



*Integrated  
Environmental  
Solutions*

**Alameda County**

**FEB 18 2004**

1153 Bordeaux Drive, Suite 208  
Sunnyvale, CA 94089  
Telephone: 408-744-6505  
Fax: 408-744-0154  
www.rmtinc.com

February 13, 2004

**Environmental Health**

Mr. Barney Chan  
Alameda County Environmental Health  
1131 Harbor Bay Parkway  
Alameda, CA 94502

**Subject: Transmittal of Information Requested Regarding  
762 Stewart Court Property, Alameda, California  
RMT Project No. 00-06606.01**

Dear Barney:

Please find enclosed hard copies of the information you requested in your emails dated January 20, 2004 and January 30, 2004, which are listed below. A response is listed after each item:

- site map indicating boring locations  
(see attached);
- analytical results signed with chain-of-custody from a certified laboratory  
(see attached);
- boring log or a description of soils encountered and depth of sample from each borehole  
(see attached);
- estimated depth to water  
(approximately 8 feet below ground surface);
- estimated groundwater gradient  
(northeast towards the Alameda Estuary);
- nearest surface water  
(approximately 2,100 feet northeast towards the Alameda Estuary);
- presence of drinking water or irrigation wells within ¼ mile radius of site  
(none);

Mr. Barney Chan  
February 13, 2004  
Page 2

Alameda County

FEB 18 2004

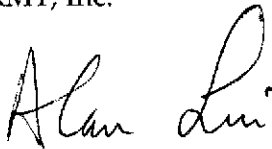
Environmental Health

- if no deed restriction is filed, how will the notification process work with the City of Alameda.  
(Ms. Patricia Santanna will contact and all agencies, as needed, in advance of any planned subsurface work at the 762 Stewart Court, Alameda, California property for as long as Ms. Santanna is the owner of record. If the property is sold, Ms. Santanna will ask the new owner to contact any and all agencies, as needed.)

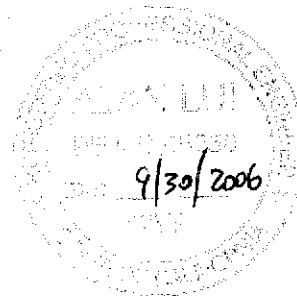
If you have any questions please call me at 408-368-7796.

Sincerely,

RMT, Inc.

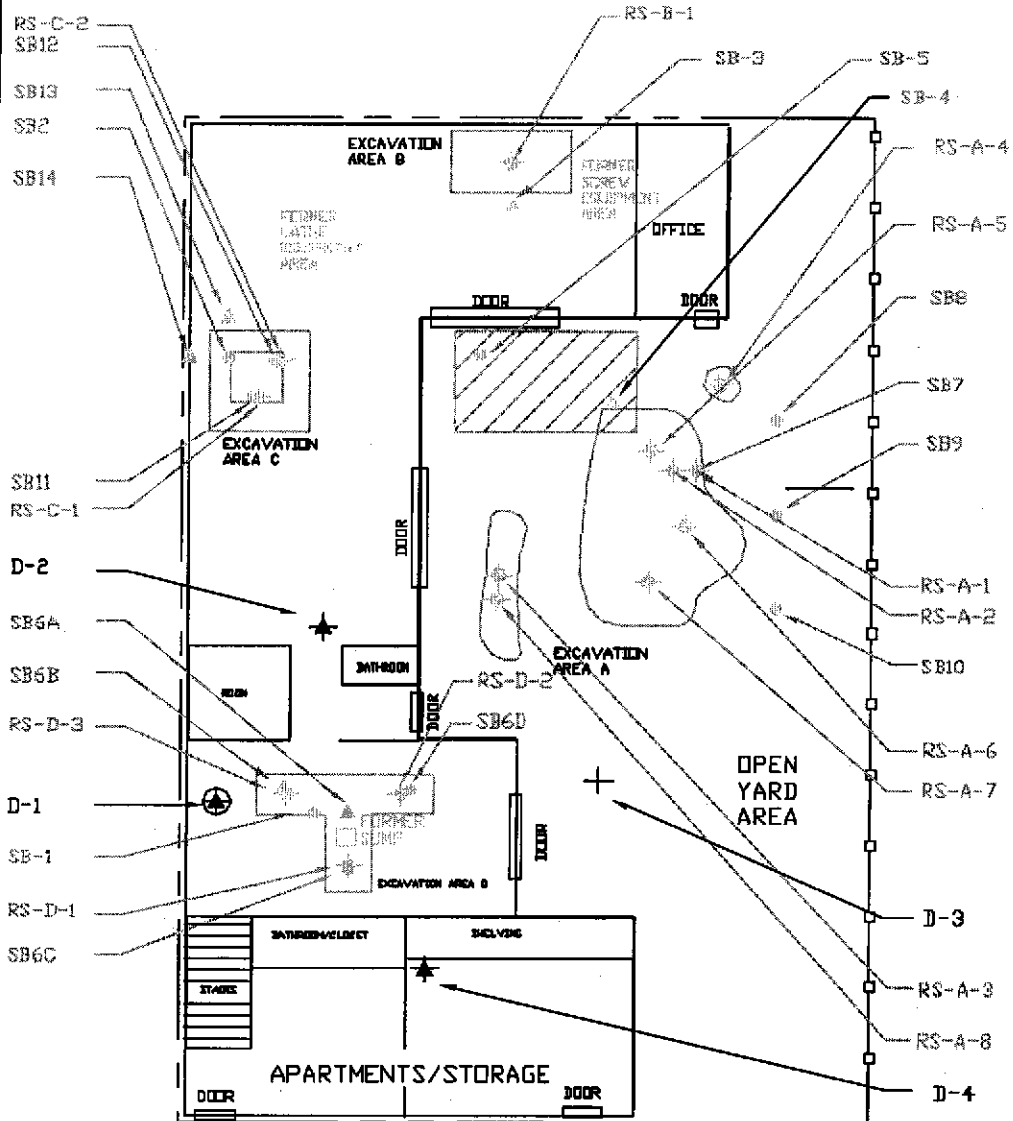


Alan Lui, PE  
Senior Project Manager



Attachments: site map  
analytical results  
description of soils

cc: Ms. Patricia Santanna  
Ms. Judith Bright  
Central Files



- LEGEND**
- ★ SOIL & GROUNDWATER SAMPLE LOCATION TAKEN 12/11/03
  - ⊕ SOIL SAMPLE LOCATION TAKEN 12/11/03
  - ⊕ SOIL & GROUNDWATER SAMPLE ANALYZED FOR SEMI-VOCs LOCATION TAKEN 12/11/03
  - ⊕ CONFIRMATION SOIL SAMPLE LOCATIONS
  - ⊕ RS-B-1
  - ⊕ SB7 PIERS SOIL BORING (Dec 2, 2002)
  - ⊕ SB6B PIERS SOIL BORING SAMPLE NOT ANALYZED (Dec 2, 2002)
  - ▨ RMT SOIL EXCAVATION (Jun 24, 2002)
  - RMT SOIL EXCAVATION (Aug 2003)

762 STEWART COURT

DRAWING IS NOT TO SCALE

	<b>SANTANNA</b> 762 STEWART COURT ALAMEDA, CALIFORNIA	DRAWN BY: C.G.
	DECEMBER 11, 2003 SOIL AND GROUNDWATER SAMPLE LOCATIONS	APPROVED BY: A.L.
		PROJECT NO. 00-90225.02
		FILE NO. SANTANNA LATERAL EXTENT
		DATE: December 12, 2003

**Soil Boring Descriptions**  
**December 11, 2003**  
**762 Stewart Court, Alameda, California**  
**Santanna Project**

Boring ID	Depth Interval (feet bgs)	Description	Soil Sample Depth (ft bgs)
D-1S	0-2 2-4 4-6 6-8	6" concrete layer, rocky, dark brown/black, sandy soil loose, moist, dark brown/black sandy soil, moist, dark brown/black, sandy silt moist, dark brown/black, sandy silt Groundwater at about 8-9 feet bgs	soil sample taken at 5.5 - 6.0 feet
D-2S	0-2 2-4 4-6 6-8	6" concrete layer, rocky, dark brown/black, sandy soil moist, dark greyish black sandy silt, very moist, yellowish brown/grey, sandy silt very moist, yellowish brown/grey, sandy silt Groundwater at about 8-9 feet bgs	soil sample taken at 3.5 - 4.0 feet
D-3S	0-2 2-4 4-6 6-8 8-10 10-12	rocky, brown/yellow, sandy soil moist, loose, brown/yellow sandy soil moist, dark brown/black, sandy silt moist/wet, dark brown/black, sandy silt moist/wet; dark brown/ black, sandy clay wet, drark brown/black, sandy clay Groundwater at about 9-10 feet bgs	soil sample taken at 3-3.5 feet
D-4S	0-2 2-4 4-6 6-8	6" concrete layer, rocky, dark brown/black, moist, sandy soil moist, dark brown/black sandy clay moist, black, sandy clay very moist, black, sandy clay Groundwater at about 8-9 feet bgs	soil sample taken at 2-2.5 feet



A N A L Y T I C A L   R E P O R T

Prepared for:

RMT, Inc.  
1153 Bordeaux Drive  
Suite 208  
Sunnyvale, CA 94089

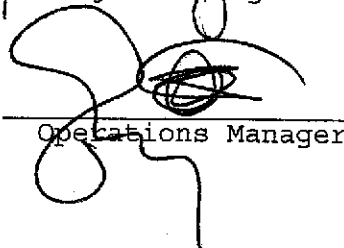
Date: 31-DEC-03  
Lab Job Number: 169394  
Project ID: STANDARD  
Location: Santanna

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signatures. The results contained in this report meet all requirements of NELAC and pertain only to those samples which were submitted for analysis.

Reviewed by:

  
Project Manager

Reviewed by:

  
Operations Manager

This package may be reproduced only in its entirety.

Laboratory Number: 169394  
Client: RMT Inc.  
Location: Santanna  
Project number: 00-06606.01

Received Date: 12/11/03

### CASE NARRATIVE

This hardcopy data package contains sample results and batch QC results for three water and four soil samples that were received on December 11, 2003. The samples were received cold and intact.

#### Total Extractable Hydrocarbons-Diesel, Motor Oil by EPA 8015B

Many samples were analyzed at dilutions, which caused the surrogate to be diluted out.

Low spike recovery was observed in the matrix spike duplicate of sample 169408-008. The matrix spike sample was not a sample from this site. The associated laboratory control sample met acceptance criteria.

No other analytical problems were encountered.

#### Semivolatile Organics by EPA8270C

Low 2-fluorobiphenyl and terphenyl-d14 surrogate recoveries were observed in sample D-1GW. The sample was re-analyzed with similar results, indicating that this outlier was due to matrix interference.

Sample D-1S was analyzed at a dilution due to non-target compound interferences. This dilution caused the surrogates to be diluted out.

No other analytical problems were encountered.

#### Lead by EPA 6010B

No analytical problems were encountered.





