QUESTA

ENGINEERING CORP.

Site Review and Pre-Removal Action Sampling and Testing

4311-4333 Macarthur Boulevard
Oakland, California

Submitted To:

Mr. Donald E. Flaner, Jr.
M. Douglas Construction, Inc.
1101 Northgate Road
Walnut Creek, CA 94598

September 2004

Civil,
Environmental
& Water
Resources

QUESTA ENGINEERING CORP.

Civil, Environmental & Water Resources

September 21, 2004

Mr. Donald E. Flaner, Jr., President
M. Douglas Construction, Inc.
1101 Northgate Road
Walnut Creek, CA 94598

Subject: Site Review and Pre-Removal Action Sampling and Testing, 4311-4333 Macarthur Boulevard, Oakland, California

Dear Mr. Flaner:

This letter presents results of sampling, testing and data review for diesel and motor oil contaminated soils at 4311-4333 Macarthur Boulevard in Oakland, California. This work was performed at your request to review and document levels of contamination and volumes of soil as present at the project site that require a removal action by the Department of Toxic Substances Control as documented in their letter dated July 6, 2004 to the property owner Mr. Alex Hahn. The letter requires that contaminated soil be excavated and off-hauled from the site to a Class II landfill. Based on our review of the data provided by the DTSC, as well as our sampling and testing of contaminated soils from the site, approximately 5,000 tons of soil containing low to moderate levels of total petroleum hydrocarbons (TPH) as diesel and motor oil need to be removed from the site.

The scope of work of this site review included the review of Phase II data results, review of information provided by the DTSC, completion of auger holes, soil sampling, laboratory testing, and discussion of results presented in this report.

INTRODUCTION

The project site is located at 4311-4333 Macarthur Boulevard in the City of Oakland, California at the southwest corner of High Street and Macarthur Boulevard. The generally gently sloping site was previously the site of a strip mall, which included an automotive service business (Roberts Tire Facility). A Phase 1 and Phase 2 Environmental Site Assessment were performed for the site by JMK Environmental in the spring of 2004. Results of this investigation were presented in reports dated March 16 and March 24, 2004 and are available for review at the DTSC office in Berkeley, California. Sampling and testing results from this report indicated that Total Petroleum Hydrocarbons (TPH) as motor oil were present at levels ranging from 830 mg/kg to 8,500 mg/kg immediately below concrete and asphalt, and at 2 feet below ground surface at concentrations ranging from 1,600 to 2,200 mg/kg.

Box 70356, 1220 Brickyard Cove Rd. Suite 206 Pt. Richmond, CA 94807 T: 510/236.6114 F: 510/236.2423 E: Questa@QuestaEC.com

Table 1 presents a summary of the JMK Environmental testing results as determined by Severn Trent Laboratories, Inc. A Site Plot Plan prepared by JMK Environmental is attached in **Appendix A** along with available portions of the Analytical test reports by Severn Trent Laboratories, Inc. During our site review, we noted that the Site Plot Plan does not match the dimensions of the project site.

Based on the levels of contaminants detected in the JMK Environmental results, the DTSC requires that contaminated soils from the site be removed to lower concentrations of motor oil and diesel below the Regional Water Quality Control Board (RWQCB) Environmental Screening Levels (ESLs). The ESL for TPH as Motor Oil is 500 mg/kg and the ESL for TPH as diesel is 100 mg/kg. Following our initial review of data we discussed these contaminant levels and estimated the potential volumes of contaminated soils requiring removal from the site. Based on information in the Phase 2 report, approximately 2,000 tons of soil immediately underlying the former asphalt pavement and concrete slabs to depths of 0.5 feet and 3,000 tons of soil in the vicinity of S2, S3 and S4 to depths of 3 to 4 feet require removal from the site. Additional sampling and testing were performed to verify the areas of contamination and the potential quantities of soils involved.

SITE INVESTIGATION AND ANALYTICAL TESTING METHODS

Sampling

Questa Engineering Corporation and M. Douglas Construction completed a field investigation on August 2, 2004, that included the following:

- Hand augering and machine drilling of ten holes varying in depth from the surface to as much as 9 feet below the ground surface.
- Sampling of soils from several depths in the boreholes.
- Collection of composite soil samples from the boreholes.

Samples included fill and native soils. Sample locations are shown on **Figure 1,** a site plan developed from review of aerial photographs of the site and vicinity.

Samples collected during hand augering and drilling were transferred from the stainless steel auger directly into pre-cleaned glass jars using stainless steel implements. Jars were sealed and immediately placed on ice in a cooler. Samples were immediately logged, labeled, and placed in a cooler on blue ice. Chain of custody documentation was maintained from collection until delivered to the State-certified analytical testing laboratory.

Decontamination procedures were followed during the soil collection process. Sampling implements and tools were decontaminated using a three-step process. The first step consisted of cleaning in a solution of tap water and non-phosphate detergent with a brush for scrubbing. The second and third steps were tap water rinses to remove any residual cleaning solution. Used decontamination water was transferred into a plastic bucket for appropriate disposal. Augers were decontaminated using tap water and brushes.

Analytical Testing

Total petroleum hydrocarbons as diesel and waste oil were analyzed by EPA Method 8015B. Results of analytical testing are summarized on **Table 2**. The complete laboratory testing reports are presented in **Appendix B** along with QA/QC results and chain-of-custody forms. Composite soil samples were also tested for landfill acceptance criteria. This testing included CAM 17 metals, TPH as gasoline including the constituents benzene, toluene, ethylbenzene and xylenes, TPH as diesel and motor oil, and volatile organic compounds. These results are also presented in **Appendix B.**

CONCLUSIONS AND RECOMMENDATIONS

In accordance with the letter of July 6, 2004 from the DTSC, the site cleanup goals should be based on the Regional Water Quality Control Board ESLs of 100 mg/kg for TPH as diesel and 500 mg/kg for TPH as motor oil. Based on our review of previous site data and our sampling and testing of site soils we estimate that approximately 5,000 tons of soil requires removal from the site due to the presence of TPH as diesel and TPH as motor oil. Earlier testing suggests that contamination was limited to a depth above 4.5 feet below ground surface; our sampling and testing appears to confirm this- no significant contamination by TPH as diesel and motor oil was detected below a depth of 3 feet below ground surface (BGS). Observations of site soils confirmed that shallow soils now exposed at the ground surface, following asphalt and concrete removal, show visual evidence of motor oil contamination. Samples collected at a depth of 0.5 feet below ground surface show low levels of contamination; contamination requiring removal is limited to the top 0.5 feet (6 inches). The excavation to remove this surface contamination will include removal of surface soils to a depth of 6 inches over an area of approximately 50,000 square feet of the site. The estimated volume of soil to remove the surface contamination is approximately 930 cubic yards, or 1,400 tons Samples collected in the vicinity of auger holes Q5, Q6 and Q7 show evidence of contamination from the ground surface to as deep as 4.5 feet BGS. The excavation to remove this contamination is likely to encompass an area of 15,000 square feet to depths of four feet below ground surface. The estimated volume of soil removal from this area is 2,400 cubic yards, or 3,600 tons.

LIMITATIONS

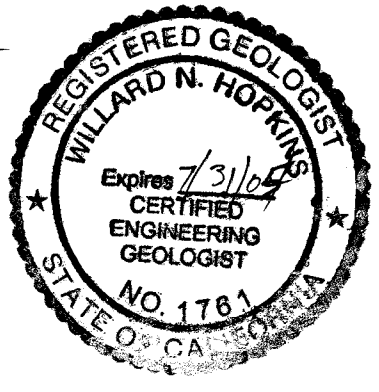
This investigation was performed in accordance with present environmental and engineering geologic standards applicable to this project. In our opinion, the scope of services adequately supports the conclusions and recommendations presented.

The recommendations of this report are based upon the assumption that the subsurface conditions do not deviate from those interpreted from the surface, subsurface and analytical data of this and previous investigations. Extrapolation of results from auger and borehole sites outward to adjacent areas presents some risks. If any variation or undesirable conditions are encountered at a later time or during construction activities, we should be notified so that supplemental recommendations can be given. Excavated soils may be contaminated with chemicals of concern. The recommendations of this report are for the site described only and must not be extended to adjacent areas.

We trust this provides the information you require at this time. If additional information is required, please contact the undersigned at (510) 236-6114.

Sincerely,

Willard N. Hopkins, CEG
Senior Engineering Geologist



Ref: 240126_report-rev

Aerial Photo 7/10/93
courtesy of terraserver-usa.com

High Street

MacArthur Boulevard

MacArthur Freeway (I-580)

Q1
Q2
Q3
Q4
Q5
Q6
Q7
Q8
Q9

Q1
Sample Location

0 50 100 ft

Date:	09/20/04
Drawn:	JF
Appr'd:	WH
Dwg. No.	240126A

QUESTA ENGINEERING CORP
Civil
Environmental
& Water Resources
P.O. Box 70356 1220 Brickyard Cove Road Point Richmond, CA 94807

Site Plan and Aerial Photo
4311-4333 MacArthur Blvd.
Oakland, CA

FIGURE
1

Table 1. Results of TPH as diesel and motor oil sampling and testing from JMK Environmental and Severn Trent Laboratories, Inc.

SAMPLE NUMBER AND DEPTH (FT)	**TPH DIESEL (mg/kg) EPA 8015 modified**	**TPH MOTOR OIL (mg/kg) EPA 8015B**
S1 Surface	290	1900
S2 Surface	16	220
S3 Surface	47	800
S4 Surface	570	8500
S5 Surface	34	830
S6 Surface	41	790
S7 Surface	250	3500
S8 Surface	190	1900
S1-2'	3.8	<50
S1-4.5'	<1.0	<50
S2-2'	92	2200
S2-4.5'	<1.0	<50
S3-2'	100	1900
S3-4.5'	<1.0	<50
S4-2'	87	1,600
S4-4.5'	1.2	<50
S5-2'	1.5	<50
S5-4.5'	<1.0	<50
S6-2'	<1.0	<50
S6-4.5'	<1.0	<50
S7-2'	4.2	<50
S7-4.5'	<1.0	<50
S8-2'	2.7	<50
S8-4.5'	2.2	<50

Environmental Screening Levels (ESLs), SF Bay RWQCB, July 2003 (Updated February 2004)	100	500

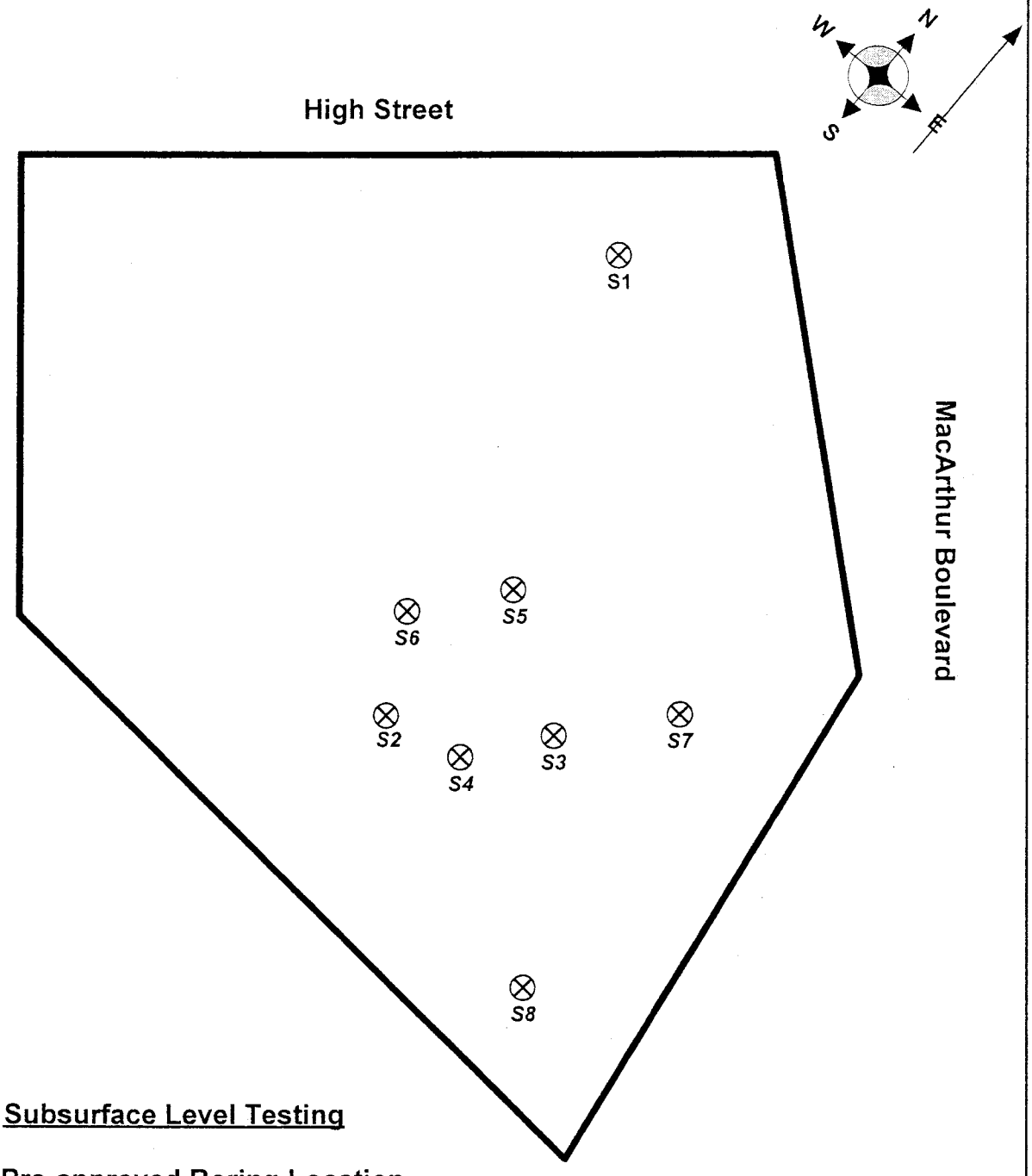
Table 2. Results of TPH as diesel and motor oil sampling and testing by Questa Engineering Corp. and Curtis and Tompkins Ltd.

SAMPLE NUMBER AND DEPTH (FT)	**TPH DIESEL (mg/kg) EPA 8015 modified**	**TPH MOTOR OIL (mg/kg) EPA 8015B**
Q1 0.5'	82	180
Q2 0.5'	2.8	10
Q2 2.0'	<0.99	<5.0
Q3 0.5'	34	110
Q3 2.5'	<1.0	8.7
Q4 0.5'	14	63
Q4 2.0'	20	130
Q4 4.0'	24	140
Q4 6.5'	<1.0	<5.0
Q4 8.5'	<1.0	<5.0
Q5 0.5'	190	440
Q5 4.0'	8.2	17
Q6 2.5'	27	390
Q6 6.0'	3	26
Q7 3.0'	250	2,200
Q7 4.5'	20	160
Q7 8.5'	3.5	5.9
Q9 1.0'	14	83
Q9 3.5'	<1.0	<5.0
COMPOSITE 1	16	64
COMPOSITE 2	270	1,400
Environmental Screening Levels (ESLs), SF Bay RWQCB, July 2003 (Updated February 2004)	100	500

APPENDIX A

FIGURE 2

SITE PLOT PLAN



JMK ENVIRONMENTAL Environmental Engineering & Consulting Services 1030 N. Maclay Avenue, San Fernando, CA 91340 (818) 979-0010, FAX (818) 979-0020 www.phase1report.com	**Phase II Environmental Site Assessment** **Roberts Tire Facility** **4311-4333 MacArthur Blvd., Oakland, CA 94619** **Not to scale** March 19th, 2004 — **SII-13491**

Total Extractable Petroleum Hydrocarbons (TEPH)

JMK Environmental
Attn.: Joseph Park

1030 North Maclay Avenue

San Fernando, CA 91340
Phone: (818) 979-0010 Fax: (818) 979-0020

Project: 13491-SI
13491

Received: 03/19/2004 17:40

Prep(s):	3550/8015M	Test(s):	8015M
Sample ID:	**S1-SURFACE**	Lab ID:	2004-03-0656 - 1
Sampled:	03/19/2004 09:10	Extracted:	3/23/2004 12:46
Matrix:	Soil	QC Batch#:	2004/03/23-03.10

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Diesel	290	10	mg/Kg	10.00	03/26/2004 10:46	ldr
Motor Oil	1900	500	mg/Kg	10.00	03/26/2004 10:46	
Surrogate(s)						
o-Terphenyl	NA	60-130	%	10.00	03/26/2004 10:46	sd

Total Extractable Petroleum Hydrocarbons (TEPH)

JMK Environmental

Attn.: Joseph Park

1030 North Maclay Avenue

San Fernando, CA 91340
Phone: (818) 979-0010 Fax: (818) 979-0020

Project: 13491-SI
13491

Received: 03/19/2004 17:40

Prep(s):	3550/8015M	Test(s):	8015M
Sample ID:	**S2-SURFACE**	Lab ID:	2004-03-0656 - 2
Sampled:	03/19/2004 09:15	Extracted:	3/23/2004 12:46
Matrix:	Soil	QC Batch#:	2004/03/23-03.10

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Diesel	16	1.0	mg/Kg	1.00	03/25/2004 23:14	ldr
Motor Oil	220	50	mg/Kg	1.00	03/25/2004 23:14	
Surrogate(s)						
o-Terphenyl	92.4	60-130	%	1.00	03/25/2004 23:14	

Total Extractable Petroleum Hydrocarbons (TEPH)

JMK Environmental
Attn.: Joseph Park

1030 North Maclay Avenue

San Fernando, CA 91340
Phone: (818) 979-0010 Fax: (818) 979-0020

Project: 13491-SI
13491

Received: 03/19/2004 17:40

Prep(s):	3550/8015M	Test(s):	8015M
Sample ID:	**S3-SURFACE**	Lab ID:	2004-03-0656 - 3
Sampled:	03/19/2004 09:20	Extracted:	3/23/2004 12:46
Matrix:	Soil	QC Batch#:	2004/03/23-03.10

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Diesel	47	5.0	mg/Kg	5.00	03/26/2004 11:13	ldr
Motor Oil	800	250	mg/Kg	5.00	03/26/2004 11:13	
Surrogate(s)						
o-Terphenyl	NA	60-130	%	5.00	03/26/2004 11:13	sd

Total Extractable Petroleum Hydrocarbons (TEPH)

JMK Environmental

Attn.: Joseph Park

1030 North Maclay Avenue

San Fernando, CA 91340
Phone: (818) 979-0010 Fax: (818) 979-0020

Project: 13491-SI
13491

Received: 03/19/2004 17:40

Prep(s):	3550/8015M	Test(s):	8015M
Sample ID:	**S4-SURFACE**	Lab ID:	2004-03-0656 - 4
Sampled:	03/19/2004 09:23	Extracted:	3/23/2004 12:46
Matrix:	Soil	QC Batch#:	2004/03/23-03.10

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Diesel	570	20	mg/Kg	20.00	03/25/2004 20:34	ldr
Motor Oil	8500	1000	mg/Kg	20.00	03/25/2004 20:34	
Surrogate(s)						
o-Terphenyl	NA	60-130	%	20.00	03/25/2004 20:34	sd

Total Extractable Petroleum Hydrocarbons (TEPH)

JMK Environmental
Attn.: Joseph Park

1030 North Maclay Avenue

San Fernando, CA 91340
Phone: (818) 979-0010 Fax: (818) 979-0020

Project: 13491-SI
13491

Received: 03/19/2004 17:40

Prep(s):	3550/8015M	Test(s):	8015M
Sample ID:	**S5-SURFACE**	Lab ID:	2004-03-0656 - 5
Sampled:	03/19/2004 09:25	Extracted:	3/23/2004 12:46
Matrix:	Soil	QC Batch#:	2004/03/23-03.10

Analysis Flag: o (See Legend and Note Section)

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Diesel	34	10	mg/Kg	10.00	03/26/2004 00:33	ldr
Motor Oil	830	500	mg/Kg	10.00	03/26/2004 00:33	
Surrogate(s)						
o-Terphenyl	NA	60-130	%	10.00	03/26/2004 00:33	sd

Total Extractable Petroleum Hydrocarbons (TEPH)

JMK Environmental
Attn.: Joseph Park

1030 North Maclay Avenue

San Fernando, CA 91340
Phone: (818) 979-0010 Fax: (818) 979-0020

Project: 13491-SI
13491

Received: 03/19/2004 17:40

Prep(s):	3550/8015M	Test(s):	8015M
Sample ID:	**S6-SURFACE**	Lab ID:	2004-03-0656 - 6
Sampled:	03/19/2004 09:28	Extracted:	3/23/2004 12:46
Matrix:	Soil	QC Batch#:	2004/03/23-03.10

Analysis Flag: o (See Legend and Note Section)

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Diesel	41	10	mg/Kg	10.00	03/26/2004 11:39	ldr
Motor Oil	790	500	mg/Kg	10.00	03/26/2004 11:39	
Surrogate(s)						
o-Terphenyl	NA	60-130	%	10.00	03/26/2004 11:39	sd

Total Extractable Petroleum Hydrocarbons (TEPH)

JMK Environmental
Attn.: Joseph Park

1030 North Maclay Avenue

San Fernando, CA 91340
Phone: (818) 979-0010 Fax: (818) 979-0020

Project: 13491-SI
13491

Received: 03/19/2004 17:40

Prep(s):	3550/8015M	Test(s):	8015M
Sample ID:	**S7-SURFACE**	Lab ID:	2004-03-0656 - 7
Sampled:	03/19/2004 09:30	Extracted:	3/23/2004 12:46
Matrix:	Soil	QC Batch#:	2004/03/23-03.10

Analysis Flag: o (See Legend and Note Section)

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Diesel	250	20	mg/Kg	20.00	03/26/2004 12:06	ldr
Motor Oil	3500	1000	mg/Kg	20.00	03/26/2004 12:06	
Surrogate(s)						
o-Terphenyl	NA	60-130	%	20.00	03/26/2004 12:06	sd

SEVERN TRENT STL

Submission #: 2004-03-0656

Total Extractable Petroleum Hydrocarbons (TEPH)

JMK Environmental
Attn.: Joseph Park

1030 North Maclay Avenue

San Fernando, CA 91340
Phone: (818) 979-0010 Fax: (818) 979-0020

Project: 13491-SI
13491

Received: 03/19/2004 17:40

Prep(s):	3550/8015M	Test(s):	8015M
Sample ID:	**S8-SURFACE**	Lab ID:	2004-03-0656 - 8
Sampled:	03/19/2004 09:33	Extracted:	3/23/2004 12:46
Matrix:	Soil	QC Batch#:	2004/03/23-03.10

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Diesel	190	20	mg/Kg	20.00	03/25/2004 23:40	ldr
Motor Oil	1900	1000	mg/Kg	20.00	03/25/2004 23:40	
Surrogate(s)						
o-Terphenyl	NA	60-130	%	20.00	03/25/2004 23:40	sd

Total Extractable Petroleum Hydrocarbons (TEPH)

JMK Environmental
Attn.: Joseph Park

1030 North Maclay Avenue

San Fernando, CA 91340
Phone: (818) 979-0010 Fax: (818) 979-0020

Project: 13491-SII
13491

Received: 03/05/2004 17:30

Prep(s):	3550/8015M	Test(s):	8015M
Sample ID:	**S1-2`**	Lab ID:	2004-03-0199 - 1
Sampled:	03/05/2004 07:30	Extracted:	3/8/2004 12:15
Matrix:	Soil	QC Batch#:	2004/03/08-02.10

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Diesel	3.8	1.0	mg/Kg	1.00	03/08/2004 20:08	ndp
Motor Oil	ND	50	mg/Kg	1.00	03/08/2004 20:08	
Surrogate(s)						
o-Terphenyl	92.9	60-130	%	1.00	03/08/2004 20:08	

SEVERN TRENT STL

Submission #: 2004-03-0199

Total Extractable Petroleum Hydrocarbons (TEPH)

JMK Environmental
Attn.: Joseph Park

1030 North Maclay Avenue

San Fernando, CA 91340
Phone: (818) 979-0010 Fax: (818) 979-0020

Project: 13491-SII
13491

Received: 03/05/2004 17:30

Prep(s):	3550/8015M	Test(s):	8015M
Sample ID:	**S1-4.5**	Lab ID:	2004-03-0199 - 2
Sampled:	03/05/2004 07:30	Extracted:	3/8/2004 12:15
Matrix:	Soil	QC Batch#:	2004/03/08-02.10

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Diesel	ND	1.0	mg/Kg	1.00	03/08/2004 20:39	
Motor Oil	ND	50	mg/Kg	1.00	03/08/2004 20:39	
Surrogate(s)						
o-Terphenyl	85.9	60-130	%	1.00	03/08/2004 20:39	

Total Extractable Petroleum Hydrocarbons (TEPH)

JMK Environmental
Attn.: Joseph Park

1030 North Maclay Avenue

San Fernando, CA 91340
Phone: (818) 979-0010 Fax: (818) 979-0020

Project: 13491-SII
13491

Received: 03/05/2004 17:30

Prep(s):	3550/8015M	Test(s):	8015M
Sample ID:	**SII-2`**	Lab ID:	2004-03-0199 - 3
Sampled:	03/05/2004 08:00	Extracted:	3/8/2004 12:15
Matrix:	Soil	QC Batch#:	2004/03/08-02.10

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Diesel	92	10	mg/Kg	10.00	03/10/2004 16:21	ldr
Motor Oil	2200	500	mg/Kg	10.00	03/10/2004 16:21	
Surrogate(s)						
o-Terphenyl	NA	60-130	%	10.00	03/10/2004 16:21	sd

Total Extractable Petroleum Hydrocarbons (TEPH)

JMK Environmental
Attn.: Joseph Park

1030 North Maclay Avenue

San Fernando, CA 91340
Phone: (818) 979-0010 Fax: (818) 979-0020

Project: 13491-SII
13491

Received: 03/05/2004 17:30

Prep(s):	3550/8015M	Test(s):	8015M
Sample ID:	**SII-4.5**	Lab ID:	2004-03-0199 - 4
Sampled:	03/05/2004 08:00	Extracted:	3/8/2004 12:15
Matrix:	Soil	QC Batch#:	2004/03/08-02.10

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Diesel	ND	1.0	mg/Kg	1.00	03/08/2004 21:09	
Motor Oil	ND	50	mg/Kg	1.00	03/08/2004 21:09	
Surrogate(s)						
o-Terphenyl	81.4	60-130	%	1.00	03/08/2004 21:09	

Total Extractable Petroleum Hydrocarbons (TEPH)

