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**SECOND QUARTER 2008
GROUNDWATER MONITORING AND
PRODUCT EXTRACTION REPORT**

**EMERYBAY CONDO PHASE I PARKING GARAGE
6400 CHRISTIE AVENUE
EMERYVILLE, CALIFORNIA**

Prepared for:

**BAY CENTER INVESTOR LLC
6475 CHRISTIE AVENUE, SUITE 550
EMERYVILLE, CA 94608**

July 2008

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Prepared for:

**BAY CENTER INVESTOR LLC
6475 CHRISTIE AVENUE, SUITE 550
EMERYVILLE, CA 94608**

Prepared by:

**STELLAR ENVIRONMENTAL SOLUTIONS, INC.
2198 SIXTH STREET
BERKELEY, CALIFORNIA 94710**

July 18, 2008

Project No. 2007-65

July 18, 2008

Ms. Sarah Irving
Bay Center Investor, LLC
6475 Christie Avenue, Suite 550
Emeryville, CA 94608

Subject: Second Quarter 2008 Groundwater Monitoring and Product Extraction Report
EmeryBay Phase I Condo Parking Garage – 6400 Christie Avenue, Emeryville, CA

Dear Ms. Irving:

Enclosed is the Stellar Environmental Solutions, Inc. report summarizing the site activities conducted between April 2008 and June 2008 (specifically, two product extraction events and the Second Quarter 2008 groundwater monitoring event). This project is being conducted for Bay Center Investor, LLC, c/o Harvest Properties (property owner), and follows previous sampling events—conducted by Groundwater Technology, Inc. in 1988, 1989, and 1991; by PES Environmental, Inc. in 2004 and 2006; and by SES in 2007 and 2008.

There is no agreement currently in place with the regulatory agency, Alameda County Department of Environmental Health, regarding the frequency of groundwater sampling. However, a new case officer, Barb Jakub, has been assigned to the site and is reviewing the historical information.

This report summarizes the eighth sampling event conducted at the site since 1988. In accordance with California State Water Resources Control Board requirements, a copy of this report, in pdf format, will be uploaded to the State GeoTracker system.

If you have any questions regarding this report, please contact us at (510) 644-3123.

Sincerely,



Richard S. Makdisi, R.G., R.E.A.
Principal



Teal Glass, R.E.A.
Project Manager



cc: Ms. Barb Jakub, Alameda County Department of Environmental Health

TABLE OF CONTENTS

Section	Page
1.0 INTRODUCTION.....	1
Project Background.....	1
Site and Vicinity Description.....	1
Previous Investigations	1
Objectives and Scope of Work.....	6
Regulatory Oversight	6
2.0 PHYSICAL SETTING.....	8
Topography and Drainage.....	8
Geology	8
Groundwater Hydrology	9
3.0 JUNE 2008 GROUNDWATER MONITORING AND SAMPLING ACTIVITIES.....	11
Sampling Methods and Activities	11
Current Monitoring Event.....	11
4.0 CURRENT MONITORING EVENT ANALYTICAL RESULTS AND FINDINGS	13
Groundwater Sample Results.....	13
Regulatory Considerations.....	17
5.0 FREE-PHASE HYDROCARBON PRODUCT REMEDICATION SYSTEM	23
LNAPL Remediation System Construction.....	23
Historical Free Product Extraction.....	24
May 2008 Product Removal Event	26
Discussion	27
6.0 SUMMARY, CONCLUSIONS, AND PROPOSED ACTIONS.....	29
Findings and Conclusions	29
Recommendations	30

TABLE OF CONTENTS (continued)

Section	Page
7.0 REFERENCES AND BIBLIOGRAPHY	32
8.0 LIMITATIONS	36

Appendices

Appendix A	Historical Groundwater Well Analytical Results
Appendix B	Groundwater Monitoring Field Data Sheets
Appendix C	Analytical Laboratory Report and Chain-of-Custody Record
Appendix D	Historical Groundwater Elevation Data
Appendix E	Historical Product Extraction Data Table

TABLES AND FIGURES

Tables	Page
Table 1 Groundwater Monitoring Well Construction and Groundwater Elevation Data 6400 Christie Avenue, Emeryville, California.....	12
Table 2 Groundwater Sample Analytical Results – June 25, 2008 6400 Christie Avenue, Emeryville, California.....	14
Table 3 Trench Product Extraction May and June 2008	24
Table 4 Active Product Extraction May 2008	27

Figures	Page
Figure 1 Site Location Map.....	2
Figure 2 Site Plan	3
Figure 3 Monitoring Well and Trench Locations.....	5
Figure 4 Groundwater Elevation Map – June 2008.....	10
Figure 5 Groundwater Monitoring Well Analytical Results – June 2008.....	15
Figure 6 Total Petroleum Hydrocarbon Plume as Gasoline – June 2008.....	16
Figure 7 Total Petroleum Hydrocarbon Plume as Diesel – June 2008.....	18
Figure 8 Historical TPHd Plume – MW-5 and MW-6	19
Figure 9 Historical TPHd Plume – MW-11, MW-12, and MW-13	20
Figure 10 Historical TPHd Plume – MW-3 and MW-18	21
Figure 11 Yearly Product Extraction Comparison	25

1.0 INTRODUCTION

PROJECT BACKGROUND

The subject property, located at 6400 Christie Avenue in Emeryville, California, is owned by Bay Center Investor, LLC, for which Stellar Environmental Solutions, Inc. (SES) provides environmental consulting services. The site has undergone fuel tank-related investigations and remediation since 1988 (by SES since 2007). All known environmental documents for the subject property are listed in the References and Bibliography section (Section 7.0) of this report. Previous remediation and investigation activities are outlined in the final subsection of this chapter.

SITE AND VICINITY DESCRIPTION

The project site is located at 6400 Christie Avenue in Emeryville, California (see Figure 1). The project site, which slopes to the south, is wholly developed with an open ground-floor parking area and apartment complex known as the Emery Bay Phase I Condos and parking garage. The area of monitoring and product extraction is primarily located in the northeastern portion of the parking garage. Figure 2 is a site plan. The site is bordered to the east by the Emery Bay Phase II Condos and parking garage, to the north by 65th Avenue, beyond Christie Avenue and to the west by the Bay Center Offices, and to the south by 64th Avenue. The surrounding area is developed with apartment complexes, offices, and commercial stores.

PREVIOUS INVESTIGATIONS

Historical groundwater well analytical results are presented in Appendix A, and are discussed in detail in Section 5.0 of this report.

The subject property parcel was developed as early as 1958 with the Garrett Motor Freight Station, associated with Delta Lines, Inc. The Delta Lines complex contained an “Oil and Gas” building, located at the site of the present-day Emery Bay Phase I Condo complex and parking garage. The building remained on the property until 1986, when it was demolished to build the present-day structures. Twelve underground fuel storage tanks (UFSTs) containing diesel and gasoline were removed from the Emery Bay Phase I and Phase II Condo complex parcels in 1987, at which time soil and groundwater contamination was discovered.



Image courtesy of the U.S. Geological Survey



SITE LOCATION ON AERIAL PHOTO

**6400 Christie Ave.
Emeryville, CA**

By: MJC

JANUARY 2008

Figure 1



2007-565-01



SITE PLAN AND ADJACENT LAND USE

6400 Christie Ave.
Emeryville, CA

By: MJC

JANUARY 2008

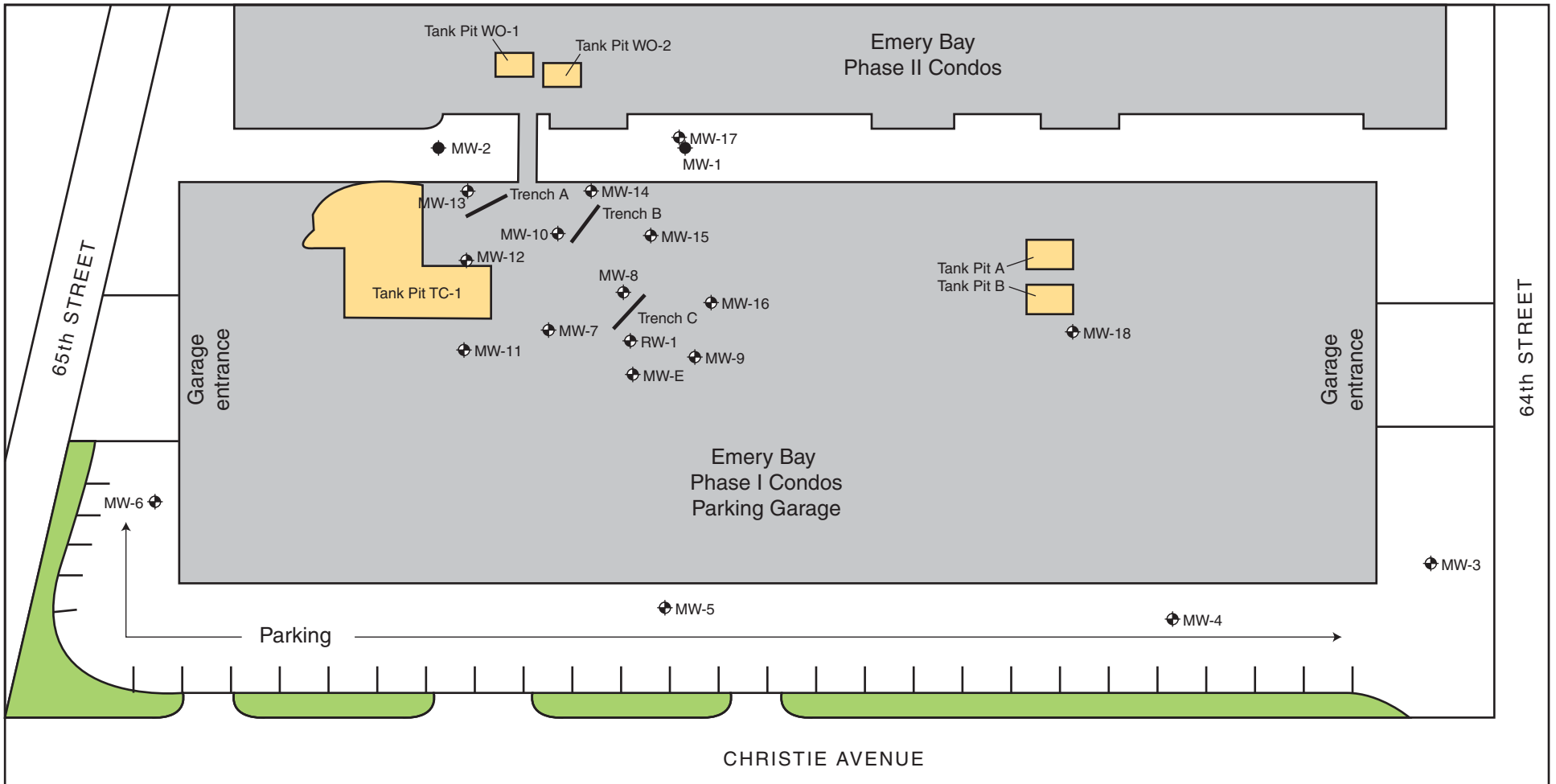
Figure 2



The subsurface contamination originated from the trucking terminal that was operated by the Garrett Freight Line and Delta Lines, and existed at the site of the Bay Center Apartments before its development in the late 1980s. Site investigations identified a total of 12 UFSTs in three areas of the trucking terminal. These UFST areas were referred to as: 1) Tank Pits A and B (each containing one 10,000-gallon diesel tank); 2) Tank Pit TC-1 (four 12,000-gallon diesel tanks, two 10,000-gallon diesel tanks, and one 6,000-gallon gasoline tank); and 3) Tank Pit WO-1 and WO-2 (one 6,000-gallon tank, one 4,000-gallon tank, and one 1,000-gallon tank). Nine UFSTs were located beneath the current footprint of the Emery Bay Phase I Condo complex, while three were beneath the Emery Bay Phase II Condo complex. Figure 2 shows the tank removal locations.

To address the contamination in the garage area of the Emery Bay Phase I Condo complex, a light non-aqueous phase liquid (LNAPL) groundwater pump-and-treat system was installed by Groundwater Technology, Inc. (GTI) in 1989. The system extracted approximately 1 million gallons of groundwater, yielding approximately 100 gallons of LNAPL from recovery well RW-1 from July 1990 to March 1991. Three monitoring wells had previously been installed in 1985. GTI installed (and repaired) several more monitoring wells between 1987 and 1990, for a total of seven monitoring wells and one extraction well by 1990. The system and groundwater monitoring wells were designed and monitored as a condition of discharge permits granted by the East Bay Municipal Utility District (EBMUD) and the Bay Area Air Quality Management District (BAAQMD). The first groundwater monitoring event for MW-1 through MW-6 occurred in December 1988. The second monitoring event, which also included MW-E and RW-1, was conducted in March 1989. Subsequently, the groundwater extraction system operated by GTI was closed in late 1990 when corrosion and other mechanical problems caused the system to fail. Recovery of LNAPL continued manually on RW-1 until 1991, and a third groundwater sampling event occurred in February 1991. In 1994, the GTI recovery system was abandoned. Appendix A contains the historical analytical results. Figure 3 shows the locations of the monitoring wells and trenches.

No groundwater monitoring events had occurred at the site between 1991 and 2004, when PES was retained to evaluate and implement remediation of the residual contamination at the TC-1 (former location of seven UFSTs) Emery Bay Phase I Condo complex area. (Note: Harding Lawson Associates conducted soil and groundwater sampling on the Phase II Apartment complex area during this time, but not for the purpose of product extraction or remediation.) In 2004, PES installed an additional 10 groundwater monitoring wells (monitoring wells MW-1 and MW-2 were either abandoned or paved over with asphalt during construction), bringing the current total to 17 monitoring wells and 1 extraction well in the Phase I parking garage area. The first groundwater monitoring event for the current wells was conducted in March 2004, and the second event was conducted in December 2006.



LEGEND

- ◆ Monitoring well
- ◆ Monitoring well (presumed abandoned)
- Trench location
- Historical tank pit area
- Landscaping

0 60
SCALE: 1/2" = 60 FEET



MONITORING WELL AND TRENCH LOCATIONS
6400 Christie Ave., Emeryville, CA

Figure 3

by: MJC

JANUARY 2008

A previous SES report (SES, 2007) fully discusses previous site remediation and investigations, site geology and hydrogeology, and residual site contamination. Tabular summaries of historical groundwater well water elevations and analytical results are included in Appendix A.

OBJECTIVES AND SCOPE OF WORK

This report discusses the following activities conducted/coordinated by SES in the current annual monitoring period:

- Collecting water levels in site wells to determine groundwater flow direction
- Sampling site wells for contaminant analysis
- Evaluating hydrochemical and groundwater elevation trends in the context of plume stability and case closure assessment
- LNAPL passive product extraction from Trenches A and C, and active product extraction on the groundwater monitoring wells, trench sump wells, and recovery well RW-1

REGULATORY OVERSIGHT

The original groundwater extraction system installed at the Emery Bay Phase I Condo parking garage removed contaminated groundwater, treated it through a two-phase carbon filtration unit, and then discharged the treated water to the municipal storm sewer system. The original regulatory agencies overseeing the site were the BAAQMD and EBMUD. Sampling of the monitoring wells for groundwater treatment system discharge was required per the EBMUD permit guideline (account #500-54011) and the BAAQMD air discharge guideline (No. 32325). However, after the treatment system failed in 1991, the permits were no longer required; thus, little to no regulatory oversight of the hydrocarbon plume occurred between 1991 and 2004.

Currently, the Alameda County Department of Environmental Health (ACEH) is the Local Oversight Program (LOP) agency providing oversight of Leaking Underground Storage Tank (LUST) sites in the city of Emeryville. SES met with the previous case officer, Barney Chan (who subsequently transferred to another section of ACEH), to discuss remedial activities and steps toward site closure (Chan, 2007). Mr. Chan indicated that, while a more vigorous approach to monitoring and remediation was desired, he never had access to historical investigations at the site (no previous site documentation had been provided to ACEH or uploaded to the State Water Resources Control Board's [State Water Board's] GeoTracker website as required since 2004). A subsequent letter from ACEH to the previous owner and consultant (PES) requested the uploading of historical documents and GeoTracker-compliant monitoring well survey data.

Following the completion of this report, SES will meet with the new ACEH case officer, Ms. Barb Jakub, to discuss the recommended actions for achieving site closure. SES has already uploaded all historical documents to the ACEH ftp website and the State Water Board GeoTracker website. Historically, the site was included in the Garret Freight Lines Spills, Leaks, Investigations, and Cleanups (SLIC) site under the Regional Water Quality Control Board (Water Board) global ID SLT2O05561 and ACEH case number RO0002799. Therefore, all site documents were uploaded under these ID numbers. However, this site encompasses adjacent properties, such as the Bay Center Offices and a recently developed apartment complex south of 64th Street. In addition, the SLIC listing is based on metals contamination discovered in soils on the Bay Center site, and does not reflect the leaking UFST remediation currently underway at the Emery Bay Phase I Condos. There is also a GeoTracker LUST listing for the Emery Bay Marketplace at 64th and Christie; however, this listing is most likely associated with the Emeryville Market located south of 64th Avenue.

This SES report follows previous groundwater sampling events conducted by GTI in 1988, 1989, and 1991; two groundwater monitoring events conducted by PES in 2004 and 2006; and work by SES in 2007 and 2008. At this time, it appears as if the contaminant plume could be migrating offsite. However, because of the infrequent groundwater sampling, it is unclear whether the plume is stabilizing or increasing in concentration. It also appears as if an offsite hydrocarbon source may be migrating from south of the site, toward the northwest portion of the subject property. This source is most likely the Emeryville Market LUST site located immediately south of the subject property.

Electronic data format (EDF) files will be successfully uploaded to the GeoTracker database, in accordance with the State Water Board's requirements for EDF submittals.

2.0 PHYSICAL SETTING

The following evaluation of the physical setting of the site—including topography, drainage, and geologic and hydrogeologic conditions—is based on previous (1986 through 2006) site investigations conducted by others, and site inspections and subsurface data collection by SES in 2007 and 2008.

TOPOGRAPHY AND DRAINAGE

The mean elevation of the property is about 13 feet above mean sea level, and the general topographic gradient in the vicinity of the property is to the southwest, although the regional gradient is to the west-southwest.

The nearest receiving water body is San Francisco Bay, located approximately 700 feet to the west of the subject property. East of the site lies the Oakland Hills, which rise to an elevation of approximately 1,000 feet and are situated 2.5 miles east of the subject property. The subject property is not listed within a 100- or 500-year flood zone.

Storm drains from the roof collect storm runoff for discharge onto the asphalt-paved parking lots. Storm sewers collect drainage from the parking lot, as well as from Christie, 64th, and 65th Streets, which discharges into San Francisco Bay. SES noted several storm drains, in the parking lot area and on the surrounding streets.

GEOLOGY

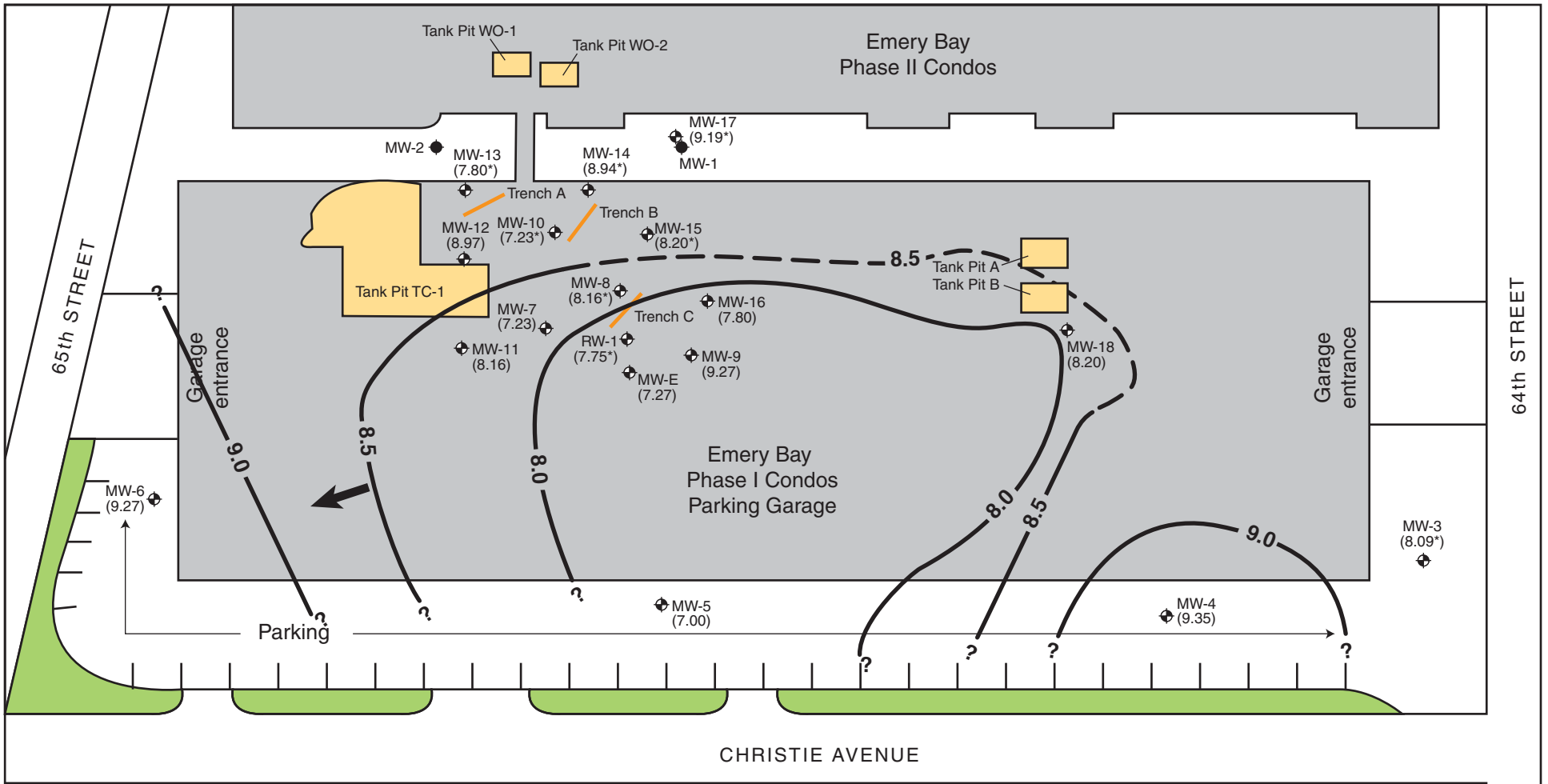
The subject property area is underlain with material mapped “Qhbm,” designated early pleistocene alluvium that is moderately consolidated, deeply weathered, poorly sorted, irregularly interbedded clay, silt, sand, and gravel. A geotechnical survey conducted in 1985 revealed that the upper 15 to 20 feet of soil consisted of a combination of fill and soft bay sediment. The upper 1 to 2½ feet of soil was generally pavement and imported fill. The upper 20 feet of firm bearing soil was primarily dense silty sand with intermittent layers of silty and sandy clay. Stiff to very stiff clay was encountered below a depth of approximately 40 feet and extended to the depth of the borings, approximately 101.5 feet (Geomatrix, 1988). The closest major fault, the Hayward Fault, is located about 3 miles east of the property. While the site is located in a seismically active area, it is not within an Alquist-Priolo Special Studies active fault zone, the legislatively defined zone of restricted land use 200 feet around an active fault due to the high probability of ground rupture.

GROUNDWATER HYDROLOGY

Section 5.0 contains a detailed discussion of site groundwater elevation trends. Regulatory agency records indicate that the direction of shallow groundwater flow in the site vicinity is to the west-northwest, toward San Francisco Bay. Water levels in this area are influenced by tidal patterns. According to current and historical water level data obtained from onsite monitoring wells, the depth to groundwater ranges from approximately 6 to 11 feet below ground surface (bgs). The average groundwater gradient is approximately 0.004 feet per foot; however, the gradient was 0.001 feet per foot during the current June 2008 sampling event.

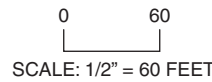
While historical groundwater elevation data at the site has not been consistently collected, and the sporadic annual monitoring event did not track season fluctuation in groundwater elevations, the past two seasonal cycles in the Bay Area involved significantly less rainfall than normal, with resultant lower-than-normal water level elevations.

Figure 4 is a map of groundwater elevations from the recent groundwater monitoring event (activities discussed in Section 4.0).



LEGEND

- Monitoring well
- Monitoring well (presumed abandoned)
- Trench location
- Groundwater elevation contour in feet amsl
- Historical tank pit area
- Landscaping
- Inferred direction of groundwater flow
- Extrapolated groundwater elevation contour
- * Groundwater elevation not used in determining contour due to the presence of free product



GROUNDWATER ELEVATION MAP – June 24, 2008
6400 Christie Ave., Emeryville, CA

Figure 4

by: MJC

JULY 2008

3.0 JUNE 2008 GROUNDWATER MONITORING AND SAMPLING ACTIVITIES

This section presents the groundwater sampling and analytical methods for the most recent event. Table 1 summarizes monitoring well construction and groundwater monitoring data. Groundwater analytical results are summarized in Section 4.0.

SAMPLING METHODS AND ACTIVITIES

Activities for this event include:

- Measuring static water levels in all 18 wells
- Collecting post-purge groundwater samples from the 18 wells for laboratory analysis—including benzene, toluene, ethyl benzene, and xylenes (BTEX); methyl tertiary-butyl ether (MTBE); total petroleum hydrocarbons as gasoline (TPHg); and total petroleum hydrocarbons as diesel (TPHd)

The locations of all site monitoring well sampling locations are shown on Figure 3. Well construction information and water level data are summarized in Table 1. Appendix B contains the groundwater monitoring field records.

CURRENT MONITORING EVENT

Groundwater monitoring well water level measurements, purging, sampling, and field analyses were conducted on June 24 and 25, 2008 by Blaine Tech Services under the supervision of SES personnel. Groundwater sampling was conducted in accordance with State of California guidelines for sampling dissolved analytes in groundwater associated with leaking UFSTs. As the first task of the monitoring event, static water levels and free product levels were measured in the 18 wells using an electric water level indicator. The depth of free product was recorded, and the water level was adjusted to reflect the groundwater elevation.

Approximately 44 gallons of purge water and equipment decontamination rinse water from the current groundwater sampling event was containerized onsite in a labeled 55-gallon drum. All groundwater purged during active and passive product removals was containerized in a 1,100-gallon onsite above ground storage tank (AST). SES will dispose of the purge waters offsite when the 1,100-gallon AST has reached capacity.

Table 1
Groundwater Monitoring Well Construction and Groundwater Elevation Data
6400 Christie Avenue, Emeryville, California

Well	Well Depth (feet bgs)	Screened Interval	Top of Well Casing Elevation ^(a)	Depth to Free Product (bgs)	Free Product (feet)	Groundwater Elevation (June 24, 2008)
MW-3	25	5 to 20	16.65	NA	NA	8.09
MW-4	25	5 to 20	16.29	NA	NA	9.35
MW-5	25	5 to 20	16.72	NA	NA	7.00
MW-6	25	5 to 20	16.82	NA	NA	9.27
MW-7	20	5 to 20	17.73	NA	NA	7.23
MW-8	16	5 to 16	17.84	9.10	0.58	8.16
MW-9	20	5 to 20	17.84	NA	NA	9.27
MW-10	20	5 to 20	17.83	8.78	0.08	7.23
MW-11	20	5 to 20	17.76	NA	NA	8.16
MW-12	20	5 to 20	17.83	NA	NA	8.97
MW-13	20	5 to 20	17.66	9.45	0.41	7.80
MW-14	20	5 to 20	17.60	8.62	0.04	8.94
MW-15	20	5 to 20	17.80	9.03	0.57	8.20
MW-16	20	5 to 20	17.74	NA	NA	7.80
MW-17	20	5 to 20	18.17	8.97	0.01	9.19
MW-18	20	5 to 20	16.35	NA	NA	8.20
MW-E	47	7 to 40	17.47	NA	NA	7.27
RW-1	30	unknown	16.70	8.87	0.08	7.75
TA-E	11-13	6-8 to 11-13	17.20	NA	NA	8.61
TA-M	11-13	6-8 to 11-13	17.21	NA	NA	8.73
TA-W	11-13	6-8 to 11-13	17.28	NA	NA	8.88
TB-E	11-13	6-8 to 11-13	17.24	NA	NA	8.82
TB-M	11-13	6-8 to 11-13	17.30	NA	NA	8.76
TB-W	11-13	6-8 to 11-13	17.33	NA	NA	8.76
TC-E	11-13	6-8 to 11-13	17.07	NA	NA	8.08
TC-M	11-13	6-8 to 11-13	17.37	NA	NA	8.19
TC-W	11-13	6-8 to 11-13	17.32	NA	NA	8.37

Notes:

- ^(a) Relative to mean sea level.
- ^(b) Depth to groundwater could not be determined because free product density would not allow a clear delineation. Elevation is based on depth to free product.
- ^(c) The quantity of free product may be an overestimation due to the presence of tar.

bgs = below ground surface

NA = not applicable (no free product in well)

MW-3 through MW-6 and MW-E are 2-inch PVC. MW-7 through MW-18 are ¾-inch PVC. RW-1 is 10-inch PVC.

4.0 CURRENT MONITORING EVENT ANALYTICAL RESULTS AND FINDINGS

This section presents the field and laboratory analytical results of the current groundwater monitoring event. Table 2 and Figure 5 summarize the contaminant analytical results of the current monitoring event samples. Appendix C contains the certified analytical laboratory report and chain-of-custody record.

GROUNDWATER SAMPLE RESULTS

Hydrocarbon Contaminants

Hydrocarbon concentrations in numerous wells have reported concentrations significantly in excess of the Water Board Environmental Screening Level (ESL) in this third consecutive quarterly sampling event.

Gasoline was detected in MW-3, MW-7, MW-8, MW-10, MW-11, MW-12, MW-13, MW-14, MW-15, MW-17, MW-E, and RW-1 above the ESLs where groundwater is not a drinking water resource (210 micrograms per liter [$\mu\text{g/L}$]). Gasoline was also detected in MW-6 and MW-16, but at concentrations below the ESL (MW-16 was above the ESL where groundwater is a drinking water resource). The highest concentration (44,000 $\mu\text{g/L}$) was observed in MW-13. This is much lower than the concentration of 98,000 $\mu\text{g/L}$ observed during the May 2008 sampling event. Overall, gasoline concentrations trends as compared to the previous May 2008 sampling event significantly decreased, as demonstrated by wells MW-3, MW-4, MW-8, MW-9, MW-12, MW-13, and MW-14. Figure 6 shows an isoconcentration contour map of TPHg concentrations in groundwater based on the June 2008 monitoring well analytical results. Slight increases in gasoline concentrations were observed in monitoring wells MW-6, MW-7, MW-11, MW-15, MW-16, and MW-17. Concentrations remained the same in wells MW-5, MW-10, and MW-18.

Diesel was detected in all site wells above the ESL of 210 $\mu\text{g/L}$ (where groundwater is not a drinking water resource). The highest concentration (71,000 $\mu\text{g/L}$) was observed in MW-13. This is a significant decrease from the previous sampling event in which the diesel concentration was measured at 1,100,000 $\mu\text{g/L}$. This well has historically been considered a source area well. All of the monitoring wells, with the exception of MW-6, showed a significant decrease in diesel concentration. This is most likely due to the active purging events conducted during this quarter.

Table 2
Groundwater Sample Analytical Results – June 25, 2008
6400 Christie Avenue, Emeryville, California

Well ID	Analytical Results						
	TPHg	TPHd	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE
MW-3	440	4,500	<0.5	<0.5	4.0	2.0	9.5
MW-4	<50	620	<0.5	<0.5	<0.5	<0.5	<2.0
MW-5	<50	3,300	0.64	<0.5	<0.5	<0.5	<2.0
MW-6	56	1,100	0.92	<0.5	<0.5	<0.5	2.9
MW-7	1,700	5,400	480	15	28	139	<2.0
MW-8	27,000	7,300	9,300	140	790	290	<2.0
MW-9	98	5,900	4.9	<0.5	<0.5	<0.5	2.3
MW-10	10,000	4,800	3,800	62	24	61	<2.0
MW-11	2,000	5,100	190	11	7.7	16.3	<2.0
MW-12	17,000	3,000	6,600	95	50	110	<2.0
MW-13	44,000	71,000	12,000	510	1,600	1,950	<2.0
MW-14	7,700	2,600	2,600	180	200	141	<2.0
MW-15	15,000	2,900	5,800	61	230	56.4	<2.0
MW-16	120	10,000	13	2.2	<0.5	<0.5	2.0
MW-17	7,200	2,900	1,100	45	75	66	<2.0
MW-18	<50	8,800	<0.5	<0.5	<0.5	<0.5	3.1
MW-E	7,400	5,200	2,900	43	85	50	<2.0
RW-1	1,200	1,500	290	4.8	10	4.8	<2.0
ESLs^(a)	100 / 210	100 / 210	1.0 / 46	40 / 130	30 / 43	20 / 100	5.0 / 1,800

Notes:

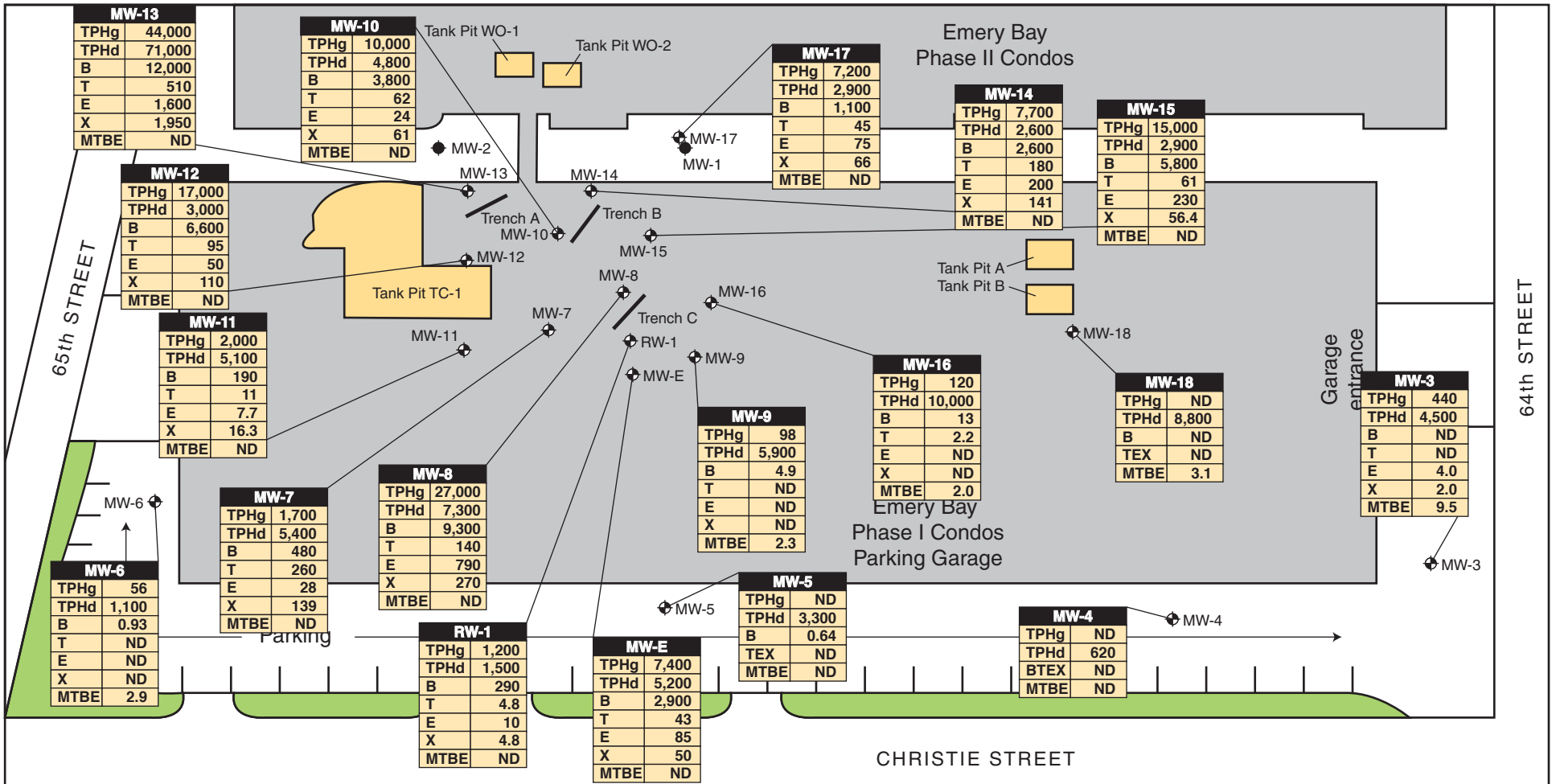
^(a) Water Board Environmental Screening Levels for residential sites where groundwater is/is not a drinking water resource (Water Board, 2008).

