor-1262(1)	3851	3558	3311	3256	2859	3367	10.954
(2)	5935	5551	5239	5102	4386	5243	10.995
(3)	7996	7523	7022	6963	6012	7103	10.414
(4)	9555	9028	8567	8433	7318	8580	9.694
(5)	8875	8357	7946	7802	6850	7966	9.421
9 Aroclor-1268(1)	++++	++++	++++	16324	++++	16324	0.000
(2)	++++	++++	++++	15723	++++	15723	0.000
(3)	++++	++++	++++	12075	++++	12075	0.000
(4)	++++	++++	++++	6023	++++	6023	0.000
(5)	++++	++++	++++	36012	++++	36012	0.000
M 10 Aroclor-Total	++++	++++	++++	++++	++++	++++	++++
13 4,4'-DDT	++++	++++	++++	23929	++++	23929	0.000
14 4,4'-DDD	++++	++++	++++	157020	++++	157020	0.000
15 4,4'-DDE	++++	++++	++++	133975	++++	133975	0.000
11 4cmx	129289	131757	127787	121546	119668	126009	4.106
12 Decachlorobiphenyl	104555	92006	87870	84335	82825	90318	9.644



GEL Laboratories LLC  
INITIAL CALIBRATION DATA

Start Cal Date : 03-FEB-2010 10:24  
 End Cal Date : 23-FEB-2010 11:32  
 Quant Method : ESTD  
 Origin : Disabled  
 Target Version : 3.50  
 Integrator : Falcon  
 Method file : /chem/ecd8a.i/030210.b/ECD8-B-8082-020310a.m  
 Cal Date : 03-Mar-2010 08:08 jen01212  
 Curve Type : Average

## Calibration File Names:

Level 1: /chem/ecd8a.i/022310.b/013b1301.d  
 Level 2: /chem/ecd8a.i/022310.b/014b1401.d  
 Level 3: /chem/ecd8a.i/022310.b/015b1501.d  
 Level 4: /chem/ecd8a.i/020310a.b/036b3601.d  
 Level 5: /chem/ecd8a.i/022310.b/017b1701.d

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
1 Aroclor-1016(1)	3700	3563	3621	3616	3597	3619	1.393
(2)	2616	2439	2406	2318	2272	2410	5.524
(3)	1536	1447	1442	1402	1439	1453	3.402
(4)	1585	1460	1422	1359	1342	1434	6.769
(5)	2095	1991	1936	1896	1874	1958	4.503
2 Aroclor-1221(1)	1008	1017	964	925	826	948	8.179
(2)	642	644	604	571	494	591	10.518
(3)	2384	2349	2220	2116	1827	2179	10.256
3 Aroclor-1232(1)	++++	++++	++++	1515	++++	1515	0.000
(2)	++++	++++	++++	1744	++++	1744	0.000
(3)	++++	++++	++++	1176	++++	1176	0.000
(4)	++++	++++	++++	710	++++	710	0.000
(5)	++++	++++	++++	618	++++	618	0.000
4 Aroclor-1242(1)	2949	2857	2758	2609	2213	2677	10.779
(2)	3213	3196	3180	3232	2808	3126	5.721
(3)	2287	2232	2178	2099	1842	2127	8.178
(4)	1820	1782	1741	1678	1497	1703	7.463
(5)	1675	1595	1607	1522	1434	1567	5.872
5 Aroclor-1248(1)	1621	1511	1422	1366	1213	1427	10.773
(2)	2779	2594	2491	2383	2090	2467	10.392
(3)	3403	3233	3131	3022	2657	3089	9.043
(4)	3964	3788	3692	3588	3204	3647	7.785
(5)	4333	4155	4060	3948	3526	4004	7.553
6 Aroclor-1254(1)	3700	3695	3475	3389	2993	3450	8.395
(2)	4204	4194	3940	3836	3377	3910	8.648
(3)	5766	5885	5570	5452	4827	5500	7.494
(4)	4254	4252	4044	3942	3562	4011	7.104
(5)	2775	2711	2546	2462	2250	2549	8.187

GEL Laboratories LLC  
INITIAL CALIBRATION DATA

Start Cal Date : 03-FEB-2010 10:24  
 End Cal Date : 23-FEB-2010 11:32  
 Quant Method : ESTD  
 Origin : Disabled  
 Target Version : 3.50  
 Integrator : Falcon  
 Method file : /chem/ecd8a.i/030210.b/ECD8-B-8082-020310a.m  
 Cal Date : 03-Mar-2010 08:08 jen01212  
 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
7 Aroclor-1260(1)	4253	3988	3955	3849	3788	3967	4.519
(2)	5113	4816	4799	4685	4631	4809	3.886
(3)	3914	3673	3654	3574	3584	3680	3.741
(4)	4047	3810	3802	3720	3750	3826	3.378
(5)	6273	5947	5927	5853	5968	5994	2.707
8 Aroclor-1262(1)	3545	3367	3269	3249	2948	3276	6.635
(2)	4038	3929	3844	3825	3498	3827	5.277
(3)	5683	5613	5515	5463	4958	5446	5.255
(4)	5266	5178	5090	5067	4633	5047	4.838
(5)	7327	7356	7286	7270	6740	7196	3.572
9 Aroclor-1268(1)	++++	++++	++++	11384	++++	11384	0.000
(2)	++++	++++	++++	10412	++++	10412	0.000
(3)	++++	++++	++++	8192	++++	8192	0.000
(4)	++++	++++	++++	4057	++++	4057	0.000
(5)	++++	++++	++++	24640	++++	24640	0.000
10 Aroclor-Total	++++	++++	++++	++++	++++	++++	++++
13 4,4'-DDT	++++	++++	++++	14596	++++	14596	0.000
14 4,4'-DDD	++++	++++	++++	100145	++++	100145	0.000
15 4,4'-DDE	++++	++++	++++	88982	++++	88982	0.000
11 4cmx	82185	80840	82752	82147	84451	82475	1.586
12 Decachlorobiphenyl	65682	61409	60606	59658	60834	61638	3.808

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.: 10-2027  
 Instrument ID: ECD8A Calibration Date: 03/02/10 Time: 0825  
 Lab File ID: 002F0201 Init. Calib. Date(s): 02/23/10 02/23/10  
 Heated Purge: (Y/N) N Init. Calib. Times: 0928 1018  
 GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	4551.274	4642.847	0.01	2.0	15.0
(2)	5610.061	5892.034	0.01	5.0	15.0
(3)	2392.299	2509.676	0.01	4.9	15.0
(4)	2140.620	2170.596	0.01	1.4	15.0
(5)	3099.161	3182.047	0.01	2.7	15.0
Aroclor-1260	6475.551	6594.858	0.01	1.8	15.0
(2)	9548.264	9687.249	0.01	1.4	15.0
(3)	5665.674	5712.376	0.01	0.8	15.0
(4)	5904.028	5983.896	0.01	1.4	15.0
(5)	6228.823	6392.211	0.01	2.6	15.0
4cmx	126009.40	136931.40	0.01	8.7	15.0
Decachlorobiphenyl	90318.109	92232.090	0.01	2.1	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.: 10-2027  
 Instrument ID: ECD8A Calibration Date: 03/02/10 Time: 0825  
 Lab File ID: 002B0201 Init. Calib. Date(s): 02/23/10 02/23/10  
 Heated Purge: (Y/N) N Init. Calib. Times: 0928 1018  
 GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	3619.456	4093.659	0.01	13.1	15.0
(2)	2410.146	2663.473	0.01	10.5	15.0
(3)	1453.120	1608.645	0.01	10.7	15.0
(4)	1433.781	1558.556	0.01	8.7	15.0
(5)	1958.294	2176.796	0.01	11.2	15.0
Aroclor-1260	3966.597	4416.983	0.01	11.4	15.0
(2)	4809.043	5369.915	0.01	11.7	15.0
(3)	3679.792	4078.929	0.01	10.8	15.0
(4)	3825.801	4244.972	0.01	11.0	15.0
(5)	5993.805	6584.628	0.01	9.8	15.0
4cmx	82474.964	94563.800	0.01	14.6	15.0
Decachlorobiphenyl	61637.648	66251.610	0.01	7.5	15.0

FORM VII PEST

FORM 7  
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A  
 Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2027  
 Instrument ID: ECD8A Calibration Date: 03/02/10 Time: 1237  
 Lab File ID: 022F2201 Init. Calib. Date(s): 02/23/10 02/23/10  
 Heated Purge: (Y/N) N Init. Calib. Times: 0928 1018  
 GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	4551.274	4465.642	0.01	-1.9	15.0
(2)	5610.061	5696.197	0.01	1.5	15.0
(3)	2392.299	2402.031	0.01	0.4	15.0
(4)	2140.620	2094.375	0.01	-2.2	15.0
(5)	3099.161	3066.717	0.01	-1.0	15.0
Aroclor-1260	6475.551	6479.013	0.01	0.0	15.0
(2)	9548.264	9607.495	0.01	0.6	15.0
(3)	5665.674	5640.650	0.01	-0.4	15.0
(4)	5904.028	5891.638	0.01	-0.2	15.0
(5)	6228.823	6287.413	0.01	0.9	15.0
4cmx	126009.40	130739.86	0.01	3.8	15.0
Decachlorobiphenyl	90318.109	89520.260	0.01	-0.9	15.0

FORM VII PEST

FORM 7  
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A  
 Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2027  
 Instrument ID: ECD8A Calibration Date: 03/02/10 Time: 1237  
 Lab File ID: 022B2201 Init. Calib. Date(s): 02/23/10 02/23/10  
 Heated Purge: (Y/N) N Init. Calib. Times: 0928 1018  
 GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	3619.456	3920.259	0.01	8.3	15.0
(2)	2410.146	2561.701	0.01	6.3	15.0
(3)	1453.120	1553.071	0.01	6.9	15.0
(4)	1433.781	1495.511	0.01	4.3	15.0
(5)	1958.294	2092.451	0.01	6.8	15.0
Aroclor-1260	3966.597	4261.051	0.01	7.4	15.0
(2)	4809.043	5196.899	0.01	8.1	15.0
(3)	3679.792	3962.577	0.01	7.7	15.0
(4)	3825.801	4109.795	0.01	7.4	15.0
(5)	5993.805	6403.586	0.01	6.8	15.0
4cmx	82474.964	90047.380	0.01	9.2	15.0
Decachlorobiphenyl	61637.648	63433.670	0.01	2.9	15.0

FORM VII PEST

FORM 7  
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A  
 Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2027  
 Instrument ID: ECD8A Calibration Date: 03/02/10 Time: 1514  
 Lab File ID: 034F3401 Init. Calib. Date(s): 02/23/10 02/23/10  
 Heated Purge: (Y/N) N Init. Calib. Times: 0928 1018  
 GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	4551.274	4342.177	0.01	-4.6	15.0
(2)	5610.061	5645.722	0.01	0.6	15.0
(3)	2392.299	2328.429	0.01	-2.7	15.0
(4)	2140.620	2061.033	0.01	-3.7	15.0
(5)	3099.161	2932.402	0.01	-5.4	15.0
Aroclor-1260	6475.551	6157.991	0.01	-4.9	15.0
(2)	9548.264	9183.390	0.01	-3.8	15.0
(3)	5665.674	5412.353	0.01	-4.5	15.0
(4)	5904.028	5664.647	0.01	-4.0	15.0
(5)	6228.823	6095.186	0.01	-2.1	15.0
4cmx	126009.40	128152.58	0.01	1.7	15.0
Decachlorobiphenyl	90318.109	88642.760	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.: 10-2027  
 Instrument ID: ECD8A Calibration Date: 03/02/10 Time: 1514  
 Lab File ID: 034B3401 Init. Calib. Date(s): 02/23/10 02/23/10  
 Heated Purge: (Y/N) N Init. Calib. Times: 0928 1018  
 GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	3619.456	3983.872	0.01	10.1	15.0
(2)	2410.146	2525.116	0.01	4.8	15.0
(3)	1453.120	1536.370	0.01	5.7	15.0
(4)	1433.781	1483.204	0.01	3.4	15.0
(5)	1958.294	2073.260	0.01	5.9	15.0
Aroclor-1260	3966.597	4170.395	0.01	5.1	15.0
(2)	4809.043	5102.284	0.01	6.1	15.0
(3)	3679.792	3878.952	0.01	5.4	15.0
(4)	3825.801	4041.156	0.01	5.6	15.0
(5)	5993.805	6327.642	0.01	5.6	15.0
4cmx	82474.964	89662.980	0.01	8.7	15.0
Decachlorobiphenyl	61637.648	63909.300	0.01	3.7	15.0

FORM VII PEST



GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/030210.b/002f0201.d

Lab Smp Id: WAR100225-60 01

Client Smp ID: AR166001

Inj Date : 02-MAR-2010 08:25

Operator : JAOC

Inst ID: ecd8a.i

Smp Info : |WAR100225-60 01

Misc Info : |1660

Comment :

Method : /chem/ecd8a.i/030210.b/ECD8-F-8082-020310a.m

Meth Date : 02-Mar-2010 15:24 jen01212 Quant Type: ESTD

Cal Date : 23-FEB-2010 11:32 Cal File: 017f1701.d

Als bottle: 2 Continuing Calibration Sample

Dil Factor: 1.00000

Integrator: Falcon

Compound Sublist: AR1660.sub

Target Version: 3.50

Sample Matrix: None

AMOUNTS

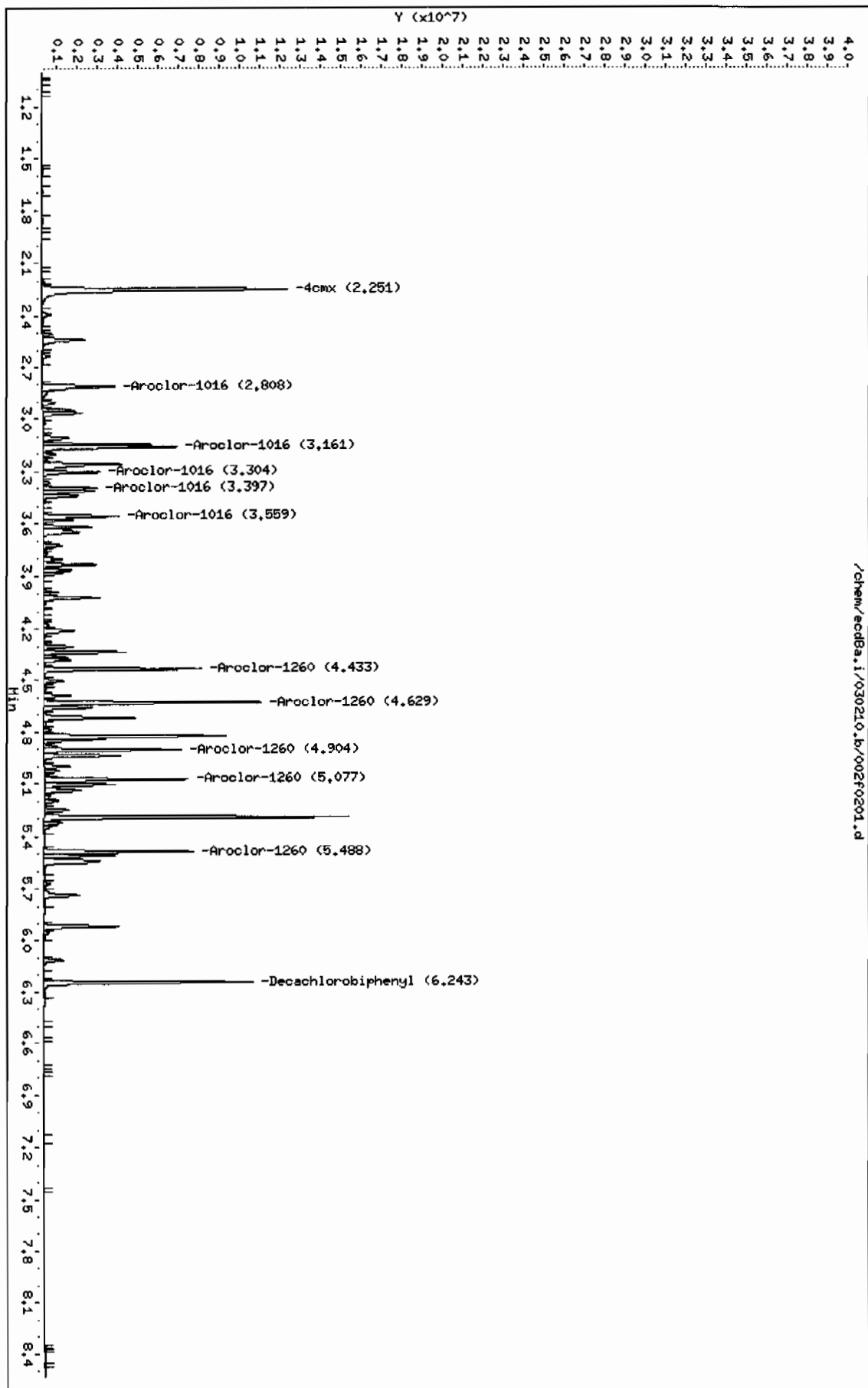
			CAL-AMT		ON-COL			
RT	EXP RT	DLT RT	RESPONSE	( ug/L)	( ug/L)	TARGET RANGE	RATIO	
==	==	=====	=====	=====	=====	=====	=====	
\$ 11 4cmx					CAS #: 877-09-8			
2.251	2.251	0.000	13693140	100.000	109	80.00- 120.00	100.00	
-----								
\$ 12 Decachlorobiphenyl					CAS #: 2051-24-3			
6.243	6.243	0.000	9223209	100.000	102	80.00- 120.00	100.00	
-----								
1 Aroclor-1016					CAS #: 12674-11-2			
2.808	2.808	0.000	4642846	1000.00	1020	80.00- 120.00	100.00	
3.161	3.161	0.000	5892033	1000.00	1050	110.02- 150.02	126.91	
3.304	3.304	0.000	2509676	1000.00	1050	33.62- 73.62	54.05	
3.397	3.397	0.000	2170596	1000.00	1010	27.47- 67.47	46.75	
3.559	3.559	0.000	3182046	1000.00	1030	47.53- 87.53	68.54	
Average of Peak Amounts =					1.03e+03			
-----								
7 Aroclor-1260					CAS #: 11096-82-5			
4.433	4.433	0.000	6594857	1000.00	1020	80.00- 120.00	100.00	
4.629	4.629	0.000	9687249	1000.00	1010	129.13- 169.13	146.89	
4.904	4.904	0.000	5712376	1000.00	1010	67.89- 107.89	86.62	
5.077	5.077	0.000	5983896	1000.00	1010	71.99- 111.99	90.74	
5.488	5.488	0.000	6392210	1000.00	1030	78.98- 118.98	96.93	
Average of Peak Amounts =					1.02e+03			

Data File: /chem/ecob8a.i/030210.b/002f0201.d  
Date : 02-MAR-2010 08:25  
Client ID: AR166001  
Sample Info: HMRI00225-60 01

Column phase: CLP1

Instrument: ecob8a.i  
Operator: JHOC  
Column diameter: 0.25

/chem/ecob8a.i/030210.b/002f0201.d



GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/030210.b/002b0201.d

Lab Smp Id: WAR100225-60 01

Client Smp ID: AR166001

Inj Date : 02-MAR-2010 08:25

Operator : JAOC

Inst ID: ecd8a.i

Smp Info : |WAR100225-60 01

Misc Info : |1660

Comment :

Method : /chem/ecd8a.i/030210.b/ECD8-B-8082-020310a.m

Meth Date : 02-Mar-2010 15:24 jen01212

Quant Type: ESTD

Cal Date : 23-FEB-2010 11:32

Cal File: 017b1701.d

Als bottle: 2

Continuing Calibration Sample

Dil Factor: 1.00000

Integrator: Falcon

Compound Sublist: AR1660.sub

Target Version: 3.50

Sample Matrix: None

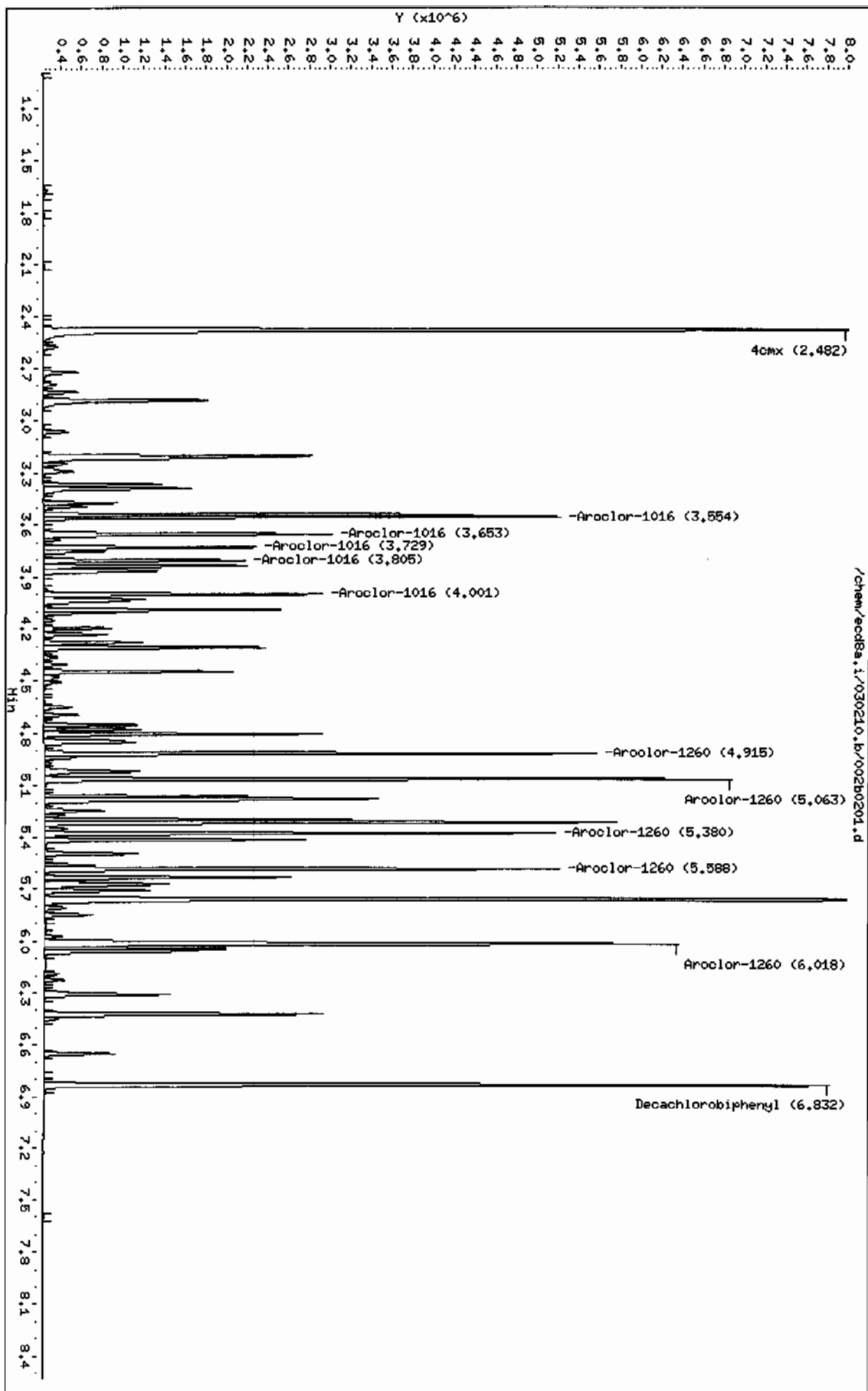
AMOUNTS

			CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	( ug/L)	( ug/L)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====
\$ 11 4cmx					CAS #: 877-09-8		
2.482	2.482	0.000	9456380	100.000	115	80.00- 120.00	100.00
-----							
\$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.832	6.832	0.000	6625161	100.000	107	80.00- 120.00	100.00
-----							
1 Aroclor-1016					CAS #: 12674-11-2		
3.554	3.554	0.000	4093658	1000.00	1130	80.00- 120.00	100.00
3.653	3.653	0.000	2663472	1000.00	1100	43.38- 83.38	65.06
3.729	3.729	0.000	1608645	1000.00	1110	18.56- 58.56	39.30
3.805	3.805	0.000	1558555	1000.00	1090	17.23- 57.23	38.07
4.001	4.001	0.000	2176795	1000.00	1110	32.04- 72.04	53.17
Average of Peak Amounts =					1.11e+03		
-----							
7 Aroclor-1260					CAS #: 11096-82-5		
4.915	4.915	0.000	4416982	1000.00	1110	80.00- 120.00	100.00
5.063	5.063	0.000	5369915	1000.00	1120	102.35- 142.35	121.57
5.380	5.380	0.000	4078928	1000.00	1110	73.01- 113.01	92.35
5.588	5.588	0.000	4244971	1000.00	1110	76.90- 116.90	96.11
6.018	6.018	0.000	6584628	1000.00	1100	131.73- 171.73	149.08
Average of Peak Amounts =					1.11e+03		