## Total Extractable Hydrocarbons

Lab #:	169394	Location:	Santanna
Client:	RMT, Inc.	Prep:	EPA 3520C
Project#:	STANDARD	Analysis:	EPA 8015B
Matrix:	Water	Received:	12/11/03
Units:	ug/L	Prepared:	12/15/03
Batch#:	86947	Analyzed:	12/16/03
Sampled:	12/11/03		

Field ID: D-1GW                      Lab ID: 169394-005  
 Type: SAMPLE                      Diln Fac: 50.00

Analyte	Result	RL
Diesel C10-C24	180,000 H Y	2,500
Motor Oil C24-C36	63,000 L Y	15,000

Surrogate	%REC	Limits
Hexacosane	DO	44-146

Field ID: D-2GW                      Lab ID: 169394-006  
 Type: SAMPLE                      Diln Fac: 1.000

Analyte	Result	RL
Diesel C10-C24	1,100 H Y	50
Motor Oil C24-C36	1,900 L Y	300

Surrogate	%REC	Limits
Hexacosane	84	44-146

Field ID: D-4GW                      Lab ID: 169394-007  
 Type: SAMPLE                      Diln Fac: 1.000

Analyte	Result	RL
Diesel C10-C24	3,400 H Y	50
Motor Oil C24-C36	1,200 L Y	300

Surrogate	%REC	Limits
Hexacosane	87	44-146

Type: BLANK                              Diln Fac: 1.000  
 Lab ID: QC235213

Analyte	Result	RL
Diesel C10-C24	ND	50
Motor Oil C24-C36	ND	300

Surrogate	%REC	Limits
Hexacosane	118	44-146

H= Heavier hydrocarbons contributed to the quantitation  
 L= Lighter hydrocarbons contributed to the quantitation  
 Y= Sample exhibits chromatographic pattern which does not resemble standard  
 DO= Diluted Out  
 ND= Not Detected  
 RL= Reporting Limit  
 Page 1 of 1



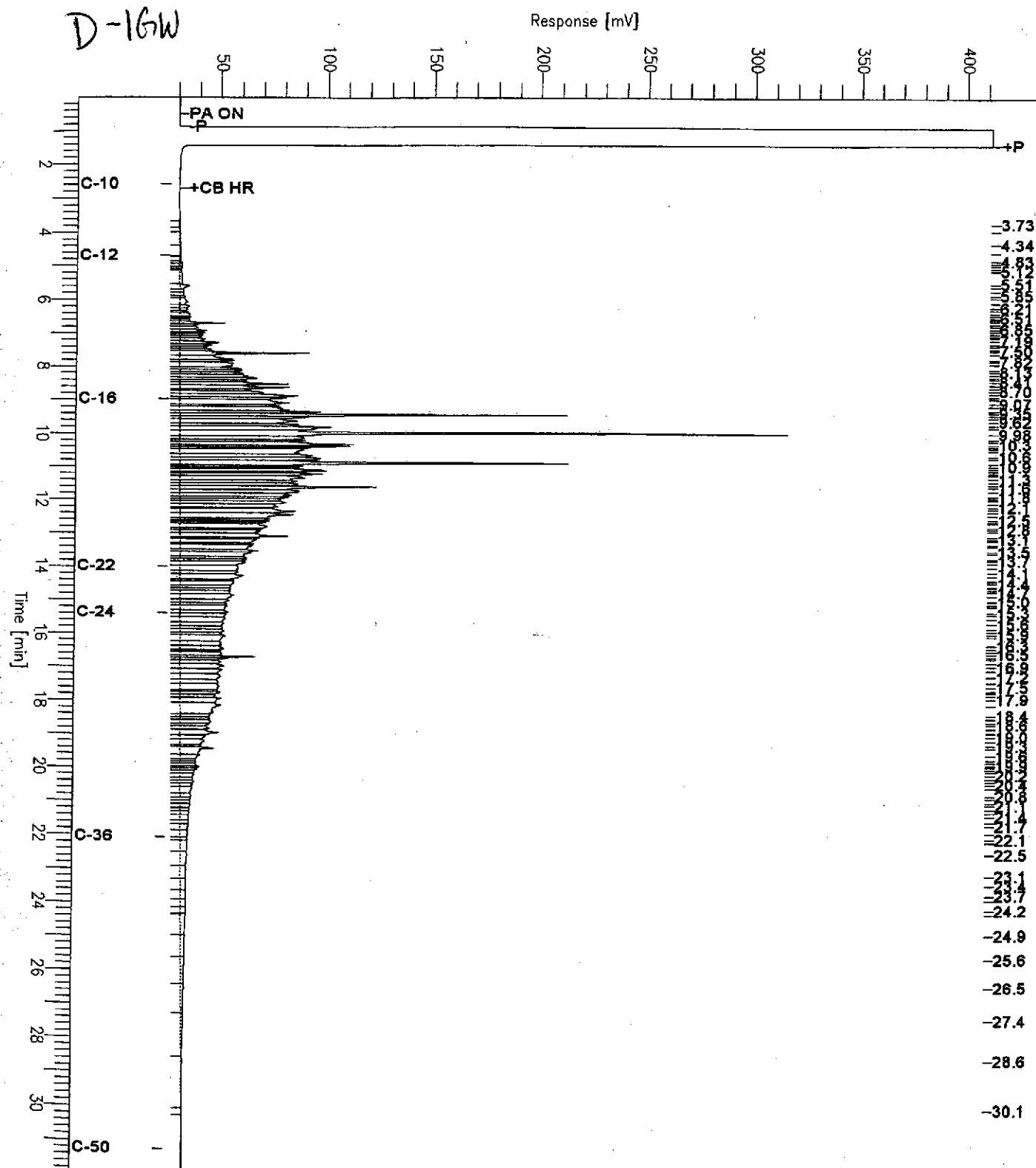
# Chromatogram

Sample Name : 169394-005,86947  
FileName : G:\GC17\CHA\350A010.RAW  
Method : ATEH344.MTH  
Start Time : 0.01 min  
Scale Factor: 0.0

End Time : 31.91 min  
Plot Offset: 26 mV

Sample #: 86947  
Date : 12/16/03 05:53 PM  
Time of Injection: 12/16/03 05:18 PM  
Low Point : 26.20 mV  
Plot Scale: 385.8 mV