JMK Environmental
Attn.: Joseph Park

1030 North Maclay Avenue

San Fernando, CA 91340
Phone: (818) 979-0010 Fax: (818) 979-0020

Project: 13491-SII
13491

Received: 03/05/2004 17:30

Prep(s): 3550/8015M
Sample ID: **S3-2`**
Sampled: 03/05/2004 08:30
Matrix: Soil

Test(s): 8015M
Lab ID: 2004-03-0199 - 5
Extracted: 3/8/2004 12:15
QC Batch#: 2004/03/08-02.10

Analysis Flag: o (See Legend and Note Section)

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Diesel	100	20	mg/Kg	20.00	03/09/2004 18:27	ldr
Motor Oil	1900	1000	mg/Kg	20.00	03/09/2004 18:27	
Surrogate(s)						
o-Terphenyl	NA	60-130	%	20.00	03/09/2004 18:27	sd

Total Extractable Petroleum Hydrocarbons (TEPH)

JMK Environmental
Attn.: Joseph Park

1030 North Maclay Avenue

San Fernando, CA 91340
Phone: (818) 979-0010 Fax: (818) 979-0020

Project: 13491-SII
13491

Received: 03/05/2004 17:30

Prep(s):	3550/8015M	Test(s):	8015M
Sample ID:	**S3-4.5'**	Lab ID:	2004-03-0199 - 6
Sampled:	03/05/2004 08:30	Extracted:	3/8/2004 12:15
Matrix:	Soil	QC Batch#:	2004/03/08-02.10

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Diesel	ND	1.0	mg/Kg	1.00	03/08/2004 20:39	
Motor Oil	ND	50	mg/Kg	1.00	03/08/2004 20:39	
Surrogate(s)						
o-Terphenyl	88.0	60-130	%	1.00	03/08/2004 20:39	

Total Extractable Petroleum Hydrocarbons (TEPH)

JMK Environmental
Attn.: Joseph Park

1030 North Maclay Avenue

San Fernando, CA 91340
Phone: (818) 979-0010 Fax: (818) 979-0020

Project: 13491-SII
13491

Received: 03/05/2004 17:30

Prep(s):	3550/8015M	Test(s):	8015M
Sample ID:	**S4-2**	Lab ID:	2004-03-0199 - 7
Sampled:	03/05/2004 08:45	Extracted:	3/8/2004 12:15
Matrix:	Soil	QC Batch#:	2004/03/08-02.10

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Diesel	87	10	mg/Kg	10.00	03/10/2004 16:21	ldr
Motor Oil	1600	500	mg/Kg	10.00	03/10/2004 16:21	
Surrogate(s)						
o-Terphenyl	NA	60-130	%	10.00	03/10/2004 16:21	sd

Total Extractable Petroleum Hydrocarbons (TEPH)

JMK Environmental

Attn.: Joseph Park

1030 North Maclay Avenue

San Fernando, CA 91340
Phone: (818) 979-0010 Fax: (818) 979-0020

Project: 13491-SII
13491

Received: 03/05/2004 17:30

Prep(s):	3550/8015M	Test(s):	8015M
Sample ID:	**S4-4.5'**	Lab ID:	2004-03-0199 - 8
Sampled:	03/05/2004 08:45	Extracted:	3/8/2004 12:15
Matrix:	Soil	QC Batch#:	2004/03/08-02.10

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Diesel	1.2	1.0	mg/Kg	1.00	03/08/2004 18:36	ldr
Motor Oil	ND	50	mg/Kg	1.00	03/08/2004 18:36	
Surrogate(s)						
o-Terphenyl	81.8	60-130	%	1.00	03/08/2004 18:36	

Total Extractable Petroleum Hydrocarbons (TEPH)

JMK Environmental

Attn.: Joseph Park

1030 North Maclay Avenue

San Fernando, CA 91340
Phone: (818) 979-0010 Fax: (818) 979-0020

Project: 13491-SII
13491

Received: 03/05/2004 17:30

Prep(s):	3550/8015M	Test(s):	8015M
Sample ID:	**S5-2`**	Lab ID:	2004-03-0199 - 9
Sampled:	03/05/2004 09:00	Extracted:	3/8/2004 12:15
Matrix:	Soil	QC Batch#:	2004/03/08-02.10

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Diesel	1.5	1.0	mg/Kg	1.00	03/08/2004 18:05	edr
Motor Oil	ND	50	mg/Kg	1.00	03/08/2004 18:05	
Surrogate(s)						
o-Terphenyl	79.7	60-130	%	1.00	03/08/2004 18:05	

SEVERN TRENT STL

Submission #: 2004-03-0199

Total Extractable Petroleum Hydrocarbons (TEPH)

JMK Environmental
Attn.: Joseph Park

1030 North Maclay Avenue

San Fernando, CA 91340
Phone: (818) 979-0010 Fax: (818) 979-0020

Project: 13491-SII
13491

Received: 03/05/2004 17:30

Prep(s):	3550/8015M	Test(s):	8015M
Sample ID:	**S5-4.5'**	Lab ID:	2004-03-0199 - 10
Sampled:	03/05/2004 09:00	Extracted:	3/8/2004 12:15
Matrix:	Soil	QC Batch#:	2004/03/08-02.10

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Diesel	ND	1.0	mg/Kg	1.00	03/09/2004 10:18	
Motor Oil	ND	50	mg/Kg	1.00	03/09/2004 10:18	
Surrogate(s)						
o-Terphenyl	72.0	60-130	%	1.00	03/09/2004 10:18	

Total Extractable Petroleum Hydrocarbons (TEPH)

JMK Environmental
Attn.: Joseph Park

1030 North Maclay Avenue

San Fernando, CA 91340
Phone: (818) 979-0010 Fax: (818) 979-0020

Project: 13491-SII
13491

Received: 03/05/2004 17:30

Prep(s):	3550/8015M	Test(s):	8015M
Sample ID:	**S6-2`**	Lab ID:	2004-03-0199 - 11
Sampled:	03/05/2004 09:15	Extracted:	3/8/2004 12:15
Matrix:	Soil	QC Batch#:	2004/03/08-02.10

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Diesel	ND	1.0	mg/Kg	1.00	03/09/2004 16:14	
Motor Oil	ND	50	mg/Kg	1.00	03/09/2004 16:14	
Surrogate(s)						
o-Terphenyl	93.1	60-130	%	1.00	03/09/2004 16:14	

SEVERN TRENT STL

Submission #: 2004-03-0199

Total Extractable Petroleum Hydrocarbons (TEPH)

JMK Environmental
Attn.: Joseph Park

1030 North Maclay Avenue

San Fernando, CA 91340
Phone: (818) 979-0010 Fax: (818) 979-0020

Project: 13491-SII
13491

Received: 03/05/2004 17:30

Prep(s):	3550/8015M	Test(s):	8015M
Sample ID:	**S6-4.5**	Lab ID:	2004-03-0199 - 12
Sampled:	03/05/2004 09:15	Extracted:	3/8/2004 12:15
Matrix:	Soil	QC Batch#:	2004/03/08-02.10

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Diesel	ND	1.0	mg/Kg	1.00	03/08/2004 21:09	
Motor Oil	ND	50	mg/Kg	1.00	03/08/2004 21:09	
Surrogate(s)						
o-Terphenyl	93.2	60-130	%	1.00	03/08/2004 21:09	

Total Extractable Petroleum Hydrocarbons (TEPH)

JMK Environmental

Attn.: Joseph Park

1030 North Maclay Avenue

San Fernando, CA 91340
Phone: (818) 979-0010 Fax: (818) 979-0020

Project: 13491-SII
13491

Received: 03/05/2004 17:30

Prep(s):	3550/8015M	Test(s):	8015M
Sample ID:	S7-2`	Lab ID:	2004-03-0199 - 13
Sampled:	03/05/2004 09:30	Extracted:	3/8/2004 12:15
Matrix:	Soil	QC Batch#:	2004/03/08-02.10

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Diesel	4.2	1.0	mg/Kg	1.00	03/09/2004 09:59	ldr
Motor Oil	ND	50	mg/Kg	1.00	03/09/2004 09:59	
Surrogate(s)						
o-Terphenyl	90.1	60-130	%	1.00	03/09/2004 09:59	

Total Extractable Petroleum Hydrocarbons (TEPH)

JMK Environmental

Attn.: Joseph Park

1030 North Maclay Avenue

San Fernando, CA 91340
Phone: (818) 979-0010 Fax: (818) 979-0020

Project: 13491-SII
13491

Received: 03/05/2004 17:30

Prep(s):	3550/8015M	Test(s):	8015M
Sample ID:	**S7-4.5'**	Lab ID:	2004-03-0199 - 14
Sampled:	03/05/2004 09:30	Extracted:	3/8/2004 12:15
Matrix:	Soil	QC Batch#:	2004/03/08-02.10

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Diesel	ND	1.0	mg/Kg	1.00	03/08/2004 19:07	
Motor Oil	ND	50	mg/Kg	1.00	03/08/2004 19:07	
Surrogate(s)						
o-Terphenyl	88.3	60-130	%	1.00	03/08/2004 19:07	

Total Extractable Petroleum Hydrocarbons (TEPH)

JMK Environmental
Attn.: Joseph Park

1030 North Maclay Avenue

San Fernando, CA 91340
Phone: (818) 979-0010 Fax: (818) 979-0020

Project: 13491-SII
13491

Received: 03/05/2004 17:30

Prep(s):	3550/8015M	Test(s):	8015M
Sample ID:	**S8-2**	Lab ID:	2004-03-0199 - 15
Sampled:	03/05/2004 09:45	Extracted:	3/8/2004 12:15
Matrix:	Soil	QC Batch#:	2004/03/08-02.10

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Diesel	2.7	1.0	mg/Kg	1.00	03/08/2004 20:08	ldr
Motor Oil	ND	50	mg/Kg	1.00	03/08/2004 20:08	
Surrogate(s)						
o-Terphenyl	86.9	60-130	%	1.00	03/08/2004 20:08	

SEVERN TRENT STL

Submission #: 2004-03-0199

Total Extractable Petroleum Hydrocarbons (TEPH)

JMK Environmental
Attn.: Joseph Park

1030 North Maclay Avenue

San Fernando, CA 91340
Phone: (818) 979-0010 Fax: (818) 979-0020

Project: 13491-SII
13491

Received: 03/05/2004 17:30

Prep(s):	3550/8015M	Test(s):	8015M
Sample ID:	**S8-4.5**	Lab ID:	2004-03-0199 - 16
Sampled:	03/05/2004 09:45	Extracted:	3/8/2004 12:15
Matrix:	Soil	QC Batch#:	2004/03/08-02.10

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Diesel	2.2	1.0	mg/Kg	1.00	03/08/2004 19:37	ldr
Motor Oil	ND	50	mg/Kg	1.00	03/08/2004 19:37	
Surrogate(s)						
o-Terphenyl	87.3	60-130	%	1.00	03/08/2004 19:37	

APPENDIX B

Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878
2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

ANALYTICAL REPORT

Prepared for:

Questa Engineering Corporation
1220 Brickyard Cove Road
Suite 206
Point Richmond, CA 94801

Date: 18-AUG-04
Lab Job Number: 173907
Project ID: STANDARD
Location: 4311-4333 MacArthur Blvd.

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

Curtis & Tompkins, Ltd.

Laboratory Number: 173907
Client: Questa Engineering Corporation
Location: 4311-4333 MacArthur Blvd.

Receipt Date: 08/10/04

CASE NARRATIVE

This hardcopy data package contains sample and QC results for seven soil samples that were received on August 10, 2004. The samples were received cold and intact.

Total Extractable Hydrocarbons by EPA 8015B: All samples were silica gel cleaned prior to analysis. High surrogate recovery was observed in sample Q5@0.5' (173907-006) due to coelution with a hydrocarbon peak. No other analytical problems were encountered.

0037.CDR

Client:	M. Douglas Construction, Inc.
Address:	1101 Northgate Road Walnut Creek, CA 94598
Phone:	(925) 932-3559
Sampled by (Print):	W. Hopkins / J. Farrow
Sampler Signature:	W. Hopkins
Date Sampled:	8/02/04
Report To:	Questa
Bill To:	Questa
Billing Reference:	MacArthur, Oakland
Project No.:	240126
Site Name:	4311-4333 MacArthur Blvd, Oakland
Project Manager:	W. Hopkins
Requested Due Date:	Normal Turnaround (8-16-04)

PRESERVATIVES / ANALYSES REQUEST / REMARKS

ITEM NO.	SAMPLE DESCRIPTION	TIME	MATRIX	CONT. TYPE	NO. OF CONTAINERS	UNPRESERVED	H_2SO_4	HNO_3	VOA	Cold	TPH as diesel/motor oil w/ silica gel cleanup (EPA 8015m)							REMARKS
-1 1.	Q2 @ 2'		Soil	Glass	1					X	X				X			
-2 2.	Q3 @ 0.5'		Soil	Glass	1					X	X				X			
-3 3.	Q3 @ 2.5'		Soil	Glass	1					X	X				X			
-4 4.	Q4 @ 0.5'		Soil	Glass	1					X	X				X			
-5 5.	Q4 @ 2'		Soil	Glass	1					X	X				X			
-6 6.	Q5 @ 0.5'		Soil	Glass	1					X	X				X			
-7 7.	Q9 @ 1'		Soil	Glass	1					X	X				X			
8.																		
9.																		

COOLER NOS.	BAILERS	SHIP OUT DATE	RETURNED DATE

ITEM NO.	RELINQUISHED BY/AFFILIATION	ACCEPTED BY/AFFILIATION	DATE	TIME
	William Hopkins / Questa	Laurianna Curtis C+T	8/10/04	1245

Additional Comments:

Received ☐ On ice ☑ Cold ☐ Ambient ☑ Intact

Questa Engineering Corporation

1220 Brickyard Cove Road
Point Richmond, CA 94807

P.O. Box 70356
Phone: (510) 236-6114
FAX: (510) 236-2423

CHAIN-OF-CUSTODY RECORD
ANALYTICAL REQUEST

Curtis & Tompkins, Ltd.

Total Extractable Hydrocarbons

Lab #:	173907	Location:	4311-4333 MacArthur Blvd.
Client:	Questa Engineering Corporation	Prep:	SHAKER TABLE
Project#:	STANDARD	Analysis:	EPA 8015B
Matrix:	Soil	Sampled:	08/10/04
Units:	mg/Kg	Received:	08/10/04
Basis:	as received	Prepared:	08/11/04
Batch#:	93685		

Field ID:	Q2@2'	Diln Fac:	1.000
Type:	SAMPLE	Analyzed:	08/14/04
Lab ID:	173907-001	Cleanup Method:	EPA 3630C

Analyte	Result	RL
Diesel C10-C24	ND	0.99
Motor Oil C24-C36	ND	5.0

Surrogate	%REC	Limits
Hexacosane	76	55-134

Field ID:	Q3@0.5'	Diln Fac:	1.000
Type:	SAMPLE	Analyzed:	08/14/04
Lab ID:	173907-002	Cleanup Method:	EPA 3630C

Analyte	Result	RL
Diesel C10-C24	34 H Y	1.0
Motor Oil C24-C36	110	5.0

Surrogate	%REC	Limits
Hexacosane	105	55-134

Field ID:	Q3@2.5'	Diln Fac:	1.000
Type:	SAMPLE	Analyzed:	08/14/04
Lab ID:	173907-003	Cleanup Method:	EPA 3630C

Analyte	Result	RL
Diesel C10-C24	ND	1.0
Motor Oil C24-C36	8.7	5.0

Surrogate	%REC	Limits
Hexacosane	65	55-134

Field ID:	Q4@0.5'	Diln Fac:	1.000
Type:	SAMPLE	Analyzed:	08/14/04
Lab ID:	173907-004	Cleanup Method:	EPA 3630C

Analyte	Result	RL
Diesel C10-C24	14 H Y	1.0
Motor Oil C24-C36	63	5.0

Surrogate	%REC	Limits
Hexacosane	109	55-134

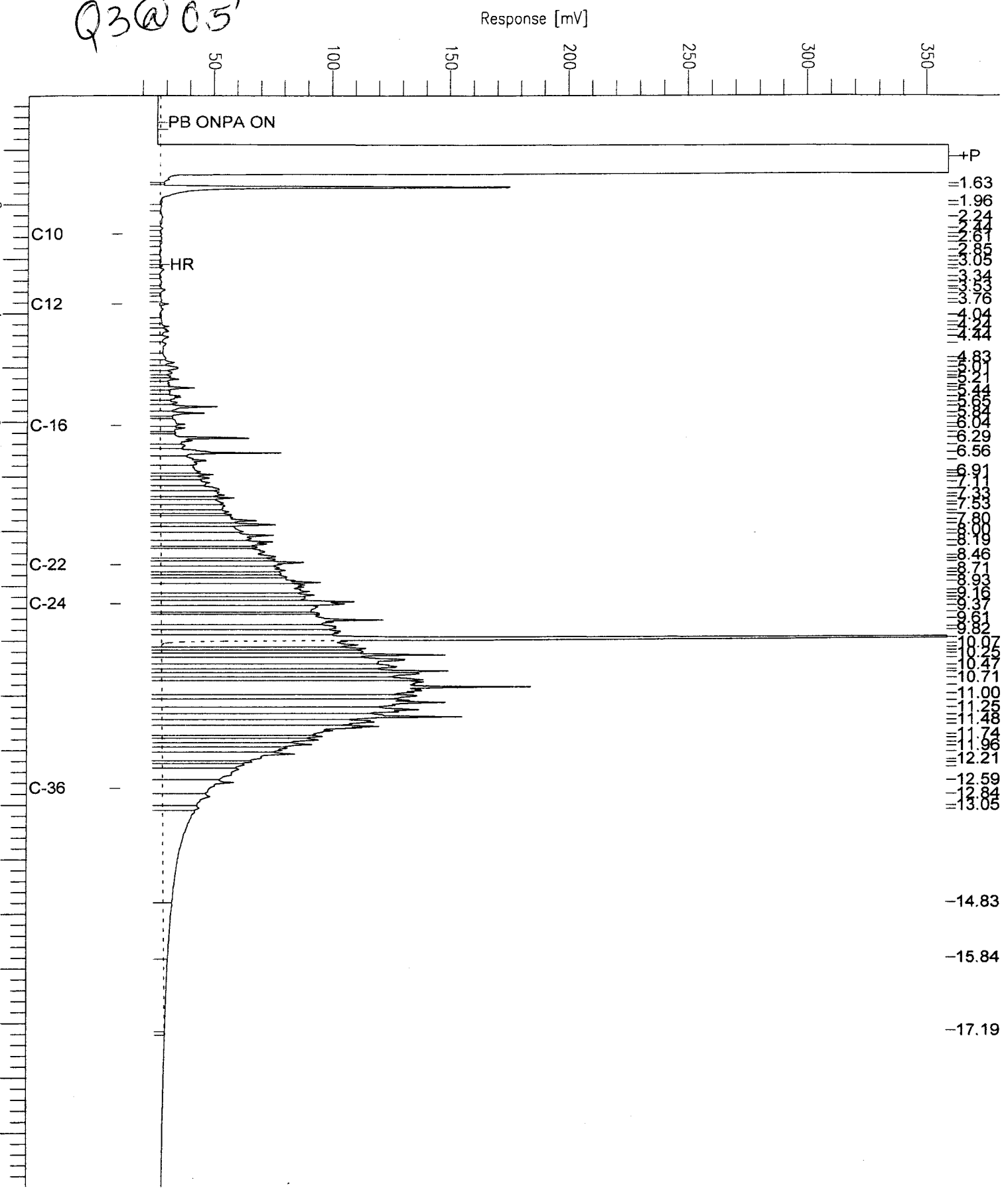
*= Value outside of QC limits; see narrative
H= Heavier hydrocarbons contributed to the quantitation
L= Lighter hydrocarbons contributed to the quantitation
Y= Sample exhibits chromatographic pattern which does not resemble standard
ND= Not Detected
RL= Reporting Limit

Chromatogram

Sample Name : 173907-002sg,93685
FileName : G:\GC15\CHB\226B033.RAW
Method : BTEH224S.MTH
Start Time : 0.01 min End Time : 19.99 min
Scale Factor: 0.0 Plot Offset: 11 mV

Sample #: 93685 Page 1 of 1
Date : 8/15/04 02:33 PM
Time of Injection: 8/14/04 09:03 AM
Low Point : 11.38 mV High Point : 359.10 mV
Plot Scale: 347.7 mV

Q3@05'

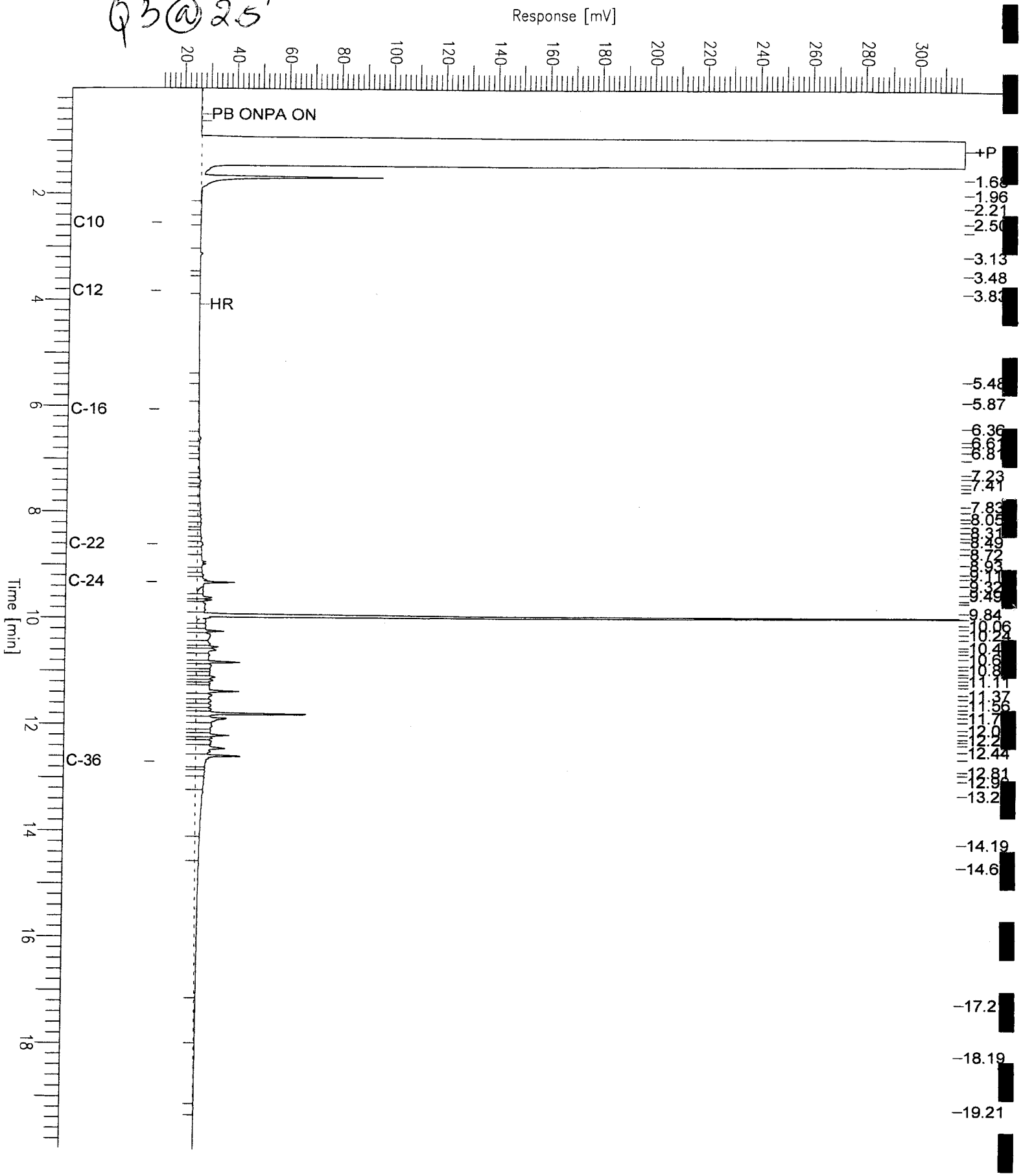


Chromatogram

Sample Name : 173907-003sg,93685
FileName : G:\GC15\CHB\226B034.RAW
Method : BTEH224S.MTH
Start Time : 0.01 min End Time : 19.99 min
Scale Factor: 0.0 Plot Offset: 11 mV

Sample #: 93685 Page 1 of 1
Date : 8/15/04 02:34 PM
Time of Injection: 8/14/04 09:32 AM
Low Point : 11.43 mV High Point : 317.55 mV
Plot Scale: 306.1 mV

Q3@25'

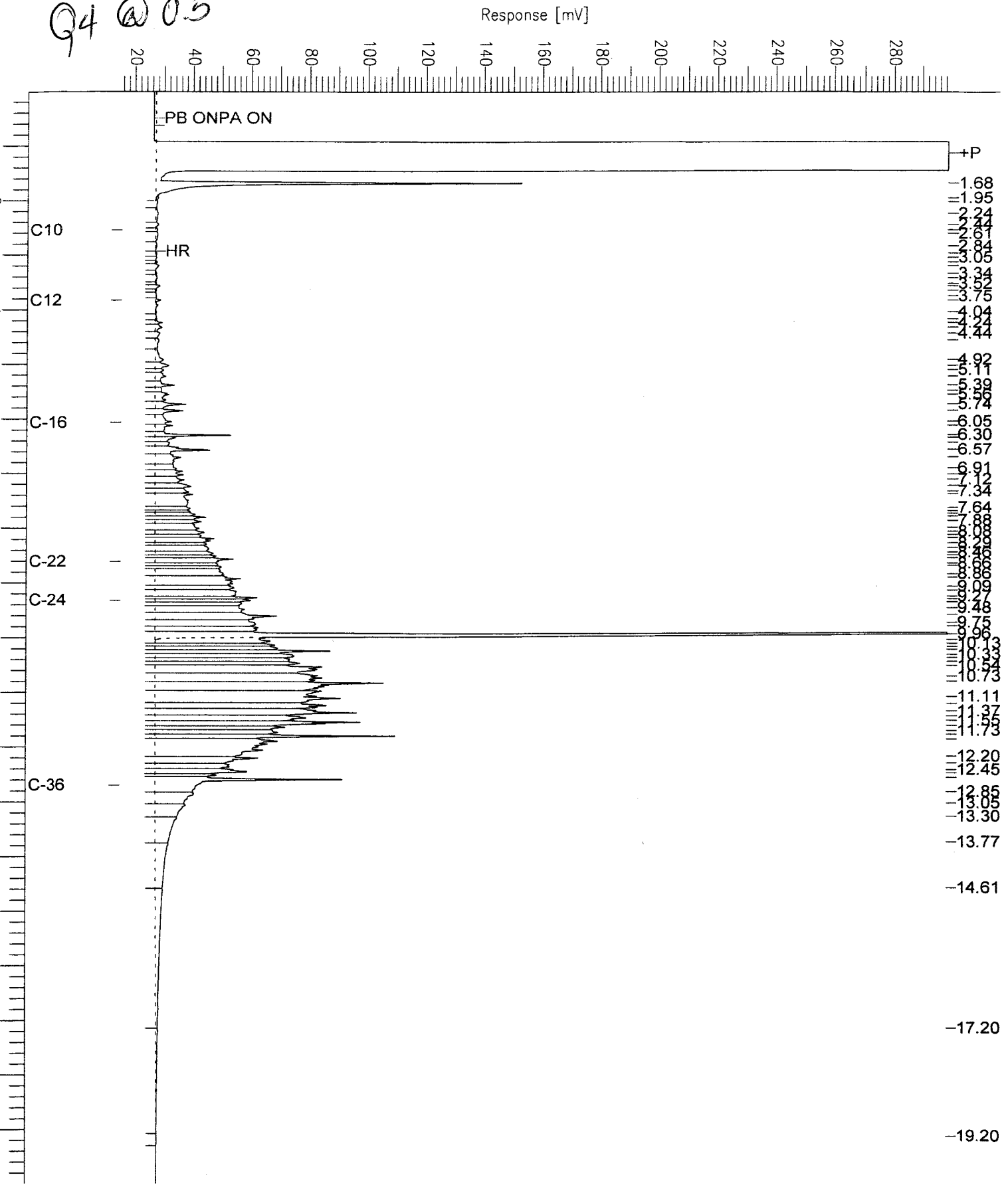


Chromatogram

Sample Name : 173907-004sg,93685
FileName : G:\GC15\CHB\226B035.RAW
Method : BTEH224S.MTH
Start Time : 0.01 min End Time : 19.99 min
Scale Factor: 0.0 Plot Offset: 15 mV

Sample #: 93685 Page 1 of 1
Date : 8/15/04 02:35 PM
Time of Injection: 8/14/04 10:01 AM
Low Point : 15.40 mV High Point : 298.65 mV
Plot Scale: 283.3 mV

Q4 @ 0.5'



Curtis & Tompkins, Ltd.