Data File: /chem/ecdb8a.i/030210.b/002b0201.d  
Date: 02-MAR-2010 08:25  
Client ID: AR166001  
Sample Info: IHR10025-60 01

Column phase: CLP2

Instrument: ecdb8a.i  
Operator: JROC  
Column diameter: 0.25



Data File: /chem/ecd8a.i/030210.b/003f0301.d  
Report Date: 02-Mar-2010 15:43

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GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/030210.b/003f0301.d  
Lab Smp Id: WAR100201-54 Client Smp ID: AR125401  
Inj Date : 02-MAR-2010 08:37  
Operator : JAOC Inst ID: ecd8a.i  
Smp Info : |WAR100201-54  
Misc Info : |1254  
Comment :  
Method : /chem/ecd8a.i/030210.b/ECD8-F-8082-020310a.m  
Meth Date : 02-Mar-2010 15:24 jen01212 Quant Type: ESTD  
Cal Date : 23-FEB-2010 11:32 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

AMOUNTS

RT	EXP RT	DLT RT	CAL-AMT RESPONSE ( ug/L)	ON-COL ( ug/L)	TARGET RANGE	RATIO
			CAS #: 11097-69-1			
3.834	3.834	0.000	4808941 1000.00	1000	80.00- 120.00	100.00
4.021	4.021	0.000	6637153 1000.00	1010	118.02- 158.02	138.02
4.216	4.216	0.000	5235881 1000.00	1020	88.88- 128.88	108.88
4.303	4.303	0.000	8869923 1000.00	1010	164.45- 204.45	184.45
4.499	4.499	0.000	6772279 1000.00	980	120.83- 160.83	140.83
Average of Peak Amounts =			1e+03			

Data File: /chem/ecdb8a.i/030210.b/003f0301.d  
Date : 02-MAR-2010 08:37  
Client ID: AR125401  
Sample Info: IMAR100201-54

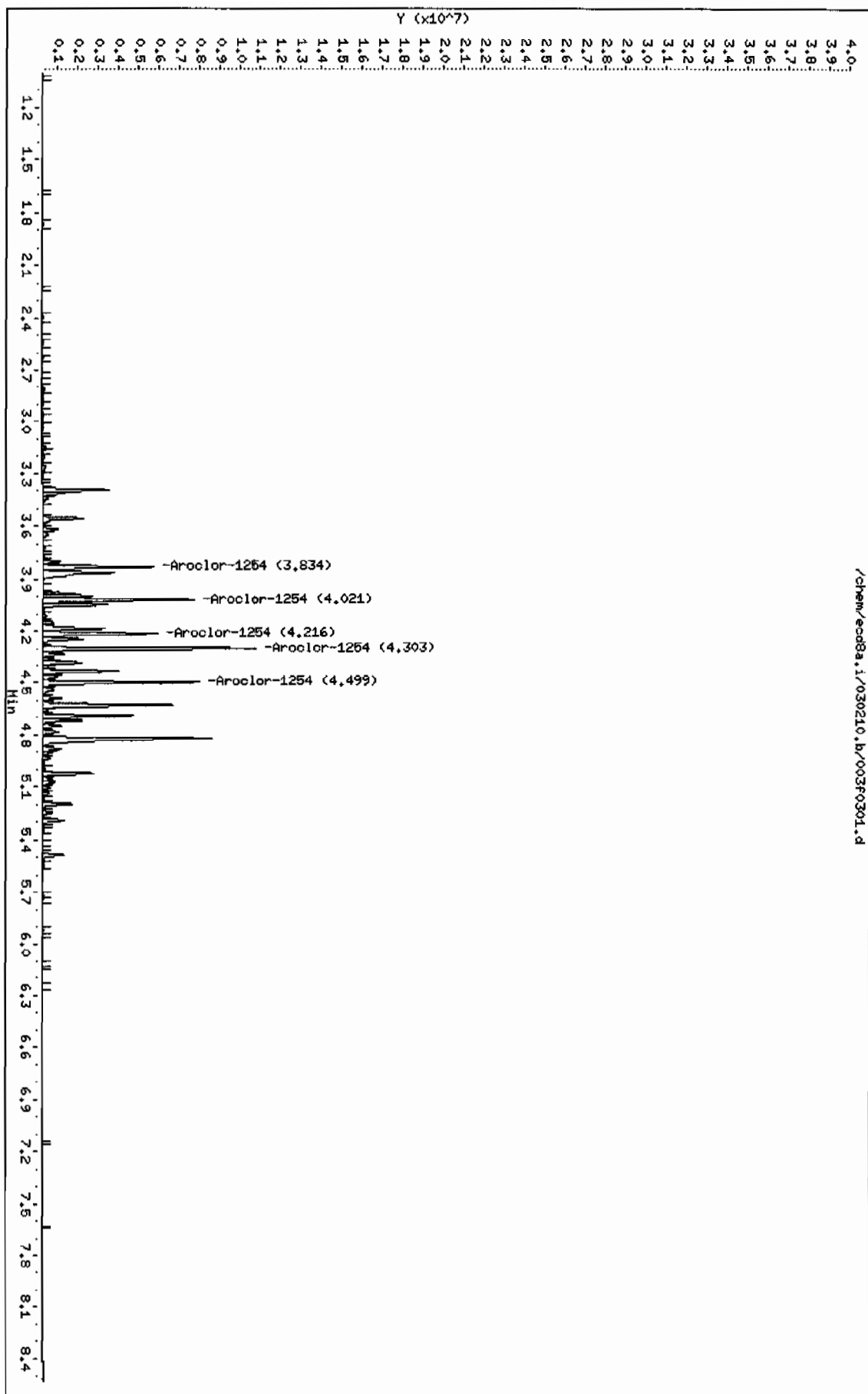
Instrument: ecdb8a.i

Page 1

Column phase: CLP1

Operator: JHOC  
Column diameter: 0.25

/chem/ecdb8a.i/030210.b/003f0301.d



GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/030210.b/003b0301.d  
Lab Smp Id: WAR100201-54 Client Smp ID: AR125401  
Inj Date : 02-MAR-2010 08:37  
Operator : JAOC Inst ID: ecd8a.i  
Smp Info : |WAR100201-54  
Misc Info : |1254  
Comment :  
Method : /chem/ecd8a.i/030210.b/ECD8-B-8082-020310a.m  
Meth Date : 02-Mar-2010 15:24 jen01212 Quant Type: ESTD  
Cal Date : 23-FEB-2010 11:32 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

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	
4.307	4.307	0.000	3580452 1000.00	1040	80.00- 120.00	100.00
4.446	4.446	0.000	4042779 1000.00	1030	92.91- 132.91	112.91
4.775	4.775	0.000	5740717 1000.00	1040	140.33- 180.33	160.33
4.937	4.937	0.000	4112011 1000.00	1020	94.85- 134.85	114.85
5.062	5.062	0.000	2620652 1000.00	1030	53.19- 93.19	73.19
Average of Peak Amounts =			1.03e+03			

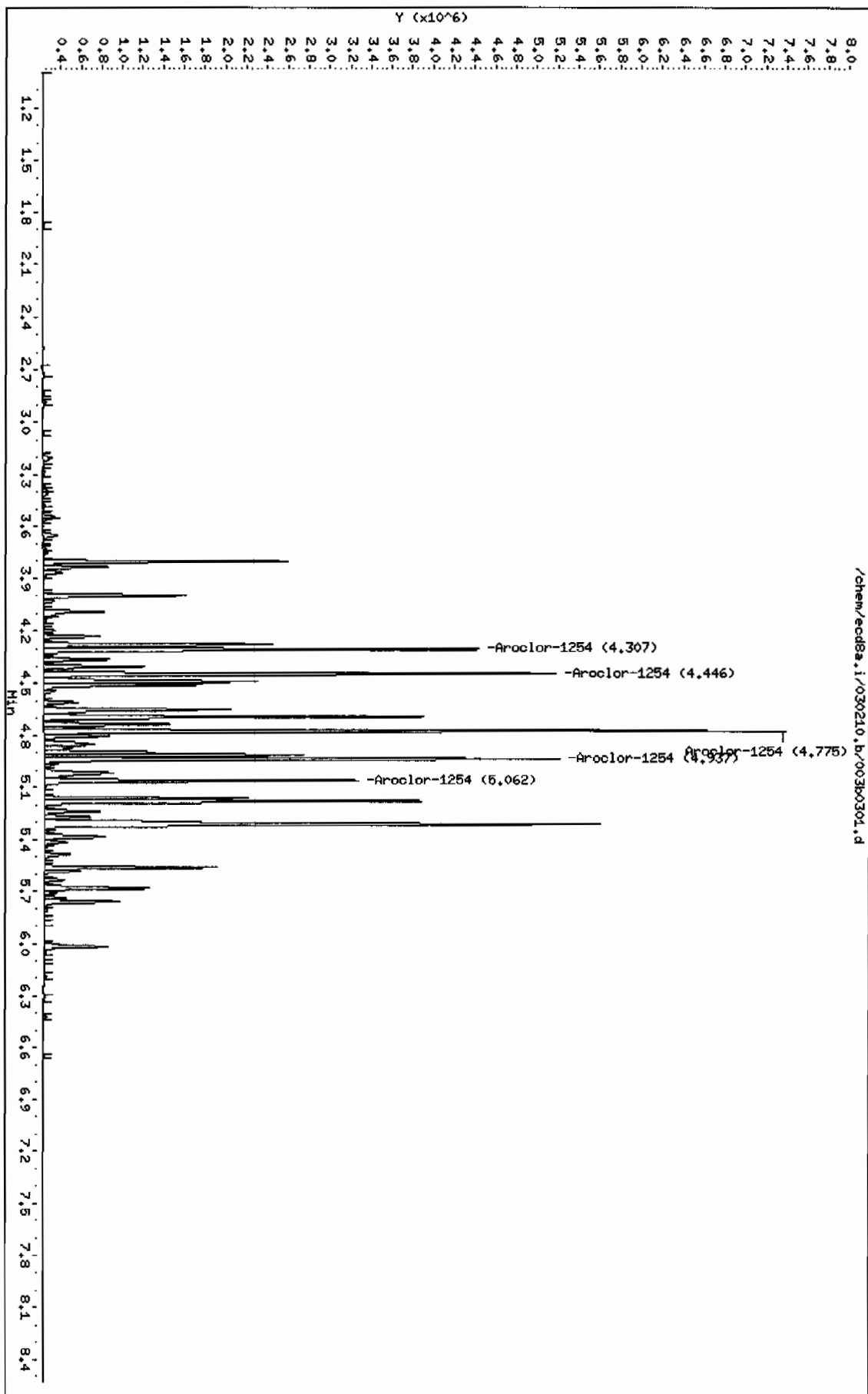
Data File: /chem/ecdb8a.i/030210.b/00300301.d  
Date: 02-MAR-2010 09:37  
Client ID: ARL25401  
Sample Info: HAR100201-54

Instrument: ecdb8a.i

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Column phase: CLP2

Operator: JHOC  
Column diameter: 0.25





GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/030210.b/004f0401.d

Lab Smp Id: WAR091217-42

Client Smp ID: AR124201

Inj Date : 02-MAR-2010 08:50

Operator : JAOC

Inst ID: ecd8a.i

Smp Info : |WAR091217-42

Misc Info : |1242

Comment :

Method : /chem/ecd8a.i/030210.b/ECD8-F-8082-020310a.m

Meth Date : 02-Mar-2010 15:24 jen01212

Quant Type: ESTD

Cal Date : 23-FEB-2010 11:32

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

AMOUNTS

			CAL-AMT	ON-COL		
RT	EXP RT	DLT RT	RESPONSE ( ug/L)	( ug/L)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====
4 Aroclor-1242			CAS #: 53469-21-9			
2.809	2.809	0.000	4191757	1000.00	1050 80.00~ 120.00	100.00
3.160	3.160	0.000	5320612	1000.00	1110 106.93~ 146.93	126.93
3.396	3.396	0.000	1897974	1000.00	1050 25.28~ 65.28	45.28
3.414	3.414	0.000	2050793	1000.00	1080 28.92~ 68.92	48.92
3.559	3.559	0.000	2871546	1000.00	1080 48.50~ 88.50	68.50
Average of Peak Amounts =			1.08e+03			

Data File: /chem/ecdb8a.i/030210.b/004f0401.d  
Date: 02-MAR-2010 08:50  
Client ID: AR124201  
Sample Info: 1MAR091217-42

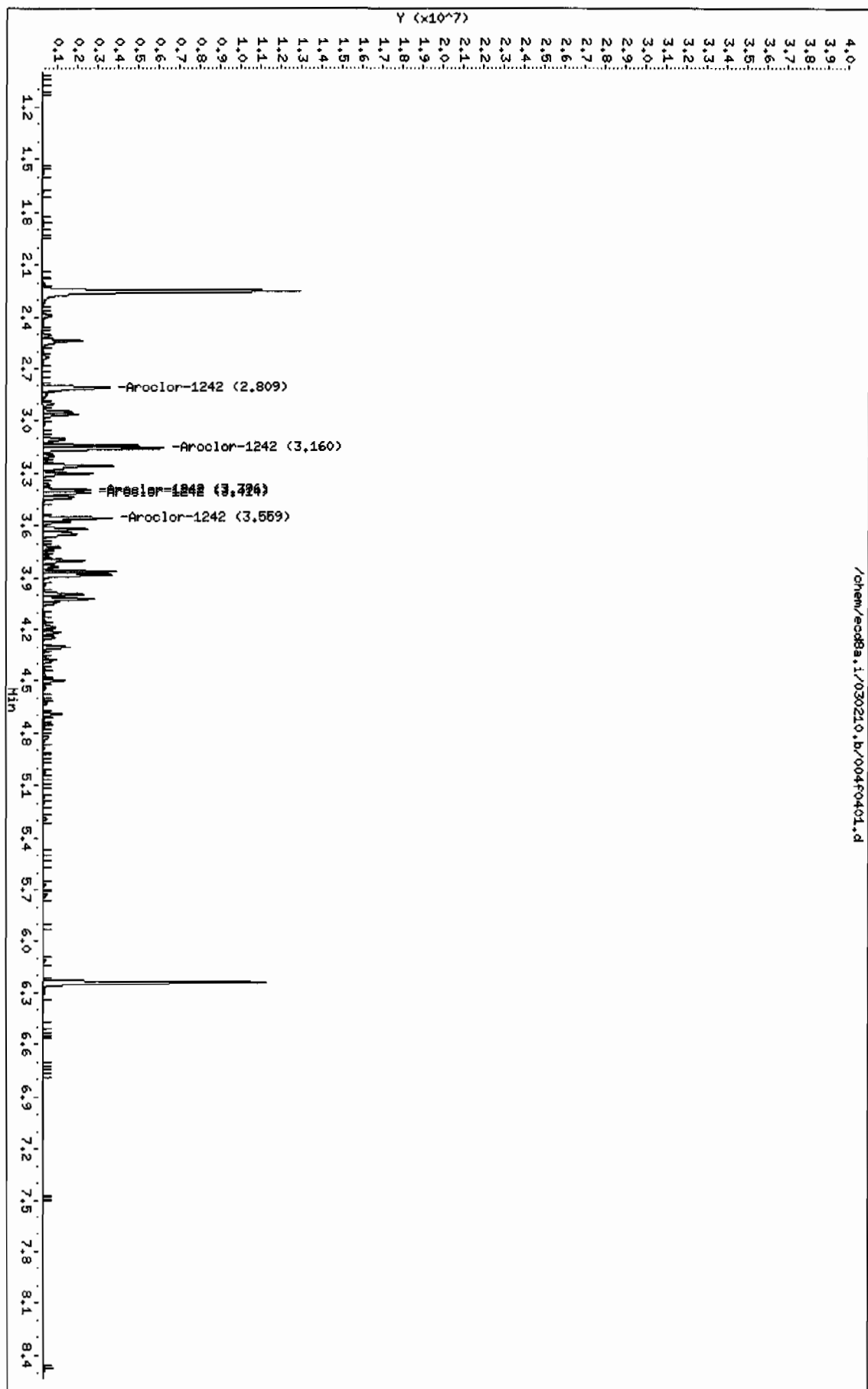
Instrument: ecdb8a.i

Page 1

Column phase: CLP1

Operator: JHOC  
Column diameter: 0.25

/chem/ecdb8a.i/030210.b/004f0401.d



GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/030210.b/004b0401.d

Lab Smp Id: WAR091217-42 Client Smp ID: AR124201

Inj Date : 02-MAR-2010 08:50

Operator : JAOC Inst ID: ecd8a.i

Smp Info : |WAR091217-42

Misc Info : |1242

Comment :

Method : /chem/ecd8a.i/030210.b/ECD8-B-8082-020310a.m

Meth Date : 02-Mar-2010 15:24 jen01212 Quant Type: ESTD

Cal Date : 23-FEB-2010 11:32 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

AMOUNTS

CAL-AMT ON-COL

RT	EXP RT	DLT RT	RESPONSE ( ug/L)	( ug/L)	TARGET RANGE	RATIO
4 Aroclor-1242						
3.200	3.200	0.000	2892167	1000.00	1080 80.00- 120.00	100.00 (M)
3.554	3.554	0.000	3583416	1000.00	1150 103.90- 143.90	123.90
3.653	3.653	0.000	2339147	1000.00	1100 60.88- 100.88	80.88
4.001	4.001	0.000	1871073	1000.00	1100 44.69- 84.69	64.69
4.090	4.090	0.000	1734052	1000.00	1110 39.96- 79.96	59.96