Page 1 of 1



# Chromatogram

Sample Name : 169394-006,86947

Sample #: 86947

Page 1 of 1

FileName : G:\GC17\CHA\350A009.RAW

Date : 12/16/03 05:42 PM

Method : ATEH344.MTH

Time of Injection: 12/16/03 04:37 PM

Start Time : 0.01 min

End Time : 31.83 min

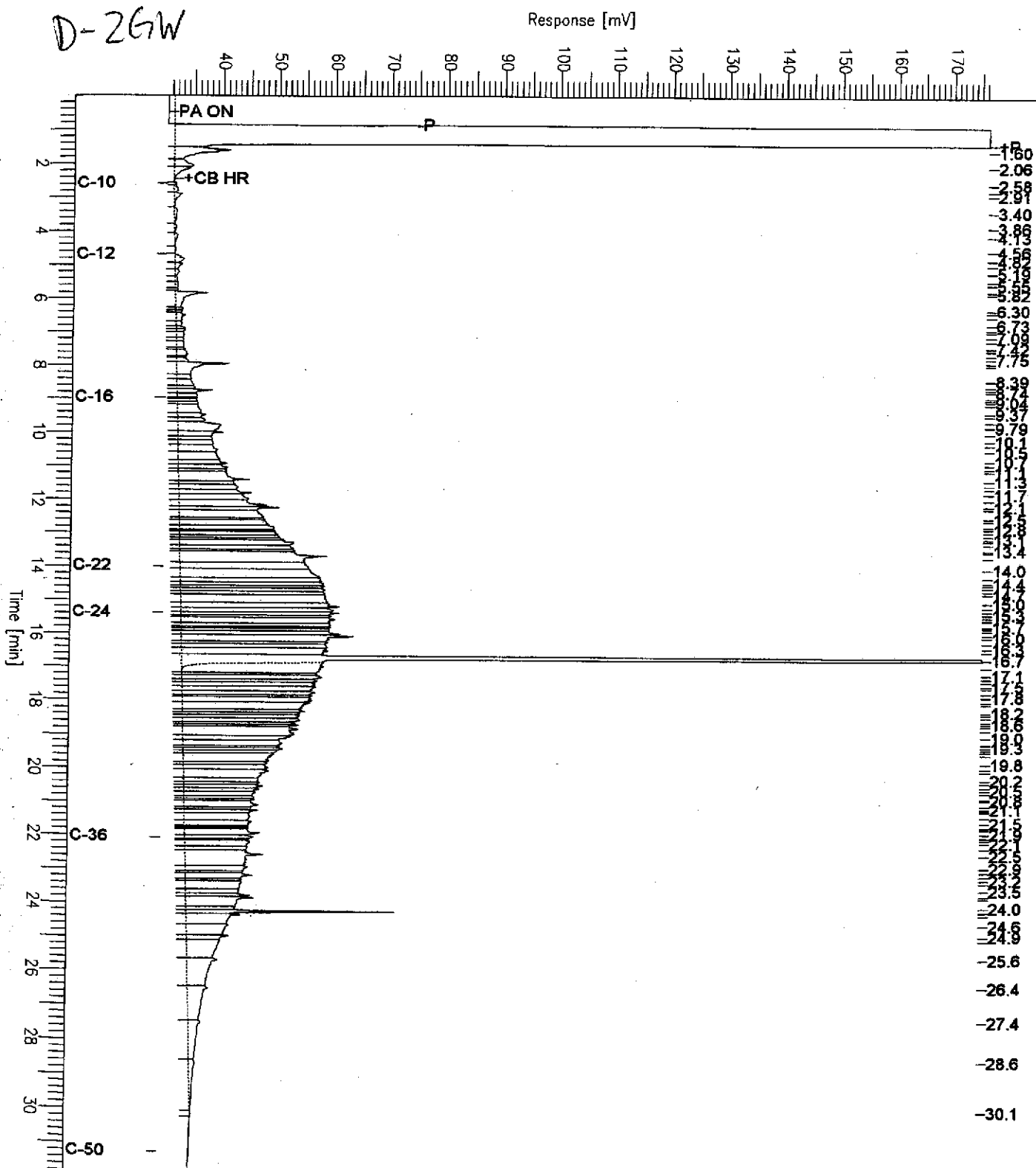
Low Point : 30.10 mV

High Point : 176.30 mV

Scale Factor: 0.0

Plot Offset: 30 mV

Plot Scale: 146.2 mV



# Chromatogram

Sample Name : 169394-007,86947

Sample #: 86947

Page 1 of 1

FileName : G:\GC15\CHB\350B006.RAW

Date : 12/16/03 05:39 PM

Method : BTEH346.MTH

Time of Injection: 12/16/03 04:53 PM

Start Time : 0.01 min

End Time : 31.91 min

Low Point : 38.95 mV

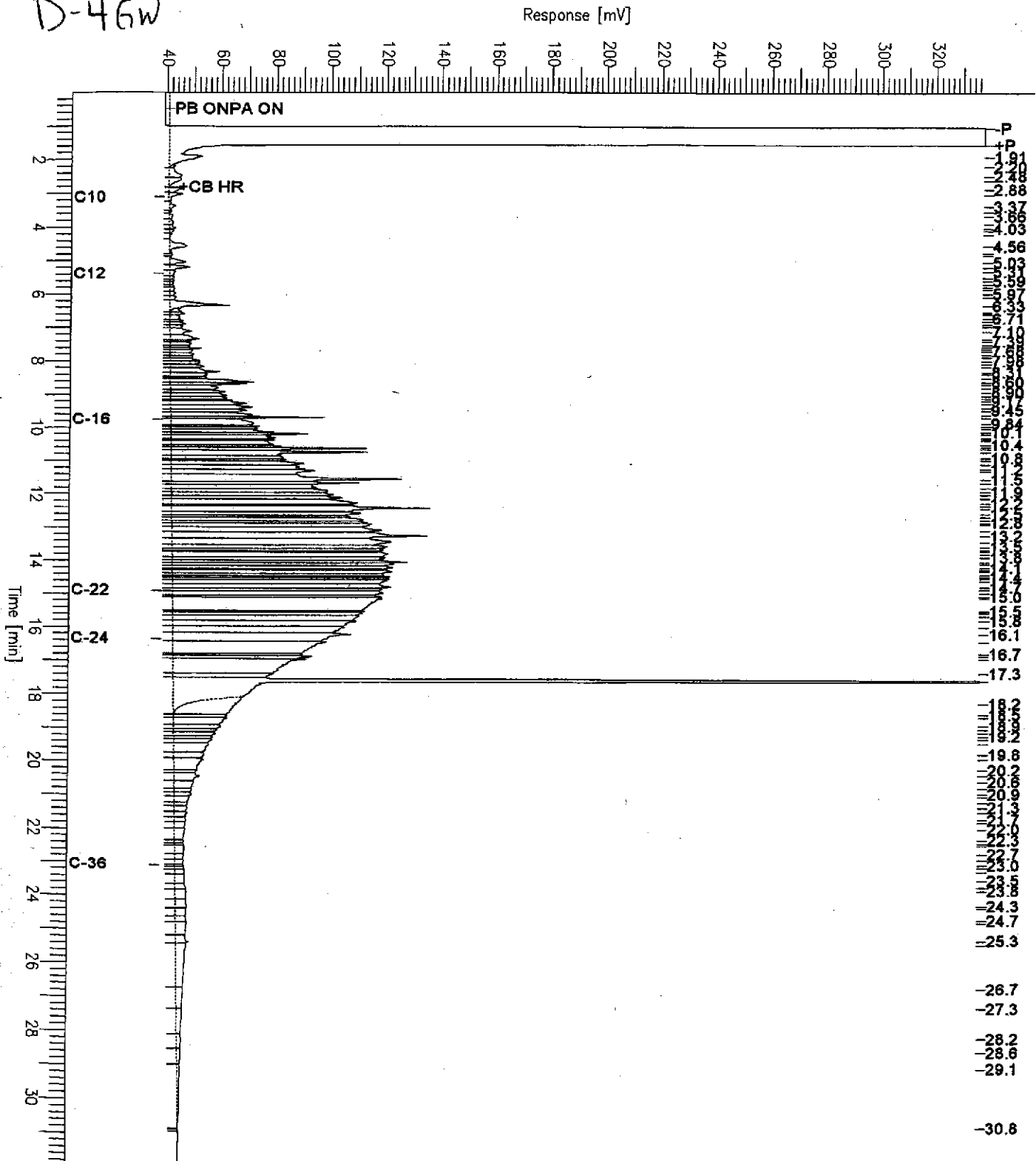
High Point : 337.70 mV

Scale Factor: 0.0

Plot Offset: 39 mV

Plot Scale: 298.7 mV

D-46W



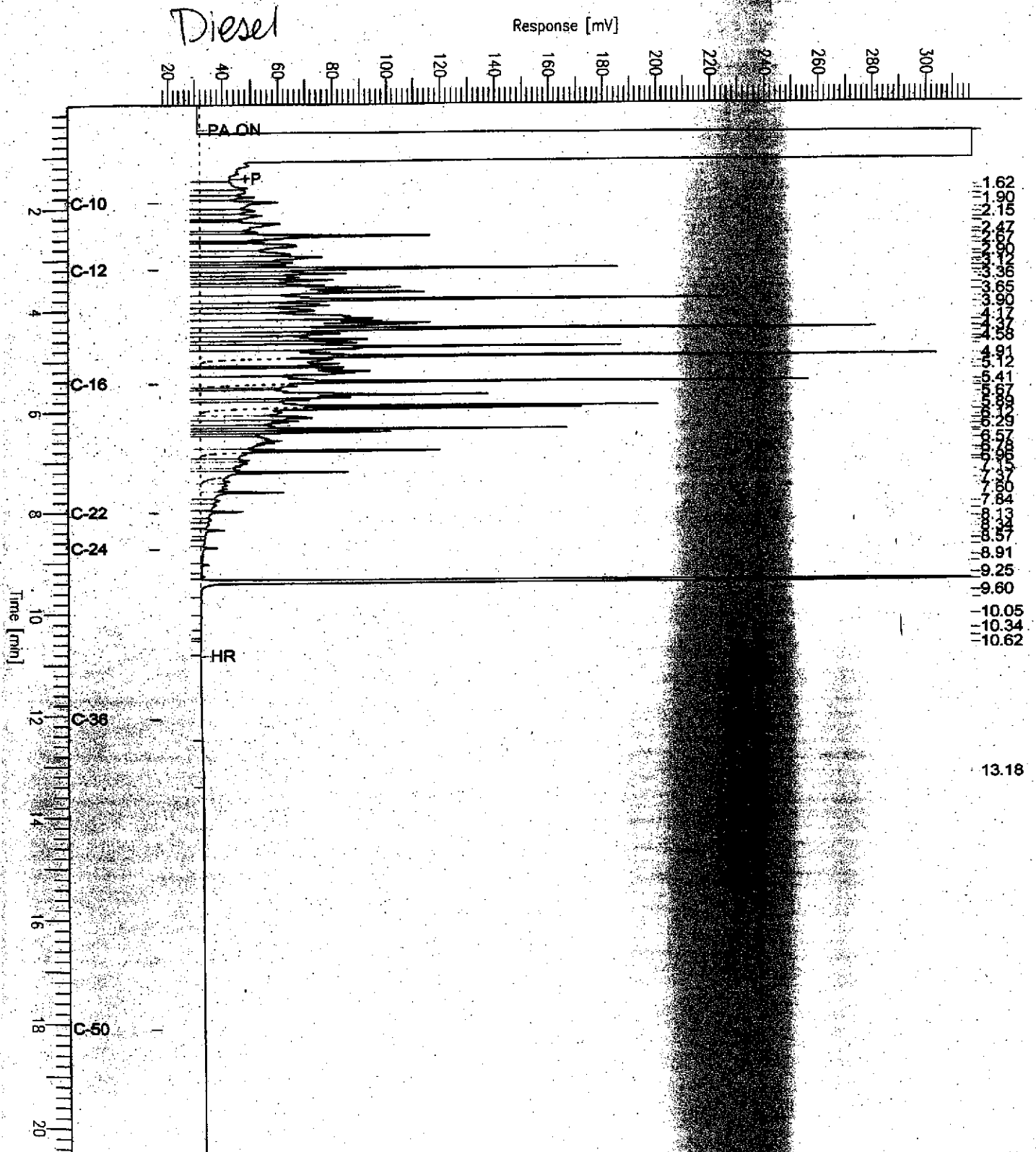
# Chromatogram

Sample Name : ccv,03ws1851.dsl  
FileName : G:\GC11\CHA\349A002.RAW  
Method : ATEH3498.MTH  
Start Time : 0.01 min  
Scale Factor: 0.0

End Time : 20.45 min  
Plot Offset: 16 mV

Sample #: 500mg/L  
Date : 12/15/03 11:50 AM  
Time of Injection: 12/15/03 11:23 AM  
Low Point : 16.22 mV  
Plot Scale: 300.9 mV

Page 1 of 1



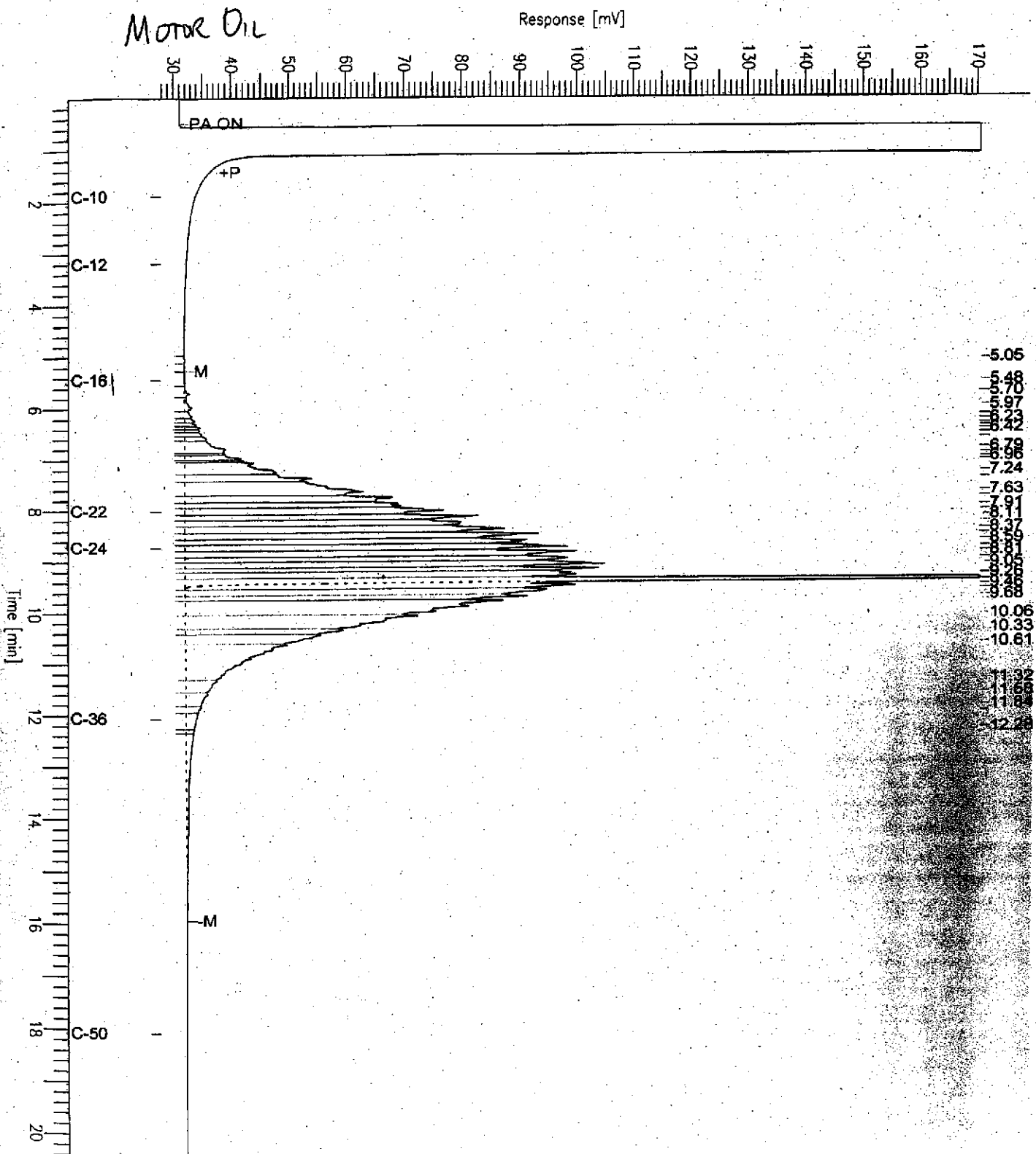
# Chromatogram

Sample Name : ccv,03ws2007.mo  
FileName : G:\GC11\CHA\349A003.RAW  
Method : ATEH349S.MTH  
Start Time : 0.01 min  
Scale Factor : 0.0

End Time : 20.45 min  
Plot Offset : 28 mV

Sample #: 500mg/L  
Date : 12/15/03 12:28 PM  
Time of Injection: 12/15/03 11:52 AM  
Low Point : 27.91 mV  
Plot Scale : 142.6 mV

Page 1 of 1



Total Extractable Hydrocarbons			
Lab #:	169394	Location:	Santanna
Client:	RMT, Inc.	Prep:	EPA 3520C
Project#:	STANDARD	Analysis:	EPA 8015B
Matrix:	Water	Batch#:	86947
Units:	ug/L	Prepared:	12/15/03
Diln Fac:	1.000	Analyzed:	12/16/03

Type: BS Lab ID: QC235214

Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24	2,500	2,019	81	38-137

Surrogate	%REC	Limits
Hexacosane	80	44-146

Type: BSD Lab ID: QC235215

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Diesel C10-C24	2,500	2,026	81	38-137	0	35