Total Extractable Hydrocarbons

Lab #:	173907	Location:	4311-4333 MacArthur Blvd.
Client:	Questa Engineering Corporation	Prep:	SHAKER TABLE
Project#:	STANDARD	Analysis:	EPA 8015B
Matrix:	Soil	Sampled:	08/10/04
Units:	mg/Kg	Received:	08/10/04
Basis:	as received	Prepared:	08/11/04
Batch#:	93685		

Field ID:	Q4@2'	Diln Fac:	1.000
Type:	SAMPLE	Analyzed:	08/14/04
Lab ID:	173907-005	Cleanup Method:	EPA 3630C

Analyte	Result	RL
Diesel C10-C24	20 H Y	1.0
Motor Oil C24-C36	130	5.0

Surrogate	%REC	Limits
Hexacosane	82	55-134

Field ID:	Q5@0.5'	Diln Fac:	2.000
Type:	SAMPLE	Analyzed:	08/17/04
Lab ID:	173907-006	Cleanup Method:	EPA 3630C

Analyte	Result	RL
Diesel C10-C24	190 H	2.0
Motor Oil C24-C36	440 L	10

Surrogate	%REC	Limits
Hexacosane	162 *	55-134

Field ID:	Q9@1'	Diln Fac:	1.000
Type:	SAMPLE	Analyzed:	08/14/04
Lab ID:	173907-007	Cleanup Method:	EPA 3630C

Analyte	Result	RL
Diesel C10-C24	14 H Y	1.0
Motor Oil C24-C36	83	5.0

Surrogate	%REC	Limits
Hexacosane	89	55-134

Type:	BLANK	Analyzed:	08/13/04
Lab ID:	QC260933	Cleanup Method:	EPA 3630C
Diln Fac:	1.000		

Analyte	Result	RL
Diesel C10-C24	ND	0.99
Motor Oil C24-C36	ND	5.0

Surrogate	%REC	Limits
Hexacosane	105	55-134

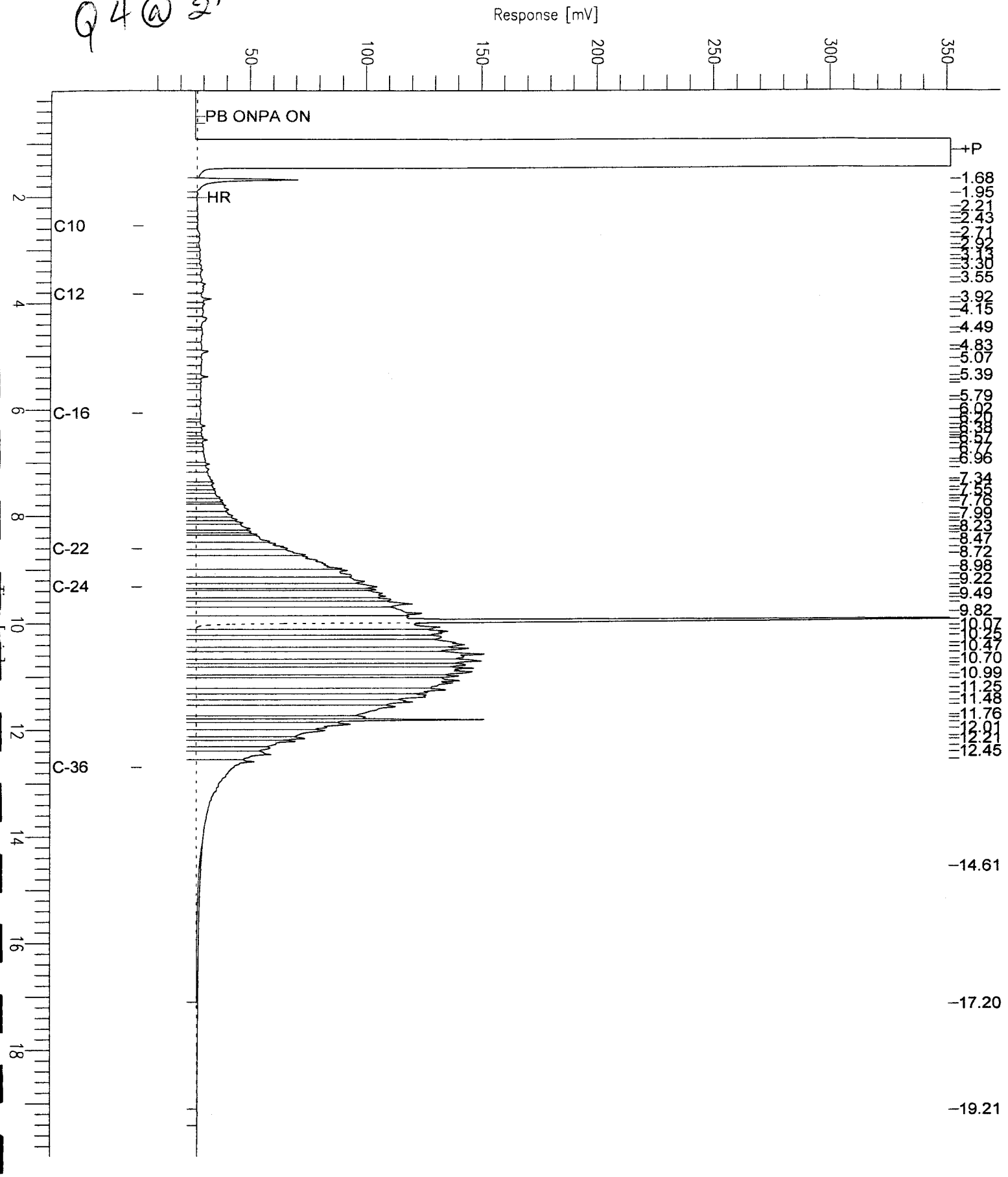
*= Value outside of QC limits; see narrative
H= Heavier hydrocarbons contributed to the quantitation
L= Lighter hydrocarbons contributed to the quantitation
Y= Sample exhibits chromatographic pattern which does not resemble standard
ND= Not Detected
RL= Reporting Limit

Chromatogram

Sample Name : 173907-005sg,93685
FileName : G:\GC15\CHB\226B036.RAW
ethod : BTEH224S.MTH
tart Time : 0.01 min End Time : 19.99 min
cale Factor: 0.0 Plot Offset: 4 mV

Sample #: 93685 Page 1 of 1
Date : 8/15/04 02:35 PM
Time of Injection: 8/14/04 10:29 AM
Low Point : 4.04 mV High Point : 351.59 mV
Plot Scale: 347.5 mV

Q4@21

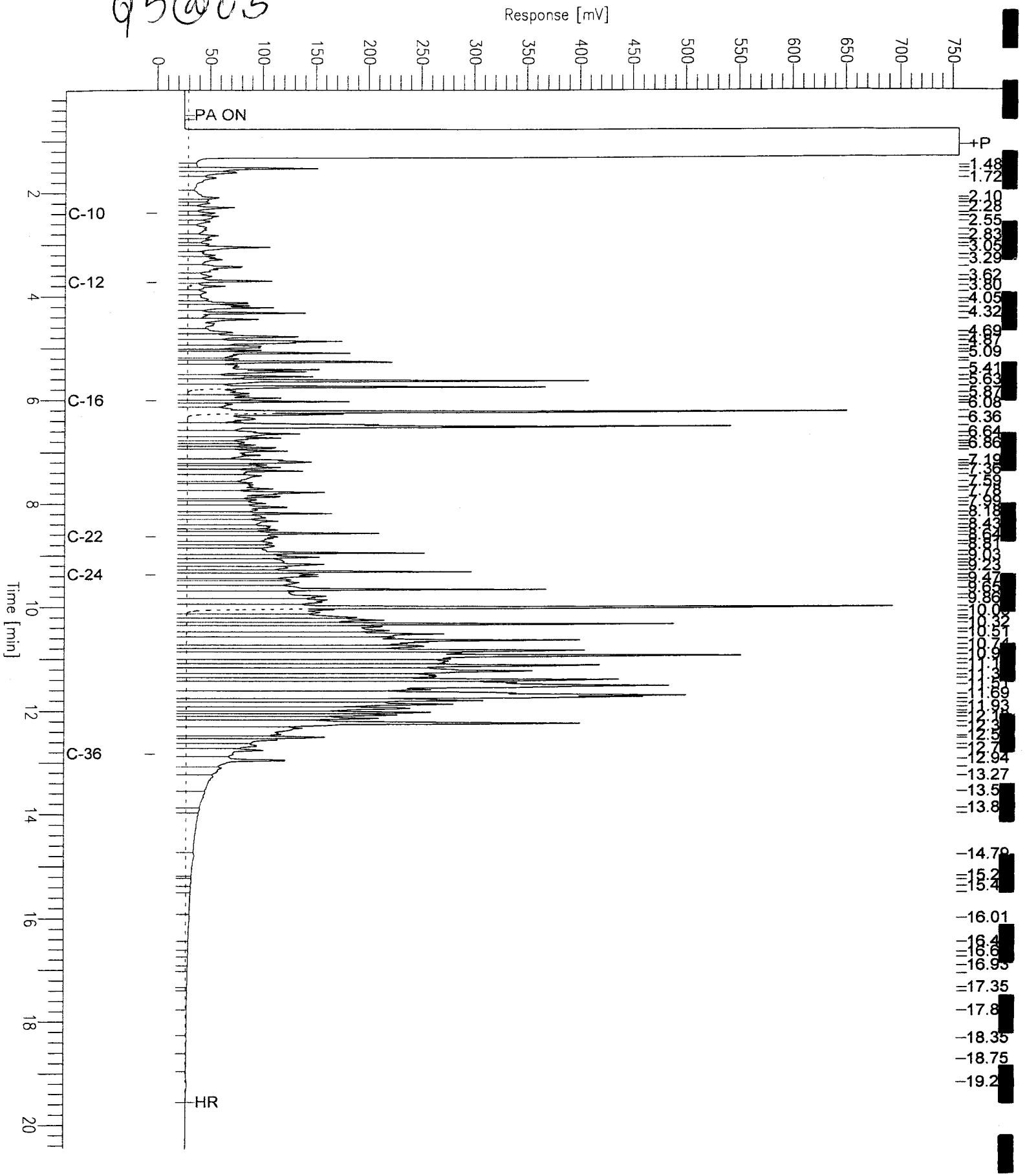


Chromatogram

Sample Name : 173907-006sg,93685
FileName : G:\GC11\CHA\229A042.RAW
Method : ATEH225S.MTH
Start Time : 0.01 min End Time : 20.45 min
Scale Factor: 0.0 Plot Offset: -1 mV

Sample #: 93685
Date : 8/17/04 12:13 PM
Time of Injection: 8/17/04 11:51 AM
Low Point : -0.61 mV High Point : 755.60 mV
Plot Scale: 756.2 mV

95@0.5'

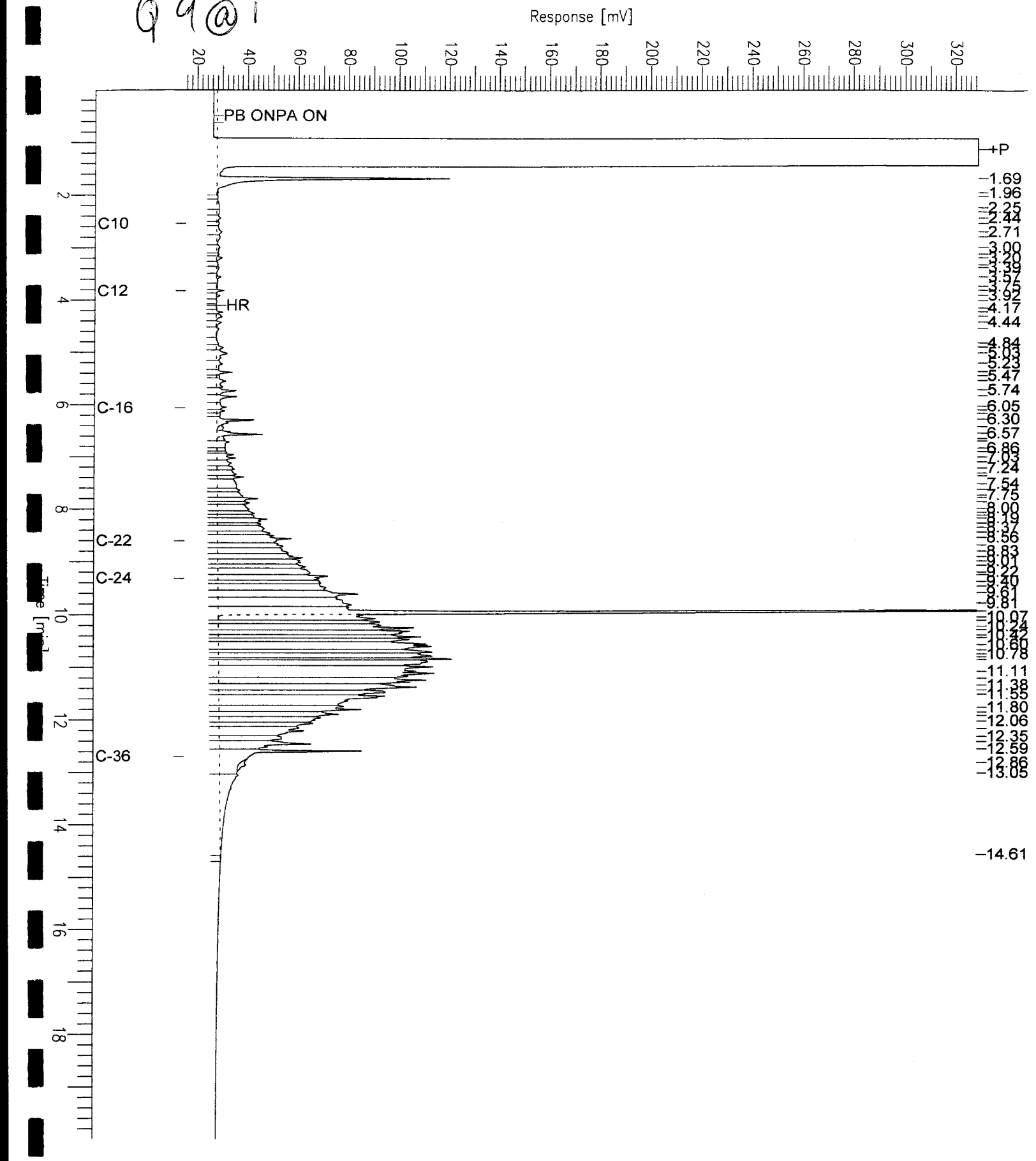


Chromatogram

Sample Name : 173907-007sg,93685
FileName : G:\GC15\CHB\226B038.RAW
Method : BTEH224S.MTH
Start Time : 0.01 min End Time : 19.99 min
Scale Factor: 0.0 Plot Offset: 15 mV

Sample #: 93685 Page 1 of 1
Date : 8/15/04 02:38 PM
Time of Injection: 8/14/04 11:27 AM
Low Point : 15.44 mV High Point : 328.88 mV
Plot Scale: 313.4 mV

99@1'



Chromatogram

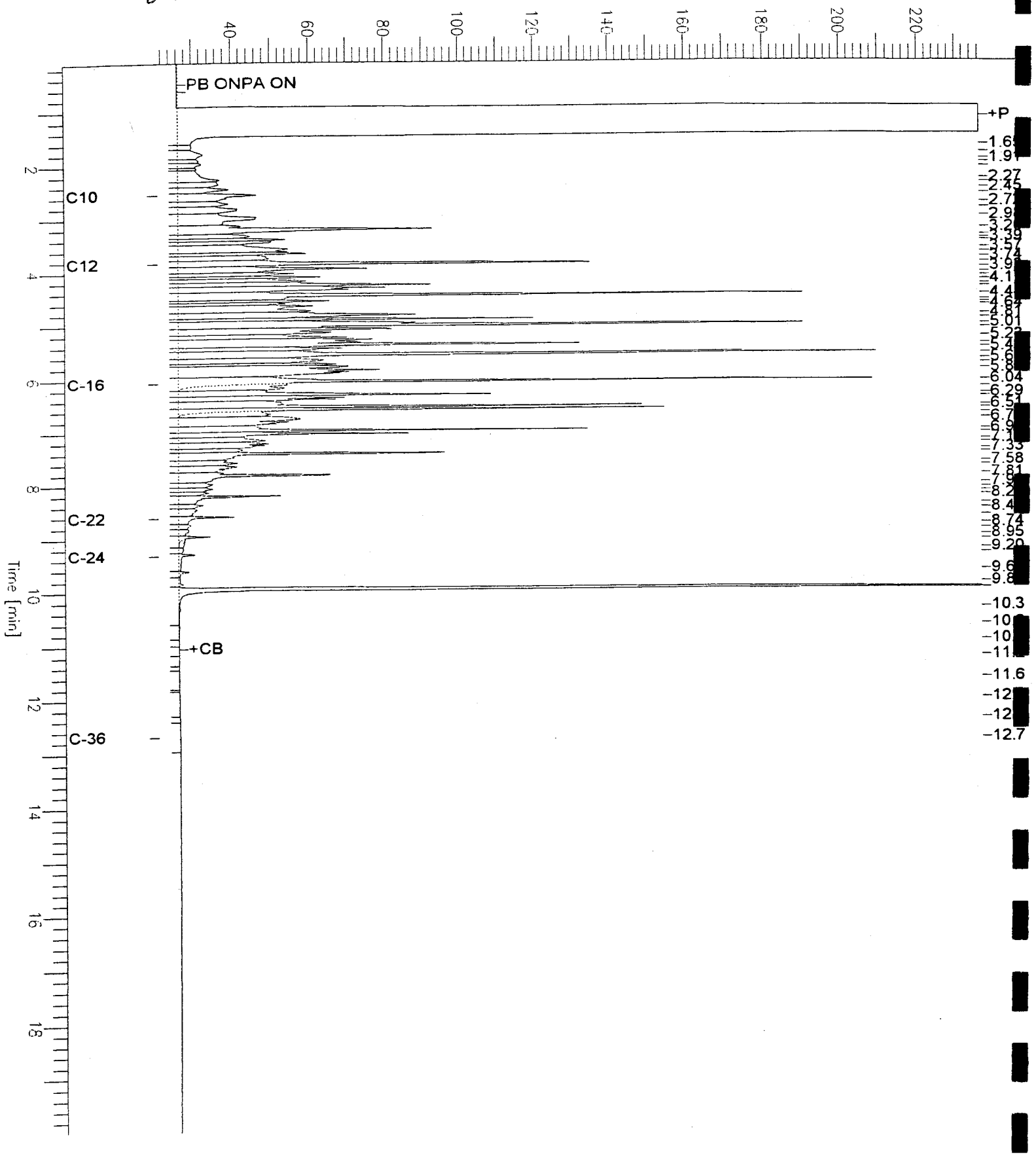
Sample Name : ccv,04ws1410,dsl
FileName : G:\GC15\CHB\226B003.RAW
Method : BTEH224S.MTH
Start Time : 0.11 min
Scale Factor: 0.0

End Time : 19.99 min
Plot Offset: 21 mV

Sample #: 500mg/L
Date : 8/13/04 04:31 PM
Time of Injection: 8/13/04 03:47 PM
Low Point : 21.19 mV
Plot Scale: 215.0 mV

High Point : 236.18 mV

Diesel Standard



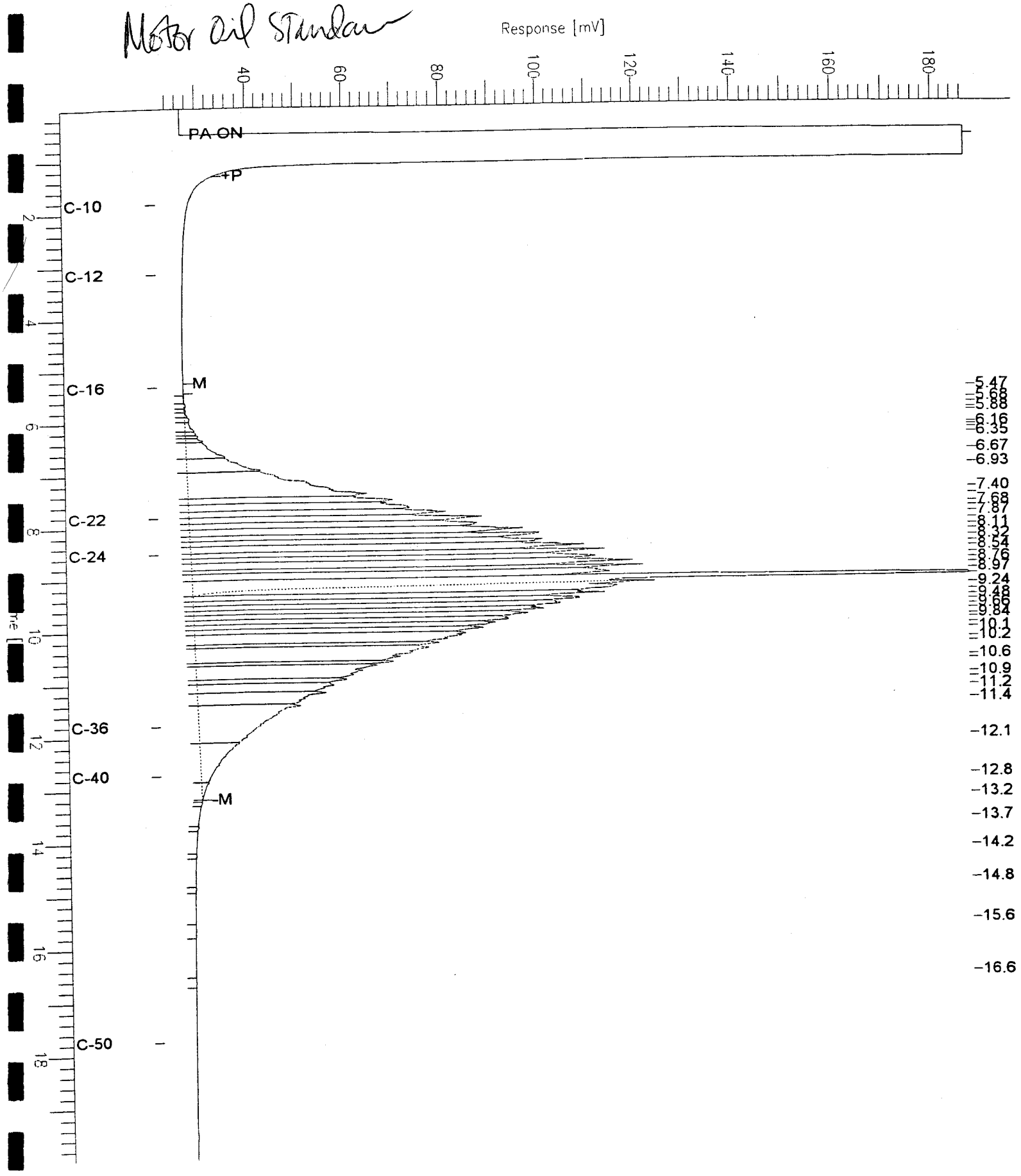
Chromatogram

Sample Name : ccv,04ws1425,mo
File Name : G:\GC17\CHA\226A004.RAW
Method : ATEH212.MTH
Start Time : 0.01 min
Scale Factor: 0.0

End Time : 19.99 min
Plot Offset: 22 mV

Sample #: 500mg/L
Date : 8/13/04 04:49 PM
Time of Injection: 8/13/04 04:19 PM
Low Point : 22.05 mV
Plot Scale: 164.6 mV

Motor Oil Standard



Curtis & Tompkins, Ltd.

Batch QC Report

Total Extractable Hydrocarbons

Lab #:	173907	Location:	4311-4333 MacArthur Blvd.
Client:	Questa Engineering Corporation	Prep:	SHAKER TABLE
Project#:	STANDARD	Analysis:	EPA 8015B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC260934	Batch#:	93685
Matrix:	Soil	Prepared:	08/11/04
Units:	mg/Kg	Analyzed:	08/13/04
Basis:	as received		

Cleanup Method: EPA 3630C

Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24	50.31	38.80	77	56-134

Surrogate	%REC	Limits
Hexacosane	82	55-134

Curtis & Tompkins, Ltd.