MTBE = methyl tertiary-butyl ether

TPHd = total petroleum hydrocarbons – diesel range (equivalent to total extractable hydrocarbons – diesel range)

TPHg = total petroleum hydrocarbons – gasoline range (equivalent to total volatile hydrocarbons – gasoline range)

All concentrations are expressed in micrograms per liter (µg/L), equivalent to parts per billion (ppb). Results listed in **bold-face type** are above the ESLs where groundwater is not a drinking water resource.



LEGEND

- ◆ Monitoring well
 - ◆ Monitoring well (presumed abandoned)
 - Trench location
 - Historical tank pit area
 - Landscaping
- TPHg = Total petroleum hydrocarbons as gasoline
 TPHd = Total petroleum hydrocarbons as diesel
 B = Benzene
 T = Toluene
 E = Ethylbenzene
 X = Total xylenes
 ND = Below the laboratory detection limit
 MTBE = Methyl Tertiary Butyl Ether
- All concentrations in micrograms per liter (µg/L)



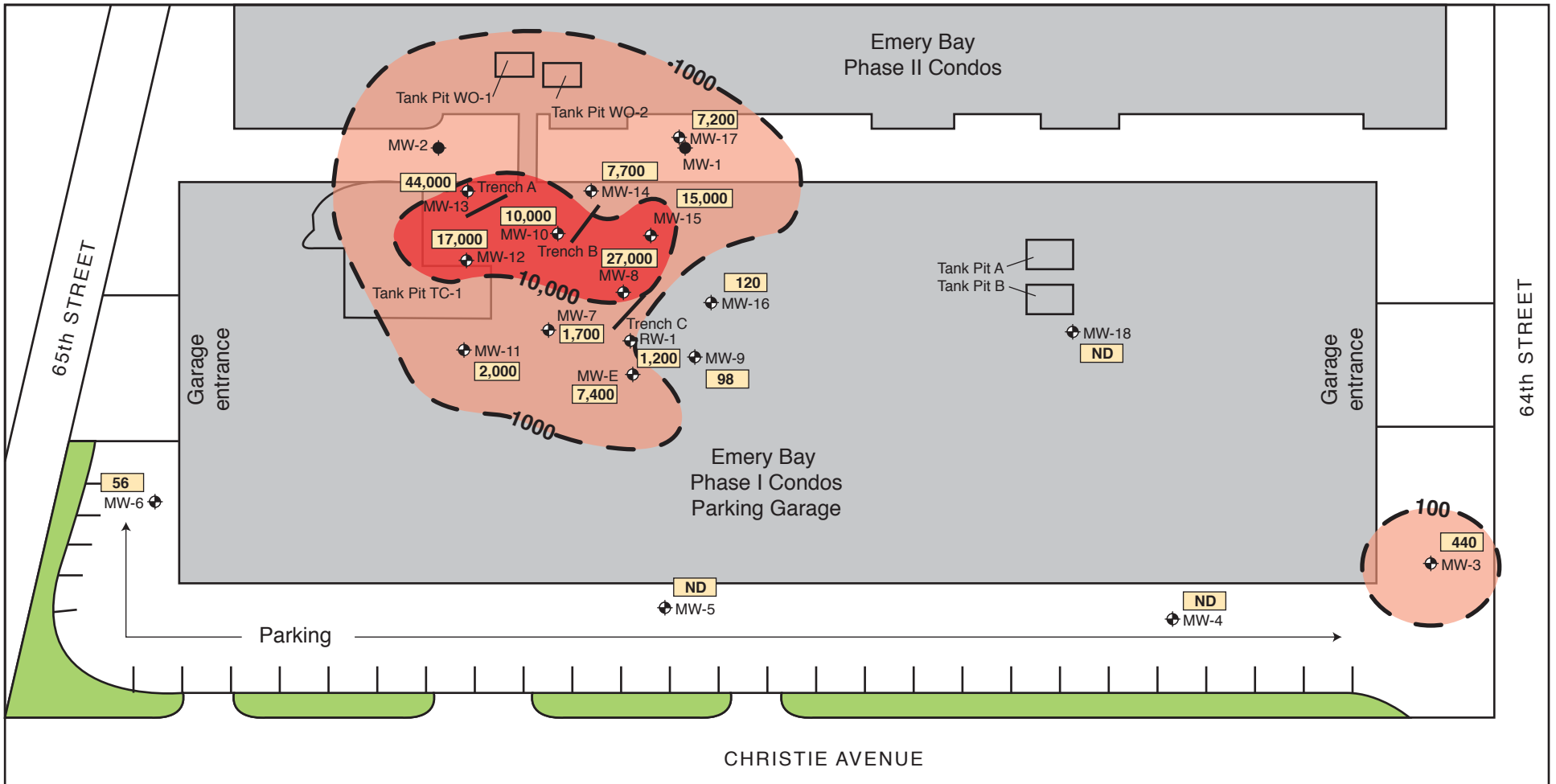
GROUNDWATER MONITORING WELL ANALYTICAL RESULTS

6400 Christie Ave., Emeryville, CA

Figure 5

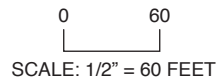
by: MJC

JULY 2008



LEGEND

- ⊕ Monitoring well
- Monitoring well (presumed abandoned)
- Trench location
- 84 Total petroleum hydrocarbons as gasoline concentration in micrograms per liter (µg/L)
- Historical tank pit area
- ▬ Landscaping
- 100- Gasoline isoconcentration contour



TOTAL PETROLEUM HYDROCARBON PLUME AS GASOLINE
6400 Christie Ave., Emeryville, CA

Figure 6

by: MJC

JULY 2008

Monitoring well MW-6 showed only a slight increase, from 940 µg/L in the March 2008 event to 1,100 µg/L in the current June 2008 event. MW-6 was not purged during this sampling quarter.

Figure 7 is an isoconcentration contour map of TPHd concentrations in groundwater based on the June 2008 monitoring well analytical results. Figure 8 plots the change in diesel concentrations in the two downgradient wells (MW-5 and MW-6) from February 1991 (the terminus of the pump-and-treat system) to the June 2008 sampling event. Figure 9 plots the change in diesel concentrations in source area wells MW-11 and MW-12 from their first sampling event in December 2006 to the June 2008 sampling event. Figure 10 plots the change in crossgradient wells MW-18 and MW-3 from December 2006, to date.

In MW-7, MW-8, MW-10, MW-12, MW-13, MW-14, MW-15, MW-17, MW-E, and RW-1, concentrations of benzene exceeded the ESL of 46 µg/L where groundwater is not a drinking water resource. Benzene was also found in MW-5, MW-6, MW-9, MW-11, and MW-16, but at concentrations below the ESL (the concentrations in MW-9, MW-11, and MW-16 were above the ESL of 1.0 µg/L where groundwater is a drinking water resource).

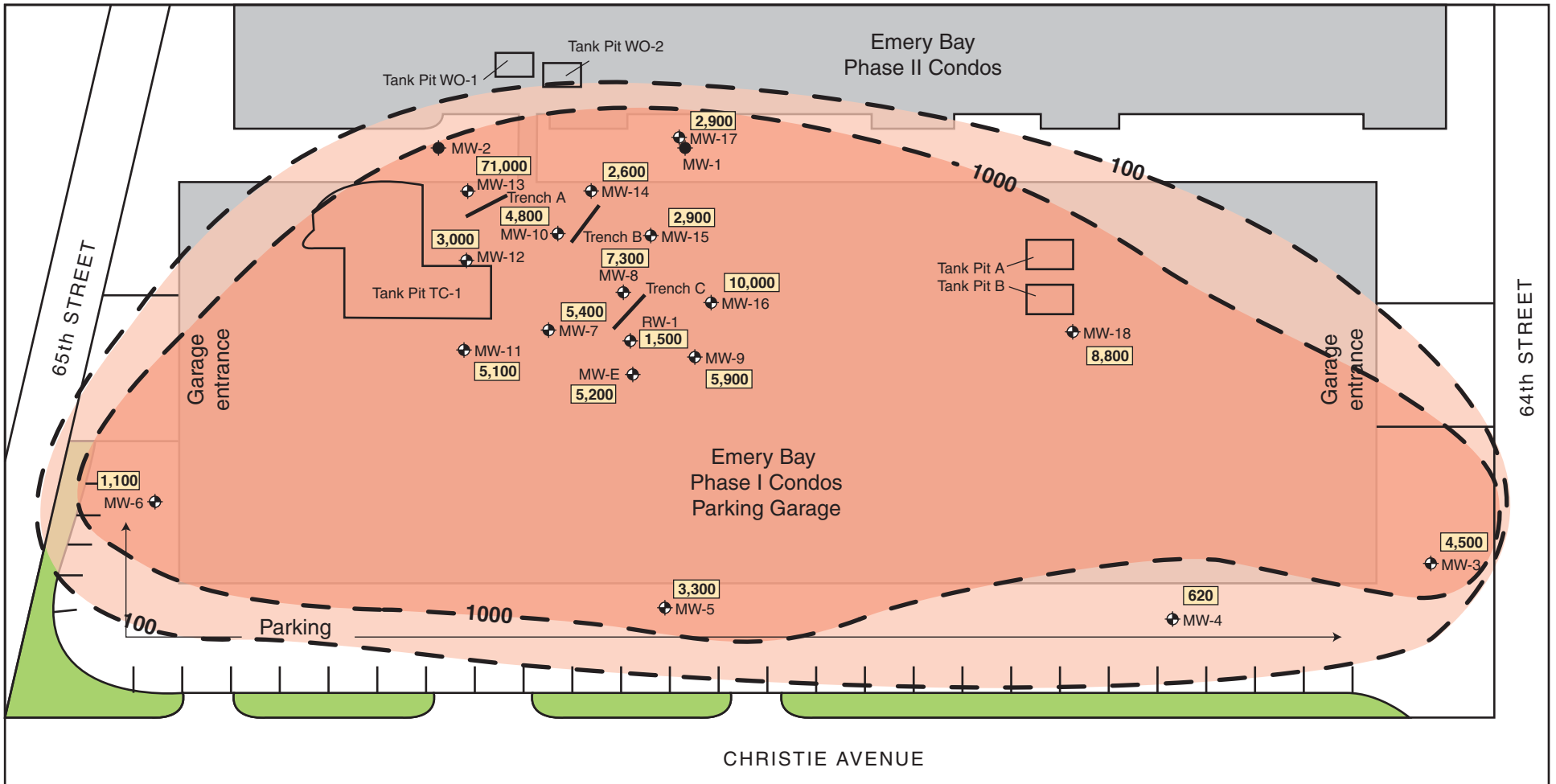
Toluene was detected above the ESL of 130 µg/L in monitoring wells in MW-8, MW-13, and MW-14. Ethylbenzene was detected above the 43-µg/L ESL (where groundwater is not a drinking water resource) in monitoring wells MW-8, MW-12, MW-13, MW-14, MW-15, and MW-E. Total xylene concentrations were above the 100-µg/L ESL where groundwater is not a drinking water resource in monitoring wells MW-7, MW-8, MW-12, MW-13, and MW-14. MTBE was not detected in any of the wells above the ESL of 1,800 µg/L, and only MW-3 had a MTBE concentration (9.5 µg/L) that was above the drinking water ESL of 5.0 µg/L.

Quality Control Sample Analytical Results

Laboratory quality control (QC) samples (e.g., method blanks, matrix spikes, surrogate spikes, etc.) were analyzed by the laboratory in accordance with the requirements of each analytical method. All laboratory QC sample results and sample holding times were within the acceptance limits of the methods (Appendix C).

REGULATORY CONSIDERATIONS

As specified in the East Bay Plain Groundwater beneficial Use Evaluation Report by the San Francisco Bay Region Water Quality Board (Water Board, 1999), all groundwater is considered a potential source of drinking water unless otherwise indicated by the Water Board, and is assumed to ultimately discharge to a surface water body and potentially impact aquatic organisms. The subject



LEGEND

- ⊕ Monitoring well
 - Monitoring well (presumed abandoned)
 - Trench location
 - 1,100 Total petroleum hydrocarbons as diesel concentration in micrograms per liter (µg/L)
 - Historical tank pit area
 - Landscaping
 - 100- Diesel isoconcentration contour
- 0 60
SCALE: 1/2" = 60 FEET



TOTAL PETROLEUM HYDROCARBON PLUME AS DIESEL
6400 Christie Ave., Emeryville, CA

Figure 7

by: MJC

JULY 2008

Figure 8
Historical Groundwater Analytical Results
Total Petroleum Hydrocarbons as Diesel (TPHd)
Downgradient Wells MW-5 and MW-6
February 1991 - June 2008

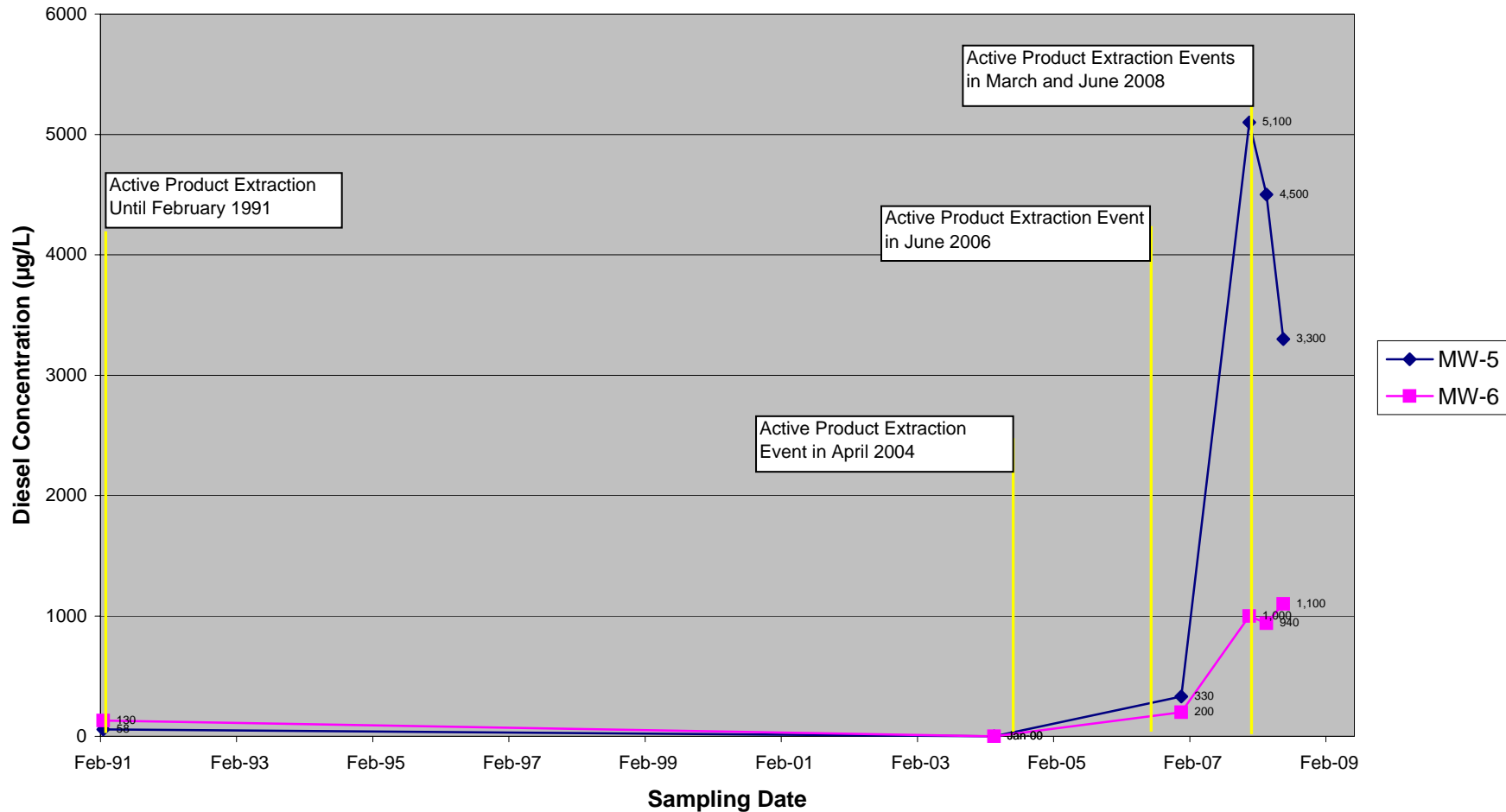


Figure 9
Historical Groundwater Analytical Results
Total Petroleum Hydrocarbons as Diesel (TPHd)
Source Wells MW-11 and MW-12
December 2006 - June 2008

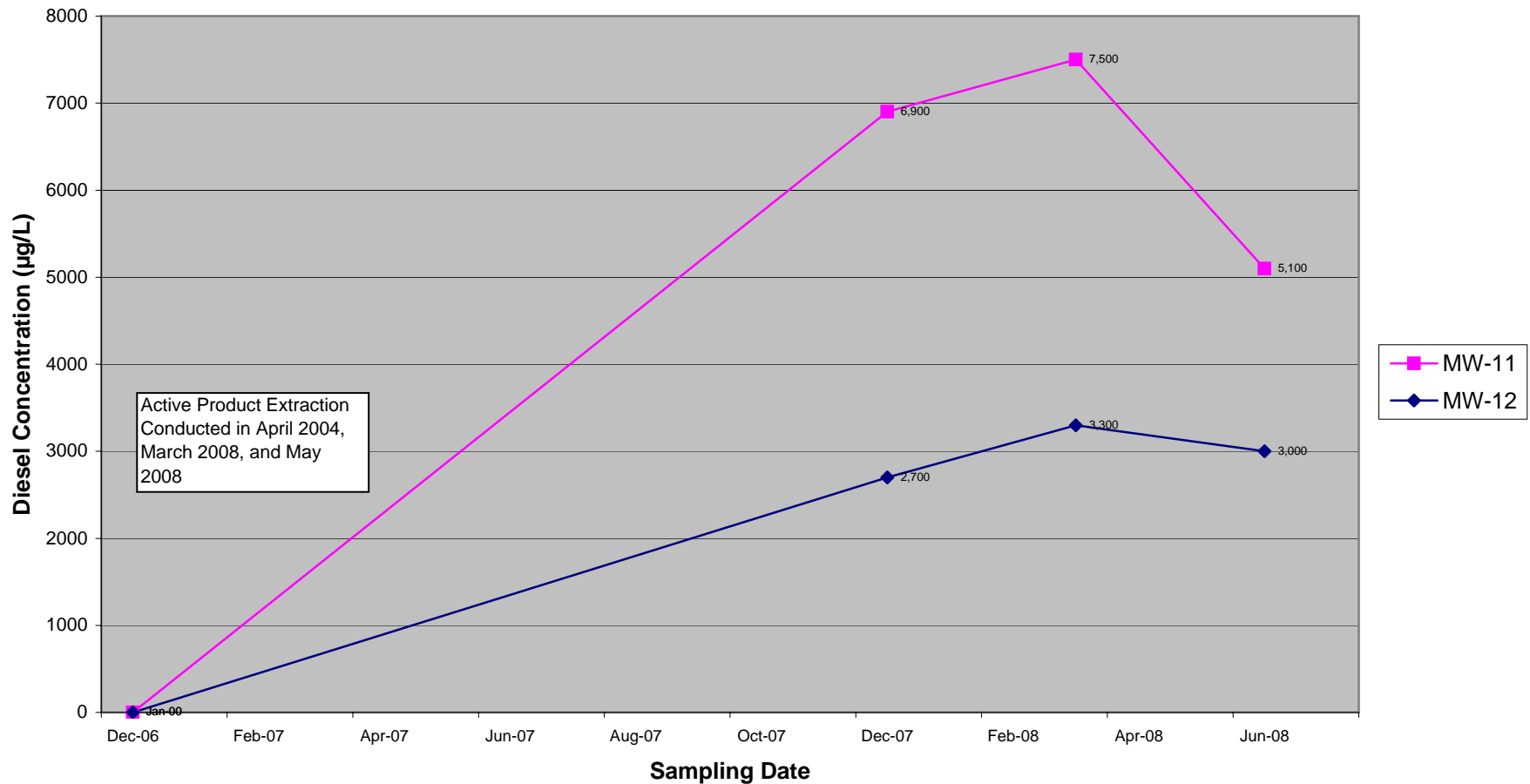
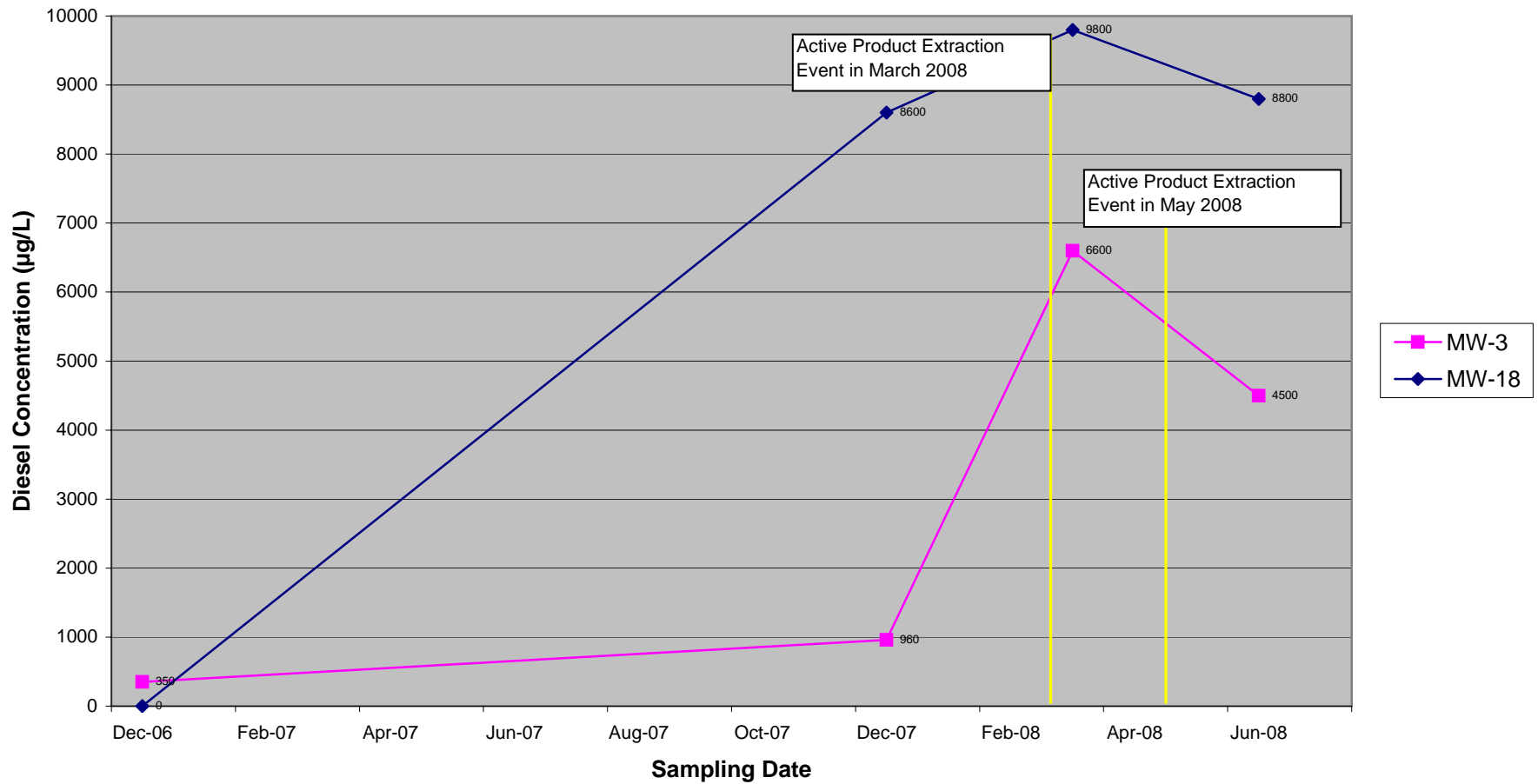


Figure 10
Historical Groundwater Analytical Results
Total Petroleum Hydrocarbons as Diesel (TPHd)
Crossgradient Well MW-3 and MW-18
December 2006 - June 2008



property is listed as occurring within Zone B, designated as groundwater that is unlikely to be used as drinking water resource. The basin is shallow in this area, with depths of less than 300 feet. Groundwater in this area is used for backyard irrigation, industrial supply, and commercial irrigation. There is a low likelihood that this water will be used as a public water supply in the near future.

The Water Board publishes ESLs for residential and commercial/industrial properties where groundwater is/is not a potential drinking water resource. As stipulated in the ESL document (Water Board, 2008), ESLs are not cleanup criteria; rather, they are conservative screening-level criteria designed to be protective of both drinking water resources and aquatic environments in general. The groundwater ESLs are composed of one or more components—including ceiling value, human toxicity, indoor air impacts, and aquatic life protection. Exceedance of ESLs suggests that additional remediation and/or investigation may be warranted, such as monitoring plume stability to demonstrate no risk to sensitive receptors in the case of sites where drinking water is not threatened. Because the subject property is a residential property where groundwater is not a potential drinking water resource (as stipulated above), the contaminant levels at the site will be compared to the ESLs for these criteria.

Contaminants detected above the ESLs during this sampling event include gasoline, diesel, benzene, toluene, ethylbenzene, and total xylenes. In general, concentrations of all of these contaminants have decreased significantly from the previous March 2008 sampling event.

5.0 FREE-PHASE HYDROCARBON PRODUCT REMEDICATION SYSTEM

This section describes the extraction of the historical free product in the Emery Bay Phase I Condo parking garage, the construction details of the current LNAPL remediation system located on the northeastern portion of the garage, and the most recent product removal activities conducted in May and June 2008. Table 3 summarizes the product removed from the skimmers during the May and June 2008 events. Appendix E summarizes historical product removal. Figure 11 compares the amount of total product removed on a yearly basis from 2004 to the present.

LNAPL REMEDIATION SYSTEM CONSTRUCTION

In an attempt to maximize free product removal, PES constructed three trenches, each containing three sump wells, in the northeastern area of the Emery Bay Phase I Condo parking garage. Historically, this area has had the highest concentrations of contamination and accumulation of free product. The trenches (TA, TB, and TC) extend to depths of approximately 12.5 to 13 feet bgs, while the collection sumps (TA-W, TA-M, TA-E, TB-W, TB-M, TB-E, TC-W, TC-M, and TC-E) extend to approximately 11 to 13 feet bgs. The sumps were constructed using 10-inch-diameter schedule 40 polyvinyl chloride (PVC) casing. Blank casing was used from approximately 0.5 feet bgs to between 6 and 8 feet bgs. Slotted 0.06-inch PVC was used from between 6 and 8 feet bgs to 6 inches from the total depth of the trench. The trenches were then backfilled with high-porosity, high-permeability gravel designed to promote LNAPL migration (PES, 2007). Appendix D contains the trench schematic. Passive skimmers, manufactured by QED Environmental Systems (of Oakland, California), were then placed in each of the sumps in Trench A and in one of the sumps (TC-E) in Trench C.

The skimmers operate by floating on the surface of the water. Water and free product collect in a filtration reservoir, which allows water to pass through. A tube connected to the reservoir then filters the collected free product into a collection reservoir located below the water surface. The reservoir can be emptied by opening a valve located on the bottom of the cylindrical shaped reservoir. Each of these skimmers is attached to the sump lid by a rope, and can be removed and transferred to another sump as needed.

Table 3
Trench Product Extraction
May and June 2008

Trench ID	Number of Skimmers in Well	Total Product Removed (gallons)		
		May 23	June 24	Total
TA-E	2	0.4	0.15	0.55
TA-M	2	1.0	0.11	1.11
TA-W	2	0.50	0.57	1.07
TB-E	0	NA	NA	NA
TB-M	0	NA	NA	NA
TB-W	0	NA	NA	NA
TC-E	1	NA	NA	NA
TC-M	0	NA	NA	NA
TC-W	0	NA	NA	NA
Total Product Removed		1.9	0.83	2.73

Note:

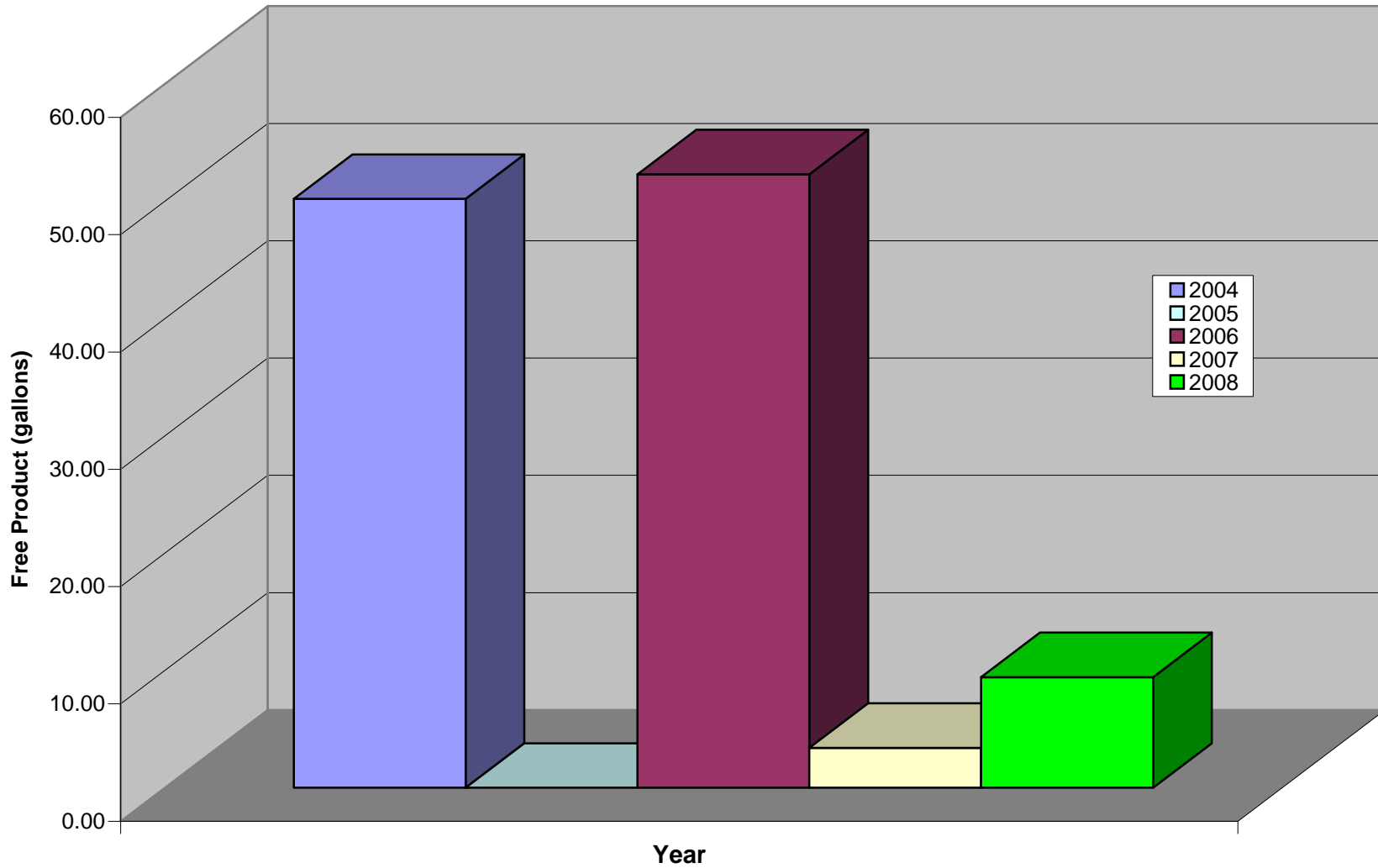
NA = No skimmer was located in the well, or no product was present.

HISTORICAL FREE PRODUCT EXTRACTION

As mentioned under “Previous Investigations” in Section 1.0, in approximately 1986, contaminated soil and groundwater were discovered during the removal of 12 UFSTs from the Emery Bay Phase I and Phase II parcels. To dewater the excavation during the Phase I and Phase II Condo construction, a groundwater extraction and remediation system was installed by GTI in 1988. Approximately 1 million gallons of water yielding 100 gallons of hydrocarbon product was removed from RW-1 during its operation (PES, 2007). However, corrosion and other mechanical problems caused the system to fail in 1991, and it was decommissioned in 1994. In February 2008, SES removed all of the old parts of the system from the well vault.

In 2004, PES began manual extraction on RW-1, and was reported to have removed approximately 48 gallons of LNAPL (PES, 2004a)—although it is unclear whether the removed material was pure product or product mixed with water. To accelerate free product removal, PES constructed a new LNAPL hydrocarbon remediation system (described below) between April and May 2004 (PES, 2007). Several extraction events were conducted by PES from May 2004 through March 2007; the extraction events yielded a total of approximately 51 gallons of LNAPL. No extraction events were conducted by PES in 2005; approximately 50 gallons of hydrocarbons were removed in 2006; and

Figure 11
Total Free Product Extracted Per Year
6400 Christie Avenue, Emeryville, CA



approximately 0.6 gallon of hydrocarbons was removed by PES between January and November 2007. In November and December 2007, after SES was retained for the project, the skimmer system only yielded 2.82 gallons. Appendix E contains historical trench product extraction data. Figure 11 graphs the comparison of free product extraction on a yearly basis.

It should be noted that no historical product extraction reports were provided to SES by the previous owner or by PES. Therefore, there is little to no information on how active product extraction occurred during 2004 and 2006. The amount of free product removed during 2004 and 2006 appears to have been high, as only 100 gallons of free product was obtained from actively pumping over 1 million gallons of water continuously between 1989 and 1991.

MAY 2008 PRODUCT REMOVAL EVENT

Historical yield from the trench recovery system has been unproductive, with the 1-liter passive skimmer collection reservoirs not filling up completely, or filling up with water rather than product. The highest hydrocarbon product yield has occurred from active pumping on recovery well RW-1 or at various other wells. SES conducted passive skimmer product removal on the trench wells in May and June 2008, and active pumping on the trench wells, recovery well RW-1, and select monitoring wells during the May 2008 removal event. A total of approximately 393 gallons of groundwater, yielding 3.66 gallons of free product, was removed during the May 2008 active product removal event. An additional 2.73 gallons was removed passively from the skimmers in May and June 2008. Table 3 shows the allocation of free product removed from the collection skimmers in Trenches A and C. Table 4 shows the total amount of product actively removed by pumping based on the total amount of groundwater/product removed for the May 2008 extraction event. The removal activities occurred as follows.

On May 23, 2008, SES removed a total of 1.9 gallons of LNAPL from the skimmers in the three sump wells in Trench A. Approximately 100 gallons of free product/groundwater was removed from trench well TA-W. SES removed 50 gallons of free product/groundwater from each of the trench wells TA-M and TA-E, and 150 gallons of free product/groundwater on recovery well RW-1. Active pumping was also conducted on select monitoring wells—yielding 10 gallons from MW-3, 2 gallons from MW-13, 8 gallons from MW-12, 8 gallons from MW-10, 1 gallon from MW-14, and 14 gallons from MW-17.

Table 4
Active Product Extraction
May 2008

Well	Total Gallons of Product Removed During May 2008 Event	Well	Total Gallons of Product Removed During May 2008 Event
MW-3	0.09	MW-17	0.130
MW-5	NP	MW-18	NP
MW-6	NP	MW-E	NP
MW-7	NP	RW-1	1.397
MW-8	NP	TA-E	0.466
MW-9	NP	TA-M	0.466
MW-10	0.075	TA-W	0.931
MW-11	NP	TB-E	NP
MW-12	0.075	TB-M	NP
MW-13	0.019	TB-W	NP
MW-14	0.009	TC-E	NP
MW-15	NP	TC-M	NP
MW-16	NP	TC-W	NP
Total			3.66

Notes:

NP = not purged

Product removal estimates are based on the total amount of free product measured in the purge tank (3.66 gallons) rather than on the total amount of groundwater purged (393 gallons), which yields 0.009 gallon of product per 1 gallon of purge water.