Surrogate	%REC	Limits
Hexacosane	83	44-146

**Total Extractable Hydrocarbons**

Lab #:	169394	Location:	Santanna
Client:	RMT, Inc.	Prep:	SHAKER TABLE
Project#:	STANDARD	Analysis:	EPA 8015B
Matrix:	Soil	Sampled:	12/11/03
Units:	mg/Kg	Received:	12/11/03
Basis:	as received	Prepared:	12/16/03
Batch#:	86970		

Field ID:	D-1S	Diln Fac:	50.00
Type:	SAMPLE	Analyzed:	12/17/03
Lab ID:	169394-001		

Analyte	Result	RL
Diesel C10-C24	11,000 H Y	50
Motor Oil C24-C36	3,700 L Y	250

Surrogate	%REC	Limits
Hexacosane	DO	36-141

Field ID:	D-2S	Diln Fac:	5.000
Type:	SAMPLE	Analyzed:	12/17/03
Lab ID:	169394-002		

Analyte	Result	RL
Diesel C10-C24	40 H Y	5.0
Motor Oil C24-C36	310	25

Surrogate	%REC	Limits
Hexacosane	84	36-141

Field ID:	D-3S	Diln Fac:	5.000
Type:	SAMPLE	Analyzed:	12/17/03
Lab ID:	169394-003		

Analyte	Result	RL
Diesel C10-C24	97 H Y	5.0
Motor Oil C24-C36	330	25

Surrogate	%REC	Limits
Hexacosane	81	36-141

Field ID:	D-4S	Diln Fac:	20.00
Type:	SAMPLE	Analyzed:	12/17/03
Lab ID:	169394-004		

Analyte	Result	RL
Diesel C10-C24	3,800 H Y	20
Motor Oil C24-C36	3,000 L Y	100

Surrogate	%REC	Limits
Hexacosane	DO	36-141

H= Heavier hydrocarbons contributed to the quantitation  
 L= Lighter hydrocarbons contributed to the quantitation  
 Y= Sample exhibits chromatographic pattern which does not resemble standard  
 DO= Diluted Out  
 ND= Not Detected  
 RL= Reporting Limit

# Chromatogram

Sample Name : 169394-001,86970

Sample #: 86970

Page 1 of 1

FileName : G:\GC11\CHA\349A082.RAW

Date : 12/17/03 09:20 AM

Method : ATEH350S.MTH

Time of Injection: 12/17/03 06:24 AM

Start Time : 0.00 min End Time : 20.46 min

Low Point : -20.98 mV

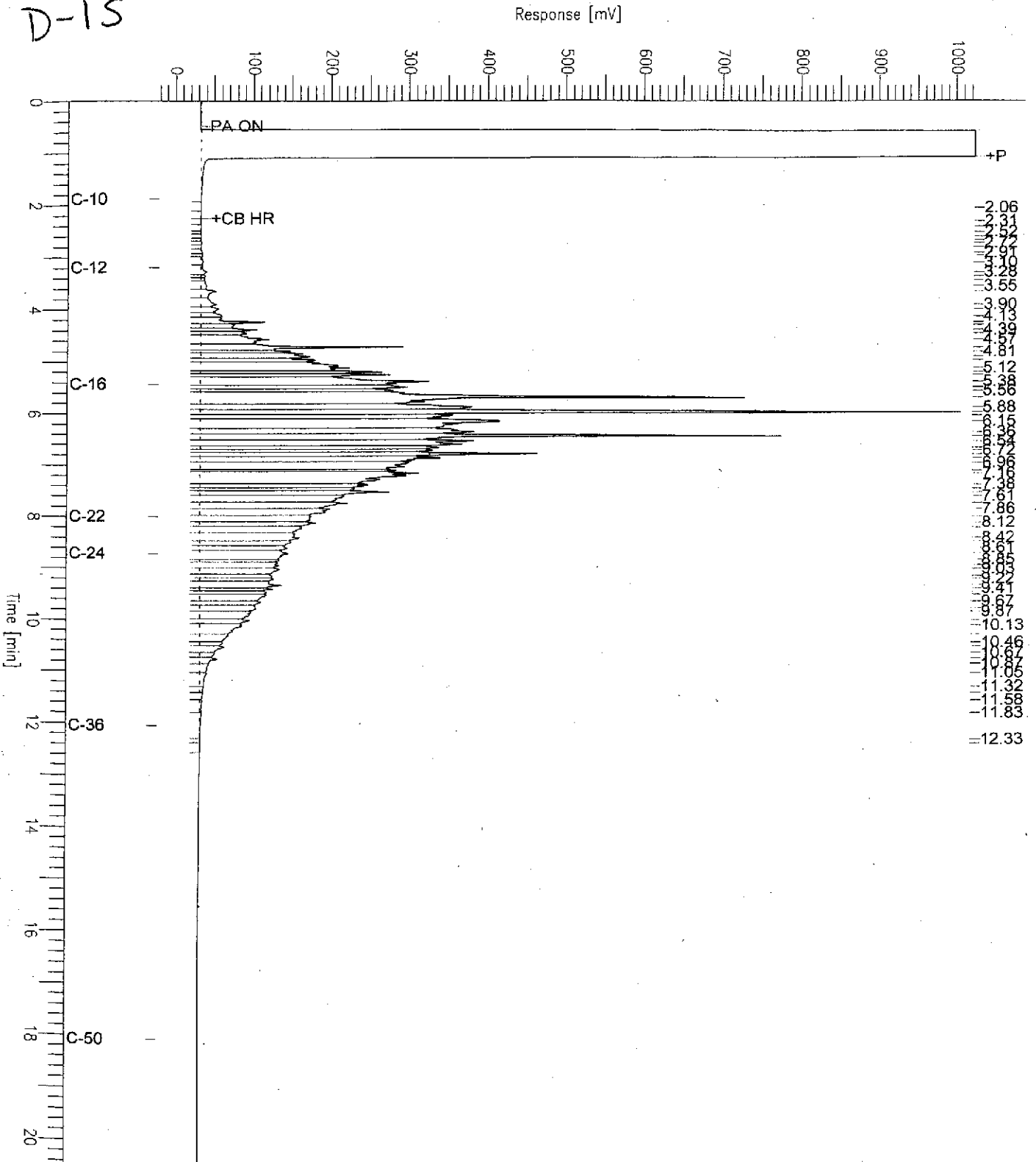
High Point : 1024.00 mV

Scale Factor: 0.0

Plot Offset: -21 mV

Plot Scale: 1045.0 mV

D-15





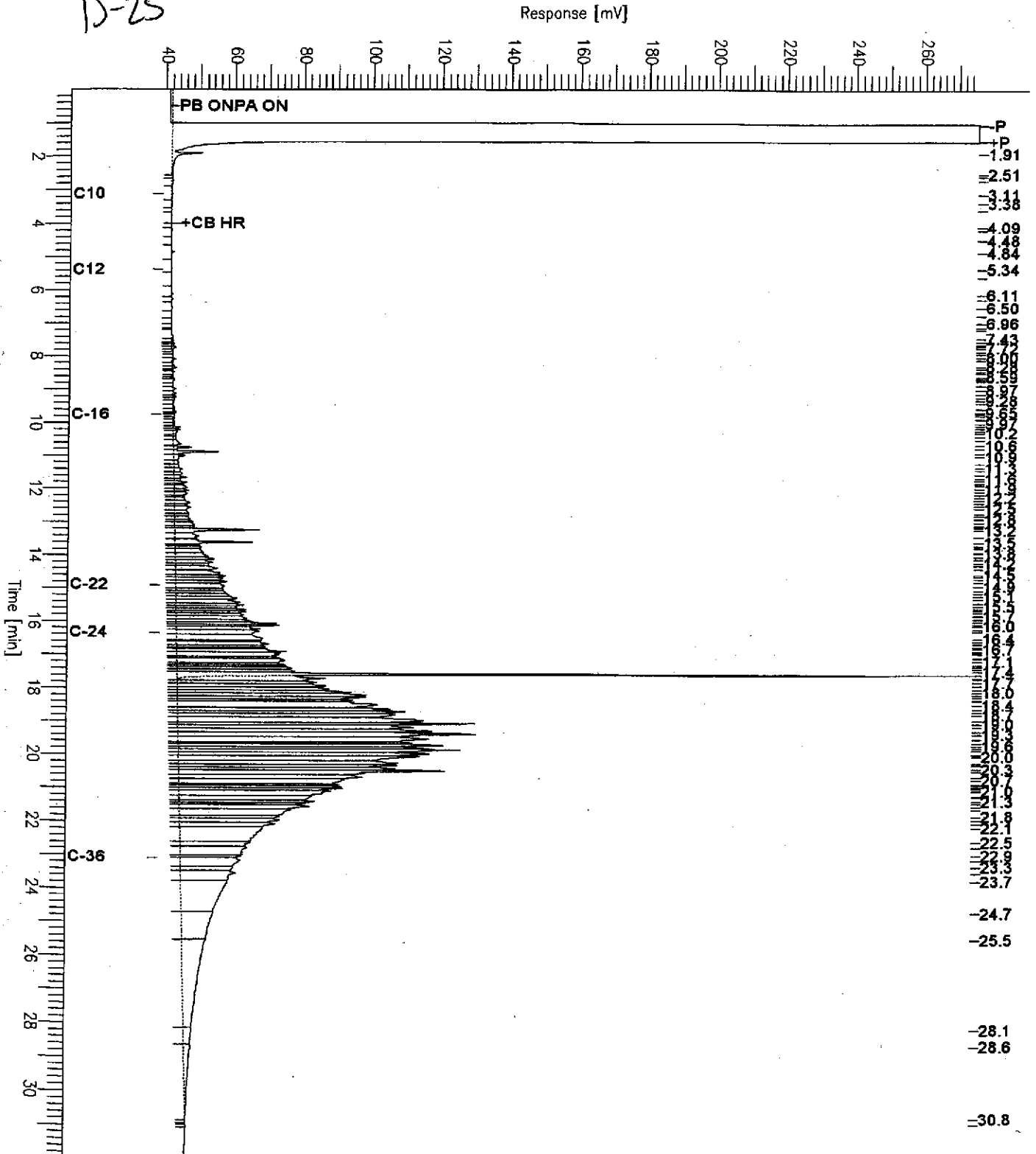
# Chromatogram

Sample Name : 169394-002,86970  
FileName : G:\GC15\CHB\350B032.RAW  
Method : BTEH346.MTH  
Start Time : 0.01 min  
Scale Factor : 0.0

Sample #: 86970  
Date : 12/17/03 12:25 PM  
Time of Injection: 12/17/03 11:09 AM  
Low Point : 39.06 mV  
Plot Scale: 236.7 mV