Batch QC Report

Total Extractable Hydrocarbons

Lab #:	173907	Location:	4311-4333 MacArthur Blvd.
Client:	Questa Engineering Corporation	Prep:	SHAKER TABLE
Project#:	STANDARD	Analysis:	EPA 8015B
Field ID:	ZZZZZZZZZZ	Batch#:	93685
MSS Lab ID:	173922-003	Sampled:	08/09/04
Matrix:	Soil	Received:	08/10/04
Units:	mg/Kg	Prepared:	08/11/04
Basis:	as received	Analyzed:	08/13/04
Diln Fac:	1.000		

Type: MS
Lab ID: QC260935

Cleanup Method: EPA 3630C

Analyte	MSS Result	Spiked	Result	%REC	Limits
Diesel C10-C24	21.97	49.85	71.10	99	13-165

Surrogate	%REC	Limits
Hexacosane	93	55-134

Type: MSD
Lab ID: QC260936

Cleanup Method: EPA 3630C

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Diesel C10-C24	49.87	70.06	96	13-165	2	49

Surrogate	%REC	Limits
Hexacosane	93	55-134

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878
2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

ANALYTICAL REPORT

Prepared for:

Questa Engineering Corporation
1220 Brickyard Cove Road
Suite 206
Point Richmond, CA 94801

Date: 16-AUG-04
Lab Job Number: 173776
Project ID: STANDARD
Location: 4311-4333 MACARTHUR BLVD.

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

0037.CDR

Client: M. Douglas Construction Inc	Report To: Questa	Site Name: 4311-4333 MacArthur Blvd, Oakland
Address: 1101 Northgate Road, Walnut Creek, CA 94598	Bill To: Questa	Project Manager: W. Hopkins
	Billing Reference: MacArthur, Oakland	Requested Due Date: Normal turnaround (5 days) 8/9/04
Phone: 925-932-3559	Project No.: 24026	
Sampled by (Print): W. Hopkins/J. Farrow		
Sampler Signature: W. Hopkins		
Date Sampled: 8/2/04		

ITEM NO.	SAMPLE DESCRIPTION	TIME	MATRIX	CONT. TYPE	NO. OF CONTAINERS	UNPRESERVED	H_2SO_4	HNO_3	VOA	Gold	TPH 8015M Diesel	Material Silicagel cleanup	REMARKS
1.	Q1-0.5'		Soil	Glass						X	X	X	
2.	Q2-0.5'										X	X	
3.	Q4-4.0'										X	X	
4.	Q4-6.5'										X	X	
5.	Q4-8.5'										X	X	
6.	Q5-4'										X	X	
7.	Q6-6'										X	X	
8.	Q6-2.5'										X	X	
9.	Q7-8.5'										X	X	

COOLER NOS.	BAILERS	SHIP OUT DATE	RETURNED DATE

ITEM NO.	RELINQUISHED BY/AFFILIATION	ACCEPTED BY/AFFILIATION	DATE	TIME
1-9	Joseph Farrow	Savanna Curtis	8-2-04	1744

Additional Comments:
Run All samples for TPH as diesel and motor oil with Silicagel cleanup

Received ☐ On ice ☒ Cold ☐ Ambient ☒ Intact

Questa Engineering Corporation

1220 Brickyard Cove Road
Point Richmond, CA 94807

P.O. Box 70356
Phone: (510) 236-6114
FAX: (510) 236-2423

CHAIN-OF-CUSTODY RECORD
ANALYTICAL REQUEST

Client: M. Douglas Construction Inc.	Report To: Questa	Site Name: 4311-4333 MacArthur Blvd., Oakland
Address: 1101 Northgate Road, Walnut Creek CA 94598	Bill To: Questa	Project Manager: W. Hopkins
	Billing Reference: MacArthur, Oakland	Requested Due Date: Normal Turnaround (5 days)
Phone: 925 932-3559	Project No.: 240126	8/9/04
Sampled by (Print): W. Hopkins / J. Farrow		
Sampler Signature: W. Hopkins		
Date Sampled: 8/2/04		

ITEM NO.	SAMPLE DESCRIPTION	TIME	MATRIX	CONT. TYPE	NO. OF CONTAINERS	UNPRESERVED	H_2SO_4	HNO_3	VOA	Cold	TPH 8015m diesel	motor oil	Silica Gel cleanup	REMARKS
1.	Q7-3'		Soil	Glass						X	X	X	X	
2.	Q7-4.5'		Soil	Glass							X	X	X	X	
3.	Q9-3.5'		Soil	Glass							X	X	X	X	
4.														
5.														
6.														
7.														
8.														
9.														

PRESERVATIVES / ANALYSES REQUEST / REMARKS

COOLER NOS.	BAILERS	SHIP OUT DATE	RETURNED DATE

Additional Comments:
Run all samples for TPH as diesel and motor oil with Silica Gel cleanup

ITEM NO.	RELINQUISHED BY/AFFILIATION	ACCEPTED BY/AFFILIATION	DATE	TIME
1-3	Joseph Farrow	Lavanne Curtis	8-2-04	1744

Received: ☐ On ice ☑ Cold ☐ Ambient ☒ Intact

Questa Engineering Corporation

1220 Brickyard Cove Road
Point Richmond, CA 94807

P.O. Box 70356
Phone: (510) 236-6114
FAX: (510) 236-2423

CHAIN-OF-CUSTODY RECORD
ANALYTICAL REQUEST

Curtis & Tompkins, Ltd.

Total Extractable Hydrocarbons

Lab #:	173776	Location:	4311-4333 MACARTHUR BLVD.
Client:	Questa Engineering Corporation	Prep:	SHAKER TABLE
Project#:	STANDARD	Analysis:	EPA 8015B
Matrix:	Soil	Sampled:	08/02/04
Units:	mg/Kg	Received:	08/02/04
Basis:	as received	Prepared:	08/05/04
Batch#:	93510		

Field ID:	Q1-0.5'	Diln Fac:	1.000
Type:	SAMPLE	Analyzed:	08/06/04
Lab ID:	173776-001	Cleanup Method:	EPA 3630C

Analyte	Result	RL
Diesel C10-C24	82 H Y	1.0
Motor Oil C24-C36	180	5.0

Surrogate	%REC	Limits
Hexacosane	105	52-131

Field ID:	Q2-0.5'	Diln Fac:	1.000
Type:	SAMPLE	Analyzed:	08/06/04
Lab ID:	173776-002	Cleanup Method:	EPA 3630C

Analyte	Result	RL
Diesel C10-C24	2.8 H Y	1.0
Motor Oil C24-C36	10	5.0

Surrogate	%REC	Limits
Hexacosane	83	52-131

Field ID:	Q4-4.0'	Diln Fac:	1.000
Type:	SAMPLE	Analyzed:	08/06/04
Lab ID:	173776-003	Cleanup Method:	EPA 3630C

Analyte	Result	RL
Diesel C10-C24	24 H Y	1.0
Motor Oil C24-C36	140	5.0

Surrogate	%REC	Limits
Hexacosane	76	52-131

Field ID:	Q4-6.5'	Diln Fac:	1.000
Type:	SAMPLE	Analyzed:	08/06/04
Lab ID:	173776-004	Cleanup Method:	EPA 3630C

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

Surrogate	%REC	Limits
Hexacosane	82	52-131

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

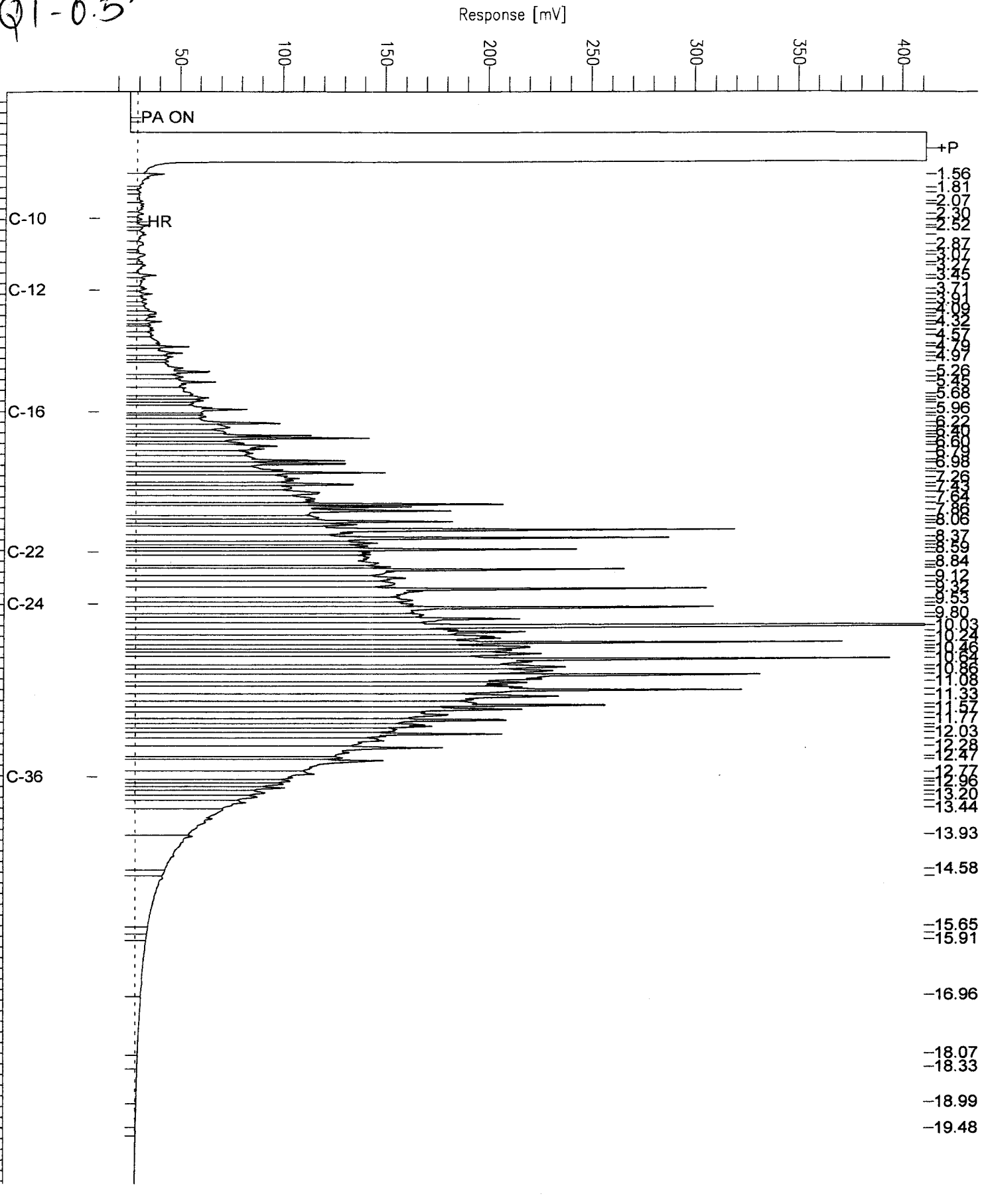
Chromatogram

776 8530-24.

Sample Name : 173796-001sg,93510
FileName : G:\GC11\CHA\218A026.RAW
ethod : ATEH214S.MTH
tart Time : 0.01 min End Time : 20.45 min
Scale Factor: 0.0 Plot Offset: 11 mV

Sample #: 93510 Page 1 of 1
Date : 8/6/04 10:27 AM
Time of Injection: 8/6/04 12:26 AM
Low Point : 10.97 mV High Point : 411.61 mV
Plot Scale: 400.6 mV

Q1-0.5'

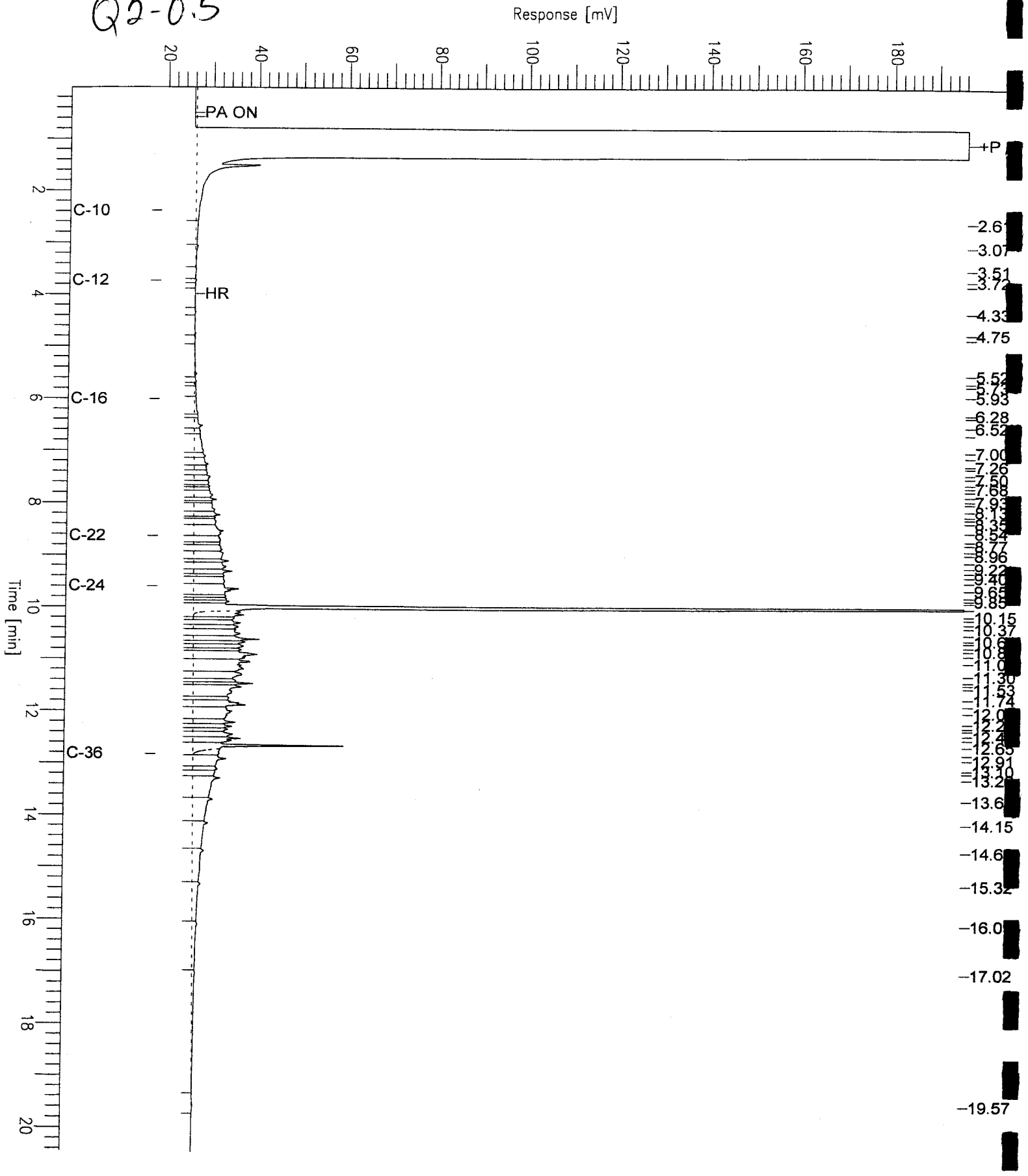


Chromatogram

Sample Name : 173776-002sg,93510
FileName : G:\GC11\CHA\218A033.RAW
Method : ATEH214S.MTH
Start Time : 0.01 min End Time : 20.45 min
Scale Factor: 0.0 Plot Offset: 19 mV

Sample #: 93510 Page 1 of 1
Date : 8/6/04 10:33 AM
Time of Injection: 8/6/04 03:49 AM
Low Point : 18.57 mV High Point : 196.18 mV
Plot Scale: 177.6 mV

Q2-0.5'

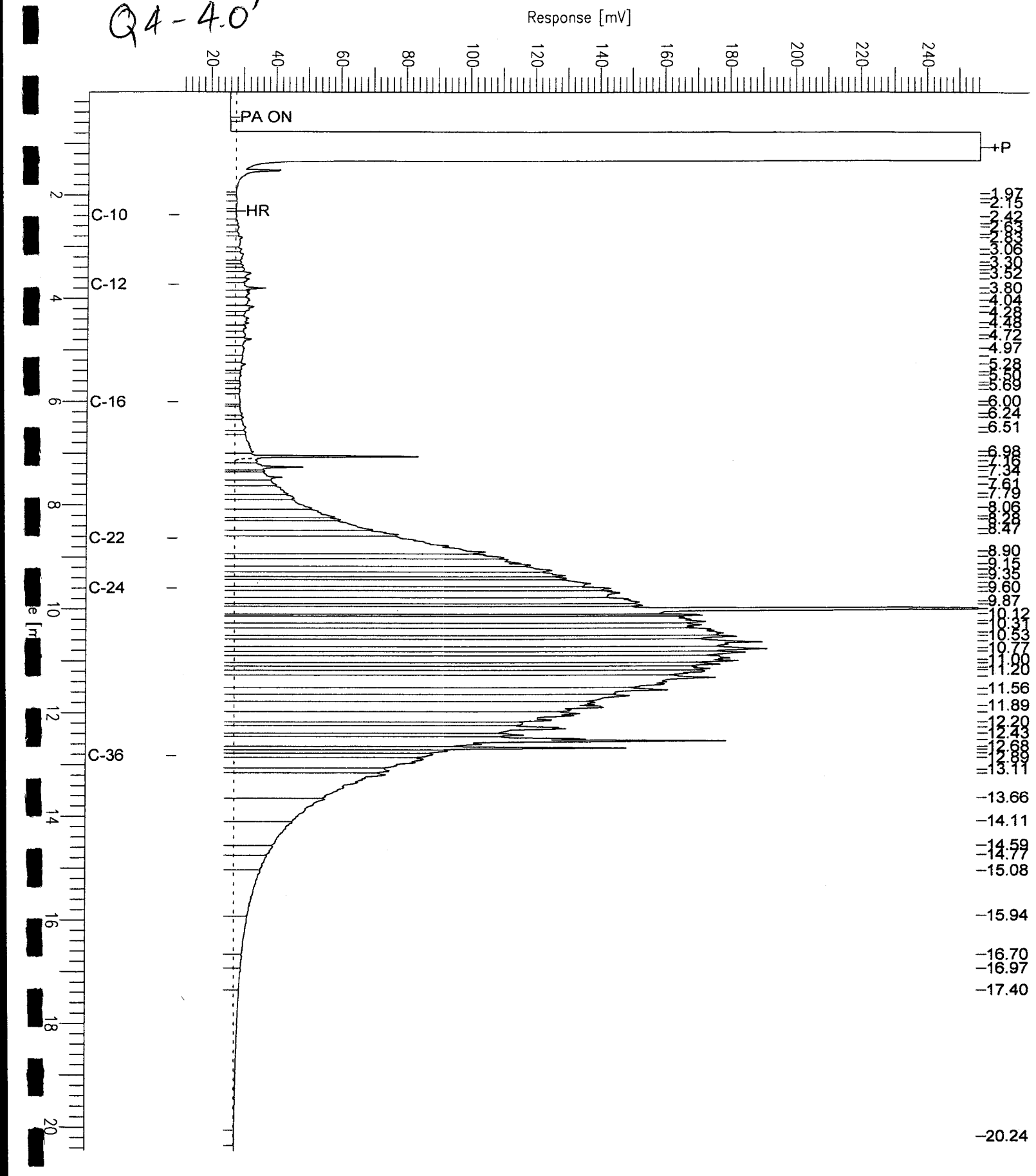


Chromatogram

Sample Name : 173776-003sg,93510
FileName : G:\GC11\CHA\218A034.RAW
ethod : ATEH214S.MTH
tart Time : 0.01 min End Time : 20.45 min
cale Factor: 0.0 Plot Offset: 10 mV

Sample #: 93510 Page 1 of 1
Date : 8/6/04 10:33 AM
Time of Injection: 8/6/04 04:17 AM
Low Point : 10.01 mV High Point : 256.37 mV
Plot Scale: 246.4 mV

Q4 - 4.0'



Curtis & Tompkins, Ltd.

Total Extractable Hydrocarbons

Lab #:	173776	Location:	4311-4333 MACARTHUR BLVD.
Client:	Questa Engineering Corporation	Prep:	SHAKER TABLE
Project#:	STANDARD	Analysis:	EPA 8015B
Matrix:	Soil	Sampled:	08/02/04
Units:	mg/Kg	Received:	08/02/04
Basis:	as received	Prepared:	08/05/04
Batch#:	93510		

Field ID:	Q4-8.5'	Diln Fac:	1.000
Type:	SAMPLE	Analyzed:	08/06/04
Lab ID:	173776-005	Cleanup Method:	EPA 3630C

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

Surrogate	%REC	Limits
Hexacosane	65	52-131

Field ID:	Q5-4'	Diln Fac:	1.000
Type:	SAMPLE	Analyzed:	08/06/04
Lab ID:	173776-006	Cleanup Method:	EPA 3630C

Analyte	Result	RL
Diesel C10-C24	8.2 H Y	1.0
Motor Oil C24-C36	17 L	5.0

Surrogate	%REC	Limits
Hexacosane	98	52-131

Field ID:	Q6-6'	Diln Fac:	1.000
Type:	SAMPLE	Analyzed:	08/05/04
Lab ID:	173776-007	Cleanup Method:	EPA 3630C

Analyte	Result	RL
Diesel C10-C24	3.0 H Y	1.0
Motor Oil C24-C36	26	5.0

Surrogate	%REC	Limits
Hexacosane	63	52-131

Field ID:	Q6-2.5'	Diln Fac:	10.00
Type:	SAMPLE	Analyzed:	08/05/04
Lab ID:	173776-008	Cleanup Method:	EPA 3630C

Analyte	Result	RL
Diesel C10-C24	27 H Y	10
Motor Oil C24-C36	390	50

Surrogate	%REC	Limits
Hexacosane	DO	52-131

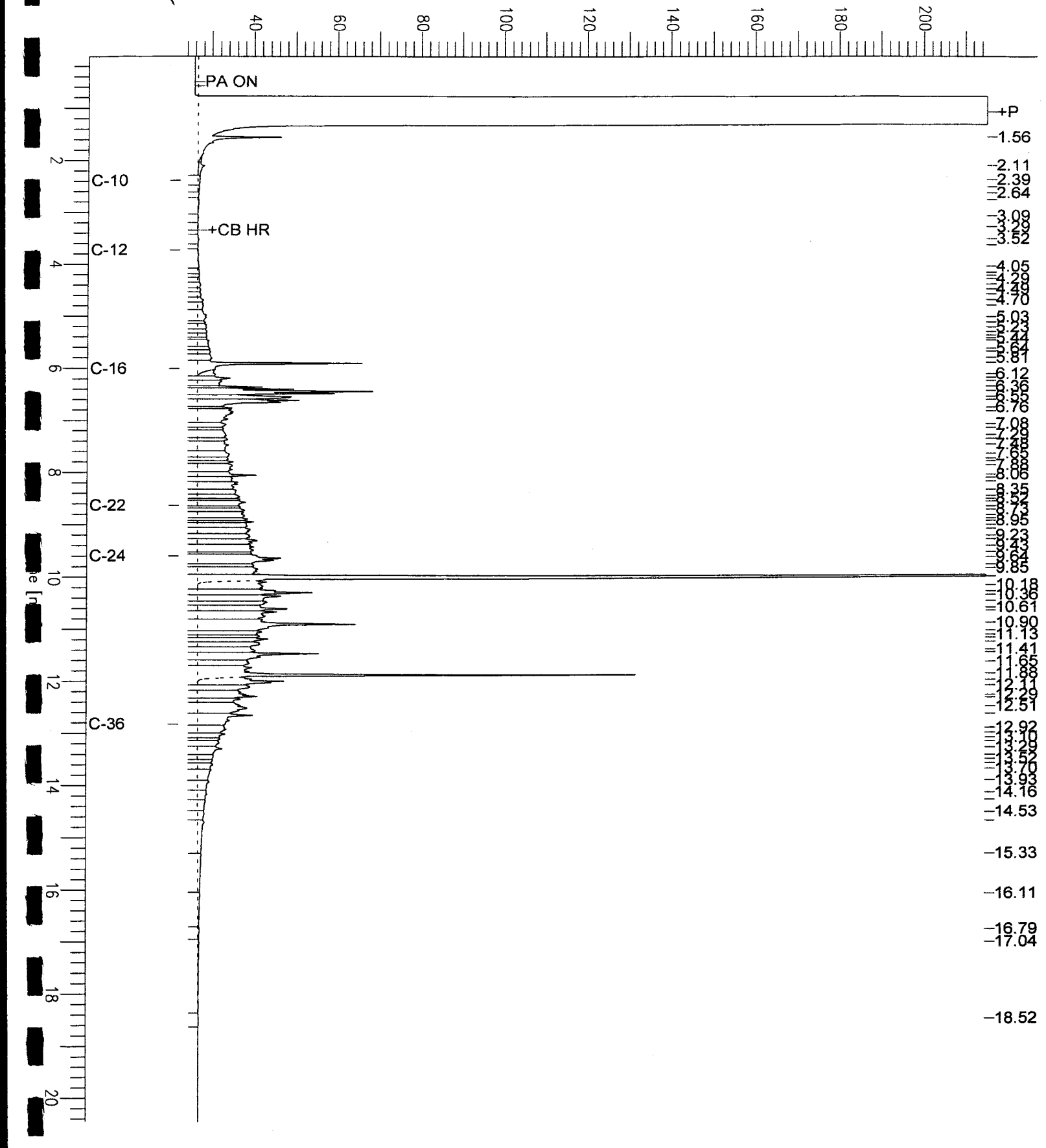
H= Heavier hydrocarbons contributed to the quantitation
L= Lighter hydrocarbons contributed to the quantitation
Y= Sample exhibits chromatographic pattern which does not resemble standard
DO= Diluted Out
ND= Not Detected
RL= Reporting Limit

Chromatogram

Sample Name : 173776-006sg,93510
FileName : G:\GC11\CHA\218A037.RAW
ethod : ATEH214S.MTH
tart Time : 0.01 min End Time : 20.45 min
Scale Factor: 0.0 Plot Offset: 22 mV

Sample #: 93510 Page 1 of 1
Date : 8/6/04 10:34 AM
Time of Injection: 8/6/04 05:45 AM
Low Point : 22.28 mV High Point : 215.09 mV
Plot Scale: 192.8 mV

Q5-4'