All of the purge water and free product extracted during these events was containerized onsite in the aboveground 1,100-gallon AST located in the northeastern gated area of the garage. The purge water/product will remain onsite until the AST reaches capacity, and will then be disposed of under manifest to an offsite facility.

DISCUSSION

As mentioned under the “Historical Free Product Extraction” subsection of this chapter, no product extraction was conducted by PES in 2005. Product removal in 2006 was reported at a significant 52 gallons by PES; however, it was not achieved through collection from the trench hydrocarbon skimmers, but rather through active pumping, and it is unclear in the PES documentation if this removal was actually pure product or a mix of product and water. The recovery by PES from the start of 2007 through October 2007 (when SES assumed environmental consulting activities) was limited to 0.6 gallon collected from the skimmers. In addition, there had been no removal of free

product from well RW-1 since 2004, at which time approximately 50 gallons of free product was removed by active pumping. The majority of free product apparently was removed from active pumping and removal activities rather than from the trench well skimmers. Thus, we conclude that the trench recovery system is not effective. In 2007, passive extraction of free product through trench well skimmers only removed 3.41 gallons. SES has removed 3.84 gallons of free product from these skimmers during the 2008 removal events.

As demonstrated by the June 2008 analytical data, active pumping on the source area wells has drastically reduced both gasoline and diesel concentrations during this quarter. More active remediation will likely be required on this site to reduce the concentrations to levels acceptable to the regulatory community and to achieve eventual regulatory closure. However, with the exception of the current program of LNAPL removal from the skimmers and wells, no additional active remedies are proposed until the completion of the four consecutive quarterly sampling events are completed. This will ensure that hydrochemical and hydrologic variability can be factored into the development of an appropriate remedy.

6.0 SUMMARY, CONCLUSIONS, AND PROPOSED ACTIONS

FINDINGS AND CONCLUSIONS

- The subject property parcel was developed as early as 1958 with the Motor Freight Station, associated with Delta Lines, Inc. The Delta Lines complex contained an “Oil and Gas” building, located at the site of the present-day Emery Bay Phase I Condo complex and parking garage. In 1986, the building was demolished, and 12 UFSTs containing diesel and gasoline were removed from the Emery Bay Phase I and Phase II Condo complex parcels. Soil and groundwater contamination was discovered.
- In response to the contamination, a LNAPL groundwater pump-and-treat system was installed in 1989, but failed in 1991. Active pumping of free product began again in 2004, and a product extraction system consisting of passive product removal was installed in 2006. Groundwater monitoring events have been sporadically conducted since 1988.
- The site currently contains 17 monitoring wells, 1 recovery well, and 9 product extraction trench wells. This is the eighth sampling event conducted since 1988.
- Site geological conditions consist of a combination of fill and soft bay sediment to between 15 and 20 feet bgs, covered by approximately 1 to 2½ feet of pavement and imported fill. The upper 20 feet of firm bearing soil is primarily dense silty sand with intermittent layers of silty and sandy clay. Stiff to very stiff clay extends from a depth of approximately 40 feet to approximately 102 feet.
- The groundwater direction during this monitoring event was found to be to the west-northwest, toward San Francisco Bay.
- Groundwater elevations in the June 2008 monitoring event ranged from 7.00 to 9.35 feet above mean sea level, and the groundwater gradient is approximately 0.001 feet per foot.
- Current contaminants of concern include TPHg, TPHd, MTBE, and BTEX. Current groundwater concentrations exceeded the ESLs for contaminants in groundwater.
- Gasoline was detected in MW-3, MW-7, MW-8, MW-10, MW-11, MW-12, MW-13, MW-14, MW-15, MW-17, MW-E, and RW-1 above the ESLs where groundwater is not a drinking water resource (210 µg/L). Gasoline was also detected in MW-6 and MW-16, but was below the ESL.

- Diesel was detected in all site wells above the ESL of 210 µg/L (where groundwater is not a drinking water resource). The highest concentration (71,000 µg/L) was observed in MW 13. This is a significant decrease from the previous sampling event in which the diesel concentration was measured at 1,100,000 µg/L. All of the monitoring wells, with the exception of MW-6, showed a significant decrease in diesel concentration; this is most likely due to the active purging events conducted during this quarter.
- Concentrations of benzene exceeded the ESL of 46 µg/L where groundwater is not a drinking water resource in MW-7, MW-8, MW-10, MW-12, MW-13, MW-14, MW-15, MW-17, MW-E, and RW-1. Benzene was also found in MW-5, MW-6, MW-9, MW-11, and MW-16, but at concentrations below the ESL.
- Toluene was detected above the ESL of 130 µg/L in monitoring wells in MW-8, MW-13, and MW-14. Ethylbenzene was detected above the 43 µg/L ESLs (where groundwater is not a drinking water resource) in monitoring wells MW-8, MW-12, MW-13, MW-14, MW-15, and MW-E. Total xylene concentrations were above the 100 µg/L ESL where groundwater is not a drinking water resource for monitoring wells MW-7, MW-8, MW-12, MW-13, and MW-14. MTBE was not detected in any of the wells above the ESL of 1,800 µg/L, and only MW-3 (9.5 µg/L) had a MTBE concentration that was above the drinking water ESL of 5.0 µg/L.
- SES conducted passive skimmer product removal on the trench wells in May and June 2008, and active pumping on the trench wells, recovery well RW-1, and select monitoring wells during the May 2008 removal event. A total of 2.73 gallons was removed from the sump well skimmers in Trench A during the May and June 2008 events. A total of approximately 393 gallons of groundwater, yielding 3.66 gallons of free product, was removed during the May 2008 removal event.
- Significant decreases in gasoline and diesel concentrations during this quarter could be due to active product extraction events. However, further sampling is needed to obtain a full range of seasonal data over the course of at least 1 year.
- The trench recovery system, where free product is designed to collect in 1-liter skimmers, is not effective. Pumping at various wells is critical to maintaining some dynamic equilibrium so that the plume does not migrate outbound. While the passive free product removal system in trench sump wells does remove some free product, it appears inadequate in controlling plume migration in the absence of other removal actions.

RECOMMENDATIONS

- Groundwater monitoring of site wells should be continued on a quarterly basis to establish the baseline to meet site closure criteria. This will also aid in better understanding the dynamic equilibrium of the plume, and in determining the measures needed to stabilize and

reduce the plume to ultimately achieve site closure. Quarterly monitoring will allow for an evaluation of seasonal hydrocarbon plume trends and groundwater directional flow.

- Both active and passive free product removal events should be continued to ascertain their effectiveness in reducing the plume size over time.
- Now that a new ACEH case officer has been identified, a meeting should be requested with that agency to discuss the steps to regulatory closure.
- Electronic uploads to ACEH's ftp system and the State Water Board's GeoTracker system should be continued.
- In our professional opinion, the current program of quarterly groundwater monitoring, as well as both active and passive free product removal, are the appropriate actions to further evaluate the magnitude and stability of the contaminant plume over a 1-year period.
- Following the completion of the four consecutive quarterly sampling events designed to discern hydrochemical and hydrologic variability, an appropriate additional active remediation should be evaluated and developed.

7.0 REFERENCES AND BIBLIOGRAPHY

- Aqua Science Engineers (Aqua), 1986a. Hydrocarbon Contamination Abatement Plan for Bay Center, Emeryville, CA. May 23.
- Aqua Science Engineers (Aqua), 1986b. Report – Soil Sampling and Determination of Hydrocarbon Contamination from Tank Removal at the Bay Port Development, 64th and Lacoste Street, Emeryville, CA. May 27.
- Aqua Science Engineers (Aqua), 1986c. A Proposal for Installing a Fuel Contamination and Recovery System. August 27.
- Aqua Science Engineers (Aqua), 1986d. Phase II – Extent of Groundwater Contamination Investigation, Bay Center. August 27.
- Aqua Science Engineers (Aqua), 1986e. Project Report – Soils Gas Investigation, Bay Center. August 27.
- Aqua Science Engineers (Aqua), 1986f. Request for Additional Information Regarding Aeration and Sampling Soils Contaminated with Motor Fuel Hydrocarbons. Information addressed to the Alameda County Health Care Services, Hazardous Materials Unit. July 28.
- Aqua Science Engineers (Aqua), 1986g. Additional Information Regarding Aeration and Sampling Soils Contaminated with Motor Fuel Hydrocarbons. July 11.
- Bay Area Air Quality Management District (BAAQMD), 1987. Letter to the Martin Company authorizing the contaminated groundwater and oil recovery system. April 13.
- Chan, Barney, 2007. Project Officer, Alameda County Department of Environmental Health. Personal communication to Richard Makdisi of Stellar Environmental Solutions, Inc. April 10.
- Creps, Rob, 2007. PES Environmental, Inc. Project Manager for the Phase I Apartment Complex Remediation. Personal communication to Teal Glass and Richard Makdisi of Stellar Environmental Solutions, Inc. April 19.

- Earth Metrics, Inc., 1986a. Draft Soils Contamination Characterization for Garret Freight Lines Emeryville Site, 64th Street and Lacoste, Emeryville, CA. March 14.
- Earth Metrics, Inc., 1986b. Environmental Assessment for the Proposed Bay Center Apartment Complex in the Redevelopment Project Area of the City of Emeryville. May.
- Earth Metrics, Inc., 1986c. Draft Work Plan for Soils Contamination Characterization of Bay Center Site, Emeryville, CA. May 19.
- Earth Metrics, Inc., 1986d. Soils and Groundwater Contamination Characterization of Bay Center Site, Emeryville, CA. August 20.
- Earth Metrics, Inc., 1987. Safety Plan for Bay Center Offices and Apartments in Emeryville, CA. September 15.
- Geomatrix, 1988. Observation and Testing of Earthwork Construction, Bay Center Apartments. May 20.
- Groundwater Technology, Inc. (GTI), 1987a. Letter to Alameda County Health Department Hazardous Materials Division citing irregularities in the Aqua Science Laboratory Results. August 19.
- Groundwater Technology, Inc. (GTI), 1987b. Report of Further Subsurface Hydrocarbon Investigation, Emeryville, CA, Bay Center Project. September 8.
- Groundwater Technology, Inc. (GTI), 1989a. Well Replacement and Groundwater Assessment Report, Bay Center Project, Emeryville, CA. June.
- Groundwater Technology, Inc. (GTI), 1989b. Water Treatment System Start-Up Report, Bay Center Project, Christie and 64th Streets, Emeryville, CA. April 10.
- Groundwater Technology, Inc. (GTI), 1990a. First Quarter Sampling Event. Laboratory Analyses at the Bay Center Project. July 24.
- Groundwater Technology, Inc. (GTI), 1990b. Letter to the Bay Center Apartment Associates detailing problems with the groundwater extraction system. August 14.
- Groundwater Technology, Inc. (GTI), 1990c. Quarterly Report, Bay Center Apartment Associates, Bay Center Project, Christie and 64th Streets, Emeryville, CA. October 31.
- Groundwater Technology, Inc. (GTI), 1991a. Quarterly Report, Bay Center Project, Christie and 64th Streets, Emeryville, CA. January.

Groundwater Technology, Inc. (GTI), 1991b. Quarterly Status Report. April 15.

Harding Lawson Associates (HLA), 1991. Preliminary Hazardous Materials Site Assessment. December 16.

Harding Lawson Associates (HLA), 1992a. Results of Soil and Groundwater Investigation. May 6.

Harding Lawson Associates (HLA), 1992b. Hazardous Waste Management Plan. May 26.

Harding Lawson Associates (HLA), 1992c. Conceptual Design of Venting System, Emerybay II Apartments. November 24.

Harding Lawson Associates (HLA), 1993. Results of Soil Sampling, Emerybay II Apartments. April 21.

Harding Lawson Associates (HLA), 1994. Results of Services During Construction, Emerybay Apartments – Phase II. May 19.

Johnson, Mark, 2007. Project Officer, Regional Water Quality Control Board. Personal communication to Teal Glass of Stellar Environmental Solutions, Inc. April 11.

Martin Company, 1986a. Letter to Lowell Miller of the Alameda County Health Care Services documenting agreements for the construction workplan involving contaminated soil. June 5.

Martin Company, 1986b. Letter to Tom Owens of Emeryville Community Developers, Inc. documenting recognized contamination issues. May 21.

Martin Company, 1986c. Letter to Rafat Shahid of Alameda County Health Care Services documenting agreement of drum removal. May 16.

Martin Company, 1986d. Letter to the State Water Resources Control Board documenting unused underground storage tanks. December 11.

PES Environmental, Inc. (PES), 2004a. Status Report, Investigation of Subsurface Petroleum Hydrocarbon Residuals. Bay Center Apartments, Christie Avenue and 64th Street, Emeryville, CA. April 5.

PES Environmental, Inc. (PES), 2004b. Investigation for Missing Wells. April 5.

PES Environmental, Inc. (PES), 2004c. Status Report. August 30.

- PES Environmental, Inc. (PES), 2007. Construction Implementation and Semi-Annual Operations Report. Free-Phase Hydrocarbon Product Remediation System. EmeryBay Commercial Association, Christie Avenue and 64th Street, Emeryville, CA. March 30.
- Regional Water Quality Control Board (Water Board), 1999. East Bay Plain Groundwater Basin Beneficial Use Evaluation Report.
- Regional Water Quality Control Board (Water Board), 2008. Environmental Screening Levels for residential properties on shallow soils where groundwater is a drinking water resource / is not a drinking water resource. Written February 2005, revised May 2008.
- Stellar Environmental Solutions, Inc. (SES), 2007. Phase I Environmental Site Assessment – 6425-6475 Christie Avenue, Emeryville, CA. April 17.
- Stellar Environmental Solutions, Inc. (SES), 2008a. 2007 Annual Groundwater Monitoring and Product Extraction Report. EmeryBay Condo Phase I Parking Garage – 6400 Christie Avenue, Emeryville, CA. January 28.
- Stellar Environmental Solutions, Inc. (SES), 2008b. Quarter One 2008 Groundwater Monitoring and Product Extraction Report. EmeryBay Condo Phase I Parking Garage – 6400 Christie Avenue, Emeryville, CA. May 7.

8.0 LIMITATIONS

This report has been prepared for the exclusive use of Bay Center Investor LLC and Harvest Properties, their authorized representatives and assigns, and the regulatory agencies. No reliance on this report shall be made by anyone other than those for whom it was prepared.

The findings and conclusions presented in this report are based on a review of previous investigators' findings at the site, as well as site investigations conducted by SES in 2007. This report has been prepared in accordance with generally accepted methodologies and standards of practice. The SES personnel who performed this limited remedial investigation are qualified to perform such investigations and have accurately reported the information available, but cannot attest to the validity of that information. No warranty, expressed or implied, is made as to the findings, conclusions, and recommendations included in the report.

The findings of this report are valid as of the date of this report. Site conditions may change with the passage of time, natural processes, or human intervention, which can invalidate the findings and conclusions presented in this report. As such, this report should be considered a reflection of the current site conditions as based on the activities completed.

APPENDIX A

Historical Groundwater Well Analytical Results

TABLE A
Historical Groundwater Monitoring Well Groundwater Analytical Results
Petroleum and Aromatic Hydrocarbons (µg/L)
6400 Christie Avenue, Emeryville, California

MW-1									
Sampling Event No.	Date Sampled	TEH-d	TVH-g	TEH-mo	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE
1	Dec-88	380	17,000	NA	8,600	940	250	570	NA
2	May-89	130	24,000	NA	16,000	2,100	300	1,200	NA
3	Feb-91	<10	22,000	NA	6,800	3,500	410	2,000	NA
Monitoring well abandoned - date unclear									

MW-2									
Sampling Event No.	Date Sampled	TEH-d	TVH-g	TEH-mo	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE
1	Dec-88	72	22	NA	<0.5	<0.5	<0.5	<0.5	NA
2	May-89	40	18	NA	<0.5	<0.5	<0.5	<0.5	NA
3	Feb-91	83	<10	NA	<0.3	<0.3	<0.3	<0.6	NA
Monitoring well abandoned - date unclear									

MW-3									
Sampling Event No.	Date Sampled	TEH-d	TVH-g	TEH-mo	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE
1	Dec-88	<10	4,200	NA	77	1,400	140	560	NA
2	May-89	110	1,800	NA	64	250	61	110	NA
3	Feb-91	NS	NS	NS	NS	NS	NS	NS	NS
4	Mar-04	3,400	440	3,900	<0.5	<0.5	1.5	<1.0	9.7
5	Dec-06	350	280	230	<0.5	<0.5	<0.5	<0.5	2.0
6	Dec-07	960	150	NA	0.54	0.54	<0.5	<0.5	<2.0
7	Mar-08	6,600	450	NA	<0.5	<0.5	1.8	2.0	4.3
8	Jun-08	4,500	440	NA	<0.5	<0.5	4.0	2.0	9.5

MW-4									
Sampling Event No.	Date Sampled	TEH-d	TVH-g	TEH-mo	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE
1	Dec-88	<10	100	NA	2.0	1.0	<0.5	2.0	NA
2	May-89	60	18	NA	1.0	<0.5	<0.5	<0.5	NA
3	Feb-91	<10	<10	NA	<0.3	<0.3	<0.3	<0.6	NA
4	Mar-04	NS	NS	NS	NS	NS	NS	NS	NS
5	Dec-06	<50	50	<200	<0.5	<0.5	<0.5	<0.5	<1.0
6	Dec-07	710	<50	NA	<0.5	<0.5	<0.5	<0.5	<2.0
7	Mar-08	680	57	NA	<0.5	<0.5	<0.5	<0.5	<2.0
8	Jun-08	620	<50	NA	<0.5	<0.5	<0.5	<0.5	<2.0

MW-5									
Sampling Event No.	Date Sampled	TEH-d	TVH-g	TEH-mo	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE
1	Dec-88	530	890	NA	<1.0	<1.0	1.0	3.0	NA
2	May-89	90	5.0	NA	1.0	<0.5	<0.5	<0.5	NA
3	Feb-91	58	<10	NA	0.6	<0.3	<0.3	<0.6	NA
4	Mar-04	NS	NS	NS	NS	NS	NS	NS	NS
5	Dec-06	330	<25	<200	0.6	<0.5	<0.5	<0.5	<1.0
6	Dec-07	5,100	1.3	NA	1.3	<0.5	<0.5	1.23	<2.0
7	Mar-08	4,500	<50	NA	0.53	<0.5	<0.5	<0.5	<2.0
8	Jun-08	3,300	<50	NA	0.64	<0.5	<0.5	<0.5	<2.0

MW-6									
Sampling Event No.	Date Sampled	TEH-d	TVH-g	TEH-mo	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE
1	Dec-88	<10	52	NA	1.0	<0.5	<0.5	<0.5	NA
2	May-89	140	31	NA	1.0	<0.5	<0.5	<0.5	NA
3	Feb-91	130	40	NA	0.8	<0.3	<0.3	<0.6	NA
4	Mar-04	NS	NS	NS	NS	NS	NS	NS	NS
5	Dec-06	200	43	<200	1.1	<0.5	<0.5	<0.5	<1.0
6	Dec-07	1,000	<50	NA	0.98	0.81	<0.5	0.5	<2.0
7	Mar-08	940	<50	NA	0.87	1.0	<0.5	<0.5	<2.0
8	Jun-08	1,100	56	NA	0.92	<0.5	<0.5	<0.5	2.9

MW-7									
Sampling Event No.	Date Sampled	TEH-d	TVH-g	TEH-mo	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE
Installed in March 2004									
1	Mar-04	1,600	490	1,900	240	100	14	56	<2.5
2	Dec-06	420	<25	470	<0.5	<0.5	<0.5	<0.5	<1.0
3	Dec-07	6,300	3,100	NA	640	28	48	231	<10
4	Mar-08	7,000	360	NA	140	5.8	11	58	<2.0
5	Jun-08	5,400	1,700	NA	480	15	28	139	<2.0

MW-8									
Sampling Event No.	Date Sampled	TEH-d	TVH-g	TEH-mo	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE
Installed in March 2004									
1	Mar-04	140,000	51,000	56,000	19,000	720	2,400	3,300	<50
2	Dec-06	2,400	29,000	<380	13,000	<100	640	500	<200
3	Dec-07	5,900	30,000	NA	11,000	180	650	561	<100
4	Mar-08	21,000	47,000	NA	10,000	260	1,200	458	<2.0
5	Jun-08	7,300	27,000	NA	9,300	140	790	290	<2.0

MW-9									
Sampling Event No.	Date Sampled	TEH-d	TVH-g	TEH-mo	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE
Installed in March 2004									
1	Mar-04	1,300	95	1,500	4.7	0.68	<0.5	<1.0	<0.5
2	Dec-06	<50	92	<200	2.8	<0.5	<0.5	<0.5	<1.0
3	Dec-07	8,400	84	NA	4.7	1.1	<0.5	1.9	<2.0
4	Mar-08	8,600	100	NA	4.1	1.1	<0.5	<0.5	2.0
5	Jun-08	5,900	98	NA	4.9	<0.5	<0.5	<0.5	2.3

MW-10									
Sampling Event No.	Date Sampled	TEH-d	TVH-g	TEH-mo	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE
Installed in March 2004									
1	Mar-04	840,000	14,000	<100,000	4,000	77	200	120	<50
2	Dec-06	19,000	12,000	<4,000	4,600	42	90	52	<50
3	Dec-07	4,700	13,000	NA	5,300	96	42	86	<50
4	Mar-08	280,000	10,000	NA	2,600	50	37	58.7	22
5	Jun-08	4,800	10,000	NA	3,800	62	24	61	<2.0

MW-11									
Sampling Event No.	Date Sampled	TEH-d	TVH-g	TEH-mo	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE
Installed in May 2004									
1	Dec-06	<50	920	<200	26	4.5	1.8	5.4	<1.0
2	Dec-07	6,900	1,500	NA	320	44	53	140	<2.0
3	Mar-08	7,500	1,200	NA	120	7.6	10	24.9	3.0
4	Jun-08	5,100	2,000	NA	190	11	7.7	16.3	<2.0

MW-12									
Sampling Event No.	Date Sampled	TEH-d	TVH-g	TEH-mo	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE
Installed in May 2004									
1	Dec-06	<50	19,000	<200	9,100	51	<50	110	<100
2	Dec-07	2,700	17,000	NA	8,000	110	25	115	<40
3	Mar-08	3,300	33,000	NA	9,200	140	85	116	<2.0
4	Jun-08	3,000	17,000	NA	6,600	95	50	110	<2.0

MW-13									
Sampling Event No.	Date Sampled	TEH-d	TVH-g	TEH-mo	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE
Installed in April 2004									
1	Dec-06	12,000	87,000	2,100	18,000	470	2,400	3,500	<400
2	Dec-07	NA	68,000	NA	19,000	650	1,700	2,440	<100
3	Mar-08	1,100,000	98,000	NA	19,000	820	2,300	3,190	<100
4	Jun-08	71,000	44,000	NA	12,000	510	1,600	1,950	<2.0

MW-14									
Sampling Event No.	Date Sampled	TEH-d	TVH-g	TEH-mo	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE
Installed in April 2004									
1	Dec-06	<50	8,300	<200	3,700	240	230	260	<50
2	Dec-07	2,600	6,800	NA	3,100	150	220	168	<20
3	Mar-08	4,400	18,000	NA	4,400	330	340	245	<2.0
4	Jun-08	2,600	7,700	NA	2,600	180	200	141	<2.0

MW-15									
Sampling Event No.	Date Sampled	TEH-d	TVH-g	TEH-mo	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE
Installed in April 2004									
1	Dec-06	<50	9,200	<200	3,700	<25	60	57	<50
2	Dec-07	3,300	8,100	NA	3,000	48	28	44.5	<20
3	Mar-08	3,000	13,000	NA	3,600	66	210	59.5	64
4	Jun-08	2,900	15,000	NA	5,800	61	230	56.4	<2.0

MW-16									
Sampling Event No.	Date Sampled	TEH-d	TVH-g	TEH-mo	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE
Installed in April 2004									
1	Dec-06	<50	190	<200	11.0	1.4	<0.5	<0.5	<1.0
2	Dec-07	8,500	71	NA	13	2.6	<0.5	1.46	<2.0
3	Mar-08	12,000	60	NA	11	0.73	<0.5	<0.5	<2.0
4	Jun-08	10,000	120	NA	13	2.2	<0.5	<0.5	2

MW-17									
Sampling Event No.	Date Sampled	TEH-d	TVH-g	TEH-mo	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE
Installed in April 2004									
1	Dec-06	<50	14,000	<200	3,400	1,100	480	<0.5	<1.0
2	Dec-07	2,900	5,000	NA	1,100	260	110	206	<10
3	Mar-08	3,100	6,800	NA	1,200	110	91	94	21
4	Jun-08	2,900	7,200	NA	1,100	45	75	66	<2.0

MW-18									
Sampling Event No.	Date Sampled	TEH-d	TVH-g	TEH-mo	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE
Installed in May 2004									
1	Dec-06	<50	120	<200	22	6.2	3.2	6.2	<2.0
2	Dec-07	8,600	<50	NA	0.98	<0.5	<0.5	<0.5	<2.0
3	Mar-08	9,800	<50	NA	0.52	<0.5	<0.5	<0.5	2.0
4	Jun-08	8,800	<50	NA	<0.5	<0.5	<0.5	<0.5	3.1

MW-E									
Sampling Event No.	Date Sampled	TEH-d	TVH-g	TEH-mo	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE
1	Dec-88	100	5,400	NA	3,200	690	97	330	NA
2	May-89	NS	NS	NS	NS	NS	NS	NS	NS
3	Feb-91	NS	NS	NS	NS	NS	NS	NS	NS
4	Mar-04	470	810	<500	340	6.1	2.2	7.7	<1.0
5	Dec-06	280	1,900	<200	910	<10	10	<10	<20
6	Dec-07	6,900	7,000	NA	3,300	50	51	80	<20
7	Mar-08	6,300	2,700	NA	780	17	20	20.9	12
8	Jun-08	5,200	7,400	NA	2,900	43	85	50	<2.0

RW-1									
Sampling Event No.	Date Sampled	TEH-d	TVH-g	TEH-mo	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE
1	Dec-88	NS	NS	NS	NS	NS	NS	NS	NS
2	May-89	NS	NS	NS	NS	NS	NS	NS	NS
3	Feb-91	NS	NS	NS	NS	NS	NS	NS	NS
4	Mar-04	NS	NS	NS	NS	NS	NS	NS	NS
5	Dec-06	<50	640	<200	100	1.3	2	1.6	<1.0
6	Dec-07	2,100	770	NA	110	<0.5	3.8	1.96	<2.0
7	Mar-08	11,000	890	NA	100	4.2	4.4	2.0	<2.0
8	Jun-08	1,500	1,200	NA	290	4.8	10	4.8	<2.0

Notes:

The 1988, 1989, and 1991 sampling events were conducted by Groundwater Technology, Inc.

The 2004 and 2006 sampling events were conducted by PES Environmental.

NS = Not sampled

NA = Not analyzed for this constituent

All concentrations shown in µg/L

APPENDIX B

Groundwater Monitoring Field Data Sheets

SPH or Purge Water Drum Log

Client: Skeller Env.

Site Address: 65th + Bay Sts. Bromleyville Ct.

STATUS OF DRUM(S) UPON ARRIVAL

Date	12/27/07	12/28/07	3/24/08	06/25/08		
Number of drum(s) empty:				2		
Number of drum(s) 1/4 full:	0	1				
Number of drum(s) 1/2 full:		1	1 skelbr			
Number of drum(s) 3/4 full:						
Number of drum(s) full:		1	2 ⁽¹⁾ BTS	1 skelbr		
Total drum(s) on site:	1	2	3 ⁽¹⁾ BTS	3		
Are the drum(s) properly labeled?	No (N _o BTS)	Y	Y	Y		
Drum ID & Contents:	?	purge water & SPH →	→	→		
If any drum(s) are partially or totally filled, what is the first use date:			↓			

- If you add any SPH to an empty or partially filled drum, drum must have ^{1 Source 1 D. by Full} at least 20 gals. of Purgewater or DI Water.
- If drum contains SPH, the drum MUST be steel AND labeled with the appropriate label.
- All BTS drums MUST be labeled appropriately.

STATUS OF DRUM(S) UPON DEPARTURE

Date	12/27/07	12/27/07	3/25/08	06/25/08		
Number of drums empty:				1		
Number of drum(s) 1/4 full:	1			1		
Number of drum(s) 1/2 full:		1	1 (Skelbr)			
Number of drum(s) 3/4 full:			1 (BTS)	1		
Number of drum(s) full:	1	1	2 ⁽¹⁾ BTS			
Total drum(s) on site:	2	2	4	3		
Are the drum(s) properly labeled?	1 Y 1 No	Y	Y	Y		
Drum ID & Contents:	Purge H ₂ O (BTS)	H ₂ O & SPH →	→	→		

LOCATION OF DRUM(S)

Describe location of drum(s): (corner of garage next to 65th St. 3/25/08 1.500 gal. P. by is full of SPH (skelbr))

FINAL STATUS

Number of new drum(s) left on site this event	1	0	1	0		
Date of inspection:	12/27/07	12/28/07	3/25/08	06/25/08		
Drum(s) labelled properly:	Y	Y	Y	Y		
Logged by BTS Field Tech:	DR	KF	DR	MD		
Office reviewed by:			M	PL		

WELL GAUGING DATA

Project # 080624-M01 Date 06/24/08 Client Stellar

Site 65th and Bay Street, Emeryville, Ca

Well ID	Time	Well Size (in.)	Sheen / Odor	Depth to Immiscible Liquid (ft.)	Thickness of Immiscible Liquid (ft.)	Volume of Immiscibles Removed (ml)	Depth to water (ft.)	Depth to well bottom (ft.)	Survey Point: TOB or TOP	Notes
MW-7	0830	3/4					10.50	19.59		
MW-8	0910	3/4		09.10	0.58		09.68	—		
MW-9	0836	2/4					09.68	19.30		
MW-10	0915	3/4		8.78	6.08		08.86	—		
MW-11	0840	3/4					10.20	18.71		
MW-12	0946	3/4					08.86	18.69		
MW-13	0919	3/4		09.95	2.41		10.26	—		
MW-14	0903	3/4		08.62	0.04		08.58	—		
MW-15	0907	3/4		09.63	0.57 0.63		09.06	—		
MW-16	0851	3/4					09.25	18.12		
MW-18	0855	3/4					08.34	19.38		
MW-E	0859	2					10.20	44.31		
RW-1	0924	10		08.87	0.08		could not get under level, spk too thick			
							08.95	—		

WELL GAUGING DATA

Project # 080624-MD-1 Date 6/24/08 Client STELLAR ENV.

Site 6400 CHRISTIE AVENUE, EMERYVILLE, CA

Well ID	Time	Well Size (in.)	Sheen / Odor	Depth to Immiscible Liquid (ft.)	Thickness of Immiscible Liquid (ft.)	Volume of Immiscibles Removed (ml)	Depth to water (ft.)	Depth to well bottom (ft.)	Survey Point: TOB or POC	Notes
MW-1										
MW-2										COULD NOT LOCATE WELL. PAVED OVER
MW-3	0916	2	SPH SIDES	COATED ALONG OF THE WELL			8.96	—		CHRISTY
MW-4	0831	2					6.94	24.86		CHRISTY
MW-5	0823	2					9.72	24.85		CHRISTY
MW-6	0843	2					7.55	23.18		CHRISTY
MW-17	0900	3/4"	LIGHT SHEEN	8.97	0.01		8.98	19.45	↓	
										Remain. for skimmer
										H ₂ O sp
TA-W	1421	10	sheen odor				08.40	—		— 2150
TA-M	1446	10	sheen odor				08.48	—		1800ml 400
TA-E	1435	10	sheen odor				08.59	—		3650ml 550
TB-W	1409	10					08.57	—		—
TB-M	1412	10					08.54	—		—
TB-E	1414	10					08.42	—		—
TC-W	1418	10					08.95	—		—
TC-M	1419	10					09.18	—		—
TC-E	1420	10	sheen odor	08.96	0.03		08.99	—	↓	450ml 300

WELLHEAD INSPECTION CHECKLIST

Page ____ of ____

Date 6/24/08 Client STELLAR ENV.

Site Address 6400 CHRISTIE AVENUE, EMERYVILLE, CA

Job Number 080624-MD-1 Technician IW

Well ID	Well Inspected - No Corrective Action Required	Water Bailed From Wellbox	Wellbox Components Cleaned	Cap Replaced	Debris Removed From Wellbox	Lock Replaced	Other Action Taken (explain below)	Well Not Inspected (explain below)
MW-1								
MW-2		WELL PANGD OVER						
MW-3	X							
MW-4	X							
MW-5	X							
MW-6	X							
MW-17		1 OF 2 9/16" BOLTS MISSING						

NOTES: _____

WELL MONITORING DATA SHEET

Project #: 080624-MD1	Client: Stellar
Sampler: MD	Date: 06/25/08
Well I.D.: MW-E	Well Diameter: 2 3 4 6 8
Total Well Depth (TD): 49.31	Depth to Water (DTW): 10.20
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: MS Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]:	

Purge Method: Bailer	Water: Peristaltic	Sampling Method: Bailer
Disposable Bailer	Extraction Pump	Disposable Bailer
Positive Air Displacement	Other: 5/8" Shock valve	Extraction Port
Electric Submersible		Dedicated Tubing
		Other: Hand pump

5.5 (Gals.) X 3 = 16.5 Gals. 1 Case Volume Specified Volumes Calculated Volume	<table border="1" style="width: 100%; border-collapse: collapse; font-size: small;"> <tr> <th>Well Diameter</th> <th>Multiplier</th> <th>Well Diameter</th> <th>Multiplier</th> </tr> <tr> <td>1"</td> <td>0.04</td> <td>4"</td> <td>0.65</td> </tr> <tr> <td>2"</td> <td>0.16</td> <td>6"</td> <td>1.47</td> </tr> <tr> <td>3"</td> <td>0.37</td> <td>Other</td> <td>radius² * 0.163</td> </tr> </table>	Well Diameter	Multiplier	Well Diameter	Multiplier	1"	0.04	4"	0.65	2"	0.16	6"	1.47	3"	0.37	Other	radius ² * 0.163
Well Diameter	Multiplier	Well Diameter	Multiplier														
1"	0.04	4"	0.65														
2"	0.16	6"	1.47														
3"	0.37	Other	radius ² * 0.163														

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
0833	13.9	10.32	3251	17	5.5	odor
0838	13.6	8.15	3349	11	11.0	odor
0843	13.6	8.92	3501	23	16.5	odor

Did well dewater? Yes <input type="radio"/> No <input checked="" type="radio"/>	Gallons actually evacuated: 16.5	
Sampling Date: 06/25/08	Sampling Time: 0901	Depth to Water:
Sample I.D.: MW-E	Laboratory: Kiff CalScience	Other: CST
Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5)	Other: See COT	
EB I.D. (if applicable): 	Duplicate I.D. (if applicable): 	
Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5)	Other: 	
D.O. (if req'd): Pre-purge: mg/L	Post-purge: mg/L	
O.R.P. (if req'd): Pre-purge: mV	Post-purge: mV	

WELL MONITORING DATA SHEET

Project #: <u>080624-MD1</u>	Client: <u>Stellar</u>
Sampler: <u>MD</u>	Start Date: <u>06/25/08</u>
Well I.D.: <u>MW-2</u>	Well Diameter: 2 3 4 6 8 <u>3/4</u>
Total Well Depth:	Depth to Water:
Before: After: 	Before: After:
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: PVC Grade	D.O. Meter (if req'd): YSI HACH

Purge Method:
 Bailer
 Disposable Bailer
 Middleburg
 Electric Submersible
 Extraction Pump
 Other:

Sampling Method:
 Bailer
 Disposable Bailer
 Extraction Port
 Other:

_____ (Gals.) X _____ = _____ Gals.
 1 Case Volume Specified Volumes Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
2"	0.16	5"	1.02
3"	0.37	6"	1.47
4"	0.65	Other	radius ² * 0.163

Time	Temp (°F)	pH	Cond.	Turbidity	Gals. Removed	Observations
<u>Well inaccessible - paved over w/ asphalt</u>						
<u>no purge no sample</u>						

Did well dewater? Yes No Gallons actually evacuated:

Sampling Time: Sampling Date:

Sample I.D.: Laboratory:

Analyzed for: TPH-G BTEX MTBE TPH-D Other:

Equipment Blank I.D.: @ Duplicate I.D.:

Analyzed for: TPH-G BTEX MTBE TPH-D Other:

D.O. (if req'd):	Pre-purge: mg/L	Post-purge: mg/L
ORP (if req'd):	Pre-purge: mV	Post-purge: mV

WELL MONITORING DATA SHEET

Project #: 080624-MD-1	Client: STELLAR ENV.
Sampler: 1W	Start Date: 6/24/08
Well I.D.: MW-3	Well Diameter: 2 3 4 6 8 _____
Total Well Depth: _____	Depth to Water: 8.56
Before: _____ After: _____	Before: _____ After: _____
Depth to Free Product: _____	Thickness of Free Product (feet): _____
Referenced to: PVC Grade	D.O. Meter (if req'd): YSI HACH

Purge Method: Bailer
 Disposable Bailer
 Middleburg
 Electric Submersible
 Extraction Pump
 Other: **PERISTALTIC PUMP**

Sampling Method: Bailer
 Disposable Bailer
 Extraction Port
 Other: **NEW TUBING**

_____ (Gals.) X _____	=	_____ Gals.
1 Case Volume	Specified Volumes	Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
2"	0.16	5"	1.02
3"	0.37	6"	1.47
4"	0.65	Other	radius ² * 0.163

Time	Temp (°F)	pH	Cond.	Turbidity	Gals. Removed	Observations
* SPH THICK AND TAR-LIKE, FOUND COATING						
THE WELL PIPE. INTERFACE PROBE USED; UNDETERMINED						
THICKNESS OF PRODUCT DUE TO EQUIPMENT BEING COATED.						
HISTORY INDICATES THE PRODUCT IS FOUND DEEP, IN THE PAST.						
RAW THE PERISTALTIC 6 MINUTES AND SAMPLED.						