Page 1 of 1

D-25



# Chromatogram

Sample Name : 169394-003,86970

Sample #: 86970

Page 1 of 1

FileName : G:\GC15\CHB\350B033.RAW

Date : 12/17/03 12:26 PM

Method : BTEH346.MTH

Time of Injection: 12/17/03 11:49 AM

Start Time : 0.01 min

End Time : 31.91 min

Low Point : 40.08 mV

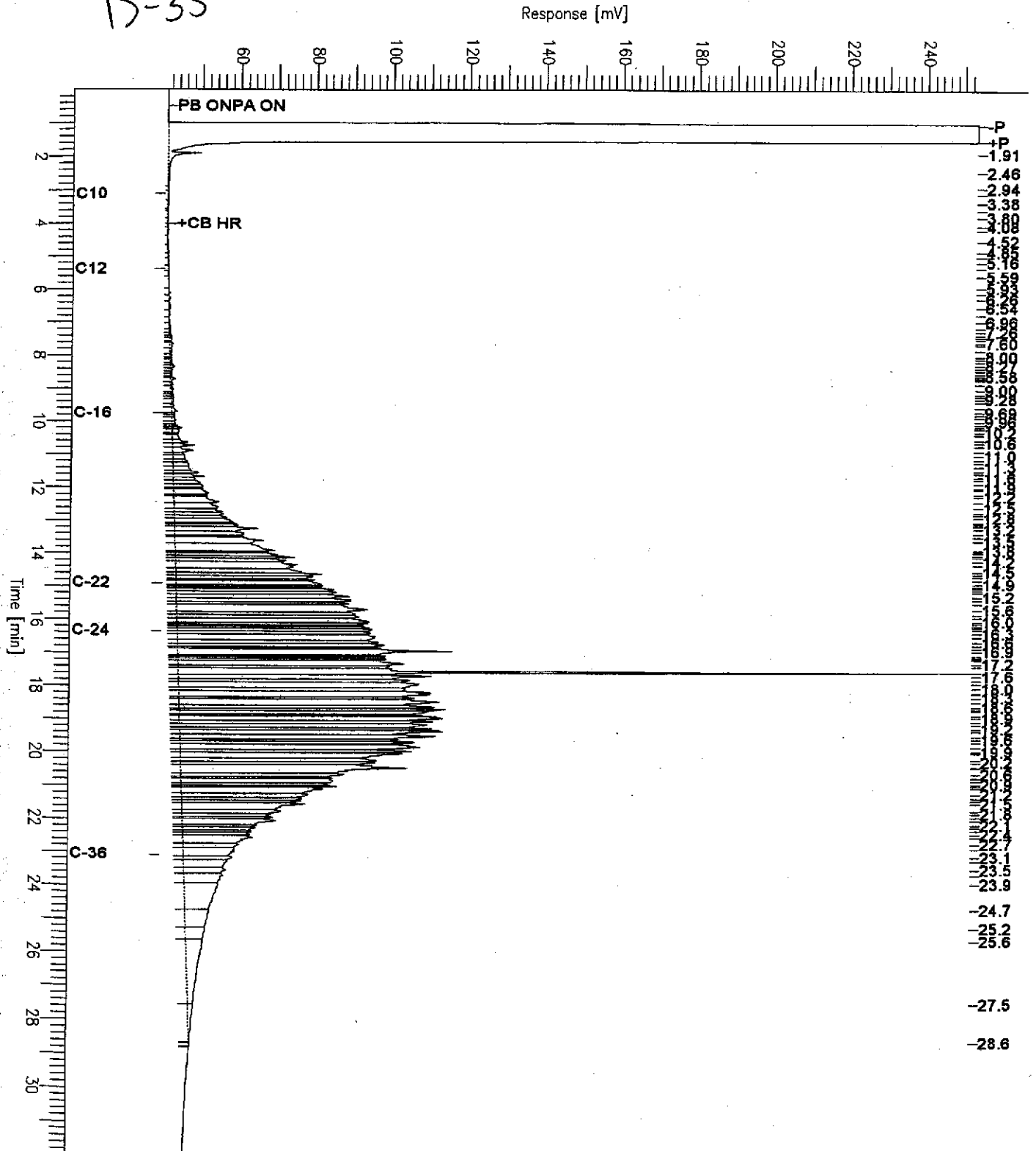
High Point : 253.32 mV

Scale Factor: 0.0

Plot Offset: 40 mV

Plot Scale: 213.2 mV

D-35



# Chromatogram

Sample Name : 169394-004,86970

Sample #: 86970

Page 1 of 1

FileName : G:\GC11\CHA\349A090.RAW

Date : 12/17/03 10:49 AM

Method : ATEH350S.MTH

Time of Injection: 12/17/03 10:14 AM

Start Time : 0.01 min

End Time : 20.45 min

Low Point : 12.42 mV

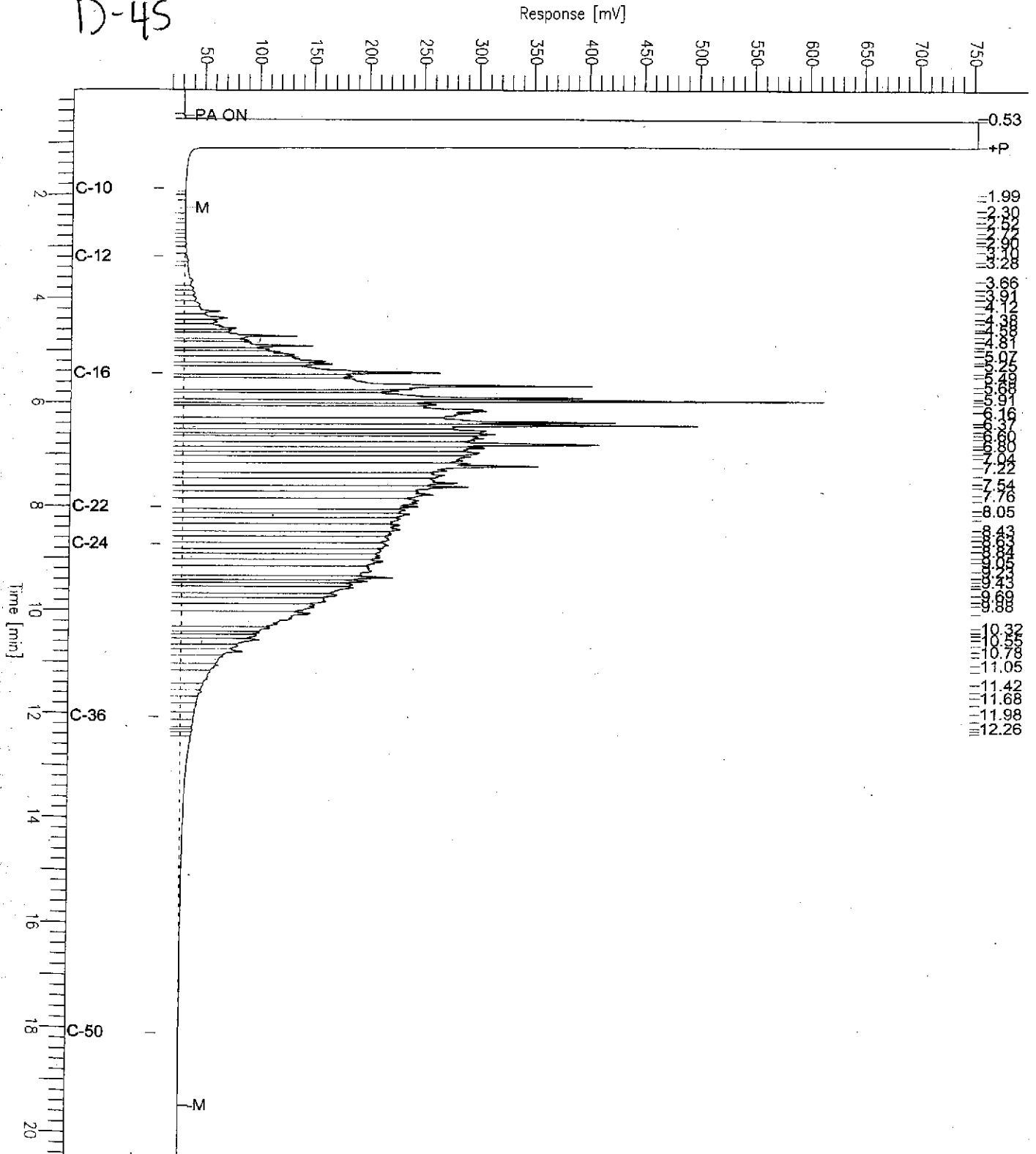
High Point : 753.31 mV

Scale Factor: 0.0

Plot Offset: 12 mV

Plot Scale: 740.9 mV

D-45



# Chromatogram

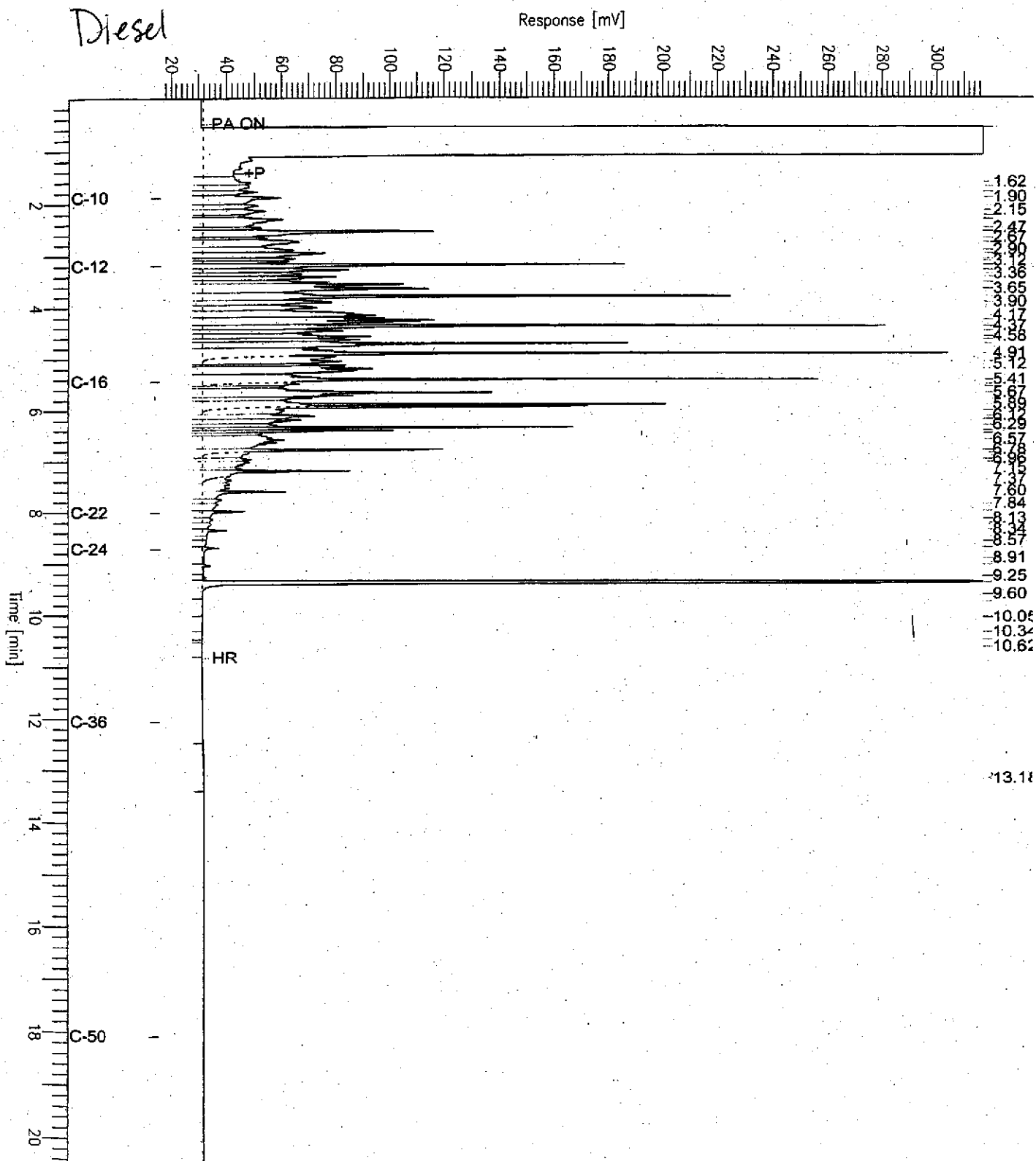
Sample Name : ccv\_03ws1851.dsl  
 FileName : G:\GC11\CHA\349A002.RAW  
 Method : ATEH349S.MTH  
 Start Time : 0.01 min  
 Scale Factor : 0.0