Average of Peak Amounts = 1.11e+03

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd8a.i/030210.b/004b0401.d

Date : 02-MAR-2010 08:30

Client ID: AR124201

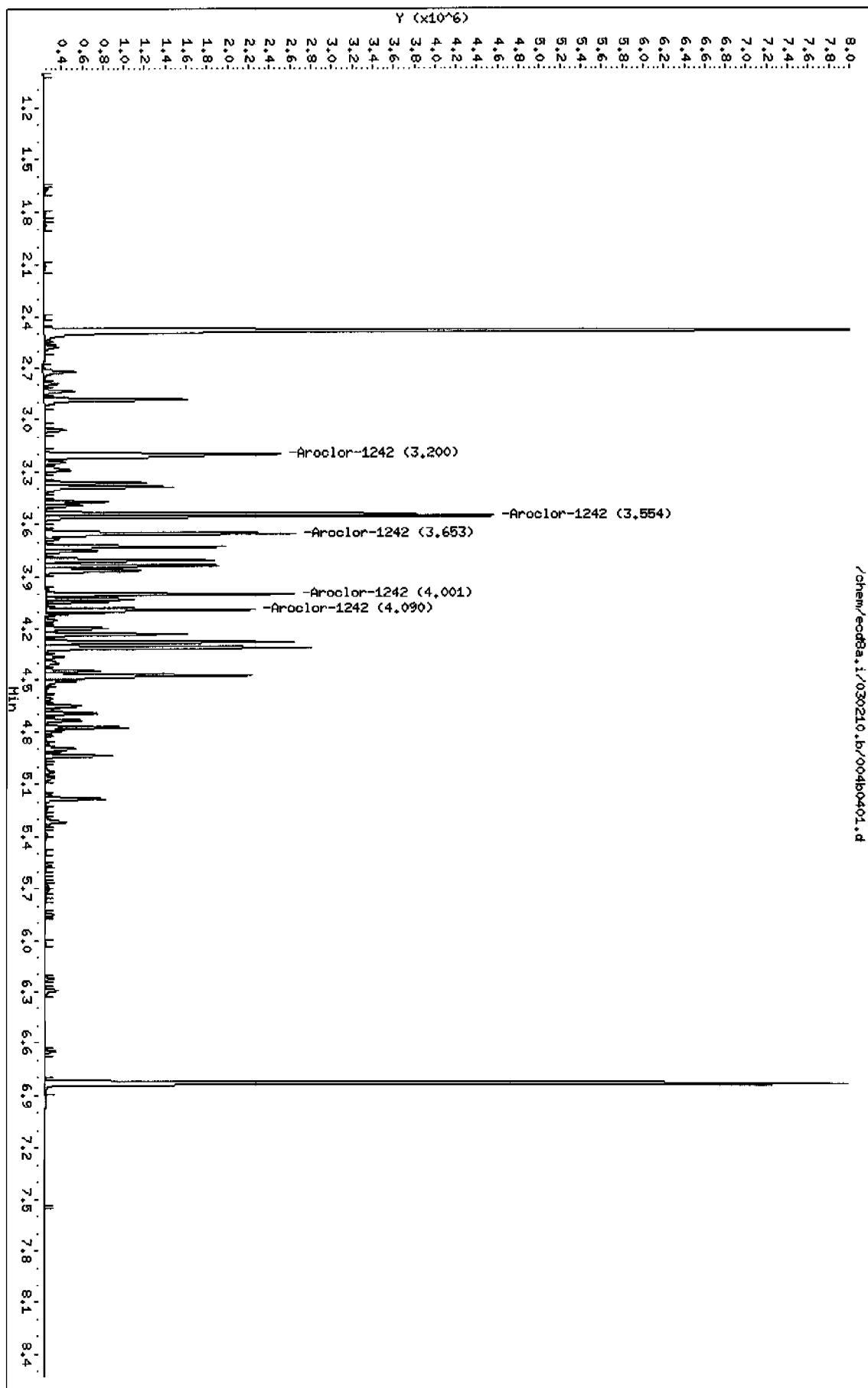
Sample Info: 1MAR091217-42

Column phase: CLP2

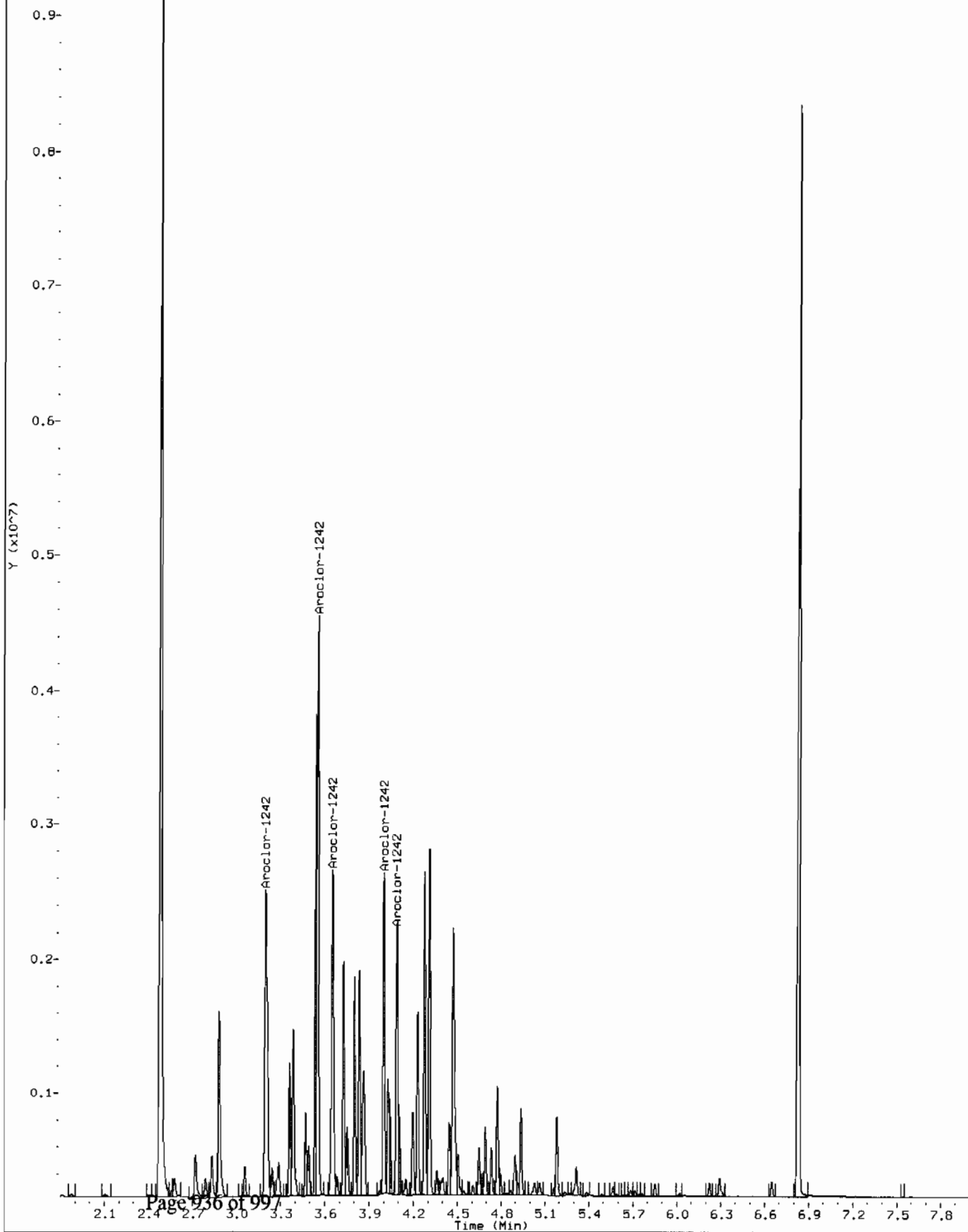
Instrument: ecd8a.i

Operator: JROC

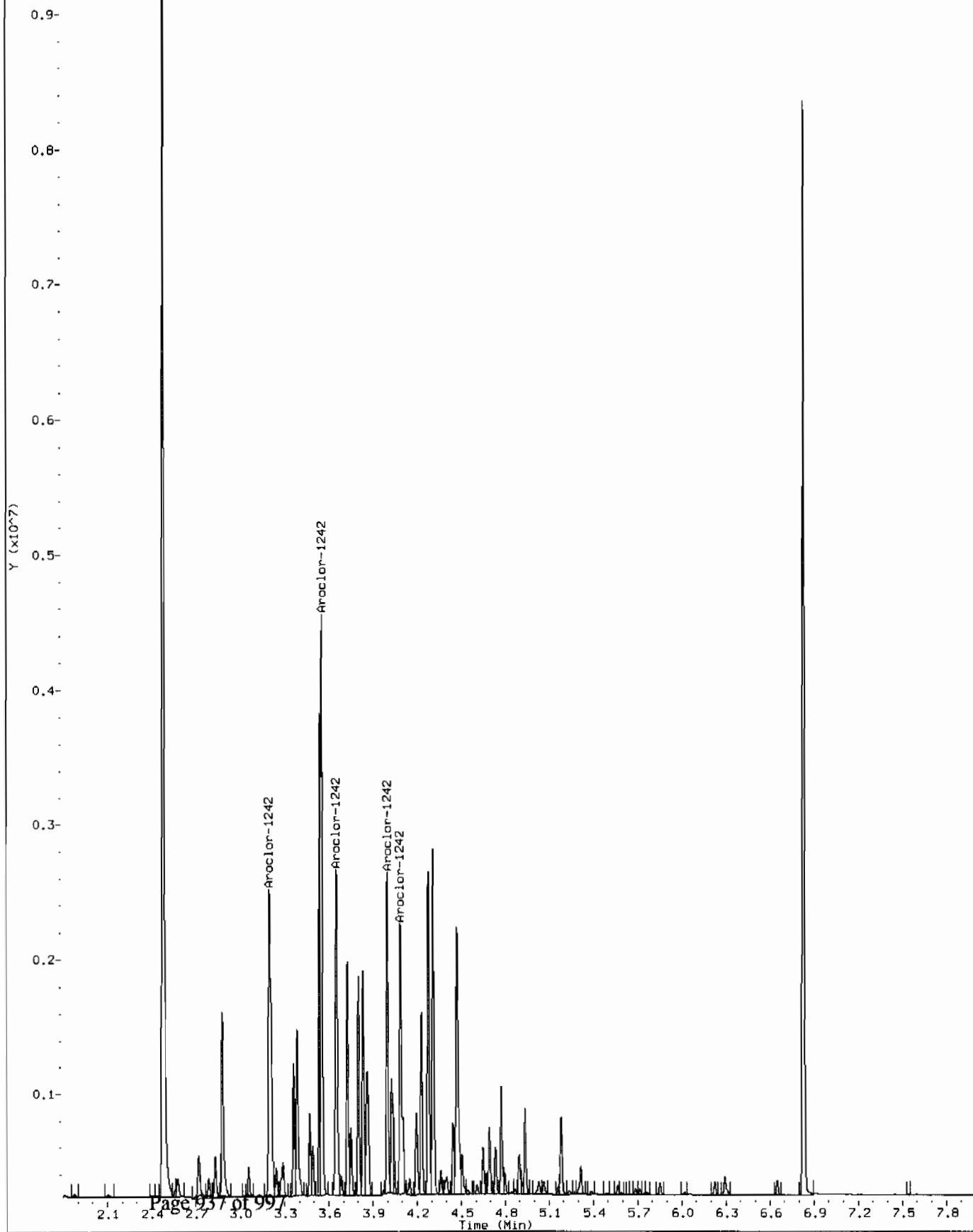
Column diameter: 0.25



Comment: Manually Integrated  
Data File: /chem/ecd8a.i/030210.b/004b0401.d  
Operator: JAOC  
Injection Date: 02-MAR-2010 08:50  
Instrument: ecd8a.i  
Client Sample ID: AR124201



Comment: Before manual integration  
Data File: /chem/ecd8a.i/030210.b/orig-004b0401.d  
Operator: JAOC  
Injection Date: 02-MAR-2010 08:50  
Instrument: ecd8a.i  
Client Sample ID: AR124201



GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/030210.b/005f0501.d

Lab Smp Id: WAR091217-48

Client Smp ID: AR124801

Inj Date : 02-MAR-2010 09:02

Operator : JAOC

Inst ID: ecd8a.i

Smp Info : |WAR091217-48

Misc Info : |1248

Comment :

Method : /chem/ecd8a.i/030210.b/ECD8-F-8082-020310a.m

Meth Date : 02-Mar-2010 15:24 jen01212 Quant Type: ESTD

Cal Date : 23-FEB-2010 11:32

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

AMOUNTS

CAL-AMT ON-COL

RT	EXP RT	DLT RT	RESPONSE ( ug/L)	( ug/L)	TARGET RANGE	RATIO
--	-----	-----	-----	-----	-----	-----
5 Aroclor-1248			CAS #: 12672-29-6			
3.146	3.146	0.000	2663093	1000.00	891 80.00- 120.00	100.00
3.396	3.396	0.000	3486162	1000.00	912 110.91- 150.91	130.91
3.558	3.558	0.000	4538107	1000.00	908 150.41- 190.41	170.41
3.864	3.864	0.000	5501368	1000.00	918 186.58- 226.58	206.58
4.024	4.024	0.000	4445048	1000.00	921 146.91- 186.91	166.91
Average of Peak Amounts =			910			

Data File: /chem/ecdb8a.i/030210.b/005f0501.d

Date: 02-MAR-2010 09:02

Client ID: AR124801

Sample Info: 1MAR091217-48

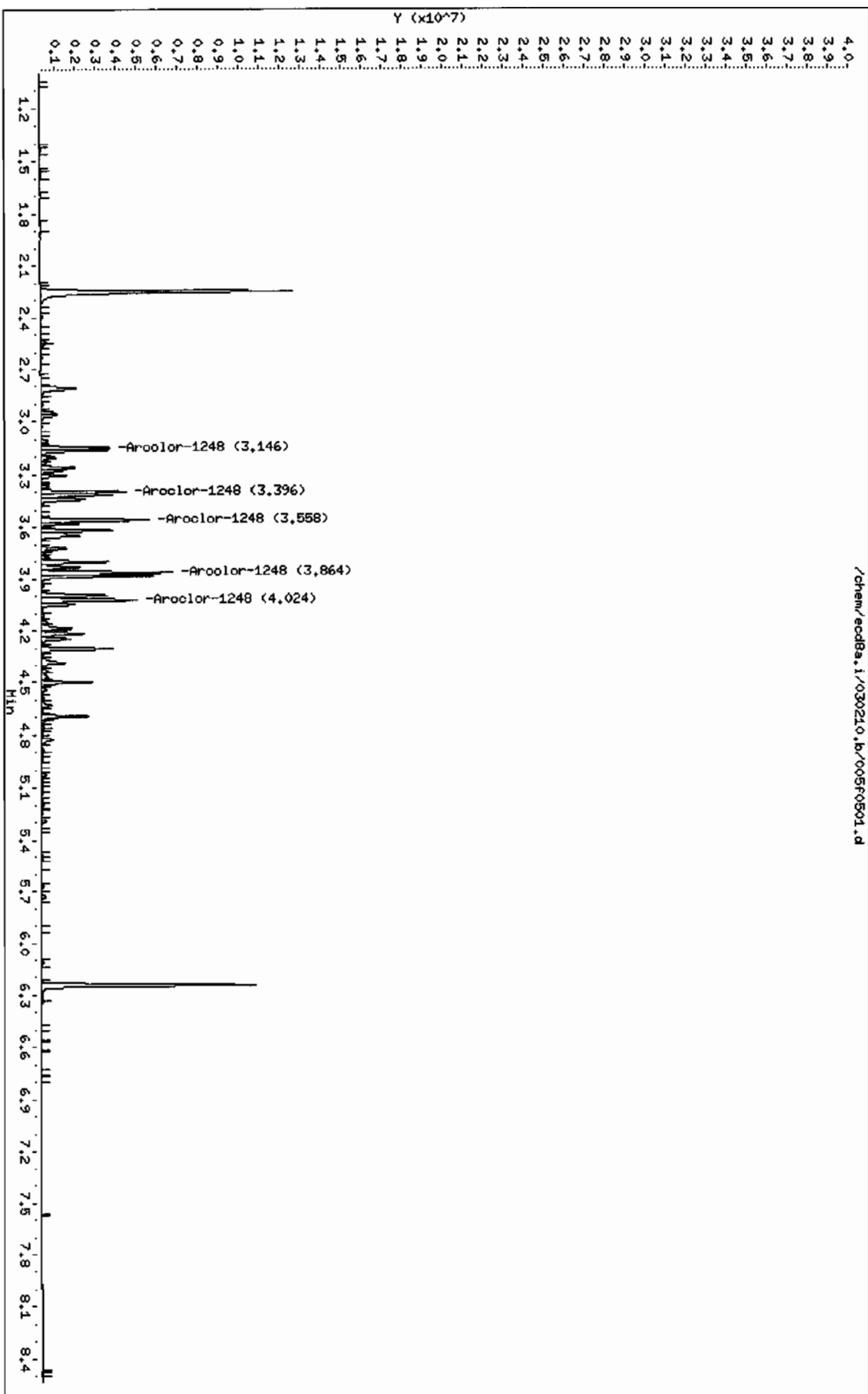
Column phase: CLP1

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Instrument: ecdb8a.i

Operator: J60C

Column diameter: 0.25





GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/030210.b/005b0501.d

Lab Smp Id: WAR091217-48

Client Smp ID: AR124801

Inj Date : 02-MAR-2010 09:02

Operator : JAOC

Inst ID: ecd8a.i

Smp Info : |WAR091217-48

Misc Info : |1248

Comment :

Method : /chem/ecd8a.i/030210.b/ECD8-B-8082-020310a.m

Meth Date : 02-Mar-2010 15:24 jen01212

Quant Type: ESTD

Cal Date : 23-FEB-2010 11:32

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

AMOUNTS

RT	EXP RT	DLT RT	CAL-AMT RESPONSE ( ug/L)	ON-COL ( ug/L)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====
5 Aroclor-1248			CAS #: 12672-29-6			
3.652	3.652	0.000	1422014 1000.00	997 80.00- 120.00	100.00	
3.804	3.804	0.000	2529839 1000.00	1020 157.91- 197.91	177.91	
4.001	4.001	0.000	3207783 1000.00	1040 205.58- 245.58	225.58	
4.279	4.279	0.000	3761648 1000.00	1030 244.53- 284.53	264.53	
4.312	4.312	0.000	4145665 1000.00	1040 271.53- 311.53	291.53	
Average of Peak Amounts =			1.03e+03			

Data File: /chem/ecodba.i/030210.b/005b0501.d  
Date: 02-MAR-2010 09:02  
Client ID: R124801  
Sample Info: 1MAR091217-48

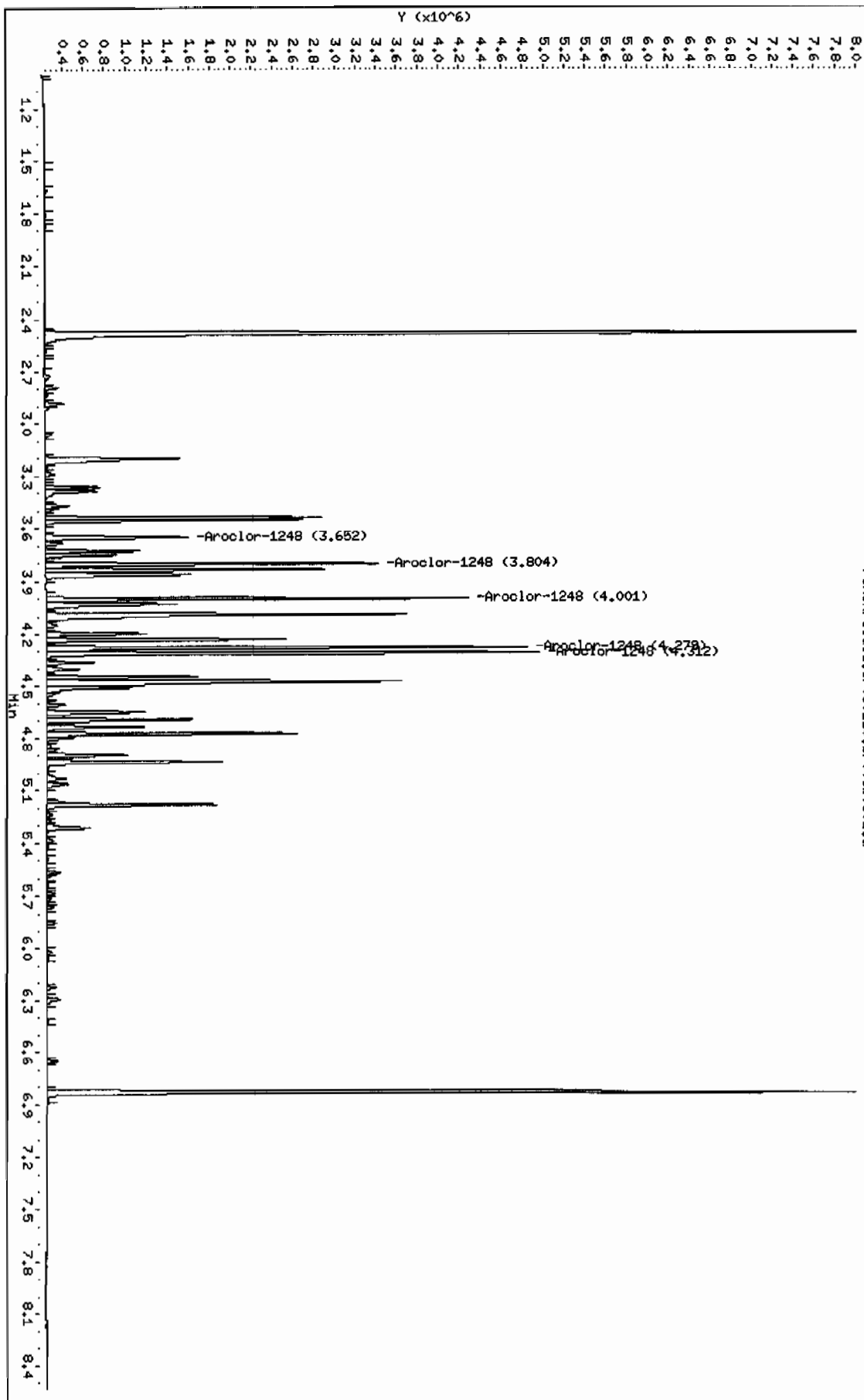
Instrument: ecodba.i

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Column phase: CLP2

Operator: JADC  
Column diameter: 0.25

/chem/ecodba.i/030210.b/005b0501.d



Data File: /chem/ecd8a.i/030210.b/006f0601.d  
Report Date: 02-Mar-2010 15:45

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GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/030210.b/006f0601.d  
Lab Smp Id: WAR100104-32 Client Smp ID: AR123201  
Inj Date : 02-MAR-2010 09:15  
Operator : JAOC Inst ID: ecd8a.i  
Smp Info : |WAR100104-32  
Misc Info : |1232  
Comment :  
Method : /chem/ecd8a.i/030210.b/ECD8-F-8082-020310a.m  
Meth Date : 02-Mar-2010 15:24 jen01212 Quant Type: ESTD  
Cal Date : 23-FEB-2010 11:32 Cal File: 017f1701.d  
Als bottle: 6 Continuing Calibration Sample  
Dil Factor: 1.00000  
Integrator: Falcon Compound Sublist: AR1232.sub  
Target Version: 3.50 Sample Matrix: None

AMOUNTS

RT	EXP RT	DLT RT	CAL-AMT RESPONSE ( ug/L)	ON-COL ( ug/L)	TARGET RANGE	RATIO
3	Aroclor-1232				CAS #: 11141-16-5	
2.538	2.538	0.000	2971184 1000.00	1140	80.00- 120.00	100.00
2.810	2.810	0.000	2587868 1000.00	1140	67.10- 107.10	87.10
3.305	3.305	0.000	1398165 1000.00	1120	27.06- 67.06	47.06
3.559	3.559	0.000	1688795 1000.00	1140	36.84- 76.84	56.84
3.621	3.621	0.000	1024388 1000.00	1110	14.48- 54.48	34.48
Average of Peak Amounts =			1.13e+03			

Data File: /chem/ecod8a.i/030210.b/006f0601.d

Date: 02-MAR-2010 09:15

Client ID: AR123201

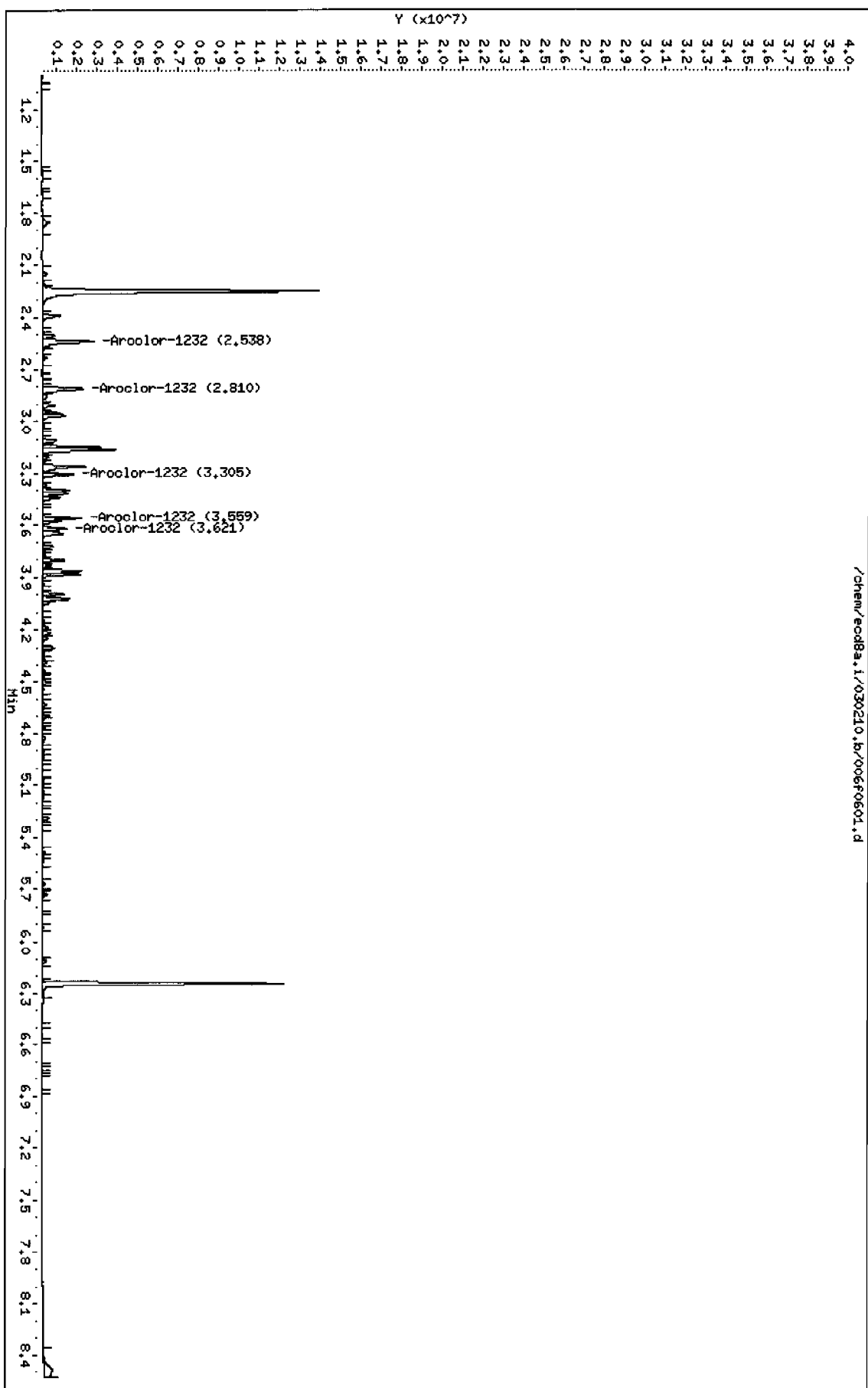
Sample Info: 1MAR100104-32

Column phase: CLP1

Instrument: ecod8a.i

Operator: JROC

Column diameter: 0.25



GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/030210.b/006b0601.d

Lab Smp Id: WAR100104-32 Client Smp ID: AR123201

Inj Date : 02-MAR-2010 09:15

Operator : JAOC Inst ID: ecd8a.i

Smp Info : |WAR100104-32

Misc Info : |1232

Comment :

Method : /chem/ecd8a.i/030210.b/ECD8-B-8082-020310a.m

Meth Date : 02-Mar-2010 15:24 jen01212 Quant Type: ESTD

Cal Date : 23-FEB-2010 11:32 Cal File: 017b1701.d

Als bottle: 6 Continuing Calibration Sample

Dil Factor: 1.00000

Integrator: Falcon Compound Sublist: AR1232.sub

Target Version: 3.50 Sample Matrix: None

AMOUNTS

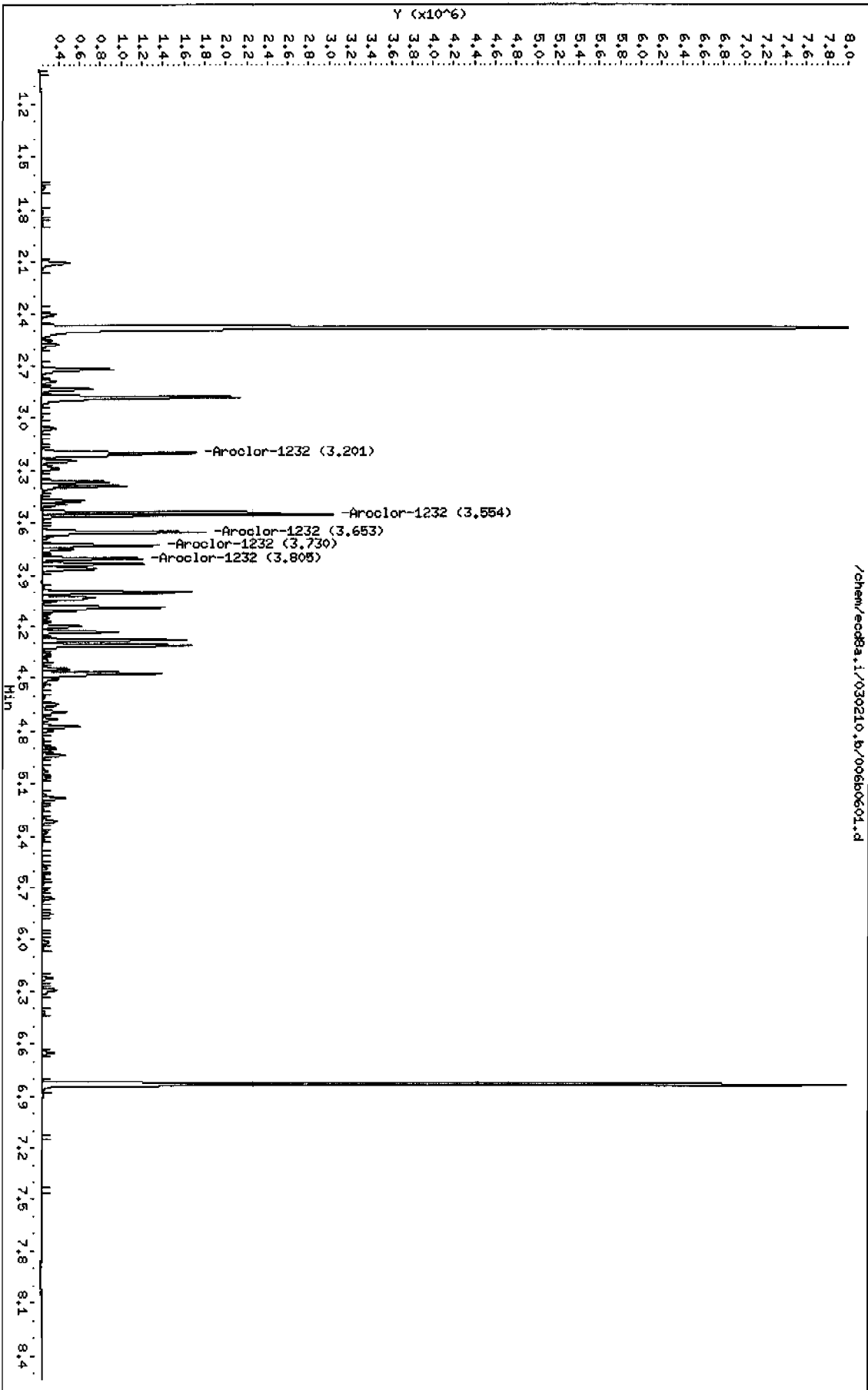
RT	EXP RT	DLT RT	CAL-AMT RESPONSE ( ug/L)	ON-COL ( ug/L)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====
3 Aroclor-1232			CAS #: 11141-16-5			
3.201	3.201	0.000	1935861 1000.00	1280	80.00- 120.00	100.00
3.554	3.554	0.000	2198493 1000.00	1260	93.57- 133.57	113.57
3.653	3.653	0.000	1522599 1000.00	1290	58.65- 98.65	78.65
3.730	3.730	0.000	915869 1000.00	1290	27.31- 67.31	47.31
3.805	3.805	0.000	791031 1000.00	1280	20.86- 60.86	40.86
Average of Peak Amounts =			1.28e+03			