1405 * FLOATING DROPS OF PRODUCT IN ^W PURGED ~~6~~ ^W 0.75 gal
WATER

Did well dewater? Yes No Gallons actually evacuated: **0.75 gal**

Sampling Time: **1405** Sampling Date: **6/24/08**

Sample I.D.: **MW-3** Laboratory: **C+T**

Analyzed for: **TPH-G** BTEX MTBE **TPH-D** Other: _____

Equipment Blank I.D.: _____ @ _____ Time Duplicate I.D.: _____

Analyzed for: TPH-G BTEX MTBE TPH-D Other: _____

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
ORP (if req'd):	Pre-purge:	mV	Post-purge:	mV

WELL MONITORING DATA SHEET

Project #: 080624-MD-1	Client: STELLAR ENV.
Sampler: 1W	Start Date: 6/24/08
Well I.D.: MW-4	Well Diameter: (2) 3 4 6 8 _____
Total Well Depth: 24.85	Depth to Water: 6.94
Before: 24.85 After: 24.85	Before: 6.94 After: 6.97
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH

Purge Method: Bailer <input checked="" type="checkbox"/> Disposable Bailer Middleburg Electric Submersible Extraction Pump Other: _____	Sampling Method: Bailer <input checked="" type="checkbox"/> Disposable Bailer Extraction Port Other: _____
--	---

2.9 (Gals.) X	3 Specified Volumes	= 8.7 Gals. Calculated Volume
1 Case Volume		

Well Diameter	Multiplier	Well Diameter	Multiplier
2"	0.16	5"	1.02
3"	0.37	6"	1.47
4"	0.65	Other	radius ² * 0.163

Time	Temp (°F)	pH	Cond.	Turbidity	Gals. Removed	Observations
1012	63.8	7.30	1355 <small>µS</small>	192	2.9	STRONG ODOR DTW = 6.98
1017	63.4	7.26	1357	296	5.8	" DTW = 6.96
1023	63.2	7.27	1361	226	8.7	" DTW = 6.97

Did well dewater? Yes No Gallons actually evacuated: **8.7**

Sampling Time: **1028** Sampling Date: **6/24/08**

Sample I.D.: **MW-4** Laboratory: **C+T**

Analyzed for: **(TPH-G)** BTEX MTBE **(TPH-D)** Other:

Equipment Blank I.D.: @ Time Duplicate I.D.:

Analyzed for: TPH-G BTEX MTBE TPH-D Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
ORP (if req'd):	Pre-purge:	mV	Post-purge:	mV

WELL MONITORING DATA SHEET

Project #: 080624-MD-1	Client: STELLAR ENV.
Sampler: 1W	Start Date: 6/24/08
Well I.D.: MW-5	Well Diameter: 2 3 4 6 8 _____
Total Well Depth: 24.85	Depth to Water: 9.72
Before: 24.85 After: 24.85	Before: 9.72 After: 18.60
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: PVC Grade	D.O. Meter (if req'd): YSI HACH

Purge Method: Bailer Disposable Bailer
 Middleburg Electric Submersible
 Extraction Pump

Other: _____

Sampling Method: Bailer Disposable Bailer
 Extraction Port

Other: _____

2.4	(Gals.) X	3	=	7.2	Gals.
1 Case Volume		Specified Volumes		Calculated Volume	

Well Diameter	Multiplier	Well Diameter	Multiplier
2"	0.16	5"	1.02
3"	0.37	6"	1.47
4"	0.65	Other	radius ² * 0.163

Time	Temp (°F)	pH	Cond. <i>us</i>	Turbidity	Gals. Removed	Observations
1046	64.4	7.67	2721	>1000	2.4	DARK GRAY DTW = 15.26
1051	65.0	7.72	2669	>1000	4.8	" DTW = 17.04
1055	65.2	7.76	2667	>1000	7.2	" DTW = 18.60

Did well dewater? Yes No Gallons actually evacuated: **7.2**

Sampling Time: **1105** DTW = **12.46** Sampling Date: **6/24/08**

Sample I.D.: **MW-5** Laboratory: **C+T**

Analyzed for: TPH-G BTEX MTBE TPH-D Other:

Equipment Blank I.D.: @ Time Duplicate I.D.:

Analyzed for: TPH-G BTEX MTBE TPH-D Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
ORP (if req'd):	Pre-purge:	mV	Post-purge:	mV

WELL MONITORING DATA SHEET

Project #: 080624-MD-1	Client: STELLAR ENV.
Sampler: 1W	Start Date: 6/24/08
Well I.D.: MW-6	Well Diameter: ② 3 4 6 8 _____
Total Well Depth: 23.18	Depth to Water: 7.55
Before: 23.18 After: 23.18	Before: 7.55 After: 7.71
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: PVC Grade	D.O. Meter (if req'd): YSI HACH

Purge Method: Bailer Sampling Method: Bailer
 Disposable Bailer Disposable Bailer
 Middleburg Extraction Port
 Electric Submersible Other: _____
 Extraction Pump

Other: _____

Well Diameter	Multiplier	Well Diameter	Multiplier
2"	0.16	5"	1.02
3"	0.37	6"	1.47
4"	0.65	Other	radius ² * 0.163

2.5	(Gals.) X	3	=	7.5	Gals.
1 Case Volume		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Cond. ^{µS}	Turbidity	Gals. Removed	Observations
1119	62.7	10.57	1809	168	2.5	CLOUDY DTW = 7.61
1124	62.3	10.48	1815	526	5.0	DARK DTW = 7.66
1125	* CHECKED ACCURACY OF THE ULTRAMETER AGAINST 4.0, 7.0, 10.0 SOLUTIONS = 3.96, 7.05, 10.10					
1131	62.5	10.46	1836	498	7.5	DTW = 7.71

Did well dewater? Yes **No** Gallons actually evacuated: **7.5**

Sampling Time: **1137** Sampling Date: **6/24/08**

Sample I.D.: **MW-6** Laboratory: **C+T**

Analyzed for: **TPH-G** BTEX MTBE **TPH-D** Other:

Equipment Blank I.D.: @ _____ Time Duplicate I.D.:

Analyzed for: TPH-G BTEX MTBE TPH-D Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
ORP (if req'd):	Pre-purge:	mV	Post-purge:	mV

WELL MONITORING DATA SHEET (New w/ pressure) (HCC)

Project #: <u>080024-MD1</u>	Client: <u>Stella</u>
Sampler: <u>MD</u>	Start Date: <u>06/24/08</u>
Well I.D.: <u>MW-7</u>	Well Diameter: 2 3 4 6 8 3/4
Total Well Depth: <u>19.59</u>	Depth to Water: <u>10.50</u>
Before: _____ After: _____	Before: _____ After: _____
Depth to Free Product: _____	Thickness of Free Product (feet): _____
Referenced to: <u>RVC</u> Grade	D.O. Meter (if req'd): YSI HACH

Purge Method: Bailer
 Disposable Bailer
 Middleburg
 Electric Submersible
 Extraction Pump
 Other: permi pump

Sampling Method: Bailer
 Disposable Bailer
 Extraction Port
 Other: new tube

0.2 (Gals.) X 3 = 0.6 Gals.
 1 Case Volume Specified Volumes Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
2"	0.16	5"	1.02
3"	0.37	6"	1.47
4"	0.65	Other	radius ² * 0.163

3/4 0.02

Time	Temp (°F)	pH	Cond. MD	Turbidity	Gals. Removed	Observations
<u>09:50</u>	<u>59.7</u>	<u>7.33</u>	<u>12.86</u>	<u>40</u>	<u>0.2</u>	
<u>09:54</u>	<u>59.3</u>	<u>8.17</u>	<u>13.40</u>	<u>70</u>	<u>0.4</u>	
<u>09:58</u>	<u>59.3</u>	<u>8.15</u>	<u>13.23</u>	<u>61</u>	<u>0.6</u>	

Did well dewater? Yes No Gallons actually evacuated: 0.6

Sampling Time: 1007 Sampling Date: 06/24/08

Sample I.D.: MW-7 Laboratory: LFE

Analyzed for: TPH-G BTEX MTBE TPH-D Other: See COC

Equipment Blank I.D.: _____ @ _____ Time Duplicate I.D.: _____

Analyzed for: TPH-G BTEX MTBE TPH-D Other: _____

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
	ORP (if req'd):	Pre-purge:	mV	Post-purge:

WELL MONITORING DATA SHEET

Project #: 080624-M01	Client: Stellar
Sampler: MP	Date: 06/25/08
Well I.D.: MW-8	Well Diameter: 2 3 4 6 8 <u>3/4</u>
Total Well Depth (TD): —	Depth to Water (DTW): 09.68
Depth to Free Product: 09.10	Thickness of Free Product (feet): 00.58
Referenced to: <u>PTO</u> Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: —	

Purge Method: Bailer	Watterra	Sampling Method: Bailer
Disposable Bailer	<u>Pristaline</u>	Disposable Bailer
Positive Air Displacement	Extraction Pump	Extraction Port
Electric Submersible	Other: _____	Dedicated Tubing
		Other: <u>New tubing</u>

<p style="margin: 0;"><u>purge for 6 min - before sampler</u></p> <p style="margin: 0;">(Gals.) X = Gals.</p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Well Diameter</th> <th>Multiplier</th> <th>Well Diameter</th> <th>Multiplier</th> </tr> </thead> <tbody> <tr> <td>1"</td> <td>0.04</td> <td>4"</td> <td>0.65</td> </tr> <tr> <td>2"</td> <td>0.16</td> <td>6"</td> <td>1.47</td> </tr> <tr> <td>3"</td> <td>0.37</td> <td>Other</td> <td>radius² * 0.163</td> </tr> </tbody> </table>	Well Diameter	Multiplier	Well Diameter	Multiplier	1"	0.04	4"	0.65	2"	0.16	6"	1.47	3"	0.37	Other	radius ² * 0.163
Well Diameter	Multiplier	Well Diameter	Multiplier														
1"	0.04	4"	0.65														
2"	0.16	6"	1.47														
3"	0.37	Other	radius ² * 0.163														
I Case Volume	Specified Volumes	Calculated Volume															

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
1026	Begin	purge				
1032	End	purge				
						no param made due to presence of SPH

Did well dewater? <u>Yes</u> No	Gallons actually evacuated: —	
Sampling Date: 06/25/08	Sampling Time: 1051	Depth to Water: —
Sample I.D.: MW-8	Laboratory: Kiff CalScience	Other: <u>CHP</u>
Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5)	Other: <u>See COC</u>	
EB I.D. (if applicable): @ Time	Duplicate I.D. (if applicable):	
Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5)	Other: _____	
D.O. (if req'd): Pre-purge: _____ mg/L	Post-purge: _____ mg/L	
O.R.P. (if req'd): Pre-purge: _____ mV	Post-purge: _____ mV	

WELL MONITORING DATA SHEET

Project #: <u>080624-mv1</u>	Client: <u>Stellan</u>
Sampler: <u>MO</u>	Date: <u>06/24/08</u>
Well I.D.: <u>MW-9</u>	Well Diameter: 2 3 4 6 8 <u>(3/4)</u>
Total Well Depth (TD): <u>19.30</u>	Depth to Water (DTW): <u>09.68</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]:	

Purge Method: Bailer	Watterra	Sampling Method: Bailer
Disposable Bailer	<u>Peristaltic</u>	Disposable Bailer
Positive Air Displacement	Extraction Pump	Extraction Port
Electric Submersible	Other _____	Dedicated Tubing
		Other: <u>New tubing</u>

0.2 (Gals.) X 3 = 0.6 Gals.
 I Case Volume Specified Volumes Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius ² * 0.163

(3/4) = 0.62

Time	Temp (°F) or (°C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
1027	13.2	9.30	28.94	39	0.2	clear
1029	13.2	9.43	20.53	30	0.4	clear
1031	13.3	9.49	20.43	13	0.6	clear

Did well dewater? Yes No Gallons actually evacuated: 0.6

Sampling Date: 06/24/08 Sampling Time: 1041 Depth to Water:

Sample I.D.: MW-9 Laboratory: Kiff CalScience Other: CTD

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other: See COC

EB I.D. (if applicable): @ Time Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:*

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

WELL MONITORING DATA SHEET

Project #: <u>080624 - mo1</u>	Client: <u>Stellar</u>
Sampler: <u>MD</u>	Start Date: <u>06/25/08</u>
Well I.D.: <u>MW-10</u>	Well Diameter: 2 3 4 6 8 <u>(3/4)</u>
Total Well Depth: <u>←</u>	Depth to Water: <u>08.86</u>
Before: _____ After: _____	Before: _____ After: _____
Depth to Free Product: <u>08.78</u>	Thickness of Free Product (feet): <u>0.08</u>
Referenced to: <u>PE</u> Grade	D.O. Meter (if req'd): YSI HACH

Purge Method: Bailer
 Disposable Bailer
 Middleburg
 Electric Submersible
 Extraction Pump
 Other: Peri

Sampling Method: Bailer
 Disposable Bailer
 Extraction Port
 Other: New tubing

_____ (Gals.) X _____	= _____	Gals.
1 Case Volume	Specified Volumes	Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
2"	0.16	5"	1.02
3"	0.37	6"	1.47
4"	0.65	Other	radius ² * 0.163

Time	Temp (°F)	pH	Cond.	Turbidity	Gals. Removed	Observations
<u>1109</u>	<u>Begin</u>	<u>purge</u>				
<u>1115</u>	<u>End</u>	<u>purge</u>				
		<u>No parameters</u>				<u>due to the presence of SPH</u>

Did well dewater? Yes _____ No _____ Gallons actually evacuated: _____

Sampling Time: 1127 Sampling Date: 06/25/08

Sample I.D.: MW-10 Laboratory: (C++)

Analyzed for: TPH-G BTEX MTBE TPH-D Other: see COC

Equipment Blank I.D.: _____ @ _____ Time Duplicate I.D.: _____

Analyzed for: TPH-G BTEX MTBE TPH-D Other: _____

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
ORP (if req'd):	Pre-purge:	mV	Post-purge:	mV

WELL MONITORING DATA SHEET

Project #: 080624-mw1	Client: Stellar
Sampler: MD	Date: 06/24/08
Well I.D.: MW-11	Well Diameter: 2 3 4 6 8 <u>3/4</u>
Total Well Depth (TD): 18.71	Depth to Water (DTW): 10.20
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: <u> </u>	

Purge Method: Bailer	Watterra	Sampling Method: Bailer
Disposable Bailer	Peristaltic	Disposable Bailer
Positive Air Displacement	Extraction Pump	Extraction Port
Electric Submersible	Other _____	Dedicated Tubing
		Other: <u>(New tubing)</u>

0.2 (Gals.) X <u>3</u> = <u>0.6</u> Gals.	<table border="1" style="font-size: small;"> <thead> <tr> <th>Well Diameter</th> <th>Multiplier</th> <th>Well Diameter</th> <th>Multiplier</th> </tr> </thead> <tbody> <tr> <td>1"</td> <td>0.04</td> <td>4"</td> <td>0.65</td> </tr> <tr> <td>2"</td> <td>0.16</td> <td>6"</td> <td>1.47</td> </tr> <tr> <td>3"</td> <td>0.37</td> <td>Other</td> <td>radius² * 0.163</td> </tr> </tbody> </table>	Well Diameter	Multiplier	Well Diameter	Multiplier	1"	0.04	4"	0.65	2"	0.16	6"	1.47	3"	0.37	Other	radius ² * 0.163	<u>3/4 → 0.02</u>
Well Diameter	Multiplier	Well Diameter	Multiplier															
1"	0.04	4"	0.65															
2"	0.16	6"	1.47															
3"	0.37	Other	radius ² * 0.163															
1 Case Volume	Specified Volumes	Calculated Volume																

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
1053	15.0	7.99	2419	17	0.2	
1055	13.1	7.70	2888	13	0.4	
1057	15.1	7.63	2893	8	0.6	

Did well dewater? Yes NO	Gallons actually evacuated: <u>0.6</u>	
Sampling Date: <u>06/24/08</u>	Sampling Time: <u>1111</u>	Depth to Water: <u> </u>
Sample I.D.: <u>MW-11</u>	Laboratory: Kiff CalScience Other: <u>(LFT)</u>	
Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other: <u>See COC</u>		
EB I.D. (if applicable): @ _____ Time	Duplicate I.D. (if applicable):	
Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:		
D.O. (if req'd): Pre-purge: _____ mg/L	Post-purge: _____ mg/L	
O.R.P. (if req'd): Pre-purge: _____ mV	Post-purge: _____ mV	

WELL MONITORING DATA SHEET

Project #: 080624-m01	Client: Stellar
Sampler: MD	Date: 06/24/08
Well I.D.: MW-12	Well Diameter: 2 3 4 6 8 <u>3"</u>
Total Well Depth (TD): 18.69	Depth to Water (DTW): 08.96
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>VC</u> Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]:	

Purge Method: Bailer	Water: <u>Peristaltic</u>	Sampling Method: Bailer
Disposable Bailer	Extraction Pump	Disposable Bailer
Positive Air Displacement	Other _____	Extraction Port
Electric Submersible		Dedicated Tubing
		Other: <u>New tubing</u>

0.2 (Gals.) X <u>3</u> = <u>0.6</u> Gals. I Case Volume Specified Volumes Calculated Volume	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Well Diameter</th> <th>Multiplier</th> <th>Well Diameter</th> <th>Multiplier</th> </tr> </thead> <tbody> <tr> <td>1"</td> <td>0.04</td> <td>4"</td> <td>0.65</td> </tr> <tr> <td>2"</td> <td>0.16</td> <td>6"</td> <td>1.47</td> </tr> <tr> <td>3"</td> <td>0.37</td> <td>Other</td> <td>radius² * 0.785</td> </tr> </tbody> </table>	Well Diameter	Multiplier	Well Diameter	Multiplier	1"	0.04	4"	0.65	2"	0.16	6"	1.47	3"	0.37	Other	radius ² * 0.785
Well Diameter	Multiplier	Well Diameter	Multiplier														
1"	0.04	4"	0.65														
2"	0.16	6"	1.47														
3"	0.37	Other	radius ² * 0.785														

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
1125	14.7	7.78	1664	23	0.2	
1127	14.7	7.44	1582	10	0.4	
1129	14.5	7.37	1341	12	0.6	

Did well dewater? Yes No Gallons actually evacuated: 0.6

Sampling Date: 06/24/08 Sampling Time: 1141 Depth to Water: _____

Sample I.D.: MW-12 Laboratory: Kiff CalScience Other: CAT

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other: see COC

EB I.D. (if applicable): _____ @ _____ Time Duplicate I.D. (if applicable): _____

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other: _____

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

WELL MONITORING DATA SHEET

Project #: <u>080624-MDI</u>	Client: <u>Stellar</u>
Sampler: <u>MD</u>	Start Date: <u>06/25/08</u>
Well I.D.: <u>MW-13</u>	Well Diameter: 2 3 4 6 8 <u>(3/4)</u>
Total Well Depth: <u>—</u>	Depth to Water: <u>10.26</u>
Before: <u>—</u> After: <u>—</u>	Before: <u>—</u> After: <u>—</u>
Depth to Free Product: <u>0.84 + 0.95</u>	Thickness of Free Product (feet): <u>00.41</u>
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): YSI HACH

Purge Method: Bailer
 Disposable Bailer
 Middleburg
 Electric Submersible
 Extraction Pump
 Other: per

Sampling Method: Bailer
 Disposable Bailer
 Extraction Port
 Other: New tubing

purge for 6 min before sampling
 (Gals.) X _____ Gals.
 1 Case Volume Specified Volumes Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
2"	0.16	5"	1.02
3"	0.37	6"	1.47
4"	0.65	Other	radius ² * 0.163

Time	Temp (°F)	pH	Cond.	Turbidity	Gals. Removed	Observations
1210	Begin	purge				
1216	End	purge				
						No parameters due to presence of spH

Did well dewater? Yes ~~No~~ Gallons actually evacuated: —

Sampling Time: 1231 Sampling Date: 06/25/08

Sample I.D.: MW-13 Laboratory: C+E

Analyzed for: TPH-G BTEX MTBE TPH-D Other: See COC

Equipment Blank I.D.: _____ @ _____ Time Duplicate I.D.: _____

Analyzed for: TPH-G BTEX MTBE TPH-D Other: _____

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
ORP (if req'd):	Pre-purge:	mV	Post-purge:	mV

spH

WELL MONITORING DATA SHEET

Project #: <u>080624-MW1</u>	Client: <u>Stellar</u>
Sampler: <u>MD</u>	Date: <u>06/25/08</u>
Well I.D.: <u>MW-14</u>	Well Diameter: 2 3 4 6 8 <u>(3/4)</u>
Total Well Depth (TD): <u> </u>	Depth to Water (DTW): <u>08.62</u> 08.58 08.62
Depth to Free Product: <u>08.58</u>	Thickness of Free Product (feet): <u>0.04</u>
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: <u> </u>	

Purge Method: Bailer	Waters	Sampling Method: Bailer
Disposable Bailer	<u>Peristaltic</u>	Disposable Bailer
Positive Air Displacement	Extraction Pump	Extraction Port
Electric Submersible	Other _____	Dedicated Tubing
		Other: <u>New tubing</u>

$\frac{\text{Purge Volume (Gals.)}}{\text{Specified Volumes}} \times \text{I Case Volume} = \text{Calculated Volume (Gals.)}$ <p style="text-align: center;"><u>purge @ 6 min</u></p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th>Well Diameter</th> <th>Multiplier</th> <th>Well Diameter</th> <th>Multiplier</th> </tr> <tr> <td>1"</td> <td>0.04</td> <td>4"</td> <td>0.65</td> </tr> <tr> <td>2"</td> <td>0.16</td> <td>6"</td> <td>1.47</td> </tr> <tr> <td>3"</td> <td>0.37</td> <td>Other</td> <td>radius² * 0.163</td> </tr> </table>	Well Diameter	Multiplier	Well Diameter	Multiplier	1"	0.04	4"	0.65	2"	0.16	6"	1.47	3"	0.37	Other	radius ² * 0.163
Well Diameter	Multiplier	Well Diameter	Multiplier														
1"	0.04	4"	0.65														
2"	0.16	6"	1.47														
3"	0.37	Other	radius ² * 0.163														

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
0930	begin	purge				
0936	purge	ended				
			No parameters taken due to SPH			

Did well dewater? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Gallons actually evacuated: <u> </u>	
Sampling Date: <u>06/25/08</u>	Sampling Time: <u>0941</u>	Depth to Water: <u> </u>
Sample I.D.: <u>MW-14</u>	Laboratory: Kiff CalScience Other: <u>(C+T)</u>	
Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other: <u>See COC</u>	SPH	
EB I.D. (if applicable): <u> </u> @ <u> </u> Time	Duplicate I.D. (if applicable): <u> </u>	
Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other: <u> </u>		
D.O. (if req'd): Pre-purge: <u> </u> mg/L	Post-purge: <u> </u> mg/L	
O.R.P. (if req'd): Pre-purge: <u> </u> mV	Post-purge: <u> </u> mV	

WELL MONITORING DATA SHEET

Project #: 080629-MD1	Client: Stellan
Sampler: MD	Date: 06/25/08
Well I.D.: MW-15	Well Diameter: 2 3 4 6 8 (3/4)
Total Well Depth (TD): —	Depth to Water (DTW): 09.06
Depth to Free Product: 09.63	Thickness of Free Product (feet): 0.57
Referenced to: PVE Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: —	

Purge Method: Bailer	Watterra	Sampling Method: Bailer
Disposable Bailer	Peristaltic	Disposable Bailer
Positive Air Displacement	Extraction Pump	Extraction Port
Electric Submersible	Other: _____	Dedicated Tubing
		Other: (New tubing)

(Gals.) X	purge @ 6 mm Bore Sampling	Gals.
I Case Volume	Specified Volumes	Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius ² * 0.163

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
0952						Begin Purge
0958						End Purge
						No parameters due to presence SPH

Did well dewater? Yes No	Gallons actually evacuated: —	
Sampling Date: 06/25/08	Sampling Time: 1011	Depth to Water: —
Sample I.D.: MW-15	Laboratory: Kiff CalScience Other: (CFE)	
Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other: See COC		
EB I.D. (if applicable): @ Time	Duplicate I.D. (if applicable):	
Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:		
D.O. (if req'd): Pre-purge: <input type="text"/> mg/L	Post-purge: <input type="text"/> mg/L	
O.R.P. (if req'd): Pre-purge: <input type="text"/> mV	Post-purge: <input type="text"/> mV	

WELL MONITORING DATA SHEET

Project #: <u>080624-MD1</u>	Client: <u>Stellar</u>
Sampler: <u>MD</u>	Date: <u>06/24/08</u>
Well I.D.: <u>MW-16</u>	Well Diameter: 2 3 4 6 8 <u>(3/4)</u>
Total Well Depth (TD): <u>18.12</u>	Depth to Water (DTW): <u>09.25</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: PVC Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]:	

Purge Method: Bailer	Watterra	Sampling Method: Bailer
Disposable Bailer	<u>Peristaltic</u>	Disposable Bailer
Positive Air Displacement	Extraction Pump	Extraction Port
Electric Submersible	Other _____	Dedicated Tubing
		Other: <u>New tubing</u>

<u>0.2</u> (Gals.) X <u>3</u> = <u>0.6</u> Gals.		
1 Case Volume	Specified Volumes	Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius ² / 163

(3/4) 0.02

Time	Temp (°F or °C)	pH	Cond. (mS or μS)	Turbidity (NTUs)	Gals. Removed	Observations
<u>1220</u>	<u>13.2</u>	<u>10.37</u>	<u>3364</u>	<u>61</u>	<u>0.2</u>	
<u>1224</u>	<u>15.2</u>	<u>10.51</u>	<u>3207</u>	<u>87</u>	<u>0.4</u>	
<u>1228</u>	<u>15.1</u>	<u>10.53</u>	<u>3186</u>	<u>67</u>	<u>0.6</u>	

Did well dewater? Yes No Gallons actually evacuated: 0.0

Sampling Date: 06/24/08 Sampling Time: 1241 Depth to Water: —

Sample I.D.: MW-16 Laboratory: Kiff CalScience Other C+H

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other: See COC

EB I.D. (if applicable): @ Time Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

WELL MONITORING DATA SHEET

Project #: 080624-MD-1	Client: STELLAR ENV.
Sampler: 1W	Start Date: 6/24/08
Well I.D.: MW-17	Well Diameter: 2 3 4 6 8 <u>3/4"</u>
Total Well Depth: 19.45	Depth to Water: 8.98
Before: 19.45 After: 19.45	Before: 8.98 After: 9.12
Depth to Free Product: 8.97	Thickness of Free Product (feet): 0.01
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): YSI HACH

Purge Method: **Bailer**
 Disposable Bailer
 Middleburg
 Electric Submersible
 Extraction Pump
 Other: **PERISTALTIC PUMP**

Sampling Method: **Bailer**
 Disposable Bailer
 Extraction Port
 Other: **NEW TUBING**

0.2 (Gals.) X 3 = 0.6 Gals.
 1 Case Volume Specified Volumes Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
2"	0.16	5"	1.02
3"	0.37	6"	1.47
4"	0.65	Other	radius ² * 0.163

Time	Temp (°F)	pH	Cond. ^{MS}	Turbidity	Gals. Removed	Observations
1212	62.3	7.89	1373	440	0.2	
1217	62.1	7.60	1389	165	0.4	
1220	62.3	7.57	1388	80	0.6	DTW = 9.12
* COULD NOT GAUGE WATER LEVEL WITH TUBING DOWN THE WELL						

Did well dewater? Yes No Gallons actually evacuated: **0.6**

Sampling Time: **1225** Sampling Date: **6/24/08**

Sample I.D.: **MW-17** Laboratory: **C+T**

Analyzed for: TPH-G BTEX MTBE TPH-D Other:

Equipment Blank I.D.: @ Time Duplicate I.D.:

Analyzed for: TPH-G BTEX MTBE TPH-D Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
ORP (if req'd):	Pre-purge:	mV	Post-purge:	mV

WELL MONITORING DATA SHEET

Project #: <u>080624-MP1</u>	Client: <u>Stellar</u>
Sampler: <u>MD</u>	Date: <u>06/24/08</u>
Well I.D.: <u>MW-18</u>	Well Diameter: 2 3 4 6 8 <u>(3/4)</u>
Total Well Depth (TD): <u>19.38</u>	Depth to Water (DTW): <u>08.34</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: EC Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]:	

Purge Method: Bailer	Watterra	Sampling Method: Bailer
Disposable Bailer	Peristaltic	Disposable Bailer
Positive Air Displacement	Extraction Pump	Extraction Port
Electric Submersible	Other _____	Dedicated Tubing
		Other: <u>Alan Tubing</u>

$0.2 \text{ (Gals.)} \times \frac{0.3}{0.2} = 0.6 \text{ Gals.}$ <p>I Case Volume Specified Volumes Calculated Volume</p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Well Diameter</th> <th>Multiplier</th> <th>Well Diameter</th> <th>Multiplier</th> </tr> </thead> <tbody> <tr> <td>1"</td> <td>0.04</td> <td>4"</td> <td>0.65</td> </tr> <tr> <td>2"</td> <td>0.16</td> <td>6"</td> <td>1.47</td> </tr> <tr> <td>3"</td> <td>0.37</td> <td>Other</td> <td>radius 0.463</td> </tr> </tbody> </table> <p style="text-align: right;"><u>3/4 > 0.02</u></p>	Well Diameter	Multiplier	Well Diameter	Multiplier	1"	0.04	4"	0.65	2"	0.16	6"	1.47	3"	0.37	Other	radius 0.463
Well Diameter	Multiplier	Well Diameter	Multiplier														
1"	0.04	4"	0.65														
2"	0.16	6"	1.47														
3"	0.37	Other	radius 0.463														

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
1301	14.8	7.18	7496	96	0.2	
1304	14.9	7.13	7402	80	0.4	
1308	14.7	7.12	7490	68	0.6	

Did well dewater? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Gallons actually evacuated: <u>0.6</u>
Sampling Date: <u>06/24/08</u> Sampling Time: <u>1331</u> Depth to Water: <u> </u>	
Sample I.D.: <u>MW-18</u> Laboratory: Kiff CalScience Other: <u>(FD)</u>	
Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other: <u>See COC</u>	
EB I.D. (if applicable): @ Time Duplicate I.D. (if applicable):	
Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:	
D.O. (if req'd): Pre-purge: mg/L	Post-purge: mg/L
O.R.P. (if req'd): Pre-purge: mV	Post-purge: mV

WELL MONITORING DATA SHEET

Project #: <u>080624-MD1</u>	Client: <u>Stellar</u>
Sampler: <u>MD</u>	Start Date: <u>06/25/08</u>
Well I.D.: <u>RW-1</u>	Well Diameter: 2 3 4 6 8 4 <u>10"</u>
Total Well Depth: _____	Depth to Water: <u>08.95</u>
Before: _____ After: _____	Before: _____ After: _____
Depth to Free Product: <u>08.87</u>	Thickness of Free Product (feet): <u>00.08</u>
Referenced to: <u>PVE</u> Grade	D.O. Meter (if req'd): YSI HACH

Purge Method: Bailer
 Disposable Bailer
 Middleburg
 Electric Submersible
 Extraction Pump
 Other: peripump

Sampling Method: Bailer
 Disposable Bailer
 Extraction Port
 Other: New tubing

Purged for 6 min. before sampling
 _____ (Gals.) X _____ Gals.
 1 Case Volume Specified Volumes Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
2"	0.16	5"	1.02
3"	0.37	6"	1.47
4"	0.65	Other	radius ² * 0.163

Time	Temp (°F)	pH	Cond.	Turbidity	Gals. Removed	Observations
<u>1246</u>	<u>Begin</u>	<u>Purge</u>				
<u>1252</u>	<u>End</u>	<u>Purge</u>				
						<u>No parameters taken due to presence of sph</u>

Did well dewater? Yes ~~No~~ Gallons actually evacuated: _____

Sampling Time: 1311 Sampling Date: 06/25/08

Sample I.D.: ~~RW-1~~ RW-1 Laboratory: LTE PM

Analyzed for: TPH-G BTEX MTBE TPH-D Other: see COC

Equipment Blank I.D.: _____ @ _____ Time Duplicate I.D.: _____

Analyzed for: TPH-G BTEX MTBE TPH-D Other:

D.O. (if req'd): Pre-purge: _____ mg/L Post-purge: _____ mg/L

ORP (if req'd): Pre-purge: _____ mV Post-purge: _____ mV

CONTEMPORANEOUS NOTES

Project #: 080624-MDI

Client: Stellar

Date: 06/29/08

BTS Sampler: M. Pierce

(Record activity every fifteen minutes or when otherwise necessary.)