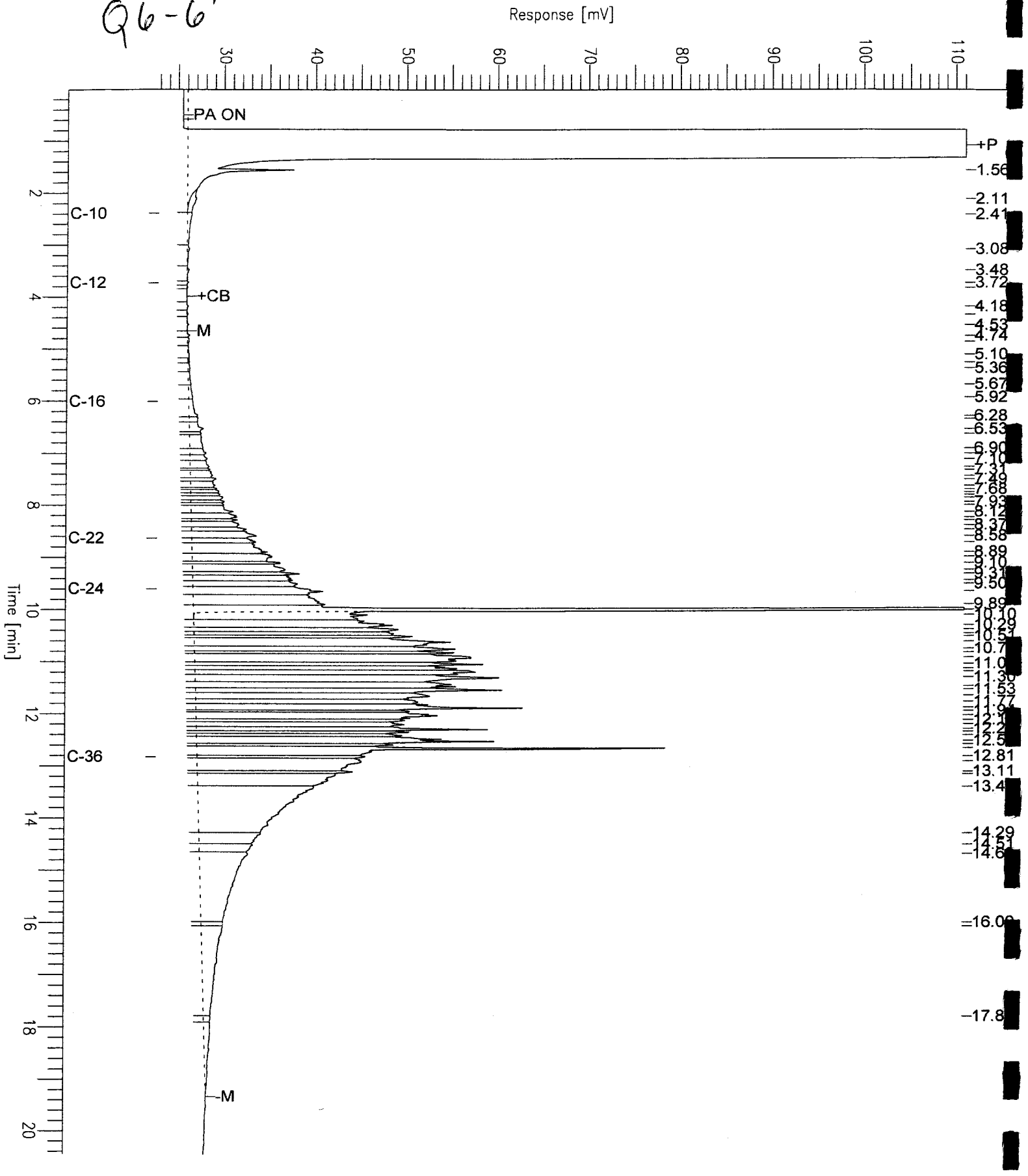


Chromatogram

Sample Name : 173776-007sg,93510
FileName : G:\GC11\CHA\218A014.RAW
Method : ATEH214S.MTH
Start Time : 0.01 min End Time : 20.45 min
Scale Factor: 0.0 Plot Offset: 23 mV

Sample #: 93510 Page 1 of 1
Date : 8/6/04 10:22 AM
Time of Injection: 8/5/04 06:38 PM
Low Point : 22.78 mV High Point : 111.02 mV
Plot Scale: 88.2 mV

Q6-6'

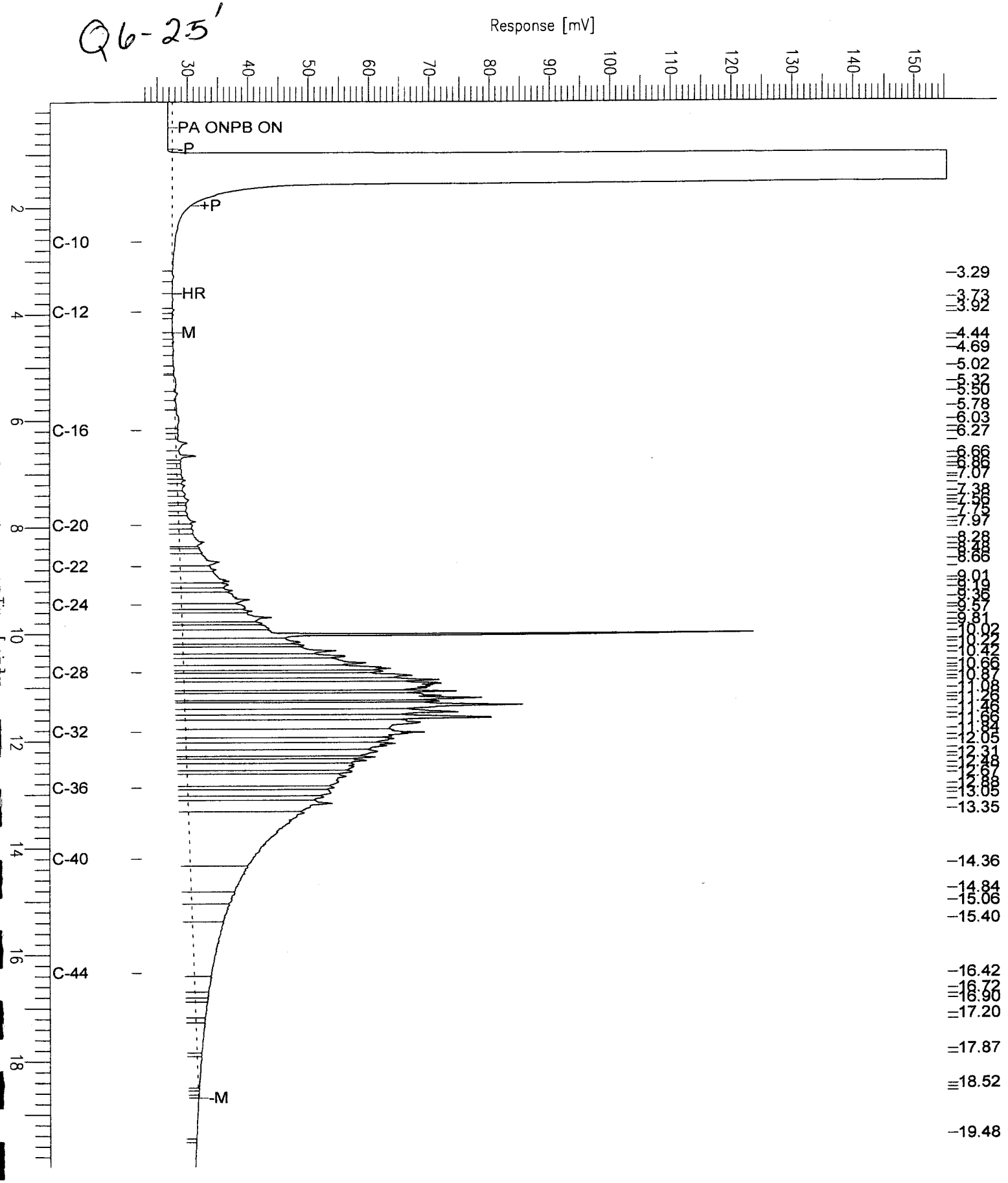


Chromatogram

Sample Name : 173776-008sg,93510
FileName : G:\GC13\CHB\218B019.RAW
Method : BTEH210S.MTH
Start Time : 0.01 min End Time : 19.99 min
Scale Factor: 0.0 Plot Offset: 22 mV

Sample #: 93510 Page 1 of 1
Date : 8/6/04 09:33 AM
Time of Injection: 8/5/04 09:34 PM
Low Point : 22.40 mV High Point : 155.45 mV
Plot Scale: 133.1 mV

Q6-25'



Curtis & Tompkins, Ltd.

Total Extractable Hydrocarbons

Lab #:	173776	Location:	4311-4333 MACARTHUR BLVD.
Client:	Questa Engineering Corporation	Prep:	SHAKER TABLE
Project#:	STANDARD	Analysis:	EPA 8015B
Matrix:	Soil	Sampled:	08/02/04
Units:	mg/Kg	Received:	08/02/04
Basis:	as received	Prepared:	08/05/04
Batch#:	93510		

Field ID:	Q7-8.5'	Diln Fac:	1.000
Type:	SAMPLE	Analyzed:	08/05/04
Lab ID:	173776-009	Cleanup Method:	EPA 3630C

Analyte	Result	RL
Diesel C10-C24	3.5 H L Y	1.0
Motor Oil C24-C36	5.9	5.0

Surrogate	%REC	Limits
Hexacosane	71	52-131

Field ID:	Q7-3'	Diln Fac:	20.00
Type:	SAMPLE	Analyzed:	08/05/04
Lab ID:	173776-010	Cleanup Method:	EPA 3630C

Analyte	Result	RL
Diesel C10-C24	250 H Y	20
Motor Oil C24-C36	2,200	100

Surrogate	%REC	Limits
Hexacosane	DO	52-131

Field ID:	Q7-4.5'	Diln Fac:	1.000
Type:	SAMPLE	Analyzed:	08/05/04
Lab ID:	173776-011	Cleanup Method:	EPA 3630C

Analyte	Result	RL
Diesel C10-C24	20 H Y	1.0
Motor Oil C24-C36	160	5.0

Surrogate	%REC	Limits
Hexacosane	104	52-131

Field ID:	Q9-3.5'	Diln Fac:	1.000
Type:	SAMPLE	Analyzed:	08/05/04
Lab ID:	173776-012	Cleanup Method:	EPA 3630C

Analyte	Result	RL
Diesel C10-C24	ND	0.99
Motor Oil C24-C36	ND	5.0

Surrogate	%REC	Limits
Hexacosane	83	52-131

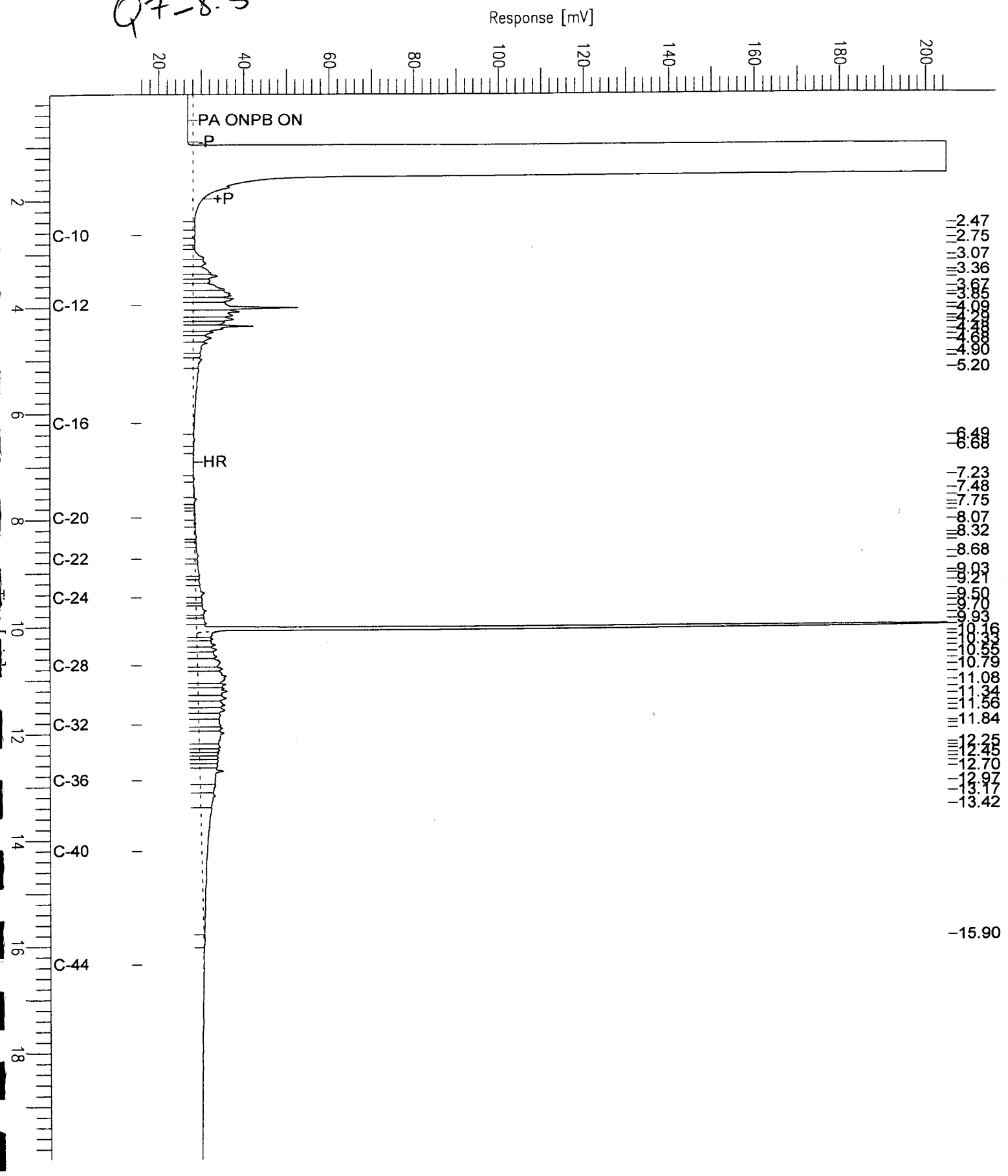
H= Heavier hydrocarbons contributed to the quantitation
L= Lighter hydrocarbons contributed to the quantitation
Y= Sample exhibits chromatographic pattern which does not resemble standard
DO= Diluted Out
ND= Not Detected
RL= Reporting Limit

Chromatogram

Sample Name : 173776-009sg,93510
FileName : G:\GC13\CHB\218B020.RAW
ethod : BTEH210S.MTH
tart Time : 0.01 min End Time : 19.99 min
Scale Factor: 0.0 Plot Offset: 16 mV

Sample #: 93510 Page 1 of 1
Date : 8/6/04 09:33 AM
Time of Injection: 8/5/04 10:01 PM
Low Point : 15.82 mV High Point : 204.69 mV
Plot Scale: 188.9 mV

Q7-8.5

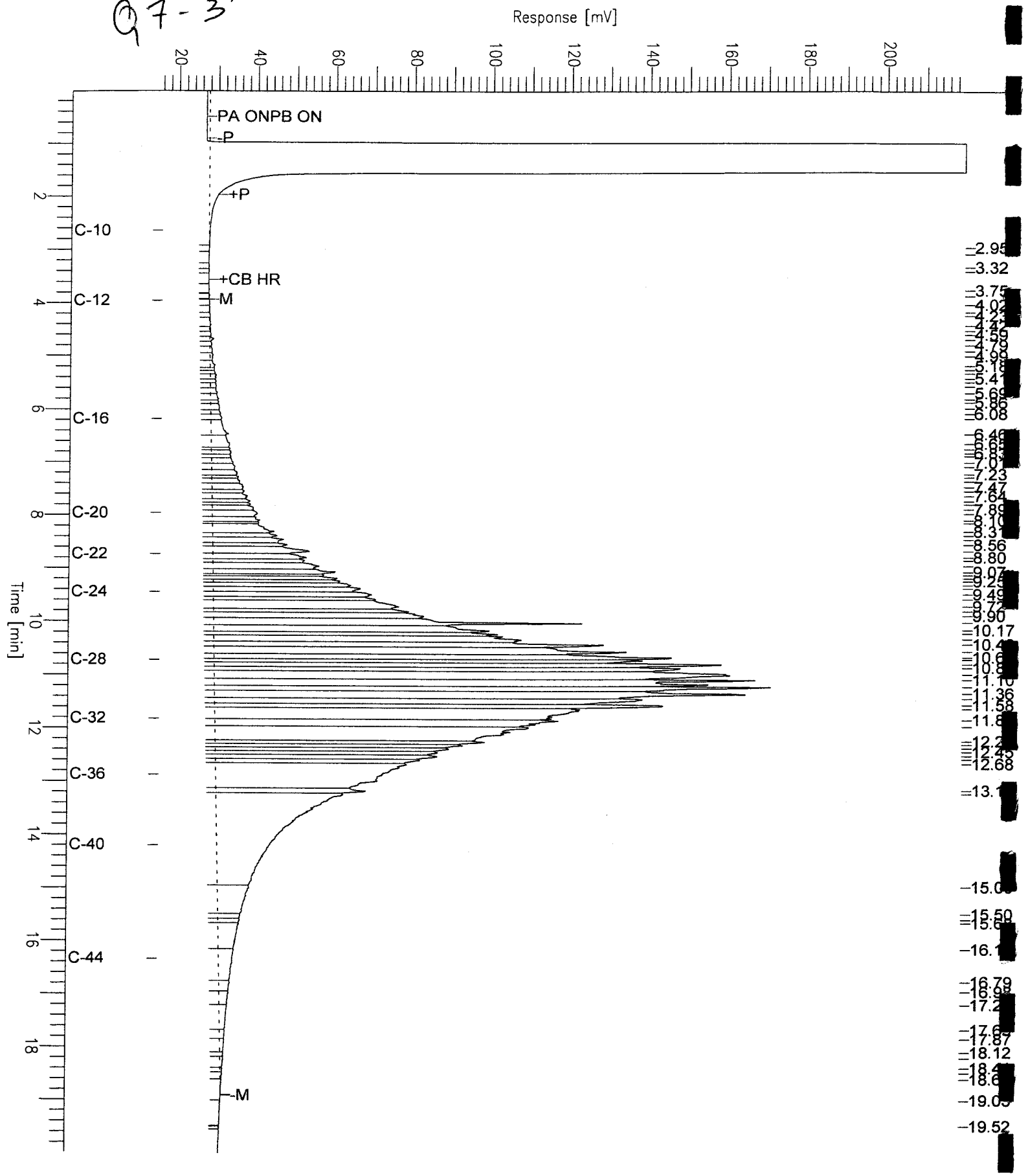


Chromatogram

Sample Name : 173776-010sg,93510
FileName : G:\GC13\CHB\218B021.RAW
Method : BTEH210S.MTH
Start Time : 0.01 min End Time : 19.99 min
Scale Factor: 0.0 Plot Offset: 16 mV

Sample #: 93510 Page 1 of 1
Date : 8/6/04 09:34 AM
Time of Injection: 8/5/04 10:29 PM
Low Point : 15.85 mV High Point : 219.76 mV
Plot Scale: 203.9 mV

97-3'

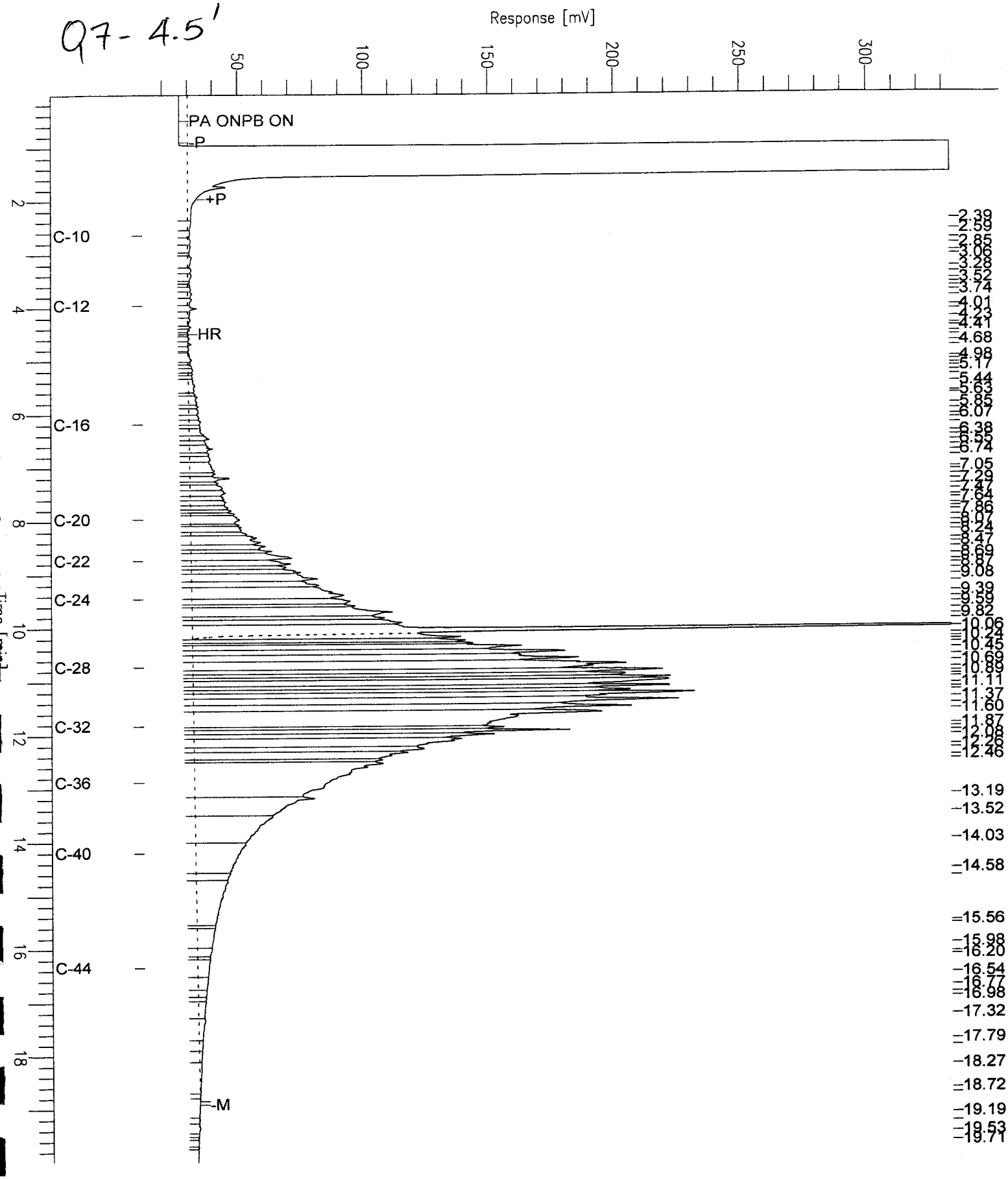


Chromatogram

Sample Name : 173776-011sg,93510
FileName : G:\GC13\CHB\218B022.RAW
Method : BTEH210S.MTH
Start Time : 0.01 min End Time : 19.99 min
Scale Factor: 0.0 Plot Offset: 12 mV

Sample #: 93510 Page 1 of 1
Date : 8/6/04 09:34 AM
Time of Injection: 8/5/04 10:56 PM
Low Point : 12.15 mV High Point : 333.10 mV
Plot Scale: 321.0 mV

97-4.5'



Curtis & Tompkins, Ltd.

Total Extractable Hydrocarbons

Lab #:	173776	Location:	4311-4333 MACARTHUR BLVD.
Client:	Questa Engineering Corporation	Prep:	SHAKER TABLE
Project#:	STANDARD	Analysis:	EPA 8015B
Matrix:	Soil	Sampled:	08/02/04
Units:	mg/Kg	Received:	08/02/04
Basis:	as received	Prepared:	08/05/04
Batch#:	93510		

Type:	BLANK	Analyzed:	08/06/04
Lab ID:	QC260263	Cleanup Method:	EPA 3630C
Diln Fac:	1.000		

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

Surrogate	%REC	Limits
Hexacosane	91	52-131

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

Curtis & Tompkins, Ltd.

Batch QC Report

Total Extractable Hydrocarbons

Lab #:	173776	Location:	4311-4333 MACARTHUR BLVD.
Client:	Questa Engineering Corporation	Prep:	SHAKER TABLE
Project#:	STANDARD	Analysis:	EPA 8015B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC260264	Batch#:	93510
Matrix:	Soil	Prepared:	08/05/04
Units:	mg/Kg	Analyzed:	08/06/04
Basis:	as received		

Cleanup Method: EPA 3630C

Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24	49.94	41.24	83	56-129

Surrogate	%REC	Limits
Hexacosane	83	52-131

Curtis & Tompkins, Ltd.

Batch QC Report

Total Extractable Hydrocarbons

Lab #:	173776	Location:	4311-4333 MACARTHUR BLVD.
Client:	Questa Engineering Corporation	Prep:	SHAKER TABLE
Project#:	STANDARD	Analysis:	EPA 8015B
Field ID:	ZZZZZZZZZZ	Batch#:	93510
MSS Lab ID:	173796-001	Sampled:	08/03/04
Matrix:	Soil	Received:	08/03/04
Units:	mg/Kg	Prepared:	08/05/04
Basis:	as received	Analyzed:	08/06/04
Diln Fac:	1.000		

Type: MS
Lab ID: QC260265

Cleanup Method: EPA 3630C

Analyte	MSS Result	Spiked	Result	%REC	Limits
Diesel C10-C24	1.332	49.80	71.54	141	27-146

Surrogate	%REC	Limits
Hexacosane	118	52-131

Type: MSD
Lab ID: QC260266

Cleanup Method: EPA 3630C

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Diesel C10-C24	50.36	71.23	139	27-146	2	50

Surrogate	%REC	Limits
Hexacosane	115	52-131

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878
2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

ANALYTICAL REPORT

Prepared for:

Questa Engineering Corporation
1220 Brickyard Cove Road
Suite 206
Point Richmond, CA 94801

Date: 18-AUG-04
Lab Job Number: 173909
Project ID: STANDARD
Location: MacArthur, Oakland

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

173704

0037.CDR

Client: M. Douglas Construction, Inc.	Report To: Questa	Site Name: 4311-4333 MacArthur Blvd, Oakland
Address: 1101 Northgate Road Walnut Creek, CA 94598	Bill To: Questa	Project Manager: W. Hopkins
	Billing Reference: MacArthur, Oakland	Requested Due Date: Normal Turnaround (8-17-04)
	Project No.: 240126	
Phone: (925) 932-3559		
Sampled by (Print): W. Hopkins/D. Farrow		
Sampler Signature: W. Hopkins		
Date Sampled: 8-02-04		

ITEM NO.	SAMPLE DESCRIPTION	TIME	MATRIX	CONT. TYPE	NO. OF CONTAINERS	UNPRESERVED	H_2SO_4	HNO_3	VOA		TPH (gas)/BTEX	TPH diesel/mp. w/Silica gel	CAM 17	VOCs			REMARKS
1.	COMP 1 (Q1-Q5)		Soil	Glass	1						X	X	X	H	H		Homogenize Sample
2.																	
3.																	H - hold until
4.																	instructed to analyze
5.																	
6.																	
7.																	
8.																	
9.																	