Data File: /chem/ecod8a.i/030210.b/006b0601.d  
Date: 02-MAR-2010 09:15  
Client ID: PR123201  
Sample Info: IMR100104-32

Column phase: CLP2

Instrument: ecod8a.i  
Operator: JROC  
Column diameter: 0.25

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Data File: /chem/ecd8a.i/030210.b/007f0701.d  
Report Date: 02-Mar-2010 15:45

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GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/030210.b/007f0701.d  
Lab Smp Id: WAR100104-21 Client Smp ID: AR122101  
Inj Date : 02-MAR-2010 09:27  
Operator : JAOC Inst ID: ecd8a.i  
Smp Info : |WAR100104-21  
Misc Info : |1221  
Comment :  
Method : /chem/ecd8a.i/030210.b/ECD8-F-8082-020310a.m  
Meth Date : 02-Mar-2010 15:24 jen01212 Quant Type: ESTD  
Cal Date : 23-FEB-2010 11:32 Cal File: 017f1701.d  
Als bottle: 7 Continuing Calibration Sample  
Dil Factor: 1.00000  
Integrator: Falcon Compound Sublist: AR1221.sub  
Target Version: 3.50 Sample Matrix: None

AMOUNTS

RT	EXP RT	DLT RT	CAL-AMT RESPONSE ( ug/L)	ON-COL ( ug/L)	TARGET RANGE	RATIO
2 Aroclor-1221 CAS #: 11104-28-2						
2.391	2.391	0.000	1606498 1000.00	1020	80.00- 120.00	100.00
2.506	2.506	0.000	898609 1000.00	982	35.94- 75.94	55.94
2.538	2.538	0.000	3697763 1000.00	1030	210.18- 250.18	230.18
Average of Peak Amounts =				1.01e+03		

Data File: /chem/ecdb8a.i/030210.b/007f0701.d

Date: 02-MAR-2010 09:27

Client ID: AR122101

Sample Info: IMR100104-21

Column phase: CLP1

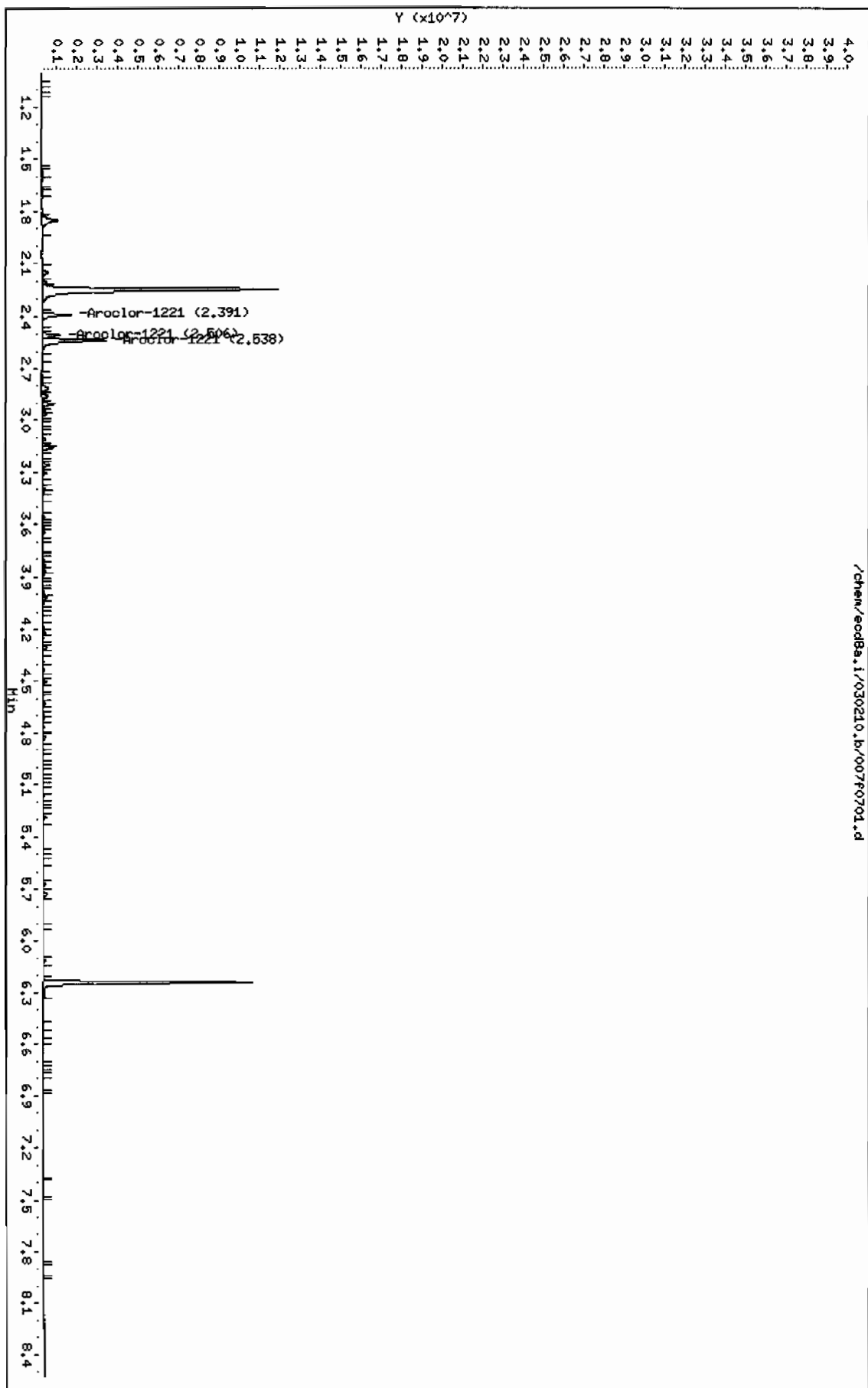
Instrument: ecdb8a.i

Operator: JAOC

Column diameter: 0.25

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/chem/ecdb8a.i/030210.b/007f0701.d





GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/030210.b/007b0701.d  
Lab Smp Id: WAR100104-21 Client Smp ID: AR122101  
Inj Date : 02-MAR-2010 09:27  
Operator : JAOC Inst ID: ecd8a.i  
Smp Info : |WAR100104-21  
Misc Info : |1221  
Comment :  
Method : /chem/ecd8a.i/030210.b/ECD8-B-8082-020310a.m  
Meth Date : 02-Mar-2010 15:24 jen01212 Quant Type: ESTD  
Cal Date : 23-FEB-2010 11:32 Cal File: 017b1701.d  
Als bottle: 7 Continuing Calibration Sample  
Dil Factor: 1.00000  
Integrator: Falcon Compound Sublist: AR1221.sub  
Target Version: 3.50 Sample Matrix: None

AMOUNTS

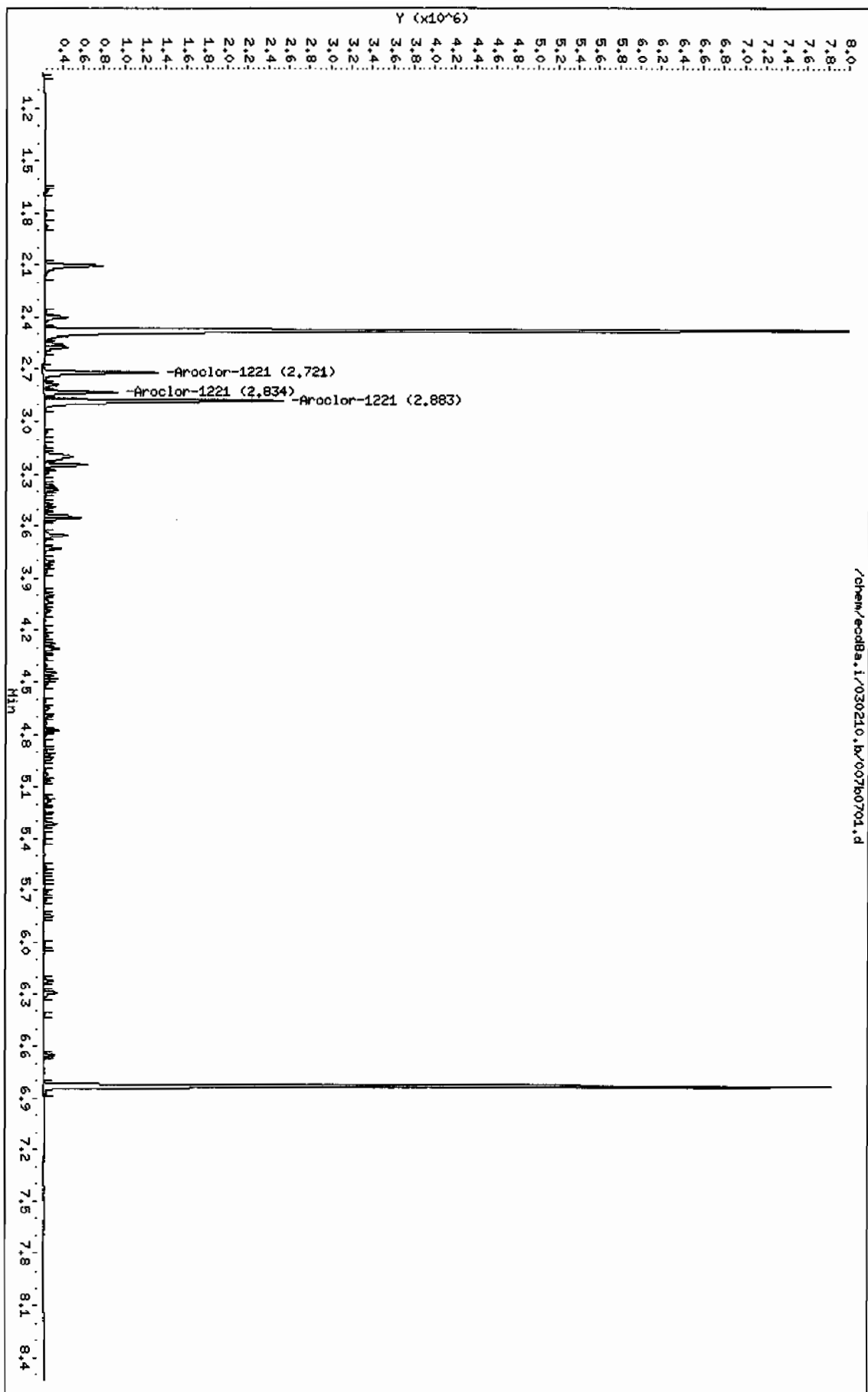
RT	EXP RT	DLT RT	CAL-AMT RESPONSE ( ug/L)	ON-COL ( ug/L)	TARGET RANGE	RATIO
2.721	2.721	0.000	1109419 1000.00	1170	80.00- 120.00	100.00
2.834	2.834	0.000	662348 1000.00	1120	39.70- 79.70	59.70
2.883	2.883	0.000	2403069 1000.00	1100	196.61- 236.61	216.61
Average of Peak Amounts =			1.13e+03			

Data File: /chem/ecod8a.i/030210.b/007b0701.d  
Date: 02-MAR-2010 09:27  
Client ID: PR122101  
Sample Info: IMR100104-21

Column phase: CLP2

Instrument: ecod8a.i  
Operator: JHOC  
Column diameter: 0.25

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GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/030210.b/022f2201.d

Lab Smp Id: WAR100225-60 02

Client Smp ID: AR166002

Inj Date : 02-MAR-2010 12:37

Operator : JAOC

Inst ID: ecd8a.i

Smp Info : |WAR100225-60 02

Misc Info : |1660

Comment :

Method : /chem/ecd8a.i/030210.b/ECD8-F-8082-020310a.m

Meth Date : 02-Mar-2010 15:24 jen01212 Quant Type: ESTD

Cal Date : 23-FEB-2010 11:32

Cal File: 017f1701.d

Als bottle: 22

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		
2.249	2.251	-0.002	13073986	100.000	104	80.00- 120.00	100.00
-----							
\$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.242	6.243	-0.001	8952026	100.000	99.1	80.00- 120.00	100.00
-----							
1 Aroclor-1016					CAS #: 12674-11-2		
2.807	2.808	-0.001	4465641	1000.00	981	80.00- 120.00	100.00
3.159	3.161	-0.002	5696196	1000.00	1020	110.02- 150.02	127.56
3.302	3.304	-0.002	2402030	1000.00	1000	33.62- 73.62	53.79
3.394	3.397	-0.003	2094375	1000.00	978	27.47- 67.47	46.90
3.556	3.559	-0.003	3066717	1000.00	990	47.53- 87.53	68.67
Average of Peak Amounts ~					994		
-----							
7 Aroclor-1260					CAS #: 11096-82-5		
4.430	4.433	-0.003	6479013	1000.00	1000	80.00- 120.00	100.00
4.626	4.629	-0.003	9607495	1000.00	1010	129.13- 169.13	148.29
4.902	4.904	-0.002	5640650	1000.00	996	67.89- 107.89	87.06
5.074	5.077	-0.003	5891637	1000.00	998	71.99- 111.99	90.93
5.485	5.488	-0.003	6287413	1000.00	1010	78.98- 118.98	97.04
Average of Peak Amounts =					1e+03		

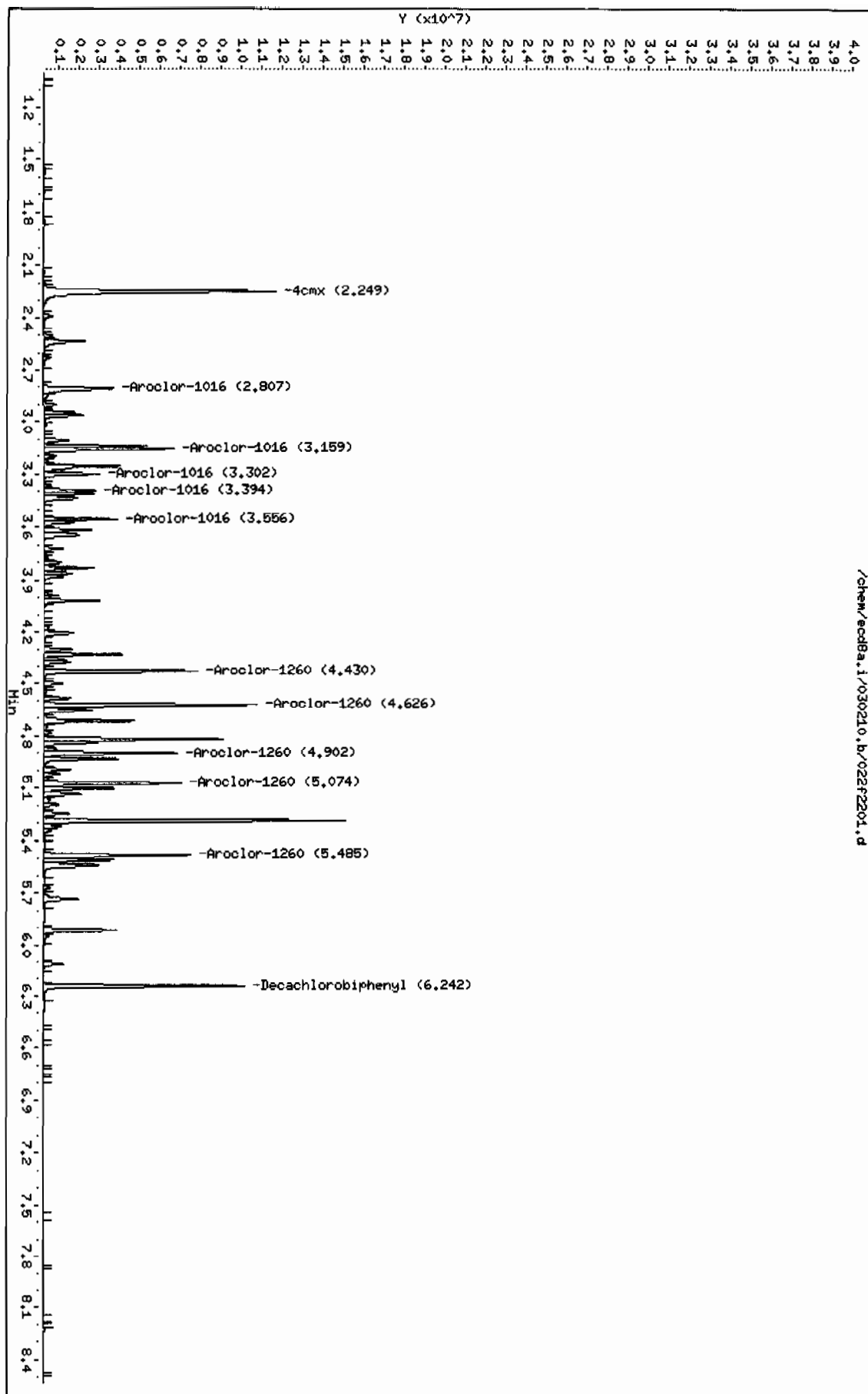
Data File: /chem/eodba.i/030210.b/02f2201.d  
Date : 02-MAR-2010 12:37  
Client ID: AR16002  
Sample Info: IMR100225-60 02

Instrument: eodba.i

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Column phase: CLP1

Operator: JAOC  
Column diameter: 0.25



GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/030210.b/022b2201.d

Lab Smp Id: WAR100225-60 02

Client Smp ID: AR166002

Inj Date : 02-MAR-2010 12:37

Operator : JAOC

Inst ID: ecd8a.i

Smp Info : |WAR100225-60 02

Misc Info : |1660

Comment :

Method : /chem/ecd8a.i/030210.b/ECD8-B-8082-020310a.m

Meth Date : 02-Mar-2010 15:24 jen01212 Quant Type: ESTD

Cal Date : 23-FEB-2010 11:32

Cal File: 017b1701.d

Als bottle: 22

Continuing Calibration Sample

Dil Factor: 1.00000

Integrator: Falcon

Compound Sublist: AR1660.sub

Target Version: 3.50

Sample Matrix: None

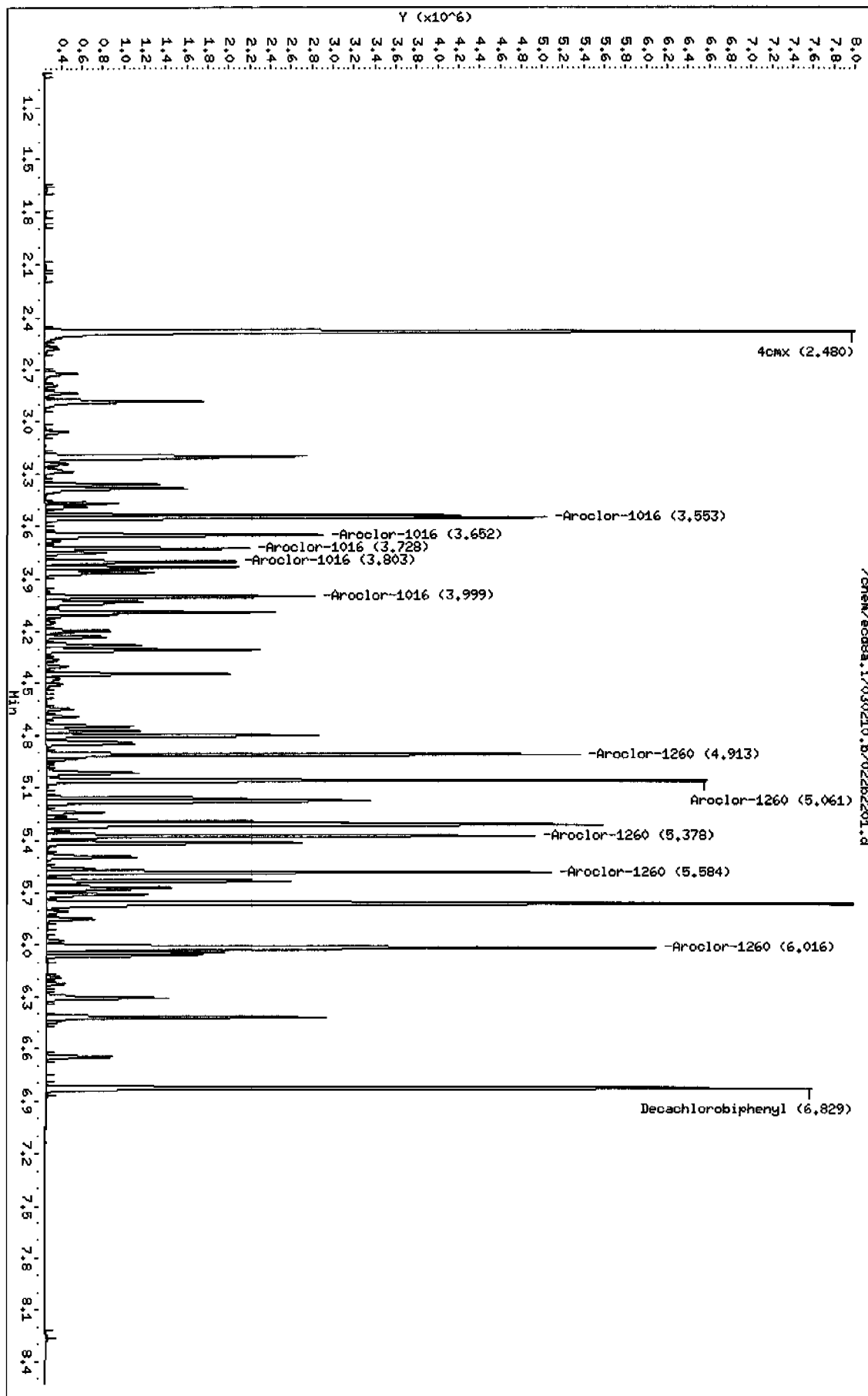
AMOUNTS

			CAL-AMT		ON-COL			
RT	EXP RT	DLT RT	RESPONSE ( ug/L)		( ug/L)	TARGET RANGE		RATIO
\$ 11 4cmx					CAS #: 877-09-8			
2.480	2.482	-0.002	9004738	100.000	109	80.00-	120.00	100.00
\$ 12 Decachlorobiphenyl					CAS #: 2051-24-3			
6.829	6.832	-0.003	6343367	100.000	103	80.00-	120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2			
3.553	3.554	-0.001	3920259	1000.00	1080	80.00-	120.00	100.00
3.652	3.653	-0.001	2561700	1000.00	1060	43.38-	83.38	65.35
3.728	3.729	-0.001	1553070	1000.00	1070	18.56-	58.56	39.62
3.803	3.805	-0.002	1495510	1000.00	1040	17.23-	57.23	38.15
3.999	4.001	-0.002	2092451	1000.00	1070	32.04-	72.04	53.38
Average of Peak Amounts =					1.07e+03			
7 Aroclor-1260					CAS #: 11096-82-5			
4.913	4.915	-0.002	4261051	1000.00	1070	80.00-	120.00	100.00
5.061	5.063	-0.002	5196898	1000.00	1080	102.35-	142.35	121.96
5.378	5.380	-0.002	3962576	1000.00	1080	73.01-	113.01	93.00
5.584	5.588	-0.004	4109795	1000.00	1070	76.90-	116.90	96.45
6.016	6.018	-0.002	6403585	1000.00	1070	131.73-	171.73	150.28
Average of Peak Amounts =					1.07e+03			

Data File: /chem/ecodBa.i/030210.b/022b2201.d  
Date: 02-MAR-2010 12:37  
Client ID: AR166002  
Sample Info: HMR100225-60 02

Column phase: CLP2

Instrument: ecodBa.i  
Operator: JADC  
Column diameter: 0.25



GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/030210.b/034f3401.d

Lab Smp Id: WAR100225-60 03

Client Smp ID: AR166003

Inj Date : 02-MAR-2010 15:14

Operator : JAOC

Inst ID: ecd8a.i

Smp Info : |WAR100225-60 03

Misc Info : |1660

Comment :