Time	Activity	Decisions / Instructions / Communication	Who is involved with the decisions, instructions, etc.
1415	arr @ TA-W	well to empty	Skimmers
1420	to TA-W - has	2 skimmers	1st skimmer had 2150 mL of sph. 2nd skimmer - Empty (no liquid)
1425	open TC-E	to remove product for	skimming
	450 mL of grey liquid, not sph		
1435	open TA-E	- empty 2 skimmers	1st skimmer - 2150 mL total, 500 mL sph 2nd skimmer - 200 mL total, 25-50 mL sph
1449	open TA-M	- 2 skimmers	
	total for both skimmers	2200 mL	, 400 mL of sph
1459	complete emptying	skimmers	
	no lock on Drum location		

APPENDIX C

Analytical Laboratory Report and Chain-of-Custody Record

204212

Chain of Custody Record



Lab job no. 080624-AND1
 Date 06/24/08
 Page 1 of 1

Laboratory C&T
 Address 2323 KENN ST.
BERKELEY, CA
 Project Owner _____
 Site Address 6400 CHRISTIE AVE
EMERYVILLE, CA
 Project Name 344 CENTRAL APTS.
 Project Number 2007-65

Method of Shipment HAND DELIVERY
 Shipment No. _____
 Airbill No. _____
 Cooler No. _____
 Project Manager TEAL GLASS
 Telephone No. (510) 644-3123
 Fax No. (510) 644-3859
 Samplers: (Signature) 

Field Sample Number	Location/Depth	Date	Time	Sample Type	Type/Size of Container	Preservation		Analysis Required	Remarks
						Cooler	Chemical		
1	MW-3		195	W	4 wa, 1L amber	Y	HCL, none		
2	MW-4		1028						
3	MW-5		1105						
4	MW-6		1137						
5	MW-7		1007						
6	MW-9		1041						
7	MW-11		1111						
8	MW-12		1141						
9	MW-16		1241						
10	MW-17		1235						
11	MW-18		1331						

Filled
 No. of Containers
 TEH-P (BOISM)
 TPH-S (BOISM)
 BTEX (MTR)

Relinquished by: Signature 	Date <u>06/24/08</u>	Received by: Signature 	Date <u>6/24/08</u>	Relinquished by: Signature _____	Date _____	Received by: Signature _____	Date _____
Printed <u>IAN WILLIAMS</u>	Time 1555	Printed <u>Ling Wu</u>	Time 15:55	Printed _____	Time _____	Printed _____	Time _____
Company <u>Blair Tech</u>		Company <u>C&T</u>		Company _____		Company _____	

Turnaround Time: <u>STANDARD TAT</u>	Relinquished by: Signature _____	Date _____	Received by: Signature _____	Date _____
Comments: <u>EDF REQUIRED</u> <u>kn ice, inland</u>	Printed _____	Time _____	Printed _____	Time _____
	Company _____		Company _____	

2000-00-01

COOLER RECEIPT CHECKLIST



Login # 204212 Date Received 6-24-08 Number of coolers 2
Client SES Project Bay Central Apts

Date Opened 6-24-08 By (print) F Nichols (signature)
Date Logged in By (print) (signature)

1. Did cooler come with a shipping slip (airbill, etc)? YES NO

2A. Were custody seals present? YES (circle) on cooler on samples NO
How many Name Date

2B. Were custody seals intact upon arrival? YES NO N/A

3. Were custody papers dry and intact when received? YES NO

4. Were custody papers filled out properly (ink, signed, etc)? YES NO

5. Is the project identifiable from custody papers? (If so fill out top of form) YES NO

6. Indicate the packing in cooler: (if other, describe)
Bubble Wrap Foam blocks Bags None
Cloth material Cardboard Styrofoam Paper towels

7. If required, was sufficient ice used? Samples should be < or = 6°C YES NO N/A

Type of ice used: Wet Blue None Temp(°C)
Samples Received on ice & cold without a temperature blank
Samples received on ice directly from the field. Cooling process had begun

8. Were Method 5035 sampling containers present? YES NO
If YES, what time were they transferred to freezer?

9. Did all bottles arrive unbroken/unopened? YES NO

10. Are samples in the appropriate containers for indicated tests? YES NO

11. Are sample labels present, in good condition and complete? YES NO

12. Do the sample labels agree with custody papers? YES NO

13. Was sufficient amount of sample sent for tests requested? YES NO

14. Are the samples appropriately preserved? YES NO N/A

15. Are bubbles > 6mm absent in VOA samples? YES NO N/A

16. Was the client contacted concerning this sample delivery? YES NO
If YES, Who was called? By Date:

COMMENTS



Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878

2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

Laboratory Job Number 204212
ANALYTICAL REPORT

Stellar Environmental Solutions
2198 6th Street
Berkeley, CA 94710

Project : 2007-65
Location : Bay Center Apts
Level : II

<u>Sample ID</u>	<u>Lab ID</u>
MW-3	204212-001
MW-4	204212-002
MW-5	204212-003
MW-6	204212-004
MW-7	204212-005
MW-9	204212-006
MW-11	204212-007
MW-12	204212-008
MW-16	204212-009
MW-17	204212-010
MW-18	204212-011

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. This report may be reproduced only in its entirety.

Signature: 
Project Manager

Date: 07/01/2008

Signature: 
Senior Program Manager

Date: 07/02/2008

CASE NARRATIVE

Laboratory number: 204212
Client: Stellar Environmental Solutions
Project: 2007-65
Location: Bay Center Apts
Request Date: 06/24/08
Samples Received: 06/24/08

This hardcopy data package contains sample and QC results for eleven water samples, requested for the above referenced project on 06/24/08. The samples were received cold and intact.

TPH-Purgeables and/or BTXE by GC (EPA 8015B and EPA 8021B):

MW-7 (lab # 204212-005) had pH greater than 2. No other analytical problems were encountered.

TPH-Extractables by GC (EPA 8015B):

Diesel C10-C24 was detected above the RL in the method blank for batch 139666; this analyte was detected in samples at a level at least 10 times that of the blank. No other analytical problems were encountered.

Curtis & Tompkins Laboratories Analytical Report

Lab #: 204212	Location: Bay Center Apts
Client: Stellar Environmental Solutions	Prep: EPA 5030B
Project#: 2007-65	
Matrix: Water	Sampled: 06/24/08
Units: ug/L	Received: 06/24/08

Field ID: MW-3	Diln Fac: 1.000
Type: SAMPLE	Batch#: 139792
Lab ID: 204212-001	Analyzed: 06/28/08

Analyte	Result	RL	Analysis
Gasoline C7-C12	440	50	EPA 8015B
MTBE	9.5	2.0	EPA 8021B
Benzene	ND	0.50	EPA 8021B
Toluene	ND	0.50	EPA 8021B
Ethylbenzene	4.0	0.50	EPA 8021B
m,p-Xylenes	ND	0.50	EPA 8021B
o-Xylene	2.0	0.50	EPA 8021B

Surrogate	%REC	Limits	Analysis
Trifluorotoluene (FID)	100	69-140	EPA 8015B
Bromofluorobenzene (FID)	121	73-144	EPA 8015B
Trifluorotoluene (PID)	76	60-146	EPA 8021B
Bromofluorobenzene (PID)	88	65-143	EPA 8021B

Field ID: MW-4	Diln Fac: 1.000
Type: SAMPLE	Batch#: 139792
Lab ID: 204212-002	Analyzed: 06/28/08

Analyte	Result	RL	Analysis
Gasoline C7-C12	ND	50	EPA 8015B
MTBE	ND	2.0	EPA 8021B
Benzene	ND	0.50	EPA 8021B
Toluene	ND	0.50	EPA 8021B
Ethylbenzene	ND	0.50	EPA 8021B
m,p-Xylenes	ND	0.50	EPA 8021B
o-Xylene	ND	0.50	EPA 8021B

Surrogate	%REC	Limits	Analysis
Trifluorotoluene (FID)	77	69-140	EPA 8015B
Bromofluorobenzene (FID)	84	73-144	EPA 8015B
Trifluorotoluene (PID)	68	60-146	EPA 8021B
Bromofluorobenzene (PID)	71	65-143	EPA 8021B

Y= Sample exhibits chromatographic pattern which does not resemble standard
 ND= Not Detected
 RL= Reporting Limit

Curtis & Tompkins Laboratories Analytical Report

Lab #: 204212	Location: Bay Center Apts
Client: Stellar Environmental Solutions	Prep: EPA 5030B
Project#: 2007-65	
Matrix: Water	Sampled: 06/24/08
Units: ug/L	Received: 06/24/08

Field ID: MW-5 Diln Fac: 1.000
 Type: SAMPLE Batch#: 139792
 Lab ID: 204212-003 Analyzed: 06/28/08

Analyte	Result	RL	Analysis
Gasoline C7-C12	ND	50	EPA 8015B
MTBE	6.2	2.0	EPA 8021B
Benzene	0.64	0.50	EPA 8021B
Toluene	ND	0.50	EPA 8021B
Ethylbenzene	ND	0.50	EPA 8021B
m,p-Xylenes	ND	0.50	EPA 8021B
o-Xylene	ND	0.50	EPA 8021B

Surrogate	%REC	Limits	Analysis
Trifluorotoluene (FID)	85	69-140	EPA 8015B
Bromofluorobenzene (FID)	93	73-144	EPA 8015B
Trifluorotoluene (PID)	75	60-146	EPA 8021B
Bromofluorobenzene (PID)	80	65-143	EPA 8021B

Field ID: MW-6 Diln Fac: 1.000
 Type: SAMPLE Batch#: 139792
 Lab ID: 204212-004 Analyzed: 06/29/08

Analyte	Result	RL	Analysis
Gasoline C7-C12	56 Y	50	EPA 8015B
MTBE	2.9	2.0	EPA 8021B
Benzene	0.92	0.50	EPA 8021B
Toluene	ND	0.50	EPA 8021B
Ethylbenzene	ND	0.50	EPA 8021B
m,p-Xylenes	ND	0.50	EPA 8021B
o-Xylene	ND	0.50	EPA 8021B

Surrogate	%REC	Limits	Analysis
Trifluorotoluene (FID)	89	69-140	EPA 8015B
Bromofluorobenzene (FID)	97	73-144	EPA 8015B
Trifluorotoluene (PID)	79	60-146	EPA 8021B
Bromofluorobenzene (PID)	83	65-143	EPA 8021B

Y= Sample exhibits chromatographic pattern which does not resemble standard
 ND= Not Detected
 RL= Reporting Limit

Curtis & Tompkins Laboratories Analytical Report

Lab #: 204212	Location: Bay Center Apts
Client: Stellar Environmental Solutions	Prep: EPA 5030B
Project#: 2007-65	
Matrix: Water	Sampled: 06/24/08
Units: ug/L	Received: 06/24/08

Field ID: MW-11 Diln Fac: 1.000
 Type: SAMPLE Batch#: 139792
 Lab ID: 204212-007 Analyzed: 06/28/08

Analyte	Result	RL	Analysis
Gasoline C7-C12	2,000	50	EPA 8015B
MTBE	ND	2.0	EPA 8021B
Benzene	190	0.50	EPA 8021B
Toluene	11	0.50	EPA 8021B
Ethylbenzene	7.7	0.50	EPA 8021B
m,p-Xylenes	12	0.50	EPA 8021B
o-Xylene	4.3	0.50	EPA 8021B

Surrogate	%REC	Limits	Analysis
Trifluorotoluene (FID)	106	69-140	EPA 8015B
Bromofluorobenzene (FID)	98	73-144	EPA 8015B
Trifluorotoluene (PID)	95	60-146	EPA 8021B
Bromofluorobenzene (PID)	91	65-143	EPA 8021B

Field ID: MW-12 Lab ID: 204212-008
 Type: SAMPLE Batch#: 139792

Analyte	Result	RL	Diln Fac	Analyzed	Analysis
Gasoline C7-C12	17,000	1,300	25.00	06/28/08	EPA 8015B
MTBE	ND	2.0	1.000	06/29/08	EPA 8021B
Benzene	6,600	13	25.00	06/28/08	EPA 8021B
Toluene	95	0.50	1.000	06/29/08	EPA 8021B
Ethylbenzene	50	0.50	1.000	06/29/08	EPA 8021B
m,p-Xylenes	97	0.50	1.000	06/29/08	EPA 8021B
o-Xylene	13	0.50	1.000	06/29/08	EPA 8021B

Surrogate	%REC	Limits	Diln Fac	Analyzed	Analysis
Trifluorotoluene (FID)	108	69-140	25.00	06/28/08	EPA 8015B
Bromofluorobenzene (FID)	108	73-144	25.00	06/28/08	EPA 8015B
Trifluorotoluene (PID)	96	60-146	1.000	06/29/08	EPA 8021B
Bromofluorobenzene (PID)	86	65-143	1.000	06/29/08	EPA 8021B

Y= Sample exhibits chromatographic pattern which does not resemble standard
 ND= Not Detected
 RL= Reporting Limit

Curtis & Tompkins Laboratories Analytical Report

Lab #: 204212	Location: Bay Center Apts
Client: Stellar Environmental Solutions	Prep: EPA 5030B
Project#: 2007-65	
Matrix: Water	Sampled: 06/24/08
Units: ug/L	Received: 06/24/08

Field ID: MW-16 Diln Fac: 1.000
 Type: SAMPLE Batch#: 139792
 Lab ID: 204212-009 Analyzed: 06/29/08

Analyte	Result	RL	Analysis
Gasoline C7-C12	120	50	EPA 8015B
MTBE	2.0	2.0	EPA 8021B
Benzene	13	0.50	EPA 8021B
Toluene	2.2	0.50	EPA 8021B
Ethylbenzene	ND	0.50	EPA 8021B
m,p-Xylenes	ND	0.50	EPA 8021B
o-Xylene	ND	0.50	EPA 8021B

Surrogate	%REC	Limits	Analysis
Trifluorotoluene (FID)	86	69-140	EPA 8015B
Bromofluorobenzene (FID)	97	73-144	EPA 8015B
Trifluorotoluene (PID)	74	60-146	EPA 8021B
Bromofluorobenzene (PID)	78	65-143	EPA 8021B

Field ID: MW-17 Lab ID: 204212-010
 Type: SAMPLE Analyzed: 06/28/08

Analyte	Result	RL	Diln Fac	Batch#	Analysis
Gasoline C7-C12	7,200	50	1.000	139748	EPA 8015B
MTBE	ND	2.0	1.000	139748	EPA 8021B
Benzene	1,100	5.0	10.00	139792	EPA 8021B
Toluene	45	5.0	10.00	139792	EPA 8021B
Ethylbenzene	75	5.0	10.00	139792	EPA 8021B
m,p-Xylenes	54	5.0	10.00	139792	EPA 8021B
o-Xylene	12	5.0	10.00	139792	EPA 8021B

Surrogate	%REC	Limits	Diln Fac	Batch#	Analysis
Trifluorotoluene (FID)	109	69-140	1.000	139748	EPA 8015B
Bromofluorobenzene (FID)	136	73-144	1.000	139748	EPA 8015B
Trifluorotoluene (PID)	90	60-146	10.00	139792	EPA 8021B
Bromofluorobenzene (PID)	90	65-143	10.00	139792	EPA 8021B

Y= Sample exhibits chromatographic pattern which does not resemble standard
 ND= Not Detected
 RL= Reporting Limit

Batch QC Report

Curtis & Tompkins Laboratories Analytical Report

Lab #:	204212	Location:	Bay Center Apts
Client:	Stellar Environmental Solutions	Prep:	EPA 5030B
Project#:	2007-65	Analysis:	EPA 8015B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC448463	Batch#:	139748
Matrix:	Water	Analyzed:	06/27/08
Units:	ug/L		

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	1,000	986.0	99	80-120

Surrogate	%REC	Limits
Trifluorotoluene (FID)	118	69-140
Bromofluorobenzene (FID)	111	73-144

Batch QC Report

Curtis & Tompkins Laboratories Analytical Report

Lab #:	204212	Location:	Bay Center Apts
Client:	Stellar Environmental Solutions	Prep:	EPA 5030B
Project#:	2007-65	Analysis:	EPA 8021B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC448464	Batch#:	139748
Matrix:	Water	Analyzed:	06/28/08
Units:	ug/L		

Analyte	Spiked	Result	%REC	Limits
MTBE	30.00	32.56	109	70-129

Surrogate	%REC	Limits
Trifluorotoluene (PID)	103	60-146
Bromofluorobenzene (PID)	106	65-143

Batch QC Report

Curtis & Tompkins Laboratories Analytical Report

Lab #:	204212	Location:	Bay Center Apts
Client:	Stellar Environmental Solutions	Prep:	EPA 5030B
Project#:	2007-65	Analysis:	EPA 8015B
Field ID:	RW-1	Batch#:	139748
MSS Lab ID:	204237-007	Sampled:	06/25/08
Matrix:	Water	Received:	06/25/08
Units:	ug/L	Analyzed:	06/27/08
Diln Fac:	1.000		

Type: MS Lab ID: QC448465

Analyte	MSS Result	Spiked	Result	%REC	Limits
Gasoline C7-C12	1,346	2,000	2,802	73	67-120

Surrogate	%REC	Limits
Trifluorotoluene (FID)	105	69-140
Bromofluorobenzene (FID)	98	73-144

Type: MSD Lab ID: QC448466

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	2,000	2,776	72	67-120	1	20

Surrogate	%REC	Limits
Trifluorotoluene (FID)	115	69-140
Bromofluorobenzene (FID)	106	73-144

RPD= Relative Percent Difference

Batch QC Report

Curtis & Tompkins Laboratories Analytical Report

Lab #:	204212	Location:	Bay Center Apts
Client:	Stellar Environmental Solutions	Prep:	EPA 5030B
Project#:	2007-65	Analysis:	EPA 8021B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC448635	Batch#:	139792
Matrix:	Water	Analyzed:	06/28/08
Units:	ug/L		

Analyte	Spiked	Result	%REC	Limits
MTBE	10.00	10.47	105	70-129
Benzene	10.00	9.652	97	80-120
Toluene	10.00	10.26	103	80-120
Ethylbenzene	10.00	11.27	113	80-120
m,p-Xylenes	10.00	11.49	115	80-120
o-Xylene	10.00	11.33	113	80-120

Surrogate	%REC	Limits
Trifluorotoluene (PID)	89	60-146
Bromofluorobenzene (PID)	91	65-143

Batch QC Report

Curtis & Tompkins Laboratories Analytical Report

Lab #:	204212	Location:	Bay Center Apts
Client:	Stellar Environmental Solutions	Prep:	EPA 5030B
Project#:	2007-65	Analysis:	EPA 8015B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC448636	Batch#:	139792
Matrix:	Water	Analyzed:	06/28/08
Units:	ug/L		

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	1,000	1,005	100	80-120

Surrogate	%REC	Limits
Trifluorotoluene (FID)	118	69-140
Bromofluorobenzene (FID)	105	73-144

Batch QC Report

Curtis & Tompkins Laboratories Analytical Report

Lab #:	204212	Location:	Bay Center Apts
Client:	Stellar Environmental Solutions	Prep:	EPA 5030B
Project#:	2007-65	Analysis:	EPA 8015B
Field ID:	MW-4	Batch#:	139792
MSS Lab ID:	204212-002	Sampled:	06/24/08
Matrix:	Water	Received:	06/24/08
Units:	ug/L	Analyzed:	06/28/08
Diln Fac:	1.000		

Type: MS Lab ID: QC448637

Analyte	MSS Result	Spiked	Result	%REC	Limits
Gasoline C7-C12	29.15	2,000	1,600	79	67-120

Surrogate	%REC	Limits
Trifluorotoluene (FID)	96	69-140
Bromofluorobenzene (FID)	98	73-144

Type: MSD Lab ID: QC448638

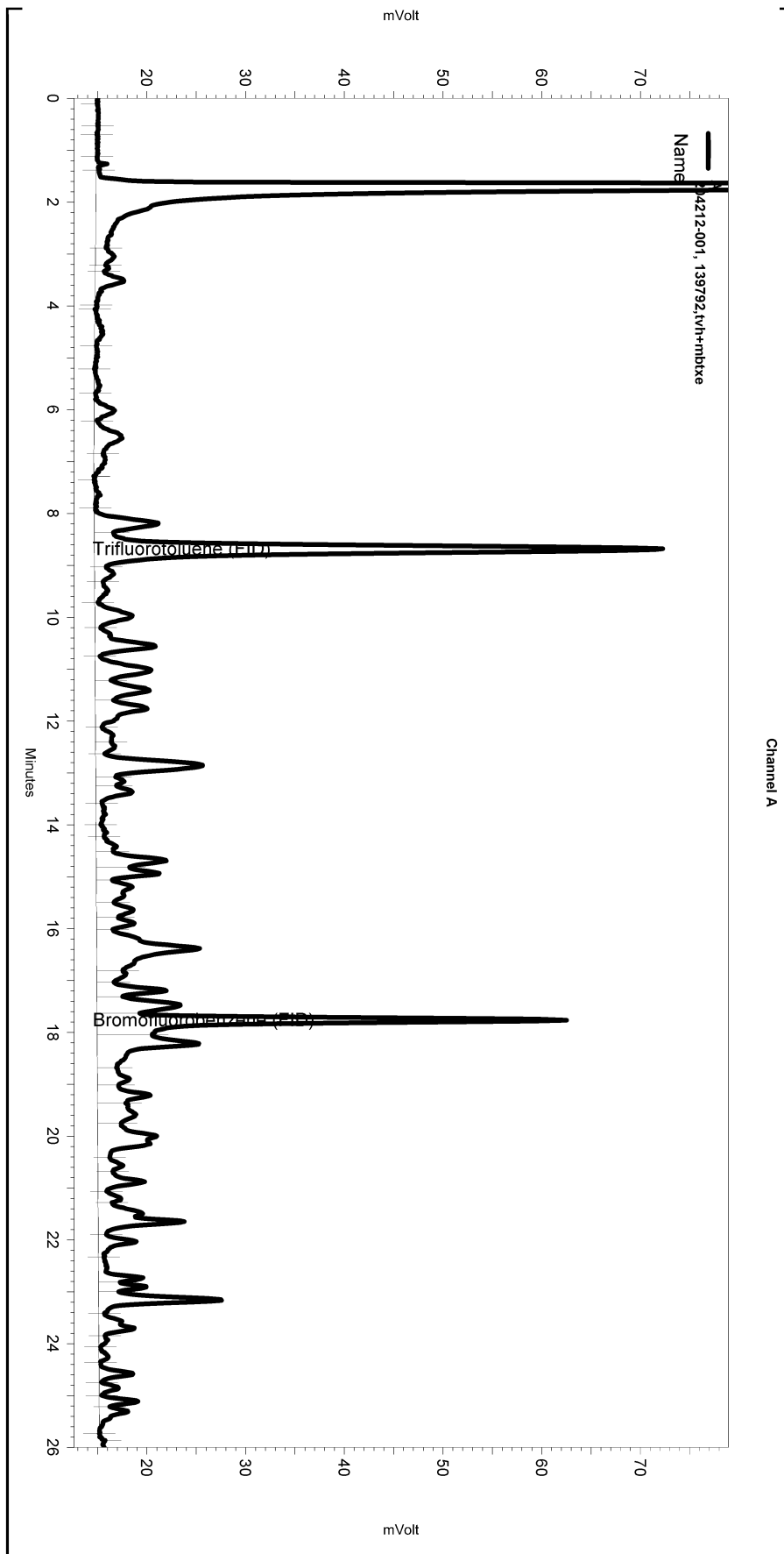
Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	2,000	1,646	81	67-120	3	20

Surrogate	%REC	Limits
Trifluorotoluene (FID)	103	69-140
Bromofluorobenzene (FID)	99	73-144

RPD= Relative Percent Difference

Sequence File: \\Lims\gdrive\ezchrom\Projects\GC19\Sequence\180.seq
 Sample Name: 204212-001, 139792,tvh+mbtxe
 Data File: \\Lims\gdrive\ezchrom\Projects\GC19\Data\180_009
 Instrument: GC19 (Offline) Vial: N/A Operator: Tvh 2. Analyst (lims2k3\tvh2)
 Method Name: \\Lims\gdrive\ezchrom\Projects\GC19\Method\TVHBTXE143.met

Software Version 3.1.7
 Run Date: 6/28/2008 4:53:06 PM
 Analysis Date: 6/30/2008 9:22:33 AM
 Sample Amount: 5 Multiplier: 5
 Vial & pH or Core ID: b1.3



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Integration Events

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Yes	Threshold	0	0	50

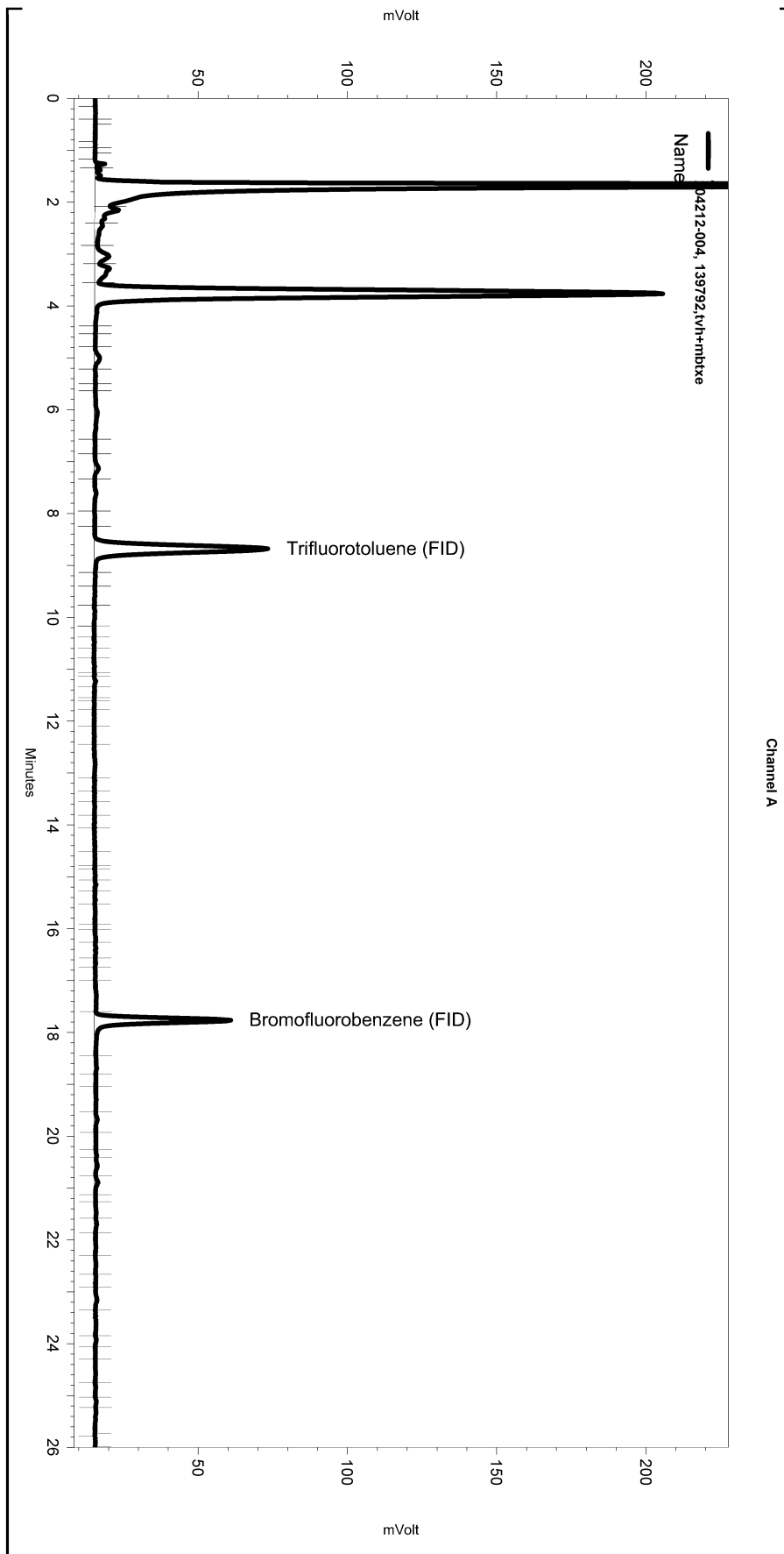
Manual Integration Fixes

Data File: \\Lims\gdrive\ezchrom\Projects\GC19\Data\180_009

Enabled	Event Type	Start (Minutes)	Stop (Minutes)	Value
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Sequence File: \\Lims\gdrive\ezchrom\Projects\GC19\Sequence\180.seq
 Sample Name: 204212-004, 139792,tvh+mbtxe
 Data File: \\Lims\gdrive\ezchrom\Projects\GC19\Data\180_023
 Instrument: GC19 (Offline) Vial: N/A Operator: Tvh 2. Analyst (lims2k3\tvh2)
 Method Name: \\Lims\gdrive\ezchrom\Projects\GC19\Method\TVHBTXE143.met

Software Version 3.1.7
 Run Date: 6/29/2008 1:38:06 AM
 Analysis Date: 6/30/2008 9:23:25 AM
 Sample Amount: 5 Multiplier: 5
 Vial & pH or Core ID: a1.6



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Integration Events

Enabled	Event Type	Start (Minutes)	Stop (Minutes)	Value
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Yes	Threshold	0	0	50

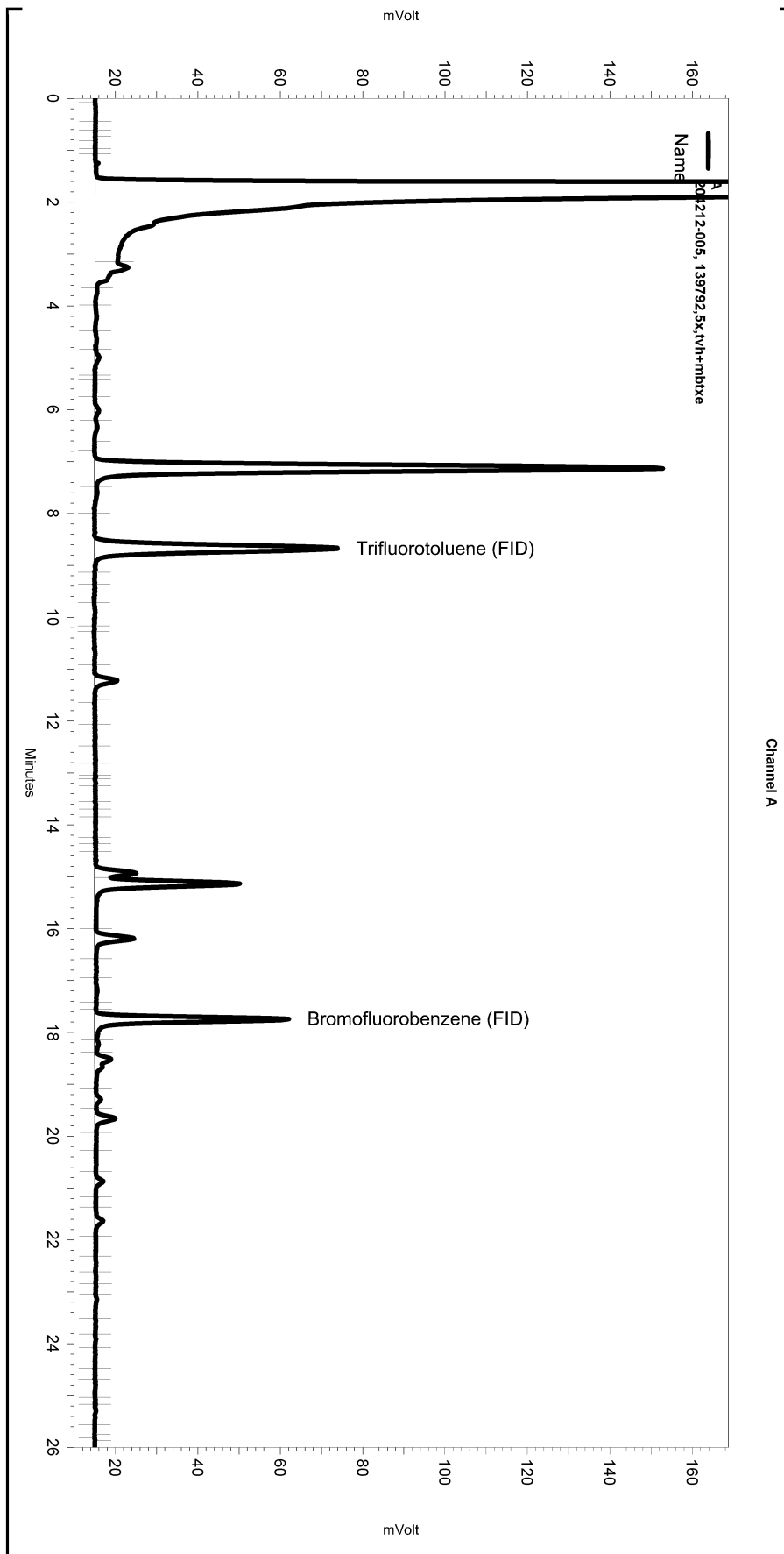
Manual Integration Fixes

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Enabled	Event Type	Start (Minutes)	Stop (Minutes)	Value
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 Sample Name: 204212-005, 139792,5x,tvh+mbtxe
 Data File: \\Lims\gdrive\ezchrom\Projects\GC19\Data\180_018
 Instrument: GC19 (Offline) Vial: N/A Operator: Tvh 2. Analyst (lims2k3\tvh2)
 Method Name: \\Lims\gdrive\ezchrom\Projects\GC19\Method\TVHBTXE143.met

Software Version 3.1.7
 Run Date: 6/28/2008 10:30:47 PM
 Analysis Date: 6/30/2008 9:23:06 AM
 Sample Amount: 5 Multiplier: 5
 Vial & pH or Core ID: b7.0



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Integration Events

Enabled	Event Type	Start (Minutes)	Stop (Minutes)	Value
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Yes	Threshold	0	0	50

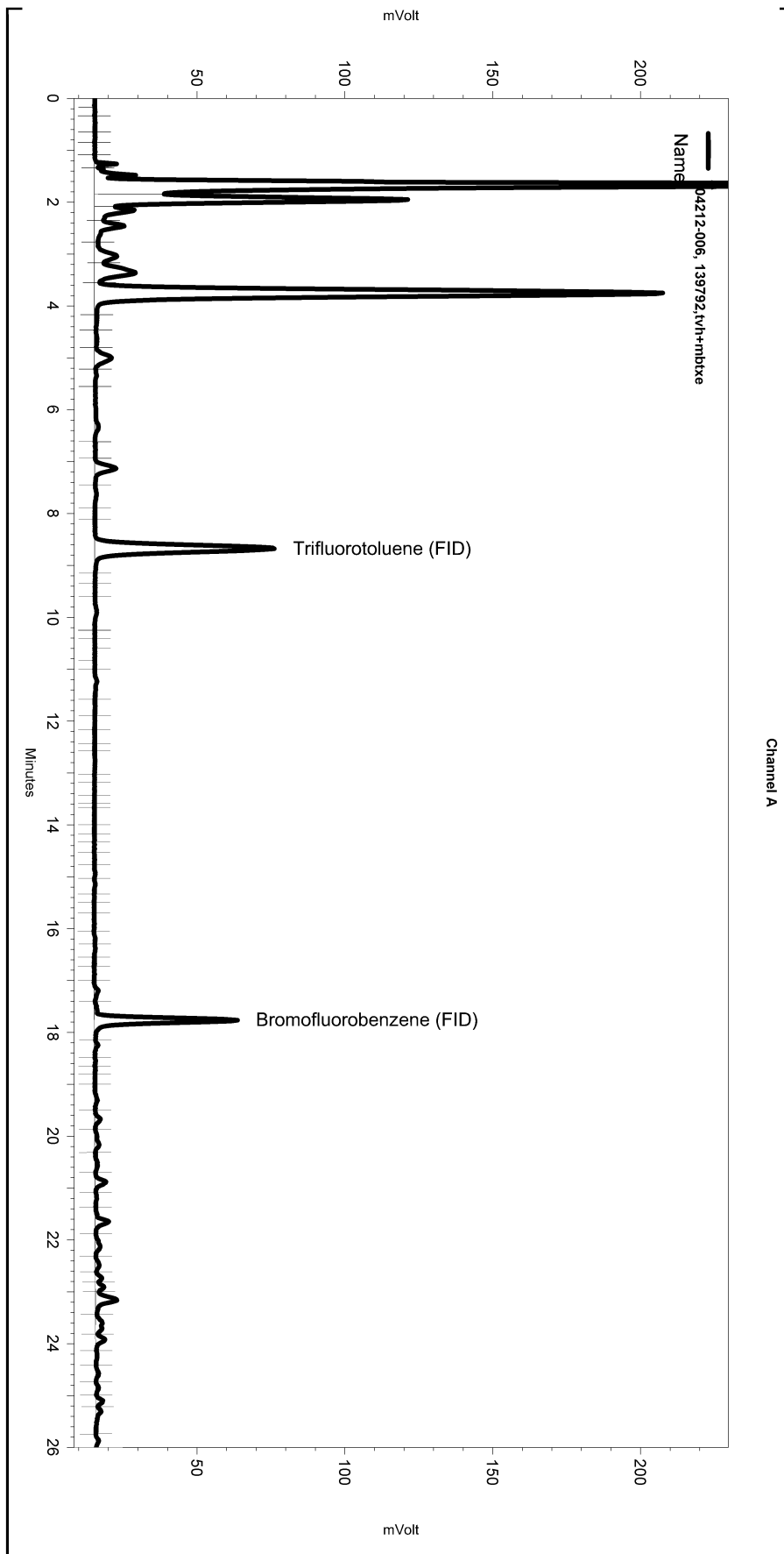
Manual Integration Fixes

Data File: \\Lims\gdrive\ezchrom\Projects\GC19\Data\180_018

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Sequence File: \\Lims\gdrive\ezchrom\Projects\GC19\Sequence\180.seq
 Sample Name: 204212-006, 139792,tvh+mbtxe
 Data File: \\Lims\gdrive\ezchrom\Projects\GC19\Data\180_024
 Instrument: GC19 (Offline) Vial: N/A Operator: Tvh 2. Analyst (lims2k3\tvh2)
 Method Name: \\Lims\gdrive\ezchrom\Projects\GC19\Method\TVHBTXE143.met

Software Version 3.1.7
 Run Date: 6/29/2008 2:15:40 AM
 Analysis Date: 6/30/2008 10:28:53 AM
 Sample Amount: 5 Multiplier: 5
 Vial & pH or Core ID: a1.3