COOLER NOS.	BAILERS	SHIP OUT DATE	RETURNED DATE

ITEM NO.	RELINQUISHED BY/AFFILIATION	ACCEPTED BY/AFFILIATION	DATE	TIME
	[signature]	[signature] CHT	8/10/04	1245

Additional Comments:

Received ☐ On Ice ☐ Cold ☐ Ambient ☒ Intact

Questa Engineering Corporation

1220 Brickyard Cove Road
Point Richmond, CA 94807

P.O. Box 70356
Phone: (510) 236-6114
FAX: (510) 236-2423

CHAIN-OF-CUSTODY RECORD
ANALYTICAL REQUEST

1220 Brickyard Cove Road, Suite 206
Richmond, California 94807
Phone: 510-236-6114
Fax: 510-236-2423

Questa Engineering Corporation.

Fax Transmittal

To: Ms. Pat Flynn
Curtis and Tompkins

From: Will Hopkins

Fax: 486-0532

FAXED

Date: August 10, 2004

Phone:

Pages: 2

Re:

CC:

Urgent ☐ **For Review** ☐ **Please Comment** ☐ **Please Reply** ☐ **Please Recycle**

•Comments:

Hi Pat,

Attached is the revised Chain of custody and analytical test request form.

Sincerely,

Will Hopkins, CEG

Senior Engineering Geologist

17209

0037.CDR

Client: M. Douglas Construction, Inc.	Report To: Questa	Site Name: 4311-4333 MacArthur Blvd, Oakland
Address: 1101 Northgate Road Walnut Creek, CA 94598	Bill To: Questa	Project Manager: W. Hopkins
	Billing Reference: MacArthur, Oakland	Requested Due Date: Normal Turnaround (8-17-04)
	Project No.: 240126	
Phone: (925) 932-3559		
Sampled by (Print): W. Hopkins/D. Farrow		
Sampler Signature: W. Hopkins		
Date Sampled: 8-02-04		

ITEM NO.	SAMPLE DESCRIPTION	TIME	MATRIX	CONT. TYPE	NO. OF CONTAINERS	UNPRESERVED	H_2SO_4	HNO_3	VOA	Cold		TPH gas w/ BTEX/MTBE	TPH diesel/mo. w/ silica gel	TPH diesel/mo. w/ silica gel	H	VOCs (EPA 8260)	LUFT 5 metals (Pb, Ni, Zn, Cd, Cr)		REMARKS
1.	COMP 1 (Q1-Q5)		Soil	Glass	1					+		X	X	X	H	X	X		Homogenize sample
2.																			~~H - hold until we~~
3.																			~~instructed to analyze~~
4.																			
5.																			
6.																			
7.																			
8.																			
9.																			

COOLER NOS.	BAILERS	SHIP OUT DATE	RETURNED DATE	ITEM NO.	RELINQUISHED BY/AFFILIATION	ACCEPTED BY/AFFILIATION	DATE	TIME
					W. Hopkins / Questa	Lavanna / C&T	8/10/04	1245

Additional Comments:

Received ☐ On ice ☐ Cold ☐ Ambient ☒ Intact

Questa Engineering Corporation

1220 Brickyard Cove Road
Point Richmond, CA 94807

P.O. Box 70356
Phone: (510) 236-6114
FAX: (510) 236-2423

CHAIN-OF-CUSTODY RECORD
ANALYTICAL REQUEST

Curtis & Tompkins, Ltd.

Total Extractable Hydrocarbons

Lab #:	173909	Location:	MacArthur, Oakland
Client:	Questa Engineering Corporation	Prep:	SHAKER TABLE
Project#:	STANDARD	Analysis:	EPA 8015B
Field ID:	COMP 1 (Q1-Q5)	Batch#:	93751
Matrix:	Soil	Sampled:	08/02/04
Units:	mg/Kg	Received:	08/10/04
Basis:	as received	Prepared:	08/13/04
Diln Fac:	1.000	Analyzed:	08/13/04

Type: SAMPLE Cleanup Method: EPA 3630C
Lab ID: 173909-001

Analyte	Result	RL
Diesel C10-C24	16 H Y	1.0
Motor Oil C24-C36	64	5.0

Surrogate	%REC	Limits
Hexacosane	111	55-134

Type: BLANK Cleanup Method: EPA 3630C
Lab ID: QC261210

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

Surrogate	%REC	Limits
Hexacosane	102	55-134

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

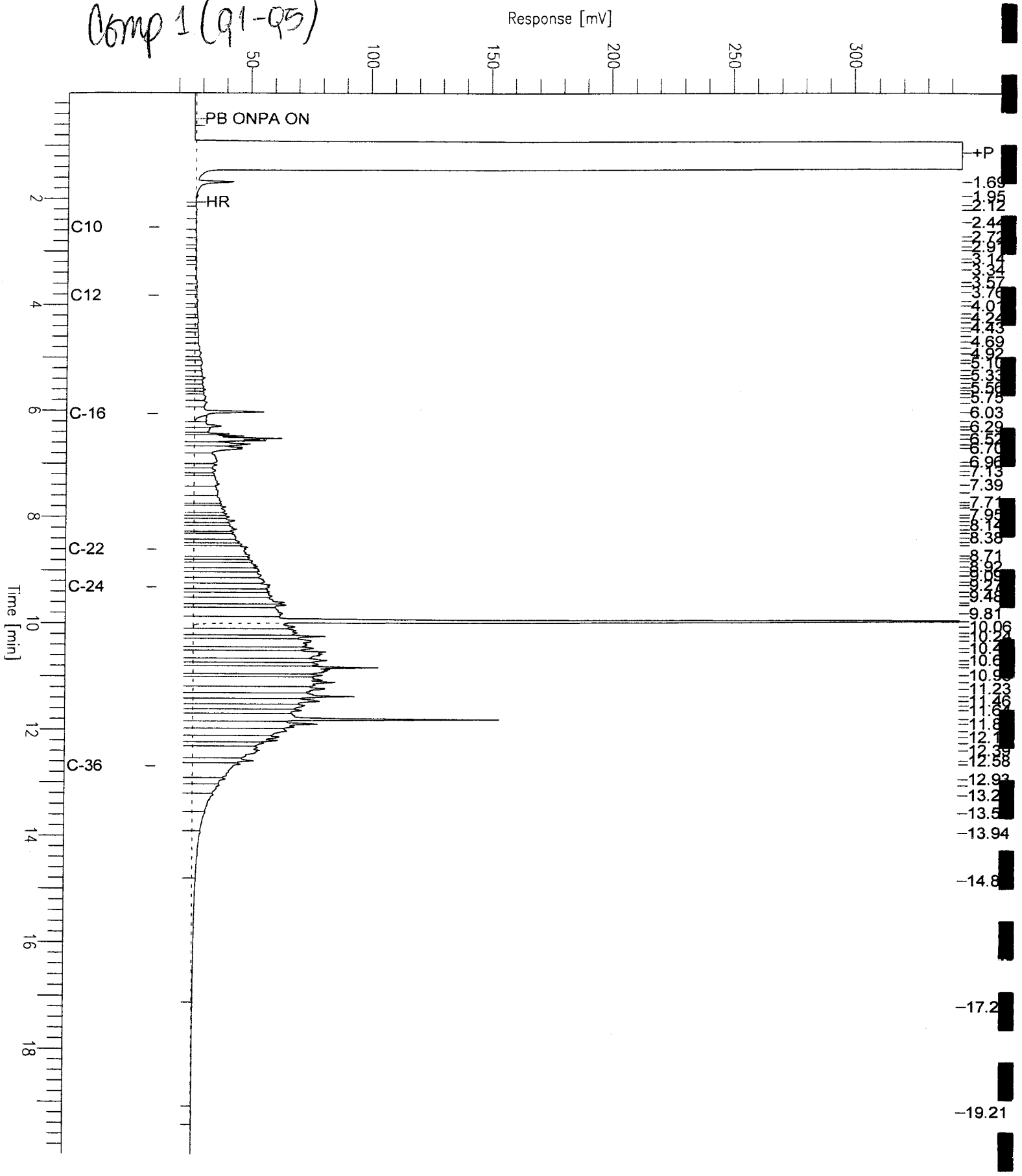
9.0

Chromatogram

Sample Name : 173909-001sg,93751
FileName : G:\GC15\CHB\226B014.RAW
Method : BTEH224S.MTH
Start Time : 0.01 min End Time : 19.99 min
Scale Factor: 0.0 Plot Offset: 12 mV

Sample #: 93751 Page 1 of 1
Date : 8/15/04 02:19 PM
Time of Injection: 8/13/04 11:58 PM
Low Point : 11.71 mV High Point : 344.08 mV
Plot Scale: 332.4 mV

Comp 1 (Q1-Q5)

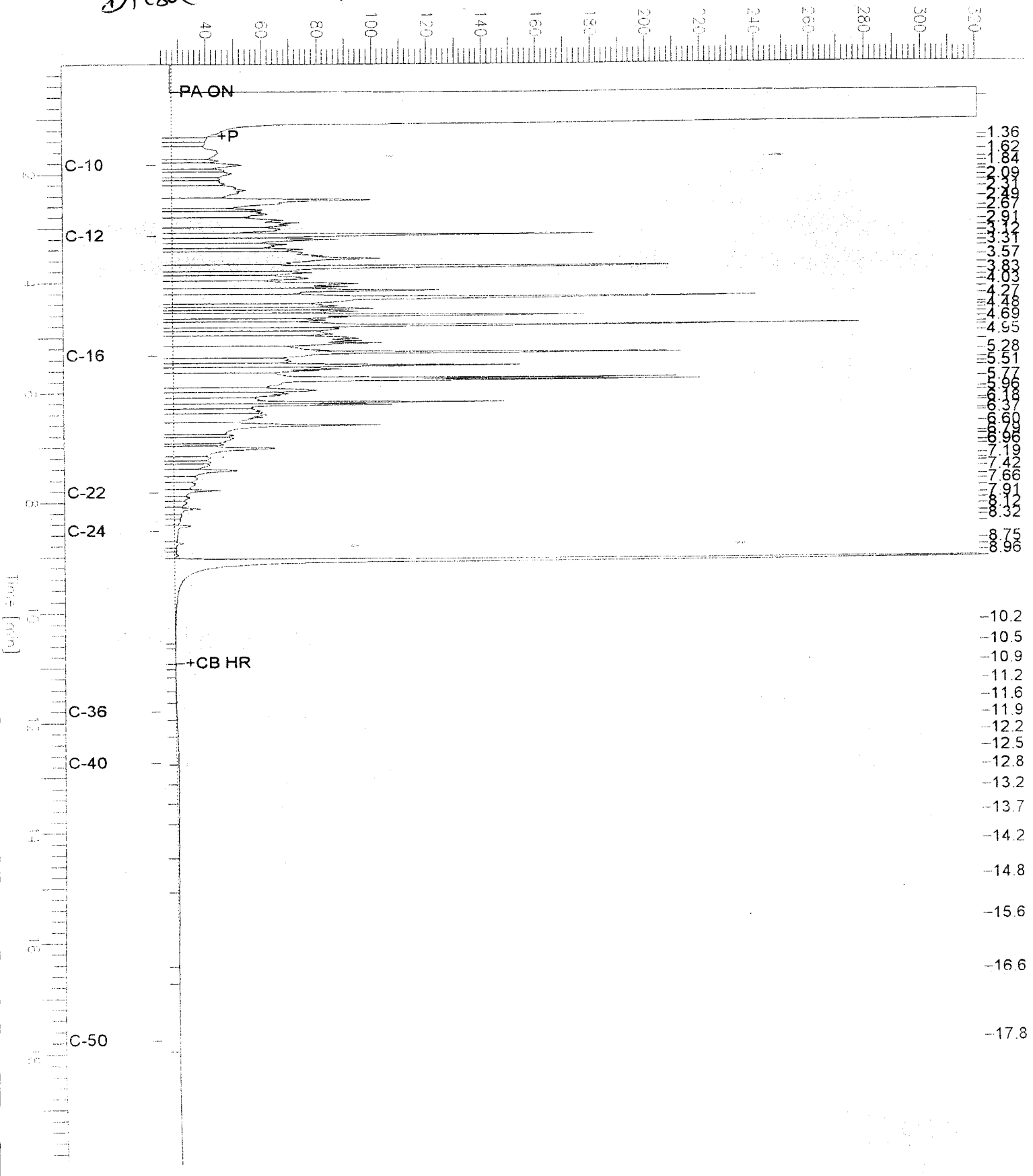


Chromatogram

Sample Name : ccv,04ws1410,dsl
FileName : G:\GC17\CHA\226A003.RAW
Method : ATEH212.MTH
Start Time : 0.01 min End Time : 19.99 min
Scale Factor: 0.0 Plot Offset: 22 mV

Sample #: 500mg/L Page 1 of 1
Date : 8/13/04 04:28 PM
Time of Injection: 8/13/04 03:50 PM
Low Point : 22.10 mV High Point : 320.69 mV
Plot Scale: 298.6 mV

Diesel Standard



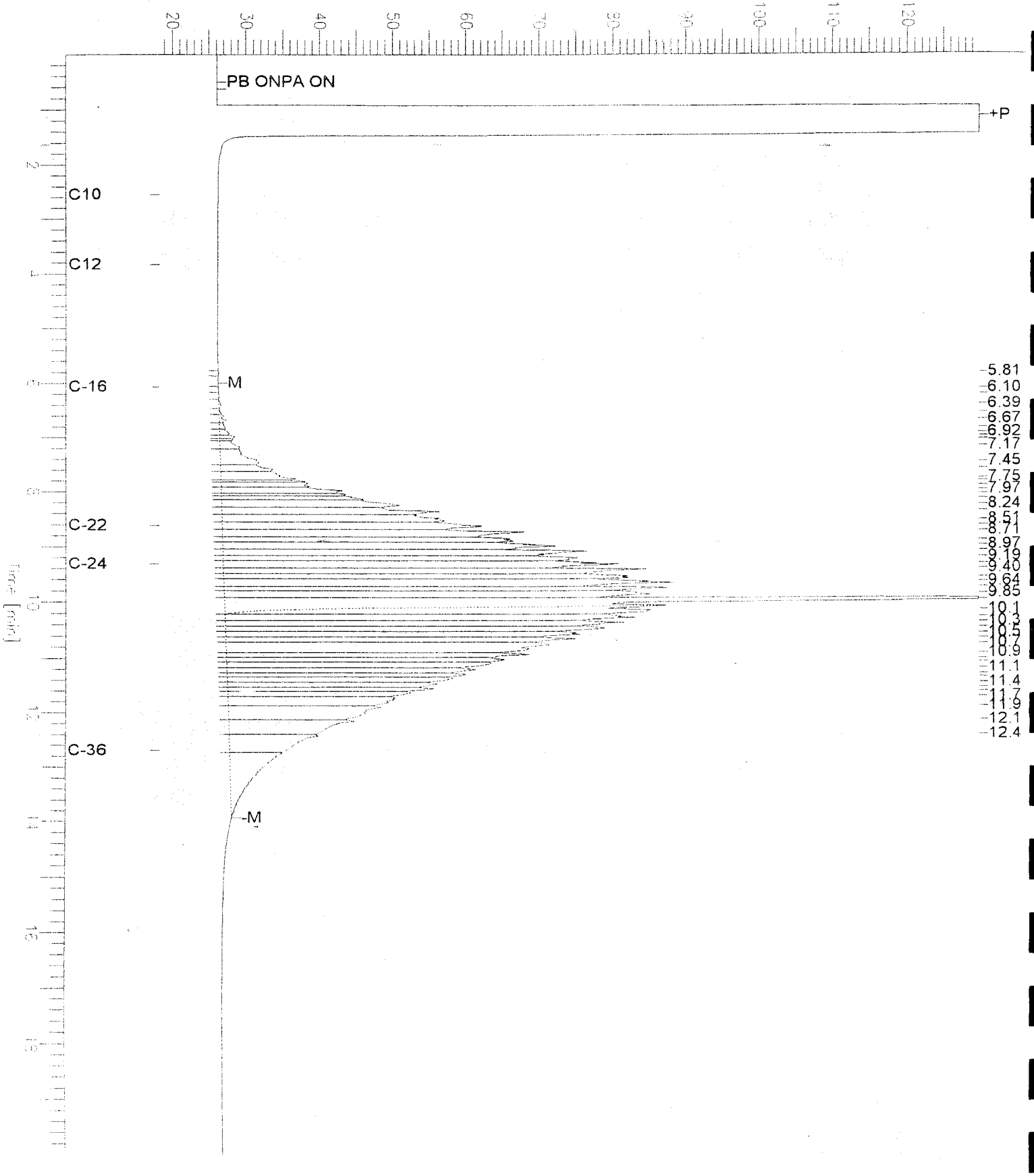
Chromatogram

Sample Name : ccv,04ws1425,mo
FileName : G:\GC15\CHB\226B004.RAW
Method : BTEH224S.MTH
Start Time : 0.01 min End Time : 19.99 min
Scale Factor: 0.0 Plot Offset: 18 mV

Sample #: [illegible] Page 1 of 1
Date : 8/13/04 04:47 PM
Time of Injection: 8/13/04 04:16 PM
Low Point : 18.37 mV High Point : 129.92 mV
Plot Scale: 111.7 mV

Motor Oil Standard

Response [mV]



Curtis & Tompkins, Ltd.

Batch QC Report

Total Extractable Hydrocarbons

Lab #:	173909	Location:	MacArthur, Oakland
Client:	Questa Engineering Corporation	Prep:	SHAKER TABLE
Project#:	STANDARD	Analysis:	EPA 8015B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC261211	Batch#:	93751
Matrix:	Soil	Prepared:	08/13/04
Units:	mg/Kg	Analyzed:	08/13/04
Basis:	as received		

Cleanup Method: EPA 3630C

Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24	50.33	54.67	109	56-134

Surrogate	%REC	Limits
Hexacosane	113	55-134

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	173909	Location:	MacArthur, Oakland
Client:	Questa Engineering Corporation	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Field ID:	COMP 1 (Q1-Q5)	Basis:	as received
Lab ID:	173909-001	Sampled:	08/02/04
Matrix:	Soil	Received:	08/10/04
Units:	ug/Kg		

Analyte	Result	RL	Diln Fac	Batch#	Analyzed
Freon 12	ND	9.1	0.9091	93704	08/12/04
Chloromethane	ND	9.1	0.9091	93704	08/12/04
Vinyl Chloride	ND	9.1	0.9091	93704	08/12/04
Bromomethane	ND	9.1	0.9091	93704	08/12/04
Chloroethane	ND	9.1	0.9091	93704	08/12/04
Trichlorofluoromethane	ND	4.5	0.9091	93704	08/12/04
Acetone	ND	500	25.00	93727	08/14/04
Freon 113	ND	4.5	0.9091	93704	08/12/04
1,1-Dichloroethene	ND	4.5	0.9091	93704	08/12/04
Methylene Chloride	ND	18	0.9091	93704	08/12/04
Carbon Disulfide	ND	4.5	0.9091	93704	08/12/04
MTBE	ND	4.5	0.9091	93704	08/12/04
trans-1,2-Dichloroethene	ND	4.5	0.9091	93704	08/12/04
Vinyl Acetate	ND	45	0.9091	93704	08/12/04
1,1-Dichloroethane	ND	4.5	0.9091	93704	08/12/04
2-Butanone	ND	9.1	0.9091	93704	08/12/04
cis-1,2-Dichloroethene	ND	4.5	0.9091	93704	08/12/04
2,2-Dichloropropane	ND	4.5	0.9091	93704	08/12/04
Chloroform	ND	4.5	0.9091	93704	08/12/04
Bromochloromethane	ND	4.5	0.9091	93704	08/12/04
1,1,1-Trichloroethane	ND	4.5	0.9091	93704	08/12/04
1,1-Dichloropropene	ND	4.5	0.9091	93704	08/12/04
Carbon Tetrachloride	ND	4.5	0.9091	93704	08/12/04
1,2-Dichloroethane	ND	4.5	0.9091	93704	08/12/04
Benzene	ND	4.5	0.9091	93704	08/12/04
Trichloroethene	ND	4.5	0.9091	93704	08/12/04
1,2-Dichloropropane	ND	4.5	0.9091	93704	08/12/04
Bromodichloromethane	ND	4.5	0.9091	93704	08/12/04
Dibromomethane	ND	4.5	0.9091	93704	08/12/04
4-Methyl-2-Pentanone	ND	9.1	0.9091	93704	08/12/04
cis-1,3-Dichloropropene	ND	4.5	0.9091	93704	08/12/04
Toluene	ND	4.5	0.9091	93704	08/12/04
trans-1,3-Dichloropropene	ND	4.5	0.9091	93704	08/12/04
1,1,2-Trichloroethane	ND	4.5	0.9091	93704	08/12/04
2-Hexanone	ND	9.1	0.9091	93704	08/12/04
1,3-Dichloropropane	ND	4.5	0.9091	93704	08/12/04
Tetrachloroethene	ND	4.5	0.9091	93704	08/12/04
Dibromochloromethane	ND	4.5	0.9091	93704	08/12/04

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	173909	Location:	MacArthur, Oakland
Client:	Questa Engineering Corporation	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Field ID:	COMP 1 (Q1-Q5)	Basis:	as received
Lab ID:	173909-001	Sampled:	08/02/04
Matrix:	Soil	Received:	08/10/04
Units:	ug/Kg		

Analyte	Result	RL	Diln Fac	Batch#	Analyzed
1,2-Dibromoethane	ND	4.5	0.9091	93704	08/12/04
Chlorobenzene	ND	4.5	0.9091	93704	08/12/04
1,1,1,2-Tetrachloroethane	ND	4.5	0.9091	93704	08/12/04
Ethylbenzene	ND	4.5	0.9091	93704	08/12/04
m,p-Xylenes	ND	4.5	0.9091	93704	08/12/04
o-Xylene	ND	4.5	0.9091	93704	08/12/04
Styrene	ND	4.5	0.9091	93704	08/12/04
Bromoform	ND	4.5	0.9091	93704	08/12/04
Isopropylbenzene	ND	4.5	0.9091	93704	08/12/04
1,1,2,2-Tetrachloroethane	ND	4.5	0.9091	93704	08/12/04
1,2,3-Trichloropropane	ND	4.5	0.9091	93704	08/12/04
Propylbenzene	ND	4.5	0.9091	93704	08/12/04
Bromobenzene	ND	4.5	0.9091	93704	08/12/04
1,3,5-Trimethylbenzene	ND	4.5	0.9091	93704	08/12/04
2-Chlorotoluene	ND	4.5	0.9091	93704	08/12/04
4-Chlorotoluene	ND	4.5	0.9091	93704	08/12/04
tert-Butylbenzene	ND	4.5	0.9091	93704	08/12/04
1,2,4-Trimethylbenzene	ND	4.5	0.9091	93704	08/12/04
sec-Butylbenzene	ND	4.5	0.9091	93704	08/12/04
para-Isopropyl Toluene	ND	4.5	0.9091	93704	08/12/04
1,3-Dichlorobenzene	ND	4.5	0.9091	93704	08/12/04
1,4-Dichlorobenzene	ND	4.5	0.9091	93704	08/12/04
n-Butylbenzene	ND	4.5	0.9091	93704	08/12/04
1,2-Dichlorobenzene	ND	4.5	0.9091	93704	08/12/04
1,2-Dibromo-3-Chloropropane	ND	4.5	0.9091	93704	08/12/04
1,2,4-Trichlorobenzene	ND	4.5	0.9091	93704	08/12/04
Hexachlorobutadiene	ND	4.5	0.9091	93704	08/12/04
Naphthalene	ND	4.5	0.9091	93704	08/12/04
1,2,3-Trichlorobenzene	ND	4.5	0.9091	93704	08/12/04

Surrogate	%REC	Limits	Diln Fac	Batch#	Analyzed
Dibromofluoromethane	98	79-120	0.9091	93704	08/12/04
1,2-Dichloroethane-d4	99	80-120	0.9091	93704	08/12/04
Toluene-d8	97	80-120	0.9091	93704	08/12/04
Bromofluorobenzene	103	80-121	0.9091	93704	08/12/04

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	173909	Location:	MacArthur, Oakland
Client:	Questa Engineering Corporation	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Type:	BLANK	Basis:	as received
Lab ID:	QC261014	Diln Fac:	1.000
Matrix:	Soil	Batch#:	93704
Units:	ug/Kg	Analyzed:	08/12/04

Analyte	Result	RL
Freon 12	ND	10
Chloromethane	ND	10
Vinyl Chloride	ND	10
Bromomethane	ND	10
Chloroethane	ND	10
Trichlorofluoromethane	ND	5.0
Acetone	ND	20
Freon 113	ND	5.0
1,1-Dichloroethene	ND	5.0
Methylene Chloride	ND	20
Carbon Disulfide	ND	5.0
MTBE	ND	5.0
trans-1,2-Dichloroethene	ND	5.0
Vinyl Acetate	ND	50
1,1-Dichloroethane	ND	5.0
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	5.0
2,2-Dichloropropane	ND	5.0
Chloroform	ND	5.0
Bromochloromethane	ND	5.0
1,1,1-Trichloroethane	ND	5.0
1,1-Dichloropropene	ND	5.0
Carbon Tetrachloride	ND	5.0
1,2-Dichloroethane	ND	5.0
Benzene	ND	5.0
Trichloroethene	ND	5.0
1,2-Dichloropropane	ND	5.0
Bromodichloromethane	ND	5.0
Dibromomethane	ND	5.0
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	5.0
Toluene	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
1,1,2-Trichloroethane	ND	5.0
2-Hexanone	ND	10
1,3-Dichloropropane	ND	5.0
Tetrachloroethene	ND	5.0

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	173909	Location:	MacArthur, Oakland
Client:	Questa Engineering Corporation	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Type:	BLANK	Basis:	as received
Lab ID:	QC261014	Diln Fac:	1.000
Matrix:	Soil	Batch#:	93704
Units:	ug/Kg	Analyzed:	08/12/04