Method : /chem/ecd8a.i/030210.b/ECD8-F-8082-020310a.m

Meth Date : 02-Mar-2010 15:24 jen01212 Quant Type: ESTD

Cal Date : 23-FEB-2010 11:32 Cal File: 017f1701.d

Als bottle: 34

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

2.249	2.251	-0.002	12815258	100.000	102 80.00- 120.00	100.00
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\$ 12 Decachlorobiphenyl

CAS #: 2051-24-3

6.241	6.243	-0.002	8864276	100.000	98.1 80.00- 120.00	100.00
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1 Aroclor-1016

CAS #: 12674-11-2

2.807	2.808	-0.001	4342177	1000.00	954 80.00- 120.00	100.00
3.159	3.161	-0.002	5645722	1000.00	1010 110.02- 150.02	130.02
3.301	3.304	-0.003	2328428	1000.00	973 33.62- 73.62	53.62
3.394	3.397	-0.003	2061033	1000.00	963 27.47- 67.47	47.47
3.556	3.559	-0.003	2932401	1000.00	946 47.53- 87.53	67.53

Average of Peak Amounts =

969

7 Aroclor-1260

CAS #: 11096-82-5

4.430	4.433	-0.003	6157991	1000.00	951 80.00- 120.00	100.00
4.625	4.629	-0.004	9183389	1000.00	962 129.13- 169.13	149.13
4.901	4.904	-0.003	5412352	1000.00	955 67.89- 107.89	87.89
5.074	5.077	-0.003	5664647	1000.00	959 71.99- 111.99	91.99
5.485	5.488	-0.003	6095186	1000.00	978 78.98- 118.98	98.98

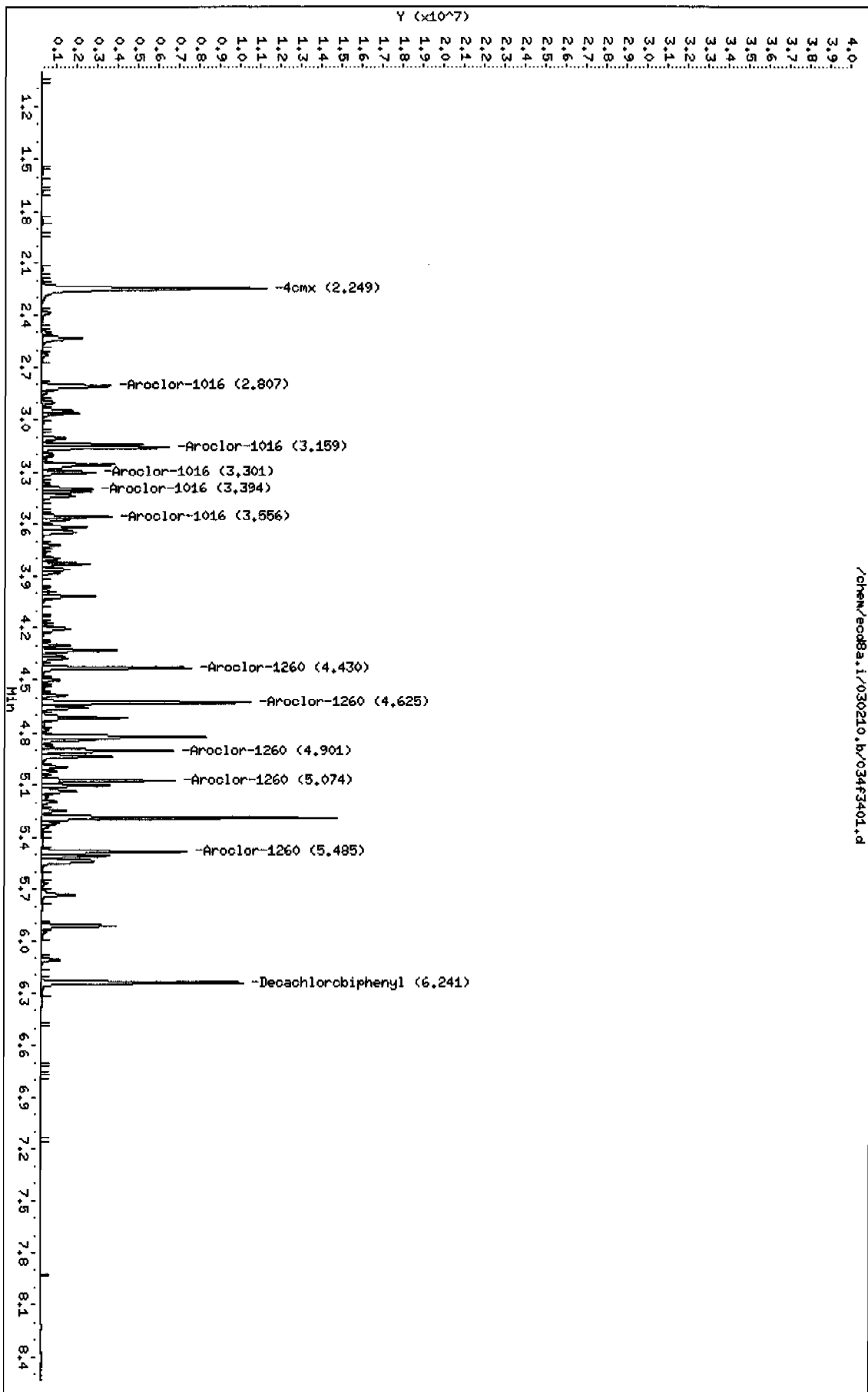
Average of Peak Amounts =

961

Data File: /chem/ecob8a.i/030210.b/034f3401.d  
Date: 02-MAR-2010 15:14  
Client ID: AR166003  
Sample Info: HMR100225-60 03

Column phase: CLP1

Instrument: ecob8a.i  
Operator: JAGC  
Column diameter: 0.25





GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/030210.b/034b3401.d

Lab Smp Id: WAR100225-60 03

Client Smp ID: AR166003

Inj Date : 02-MAR-2010 15:14

Operator : JAOC

Inst ID: ecd8a.i

Smp Info : |WAR100225-60 03

Misc Info : |1660

Comment :

Method : /chem/ecd8a.i/030210.b/ECD8-B-8082-020310a.m

Meth Date : 02-Mar-2010 15:24 jen01212 Quant Type: ESTD

Cal Date : 23-FEB-2010 11:32

Cal File: 017b1701.d

Als bottle: 34

Continuing Calibration Sample

Dil Factor: 1.00000

Integrator: Falcon

Compound Sublist: AR1660.sub

Target Version: 3.50

Sample Matrix: None

AMOUNTS

RT	EXP RT	DLT RT	CAL-AMT RESPONSE ( ug/L)	ON-COL ( ug/L)	TARGET RANGE	RATIO
----	--------	--------	-----------------------------	-------------------	--------------	-------

\$ 11 4cmx			CAS #: 877-09-8			
2.480	2.482	-0.002	8966298 100.000	109	80.00- 120.00	100.00

\$ 12 Decachlorobiphenyl			CAS #: 2051-24-3			
6.830	6.832	-0.002	6390930 100.000	104	80.00- 120.00	100.00

1 Aroclor-1016			CAS #: 12674-11-2			
3.552	3.554	-0.002	3983872 1000.00	1100	80.00- 120.00	100.00
3.652	3.653	-0.001	2525115 1000.00	1050	43.38- 83.38	63.38
3.728	3.729	-0.001	1536369 1000.00	1060	18.56- 58.56	38.56
3.803	3.805	-0.002	1483203 1000.00	1030	17.23- 57.23	37.23
4.000	4.001	-0.001	2073259 1000.00	1060	32.04- 72.04	52.04
Average of Peak Amounts =			1.06e+03			

7 Aroclor-1260			CAS #: 11096-82-5			
4.913	4.915	-0.002	4170395 1000.00	1050	80.00- 120.00	100.00
5.061	5.063	-0.002	5102283 1000.00	1060	102.35- 142.35	122.35
5.379	5.380	-0.001	3878952 1000.00	1050	73.01- 113.01	93.01
5.585	5.588	-0.003	4041155 1000.00	1060	76.90- 116.90	96.90
6.017	6.018	-0.001	6327641 1000.00	1060	131.73- 171.73	151.73
Average of Peak Amounts =			1.06e+03			

Data File: /chem/eod8a.i/030210.b/034b3401.d

Date: 02-MAR-2010 15:14

Client ID: AR16003

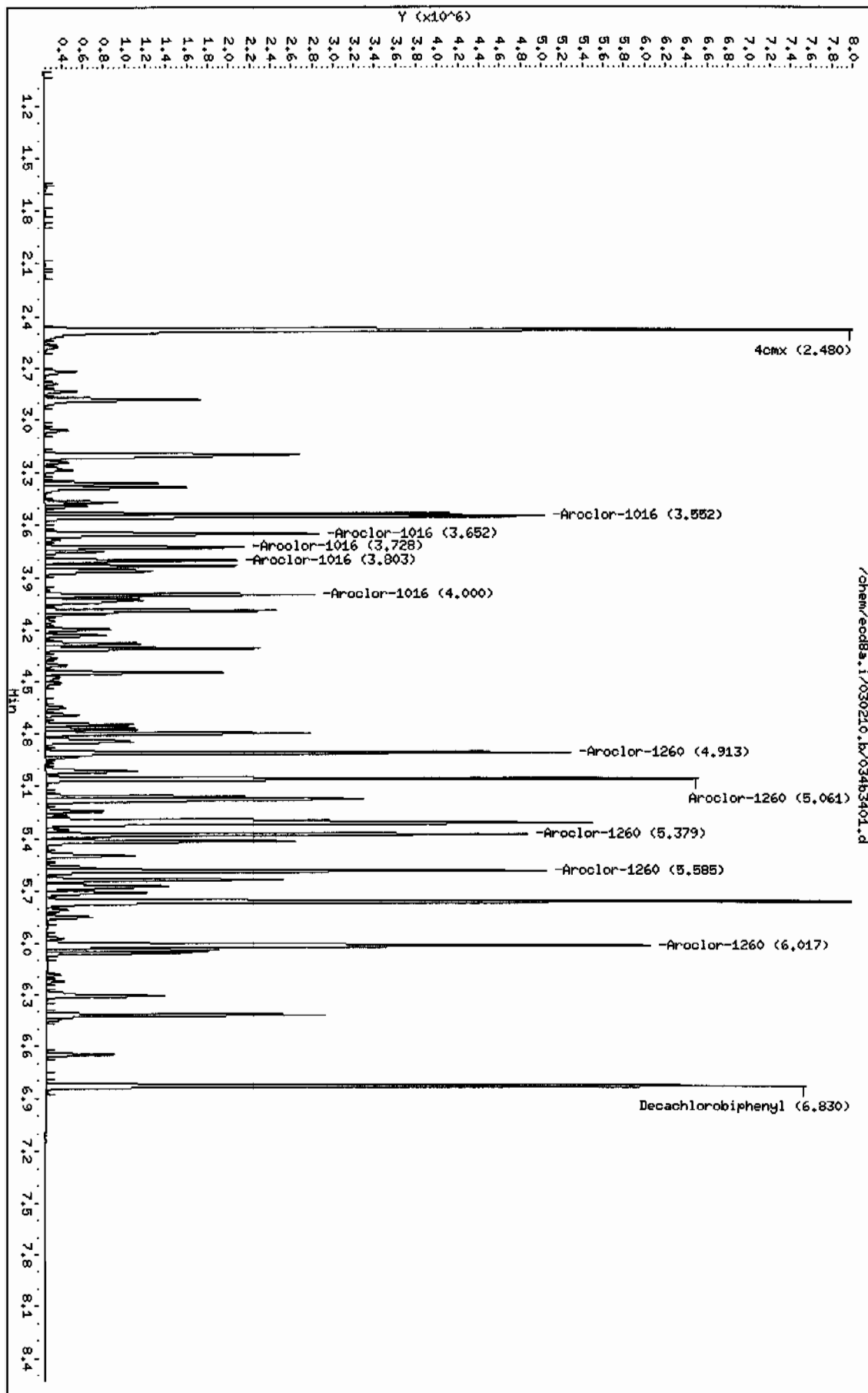
Sample Info: IARR100225-60 03

Column phase: CLP2

Instrument: eod8a.i

Operator: JADG

Column diameter: 0.25



8D  
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2027

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 02/23/10 02/23/10

Instrument ID: ECD8A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS,  
SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION							
S1 : 2.25 DCB: 6.24							
EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT	#	DCB RT	#
01 PIBLK01	WAR100105-99	02/23/10	0814	2.25		6.24	
02 ZZZZZ	ZZZZZ	02/23/10	0826	2.25		6.24	
03 AR125401	WAR100201-54	02/23/10	0839				
04 AR124201	WAR091217-42	02/23/10	0851				
05 AR124801	WAR091217-48	02/23/10	0903				
06 AR123201	WAR100104-32	02/23/10	0916				
07 AR166001	WAR100223-01	02/23/10	0928	2.25		6.24	
08 AR166002	WAR100223-02	02/23/10	0941	2.25		6.24	
09 AR166003	WAR100223-03	02/23/10	0953	2.25		6.24	
10 AR166004	WAR100223-04	02/23/10	1005	2.25		6.24	
11 AR166005	IAR100223-01	02/23/10	1018	2.25		6.24	
12 ZZZZZ	ZZZZZ	02/23/10	1030	2.25		6.24	
13 AR122101	WAR100223-05	02/23/10	1043				
14 AR122102	WAR100223-06	02/23/10	1055				
15 AR122103	WAR100223-07	02/23/10	1107				
16 AR122104	WAR100223-08	02/23/10	1120				
17 AR122105	IAR100104-02	02/23/10	1132				
18 AR122101	WAR100104-21	02/23/10	1145				
19 AR166001	WAR100222-60	02/23/10	1157	2.25		6.24	
20 AR126201	WAR100104-62	02/23/10	1209				
21 AR126801	WAR100107-68	02/23/10	1222				
22 DDTANALOGSTD	WAR091219-DD	02/23/10	1234				
23 PIBLK02	WAR100105-99	02/23/10	1246	2.25		6.24	
24 ZZZZZ	ZZZZZ	02/23/10	1259	2.25		6.24	
25 ZZZZZ	ZZZZZ	02/23/10	1311	2.25		6.24	
26 ZZZZZ	ZZZZZ	02/23/10	1324	2.25		6.24	
27 ZZZZZ	ZZZZZ	02/23/10	1336	2.25		6.24	
28 ZZZZZ	ZZZZZ	02/23/10	1348	2.25		6.24	
29 AR166002	WAR100222-60	02/23/10	1401	2.25		6.24	
30 PIBLK03	WAR100105-99	02/23/10	1413	2.25		6.24	
31 ZZZZZ	ZZZZZ	02/23/10	1426	2.25		6.24	
32 ZZZZZ	ZZZZZ	02/23/10	1438	2.25		6.24	

QC LIMITS  
S1 = 4cmx (+/- 0.03 MINUTES)  
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

# Column used to flag retention time values with an asterisk.  
\* Values outside of QC limits.

8D  
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2027

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 02/23/10 02/23/10

Instrument ID: ECD8A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS,  
SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION							
S1 : 2.48				DCB: 6.83			
EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT	#	DCB RT	#
01	PIBLK01	WAR100105-99	02/23/10	0814		2.48	6.83
02	ZZZZZ	ZZZZZ	02/23/10	0826		2.48	6.83
03	AR125401	WAR100201-54	02/23/10	0839			
04	AR124201	WAR091217-42	02/23/10	0851			
05	AR124801	WAR091217-48	02/23/10	0903			
06	AR123201	WAR100104-32	02/23/10	0916			
07	AR166001	WAR100223-01	02/23/10	0928		2.48	6.83
08	AR166002	WAR100223-02	02/23/10	0941		2.48	6.83
09	AR166003	WAR100223-03	02/23/10	0953		2.48	6.83
10	AR166004	WAR100223-04	02/23/10	1005		2.48	6.83
11	AR166005	WAR100223-01	02/23/10	1018		2.48	6.83
12	ZZZZZ	ZZZZZ	02/23/10	1030		2.48	6.83
13	AR122101	WAR100223-05	02/23/10	1043			
14	AR122102	WAR100223-06	02/23/10	1055			
15	AR122103	WAR100223-07	02/23/10	1107			
16	AR122104	WAR100223-08	02/23/10	1120			
17	AR122105	WAR100104-02	02/23/10	1132			
18	AR122101	WAR100104-21	02/23/10	1145			
19	AR166001	WAR100222-60	02/23/10	1157		2.48	6.83
20	AR126201	WAR100104-62	02/23/10	1209			
21	AR126801	WAR100107-68	02/23/10	1222			
22	DDTANALOGSTD	WAR091219-DD	02/23/10	1234			
23	PIBLK02	WAR100105-99	02/23/10	1246		2.48	6.83
24	ZZZZZ	ZZZZZ	02/23/10	1259		2.48	6.83
25	ZZZZZ	ZZZZZ	02/23/10	1311		2.48	6.83
26	ZZZZZ	ZZZZZ	02/23/10	1324		2.48	6.83
27	ZZZZZ	ZZZZZ	02/23/10	1336		2.48	6.83
28	ZZZZZ	ZZZZZ	02/23/10	1348		2.48	6.83
29	AR166002	WAR100222-60	02/23/10	1401		2.48	6.83
30	PIBLK03	WAR100105-99	02/23/10	1413		2.48	6.83
31	ZZZZZ	ZZZZZ	02/23/10	1426		2.48	6.83
32	ZZZZZ	ZZZZZ	02/23/10	1438		2.48	6.83

S1 = 4cmx (+/- 0.03 MINUTES)  
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

# Column used to flag retention time values with an asterisk.  
\* Values outside of QC limits.

8D  
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2027

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 02/23/10 02/23/10

Instrument ID: ECD8A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS,  
SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION					
S1 : 2.25			DCB: 6.24		
EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100219-99	03/02/10 0813	2.25	6.24
02	AR166001	WAR100225-60	03/02/10 0825	2.25	6.24
03	AR125401	WAR100201-54	03/02/10 0837		
04	AR124201	WAR091217-42	03/02/10 0850		
05	AR124801	WAR091217-48	03/02/10 0902		
06	AR123201	WAR100104-32	03/02/10 0915		
07	AR122101	WAR100104-21	03/02/10 0927		
08	AR126201	WAR100104-62	03/02/10 0939		
09	AR126801	WAR100107-68	03/02/10 0952		
10	DDTANALOGSTD	WAR091219-DD	03/02/10 1004		
11	PIBLK02	WAR100219-99	03/02/10 1017	2.25	6.24
12	PBLK01	1202057855	03/02/10 1029	2.25	6.24
13	PBLK01LCS	1202057856	03/02/10 1041	2.25	6.24
14	ZZZZZ	ZZZZZ	03/02/10 1054	2.25	6.24
15	ZZZZZ	ZZZZZ	03/02/10 1106	2.25	6.24
16	ZZZZZ	ZZZZZ	03/02/10 1119	2.25	6.24
17	ZZZZZ	ZZZZZ	03/02/10 1131	2.25	6.24
18	ZZZZZ	ZZZZZ	03/02/10 1143	2.25	6.24
19	ZZZZZ	ZZZZZ	03/02/10 1156	2.25	6.24
20	ZZZZZ	ZZZZZ	03/02/10 1208	2.25	6.24
21	ZZZZZ	ZZZZZ	03/02/10 1221	2.25	6.24
22	AR166002	WAR100225-60	03/02/10 1237	2.25	6.24
23	PIBLK03	WAR100219-99	03/02/10 1249	2.25	6.24
24	ZZZZZ	ZZZZZ	03/02/10 1302	2.25	6.24
25	ZZZZZ	ZZZZZ	03/02/10 1314	2.25	6.24
26	ZZZZZ	ZZZZZ	03/02/10 1327	2.25	6.24
27	RE36-10-8490	248012002	03/02/10 1339	2.25	6.24
28	ZZZZZ	ZZZZZ	03/02/10 1352	2.25	6.24
29	ZZZZZ	ZZZZZ	03/02/10 1404	2.25	6.24
30	ZZZZZ	ZZZZZ	03/02/10 1416	2.25	6.24
31	ZZZZZ	ZZZZZ	03/02/10 1429	2.25	6.24
32	ZZZZZ	ZZZZZ	03/02/10 1445	2.25	6.24

QC LIMITS  
S1 = 4cmx (+/- 0.03 MINUTES)  
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

# Column used to flag retention time values with an asterisk.  
\* Values outside of QC limits.

8D  
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A  
 Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2027  
 GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 02/23/10 02/23/10  
 Instrument ID: ECD8A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS,  
 SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION						
S1 : 2.25			DCB: 6.24			
	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	ZZZZZ	ZZZZZ	03/02/10	1458	2.25	6.24
02	AR166003	WAR100225-60	03/02/10	1514	2.25	6.24
03	PIBLK04	WAR100219-99	03/02/10	1527	2.25	6.24
04	ZZZZZ	ZZZZZ	03/02/10	1539	2.25	6.24
05	ZZZZZ	ZZZZZ	03/02/10	1551	2.25	6.24
06	ZZZZZ	ZZZZZ	03/02/10	1604	2.25	6.24
07	ZZZZZ	ZZZZZ	03/02/10	1616	2.25	6.24
08	ZZZZZ	ZZZZZ	03/02/10	1629	2.25	6.24
09	ZZZZZ	ZZZZZ	03/02/10	1641	2.25	6.24
10	AR166004	WAR100225-60	03/02/10	1657	2.25	6.24
11	PIBLK05	WAR100219-99	03/02/10	1710	2.25	6.24
12						
13						
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25						
26						
27						
28						
29						
30						
31						
32						

QC LIMITS

S1 = 4cmx (+/- 0.03 MINUTES)  
 DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

# Column used to flag retention time values with an asterisk.  
 \* Values outside of QC limits.

8D  
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2027

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 02/23/10 02/23/10

Instrument ID: ECD8A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS,  
SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION					
S1 : 2.48			DCB: 6.83		
EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	SI RT #	DCB RT #
01	PIBLK01	WAR100219-99	03/02/10	0813	
02	AR166001	WAR100225-60	03/02/10	0825	
03	AR125401	WAR100201-54	03/02/10	0837	
04	AR124201	WAR091217-42	03/02/10	0850	
05	AR124801	WAR091217-48	03/02/10	0902	
06	AR123201	WAR100104-32	03/02/10	0915	
07	AR122101	WAR100104-21	03/02/10	0927	
08	AR126201	WAR100104-62	03/02/10	0939	
09	AR126801	WAR100107-68	03/02/10	0952	
10	DDTANALOGSTD	WAR091219-DD	03/02/10	1004	
11	PIBLK02	WAR100219-99	03/02/10	1017	2.48 6.83
12	PBLK01	1202057855	03/02/10	1029	2.48 6.83
13	PBLK01LCS	1202057856	03/02/10	1041	2.48 6.83
14	ZZZZZ	ZZZZZ	03/02/10	1054	2.48 6.83
15	ZZZZZ	ZZZZZ	03/02/10	1106	2.48 6.83
16	ZZZZZ	ZZZZZ	03/02/10	1119	2.48 6.83
17	ZZZZZ	ZZZZZ	03/02/10	1131	2.48 6.83
18	ZZZZZ	ZZZZZ	03/02/10	1143	2.48 6.83
19	ZZZZZ	ZZZZZ	03/02/10	1156	2.48 6.83
20	ZZZZZ	ZZZZZ	03/02/10	1208	2.48 6.83
21	ZZZZZ	ZZZZZ	03/02/10	1221	2.48 6.83
22	AR166002	WAR100225-60	03/02/10	1237	2.48 6.83
23	PIBLK03	WAR100219-99	03/02/10	1249	2.48 6.83
24	ZZZZZ	ZZZZZ	03/02/10	1302	2.48 6.83
25	ZZZZZ	ZZZZZ	03/02/10	1314	2.48 6.83
26	ZZZZZ	ZZZZZ	03/02/10	1327	2.48 6.83
27	RE36-10-8490	248012002	03/02/10	1339	2.48 6.83
28	ZZZZZ	ZZZZZ	03/02/10	1352	2.48 6.83
29	ZZZZZ	ZZZZZ	03/02/10	1404	2.48 6.83
30	ZZZZZ	ZZZZZ	03/02/10	1416	2.48 6.83
31	ZZZZZ	ZZZZZ	03/02/10	1429	2.48 6.83
32	ZZZZZ	ZZZZZ	03/02/10	1445	2.48 6.83

QC LIMITS

S1 = 4cmx (+/- 0.03 MINUTES)

DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

# Column used to flag retention time values with an asterisk.  
\* Values outside of QC limits.

8D  
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2027

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 02/23/10 02/23/10

Instrument ID: ECD8A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS,  
SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION						
S1 : 2.48 DCB: 6.83						
	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	ZZZZZ	ZZZZZ	03/02/10	1458	2.48	6.83
02	AR166003	WAR100225-60	03/02/10	1514	2.48	6.83
03	PIBLK04	WAR100219-99	03/02/10	1527	2.48	6.83
04	ZZZZZ	ZZZZZ	03/02/10	1539	2.48	6.83
05	ZZZZZ	ZZZZZ	03/02/10	1551	2.48	6.83
06	ZZZZZ	ZZZZZ	03/02/10	1604	2.48	6.83
07	ZZZZZ	ZZZZZ	03/02/10	1616	2.48	6.83
08	ZZZZZ	ZZZZZ	03/02/10	1629	2.48	6.83
09	ZZZZZ	ZZZZZ	03/02/10	1641	2.48	6.83
10	AR166004	WAR100225-60	03/02/10	1657	2.48	6.83
11	PIBLK05	WAR100219-99	03/02/10	1710	2.48	6.83
12						
13						
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28						
29						
30						
31						
32						

QC LIMITS

S1 = 4cmx (+/- 0.03 MINUTES)

DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

# Column used to flag retention time values with an asterisk.  
\* Values outside of QC limits.



## Identification Summary

Page 1 of 1

SDG Number: 10-2027

Client ID: LCS for batch 959464

Lab Sample ID: 1202057856

Data File: 013f1301.d

Data File: 013b1301.d

Inst: ECD8A.I\_1

Inst: ECD8A.I\_2

Column: CLP1

Column: CLP2

Analyzed: 02-MAR-10 10:41

Analyzed: 02-MAR-10 10:41

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
<b>Aroclor-1016</b>							3.53
<i>Column 1</i>	1	2.81	2.78 – 2.84	27.1		ug/kg	
	2	3.16	3.13 – 3.19	28.7		ug/kg	
	3	3.3	3.27 – 3.33	28.4		ug/kg	
	4	3.4	3.37 – 3.43	28.1		ug/kg	
	5	3.56	3.53 – 3.59	27.7		ug/kg	
					28		
<i>Column 2</i>	1	3.55	3.52 – 3.58	30.1		ug/kg	
	2	3.65	3.62 – 3.68	28.7		ug/kg	
	3	3.73	3.7 – 3.76	28.1		ug/kg	
	4	3.8	3.78 – 3.84	29		ug/kg	
	5	4	3.97 – 4.03	29.1		ug/kg	
					29		
<b>Aroclor-1260</b>							5.53
<i>Column 1</i>	1	4.43	4.4 – 4.46	31.7		ug/kg	
	2	4.63	4.6 – 4.66	32.2		ug/kg	
	3	4.9	4.87 – 4.93	30.8		ug/kg	
	4	5.07	5.05 – 5.11	28.8		ug/kg	
	5	5.49	5.46 – 5.52	31.5		ug/kg	
					31		
<i>Column 2</i>	1	4.91	4.89 – 4.95	31.6		ug/kg	
	2	5.06	5.03 – 5.09	33.1		ug/kg	
	3	5.38	5.35 – 5.41	35.1		ug/kg	
	4	5.59	5.56 – 5.62	29.3		ug/kg	
	5	6.02	5.99 – 6.05	35		ug/kg	
					32.8		

# QUALITY CONTROL DATA

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

Page 1 of 1

SDG Number: 10-2027

Lab Sample ID: 1202057855

Client Sample: QC for batch 959464

Client ID: MB for batch 959464

Batch ID: 959468

Run Date: 03/02/2010 10:29

Prep Date: 03/01/2010 23:33

Data File: 012f1201-1.d

012b1201-1.d

Client: LANL010  
Method: SW846 8082  
Inst: ECD8A.I  
Analyst: JAOC  
Aliquot: 30 g  
Column: 1 CLP1  
2 CLP2

Matrix: SOIL

Project: QC  
SOP Ref: GL-OA-E-040  
Dilution: 1  
Inj. Vol: 1 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.33	ug/kg	1.11	3.33	1
11104-28-2	Aroclor-1221	U	3.33	ug/kg	1.11	3.33	1
11141-16-5	Aroclor-1232	U	3.33	ug/kg	1.11	3.33	1
53469-21-9	Aroclor-1242	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/ecd8a.i/030210.b/012f1201-3.d  
 Report Date: 05-Mar-2010 13:23

Page 1

# GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/030210.b/012f1201-3.d  
 Lab Smp Id: 1202057855 Client Smp ID: PBLK01  
 Inj Date : 02-MAR-2010 10:29  
 Operator : JAOC Inst ID: ecd8a.i  
 Smp Info : |1202057855|1|  
 Misc Info : |ECD82P\_1S|959468|SVA|QC A|SOIL|MB|||  
 Comment :  
 Method : /chem/ecd8a.i/030210.b/ECD8-F-8082-020310a.m  
 Meth Date : 03-Mar-2010 08:07 jen01212 Quant Type: ESTD  
 Cal Date : 23-FEB-2010 11:32 Cal File: 017f1701.d  
 Als bottle: 12 QC Sample: BLANK  
 Dil Factor: 1.00000  
 Integrator: Falcon Compound Sublist: 10-2027.sub  
 Target Version: 3.50 Sample Matrix: Soil  
 Processing Host: hpclp1

Concentration Formula:  $\text{Amt} * \text{DF} * \text{Uf} * \text{Vt} / (\text{Vi} * \text{Ws} * (100 - \text{M}) / 100) * \text{CpndVariable}$

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

CONCENTRATIONS							
			ON-COL	FINAL			
RT	EXP RT	DLT RT	RESPONSE ( ug/L)	(ug/Kg)	TARGET RANGE	RATIO	
==	=====	=====	=====	=====	=====	=====	
\$ 11 4cmx				CAS #: 877-09-8			
2.251	2.251	0.000	21777756	172.826	5.8	80.00- 120.00	100.00
-----							
\$ 12 Decachlorobiphenyl				CAS #: 2051-24-3			
6.242	6.243	-0.001	9736033	107.797	3.6	80.00- 120.00	100.00
-----							

Data File: /chem/eod8a.i/030210.b/012f1201-3.d

Date: 02-MAR-2010 10:29

Client ID: PBLK01

Sample Info: 1120205789511

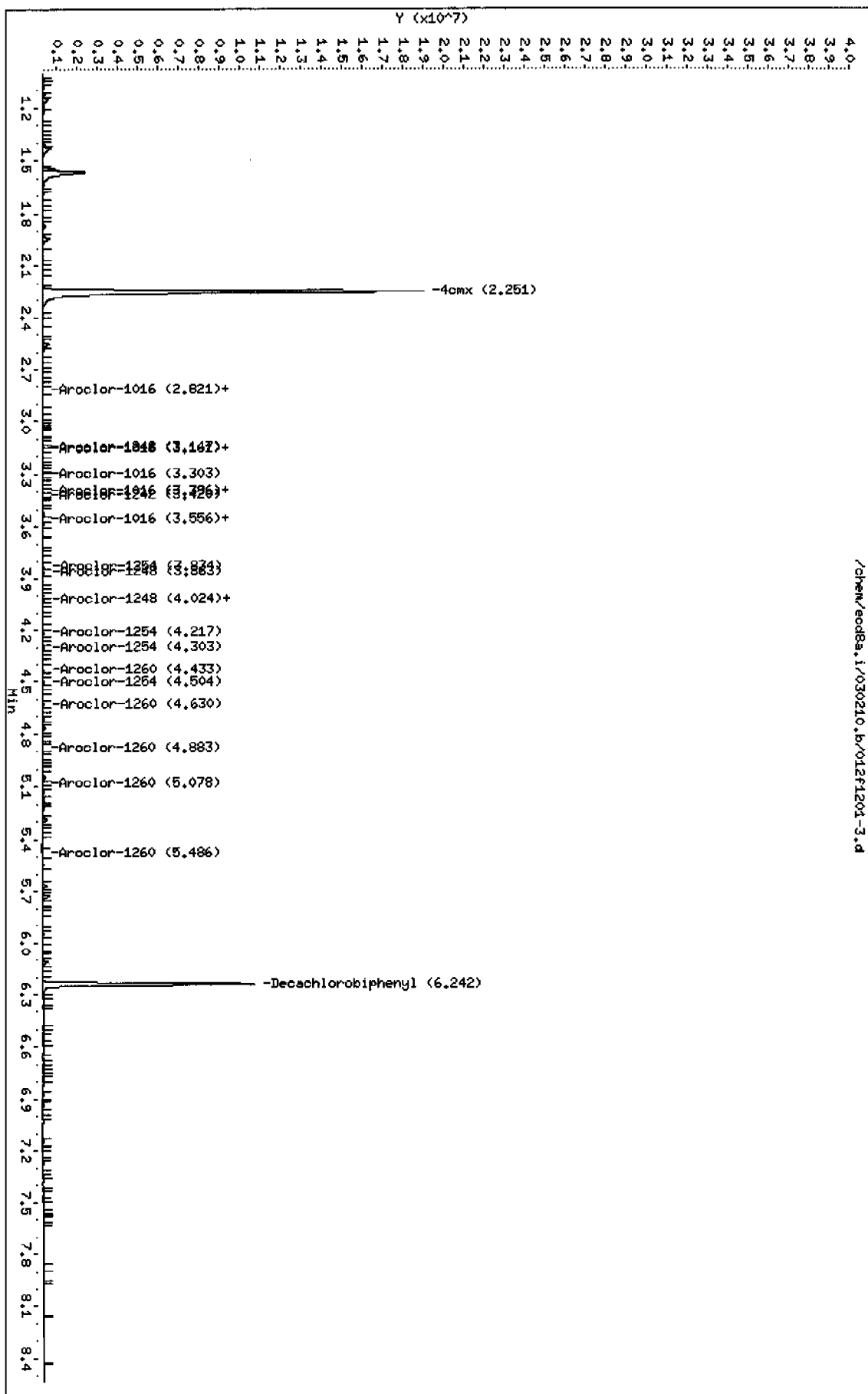
Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: eod8a.i

Operator: JAC

Column diameter: 0.25



GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/030210.b/012b1201-3.d  
 Lab Smp Id: 1202057855 Client Smp ID: PBLK01  
 Inj Date : 02-MAR-2010 10:29  
 Operator : JAOC Inst ID: ecd8a.i  
 Smp Info : |1202057855|1|  
 Misc Info : |ECD82P\_1S|959468|SVA|QC A|SOIL|MB|||  
 Comment :  
 Method : /chem/ecd8a.i/030210.b/ECD8-B-8082-020310a.m  
 Meth Date : 03-Mar-2010 08:08 jen01212 Quant Type: ESTD  
 Cal Date : 23-FEB-2010 11:32 Cal File: 017b1701.d  
 Als bottle: 12 QC Sample: BLANK  
 Dil Factor: 1.00000  
 Integrator: Falcon Compound Sublist: 10-2027.sub  
 Target Version: 3.50 Sample Matrix: Soil  
 Processing Host: hpc1p1

Concentration Formula: Amt \* DF \* Uf \* Vt / (Vi \* Ws \* (100 - M) / 100) \* CpndVariable

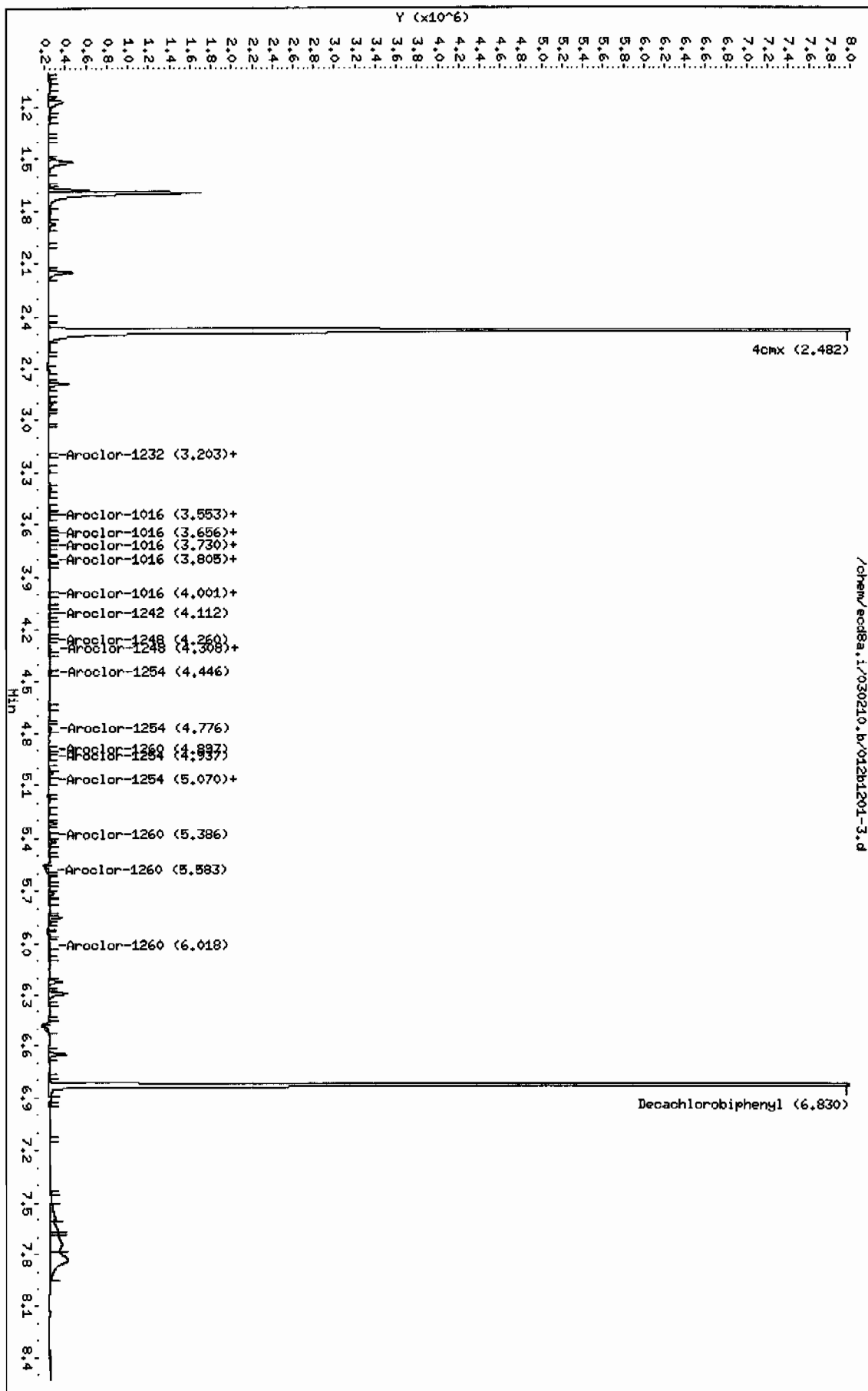
Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

CONCENTRATIONS						
			ON-COL	FINAL		
RT	EXP RT	DLT RT	RESPONSE ( ug/L)	(ug/Kg)	TARGET RANGE	RATIO
--	-----	-----	-----	-----	-----	-----
CAS #: 877-09-8						
11.4cmx	2.482	2.482 0.000	15251925 184.928	6.2	80.00~ 120.00	100.00
CAS #: 2051-24-3						
12 Decachlorobiphenyl	6.830	6.832 -0.002	11452170 185.798	6.2	80.00~ 120.00	100.00

Data File: /chem/ecd8a.i/030210.b/012b1201-3.d  
Date: 02-MAR-2010 10:29  
Client ID: PBLK01  
Sample Info: 1120205785511  
Volume Injected (uL): 1.0  
Column phase: CLP2

Instrument: ecd8a.i  
Operator: JROC  
Column diameter: 0.25



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

SDG Number: 10-2027

Lab Sample ID: 1202057856

Client Sample: QC for batch 959464

Client ID: LCS for batch 959464

Batch ID: 959468

Run Date: 03/02/2010 10:41

Prep Date: 03/01/2010 23:33

Data File: 013f1301-1.d

013b1301-1.d

Client: LANL010  
Method: SW846 8082  
Inst: ECD8A.I  
Analyst: JAOC  
Aliquot: 30 g  
Column: 1 CLP1  
2 CLP2

Matrix: SOIL

Project: QC  
SOP Ref: GL-OA-E-040  
Dilution: 1  
Inj. Vol: 1 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016		29.0	ug/kg	1.11	3.33	2
11104-28-2	Aroclor-1221	U	3.33	ug/kg	1.11	3.33	1
11141-16-5	Aroclor-1232	U	3.33	ug/kg	1.11	3.33	1
53469-21-9	Aroclor-1242	U	3.33	ug/kg	1.11	3.33	1
12672-29-6	Aroclor-1248	U	3.33	ug/kg	1.11	3.33	1
11097-69-1	Aroclor-1254	U	3.33	ug/kg	1.11	3.33	1
11096-82-5	Aroclor-1260		32.8	ug/kg	1.11	3.33	2



GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/030210.b/013f1301-3.d

Lab Smp Id: 1202057856

Client Smp ID: PBLK01LCS

Inj Date : 02-MAR-2010 10:41

Operator : JAOC

Inst ID: ecd8a.i

Smp Info : |1202057856|1|

Misc Info : |ECD82P\_1S|959468|SVA|QC A|SOIL|LCS|||

Comment :

Method : /chem/ecd8a.i/030210.b/ECD8-F-8082-020310a.m

Meth Date : 03-Mar-2010 08:07 jen01212 Quant Type: ESTD

Cal Date : 23-FEB-2010 11:32

Cal File: 017f1701.d

Als bottle: 13

QC Sample: LCS

Dil Factor: 1.00000

Integrator: Falcon

Compound Sublist: 10-2027.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

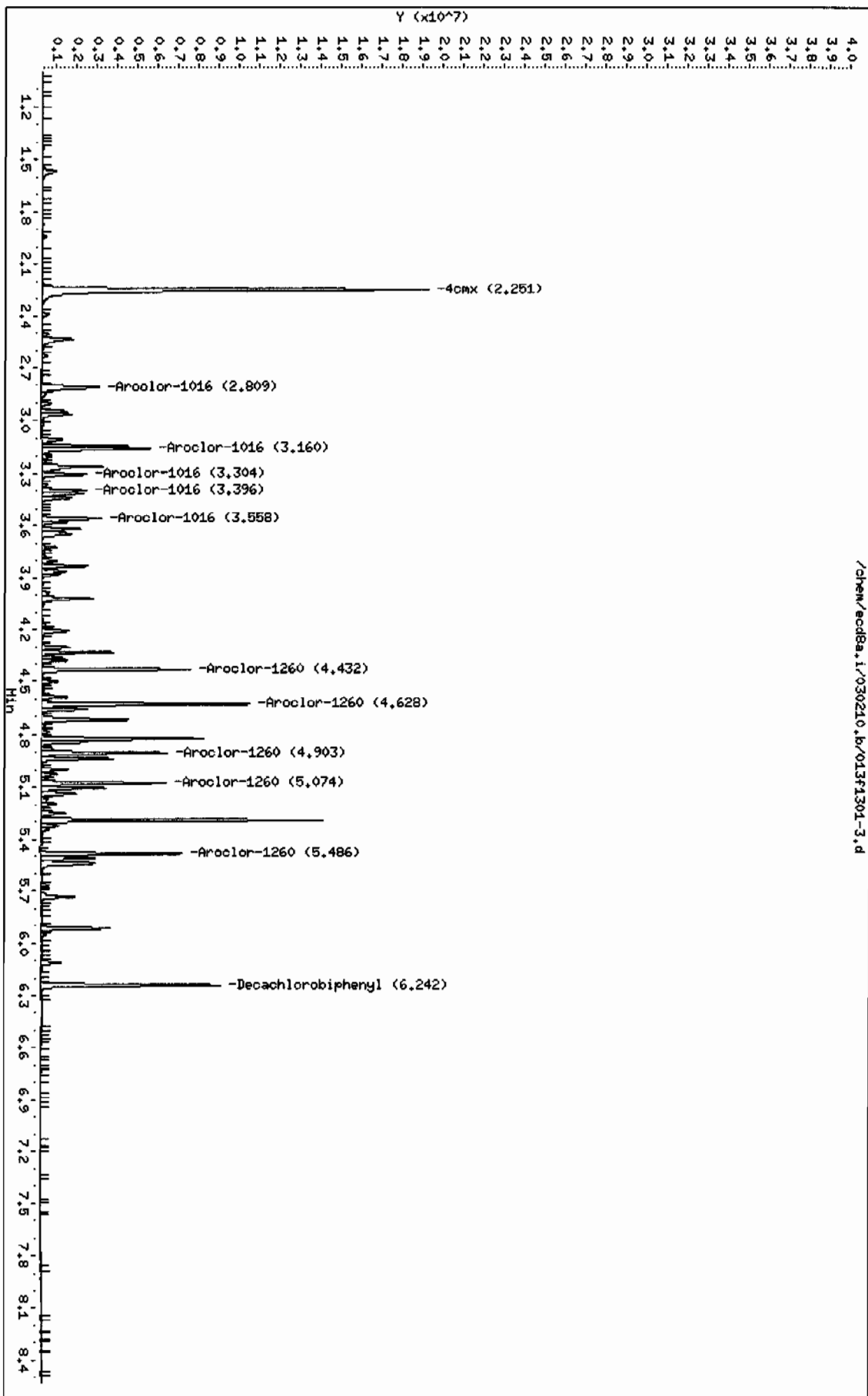
Cpnd Variable Local Compound Variable

CONCENTRATIONS							
			ON-COL		FINAL		
RT	EXP RT	DLT RT	RESPONSE ( ug/L)		(ug/Kg)	TARGET RANGE	RATIO
11	4cmx						
2.251	2.251	0.000	21581124	171.266	5.7	80.00- 120.00	100.00
12	Decachlorobiphenyl						
6.242	6.243	-0.001	7824590	86.6337	2.9	80.00- 120.00	100.00
1	Aroclor-1016						
2.809	2.808	0.001	3698083	812.538	27.1	80.00- 120.00	100.00
3.160	3.161	-0.001	4824437	859.962	28.7	110.65- 150.65	130.46
3.304	3.304	0.000	2038481	852.101	28.4	33.51- 73.51	55.12
3.396	3.397	-0.001	1807633	844.444	28.1	26.95- 66.95	48.88

CONCENTRATIONS								
			ON-COL		FINAL			
RT	EXP RT	DLT RT	RESPONSE	( ug/L)	(ug/Kg)	TARGET RANGE	RATIO	
==	=====	=====	=====	=====	=====	=====	=====	
1 Aroclor-1016 (continued)								
3.558	3.559	-0.001	2578943	832.142	27.7	48.05-	88.05	69.74
Average of Peak Concentrations =					28.0			
-----								
7 Aroclor-1260					CAS #: 11096-82-5			
4.432	4.433	-0.001	6153878	950.325	31.7	80.00-	120.00	100.00
4.628	4.629	-0.001	9235572	967.251	32.2	128.55-	168.55	150.08
4.903	4.904	-0.001	5243380	925.464	30.8	67.09-	107.09	85.20
5.074	5.077	-0.003	5108089	865.187	28.8	70.83-	110.83	83.01
5.486	5.488	-0.002	5894957	946.400	31.5	79.33-	119.33	95.79
Average of Peak Concentrations =					31.0			
-----								

Data File: /chem/ecdb8a.i/030210.b/013F1301-3.d  
Date : 02-MAR-2010 10:41  
Client ID: PBLK01LCS  
Sample Info: 11202057856111  
Volume Injected (uL): 1.0  
Column phase: CLP1

Instrument: ecdb8a.i  
Operator: JMO  
Column diameter: 0.25



Data File: /chem/ecd8a.i/030210.b/013b1301-3.d  
Report Date: 05-Mar-2010 13:21

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GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/030210.b/013b1301-3.d  
Lab Smp Id: 1202057856 Client Smp ID: PBLK01LCS  
Inj Date : 02-MAR-2010 10:41  
Operator : JAOC Inst ID: ecd8a.i  
Smp Info : |1202057856|1|  
Misc Info : |ECD82P\_1S|959468|SVA|QC A|SOIL|LCS|||  
Comment :  
Method : /chem/ecd8a.i/030210.b/ECD8-B-8082-020310a.m  
Meth Date : 03-Mar-2010 08:08 jen01212 Quant Type: ESTD  
Cal Date : 23-FEB-2010 11:32 Cal File: 017b1701.d  
Als bottle: 13 QC Sample: LCS  
Dil Factor: 1.00000  
Integrator: Falcon Compound Sublist: 10-2027.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