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Integration Events

Enabled	Event Type	Start (Minutes)	Stop (Minutes)	Value
Yes	Width	0	0	0.2
Yes	Threshold	0	0	50

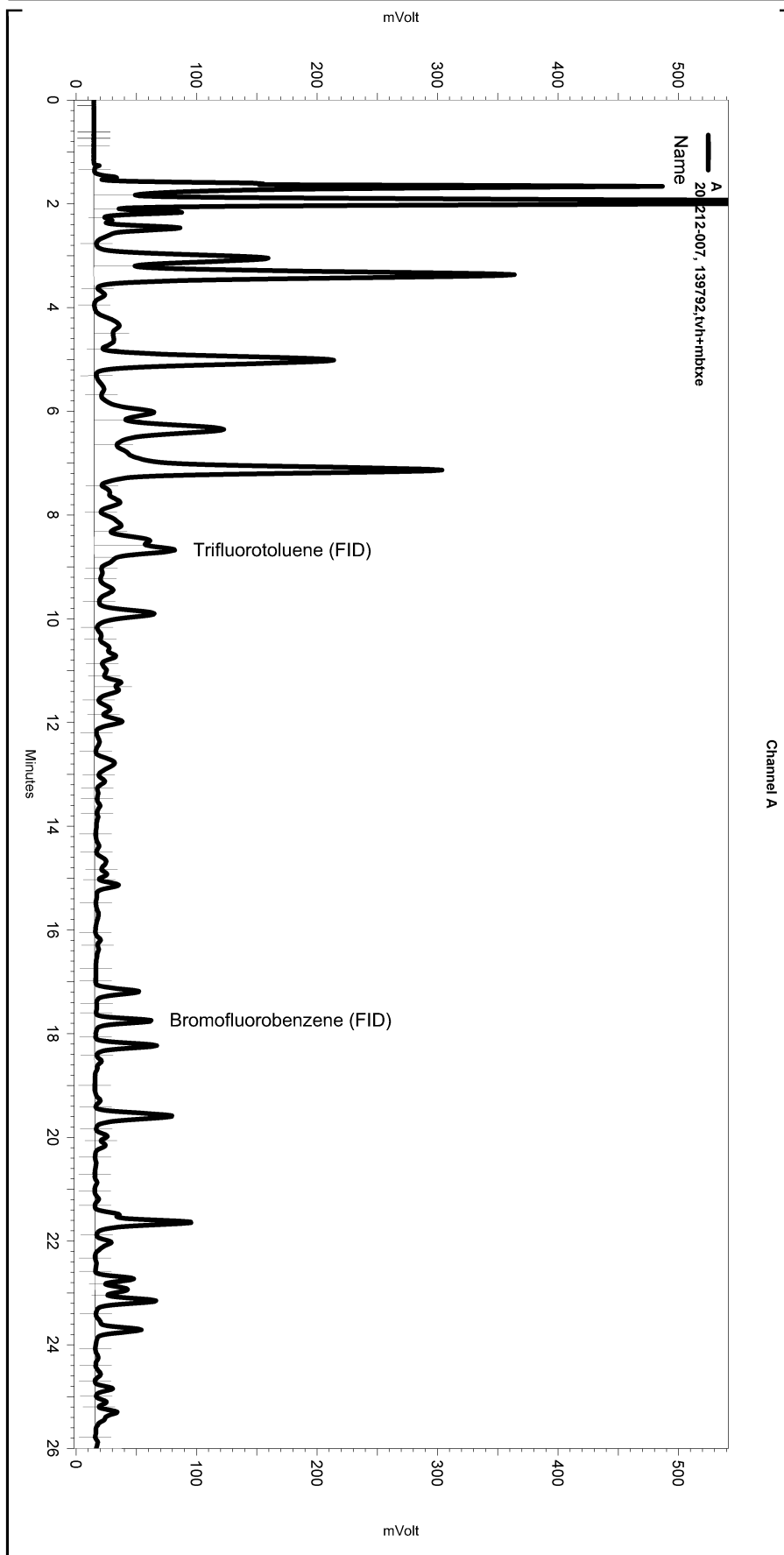
Manual Integration Fixes

Data File: \\Lims\gdrive\ezchrom\Projects\GC19\Data\180_024

Enabled	Event Type	Start (Minutes)	Stop (Minutes)	Value
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 Sample Name: 204212-007, 139792,tvh+mbtxe
 Data File: \\Lims\gdrive\ezchrom\Projects\GC19\Data\180_008
 Instrument: GC19 (Offline) Vial: N/A Operator: Tvh 2. Analyst (lims2k3\tvh2)
 Method Name: \\Lims\gdrive\ezchrom\Projects\GC19\Method\TVHBTXE143.met

Software Version 3.1.7
 Run Date: 6/28/2008 4:15:33 PM
 Analysis Date: 6/30/2008 10:14:35 AM
 Sample Amount: 5 Multiplier: 5
 Vial & pH or Core ID: b1.3



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Integration Events

Enabled	Event Type	Start (Minutes)	Stop (Minutes)	Value
Yes	Width	0	0	0.2
Yes	Threshold	0	0	50

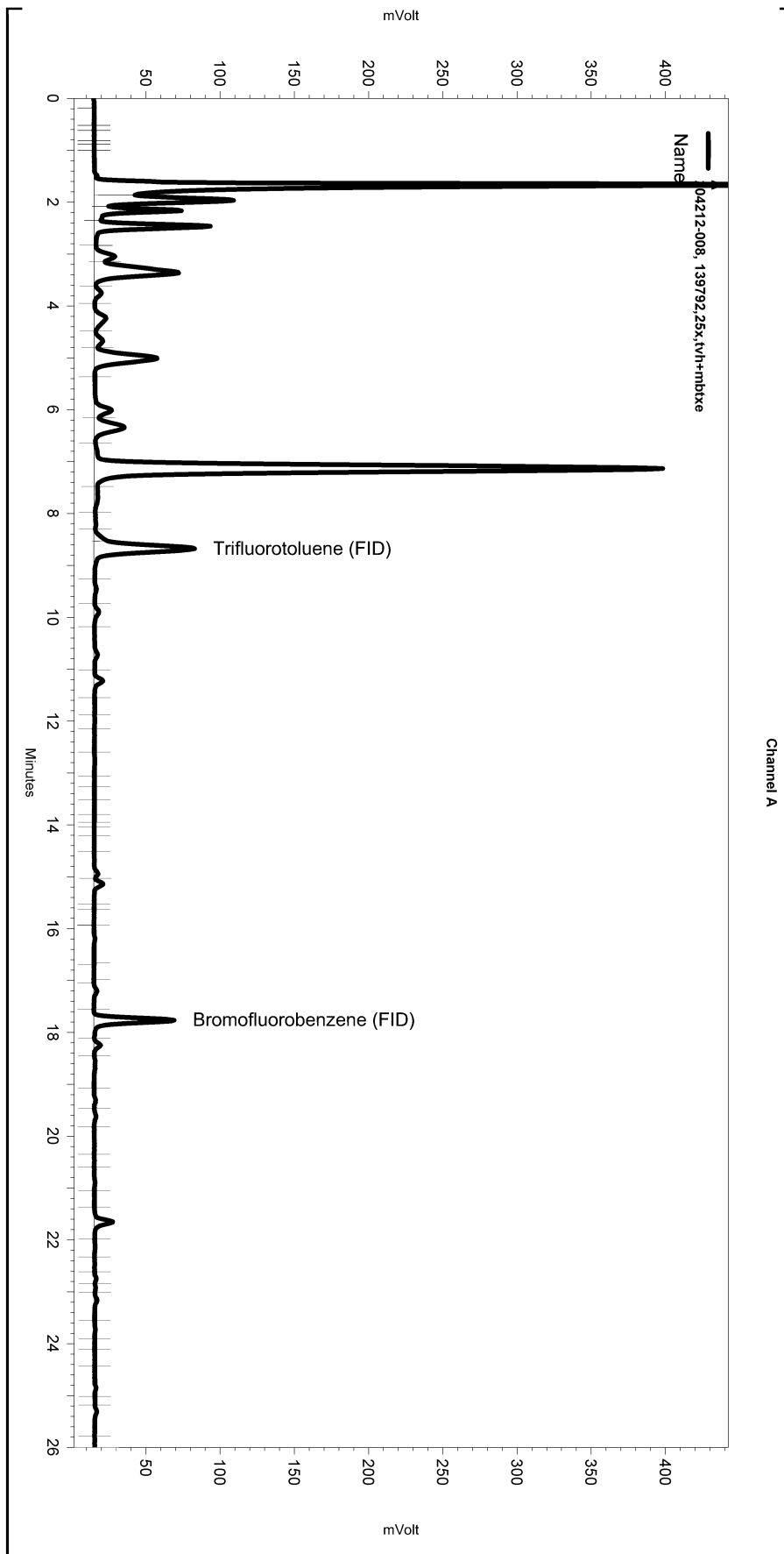
Manual Integration Fixes

Data File: \\Lims\gdrive\ezchrom\Projects\GC19\Data\180_008

Enabled	Event Type	Start (Minutes)	Stop (Minutes)	Value
Yes	Split Peak	8.577	0	0
Yes	Split Peak	8.816	0	0

Sequence File: \\Lims\gdrive\ezchrom\Projects\GC19\Sequence\180.seq
 Sample Name: 204212-008, 139792,25x,tvh+mbtxe
 Data File: \\Lims\gdrive\ezchrom\Projects\GC19\Data\180_020
 Instrument: GC19 (Offline) Vial: N/A Operator: Tvh 2. Analyst (lims2k3\tvh2)
 Method Name: \\Lims\gdrive\ezchrom\Projects\GC19\Method\TVHBTXE143.met

Software Version 3.1.7
 Run Date: 6/28/2008 11:45:45 PM
 Analysis Date: 6/30/2008 10:27:05 AM
 Sample Amount: 5 Multiplier: 5
 Vial & pH or Core ID: b1.3



---< General Method Parameters >---

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Integration Events

Enabled	Event Type	Start (Minutes)	Stop (Minutes)	Value
Yes	Width	0	0	0.2
Yes	Threshold	0	0	50

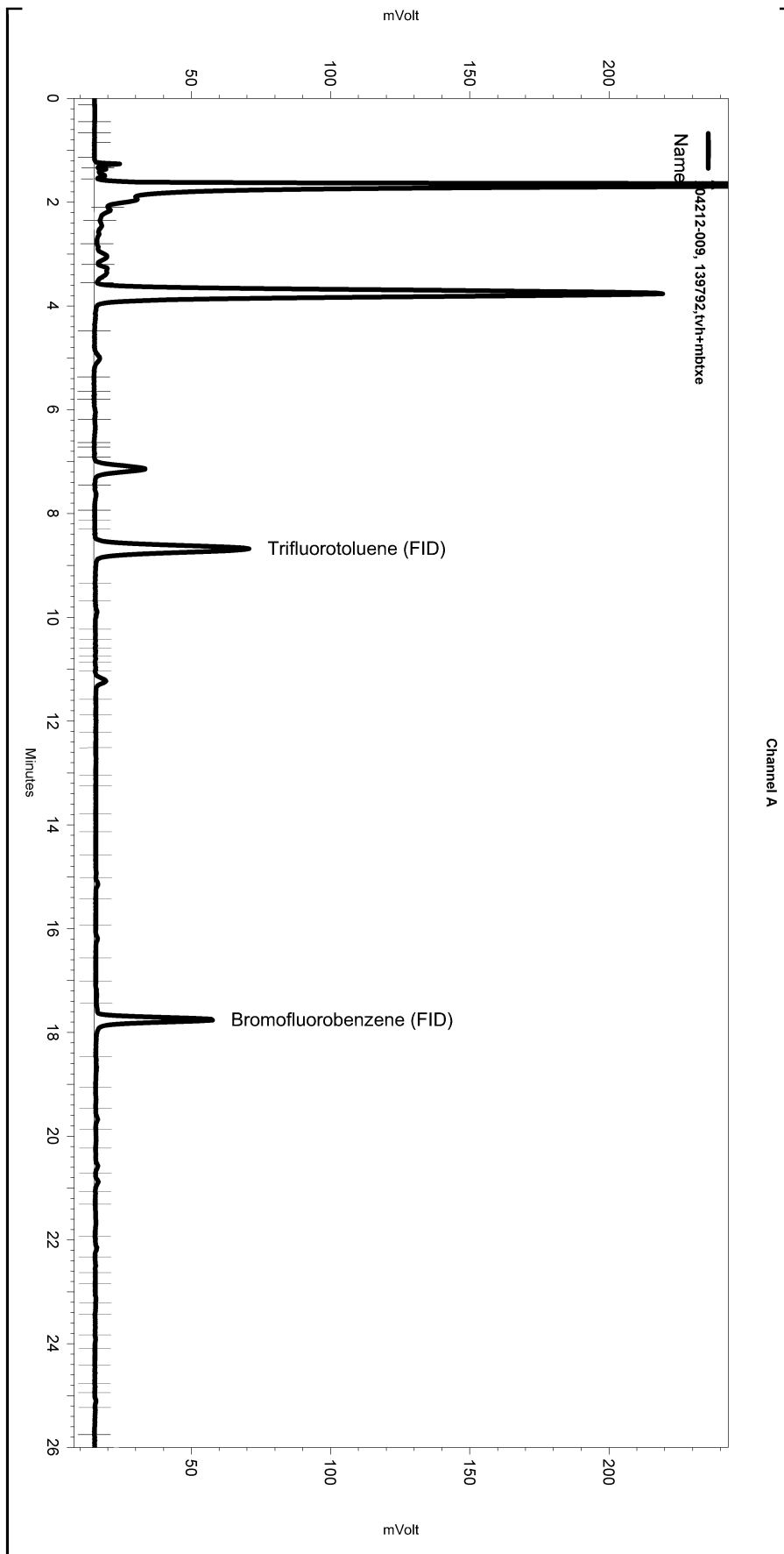
Manual Integration Fixes

Data File: \\Lims\gdrive\ezchrom\Projects\GC19\Data\180_020

Enabled	Event Type	Start (Minutes)	Stop (Minutes)	Value
Yes	Split Peak	8.536	0	0

Sequence File: \\Lims\gdrive\ezchrom\Projects\GC19\Sequence\180.seq
 Sample Name: 204212-009, 139792,tvh+mbtxe
 Data File: \\Lims\gdrive\ezchrom\Projects\GC19\Data\180_022
 Instrument: GC19 (Offline) Vial: N/A Operator: Tvh 2. Analyst (lims2k3\tvh2)
 Method Name: \\Lims\gdrive\ezchrom\Projects\GC19\Method\tvhbtxe143.met

Software Version 3.1.7
 Run Date: 6/29/2008 1:00:38 AM
 Analysis Date: 6/30/2008 9:23:21 AM
 Sample Amount: 5 Multiplier: 5
 Vial & pH or Core ID: a1.3



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Integration Events

Enabled	Event Type	Start (Minutes)	Stop (Minutes)	Value
Yes	Width	0	0	0.2
Yes	Threshold	0	0	50

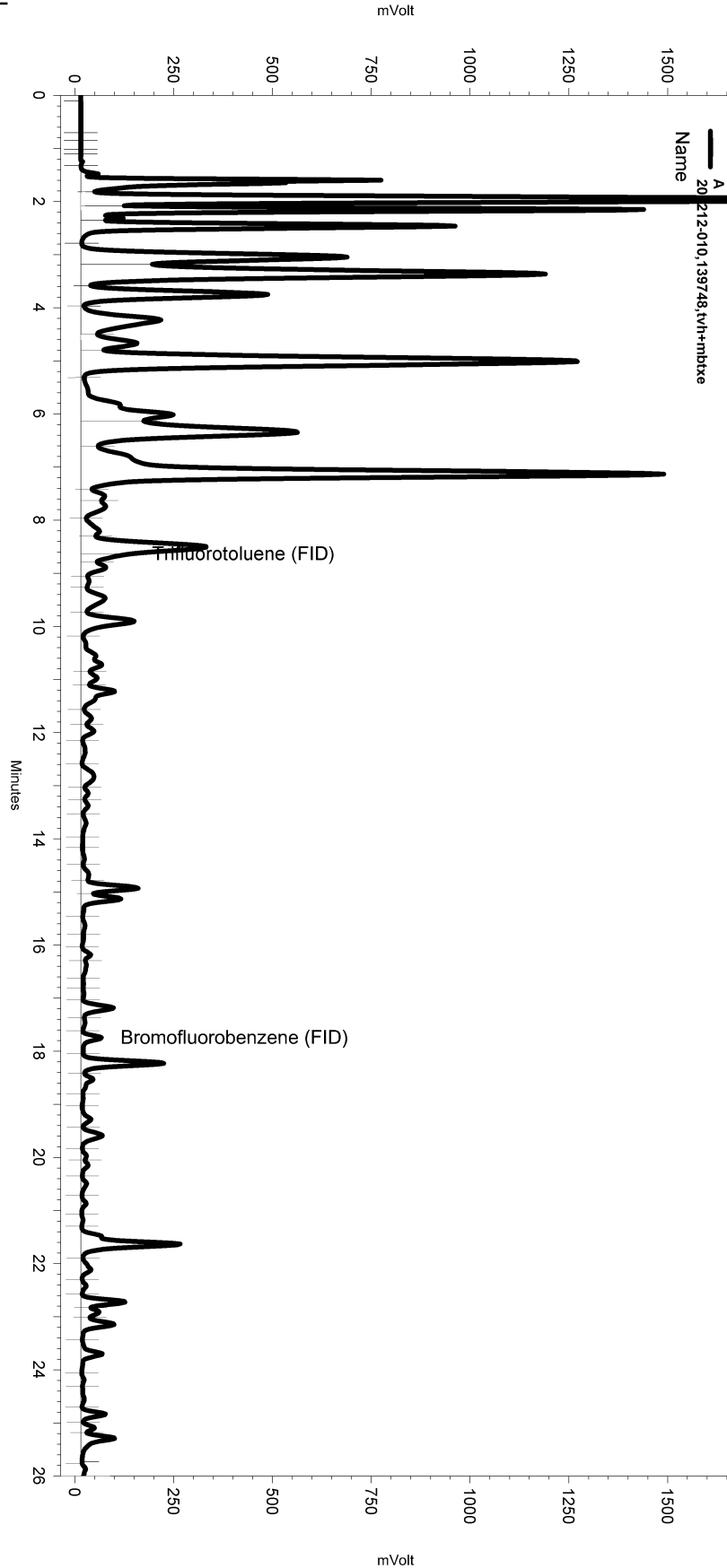
Manual Integration Fixes

Data File: \\Lims\gdrive\ezchrom\Projects\GC19\Data\180_022

Enabled	Event Type	Start (Minutes)	Stop (Minutes)	Value
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Sequence File: \\Lims\gdrive\ezchrom\Projects\GC19\Sequence\179.seq
 Sample Name: 204212-010,139748,tvh+mbtxe
 Data File: \\Lims\gdrive\ezchrom\Projects\GC19\Data\179_020
 Instrument: GC19 (Offline) Vial: N/A Operator: Tvh 2. Analyst (lims2k3\tvh2)
 Method Name: \\Lims\gdrive\ezchrom\Projects\GC19\Method\tvhbtxe143.met

Software Version 3.1.7
 Run Date: 6/28/2008 1:03:24 AM
 Analysis Date: 6/28/2008 9:58:22 AM
 Sample Amount: 5 Multiplier: 5
 Vial & pH or Core ID: A1.3



---< General Method Parameters >---

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No items selected for this section

Integration Events

Enabled	Event Type	Start (Minutes)	Stop (Minutes)	Value
Yes	Width	0	0	0.2
Yes	Threshold	0	0	50

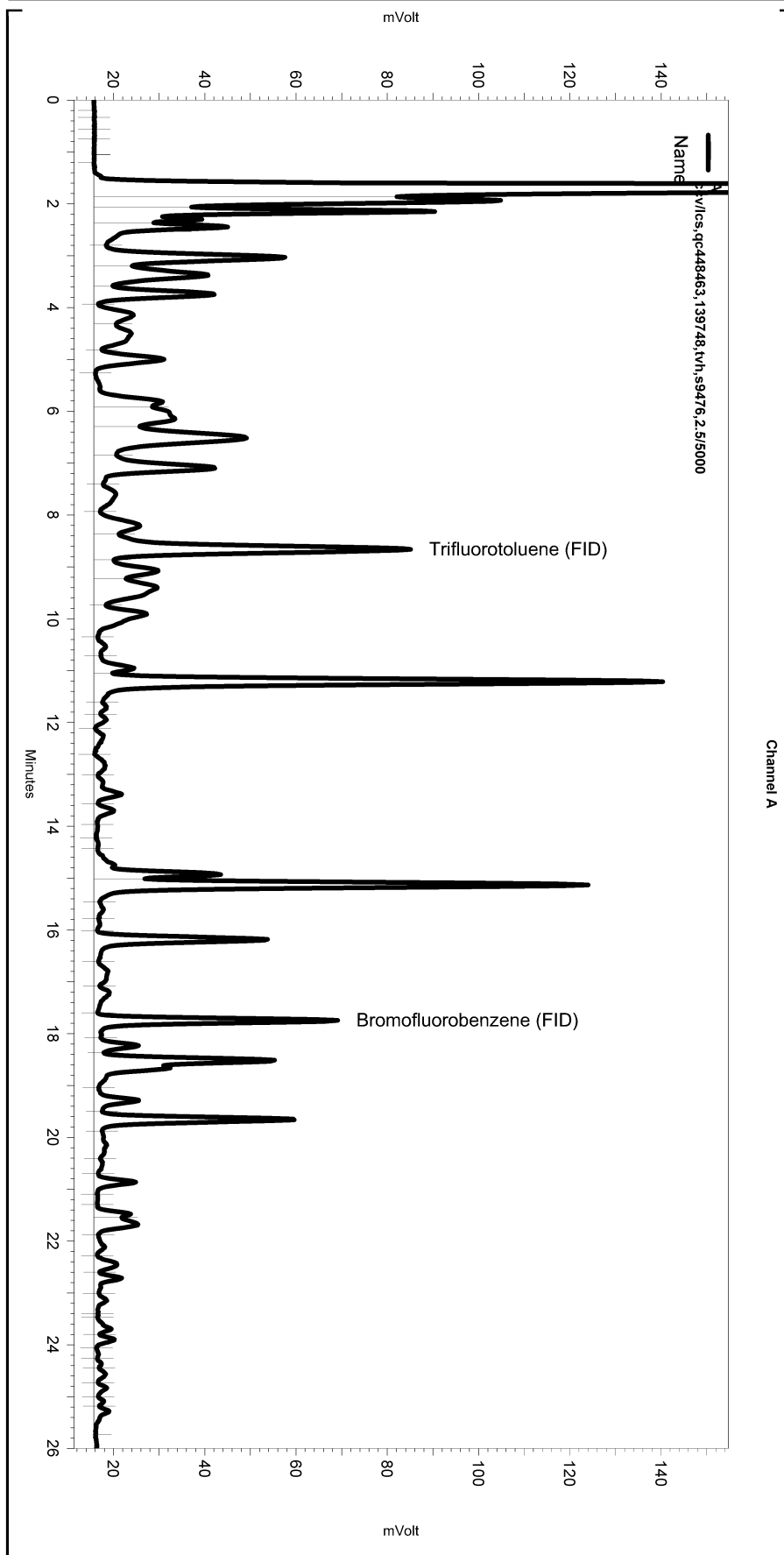
Manual Integration Fixes

Data File: \\Lims\gdrive\ezchrom\Projects\GC19\Data\179_020

Enabled	Event Type	Start (Minutes)	Stop (Minutes)	Value
Yes	Lowest Point Horizontal Baseline	0.632	25.618	0
Yes	Split Peak	8.632	0	0

Sequence File: \\Lims\gdrive\ezchrom\Projects\GC19\Sequence\179.seq
 Sample Name: ccv/lcs,qc448463,139748,tvh,s9476,2.5/5000
 Data File: \\Lims\gdrive\ezchrom\Projects\GC19\Data\179_003
 Instrument: GC19 (Offline) Vial: N/A Operator: Tvh 2. Analyst (lims2k3\tvh2)
 Method Name: \\Lims\gdrive\ezchrom\Projects\GC19\Method\tvhbtxe143.met

Software Version 3.1.7
 Run Date: 6/27/2008 12:14:55 PM
 Analysis Date: 6/28/2008 7:34:06 AM
 Sample Amount: 5 Multiplier: 5
 Vial & pH or Core ID: {Data Description}



---< General Method Parameters >---

No items selected for this section

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No items selected for this section

Integration Events

Enabled	Event Type	Start (Minutes)	Stop (Minutes)	Value
Yes	Width	0	0	0.2
Yes	Threshold	0	0	50

Manual Integration Fixes

Data File: \\Lims\gdrive\ezchrom\Projects\GC19\Data\179_003

Enabled	Event Type	Start (Minutes)	Stop (Minutes)	Value
Yes	Lowest Point Horizontal Baseli	1.122	25.664	0

Total Extractable Hydrocarbons			
Lab #:	204212	Location:	Bay Center Apts
Client:	Stellar Environmental Solutions	Prep:	EPA 3520C
Project#:	2007-65	Analysis:	EPA 8015B
Matrix:	Water	Sampled:	06/24/08
Units:	ug/L	Received:	06/24/08
Diln Fac:	1.000		

Field ID:	MW-3	Batch#:	139666
Type:	SAMPLE	Prepared:	06/25/08
Lab ID:	204212-001	Analyzed:	06/27/08

Analyte	Result	RL
Diesel C10-C24	4,500	50

Surrogate	%REC	Limits
Hexacosane	96	63-130

Field ID:	MW-4	Batch#:	139775
Type:	SAMPLE	Prepared:	06/27/08
Lab ID:	204212-002	Analyzed:	06/29/08

Analyte	Result	RL
Diesel C10-C24	620 Y	50

Surrogate	%REC	Limits
Hexacosane	95	63-130

Field ID:	MW-5	Batch#:	139666
Type:	SAMPLE	Prepared:	06/25/08
Lab ID:	204212-003	Analyzed:	06/27/08

Analyte	Result	RL
Diesel C10-C24	3,300 Y	50

Surrogate	%REC	Limits
Hexacosane	96	63-130

Field ID:	MW-6	Batch#:	139775
Type:	SAMPLE	Prepared:	06/27/08
Lab ID:	204212-004	Analyzed:	06/29/08

Analyte	Result	RL
Diesel C10-C24	1,100	50

Surrogate	%REC	Limits
Hexacosane	92	63-130

Y= Sample exhibits chromatographic pattern which does not resemble standard
 b= See narrative
 ND= Not Detected
 RL= Reporting Limit

Total Extractable Hydrocarbons			
Lab #:	204212	Location:	Bay Center Apts
Client:	Stellar Environmental Solutions	Prep:	EPA 3520C
Project#:	2007-65	Analysis:	EPA 8015B
Matrix:	Water	Sampled:	06/24/08
Units:	ug/L	Received:	06/24/08
Diln Fac:	1.000		

Field ID:	MW-7	Batch#:	139666
Type:	SAMPLE	Prepared:	06/25/08
Lab ID:	204212-005	Analyzed:	06/27/08

Analyte	Result	RL
Diesel C10-C24	5,400	50
Surrogate	%REC	Limits
Hexacosane	82	63-130

Field ID:	MW-9	Batch#:	139666
Type:	SAMPLE	Prepared:	06/25/08
Lab ID:	204212-006	Analyzed:	06/27/08

Analyte	Result	RL
Diesel C10-C24	5,900	50
Surrogate	%REC	Limits
Hexacosane	86	63-130

Field ID:	MW-11	Batch#:	139666
Type:	SAMPLE	Prepared:	06/25/08
Lab ID:	204212-007	Analyzed:	06/27/08

Analyte	Result	RL
Diesel C10-C24	5,100	50
Surrogate	%REC	Limits
Hexacosane	94	63-130

Field ID:	MW-12	Batch#:	139666
Type:	SAMPLE	Prepared:	06/25/08
Lab ID:	204212-008	Analyzed:	06/27/08

Analyte	Result	RL
Diesel C10-C24	3,000	50
Surrogate	%REC	Limits
Hexacosane	91	63-130

Y= Sample exhibits chromatographic pattern which does not resemble standard
 b= See narrative
 ND= Not Detected
 RL= Reporting Limit

Total Extractable Hydrocarbons

Lab #: 204212	Location: Bay Center Apts
Client: Stellar Environmental Solutions	Prep: EPA 3520C
Project#: 2007-65	Analysis: EPA 8015B
Matrix: Water	Sampled: 06/24/08
Units: ug/L	Received: 06/24/08
Diln Fac: 1.000	

Field ID: MW-16	Batch#: 139775
Type: SAMPLE	Prepared: 06/27/08
Lab ID: 204212-009	Analyzed: 06/29/08

Analyte	Result	RL
Diesel C10-C24	10,000	50

Surrogate	%REC	Limits
Hexacosane	89	63-130

Field ID: MW-17	Batch#: 139666
Type: SAMPLE	Prepared: 06/25/08
Lab ID: 204212-010	Analyzed: 06/27/08

Analyte	Result	RL
Diesel C10-C24	2,900	50

Surrogate	%REC	Limits
Hexacosane	86	63-130

Field ID: MW-18	Batch#: 139666
Type: SAMPLE	Prepared: 06/25/08
Lab ID: 204212-011	Analyzed: 06/27/08

Analyte	Result	RL
Diesel C10-C24	8,800 Y	50

Surrogate	%REC	Limits
Hexacosane	104	63-130

Type: BLANK	Prepared: 06/25/08
Lab ID: QC448140	Analyzed: 06/27/08
Batch#: 139666	

Analyte	Result	RL
Diesel C10-C24	130 b	50

Surrogate	%REC	Limits
Hexacosane	99	63-130

Y= Sample exhibits chromatographic pattern which does not resemble standard
 b= See narrative
 ND= Not Detected
 RL= Reporting Limit

Total Extractable Hydrocarbons			
Lab #:	204212	Location:	Bay Center Apts
Client:	Stellar Environmental Solutions	Prep:	EPA 3520C
Project#:	2007-65	Analysis:	EPA 8015B
Matrix:	Water	Sampled:	06/24/08
Units:	ug/L	Received:	06/24/08
Diln Fac:	1.000		

Type:	BLANK	Prepared:	06/27/08
Lab ID:	QC448573	Analyzed:	06/29/08
Batch#:	139775		

Analyte	Result	RL
Diesel C10-C24	ND	50

Surrogate	%REC	Limits
Hexacosane	90	63-130

Y= Sample exhibits chromatographic pattern which does not resemble standard
 b= See narrative
 ND= Not Detected
 RL= Reporting Limit

Batch QC Report

Total Extractable Hydrocarbons			
Lab #:	204212	Location:	Bay Center Apts
Client:	Stellar Environmental Solutions	Prep:	EPA 3520C
Project#:	2007-65	Analysis:	EPA 8015B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC448141	Batch#:	139666
Matrix:	Water	Prepared:	06/25/08
Units:	ug/L	Analyzed:	06/26/08

Cleanup Method: EPA 3630C

Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24	2,500	2,093	84	61-120

Surrogate	%REC	Limits
Hexacosane	90	63-130

Batch QC Report

Total Extractable Hydrocarbons			
Lab #:	204212	Location:	Bay Center Apts
Client:	Stellar Environmental Solutions	Prep:	EPA 3520C
Project#:	2007-65	Analysis:	EPA 8015B
Field ID:	ZZZZZZZZZZ	Batch#:	139666
MSS Lab ID:	204186-001	Sampled:	06/23/08
Matrix:	Water	Received:	06/24/08
Units:	ug/L	Prepared:	06/25/08
Diln Fac:	1.000	Analyzed:	06/27/08

Type: MS Cleanup Method: EPA 3630C
 Lab ID: QC448142

Analyte	MSS Result	Spiked	Result	%REC	Limits
Diesel C10-C24	36.31	2,500	1,558	61	58-126

Surrogate	%REC	Limits
Hexacosane	88	63-130

Type: MSD Cleanup Method: EPA 3630C
 Lab ID: QC448143

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Diesel C10-C24	2,500	1,713	67	58-126	9	31

Surrogate	%REC	Limits
Hexacosane	94	63-130

RPD= Relative Percent Difference

Batch QC Report

Total Extractable Hydrocarbons			
Lab #:	204212	Location:	Bay Center Apts
Client:	Stellar Environmental Solutions	Prep:	EPA 3520C
Project#:	2007-65	Analysis:	EPA 8015B
Matrix:	Water	Batch#:	139775
Units:	ug/L	Prepared:	06/27/08
Diln Fac:	1.000	Analyzed:	06/29/08

Type: BS Cleanup Method: EPA 3630C
 Lab ID: QC448574

Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24	2,500	2,014	81	61-120

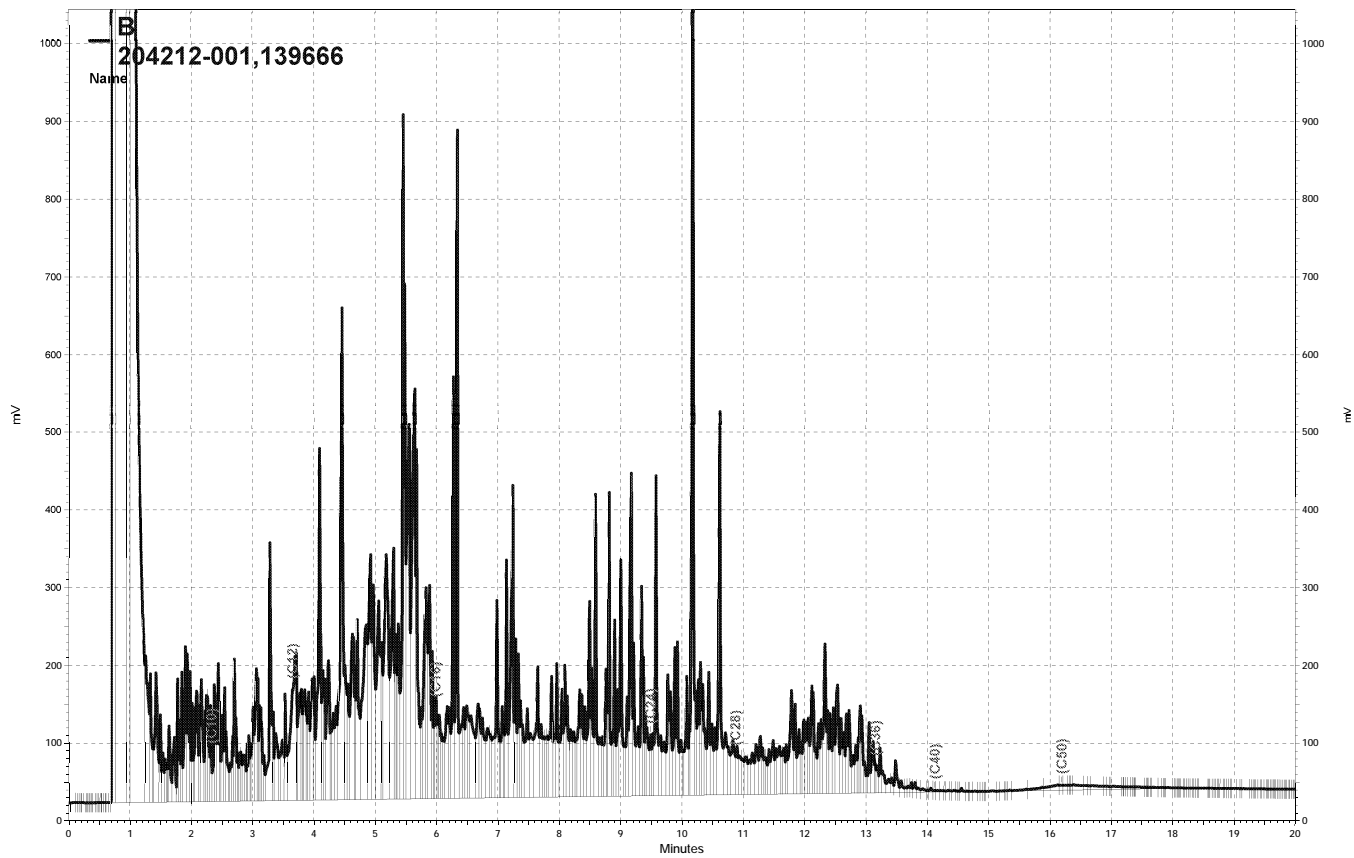
Surrogate	%REC	Limits
Hexacosane	112	63-130