Analyte	Result	RL
Dibromochloromethane	ND	5.0
1,2-Dibromoethane	ND	5.0
Chlorobenzene	ND	5.0
1,1,1,2-Tetrachloroethane	ND	5.0
Ethylbenzene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0
Styrene	ND	5.0
Bromoform	ND	5.0
Isopropylbenzene	ND	5.0
1,1,2,2-Tetrachloroethane	ND	5.0
1,2,3-Trichloropropane	ND	5.0
Propylbenzene	ND	5.0
Bromobenzene	ND	5.0
1,3,5-Trimethylbenzene	ND	5.0
2-Chlorotoluene	ND	5.0
4-Chlorotoluene	ND	5.0
tert-Butylbenzene	ND	5.0
1,2,4-Trimethylbenzene	ND	5.0
sec-Butylbenzene	ND	5.0
para-Isopropyl Toluene	ND	5.0
1,3-Dichlorobenzene	ND	5.0
1,4-Dichlorobenzene	ND	5.0
n-Butylbenzene	ND	5.0
1,2-Dichlorobenzene	ND	5.0
1,2-Dibromo-3-Chloropropane	ND	5.0
1,2,4-Trichlorobenzene	ND	5.0
Hexachlorobutadiene	ND	5.0
Naphthalene	ND	5.0
1,2,3-Trichlorobenzene	ND	5.0

Surrogate	%REC	Limits
Dibromofluoromethane	93	79-120
1,2-Dichloroethane-d4	101	80-120
Toluene-d8	96	80-120
Bromofluorobenzene	99	80-121

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	173909	Location:	MacArthur, Oakland
Client:	Questa Engineering Corporation	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC261116	Batch#:	93727
Matrix:	Water	Analyzed:	08/13/04
Units:	ug/L		

Analyte	Result	RL
Freon 12	ND	10
Chloromethane	ND	10
Vinyl Chloride	ND	10
Bromomethane	ND	10
Chloroethane	ND	10
Trichlorofluoromethane	ND	5.0
Acetone	ND	20
Freon 113	ND	5.0
1,1-Dichloroethene	ND	5.0
Methylene Chloride	ND	20
Carbon Disulfide	ND	5.0
MTBE	ND	5.0
trans-1,2-Dichloroethene	ND	5.0
Vinyl Acetate	ND	50
1,1-Dichloroethane	ND	5.0
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	5.0
2,2-Dichloropropane	ND	5.0
Chloroform	ND	5.0
Bromochloromethane	ND	5.0
1,1,1-Trichloroethane	ND	5.0
1,1-Dichloropropene	ND	5.0
Carbon Tetrachloride	ND	5.0
1,2-Dichloroethane	ND	5.0
Benzene	ND	5.0
Trichloroethene	ND	5.0
1,2-Dichloropropane	ND	5.0
Bromodichloromethane	ND	5.0
Dibromomethane	ND	5.0
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	5.0
Toluene	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
1,1,2-Trichloroethane	ND	5.0
2-Hexanone	ND	10
1,3-Dichloropropane	ND	5.0
Tetrachloroethene	ND	5.0
Dibromochloromethane	ND	5.0
1,2-Dibromoethane	ND	5.0
Chlorobenzene	ND	5.0
1,1,1,2-Tetrachloroethane	ND	5.0
Ethylbenzene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0
Styrene	ND	5.0
Bromoform	ND	5.0
Isopropylbenzene	ND	5.0
1,1,2,2-Tetrachloroethane	ND	5.0
1,2,3-Trichloropropane	ND	5.0
Propylbenzene	ND	5.0
Bromobenzene	ND	5.0
1,3,5-Trimethylbenzene	ND	5.0
2-Chlorotoluene	ND	5.0
4-Chlorotoluene	ND	5.0

ND= Not Detected
NS= Not Spiked
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	173909	Location:	MacArthur, Oakland
Client:	Questa Engineering Corporation	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC261116	Batch#:	93727
Matrix:	Water	Analyzed:	08/13/04
Units:	ug/L		

Analyte	Result	RL
tert-Butylbenzene	ND	5.0
1,2,4-Trimethylbenzene	ND	5.0
sec-Butylbenzene	ND	5.0
para-Isopropyl Toluene	ND	5.0
1,3-Dichlorobenzene	ND	5.0
1,4-Dichlorobenzene	ND	5.0
n-Butylbenzene	ND	5.0
1,2-Dichlorobenzene	ND	5.0
1,2-Dibromo-3-Chloropropane	ND	5.0
1,2,4-Trichlorobenzene	ND	5.0
Hexachlorobutadiene	ND	5.0
Naphthalene	ND	5.0
1,2,3-Trichlorobenzene	ND	5.0

Surrogate	%REC	Limits
Dibromofluoromethane	103	79-120
1,2-Dichloroethane-d4	116	80-120
Toluene-d8	106	80-120
Bromofluorobenzene	103	80-121
Trifluorotoluene	NS	60-140

ND= Not Detected
NS= Not Spiked
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	173909	Location:	MacArthur, Oakland
Client:	Questa Engineering Corporation	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Type:	LCS	Basis:	as received
Lab ID:	QC261013	Diln Fac:	1.000
Matrix:	Soil	Batch#:	93704
Units:	ug/Kg	Analyzed:	08/12/04

Analyte	Spiked	Result	%REC	Limits
1,1-Dichloroethene	50.00	45.47	91	76-121
Benzene	50.00	48.17	96	80-120
Trichloroethene	50.00	46.88	94	80-120
Toluene	50.00	46.63	93	80-120
Chlorobenzene	50.00	46.39	93	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	88	79-120
1,2-Dichloroethane-d4	99	80-120
Toluene-d8	96	80-120
Bromofluorobenzene	98	80-121

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	173909	Location:	MacArthur, Oakland
Client:	Questa Engineering Corporation	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	93727
Units:	ug/L	Analyzed:	08/13/04
Diln Fac:	1.000		

Type: BS Lab ID: QC261113

Analyte	Spiked	Result	%REC	Limits
1,1-Dichloroethene	50.00	51.19	102	76-121
Benzene	50.00	51.78	104	80-120
Trichloroethene	50.00	49.37	99	80-120
Toluene	50.00	52.29	105	80-120
Chlorobenzene	50.00	51.43	103	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	102	79-120
1,2-Dichloroethane-d4	104	80-120
Toluene-d8	97	80-120
Bromofluorobenzene	91	80-121

Type: BSD Lab ID: QC261114

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	50.00	48.73	97	76-121	5	20
Benzene	50.00	47.72	95	80-120	8	20
Trichloroethene	50.00	46.43	93	80-120	6	20
Toluene	50.00	51.78	104	80-120	1	20
Chlorobenzene	50.00	48.93	98	80-120	5	20

Surrogate	%REC	Limits
Dibromofluoromethane	105	79-120
1,2-Dichloroethane-d4	108	80-120
Toluene-d8	103	80-120
Bromofluorobenzene	100	80-121

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	173909	Location:	MacArthur, Oakland
Client:	Questa Engineering Corporation	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Field ID:	ZZZZZZZZZZ	Diln Fac:	0.9804
MSS Lab ID:	173951-021	Batch#:	93704
Matrix:	Soil	Sampled:	08/11/04
Units:	ug/Kg	Received:	08/11/04
Basis:	as received	Analyzed:	08/12/04

Type: MS Lab ID: QC261036

Analyte	MSS Result	Spiked	Result	%REC	Limits
1,1-Dichloroethene	<0.4400	49.02	39.18	80	66-120
Benzene	<0.05400	49.02	38.74	79	67-120
Trichloroethene	<0.1100	49.02	37.12	76	60-129
Toluene	<0.1300	49.02	36.70	75	59-120
Chlorobenzene	<0.07500	49.02	31.74	65	56-120

Surrogate	%REC	Limits
Dibromofluoromethane	92	79-120
1,2-Dichloroethane-d4	101	80-120
Toluene-d8	98	80-120
Bromofluorobenzene	99	80-121

Type: MSD Lab ID: QC261037

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	49.02	38.36	78	66-120	2	20
Benzene	49.02	38.01	78	67-120	2	20
Trichloroethene	49.02	35.78	73	60-129	4	20
Toluene	49.02	34.44	70	59-120	6	20
Chlorobenzene	49.02	30.14	61	56-120	5	20

Surrogate	%REC	Limits
Dibromofluoromethane	92	79-120
1,2-Dichloroethane-d4	99	80-120
Toluene-d8	95	80-120
Bromofluorobenzene	99	80-121

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

California LUFT Metals

Lab #:	173909	Location:	MacArthur, Oakland
Client:	Questa Engineering Corporation	Prep:	EPA 3050
Project#:	STANDARD	Analysis:	EPA 6010B
Field ID:	COMP 1 (Q1-Q5)	Batch#:	93723
Matrix:	Soil	Sampled:	08/02/04
Units:	mg/Kg	Received:	08/10/04
Basis:	as received	Prepared:	08/13/04
Diln Fac:	1.000	Analyzed:	08/13/04

Type: SAMPLE Lab ID: 173909-001

Analyte	Result	RL
Cadmium	0.33	0.21
Chromium	33	0.43
Lead	15	0.13
Nickel	22	0.85
Zinc	37	0.85

Type: BLANK Lab ID: QC261088

Analyte	Result	RL
Cadmium	ND	0.25
Chromium	ND	0.50
Lead	ND	0.15
Nickel	ND	1.0
Zinc	ND	1.0

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

California LUFT Metals

Lab #:	173909	Location:	MacArthur, Oakland
Client:	Questa Engineering Corporation	Prep:	EPA 3050
Project#:	STANDARD	Analysis:	EPA 6010B
Matrix:	Soil	Batch#:	93723
Units:	mg/Kg	Prepared:	08/13/04
Basis:	as received	Analyzed:	08/13/04
Diln Fac:	1.000		

Type: BS Lab ID: QC261089

Analyte	Spiked	Result	%REC	Limits
Cadmium	10.00	9.350	94	80-120
Chromium	100.0	100.0	100	80-120
Lead	100.0	100.0	100	80-120
Nickel	25.00	24.05	96	80-120
Zinc	25.00	23.95	96	80-120

Type: BSD Lab ID: QC261090

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Cadmium	10.00	9.600	96	80-120	3	20
Chromium	100.0	102.5	103	80-120	2	20
Lead	100.0	102.5	103	80-120	2	20
Nickel	25.00	24.70	99	80-120	3	20
Zinc	25.00	24.80	99	80-120	3	20

RPD= Relative Percent Difference

7.0

Curtis & Tompkins, Ltd.

Batch QC Report

California LUFT Metals

Lab #:	173909	Location:	MacArthur, Oakland
Client:	Questa Engineering Corporation	Prep:	EPA 3050
Project#:	STANDARD	Analysis:	EPA 6010B
Field ID:	ZZZZZZZZZZ	Batch#:	93723
MSS Lab ID:	173923-001	Sampled:	08/05/04
Matrix:	Soil	Received:	08/05/04
Units:	mg/Kg	Prepared:	08/13/04
Basis:	as received	Analyzed:	08/13/04
Dil Fac:	1.000		

Type: MS Lab ID: QC261091

Analyte	MSS Result	Spiked	Result	%REC	Limits
Cadmium	0.5374	6.667	6.433	88	61-120
Chromium	32.94	66.67	92.33	89	60-120
Lead	3.636	66.67	62.00	88	47-126
Nickel	33.69	16.67	51.67	108	41-138
Zinc	31.68	16.67	50.67	114	38-144

Type: MSD Lab ID: QC261092

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Cadmium	9.259	8.843	90	61-120	1	20
Chromium	92.59	118.1	92	60-120	1	20
Lead	92.59	86.57	90	47-126	2	28
Nickel	23.15	58.33	106	41-138	0	22
Zinc	23.15	56.94	109	38-144	1	20

RPD= Relative Percent Difference

8.0

Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878
2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

ANALYTICAL REPORT

Prepared for:

Questa Engineering Corporation
1220 Brickyard Cove Road
Suite 206
Point Richmond, CA 94801

Date: 16-AUG-04
Lab Job Number: 173777
Project ID: STANDARD
Location: 4311-4333 MACARTHUR BLVD.

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

Client: M. Douglas Construction Inc.
Address: 1101 Northgate Road
Walnut Creek, CA 94598
Phone: (925) 932-3559
Sampled by (Print): W. Hopkins/D. Farrow
Sampler Signature: W. Hopkins
Date Sampled: 8/2/04

Report To: Questa
Bill To: Questa
Billing Reference: MacArthur/Oakland
Project No.: 240126

Site Name: 4311-4333 MacArthur Blvd, Oakland
Project Manager: W. Hopkins
Requested Due Date: Normal Turnaround
8/9/04

ITEM NO.	SAMPLE DESCRIPTION	TIME	MATRIX	CONT. TYPE	NO. OF CONTAINERS	UNPRESERVED	H_2SO_4	HNO_3	VOA	Cold	CAM 17 (6010/7471)	TPH G/BTEX (8015/8020)	TPH D/MO w/SGC	VOCs (8260)	Specific Metals (6010/7471)	REMARKS
1.	Composite 2 (R4, R5, R6, R9)		Soil	Glass	1					X	X		X	X		
2.																
3.																
4.																
5.																
6.																
7.																
8.																
9.																

COOLER NOS.	BAILERS	SHIP OUT DATE	RETURNED DATE

ITEM NO.	RELINQUISHED BY/AFFILIATION	ACCEPTED BY/AFFILIATION	DATE	TIME
1	Joseph Farrow	Lavanne Curtis	8-2-04	1744

Additional Comments:

Received ☐ On ice ☐ Cold ☐ Ambient ☑ Intact

Questa Engineering Corporation
1220 Brickyard Cove Road
Point Richmond, CA 94807
P.O. Box 70356
Phone: (510) 236-6114
FAX: (510) 236-2423

CHAIN-OF-CUSTODY RECORD
ANALYTICAL REQUEST

Curtis & Tompkins, Ltd.

Curtis & Tompkins Laboratories Analytical Report

Lab #:	173777	Location:	4311-4333 MACARTHUR BLVD.
Client:	Questa Engineering Corporation	Prep:	EPA 5030B
Project#:	STANDARD		
Field ID:	COMP2(Q4,Q5,Q6,Q9)	Batch#:	93434
Matrix:	Soil	Sampled:	08/02/04
Basis:	as received	Received:	08/02/04
Diln Fac:	1.000		

Type: SAMPLE Analyzed: 08/04/04
Lab ID: 173777-001

Analyte	Result	RL	Units	Analysis
Gasoline C7-C12	ND	0.98	mg/Kg	EPA 8015B
Benzene	ND	4.9	ug/Kg	EPA 8021B
Toluene	ND	4.9	ug/Kg	EPA 8021B
Ethylbenzene	ND	4.9	ug/Kg	EPA 8021B
m,p-Xylenes	ND	4.9	ug/Kg	EPA 8021B
o-Xylene	ND	4.9	ug/Kg	EPA 8021B

Surrogate	%REC	Limits	Analysis
Trifluorotoluene (FID)	75	71-138	EPA 8015B
Bromofluorobenzene (FID)	121	73-143	EPA 8015B
Trifluorotoluene (PID)	70	55-135	EPA 8021B
Bromofluorobenzene (PID)	114	58-135	EPA 8021B

Type: BLANK Analyzed: 08/03/04
Lab ID: QC259964

Analyte	Result	RL	Units	Analysis
Gasoline C7-C12	ND	0.20	mg/Kg	EPA 8015B
Benzene	ND	1.0	ug/Kg	EPA 8021B
Toluene	ND	1.0	ug/Kg	EPA 8021B
Ethylbenzene	ND	1.0	ug/Kg	EPA 8021B
m,p-Xylenes	ND	1.0	ug/Kg	EPA 8021B
o-Xylene	ND	1.0	ug/Kg	EPA 8021B

Surrogate	%REC	Limits	Analysis
Trifluorotoluene (FID)	85	71-138	EPA 8015B
Bromofluorobenzene (FID)	128	73-143	EPA 8015B
Trifluorotoluene (PID)	78	55-135	EPA 8021B
Bromofluorobenzene (PID)	122	58-135	EPA 8021B

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Curtis & Tompkins Laboratories Analytical Report

Lab #:	173777	Location:	4311-4333 MACARTHUR BLVD.
Client:	Questa Engineering Corporation	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8021B
Type:	BS	Basis:	as received
Lab ID:	QC259965	Diln Fac:	1.000
Matrix:	Soil	Batch#:	93434
Units:	ug/Kg	Analyzed:	08/03/04

Analyte	Spiked	Result	%REC	Limits
Benzene	100.0	93.43	93	80-120
Toluene	100.0	92.70	93	80-120
Ethylbenzene	100.0	93.77	94	79-120
m,p-Xylenes	100.0	91.70	92	80-120
o-Xylene	100.0	92.68	93	80-120

Surrogate	%REC	Limits
Trifluorotoluene (PID)	64	55-135
Bromofluorobenzene (PID)	101	58-135

Curtis & Tompkins, Ltd.

Batch QC Report

Curtis & Tompkins Laboratories Analytical Report

Lab #:	173777	Location:	4311-4333 MACARTHUR BLVD.
Client:	Questa Engineering Corporation	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8021B
Type:	BSD	Basis:	as received
Lab ID:	QC260015	Diln Fac:	1.000
Matrix:	Soil	Batch#:	93434
Units:	ug/Kg	Analyzed:	08/03/04

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Benzene	100.0	101.5	101	80-120	8	20
Toluene	100.0	99.87	100	80-120	7	20
Ethylbenzene	100.0	99.63	100	79-120	6	20
m,p-Xylenes	100.0	97.58	98	80-120	6	20
o-Xylene	100.0	99.16	99	80-120	7	20

Surrogate	%REC	Limits
Trifluorotoluene (PID)	72	55-135
Bromofluorobenzene (PID)	115	58-135

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

Curtis & Tompkins Laboratories Analytical Report

Lab #:	173777	Location:	4311-4333 MACARTHUR BLVD.
Client:	Questa Engineering Corporation	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8015B
Type:	LCS	Basis:	as received
Lab ID:	QC259966	Diln Fac:	1.000
Matrix:	Soil	Batch#:	93434
Units:	mg/Kg	Analyzed:	08/03/04

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	10.00	9.196	92	80-120

Surrogate	%REC	Limits
Trifluorotoluene (FID)	86	71-138
Bromofluorobenzene (FID)	117	73-143

Curtis & Tompkins, Ltd.

Batch QC Report

Curtis & Tompkins Laboratories Analytical Report

Lab #:	173777	Location:	4311-4333 MACARTHUR BLVD.
Client:	Questa Engineering Corporation	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8015B
Field ID:	ZZZZZZZZZZ	Diln Fac:	1.000
MSS Lab ID:	173799-001	Batch#:	93434
Matrix:	Soil	Sampled:	08/03/04
Units:	mg/Kg	Received:	08/03/04
Basis:	as received		

ype: MS Analyzed: 08/05/04
Lab ID: QC260016

Analyte	MSS Result	Spiked	Result	%REC	Limits
Gasoline C7-C12	<0.01200	1.664	1.250	75	47-120

Surrogate	%REC	Limits
Trifluorotoluene (FID)	116	71-138
Bromofluorobenzene (FID)	108	73-143

Type: MSD Analyzed: 08/04/04
ab ID: QC260017

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	1.969	1.090	55	47-120	30 *	23

Surrogate	%REC	Limits
Trifluorotoluene (FID)	133	71-138
Bromofluorobenzene (FID)	109	73-143

*= Value outside of QC limits; see narrative
PD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Total Extractable Hydrocarbons

Lab #:	173777	Location:	4311-4333 MACARTHUR BLVD.
Client:	Questa Engineering Corporation	Prep:	SHAKER TABLE
Project#:	STANDARD	Analysis:	EPA 8015B
Field ID:	COMP2(Q4,Q5,Q6,Q9)	Batch#:	93446
Matrix:	Soil	Sampled:	08/02/04
Units:	mg/Kg	Received:	08/02/04
Basis:	as received	Prepared:	08/03/04

Type:	SAMPLE	Analyzed:	08/05/04
Lab ID:	173777-001	Cleanup Method:	EPA 3630C
Dln Fac:	5.000		

Analyte	Result	RL
Diesel C10-C24	270 H Y	5.0
Motor Oil C24-C36	1,400	25

Surrogate	%REC	Limits
Hexacosane	88	52-131

Type:	BLANK	Analyzed:	08/04/04
Lab ID:	QC260010	Cleanup Method:	EPA 3630C
Dln Fac:	1.000		

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

Surrogate	%REC	Limits
Hexacosane	87	52-131

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

18.0

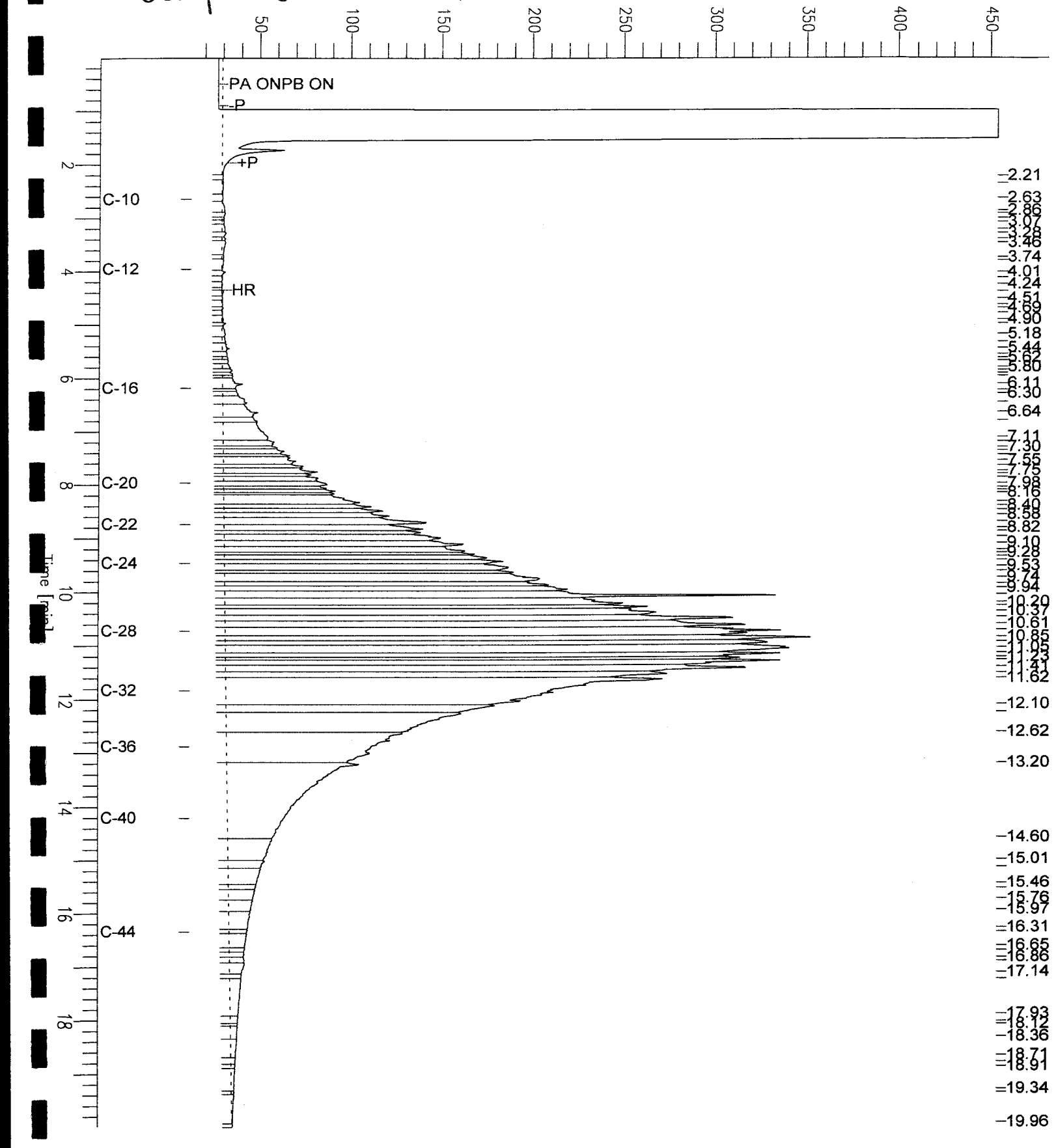
Chromatogram

sg SV 8/05/04

Sample Name : 173777-001,93446
FileName : G:\GC13\CHB\217B022.RAW
Method : BTEH210S.MTH
Start Time : 0.01 min End Time : 19.99 min
Scale Factor: 0.0 Plot Offset: 12 mV

Sample #: 93446 Page 1 of 1
Date : 8/5/04 08:57 AM
Time of Injection: 8/5/04 12:57 AM
Low Point : 12.27 mV High Point : 454.06 mV
Plot Scale: 441.8 mV

Comp 2 (Q4, Q5, Q6, Q9)

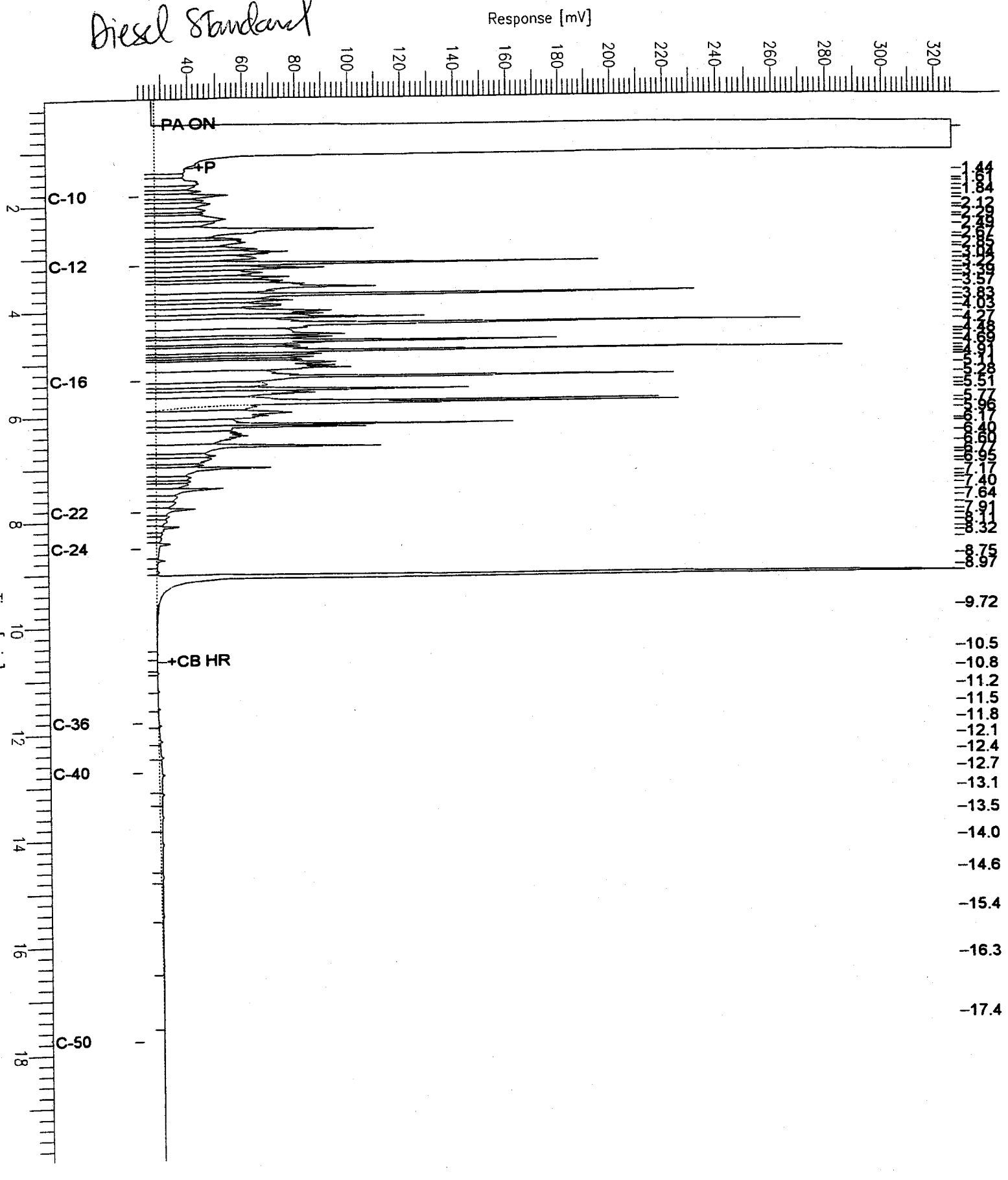


Chromatogram

Sample Name : ccv,04ws1410dsl
FileName : G:\GC17\CHA\217A003.RAW
Method : ATEH212.MTH
Start Time : 0.01 min End Time : 19.99 min
Scale Factor: 0.0 Plot Offset: 22 mV