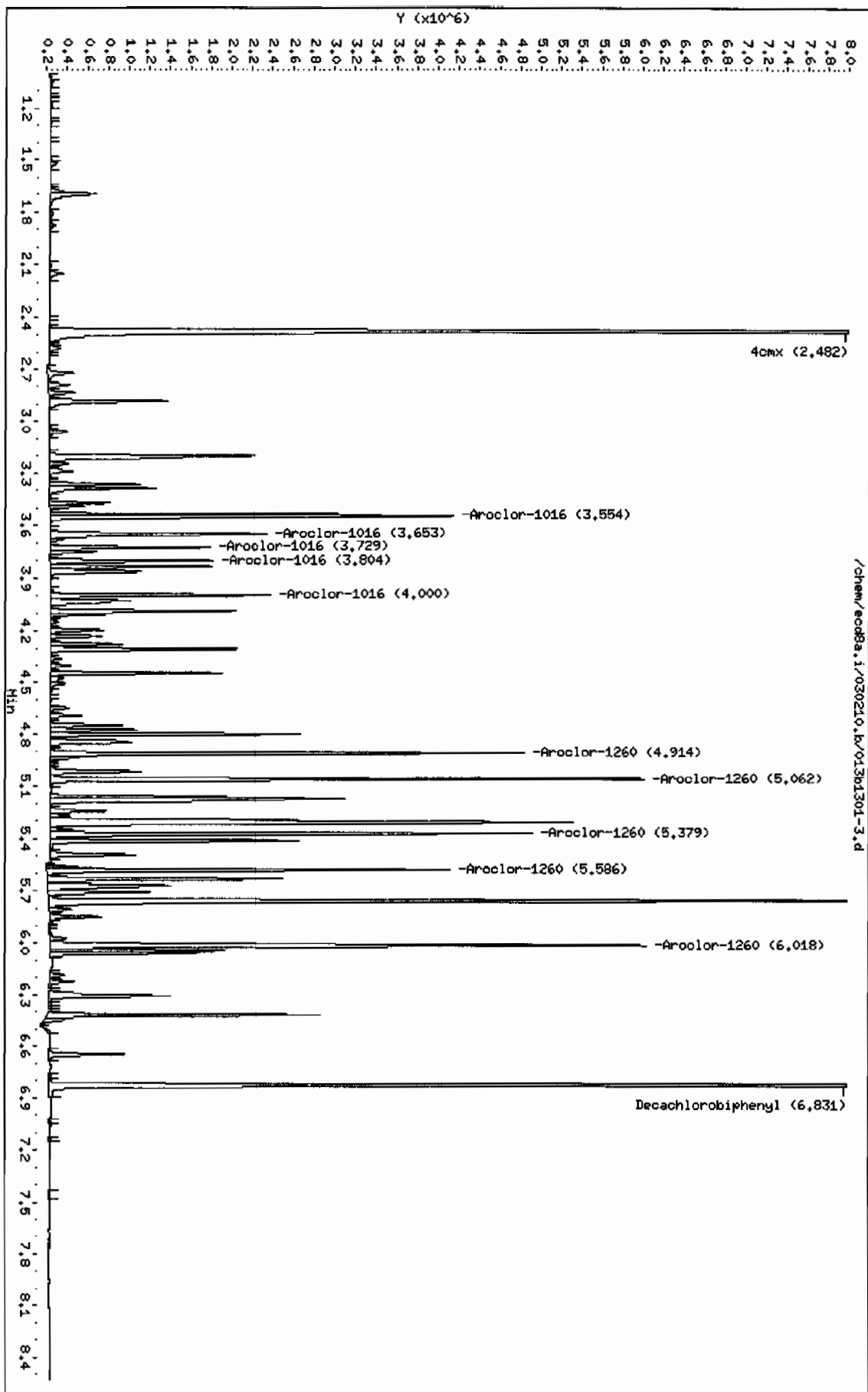
Cpnd Variable Local Compound Variable

CONCENTRATIONS						
			ON-COL	FINAL		
RT	EXP RT	DLT RT	RESPONSE ( ug/L)	(ug/Kg)	TARGET RANGE	RATIO
***	*****	*****	*****	*****	*****	*****
\$ 11 4cmx CAS #: 877-09-8						
2.482	2.482	0.000	14985608 181.699	6.0	80.00- 120.00	100.00
-----						
\$ 12 Decachlorobiphenyl CAS #: 2051-24-3						
6.831	6.832	-0.001	11541450 187.247	6.2	80.00- 120.00	100.00
-----						
1 Aroclor-1016 CAS #: 12674-11-2						
3.554	3.554	0.000	3273588 904.442	30.1	80.00- 120.00	100.00
3.653	3.653	0.000	2073895 860.485	28.7	43.27- 83.27	63.35
3.729	3.729	0.000	1224155 842.432	28.1	18.69- 58.69	37.39
3.804	3.805	-0.001	1249465 871.448	29.0	17.10- 57.10	38.17

CONCENTRATIONS								
			ON-COL		FINAL			
RT	EXP RT	DLT RT	RESPONSE ( ug/L)		(ug/Kg)	TARGET RANGE	RATIO	
==	=====	=====	=====	=====	=====	=====	=====	=====
1 Aroclor-1016 (continued)								
4.000	4.001	-0.001	1710567	873.499	29.1	31.95-	71.95	52.25
Average of Peak Concentrations =					29.0			
-----								
7 Aroclor-1260					CAS #: 11096-82-5			
4.914	4.915	-0.001	3755723	946.838	31.6	80.00-	120.00	100.00
5.062	5.063	-0.001	4773365	992.581	33.1	102.11-	142.11	127.10
5.379	5.380	-0.001	3871194	1052.01	35.1	73.00-	113.00	103.07
5.586	5.588	-0.002	3360925	878.489	29.3	76.97-	116.97	89.49
6.018	6.018	0.000	6291211	1049.62	35.0	132.07-	172.07	167.51
Average of Peak Concentrations =					32.8			

Data File: /chem/eod8a.i/030210.b/013b1301-3.d  
Date : 02-MAR-2010 10:41  
Client ID: PBLK01LCS  
Sample Info: 1120206785611  
Volume Injected (uL): 1.0  
Column phase: CLP2

Instrument: eod8a.i  
Operator: JPOC  
Column diameter: 0.25



# MISCELLANEOUS DATA

## GEL ORGANIC RUN LOG

INSTRUMENT ID: ECD8

DATE: 02/24/2010

METHOD: ECD8-F-8082-020310a.m

OPERATOR: JAOC

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 &amp; QC Information

Initial Calibration Dates: See Calibration History and Standards Log

Initial Calibration Std ID's: See Calibration History and Standards Log

GEL SOP GL-OA-E-040

EPA Method: 8082 Polychlorinated Biphenyls PCBs by Gas Chromatography

Sequence Number: /chem/ecd8a.i/022310.b Injection Volume: 1.0 ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WAR100105-99 01	JAOC	23-FEB-2010 08:14		022310	1.0	CLEAN	
002f0201.d	WAR100203-60 01	JAOC	23-FEB-2010 08:26		022310	1.0	DUSE	
003f0301.d	WAR100201-54	JAOC	23-FEB-2010 08:39		022310	1.0	PASSES BOTH COLUMNS	
004f0401.d	WAR091217-42	JAOC	23-FEB-2010 08:51		022310	1.0	PASSES BOTH COLUMNS	
005f0501.d	WAR091217-48	JAOC	23-FEB-2010 09:03		022310	1.0	PASSES BOTH COLUMNS	
006f0601.d	WAR100104-32	JAOC	23-FEB-2010 09:16		022310	1.0	PATTERN ONLY	
007f0701.d	WAR100223-01 60	JAOC	23-FEB-2010 09:28		022310	1.0	1660 LEVEL 1	
008f0801.d	WAR100223-02 60	JAOC	23-FEB-2010 09:41		022310	1.0	1660 LEVEL 2	
009f0901.d	WAR100223-03 60	JAOC	23-FEB-2010 09:53		022310	1.0	1660 LEVEL 3	
010f1001.d	WAR100223-04 60	JAOC	23-FEB-2010 10:05		022310	1.0	1660 LEVEL 4	
011f1101.d	WAR100223-01 60	JAOC	23-FEB-2010 10:18		022310	1.0	1660 LEVEL 5	
012f1201.d	WAR100222-60 01	JAOC	23-FEB-2010 10:30		022310	1.0	DUSE	
013f1301.d	WAR100223-05 21	JAOC	23-FEB-2010 10:43		022310	1.0	1221 LEVEL 1	
014f1401.d	WAR100223-06 21	JAOC	23-FEB-2010 10:55		022310	1.0	1221 LEVEL 2	
015f1501.d	WAR100223-07 21	JAOC	23-FEB-2010 11:07		022310	1.0	1221 LEVEL 3	

Instrument Batch: /chem/ecd8a.i/022310.b

Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
016f1601.d	WAR100223-08 21	JAOC	23-FEB-2010 11:20		022310	1.0	1221 LEVEL 4	
017f1701.d	WAR100104-02 21	JAOC	23-FEB-2010 11:32		022310	1.0	1221 LEVEL 5	



1018f1801.d	WARI00104-21	JAO	23-FEB-2010 11:45		022310	1.0	PASSES BOTH COLUMNS
1019f1901.d	WARI00222-60 01	JAO	23-FEB-2010 11:57		022310	1.0	PASSES BOTH COLUMNS
1020f2001.d	WARI00104-62	JAO	23-FEB-2010 12:09		022310	1.0	PATTERN ONLY
1021f2101.d	WARI00107-68	JAO	23-FEB-2010 12:22		022310	1.0	PATTERN ONLY
1022f2201.d	WAR091219-DDT	JAO	23-FEB-2010 12:34		022310	1.0	DDT
1023f2301.d	WARI00105-99 02	JAO	23-FEB-2010 12:46		022310	1.0	CLEAN
1024f2401.d	11202048644	JAO	23-FEB-2010 12:59	955558	10-1781	1.0 QC A	UPLOAD BOTH, USE HIGHER
1025f2501.d	11202048645	JAO	23-FEB-2010 13:11	955558	10-1781	1.0 QC A	UPLOAD BOTH, USE HIGHER
1026f2601.d	1246863005	JAO	23-FEB-2010 13:24	955558	10-1781	1.0 LANL	UPLOAD BOTH, USE HIGHER
1027f2701.d	11202048646	JAO	23-FEB-2010 13:36	955558	10-1781	1.0 QC A	UPLOAD BOTH, USE HIGHER
1028f2801.d	11202048647	JAO	23-FEB-2010 13:48	955558	10-1781	1.0 QC A	UPLOAD BOTH, USE HIGHER
1029f2901.d	WARI00222-60 02	JAO	23-FEB-2010 14:01		022310	1.0	PASSES BOTH COLUMNS
1030f3001.d	WARI00105-99 03	JAO	23-FEB-2010 14:13		022310	1.0	CLEAN
1031f3101.d	11202047548	JAO	23-FEB-2010 14:26	955074	022310	1.0 QC A	DUSE
1032f3201.d	11202047549	JAO	23-FEB-2010 14:38	955074		1.0 QC A	DUSE
1033f3301.d	1243880001	JAO	23-FEB-2010 14:50	955074	2010AR1221MDL-L	1.0 QCQA	DUSE
1034f3401.d	1243880002	JAO	23-FEB-2010 15:03	955074	2010AR1221MDL-L	1.0 QCQA	DUSE
1035f3501.d	1243880003	JAO	23-FEB-2010 15:15	955074	2010AR1221MDL-L	1.0 QCQA	DUSE

Instrument Batch: /chem/ecd8a.i/022310.b

Page: 2

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036f3601.d	243880004	JAO	23-FEB-2010 15:28	955074	2010AR1221MDL-L	1.0	QCQA	DUSE
037f3701.d	243880005	JAO	23-FEB-2010 15:40	955074	2010AR1221MDL-L	1.0	QCQA	DUSE
038f3801.d	243880006	JAO	23-FEB-2010 15:53	955074	2010AR1221MDL-L	1.0	QCQA	DUSE
039f3901.d	243880007	JAO	23-FEB-2010 16:05	955074	2010AR1221MDL-L	1.0	QCQA	DUSE
040f4001.d	243880008	JAO	23-FEB-2010 16:17	955074	2010AR1221MDL-L	1.0	QCQA	DUSE
041f4101.d	1WAR100222-60 03	JAO	23-FEB-2010 16:30		022310	1.0		PASSES BOTH COLUMNS



## GEL ORGANIC RUN LOG

INSTRUMENT ID: ECD8

DATE: 03/03/2010 METHOD: ECD8-F-8082-020310a.m OPERATOR: JAOC REVIEWED BY: \_\_\_\_\_  
DATE: \_\_\_\_\_HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT DA936  
ALUMINA LOT 1240553-A  
COPPER LOT 236547-A

## Calibration &amp; QC Information

Initial Calibration Dates: See Calibration History and Standards Log

Initial Calibration Std ID's: See Calibration History and Standards Log

GEL SOP GL-OA-E-040

EPA Method: 8082 Polychlorinated Biphenyls PCBs by Gas Chromatography

Sequence Number: /chem/ecd8a.i/030210.b Injection Volume: 1.0 ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001F0101.d	WAR100219-99 01	JAOC	02-MAR-2010 08:13		030210	1.0	CLEAN	
002F0201.d	WAR100225-60 01	JAOC	02-MAR-2010 08:25		030210	1.0	PASSES BOTH COLUMNS	
003F0301.d	WAR100201-54	JAOC	02-MAR-2010 08:37		030210	1.0	PASSES BOTH COLUMNS	
004F0401.d	WAR091217-42	JAOC	02-MAR-2010 08:50		030210	1.0	PASSES BOTH COLUMNS	
005F0501.d	WAR091217-48	JAOC	02-MAR-2010 09:02		030210	1.0	PASSES BOTH COLUMNS	
006F0601.d	WAR100104-32	JAOC	02-MAR-2010 09:15		030210	1.0	PATTERN ONLY	
007F0701.d	WAR100104-21	JAOC	02-MAR-2010 09:27		030210	1.0	PATTERN ONLY	
008F0801.d	WAR100104-62	JAOC	02-MAR-2010 09:39		030210	1.0	PATTERN ONLY	
009F0901.d	WAR100107-68	JAOC	02-MAR-2010 09:52		030210	1.0	PATTERN ONLY	
010F1001.d	WAR091219-DDT	JAOC	02-MAR-2010 10:04		030210	1.0	DDT	
011F1101.d	WAR100219-99 02	JAOC	02-MAR-2010 10:17		030210	1.0	CLEAN	
012F1201.d	11202057855	JAOC	02-MAR-2010 10:29	959468	10-2012	1.0	QC A	UPLOAD BOTH, USE HIGHER
013F1301.d	11202057856	JAOC	02-MAR-2010 10:41	959468	10-2012	1.0	QC A	UPLOAD BOTH, USE HIGHER
014F1401.d	1247904015	JAOC	02-MAR-2010 10:54	959468	10-2012	1.0	LANL	UPLOAD BOTH, USE HIGHER
015F1501.d	1247904016	JAOC	02-MAR-2010 11:06	959468	10-2012	1.0	LANL	UPLOAD BOTH, USE HIGHER

Instrument Batch: /chem/ecd8a.i/030210.b

Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
016F1601.d	1247904017	JAOC	02-MAR-2010 11:19	959468	10-2012	1.0	LANL	UPLOAD BOTH, USE HIGHER
017F1701.d	1247915001	JAOC	02-MAR-2010 11:31	959468	10-2015	1.0	LANL	UPLOAD BOTH, USE HIGHER

018f1801.d	1247915002	JAOC	02-MAR-2010 11:43	959468	10-2015	1.0	LANL	UPLOAD BOTH, USE HIGHER																					
019f1901.d	1247915003	JAOC	02-MAR-2010 11:56	959468	10-2015	1.0	LANL	UPLOAD BOTH, USE HIGHER																					
020f2001.d	1247915004	JAOC	02-MAR-2010 12:08	959468	10-2015	1.0	LANL	UPLOAD BOTH, USE HIGHER																					
021f2101.d	1247915005	JAOC	02-MAR-2010 12:21	959468	10-2015	1.0	LANL	UPLOAD BOTH, USE HIGHER																					
022f2201.d	1247915006	JAOC	02-MAR-2010 12:37	959468	10-2015	1.0	LANL	UPLOAD BOTH, USE HIGHER																					
023f2301.d	1247915007	JAOC	02-MAR-2010 12:49	959468	10-2015	1.0	LANL	UPLOAD BOTH, USE HIGHER																					
024f2401.d	1247915008	JAOC	02-MAR-2010 13:02	959468	10-2015	1.0	LANL	UPLOAD BOTH, USE HIGHER																					
025f2501.d	1247915009	JAOC	02-MAR-2010 13:14	959468	10-2015	1.0	LANL	UPLOAD BOTH, USE HIGHER																					
026f2601.d	1247915010	JAOC	02-MAR-2010 13:27	959468	10-2015	1.0	LANL	UPLOAD BOTH, USE HIGHER																					
027f2701.d	1247915011	JAOC	02-MAR-2010 13:39	959468	10-2015	1.0	LANL	UPLOAD BOTH, USE HIGHER																					
028f2801.d	1247915012	JAOC	02-MAR-2010 13:52	959468	10-2015	1.0	LANL	UPLOAD BOTH, USE HIGHER																					
029f2901.d	1247915013	JAOC	02-MAR-2010 14:04	959468	10-2015	1.0	LANL	UPLOAD BOTH, USE HIGHER																					
030f3001.d	1247915014	JAOC	02-MAR-2010 14:16	959468	10-2015	1.0	LANL	UPLOAD BOTH, USE HIGHER																					
031f3101.d	1247915015	JAOC	02-MAR-2010 14:29	959468	10-2015	1.0	LANL	UPLOAD BOTH, USE HIGHER																					
032f3201.d	1247915016	JAOC	02-MAR-2010 14:45	959468	10-2015	1.0	LANL	UPLOAD BOTH, USE HIGHER																					
033f3301.d	1247915017	JAOC	02-MAR-2010 14:58	959468	10-2015	1.0	LANL	UPLOAD BOTH, USE HIGHER																					
034f3401.d	1247915018	JAOC	02-MAR-2010 15:14	959468	10-2015	1.0	LANL	UPLOAD BOTH, USE HIGHER																					
035f3501.d	1247915019	JAOC	02-MAR-2010 15:27	959468	10-2015	1.0	LANL	UPLOAD BOTH, USE HIGHER																					

Instrument Batch: /chem/ecd8a.i/030210.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
0366f3601.d	1248130002	JAOC	02-MAR-2010 15:39	959468	10-2097	1.0	LANL	UPLOAD BOTH, USE HIGHER
0373f3701.d	1202057857	JAOC	02-MAR-2010 15:51	959468	10-2097	1.0	QC A	UPLOAD BOTH, USE HIGHER
038f3801.d	1202057858	JAOC	02-MAR-2010 16:04	959468	10-2097	1.0	QC A	UPLOAD BOTH, USE HIGHER
039f3901.d	1248130003	JAOC	02-MAR-2010 16:16	959468	10-2097	1.0	LANL	UPLOAD BOTH, USE HIGHER
040f4001.d	1248130004	JAOC	02-MAR-2010 16:29	959468	10-2097	1.0	LANL	UPLOAD BOTH, USE HIGHER
041f4101.d	1248130005	JAOC	02-MAR-2010 16:41	959468	10-2097	1.0	LANL	UPLOAD BOTH, USE HIGHER

1042F4201.d	WAR100225-60 04	JAO	02-MAR-2010 16:57	1030210	1.01	PASSES BOTH COLUMNS
1043F430.d	WAR100219-99 05	JAO	02-MAR-2010 17:10	1030210	1.01	CLEAN

Data File: /chem/ecd8a.i/030210.b/037b3701.d  
 Report Date: 05-Mar-2010 12:16

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GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL  
 Data file : /chem/ecd8a.i/030210.b/037b3701.d  
 Lab Smp Id: 1202057857 Client Smp ID: WST16-10-13288MS  
 Inj Date : 02-MAR-2010 15:51  
 Operator : JAOC Inst ID: ecd8a.i  
 Smp Info : |1202057857|1|  
 Misc Info : |ECD82P\_1S|959468|SVA|QC A|SOIL|MS|||  
 Comment :  
 Method : /chem/ecd8a.i/030210.b/ECD8-B-8082-020310a.m  
 Meth Date : 03-Mar-2010 08:08 jen01212 Quant Type: ESTD  
 Cal Date : 23-FEB-2010 11:32 Cal File: 017b1701.d  
 Als bottle: 37 QC Sample: MS  
 Dil Factor: 1.00000  
 Integrator: Falcon Compound Sublist: 10-2097.sub  
 Target Version: 3.50 Sample Matrix: Soil

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	9.84860	% Moisture

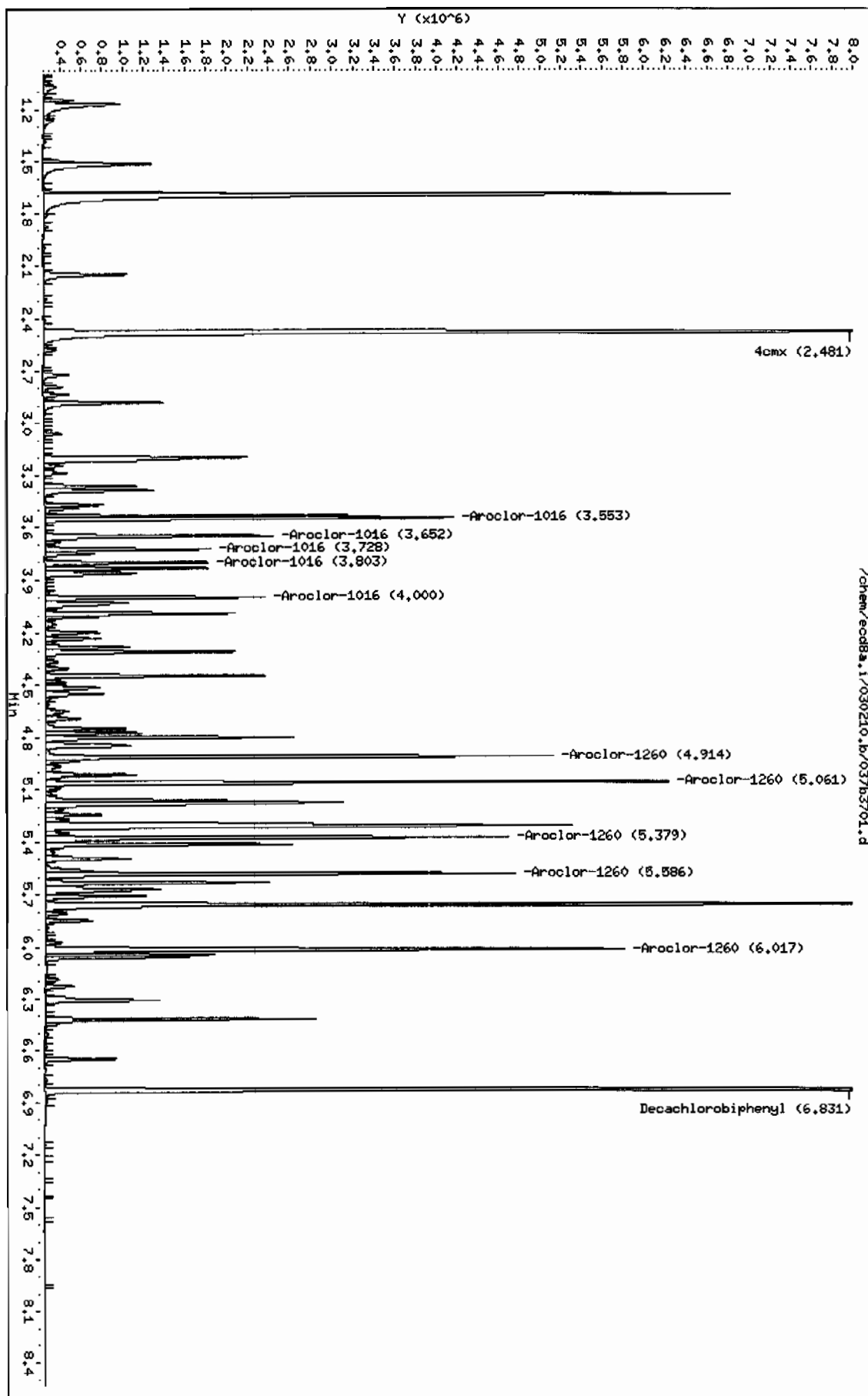
Cpnd Variable Local Compound Variable

CONCENTRATIONS						
RT	EXP RT	DLT RT	ON-COL RESPONSE ( ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
\$ 11 4cmx				CAS #: 877-09-8		
2.481	2.482	-0.001	13974188 169.436	6.2	80.00- 120.00	100.00
\$ 12 Decachlorobiphenyl				CAS #: 2051-24-3		
6.831	6.832	-0.001	10788524 175.031	6.4	80.00- 120.00	100.00
1 Aroclor-1016				CAS #: 12674-11-2		
3.553	3.554	-0.001	3239620 895.057	33.0	80.00- 120.00	100.00
3.652	3.653	-0.001	2067736 857.930	31.6	43.27- 83.27	63.83
3.728	3.729	-0.001	1324770 911.673	33.6	18.69- 58.69	40.89
3.803	3.805	-0.002	1276373 890.215	32.8	17.10- 57.10	39.40
4.000	4.001	-0.001	1736915 886.953	32.6	31.95- 71.95	53.61
Average of Peak Concentrations =				32.7		