Type: BSD Cleanup Method: EPA 3630C
 Lab ID: QC448575

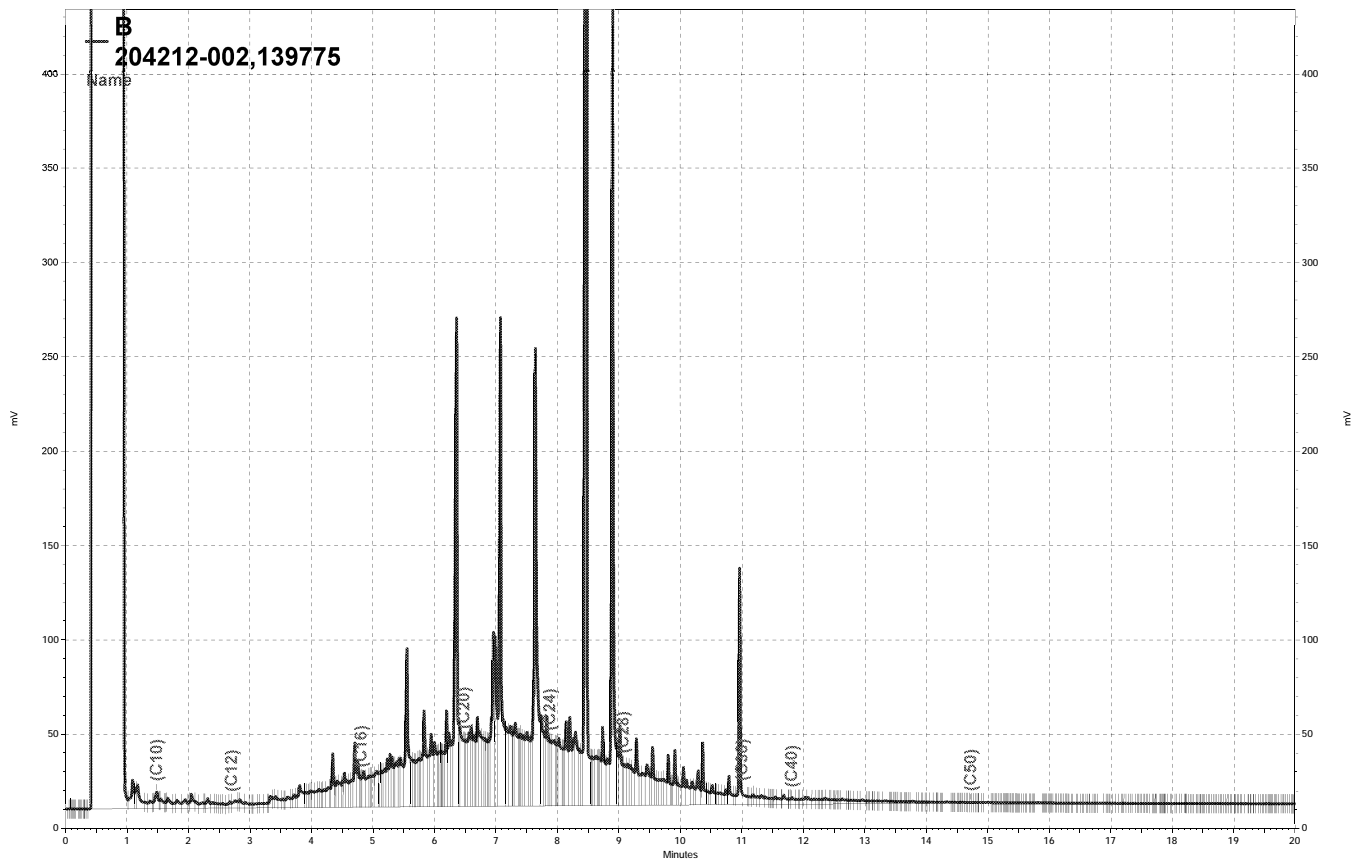
Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Diesel C10-C24	2,500	1,898	76	61-120	6	29

Surrogate	%REC	Limits
Hexacosane	110	63-130

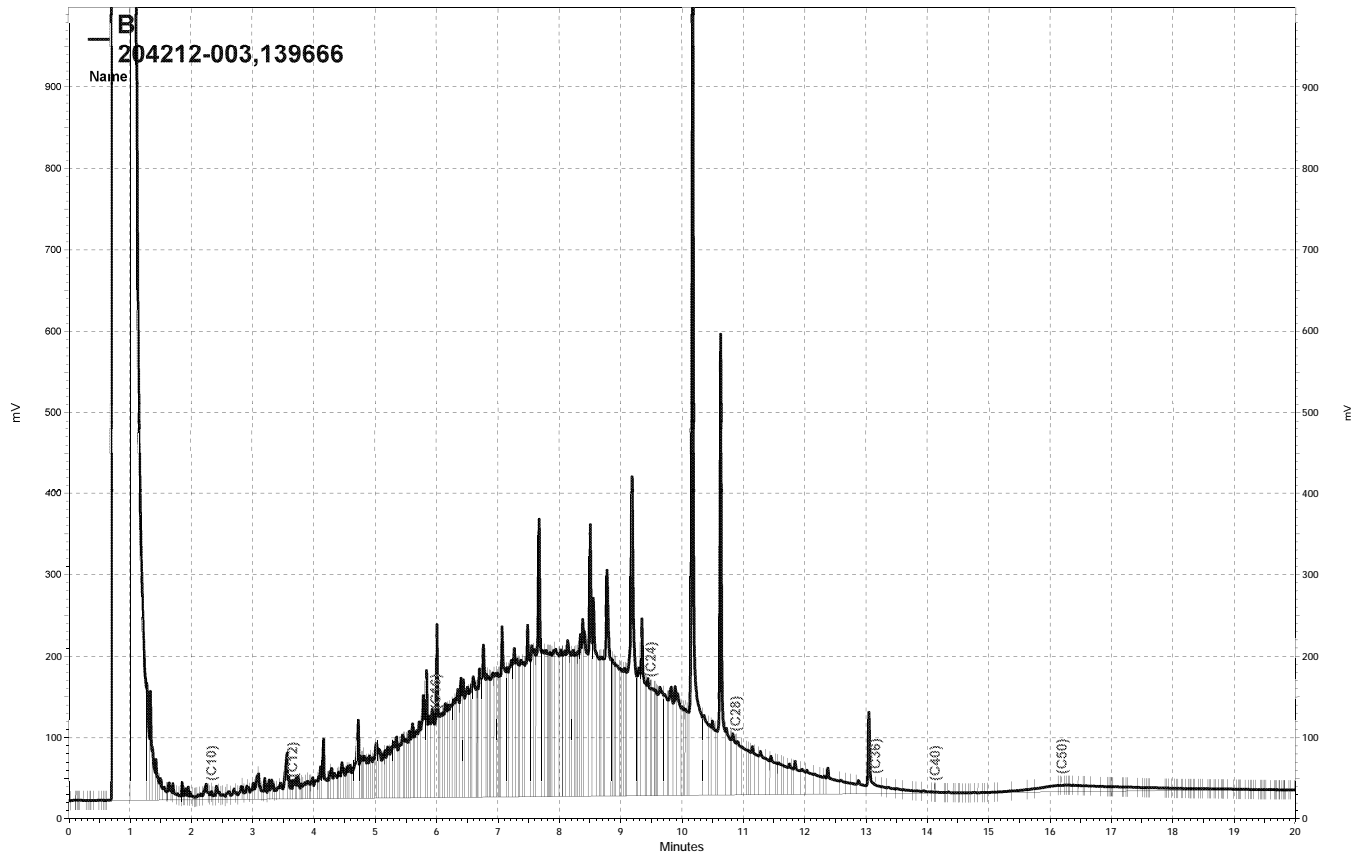
RPD= Relative Percent Difference



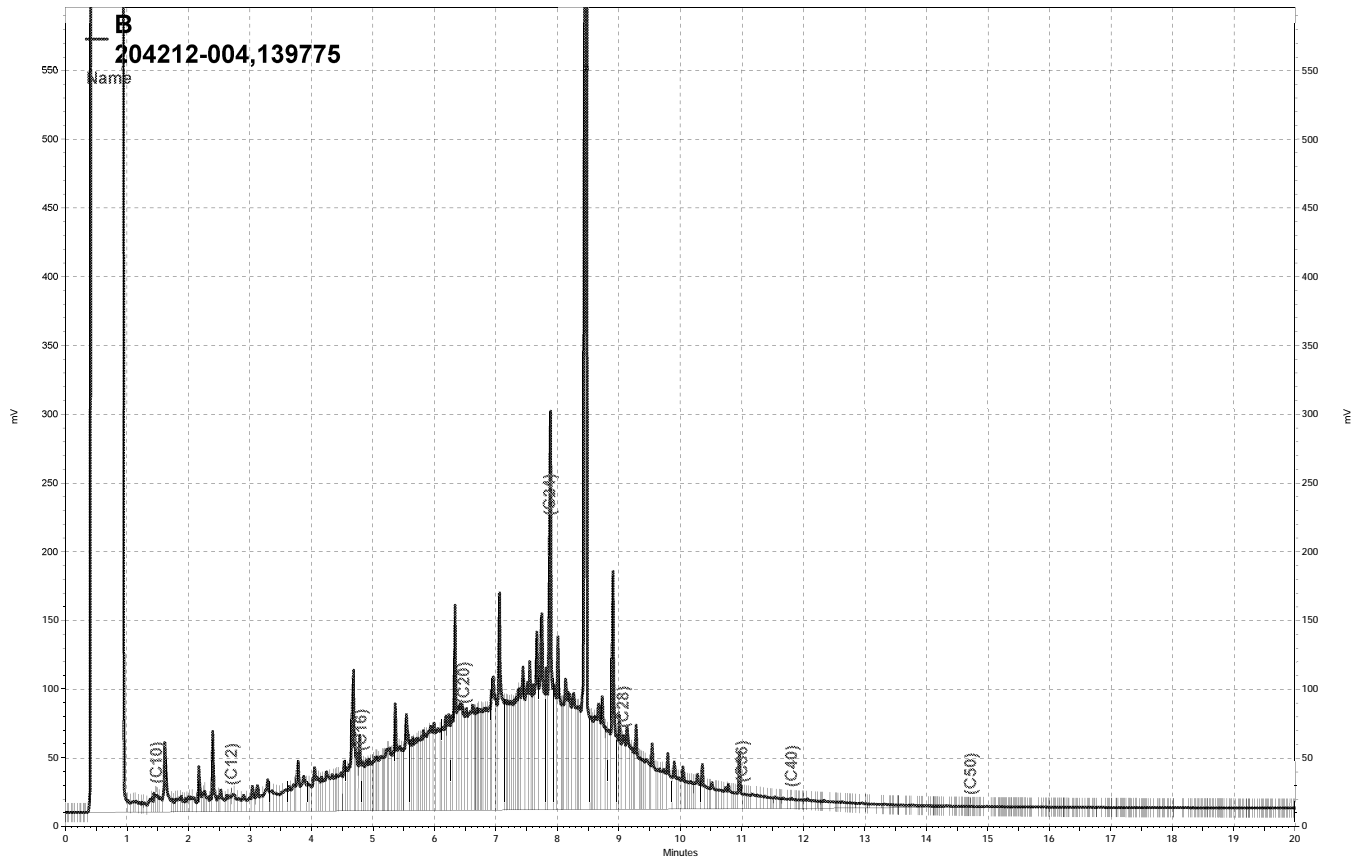
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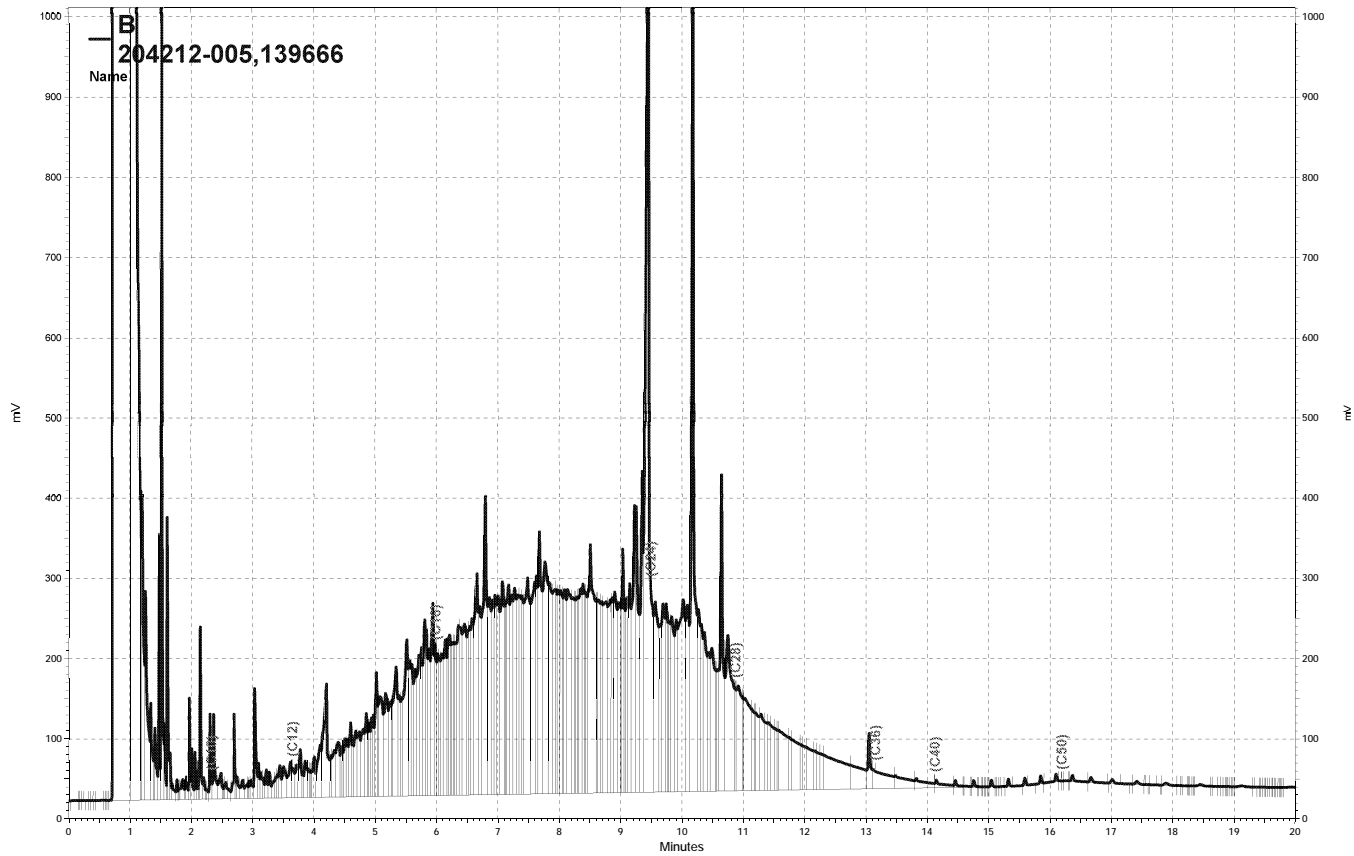
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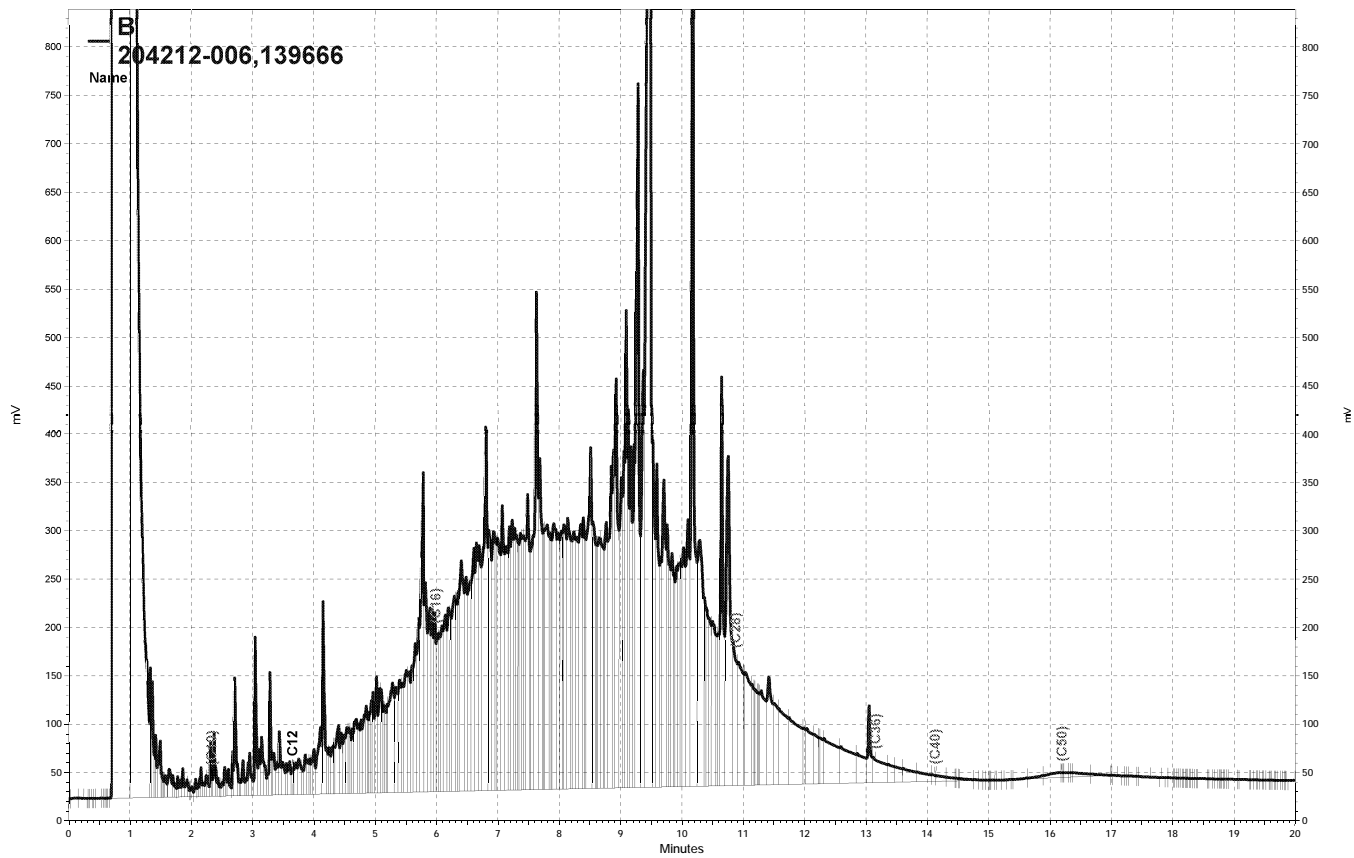
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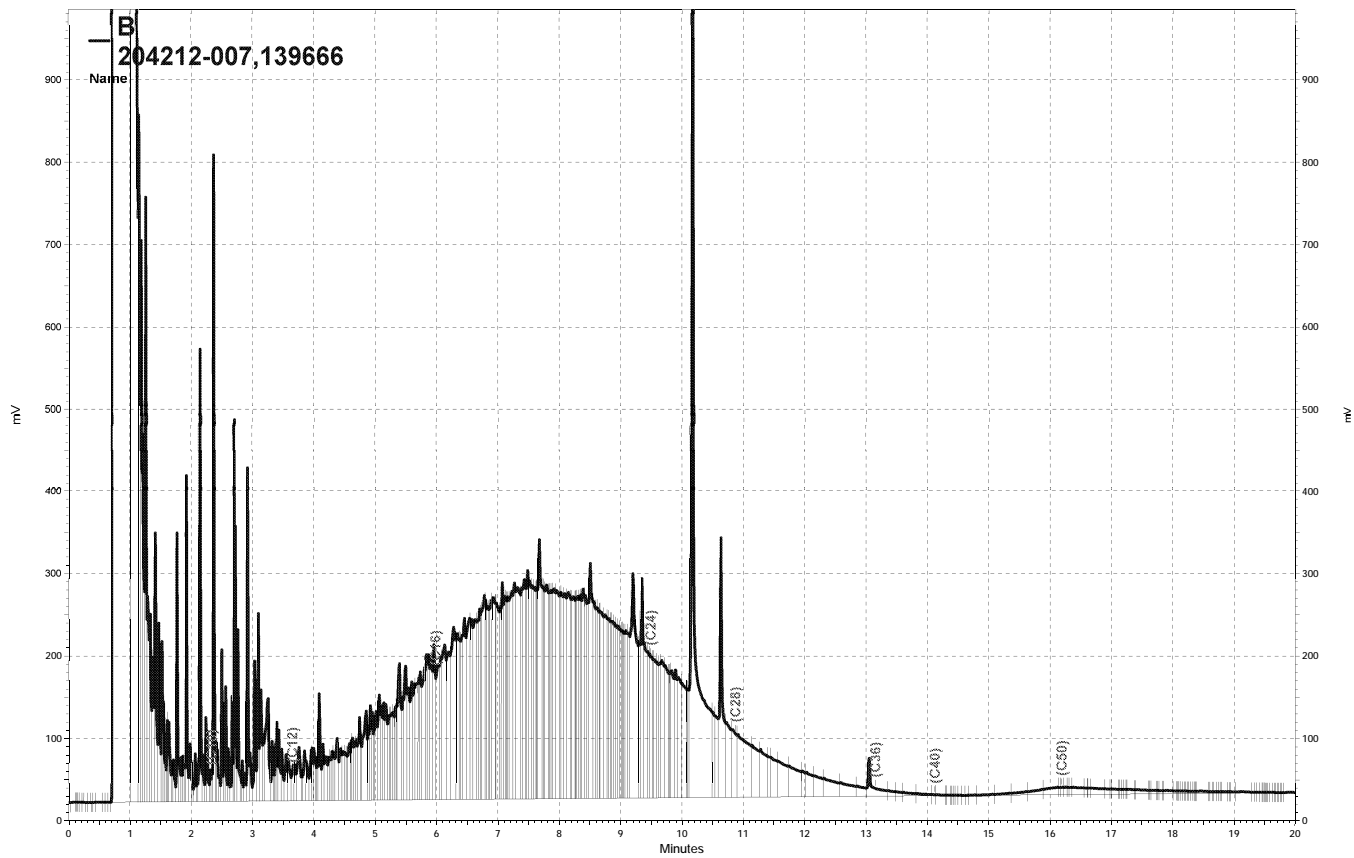
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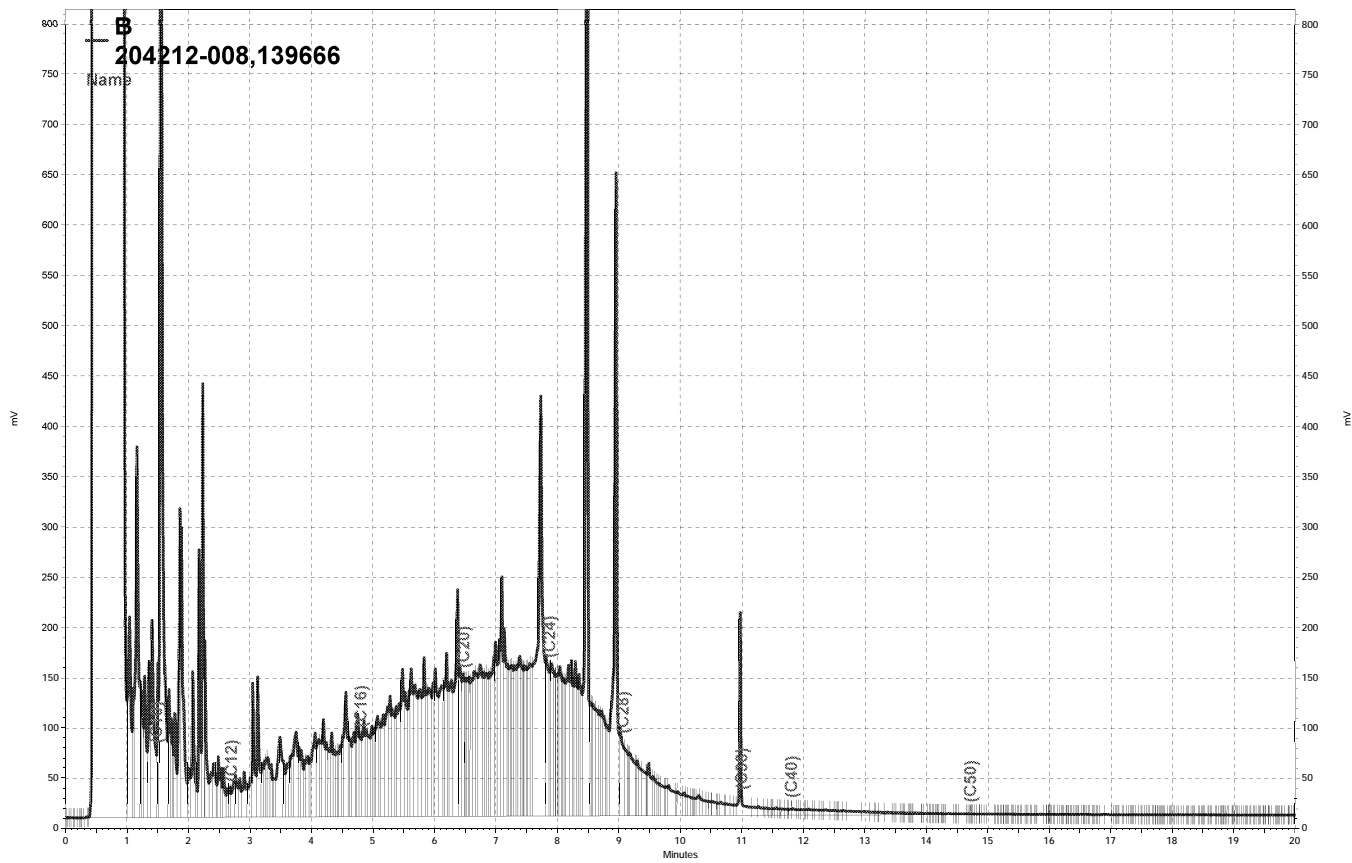
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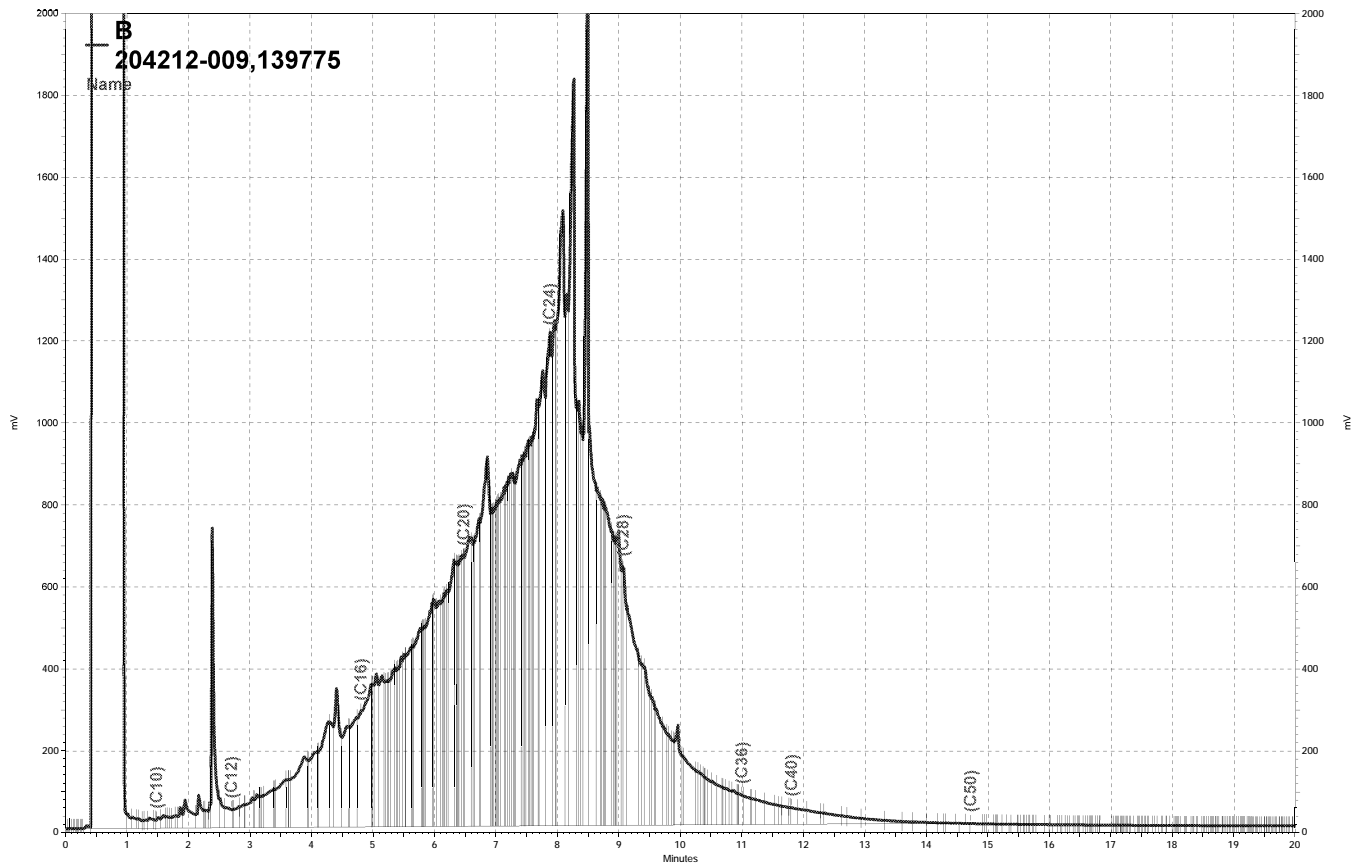
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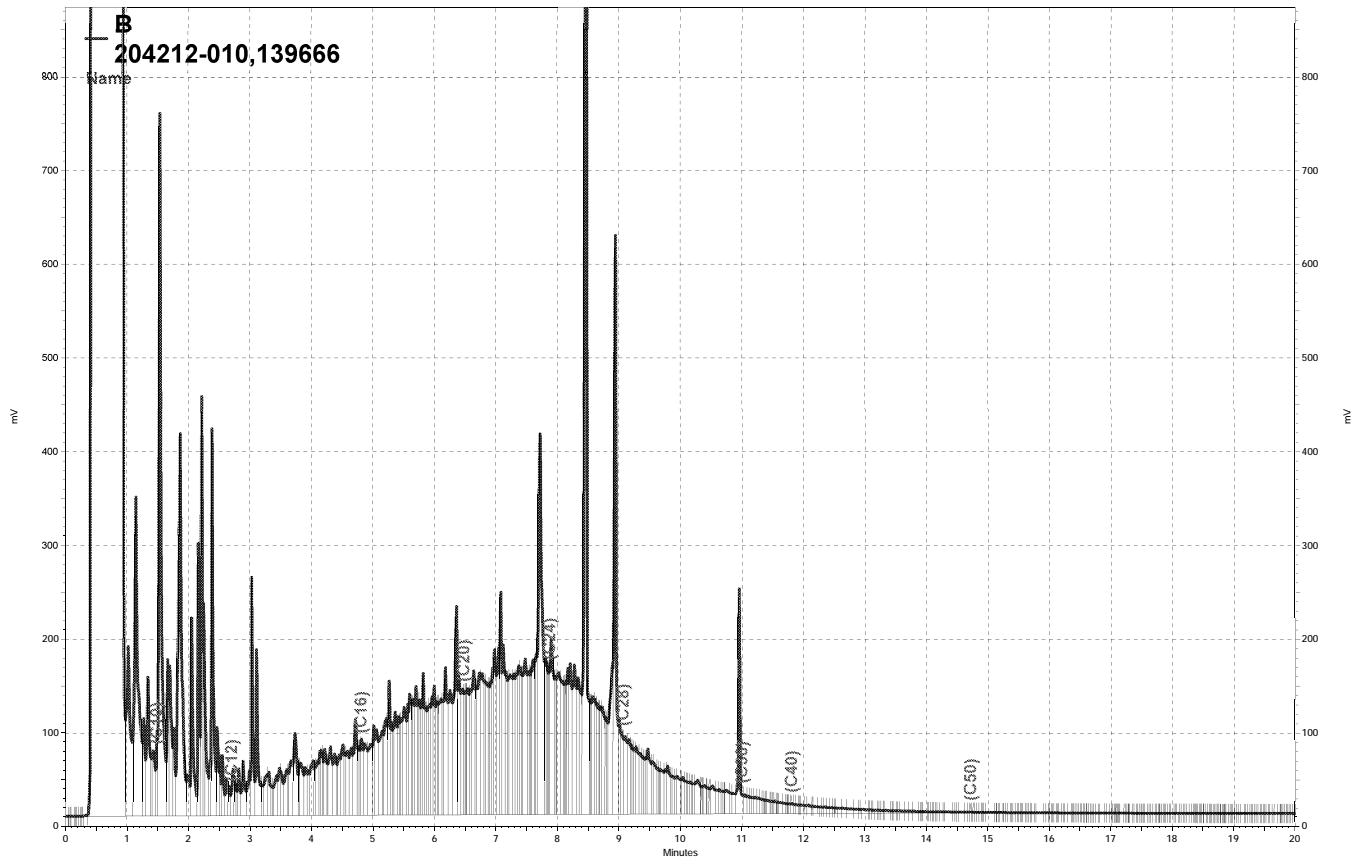
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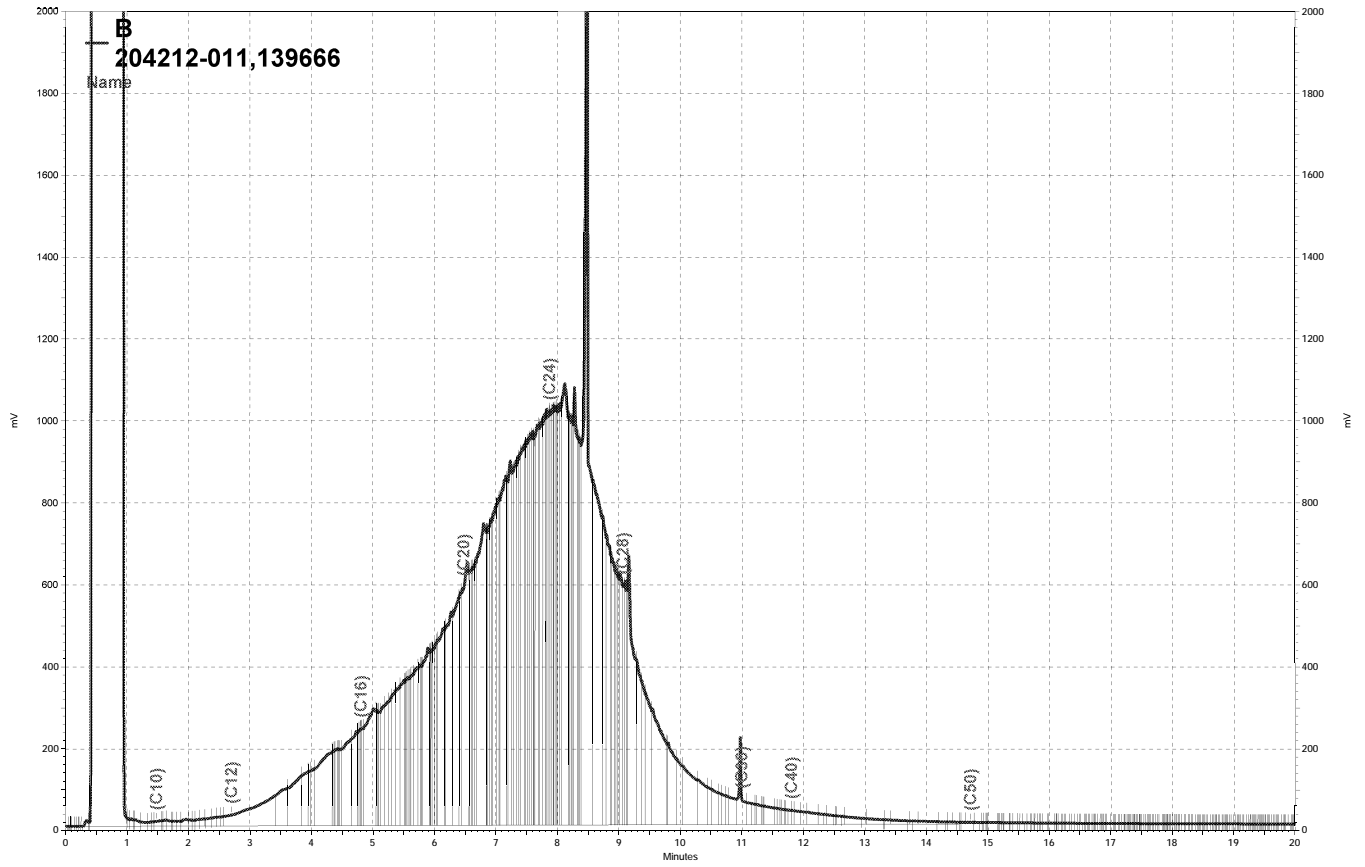
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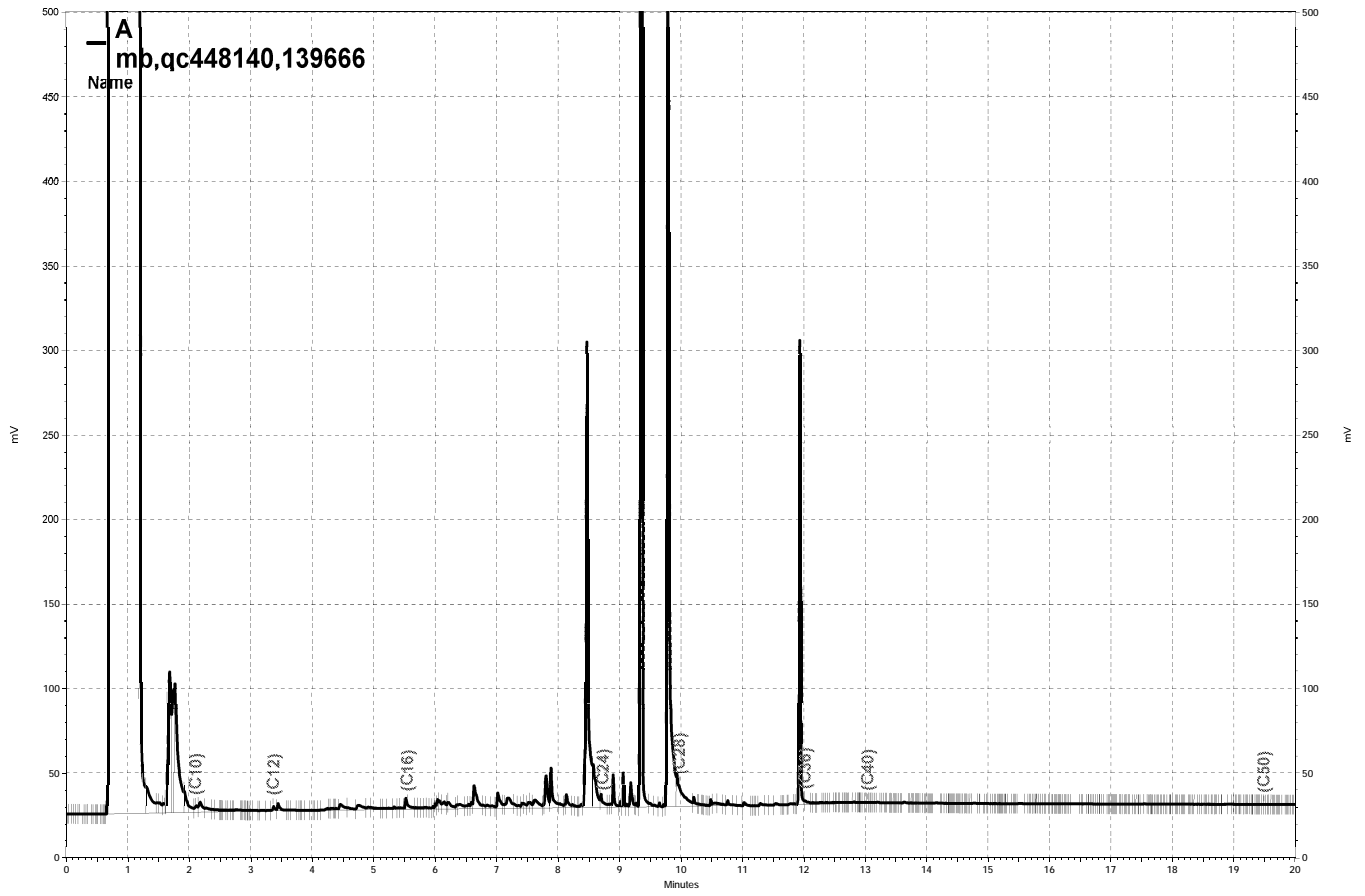
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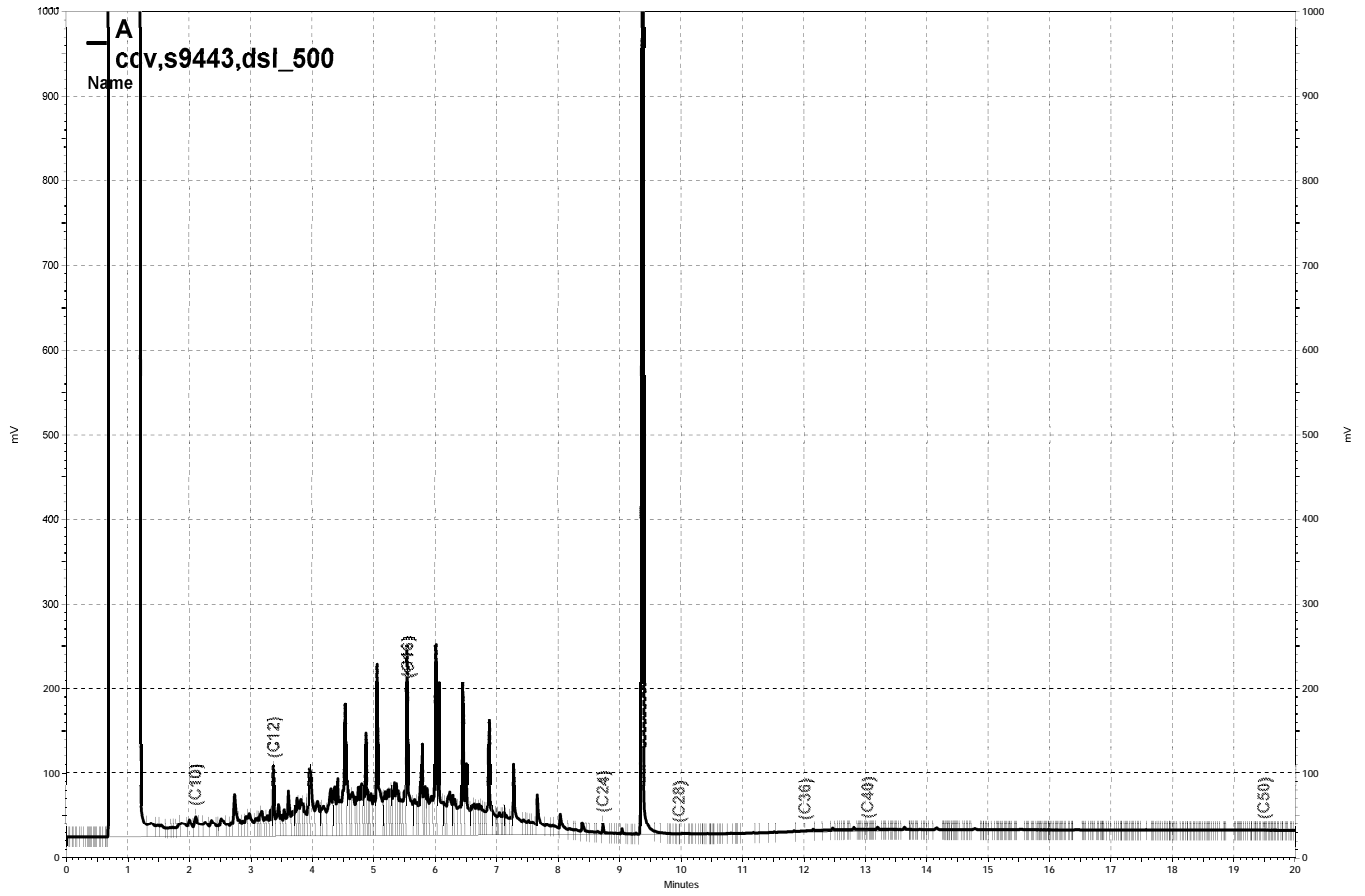
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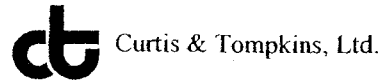