Sample #: 500mg/L
Date : 8/4/04 01:57 PM
Time of Injection: 8/4/04 11:59 AM
Low Point : 21.75 mV High Point : 326.06 mV
Plot Scale: 304.3 mV

Diesel Standard

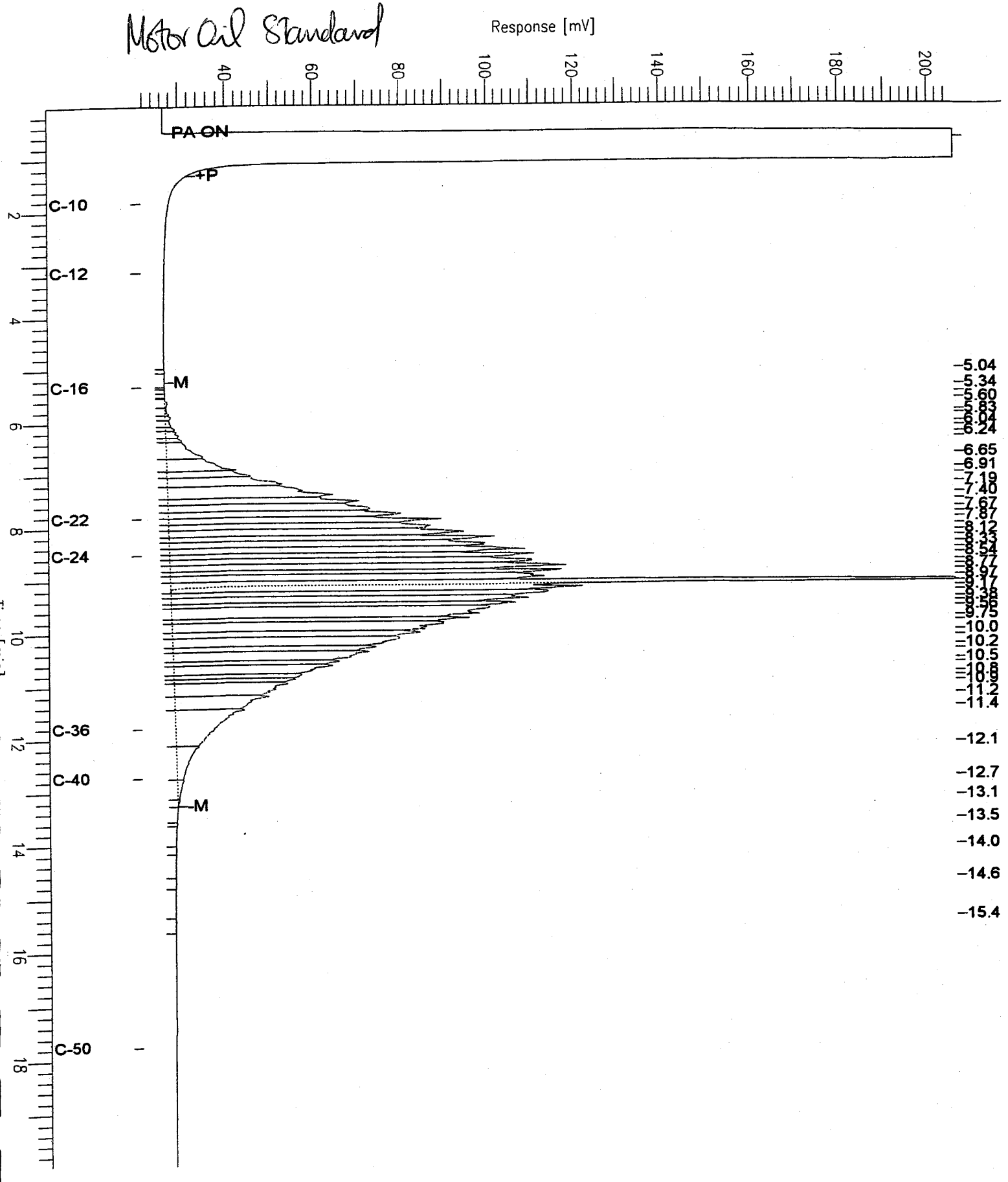


Chromatogram

Sample Name : ccv,04ws1425,mo
FileName : G:\GC17\CHA\217A004.RAW
Method : ATEH212.MTH
Start Time : 0.01 min End Time : 19.99 min
Scale Factor: 0.0 Plot Offset: 22 mV

Sample #: 500mg/L Page 1 of 1
Date : 8/4/04 01:59 PM
Time of Injection: 8/4/04 12:28 PM
Low Point : 21.68 mV High Point : 205.98 mV
Plot Scale: 184.3 mV

Motor Oil Standard



Curtis & Tompkins, Ltd.

Batch QC Report

Total Extractable Hydrocarbons

Lab #:	173777	Location:	4311-4333 MACARTHUR BLVD.
Client:	Questa Engineering Corporation	Prep:	SHAKER TABLE
Project#:	STANDARD	Analysis:	EPA 8015B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC260011	Batch#:	93446
Matrix:	Soil	Prepared:	08/03/04
Units:	mg/Kg	Analyzed:	08/04/04
Basis:	as received		

Cleanup Method: EPA 3630C

Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24	50.32	40.15	80	56-129

Surrogate	%REC	Limits
Hexacosane	78	52-131

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	173777	Location:	4311-4333 MACARTHUR BLVD.
Client:	Questa Engineering Corporation	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Field ID:	COMP2(Q4,Q5,Q6,Q9)	Diln Fac:	1.000
Lab ID:	173777-001	Batch#:	93429
Matrix:	Soil	Sampled:	08/02/04
Units:	ug/Kg	Received:	08/02/04
Basis:	as received	Analyzed:	08/03/04

Analyte	Result	RL
Freon 12	ND	10
Chloromethane	ND	10
Vinyl Chloride	ND	10
Bromomethane	ND	10
Chloroethane	ND	10
Trichlorofluoromethane	ND	5.0
Acetone	30	20
Freon 113	ND	5.0
1,1-Dichloroethene	ND	5.0
Methylene Chloride	87	20
Carbon Disulfide	ND	5.0
MTBE	ND	5.0
trans-1,2-Dichloroethene	ND	5.0
Vinyl Acetate	ND	50
1,1-Dichloroethane	ND	5.0
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	5.0
2,2-Dichloropropane	ND	5.0
Chloroform	ND	5.0
Bromochloromethane	ND	5.0
1,1,1-Trichloroethane	ND	5.0
1,1-Dichloropropene	ND	5.0
Carbon Tetrachloride	ND	5.0
1,2-Dichloroethane	ND	5.0
Benzene	ND	5.0
Trichloroethene	ND	5.0
1,2-Dichloropropane	ND	5.0
Bromodichloromethane	ND	5.0
Dibromomethane	ND	5.0
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	5.0
Toluene	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
1,1,2-Trichloroethane	ND	5.0
2-Hexanone	ND	10
1,3-Dichloropropane	ND	5.0
Tetrachloroethene	ND	5.0

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	173777	Location:	4311-4333 MACARTHUR BLVD.
Client:	Questa Engineering Corporation	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Field ID:	COMP2(Q4,Q5,Q6,Q9)	Diln Fac:	1.000
Lab ID:	173777-001	Batch#:	93429
Matrix:	Soil	Sampled:	08/02/04
Units:	ug/Kg	Received:	08/02/04
Basis:	as received	Analyzed:	08/03/04

Analyte	Result	RL
Dibromochloromethane	ND	5.0
1,2-Dibromoethane	ND	5.0
Chlorobenzene	ND	5.0
1,1,1,2-Tetrachloroethane	ND	5.0
Ethylbenzene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0
Styrene	ND	5.0
Bromoform	ND	5.0
Isopropylbenzene	ND	5.0
1,1,2,2-Tetrachloroethane	ND	5.0
1,2,3-Trichloropropane	ND	5.0
Propylbenzene	ND	5.0
Bromobenzene	ND	5.0
1,3,5-Trimethylbenzene	ND	5.0
2-Chlorotoluene	ND	5.0
4-Chlorotoluene	ND	5.0
tert-Butylbenzene	ND	5.0
1,2,4-Trimethylbenzene	ND	5.0
sec-Butylbenzene	ND	5.0
para-Isopropyl Toluene	ND	5.0
1,3-Dichlorobenzene	ND	5.0
1,4-Dichlorobenzene	ND	5.0
n-Butylbenzene	ND	5.0
1,2-Dichlorobenzene	ND	5.0
1,2-Dibromo-3-Chloropropane	ND	5.0
1,2,4-Trichlorobenzene	ND	5.0
Hexachlorobutadiene	ND	5.0
Naphthalene	ND	5.0
1,2,3-Trichlorobenzene	ND	5.0

Surrogate	%REC	Limits
Dibromofluoromethane	102	80-120
1,2-Dichloroethane-d4	98	80-120
Toluene-d8	100	80-120
Bromofluorobenzene	100	80-123

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	173777	Location:	4311-4333 MACARTHUR BLVD.
Client:	Questa Engineering Corporation	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Type:	BLANK	Basis:	as received
Lab ID:	QC259945	Diln Fac:	1.000
Matrix:	Soil	Batch#:	93429
Units:	ug/Kg	Analyzed:	08/03/04

Analyte	Result	RL
Freon 12	ND	10
Chloromethane	ND	10
Vinyl Chloride	ND	10
Bromomethane	ND	10
Chloroethane	ND	10
Trichlorofluoromethane	ND	5.0
Acetone	ND	20
Freon 113	ND	5.0
1,1-Dichloroethene	ND	5.0
Methylene Chloride	ND	20
Carbon Disulfide	ND	5.0
MTBE	ND	5.0
trans-1,2-Dichloroethene	ND	5.0
Vinyl Acetate	ND	50
1,1-Dichloroethane	ND	5.0
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	5.0
2,2-Dichloropropane	ND	5.0
Chloroform	ND	5.0
Bromochloromethane	ND	5.0
1,1,1-Trichloroethane	ND	5.0
1,1-Dichloropropene	ND	5.0
Carbon Tetrachloride	ND	5.0
1,2-Dichloroethane	ND	5.0
Benzene	ND	5.0
Trichloroethene	ND	5.0
1,2-Dichloropropane	ND	5.0
Bromodichloromethane	ND	5.0
Dibromomethane	ND	5.0
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	5.0
Toluene	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
1,1,2-Trichloroethane	ND	5.0
2-Hexanone	ND	10
1,3-Dichloropropane	ND	5.0
Tetrachloroethene	ND	5.0

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	173777	Location:	4311-4333 MACARTHUR BLVD.
Client:	Questa Engineering Corporation	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Type:	BLANK	Basis:	as received
Lab ID:	QC259945	Diln Fac:	1.000
Matrix:	Soil	Batch#:	93429
Units:	ug/Kg	Analyzed:	08/03/04

Analyte	Result	RL
Dibromochloromethane	ND	5.0
1,2-Dibromoethane	ND	5.0
Chlorobenzene	ND	5.0
1,1,1,2-Tetrachloroethane	ND	5.0
Ethylbenzene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0
Styrene	ND	5.0
Bromoform	ND	5.0
Isopropylbenzene	ND	5.0
1,1,2,2-Tetrachloroethane	ND	5.0
1,2,3-Trichloropropane	ND	5.0
Propylbenzene	ND	5.0
Bromobenzene	ND	5.0
1,3,5-Trimethylbenzene	ND	5.0
2-Chlorotoluene	ND	5.0
4-Chlorotoluene	ND	5.0
tert-Butylbenzene	ND	5.0
1,2,4-Trimethylbenzene	ND	5.0
sec-Butylbenzene	ND	5.0
para-Isopropyl Toluene	ND	5.0
1,3-Dichlorobenzene	ND	5.0
1,4-Dichlorobenzene	ND	5.0
n-Butylbenzene	ND	5.0
1,2-Dichlorobenzene	ND	5.0
1,2-Dibromo-3-Chloropropane	ND	5.0
1,2,4-Trichlorobenzene	ND	5.0
Hexachlorobutadiene	ND	5.0
Naphthalene	ND	5.0
1,2,3-Trichlorobenzene	ND	5.0

Surrogate	%REC	Limits
Dibromofluoromethane	103	80-120
1,2-Dichloroethane-d4	99	80-120
Toluene-d8	99	80-120
Bromofluorobenzene	98	80-123

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	173777	Location:	4311-4333 MACARTHUR BLVD.
Client:	Questa Engineering Corporation	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Matrix:	Soil	Diln Fac:	1.000
Units:	ug/Kg	Batch#:	93429
Basis:	as received	Analyzed:	08/03/04

Type: BS Lab ID: QC259943

Analyte	Spiked	Result	%REC	Limits
1,1-Dichloroethene	50.00	53.91	108	78-120
Benzene	50.00	54.12	108	80-120
Trichloroethene	50.00	52.24	104	80-120
Toluene	50.00	52.50	105	80-120
Chlorobenzene	50.00	52.56	105	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	95	80-120
1,2-Dichloroethane-d4	99	80-120
Toluene-d8	99	80-120
Bromofluorobenzene	91	80-123

Type: BSD Lab ID: QC259944

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	50.00	52.45	105	78-120	3	20
Benzene	50.00	52.15	104	80-120	4	20
Trichloroethene	50.00	49.93	100	80-120	5	20
Toluene	50.00	51.62	103	80-120	2	20
Chlorobenzene	50.00	50.98	102	80-120	3	20

Surrogate	%REC	Limits
Dibromofluoromethane	97	80-120
1,2-Dichloroethane-d4	98	80-120
Toluene-d8	99	80-120
Bromofluorobenzene	94	80-123

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	173777	Location:	4311-4333 MACARTHUR BLVD.
Client:	Questa Engineering Corporation	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Field ID:	ZZZZZZZZZZ	Diln Fac:	0.9434
MSS Lab ID:	173783-004	Batch#:	93429
Matrix:	Soil	Sampled:	08/02/04
Units:	ug/Kg	Received:	08/03/04
Basis:	as received	Analyzed:	08/03/04

Type: MS Lab ID: QC259974

Analyte	MSS Result	Spiked	Result	%REC	Limits
1,1-Dichloroethene	<0.4300	47.17	48.74	103	69-120
Benzene	<0.05200	47.17	49.03	104	67-120
Trichloroethene	<0.1000	47.17	46.96	100	62-131
Toluene	<0.1300	47.17	48.02	102	61-120
Chlorobenzene	<0.07200	47.17	46.06	98	58-120

Surrogate	%REC	Limits
Dibromofluoromethane	101	80-120
1,2-Dichloroethane-d4	99	80-120
Toluene-d8	100	80-120
Bromofluorobenzene	94	80-123

Type: MSD Lab ID: QC259975

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	47.17	47.52	101	69-120	3	20
Benzene	47.17	47.08	100	67-120	4	20
Trichloroethene	47.17	45.87	97	62-131	2	20
Toluene	47.17	45.28	96	61-120	6	20
Chlorobenzene	47.17	43.78	93	58-120	5	20

Surrogate	%REC	Limits
Dibromofluoromethane	101	80-120
1,2-Dichloroethane-d4	101	80-120
Toluene-d8	101	80-120
Bromofluorobenzene	93	80-123

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

California Title 26 Metals

Lab #: 173777		Project#:	STANDARD
Client: Questa Engineering Corporation		Location:	4311-4333 MACARTHUR BLVD.
Field ID:	COMP2(Q4,Q5,Q6,Q9)	Basis:	as received
Lab ID:	173777-001	Diln Fac:	1.000
Matrix:	Soil	Sampled:	08/02/04
Units:	mg/Kg	Received:	08/02/04

Analyte	Result	RL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	ND	2.9	93417	08/02/04	08/03/04	EPA 3050	EPA 6010B
Arsenic	2.6	0.25	93417	08/02/04	08/03/04	EPA 3050	EPA 6010B
Barium	140	0.49	93417	08/02/04	08/03/04	EPA 3050	EPA 6010B
Beryllium	0.39	0.098	93417	08/02/04	08/03/04	EPA 3050	EPA 6010B
Cadmium	ND	0.25	93417	08/02/04	08/03/04	EPA 3050	EPA 6010B
Chromium	32	0.49	93417	08/02/04	08/03/04	EPA 3050	EPA 6010B
Cobalt	14	0.98	93417	08/02/04	08/03/04	EPA 3050	EPA 6010B
Copper	22	0.49	93417	08/02/04	08/03/04	EPA 3050	EPA 6010B
Lead	17	0.15	93417	08/02/04	08/03/04	EPA 3050	EPA 6010B
Mercury	0.10	0.018	93473	08/04/04	08/04/04	METHOD	EPA 7471
Molybdenum	ND	0.98	93417	08/02/04	08/03/04	EPA 3050	EPA 6010B
Nickel	30	0.98	93417	08/02/04	08/03/04	EPA 3050	EPA 6010B
Selenium	0.30	0.25	93417	08/02/04	08/03/04	EPA 3050	EPA 6010B
Silver	ND	0.25	93417	08/02/04	08/03/04	EPA 3050	EPA 6010B
Thallium	ND	0.25	93417	08/02/04	08/03/04	EPA 3050	EPA 6010B
Vanadium	47	0.49	93417	08/02/04	08/03/04	EPA 3050	EPA 6010B
Zinc	55	0.98	93417	08/02/04	08/03/04	EPA 3050	EPA 6010B

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 26 Metals

Lab #:	173777	Location:	4311-4333 MACARTHUR BLVD.
Client:	Questa Engineering Corporation	Prep:	EPA 3050
Project#:	STANDARD	Analysis:	EPA 6010B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC259891	Batch#:	93417
Matrix:	Soil	Prepared:	08/02/04
Units:	mg/Kg	Analyzed:	08/03/04
Basis:	as received		

Analyte	Result	RL
Antimony	ND	3.0
Arsenic	ND	0.25
Barium	ND	0.50
Beryllium	ND	0.10
Cadmium	ND	0.25
Chromium	ND	0.50
Cobalt	ND	1.0
Copper	ND	0.50
Lead	ND	0.15
Molybdenum	ND	1.0
Nickel	ND	1.0
Selenium	ND	0.25
Silver	ND	0.25
Thallium	ND	0.25
Vanadium	ND	0.50
Zinc	ND	1.0

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 26 Metals

Lab #:	173777	Location:	4311-4333 MACARTHUR BLVD.
Client:	Questa Engineering Corporation	Prep:	METHOD
Project#:	STANDARD	Analysis:	EPA 7471
Analyte:	Mercury	Basis:	as received
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC260122	Batch#:	93473
Matrix:	Soil	Prepared:	08/04/04
Units:	mg/Kg	Analyzed:	08/04/04

Result	RL
ND	0.020

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 26 Metals

Lab #:	173777	Location:	4311-4333 MACARTHUR BLVD.
Client:	Questa Engineering Corporation	Prep:	EPA 3050
Project#:	STANDARD	Analysis:	EPA 6010B
Matrix:	Soil	Batch#:	93417
Units:	mg/Kg	Prepared:	08/02/04
Basis:	as received	Analyzed:	08/03/04
Diln Fac:	1.000		

Type: BS Lab ID: QC259892

Analyte	Spiked	Result	%REC	Limits
Antimony	100.0	101.0	101	79-128
Arsenic	50.00	51.50	103	79-120
Barium	100.0	96.00	96	80-120
Beryllium	2.500	2.635	105	80-120
Cadmium	10.00	9.750	98	79-120
Chromium	100.0	103.0	103	80-120
Cobalt	25.00	25.55	102	77-120
Copper	12.50	12.95	104	80-120
Lead	100.0	103.0	103	78-120
Molybdenum	20.00	20.45	102	80-120
Nickel	25.00	24.95	100	79-120
Selenium	50.00	51.00	102	71-120
Silver	10.00	10.40	104	78-120
Thallium	50.00	49.40	99	73-120
Vanadium	25.00	25.75	103	80-120
Zinc	25.00	25.35	101	76-120

Type: BSD Lab ID: QC259893

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Antimony	100.0	100.5	101	79-128	0	20
Arsenic	50.00	50.50	101	79-120	2	20
Barium	100.0	95.00	95	80-120	1	20
Beryllium	2.500	2.575	103	80-120	2	20
Cadmium	10.00	9.500	95	79-120	3	20
Chromium	100.0	100.5	101	80-120	2	20
Cobalt	25.00	24.90	100	77-120	3	20
Copper	12.50	12.70	102	80-120	2	20
Lead	100.0	100.0	100	78-120	3	20
Molybdenum	20.00	20.30	102	80-120	1	20
Nickel	25.00	24.35	97	79-120	2	20
Selenium	50.00	50.00	100	71-120	2	20
Silver	10.00	10.20	102	78-120	2	20
Thallium	50.00	48.10	96	73-120	3	20
Vanadium	25.00	25.15	101	80-120	2	20
Zinc	25.00	24.80	99	76-120	2	20

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 26 Metals

Lab #:	173777	Location:	4311-4333 MACARTHUR BLVD.
Client:	Questa Engineering Corporation	Prep:	EPA 3050
Project#:	STANDARD	Analysis:	EPA 6010B
Field ID:	ZZZZZZZZZZ	Batch#:	93417
MSS Lab ID:	173676-005	Sampled:	07/27/04
Matrix:	Soil	Received:	07/27/04
Units:	mg/Kg	Prepared:	08/02/04
Basis:	as received	Analyzed:	08/03/04
Diln Fac:	1.000		

ype: MS Lab ID: QC259894

Analyte	MSS Result	Spiked	Result	%REC	Limits
Antimony	3.023	101.0	27.02	24	1-120
Arsenic	2.399	50.51	48.08	90	57-120
Barium	129.1	101.0	199.5	70	52-134
Beryllium	0.1618	2.525	2.424	90	65-120
Cadmium	1.203	10.10	9.091	78	57-120
Chromium	178.4	101.0	262.6	83	55-120
Cobalt	30.95	25.25	52.02	83	52-120
Copper	47.06	12.63	63.13	127	47-143
Lead	3.232	101.0	88.89	85	42-125
Molybdenum	0.5065	20.20	16.92	81	45-120
Nickel	315.7	25.25	274.7	-162	NM 36-138
Selenium	<0.1100	50.51	44.19	88	42-120
Silver	<0.01800	10.10	9.545	95	66-120
Thallium	<0.09800	50.51	39.70	79	48-120
Vanadium	67.65	25.25	99.49	126	45-136
Zinc	52.94	25.25	79.29	104	34-139

ype: MSD Lab ID: QC259895

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Antimony	95.24	25.86	24	1-120	1	44
Arsenic	47.62	46.05	92	57-120	1	28
Barium	95.24	199.5	74	52-134	3	20
Beryllium	2.381	2.329	91	65-120	1	20
Cadmium	9.524	8.667	78	57-120	0	20
Chromium	95.24	248.1	73	55-120	4	20
Cobalt	23.81	50.48	82	52-120	0	20
Copper	11.90	60.48	113	47-143	3	21
Lead	95.24	86.19	87	42-125	3	30
Molybdenum	19.05	16.43	84	45-120	3	20
Nickel	23.81	256.2	-250	NM 36-138	7	24
Selenium	47.62	43.29	91	42-120	4	23
Silver	9.524	9.238	97	66-120	3	20
Thallium	47.62	39.48	83	48-120	5	25
Vanadium	23.81	90.48	96	45-136	8	20
Zinc	23.81	75.24	94	34-139	3	24

NM= Not Meaningful: Sample concentration > 4X spike concentration
PD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 26 Metals

Lab #:	173777	Location:	4311-4333 MACARTHUR BLVD.
Client:	Questa Engineering Corporation	Prep:	METHOD
Project#:	STANDARD	Analysis:	EPA 7471
Analyte:	Mercury	Diln Fac:	1.000
Matrix:	Soil	Batch#:	93473
Units:	mg/Kg	Prepared:	08/04/04
Basis:	as received	Analyzed:	08/04/04

Type	Lab ID	Spiked	Result	%REC	Limits	RPD	Lim
BS	QC260123	0.5000	0.5280	106	80-120		
BSD	QC260124	0.5000	0.5180	104	80-120	2	20

RPD= Relative Percent Difference

16.0

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 26 Metals

Lab #:	173777	Location:	4311-4333 MACARTHUR BLVD.
Client:	Questa Engineering Corporation	Prep:	METHOD
Project#:	STANDARD	Analysis:	EPA 7471
Analyte:	Mercury	Diln Fac:	1.000
Field ID:	ZZZZZZZZZZ	Batch#:	93473
MSS Lab ID:	173759-005	Sampled:	07/27/04
Matrix:	Soil	Received:	08/28/04
Units:	mg/Kg	Prepared:	08/04/04
Basis:	as received	Analyzed:	08/04/04

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim
MS	QC260125	0.04622	0.4808	0.6087	117	74-131		
MSD	QC260126		0.4464	0.5679	117	74-131	0	22

RPD= Relative Percent Difference

P.O. Box 70356
Suite 206
1220 Brickyard Cove Rd.
Pt. Richmond, CA 94807

T: 510 . 236 . 6114
F: 510 . 236 . 2423
E: Questa@QuestaEC.com