CONCENTRATIONS						
			ON-COL		FINAL	RATIO
RT	EXP RT	DLT RT	RESPONSE	( ug/L)	(ug/Kg)	
==	=====	=====	=====	=====	=====	=====
7 Aroclor-1260					CAS #: 11096-82-5	
4.914	4.915	-0.001	3997751	1007.85	37.1 80.00- 120.00	100.00
5.061	5.063	-0.002	4939655	1027.16	37.8 102.11- 142.11	123.56
5.379	5.380	-0.001	3806375	1034.40	38.1 73.00- 113.00	95.21
5.586	5.588	-0.002	3721080	972.628	35.8 76.97- 116.97	93.08
6.017	6.018	-0.001	5955226	993.564	36.6 132.07- 172.07	148.96
Average of Peak Concentrations =					37.1	

Data File: /chem/ecdb8a.i/030210.b/037b3701.d  
Date: 02-MAR-2010 15:51  
Client ID: MST16-10-13286HS  
Sample Info: 11202057857111  
Volume Injected (uL): 1.0  
Column phase: CLP2

Instrument: ecdb8a.i  
Operator: JROC  
Column diameter: 0.25





GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/030210.b/037f3701.d

Lab Smp Id: 1202057857

Client Smp ID: WST16-10-13288MS

Inj Date : 02-MAR-2010 15:51

Operator : JAOC

Inst ID: ecd8a.i

Smp Info : |1202057857|1|

Misc Info : |ECD82P\_1S|959468|SVA|QC A|SOIL|MS|

Comment :

Method : /chem/ecd8a.i/030210.b/ECD8-F-8082-020310a.m

Meth Date : 03-Mar-2010 08:07 jen01212 Quant Type: ESTD

Cal Date : 23-FEB-2010 11:32

Cal File: 017f1701.d

Als bottle: 37

QC Sample: MS

Dil Factor: 1.00000

Integrator: Falcon

Compound Sublist: 10-2097.sub

Target Version: 3.50

Sample Matrix: Soil

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	9.84860	% Moisture

Cpnd Variable

Local Compound Variable

CONCENTRATIONS

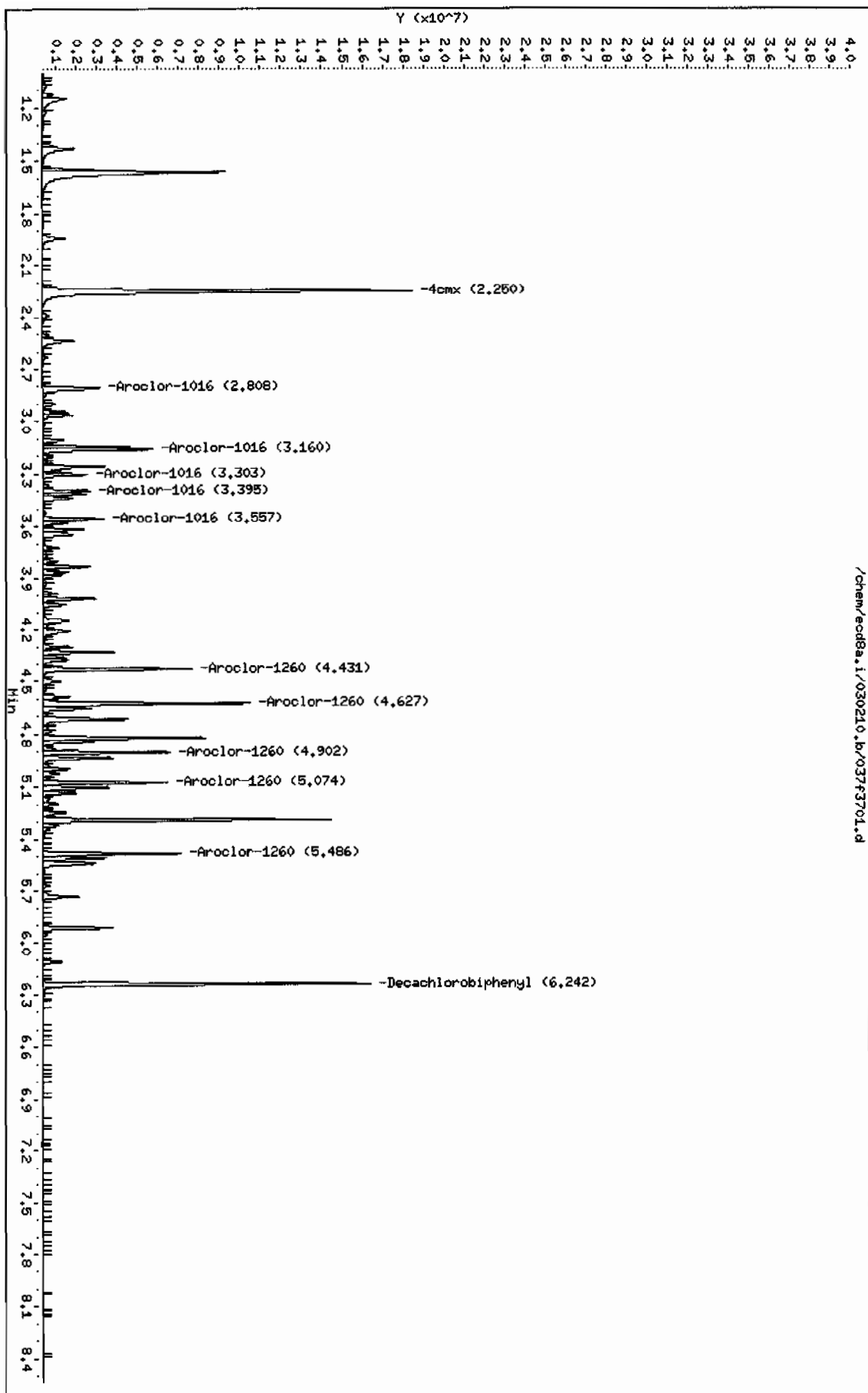
ON-COL FINAL

RT	EXP RT	DLT RT	RESPONSE ( ug/L)	(ug/Kg)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====
\$ 11 4cmx				CAS #: 877-09-8		
2.250	2.251	-0.001	20388659 161.803	6.0	80.00- 120.00	100.00
\$ 12 Decachlorobiphenyl				CAS #: 2051-24-3		
6.242	6.243	-0.001	13982240 154.811	5.7	80.00- 120.00	100.00
1 Aroclor-1016				CAS #: 12674-11-2		
2.808	2.808	0.000	3618456 795.042	29.3	80.00- 120.00	100.00
3.160	3.161	-0.001	4934214 879.529	32.4	110.65- 150.65	136.36
3.303	3.304	-0.001	2020469 844.572	31.1	33.51- 73.51	55.84
3.395	3.397	-0.002	1948017 910.025	33.5	26.95- 66.95	53.84
3.557	3.559	-0.002	2613285 843.223	31.0	48.05- 88.05	72.22
Average of Peak Concentrations =				31.5		

CONCENTRATIONS							
		ON-COL		FINAL			
RT	EXP RT	DLT RT	RT	RESPONSE ( ug/L)	(ug/Kg)	TARGET RANGE	RATIO
==	=====	=====		=====	=====	=====	=====
7 Aroclor-1260				CAS #: 11096-82-5			
4.431	4.433	-0.002		6160045	951.277	35.0 80.00- 120.00	100.00
4.627	4.629	-0.002		9311178	975.170	35.9 128.55- 168.55	151.15
4.902	4.904	-0.002		5336802	941.954	34.7 67.09- 107.09	86.64
5.074	5.077	-0.003		5289653	895.940	33.0 70.83- 110.83	85.87
5.486	5.488	-0.002		5732934	920.388	33.9 79.33- 119.33	93.07
Average of Peak Concentrations =				34.5			

Data File: /chem/ecod8a.i/030210.b/03f3701.d  
Date : 02-MAR-2010 15:51  
Client ID: MS16-10-1328HS  
Sample Info: 1120205785711  
Volume Injected (uL): 1.0  
Column phase: CLP1

Instrument: ecod8a.i  
Operator: JHOC  
Column diameter: 0.25



GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/030210.b/038b3801.d

Lab Smp Id: 1202057858

Client Smp ID: WST16-10-13288MSD

Inj Date : 02-MAR-2010 16:04

Operator : JAOC

Inst ID: ecd8a.i

Smp Info : |1202057858|1|

Misc Info : |ECD82P\_1S|959468|SVA|QC A|SOIL|MSD|

Comment :

Method : /chem/ecd8a.i/030210.b/ECD8-B-8082-020310a.m

Meth Date : 03-Mar-2010 08:08 jen01212 Quant Type: ESTD

Cal Date : 23-FEB-2010 11:32

Cal File: 017b1701.d

Als bottle: 38

QC Sample: MSD

Dil Factor: 1.00000

Integrator: Falcon

Compound Sublist: 10-2097.sub

Target Version: 3.50

Sample Matrix: Soil

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	30.18000	Weight of sample extracted (g)
M	9.84860	% Moisture

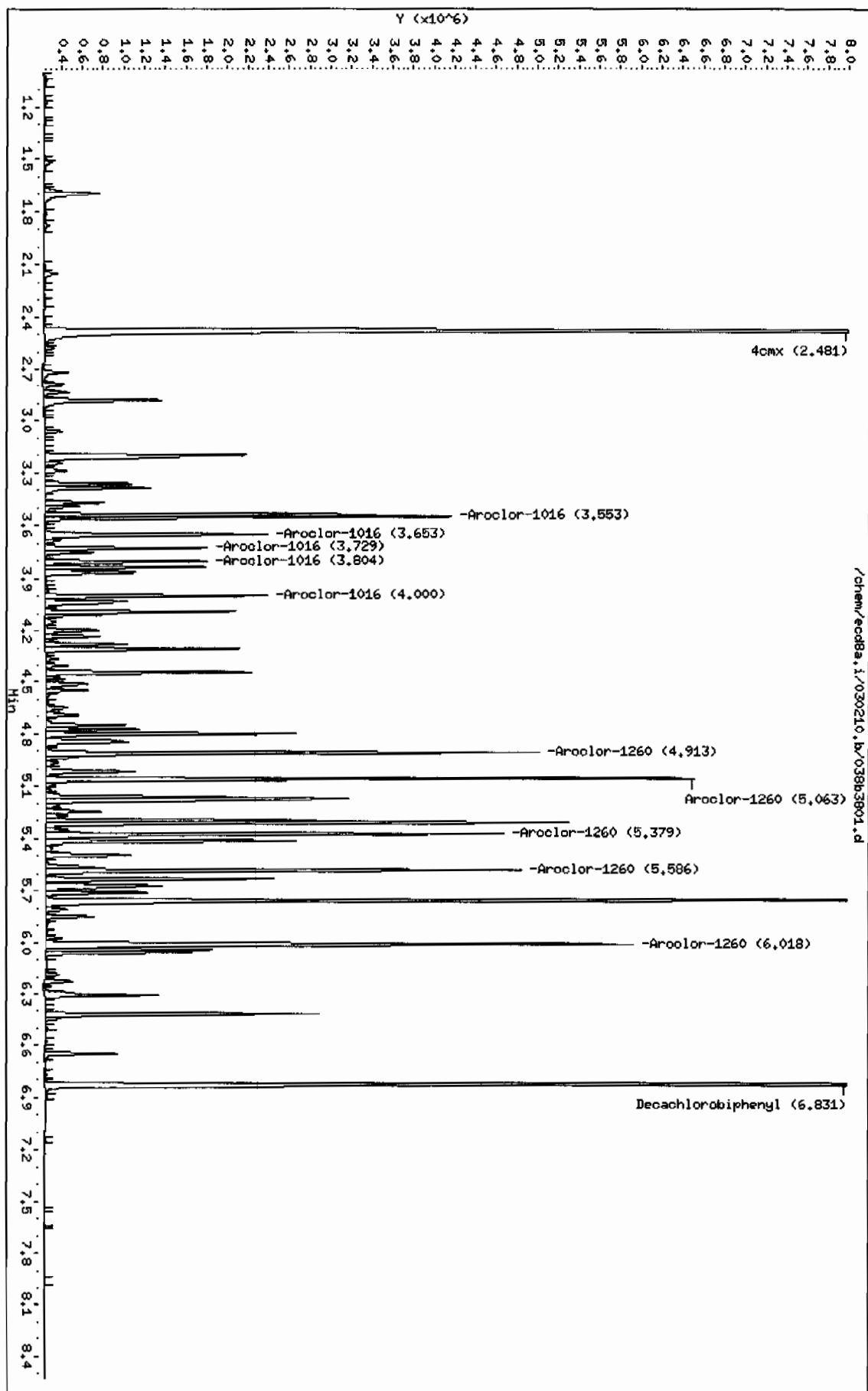
Cpnd Variable Local Compound Variable

CONCENTRATIONS						
RT	EXP RT	DLT RT	RESPONSE ( ug/L)	ON-COL	FINAL	TARGET RANGE
==	=====	=====	=====	=====	=====	=====
\$ 11 4cmx			CAS #: 877-09-8			
2.481	2.482	-0.001	14203447	172.215	6.3	80.00- 120.00 100.00
\$ 12 Decachlorobiphenyl			CAS #: 2051-24-3			
6.831	6.832	-0.001	11050606	179.283	6.6	80.00- 120.00 100.00
1 Aroclor-1016			CAS #: 12674-11-2			
3.553	3.554	-0.001	3280325	906.303	33.3	80.00- 120.00 100.00
3.653	3.653	0.000	2068321	858.173	31.5	43.27- 83.27 63.05
3.729	3.729	0.000	1313282	903.767	33.2	18.69- 58.69 40.04
3.804	3.805	-0.001	1272199	887.303	32.6	17.10- 57.10 38.78
4.000	4.001	-0.001	1731834	884.359	32.5	31.95- 71.95 52.79
Average of Peak Concentrations =			32.6			

CONCENTRATIONS								
			ON-COL		FINAL			
RT	EXP RT	DLT RT	RESPONSE ( ug/L)		(ug/Kg)	TARGET RANGE		RATIO
==	=====	=====	=====	=====	=====	=====		=====
7 Aroclor-1260					CAS #: 11096-82-5			
4.913	4.915	-0.002	3981479	1003.75	36.9	80.00~	120.00	100.00
5.063	5.063	0.000	5036210	1047.24	38.5	102.11~	142.11	126.49
5.379	5.380	-0.001	3825173	1039.51	38.2	73.00~	113.00	96.07
5.586	5.588	-0.002	3807504	995.218	36.6	76.97~	116.97	95.63
6.018	6.018	0.000	6093870	1016.69	37.4	132.07~	172.07	153.06
Average of Peak Concentrations =					37.5			

Data File: /chem/ecod8a.i/030210.b/03863801.d  
Date: 02-MAR-2010 16:04  
Client ID: MST16-10-1328HSD  
Sample Info: 1120205785811  
Volume Injected (uL): 1.0  
Column phase: CLP2

Instrument: ecod8a.i  
Operator: J90C  
Column diameter: 0.25



GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/030210.b/038f3801.d

Lab Smp Id: 1202057858

Client Smp ID: WST16-10-13288MSD

Inj Date : 02-MAR-2010 16:04

Operator : JAOC

Inst ID: ecd8a.i

Smp Info : |1202057858|1|

Misc Info : |ECD82P\_1S|959468|SVA|QC A|SOIL|MSD|

Comment :

Method : /chem/ecd8a.i/030210.b/ECD8-F-8082-020310a.m

Meth Date : 03-Mar-2010 08:07 jen01212 Quant Type: ESTD

Cal Date : 23-FEB-2010 11:32

Cal File: 017f1701.d

Als bottle: 38

QC Sample: MSD

Dil Factor: 1.00000

Integrator: Falcon

Compound Sublist: 10-2097.sub

Target Version: 3.50

Sample Matrix: Soil

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	30.18000	Weight of sample extracted (g)
M	9.84860	% 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			
2.251	2.251	0.000	20369988	161.655	5.9	80.00- 120.00	100.00
\$ 12 Decachlorobiphenyl							
				CAS #: 2051-24-3			
6.242	6.243	-0.001	14763102	163.457	6.0	80.00- 120.00	100.00
1 Aroclor-1016							
				CAS #: 12674-11-2			
2.808	2.808	0.000	3560863	782.388	28.8	80.00- 120.00	100.00
3.160	3.161	-0.001	4707481	839.114	30.8	110.65- 150.65	132.20
3.303	3.304	-0.001	1962202	820.216	30.1	33.51- 73.51	55.10
3.396	3.397	-0.001	1841805	860.407	31.6	26.95- 66.95	51.72
3.558	3.559	-0.001	2507472	809.081	29.7	48.05- 88.05	70.42
Average of Peak Concentrations =					30.2		

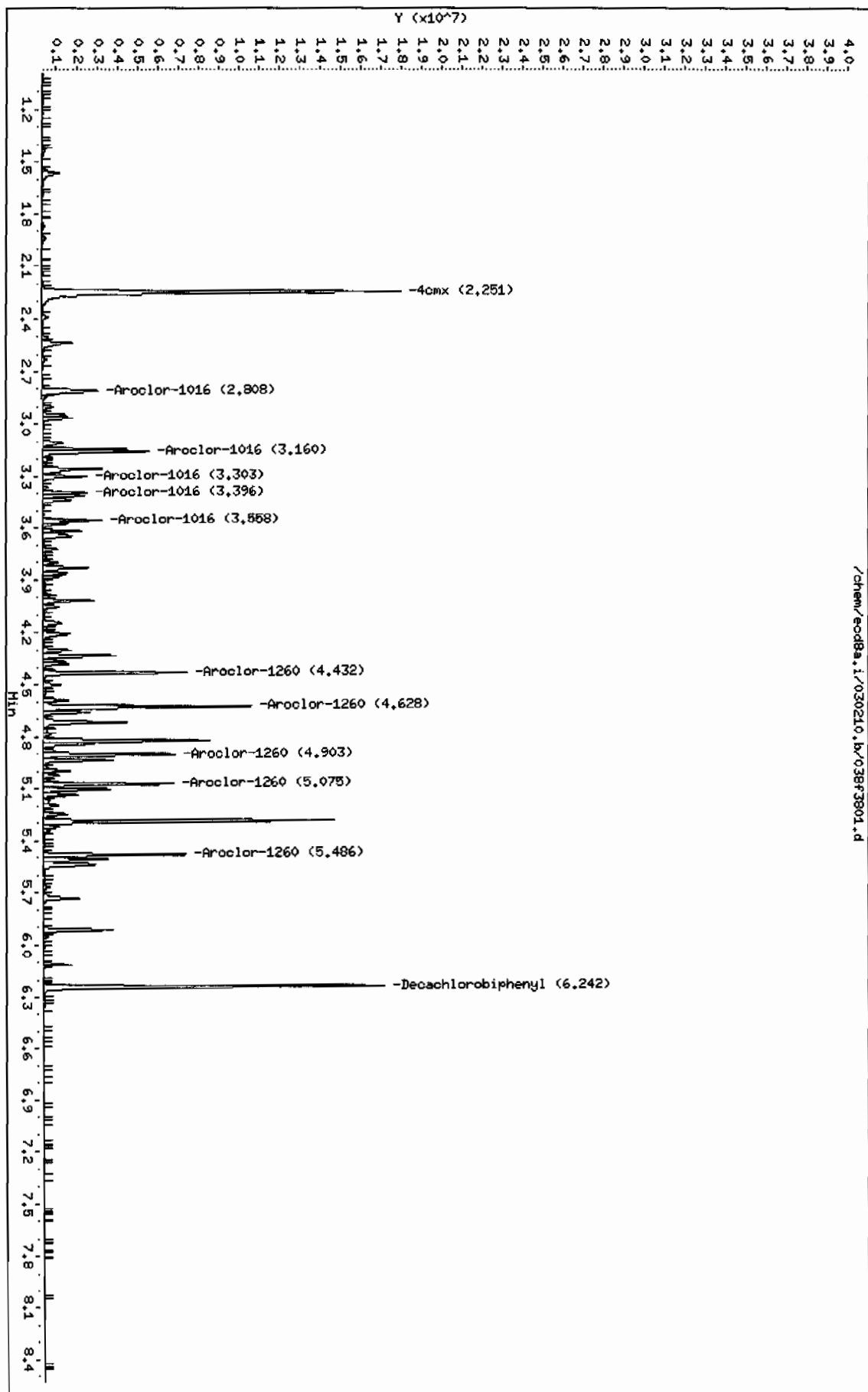
			CONCENTRATIONS					
			ON-COL		FINAL			
RT	EXP RT	DLT RT	RESPONSE ( ug/L)		(ug/Kg)	TARGET	RANGE	RATIO
=====	=====	=====	=====	=====	=====	=====	=====	=====
7 Aroclor-1260					CAS #: 11096-82-5			
4.432	4.433	-0.001	6051729	934.550	34.3	80.00-	120.00	100.00
4.628	4.629	-0.001	9179302	961.358	35.3	128.55-	168.55	151.68
4.903	4.904	-0.001	5393082	951.887	35.0	67.09-	107.09	89.12
5.075	5.077	-0.002	5344373	905.208	33.3	70.83-	110.83	88.31
5.486	5.488	-0.002	5881165	944.186	34.7	79.33-	119.33	97.18
Average of Peak Concentrations =					34.5			



Data File: /chem/eod8a.i/030210.b/038f3801.d  
Date : 02-MAR-2010 16:04  
Client ID: MS16-10-13288MSD  
Sample Info: 11202057858141  
Volume Injected (uL): 1.0  
Column phase: CLP1

Instrument: eod8a.i  
Operator: JADC  
Column diameter: 0.25

/chem/eod8a.i/030210.b/038f3801.d



# **Prep Logbook** **Extraction of Semivolatile and Nonvolatile Organic Compounds from Soil, Sludge, and Other Miscellaneous Solid Samples**

**Batch ID:** 959464  
**Analyst:** Alberto Velasco  
**Method:** SW846 3550B

**Verified by:** \_\_\_\_\_

**Lab SOP:** GL-OA-E-010 REV# 18  
**Instrument:** Semi-Volatiles Manual

Sample ID	Run Date	Aliquot (g)	Prepped Aliquot (mL)	Prepped Factor (mL/g)		
1202057855 MB	01-MAR-2010 23:33:00	30	1	0.03333		
1202057856 LCS	01-MAR-2010 23:33:00	30	1	0.03333		
247904015	01-MAR-2010 23:33:00	30.05	1	0.03328		
247904016	01-MAR-2010 23:33:00	30.1	1	0.03322		
247904017	01-MAR-2010 23:33:00	30.08	1	0.03324		
247915001	01-MAR-2010 23:33:00	30.02	1	0.03331		
247915002	01-MAR-2010 23:33:00	30.02	1	0.03331		
247915003	01-MAR-2010 23:33:00	30.13	1	0.03319		
247915004	01-MAR-2010 23:33:00	30.15	1	0.03317		
247915005	01-MAR-2010 23:33:00	30.15	1	0.03317		
247915006	01-MAR-2010 23:33:00	30.13	1	0.03319		
247915007	01-MAR-2010 23:33:00	30.05	1	0.03328		
247920002	01-MAR-2010 23:33:00	30.04	1	0.03329		
248012002	01-MAR-2010 23:33:00	30.05	1	0.03328		
248013001	01-MAR-2010 23:33:00	30.18	1	0.03313		
248013002	01-MAR-2010 23:33:00	30.05	1	0.03328		
248013003	01-MAR-2010 23:33:00	30.1	1	0.03322		
248013004	01-MAR-2010 23:33:00	30.19	1	0.03312		
248130002	01-MAR-2010 23:33:00	30.01	1	0.03332		
1202057857 MS (248130002)	01-MAR-2010 23:33:00	30.13	1	0.03319		
1202057858 MSD (248130002)	01-MAR-2010 23:33:00	30.18	1	0.03313		
248130003	01-MAR-2010 23:33:00	30.19	1	0.03312		
248130004	01-MAR-2010 23:33:00	30.2	1	0.03311		
248130005	01-MAR-2010 23:33:00	30.1	1	0.03322		
Type	Sample Id	Description	Serial Number	Spike Amt	Units	Comments:
LCS	1202057856	PCB Laboratory Control	WE100224-07	1	mL	Clean up Date: 3-1-10
MS	1202057857	PCB Laboratory Control	WE100224-07	1	mL	Clean up Initials: AAW
MSD	1202057858	PCB Laboratory Control	WE100224-07	1	mL	Verified By: AAW
SURR	All	PEST LOW LEVEL SURROGATE 200 UG/L	UE100222-15	1	mL	Final Solvent: Hexane
REGNT	All	1:1 sulfuric acid	1260695a	5	mL	Clean Up SOP: GL-OA-E-037
REGNT	All	Hexane	1273340-B2	150	mL	
REGNT	All	Acetone	1273823-B1	150	mL	
REGNT	All	5% Potassium Permanganate	B1275177-F	5	mL	
SOURC	All	SODIUM SULFATE	1274910	30	g	