End Time : 20.45 min  
 Plot Offset : 16 mV

Sample #: 500mg/L  
 Date : 12/15/03 11:50 AM  
 Time of Injection: 12/15/03 11:23 AM  
 Low Point : 16.22 mV  
 Plot Scale: 300.9 mV

Page 1 of 1

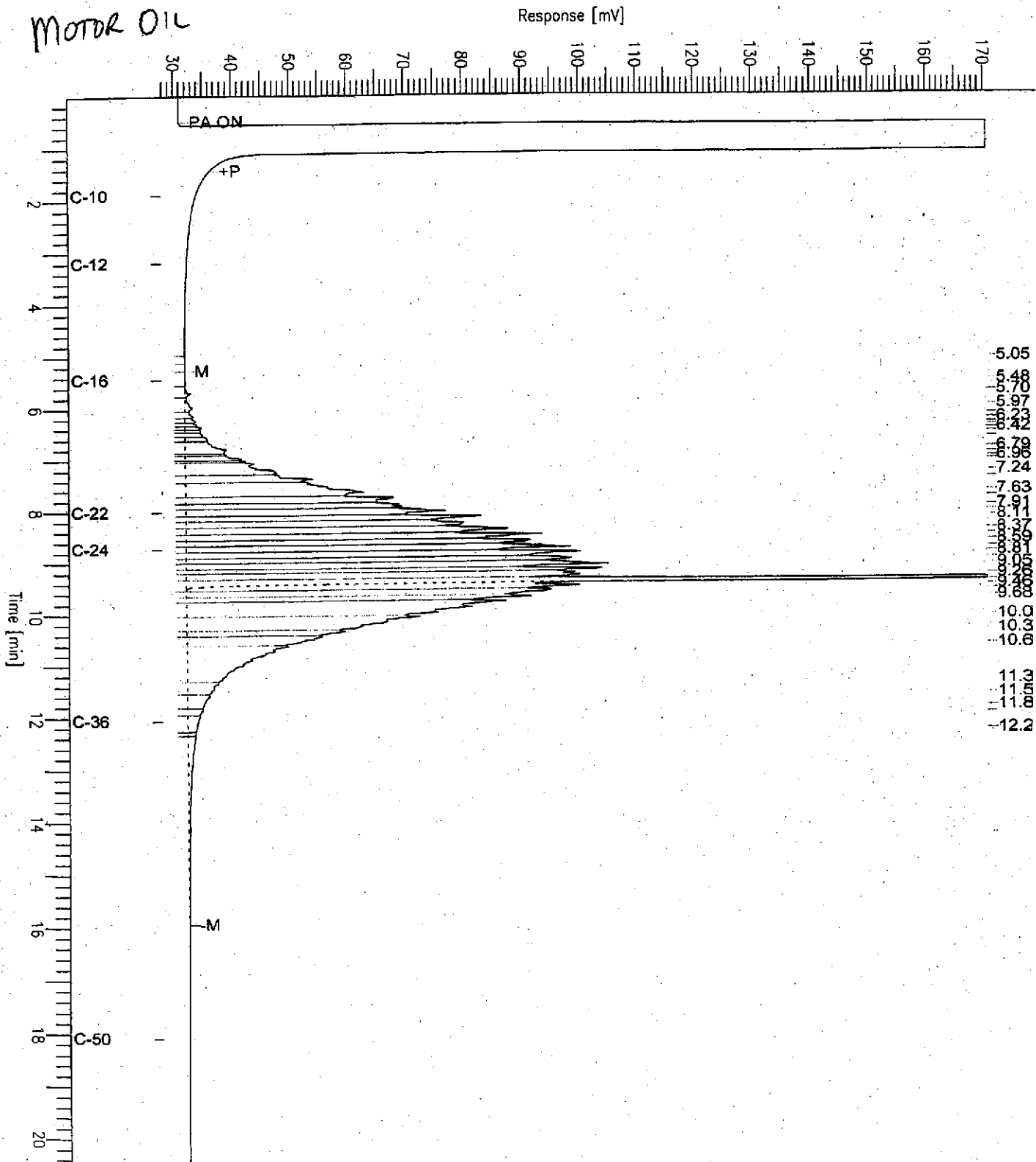
High Point : 317.10 mV



# Chromatogram

Sample Name : ccv\_03ws2007.mo  
FileName : G:\GC11\CHA\349A003.RAW  
Method : ATEH349S.MTH  
Start Time : 0.01 min  
Scale Factor : 0.0

Sample #: 500mg/L  
Date : 12/15/03 12:28 PM  
Time of Injection: 12/15/03 11:52 AM  
Low Point : 27.91 mV  
Plot Scale: 142.6 mV



Total Extractable Hydrocarbons			
Lab #:	169394	Location:	Santanna
Client:	RMT, Inc.	Prep:	SHAKER TABLE
Project#:	STANDARD	Analysis:	EPA 8015B
Matrix:	Soil	Sampled:	12/11/03
Units:	mg/Kg	Received:	12/11/03
Basis:	as received	Prepared:	12/16/03
Batch#:	86970		

Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC235289	Analyzed:	12/16/03

Analyte	Result	RL
Diesel C10-C24	ND	1.0
Motor Oil C24-C36	ND	5.0

Surrogate	MRBC	Limit
Hexacosane	98	36-141

H= Heavier hydrocarbons contributed to the quantitation  
 L= Lighter hydrocarbons contributed to the quantitation  
 Y= Sample exhibits chromatographic pattern which does not resemble standard  
 DO= Diluted Out  
 ND= Not Detected  
 RL= Reporting Limit  
 Page 2 of 2



**Total Extractable Hydrocarbons**

Lab #:	169394	Location:	Santanna
Client:	RMT, Inc.	Prep:	SHAKER TABLE
Project#:	STANDARD	Analysis:	EPA 8015B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC235290	Batch#:	86970
Matrix:	Soil	Prepared:	12/16/03
Units:	mg/Kg	Analyzed:	12/17/03
Basis:	as received		

Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24	50.14	44.38	89	49-129

Surrogate	%REC	Limits
Hexacosane	92	36-141



Total Extractable Hydrocarbons			
Lab #:	169394	Location:	Santanna
Client:	RMT, Inc.	Prep:	SHAKER TABLE
Project#:	STANDARD	Analysis:	EPA 8015B
Field ID:	ZZZZZZZZZ	Batch#:	86970
MSS Lab ID:	169408-008	Sampled:	12/11/03
Matrix:	Soil	Received:	12/11/03
Units:	mg/Kg	Prepared:	12/16/03
Basis:	as received	Analyzed:	12/17/03
Diln Fac:	1.000		

Type: MS Lab ID: QC235291

Analyte	MSS Result	Spiked	Result	%REC	Limits
Diesel C10-C24	128.8	50.33	161.3	64	32-134

Surrogate	%REC	Limits
Hexacosane	80	36-141

Type: MSD Lab ID: QC235292

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Diesel C10-C24	50.24	141.6	25 *	32-134	13	48

Surrogate	%REC	Limits
Hexacosane	78	36-141

\*= Value outside of QC limits; see narrative  
 RPD= Relative Percent Difference  
 Page 1 of 1



## Semivolatile Organics by GC/MS

Lab #:	169394	Location:	Santanna
Client:	RMT, Inc.	Prep:	EPA 3520C
Project#:	STANDARD	Analysis:	EPA 8270C
Field ID:	D-1GW	Batch#:	86952
Lab ID:	169394-005	Sampled:	12/11/03
Matrix:	Water	Received:	12/11/03
Units:	ug/L	Prepared:	12/15/03
Diln Fac:	2.500	Analyzed:	12/19/03

Analyte	Result	RL
N-Nitrosodimethylamine	ND	31
Phenol	ND	31
bis(2-Chloroethyl) ether	ND	31
2-Chlorophenol	ND	31
1,3-Dichlorobenzene	ND	31
1,4-Dichlorobenzene	ND	31
Benzyl alcohol	ND	31
1,2-Dichlorobenzene	ND	31
2-Methylphenol	ND	31
bis(2-Chloroisopropyl) ether	ND	31
4-Methylphenol	ND	31
N-Nitroso-di-n-propylamine	ND	31
Hexachloroethane	ND	31
Nitrobenzene	ND	31
Isophorone	ND	31
2-Nitrophenol	ND	63
2,4-Dimethylphenol	ND	31
Benzoic acid	ND	160
bis(2-Chloroethoxy)methane	ND	31
2,4-Dichlorophenol	ND	31
1,2,4-Trichlorobenzene	ND	31
Naphthalene	ND	31
4-Chloroaniline	ND	31
Hexachlorobutadiene	ND	31
4-Chloro-3-methylphenol	ND	31
2-Methylnaphthalene	ND	31
Hexachlorocyclopentadiene	ND	160
2,4,6-Trichlorophenol	ND	31
2,4,5-Trichlorophenol	ND	31
2-Chloronaphthalene	ND	31
2-Nitroaniline	ND	63
Dimethylphthalate	ND	31
Acenaphthylene	ND	31
2,6-Dinitrotoluene	ND	31
3-Nitroaniline	ND	63
Acenaphthene	ND	31
2,4-Dinitrophenol	ND	160
4-Nitrophenol	ND	63
Dibenzofuran	ND	31
2,4-Dinitrotoluene	ND	31
Diethylphthalate	ND	31
Fluorene	ND	31
4-Chlorophenyl-phenylether	ND	31
4-Nitroaniline	ND	63
4,6-Dinitro-2-methylphenol	ND	160
N-Nitrosodiphenylamine	ND	31
Azobenzene	ND	31
4-Bromophenyl-phenylether	ND	31
Hexachlorobenzene	ND	31
Pentachlorophenol	ND	63
Phenanthrene	ND	31
Anthracene	ND	31
Di-n-butylphthalate	ND	31
Fluoranthene	ND	31

\*= Value outside of QC limits; see narrative

ND= Not Detected

RL= Reporting Limit

Page 1 of 2

## Semivolatile Organics by GC/MS

Lab #:	169394	Location:	Santanna
Client:	RMT, Inc.	Prep:	EPA 3520C
Project#:	STANDARD	Analysis:	EPA 8270C
Field ID:	D-1GW	Batch#:	86952
Lab ID:	169394-005	Sampled:	12/11/03
Matrix:	Water	Received:	12/11/03
Units:	ug/L	Prepared:	12/15/03
Diln Fac:	2.500	Analyzed:	12/19/03

Analyte	Result	RL
Pyrene	ND	31
Butylbenzylphthalate	ND	31
3,3'-Dichlorobenzidine	ND	63
Benzo(a)anthracene	ND	31
Chrysene	ND	31
bis(2-Ethylhexyl) phthalate	ND	31
Di-n-octylphthalate	ND	31
Benzo(b)fluoranthene	ND	31
Benzo(k)fluoranthene	ND	31
Benzo(a)pyrene	ND	31
Indeno(1,2,3-cd)pyrene	ND	31
Dibenz(a,h)anthracene	ND	31
Benzo(g,h,i)perylene	ND	31

Surrogate	SEC	Limits
2-Fluorophenol	75	27-120
Phenol-d5	71	26-120
2,4,6-Tribromophenol	25	23-126
Nitrobenzene-d5	67	37-120
2-Fluorobiphenyl	11 *	35-120
Terphenyl-d14	6 *	20-129

\*= Value outside of QC limits; see narrative  
 ND= Not Detected  
 RL= Reporting Limit  
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## Semivolatile Organics by GC/MS

Lab #:	169394	Location:	Santanna
Client:	RMT, Inc.	Prep:	EPA 3520C
Project#:	STANDARD	Analysis:	EPA 8270C
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC235222	Batch#:	86952
Matrix:	Water	Prepared:	12/15/03
Units:	ug/L	Analyzed:	12/16/03

Analyte	Result	RL
N-Nitrosodimethylamine	ND	10
Phenol	ND	10
bis(2-Chloroethyl)ether	ND	10
2-Chlorophenol	ND	10
1,3-Dichlorobenzene	ND	10
1,4-Dichlorobenzene	ND	10
Benzyl alcohol	ND	10
1,2-Dichlorobenzene	ND	10
2-Methylphenol	ND	10
bis(2-Chloroisopropyl) ether	ND	10
4-Methylphenol	ND	10
N-Nitroso-di-n-propylamine	ND	10
Hexachloroethane	ND	10
Nitrobenzene	ND	10
Isophorone	ND	10
2-Nitrophenol	ND	20
2,4-Dimethylphenol	ND	10
Benzoic acid	ND	50
bis(2-Chloroethoxy)methane	ND	10
2,4-Dichlorophenol	ND	10
1,2,4-Trichlorobenzene	ND	10
Naphthalene	ND	10
4-Chloroaniline	ND	10
Hexachlorobutadiene	ND	10
4-Chloro-3-methylphenol	ND	10
2-Methylnaphthalene	ND	10
Hexachlorocyclopentadiene	ND	50
2,4,6-Trichlorophenol	ND	10
2,4,5-Trichlorophenol	ND	10
2-Chloronaphthalene	ND	10
2-Nitroaniline	ND	20
Dimethylphthalate	ND	10
Acenaphthylene	ND	10
2,6-Dinitrotoluene	ND	10
3-Nitroaniline	ND	20
Acenaphthene	ND	10
2,4-Dinitrophenol	ND	50
4-Nitrophenol	ND	20

ND= Not Detected  
 RL= Reporting Limit  
 Page 1 of 2



## Semivolatile Organics by GC/MS

Lab #:	169394	Location:	Santanna
Client:	RMT, Inc.	Prep:	EPA 3520C
Project#:	STANDARD	Analysis:	EPA 8270C
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC235222	Batch#:	86952
Matrix:	Water	Prepared:	12/15/03
Units:	ug/L	Analyzed:	12/16/03

Analyte	Result	RL
Dibenzofuran	ND	10
2,4-Dinitrotoluene	ND	10
Diethylphthalate	ND	10
Fluorene	ND	10
4-Chlorophenyl-phenylether	ND	10
4-Nitroaniline	ND	20
4,6-Dinitro-2-methylphenol	ND	50
N-Nitrosodiphenylamine	ND	10
Azobenzene	ND	10
4-Bromophenyl-phenylether	ND	10
Hexachlorobenzene	ND	10
Pentachlorophenol	ND	20
Phenanthrene	ND	10
Anthracene	ND	10
Di-n-butylphthalate	ND	10
Fluoranthene	ND	10
Pyrene	ND	10
Butylbenzylphthalate	ND	10
3,3'-Dichlorobenzidine	ND	20
Benzo(a)anthracene	ND	10
Chrysene	ND	10
bis(2-Ethylhexyl)phthalate	ND	10
Di-n-octylphthalate	ND	10
Benzo(b)fluoranthene	ND	10
Benzo(k)fluoranthene	ND	10
Benzo(a)pyrene	ND	10
Indeno(1,2,3-cd)pyrene	ND	10
Dibenz(a,h)anthracene	ND	10
Benzo(g,h,i)perylene	ND	10

Surrogate	%RBC	Limits
2-Fluorophenol	91	27-120
Phenol-d5	87	26-120
2,4,6-Tribromophenol	88	23-126
Nitrobenzene-d5	83	37-120
2-Fluorobiphenyl	95	35-120
Terphenyl-d14	77	20-129

ND= Not Detected  
RL= Reporting Limit  
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## Semivolatile Organics by GC/MS

Lab #:	169394	Location:	Santanna
Client:	RMT, Inc.	Prep:	EPA 3520C
Project#:	STANDARD	Analysis:	EPA 8270C
Matrix:	Water	Batch#:	86952
Units:	ug/L	Prepared:	12/15/03
Diln Fac:	1.000	Analyzed:	12/16/03

Type: BS Lab ID: QC235223

Analyte	Spiked	Result	UREC	Limit
Phenol	100.0	71.09	71	44-120
2-Chlorophenol	100.0	75.92	76	44-120
1,4-Dichlorobenzene	50.00	30.18	60	40-120
N-Nitroso-di-n-propylamine	50.00	31.21	62	43-120
1,2,4-Trichlorobenzene	50.00	32.69	65	42-120
4-Chloro-3-methylphenol	100.0	70.20	70	46-120
Acenaphthene	50.00	38.21	76	43-120
4-Nitrophenol	100.0	69.79	70	33-137
2,4-Dinitrotoluene	50.00	35.51	71	45-120
Pentachlorophenol	100.0	72.12	72	32-122
Pyrene	50.00	36.10	72	37-120

Surrogate	UREC	Limit
2-Fluorophenol	81	27-120
Phenol-d5	76	26-120
2,4,6-Tribromophenol	76	23-126
Nitrobenzene-d5	69	37-120
2-Fluorobiphenyl	83	35-120
Terphenyl-d14	64	20-129

Type: BSD Lab ID: QC235224

Analyte	Spiked	Result	UREC	Limit	RPD	Lim
Phenol	100.0	89.19	89	44-120	23	30
2-Chlorophenol	100.0	89.79	90	44-120	17	30
1,4-Dichlorobenzene	50.00	36.13	72	40-120	18	23
N-Nitroso-di-n-propylamine	50.00	38.26	77	43-120	20	29
1,2,4-Trichlorobenzene	50.00	37.34	75	42-120	13	23
4-Chloro-3-methylphenol	100.0	85.52	86	46-120	20	29
Acenaphthene	50.00	44.29	89	43-120	15	29
4-Nitrophenol	100.0	84.47	84	33-137	19	29
2,4-Dinitrotoluene	50.00	43.72	87	45-120	21	26
Pentachlorophenol	100.0	83.32	83	32-122	14	29
Pyrene	50.00	42.14	84	37-120	15	29

Surrogate	UREC	Limit
2-Fluorophenol	99	27-120
Phenol-d5	92	26-120
2,4,6-Tribromophenol	91	23-126
Nitrobenzene-d5	82	37-120
2-Fluorobiphenyl	100	35-120
Terphenyl-d14	79	20-129

## Semivolatile Organics by GC/MS

Lab #:	169394	Location:	Santanna
Client:	RMT, Inc.	Prep:	EPA 3550
Project#:	STANDARD	Analysis:	EPA 8270C
Field ID:	D-15	Batch#:	86945
Lab ID:	169394-001	Sampled:	12/11/03
Matrix:	Soil	Received:	12/11/03
Units:	ug/Kg	Prepared:	12/15/03
Basis:	as received	Analyzed:	12/19/03
Diln Fac:	20.00		

Analyte	Result	RL
N-Nitrosodimethylamine	ND	6,700
Phenol	ND	6,700
bis(2-Chloroethyl) ether	ND	6,700
2-Chlorophenol	ND	6,700
1,3-Dichlorobenzene	ND	6,700
1,4-Dichlorobenzene	ND	6,700
Benzyl alcohol	ND	6,700
1,2-Dichlorobenzene	ND	6,700
2-Methylphenol	ND	6,700
bis(2-Chloroisopropyl) ether	ND	6,700
4-Methylphenol	ND	6,700
N-Nitroso-di-n-propylamine	ND	6,700
Hexachloroethane	ND	6,700
Nitrobenzene	ND	6,700
Isophorone	ND	6,700
2-Nitrophenol	ND	13,000
2,4-Dimethylphenol	ND	6,700
Benzoic acid	ND	33,000
bis(2-Chloroethoxy) methane	ND	6,700
2,4-Dichlorophenol	ND	6,700
1,2,4-Trichlorobenzene	ND	6,700
Naphthalene	ND	1,300
4-Chloroaniline	ND	6,700
Hexachlorobutadiene	ND	6,700
4-Chloro-3-methylphenol	ND	6,700
2-Methylnaphthalene	ND	1,300
Hexachlorocyclopentadiene	ND	33,000
2,4,6-Trichlorophenol	ND	6,700
2,4,5-Trichlorophenol	ND	6,700
2-Chloronaphthalene	ND	6,700
2-Nitroaniline	ND	13,000
Dimethylphthalate	ND	6,700
Acenaphthylene	ND	1,300
2,6-Dinitrotoluene	ND	6,700
3-Nitroaniline	ND	13,000
Acenaphthene	ND	1,300
2,4-Dinitrophenol	ND	33,000
4-Nitrophenol	ND	13,000
Dibenzofuran	ND	6,700
2,4-Dinitrotoluene	ND	6,700
Diethylphthalate	ND	6,700
Fluorene	ND	1,300
4-Chlorophenyl-phenylether	ND	6,700
4-Nitroaniline	ND	13,000
4,6-Dinitro-2-methylphenol	ND	33,000
N-Nitrosodiphenylamine	ND	6,700
Azobenzene	ND	6,700
4-Bromophenyl-phenylether	ND	6,700
Hexachlorobenzene	ND	6,700
Pentachlorophenol	ND	13,000
Phenanthrene	1,500	1,300
Anthracene	ND	1,300
Di-n-butylphthalate	ND	6,700

DO= Diluted Out  
 ND= Not Detected  
 RL= Reporting Limit  
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## Semivolatile Organics by GC/MS

Lab #:	169394	Location:	Santanna
Client:	RMT, Inc.	Prep:	EPA 3550
Project#:	STANDARD	Analysis:	EPA 8270C
Field ID:	D-1S	Batch#:	86945
Lab ID:	169394-001	Sampled:	12/11/03
Matrix:	Soil	Received:	12/11/03
Units:	ug/Kg	Prepared:	12/15/03
Basis:	as received	Analyzed:	12/19/03
Diln Fac:	20.00		

Analyte	Result	RL
Fluoranthene	ND	1,300
Pyrene	ND	1,300
Butylbenzylphthalate	ND	6,700
3,3'-Dichlorobenzidine	ND	13,000
Benzo(a)anthracene	ND	1,300
Chrysene	ND	1,300
bis(2-Ethylhexyl)phthalate	ND	6,700
Di-n-octylphthalate	ND	6,700
Benzo(b)fluoranthene	ND	1,300
Benzo(k)fluoranthene	ND	1,300
Benzo(a)pyrene	ND	1,300
Indeno(1,2,3-cd)pyrene	ND	1,300
Dibenz(a,h)anthracene	ND	1,300
Benzo(a,h,i)perylene	ND	1,300

Surrogate	REC	Limit
2-Fluorophenol	DO	28-120
Phenol-d5	DO	26-120
2,4,6-Tribromophenol	DO	30-120
Nitrobenzene-d5	DO	27-120
2-Fluorobiphenyl	DO	33-121
Terphenyl-d14	DO	20-125

DO= Diluted Out  
 ND= Not Detected  
 RL= Reporting Limit  
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## Semivolatile Organics by GC/MS

Lab #:	169394	Location:	Santanna
Client:	RMT, Inc.	Prep:	EPA 3550
Project#:	STANDARD	Analysis:	EPA 8270C
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC235206	Batch#:	86945
Matrix:	Soil	Prepared:	12/15/03
Units:	ug/Kg	Analyzed:	12/16/03
Basis:	as received		

Analyte	Result	RL
N-Nitrosodimethylamine	ND	330
Phenol	ND	330
bis(2-Chloroethyl) ether	ND	330
2-Chlorophenol	ND	330
1,3-Dichlorobenzene	ND	330
1,4-Dichlorobenzene	ND	330
Benzyl alcohol	ND	330
1,2-Dichlorobenzene	ND	330
2-Methylphenol	ND	330
bis(2-Chloroisopropyl) ether	ND	330
4-Methylphenol	ND	330
N-Nitroso-di-n-propylamine	ND	330
Hexachloroethane	ND	330
Nitrobenzene	ND	330
Isophorone	ND	330
2-Nitrophenol	ND	670
2,4-Dimethylphenol	ND	330
Benzoic acid	ND	1,700
bis(2-Chloroethoxy) methane	ND	330
2,4-Dichlorophenol	ND	330
1,2,4-Trichlorobenzene	ND	330
Naphthalene	ND	67
4-Chloroaniline	ND	330
Hexachlorobutadiene	ND	330
4-Chloro-3-methylphenol	ND	330
2-Methylnaphthalene	ND	67
Hexachlorocyclopentadiene	ND	1,700
2,4,6-Trichlorophenol	ND	330
2,4,5-Trichlorophenol	ND	330
2-Chloronaphthalene	ND	330
2-Nitroaniline	ND	670
Dimethylphthalate	ND	330
Acenaphthylene	ND	67
2,6-Dinitrotoluene	ND	330
3-Nitroaniline	ND	670
Acenaphthene	ND	67
2,4-Dinitrophenol	ND	1,700
4-Nitrophenol	ND	670
Dibenzofuran	ND	330
2,4-Dinitrotoluene	ND	330
Diethylphthalate	ND	330
Fluorene	ND	67
4-Chlorophenyl-phenylether	ND	330
4-Nitroaniline	ND	670
4,6-Dinitro-2-methylphenol	ND	1,700
N-Nitrosodiphenylamine	ND	330
Azobenzene	ND	330
4-Bromophenyl-phenylether	ND	330
Hexachlorobenzene	ND	330
Pentachlorophenol	ND	670
Phenanthrene	ND	67
Anthracene	ND	67
Di-n-butylphthalate	ND	330
Fluoranthene	ND	67
Pyrene	ND	67

ND= Not Detected  
 RL= Reporting Limit  
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## Semi-volatile Organics by GC/MS

Lab #:	169394	Location:	Santanna
Client:	RMT, Inc.	Prep:	EPA 3550
Project#:	STANDARD	Analysis:	EPA 8270C
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC235206	Batch#:	86945
Matrix:	Soil	Prepared:	12/15/03
Units:	ug/Kg	Analyzed:	12/16/03
Basis:	as received		

Analyte	Result	RL
Butylbenzylphthalate	ND	330
3,3'-Dichlorobenzidine	ND	670
Benzo (a) anthracene	ND	67
Chrysene	ND	67
bis(2-Ethylhexyl)phthalate	ND	330
Di-n-octylphthalate	ND	330
Benzo (b) fluoranthene	ND	67
Benzo (k) fluoranthene	ND	67
Benzo (a) pyrene	ND	67
Indeno (1,2,3-cd) pyrene	ND	67
Dibenz (a, h) anthracene	ND	67
Benzo (g, h, i) perylene	ND	67

Surrogate	REC	Limit
2-Fluorophenol	84	28-120
Phenol-d5	79	26-120
2,4,6-Tribromophenol	80	30-120
Nitrobenzene-d5	89	27-120
2-Fluorobiphenyl	94	33-121
Terphenyl-d14	70	20-125

ND= Not Detected  
RL= Reporting Limit  
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## Semivolatile Organics by GC/MS

Lab #:	169394	Location:	Santanna
Client:	RMT, Inc.	Prep:	EPA 3550
Project#:	STANDARD	Analysis:	EPA 8270C
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC235207	Batch#:	86945
Matrix:	Soil	Prepared:	12/15/03
Units:	ug/Kg	Analyzed:	12/16/03
Basis:	as received		

Analyte	Spiked	Result	%REC	Limits
Phenol	3,347	2,468	74	34-121
2-Chlorophenol	3,347	2,749	82	37-120
1,4-Dichlorobenzene	1,673	1,465	88	36-120
N-Nitroso-di-n-propylamine	1,673	1,395	83	33-120
1,2,4-Trichlorobenzene	1,673	1,379	82	36-120
4-Chloro-3-methylphenol	3,347	2,588	77	38-124
Acenaphthene	1,673	1,424	85	38-120
4-Nitrophenol	3,347	3,486	104	19-140
2,4-Dinitrotoluene	1,673	1,293	77	35-120
Pentachlorophenol	3,347	2,352	70	19-122
Pyrene	1,673	1,151	69	33-120

Surrogate	%REC	Limits
2-Fluorophenol	82	28-120
Phenol-d5	78	26-120
2,4,6-Tribromophenol	94	30-120
Nitrobenzene-d5	84	27-120
2-Fluorobiphenyl	95	33-121
Terphenyl-d14	65	20-125



## Semivolatile Organics by GC/MS

Lab #:	169394	Location:	Santanna
Client:	RMT, Inc.	Prep:	EPA 3550
Project#:	STANDARD	Analysis:	EPA 8270C
Field ID:	ZZZZZZZZZ	Batch#:	86945
MSS Lab ID:	169372-028	Sampled:	12/10/03
Matrix:	Soil	Received:	12/11/03
Units:	ug/Kg	Prepared:	12/15/03
Basis:	as received	Analyzed:	12/16/03
Diln Fac:	1.000		

Type: MS Lab ID: QC235208

Analyte	MSS Result	Spiked	Result	EREC	Limit
Phenol	<28.00	3,322	2,041	61	33-120
2-Chlorophenol	<22.00	3,322	2,178	66	34-120
1,4-Dichlorobenzene	<26.00	1,661	1,148	69	24-120
N-Nitroso-di-n-propylamine	<20.00	1,661	1,107	67	25-121
1,2,4-Trichlorobenzene	<22.00	1,661	1,056	64	27-120
4-Chloro-3-methylphenol	<35.00	3,322	2,057	62	29-122
Acenaphthene	<14.00	1,661	1,115	67	20-126
4-Nitrophenol	<36.00	3,322	2,785	84	31-143
2,4-Dinitrotoluene	<22.00	1,661	1,020	61	18-120
Pentachlorophenol	<47.00	3,322	1,527	46	21-122
Pyrene	<11.00	1,661	878.9	53	31-142

Surrogate	EREC	Limit
2-Fluorophenol	68	28-120
Phenol-d5	65	26-120
2,4,6-Tribromophenol	75	30-120
Nitrobenzene-d5	69	27-120
2-Fluorobiphenyl	77	33-121
Terphenyl-d14	52	20-125

Type: MSD Lab ID: QC235209

Analyte	Spiked	Result	EREC	Limit	RPD	Lim
Phenol	3,320	2,326	70	33-120	13	35
2-Chlorophenol	3,320	2,527	76	34-120	15	33
1,4-Dichlorobenzene	1,660	1,346	81	24-120	16	35
N-Nitroso-di-n-propylamine	1,660	1,293	78	25-121	16	35
1,2,4-Trichlorobenzene	1,660	1,261	76	27-120	18	35
4-Chloro-3-methylphenol	3,320	2,391	72	29-122	15	38
Acenaphthene	1,660	1,293	78	20-126	15	35
4-Nitrophenol	3,320	3,277	99	31-143	16	41
2,4-Dinitrotoluene	1,660	1,184	71	18-120	15	45
Pentachlorophenol	3,320	1,717	52	21-122	12	39
Pyrene	1,660	1,032	62	31-142	16	42

Surrogate	EREC	Limit
2-Fluorophenol	78	28-120
Phenol-d5	75	26-120
2,4,6-Tribromophenol	88	30-120
Nitrobenzene-d5	80	27-120
2-Fluorobiphenyl	89	33-121
Terphenyl-d14	60	20-125

RPD= Relative Percent Difference  
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Lead			
Lab #:	169394	Location:	Santanna
Client:	RMT, Inc.	Prep:	METHOD
Project#:	STANDARD	Analysis:	EPA 6010B
Analyte:	Lead	Sampled:	12/11/03
Matrix:	Filtrate	Received:	12/11/03
Units:	ug/L	Prepared:	12/17/03
Diln Fac:	1.000	Analyzed:	12/17/03
Batch#:	86996		

Field ID	Type	Lab ID	Result	RL
D-1GW	SAMPLE	169394-005	4.2	3.0
D-2GW	SAMPLE	169394-006	ND	3.0
D-4GW	SAMPLE	169394-007	ND	3.0
	BLANK	QC235399	ND	3.0

ND= Not Detected  
RL= Reporting Limit  
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Lead			
Lab #:	169394	Location:	Santanna
Client:	RMT, Inc.	Prep:	METHOD
Project#:	STANDARD	Analysis:	EPA 6010B
Analyte:	Lead	Batch#:	86996
Matrix:	Filtrate	Prepared:	12/17/03
Units:	ug/L	Analyzed:	12/17/03
Diln Fac:	1.000		

Type	Lab ID	Spiked	Result	REC	Limits	RPD	lim
BS	QC235400	100.0	106.0	106	68-123		
BSD	QC235401	100.0	116.0	116	68-123	9	27

Lead			
Lab #:	169394	Location:	Santanna
Client:	RMT, Inc.	Prep:	METHOD
Project#:	STANDARD	Analysis:	EPA 6010B
Analyte:	Lead	Batch#:	86996
Field ID:	ZZZZZZZZZZ	Sampled:	12/10/03
MSS Lab ID:	169370-002	Received:	12/11/03
Matrix:	Filtrate	Prepared:	12/17/03
Units:	ug/L	Analyzed:	12/17/03
Diln Fac:	1.000		

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Dim
MS	QC235402	2.020	100.0	98.10	96	33-145		
MSD	QC235403		100.0	90.10	88	33-145	9	43



## Lead

Lab #:	169394	Location:	Santanna
Client:	RMT, Inc.	Prep:	EPA 3050
Project#:	STANDARD	Analysis:	EPA 6010B
Analyte:	Lead	Batch#:	86994
Matrix:	Soil	Sampled:	12/11/03
Units:	mg/Kg	Received:	12/11/03
Basis:	as received	Prepared:	12/16/03
Diln Fac:	1.000	Analyzed:	12/17/03

Field ID	Type	Lab ID	Result	RL
D-1S	SAMPLE	169394-001	67	0.13
D-2S	SAMPLE	169394-002	120	0.16
D-3S	SAMPLE	169394-003	88	0.16
D-4S	SAMPLE	169394-004	80	0.15
	BLANK	QC235387	ND	0.15

ND= Not Detected  
RL= Reporting Limit  
Page 1 of 1

Lead			
Lab #:	169394	Location:	Santanna
Client:	RMT, Inc.	Prep:	EPA 3050
Project#:	STANDARD	Analysis:	EPA 6010B
Analyte:	Lead	Diln Fac:	1.000
Matrix:	Soil	Batch#:	86994
Units:	mg/Kg	Prepared:	12/16/03
Basis:	as received	Analyzed:	12/17/03

Type	Lab ID	Spiked	Result	TRBC	Limits	RPD	Lim
BS	QC235388	100.0	94.00	94	71-120		
BSD	QC235389	100.0	92.50	93	71-120	2	20



Lead			
Lab #:	169394	Location:	Santanna
Client:	RMT, Inc.	Prep:	EPA 3050
Project#:	STANDARD	Analysis:	EPA 6010B
Analyte:	Lead	Diln Fac:	1.000
Field ID:	ZZZZZZZZZZ	Batch#:	86994
MSS Lab ID:	169369-003	Sampled:	12/08/03
Matrix:	Soil	Received:	12/11/03
Units:	mg/Kg	Prepared:	12/16/03
Basis:	as received	Analyzed:	12/17/03

Type	Lab ID	MSS Result	Spiked	Result	PREC	Limits	RPD	Lim
MS	QC235390	1.312	95.24	80.00	83	23-137		
MSD	QC235391		100.0	86.50	85	23-137	3	40