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\\Lims\gdrive\ezchrom\Projects\GC11A\Data\178a024, A

COOLER RECEIPT CHECKLIST



Login # 204237 Date Received 6/25/08 Number of coolers 1
Client Stellar Project Bay Center Apts
Date Opened 6/25 By (print) KWellbrock (sign) [Signature]
Date Logged in [Arrow] By (print) [Arrow] (sign) [Arrow]

1. Did cooler come with a shipping slip (airbill, etc)?..... YES NO
Shipping info

2A. Were custody seals present? YES (circle) on cooler on samples NO
How many Name Date

2B. Were custody seals intact upon arrival? YES NO N/A

3. Were custody papers dry and intact when received?..... YES NO

4. Were custody papers filled out properly (ink, signed, etc)?..... YES NO

5. Is the project identifiable from custody papers? (If so fill out top of form)..... YES NO

6. Indicate the packing in cooler: (if other, describe)

Bubble Wrap Foam blocks X Bags None

Cloth material Cardboard Styrofoam Paper towels

7. If required, was sufficient ice used? Samples should be < or = 6°C YES NO N/A

Type of ice used: X Wet Blue None Temp(°C)

X Samples Received on ice & cold without a temperature blank

Samples received on ice directly from the field. Cooling process had begun

8. Were Method 5035 sampling containers present? YES NO
If YES, what time were they transferred to freezer?

9. Did all bottles arrive unbroken/unopened?..... YES NO

10. Are samples in the appropriate containers for indicated tests? YES NO

11. Are sample labels present, in good condition and complete? YES NO

12. Do the sample labels agree with custody papers? YES NO

13. Was sufficient amount of sample sent for tests requested? YES NO

14. Are the samples appropriately preserved? YES NO N/A

15. Are bubbles > 6mm absent in VOA samples?..... YES NO N/A

16. Was the client contacted concerning this sample delivery?..... YES NO

If YES, Who was called? By Date:

COMMENTS

Oil layer in MW-13 amber - analyze water layer only
VOAs for MW-8 and MW-13 placed in walk-in to avoid contamination



Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878

2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

Laboratory Job Number 204237
ANALYTICAL REPORT

Stellar Environmental Solutions
2198 6th Street
Berkeley, CA 94710

Project : 2007-65
Location : Bay Center Apts
Level : II

<u>Sample ID</u>	<u>Lab ID</u>
MW-E	204237-001
MW-14	204237-002
MW-15	204237-003
MW-8	204237-004
MW-10	204237-005
MW-13	204237-006
RW-1	204237-007

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. This report may be reproduced only in its entirety.

Signature: 
Project Manager

Date: 07/02/2008

Signature: 
Senior Program Manager

Date: 07/02/2008

CASE NARRATIVE

Laboratory number: 204237
Client: Stellar Environmental Solutions
Project: 2007-65
Location: Bay Center Apts
Request Date: 06/25/08
Samples Received: 06/25/08

This hardcopy data package contains sample and QC results for seven water samples, requested for the above referenced project on 06/25/08. The samples were received cold and intact.

TPH-Purgeables and/or BTXE by GC (EPA 8015B and EPA 8021B):

No analytical problems were encountered.

TPH-Extractables by GC (EPA 8015B):

MW-13 (lab # 204237-006) was diluted due to the dark and viscous nature of the sample extract. No other analytical problems were encountered.

Curtis & Tompkins Laboratories Analytical Report

Lab #: 204237	Location: Bay Center Apts
Client: Stellar Environmental Solutions	Prep: EPA 5030B
Project#: 2007-65	
Matrix: Water	Sampled: 06/25/08
Units: ug/L	Received: 06/25/08
Batch#: 139822	

Field ID: RW-1 Diln Fac: 1.000
 Type: SAMPLE Analyzed: 06/30/08
 Lab ID: 204237-007

Analyte	Result	RL	Analysis
Gasoline C7-C12	1,200	50	EPA 8015B
MTBE	ND	2.0	EPA 8021B
Benzene	290	0.50	EPA 8021B
Toluene	4.8	0.50	EPA 8021B
Ethylbenzene	10	0.50	EPA 8021B
m,p-Xylenes	2.6	0.50	EPA 8021B
o-Xylene	2.2	0.50	EPA 8021B

Surrogate	%REC	Limits	Analysis
Trifluorotoluene (FID)	106	69-140	EPA 8015B
Bromofluorobenzene (FID)	115	73-144	EPA 8015B
Trifluorotoluene (PID)	92	60-146	EPA 8021B
Bromofluorobenzene (PID)	104	65-143	EPA 8021B

Type: BLANK Diln Fac: 1.000
 Lab ID: QC448747 Analyzed: 06/30/08

Analyte	Result	RL	Analysis
Gasoline C7-C12	ND	50	EPA 8015B
MTBE	ND	2.0	EPA 8021B
Benzene	ND	0.50	EPA 8021B
Toluene	ND	0.50	EPA 8021B
Ethylbenzene	ND	0.50	EPA 8021B
m,p-Xylenes	ND	0.50	EPA 8021B
o-Xylene	ND	0.50	EPA 8021B

Surrogate	%REC	Limits	Analysis
Trifluorotoluene (FID)	98	69-140	EPA 8015B
Bromofluorobenzene (FID)	101	73-144	EPA 8015B
Trifluorotoluene (PID)	87	60-146	EPA 8021B
Bromofluorobenzene (PID)	91	65-143	EPA 8021B

C= Presence confirmed, but RPD between columns exceeds 40%
 ND= Not Detected
 RL= Reporting Limit

Batch QC Report

Curtis & Tompkins Laboratories Analytical Report

Lab #:	204237	Location:	Bay Center Apts
Client:	Stellar Environmental Solutions	Prep:	EPA 5030B
Project#:	2007-65	Analysis:	EPA 8015B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC448748	Batch#:	139822
Matrix:	Water	Analyzed:	06/30/08
Units:	ug/L		

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	1,000	954.6	95	80-120

Surrogate	%REC	Limits
Trifluorotoluene (FID)	117	69-140
Bromofluorobenzene (FID)	102	73-144

Batch QC Report

Curtis & Tompkins Laboratories Analytical Report

Lab #:	204237	Location:	Bay Center Apts
Client:	Stellar Environmental Solutions	Prep:	EPA 5030B
Project#:	2007-65	Analysis:	EPA 8021B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC448749	Batch#:	139822
Matrix:	Water	Analyzed:	06/30/08
Units:	ug/L		

Analyte	Spiked	Result	%REC	Limits
MTBE	10.00	9.376	94	70-129
Benzene	10.00	9.223	92	80-120
Toluene	10.00	9.019	90	80-120
Ethylbenzene	10.00	9.372	94	80-120
m,p-Xylenes	10.00	9.400	94	80-120
o-Xylene	10.00	9.128	91	80-120

Surrogate	%REC	Limits
Trifluorotoluene (PID)	84	60-146
Bromofluorobenzene (PID)	90	65-143

Batch QC Report

Curtis & Tompkins Laboratories Analytical Report

Lab #:	204237	Location:	Bay Center Apts
Client:	Stellar Environmental Solutions	Prep:	EPA 5030B
Project#:	2007-65	Analysis:	EPA 8015B
Field ID:	ZZZZZZZZZZ	Batch#:	139822
MSS Lab ID:	204257-011	Sampled:	06/25/08
Matrix:	Water	Received:	06/26/08
Units:	ug/L	Analyzed:	06/30/08
Diln Fac:	1.000		

Type: MS Lab ID: QC448750

Analyte	MSS Result	Spiked	Result	%REC	Limits
Gasoline C7-C12	31.95	2,000	1,904	94	67-120

Surrogate	%REC	Limits
Trifluorotoluene (FID)	116	69-140
Bromofluorobenzene (FID)	116	73-144

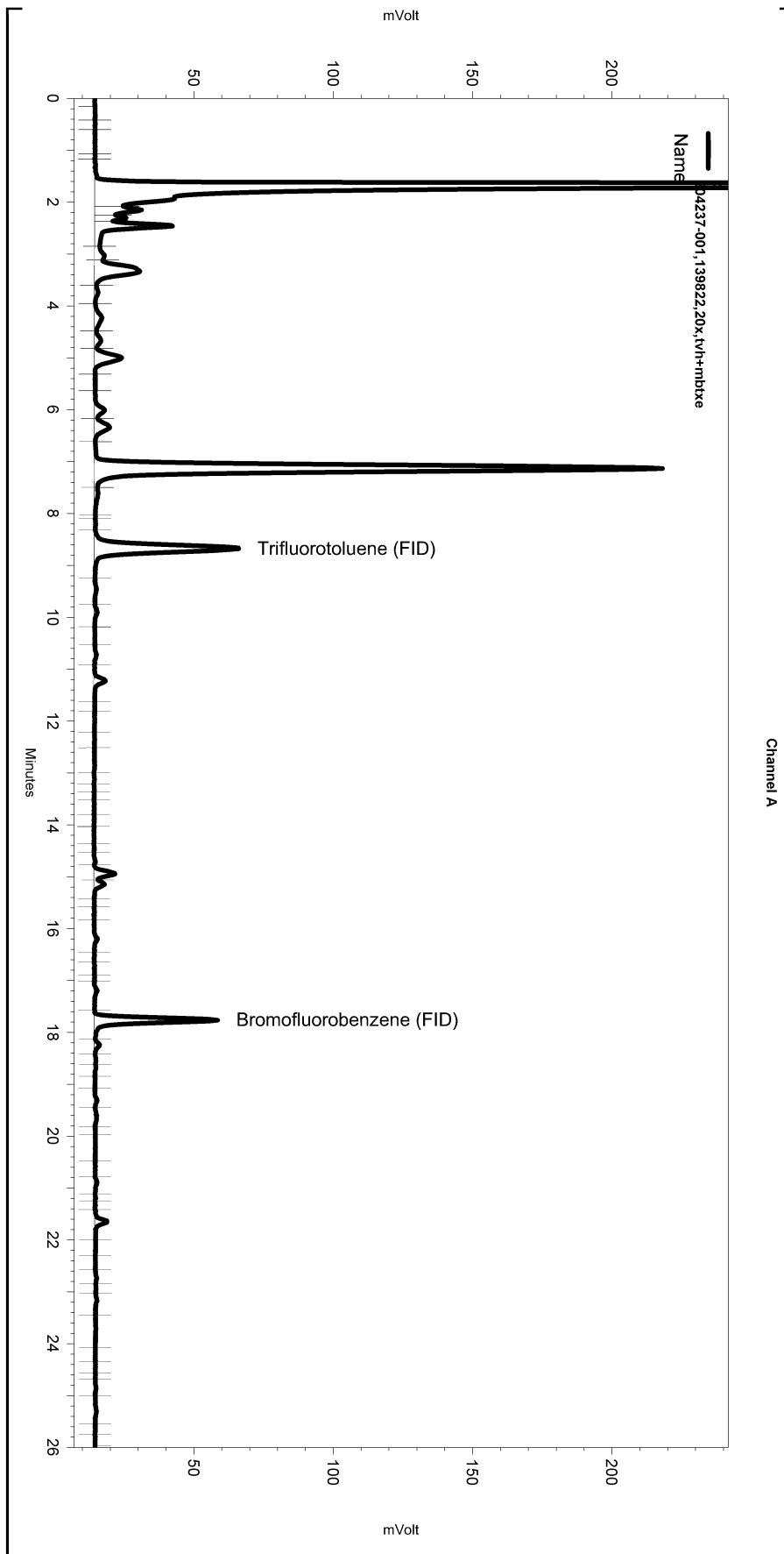
Type: MSD Lab ID: QC448751

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	2,000	1,866	92	67-120	2	20

Surrogate	%REC	Limits
Trifluorotoluene (FID)	115	69-140
Bromofluorobenzene (FID)	111	73-144

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 Method Name: \\Lims\gdrive\ezchrom\Projects\GC19\Method\tvhbtxe143.met

Software Version 3.1.7
 Run Date: 6/30/2008 10:54:31 PM
 Analysis Date: 7/1/2008 6:58:45 AM
 Sample Amount: 5 Multiplier: 5
 Vial & pH or Core ID: b1.3



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Integration Events

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Yes	Threshold	0	0	50

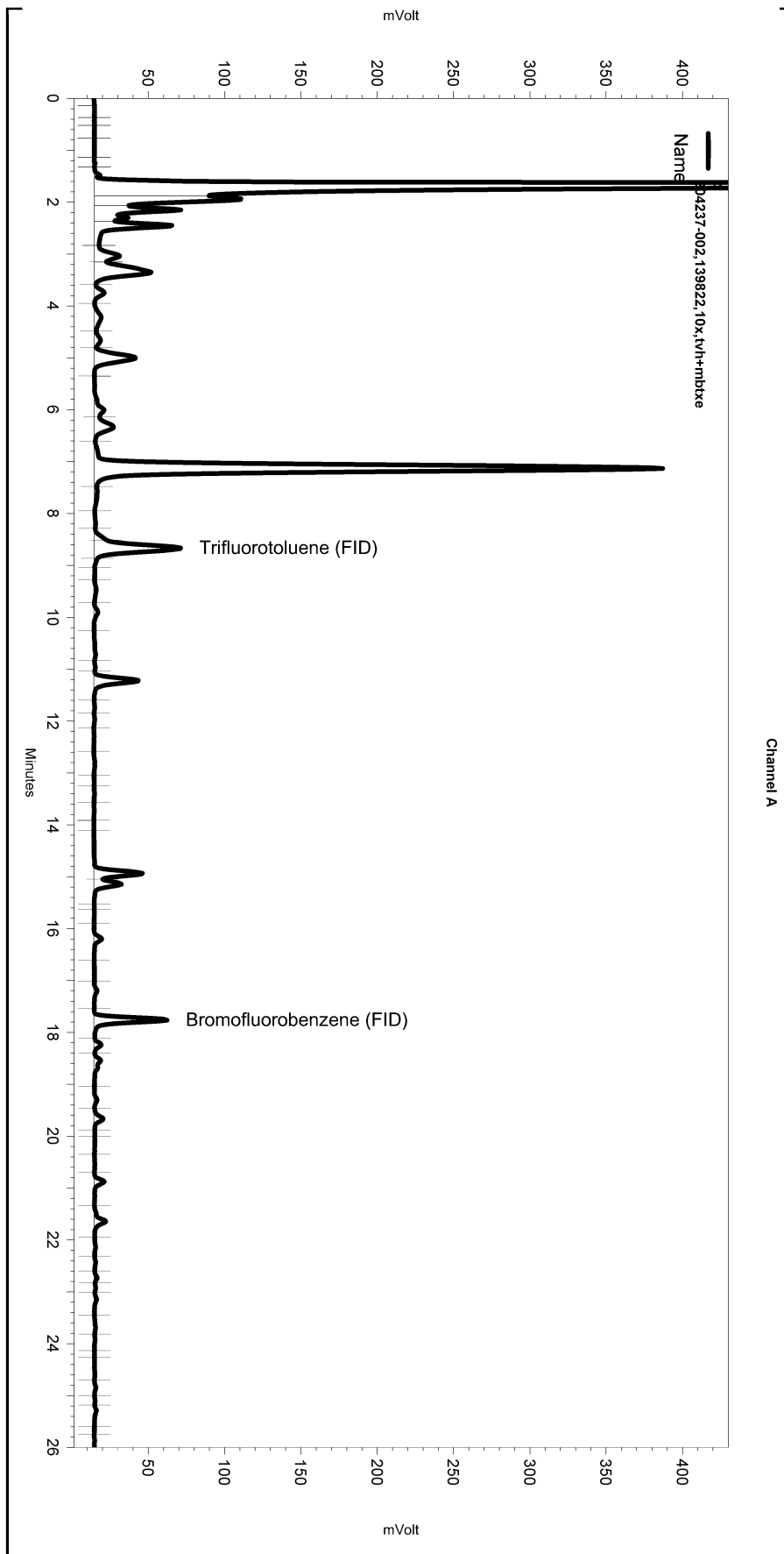
Manual Integration Fixes

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Software Version 3.1.7
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 Vial & pH or Core ID: b1.3



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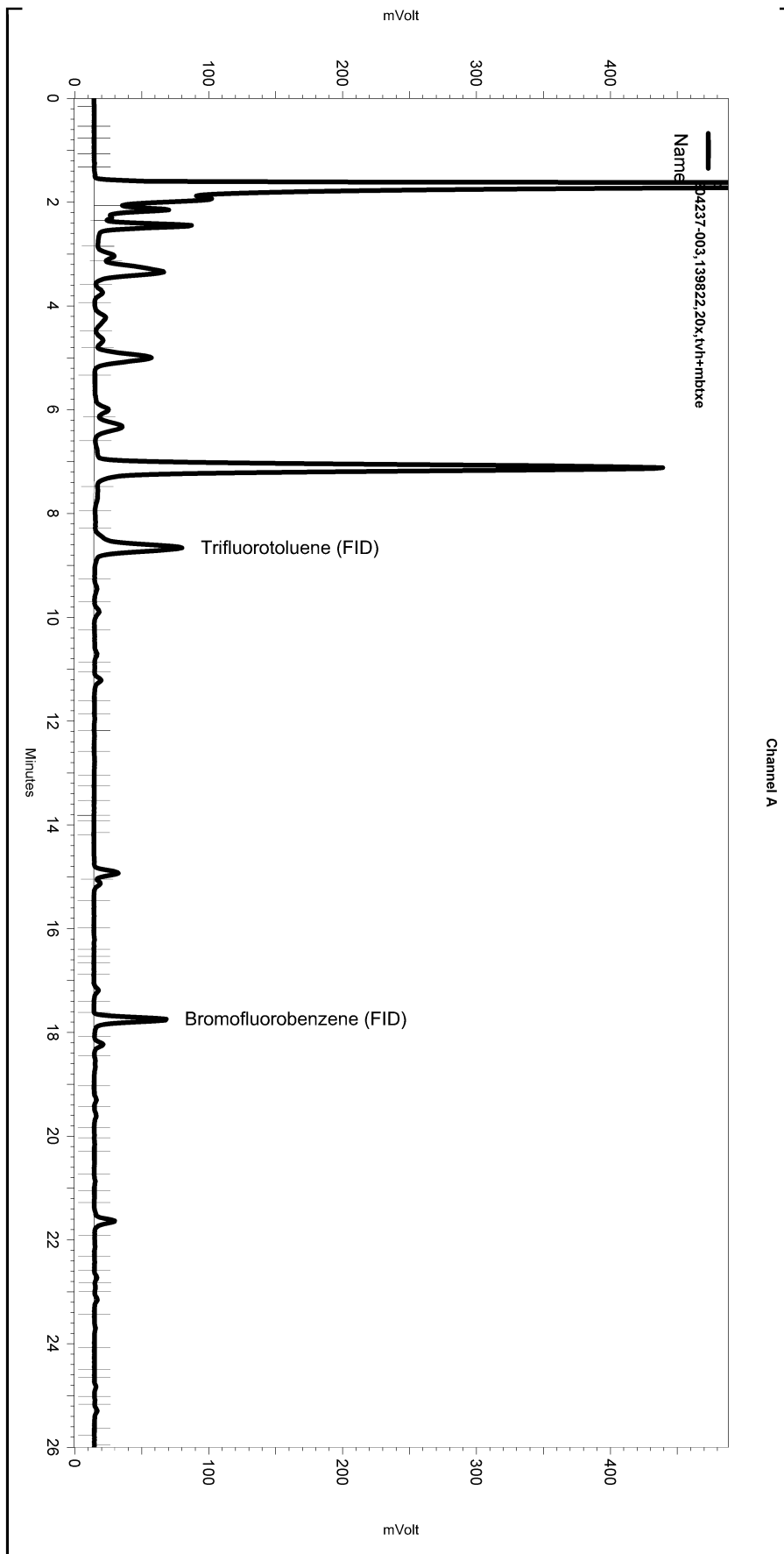
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Yes	Split Peak	8.518	0	0
Yes	Split Peak	8.871	0	0

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 Instrument: GC19 (Offline) Vial: N/A Operator: Tvh 2. Analyst (lims2k3\tvh2)
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Software Version 3.1.7
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 Analysis Date: 7/1/2008 6:58:49 AM
 Sample Amount: 5 Multiplier: 5
 Vial & pH or Core ID: b1.3



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Integration Events

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Yes	Threshold	0	0	50

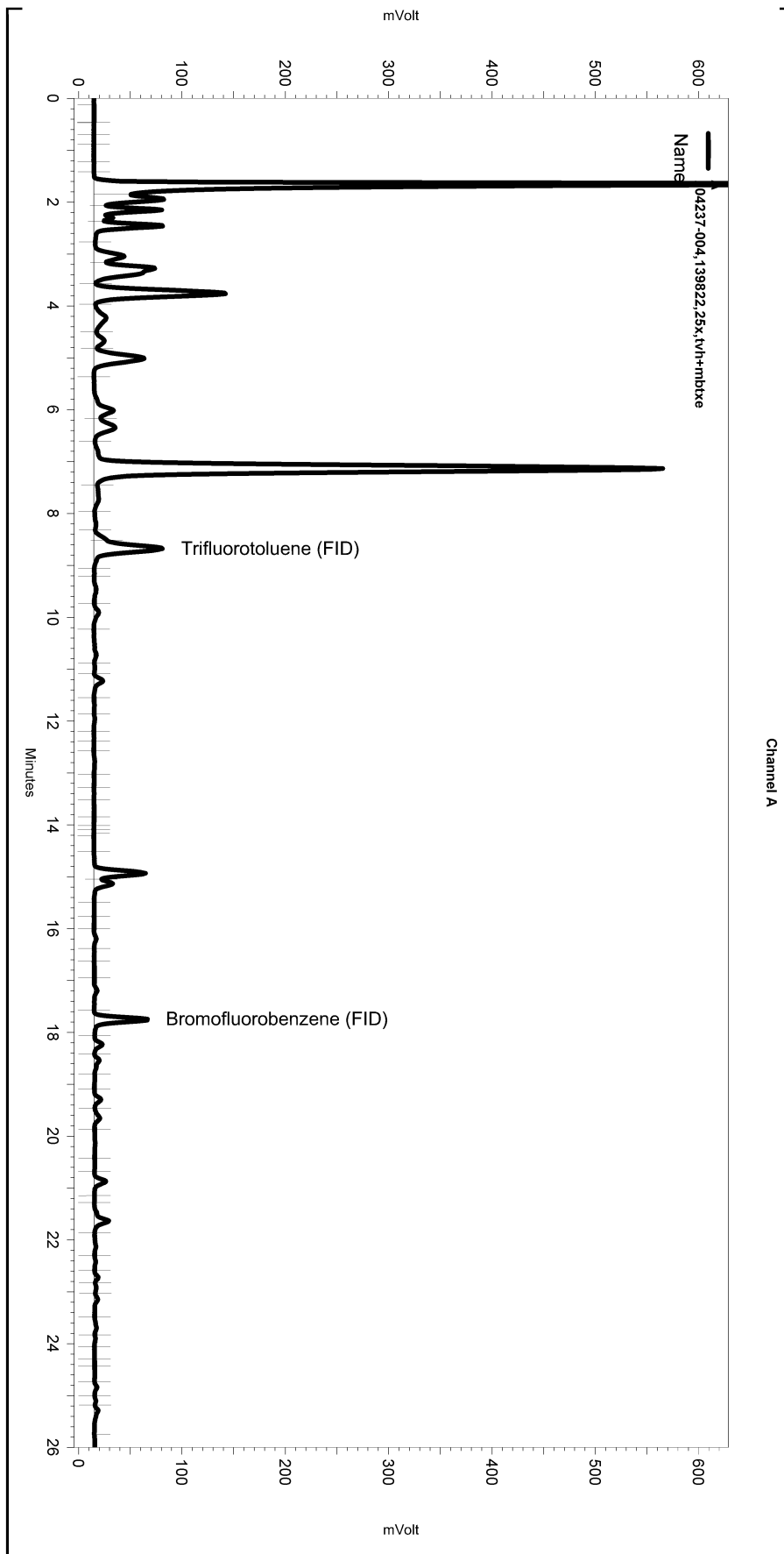
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Software Version 3.1.7
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 Analysis Date: 7/1/2008 11:34:44 AM
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 Vial & pH or Core ID: a1.3



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Yes	Threshold	0	0	50

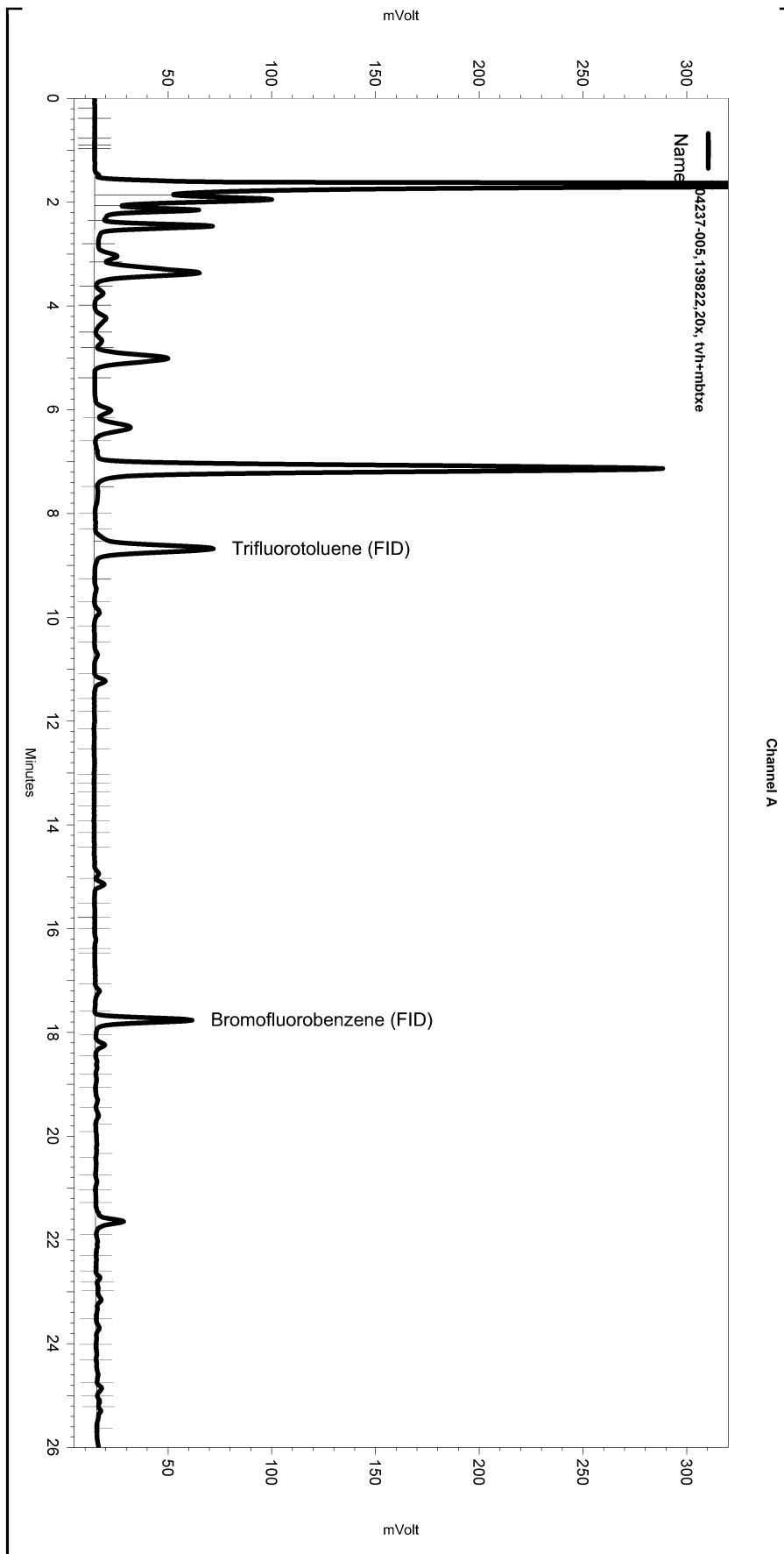
Manual Integration Fixes

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Yes	Split Peak	8.52	0	0

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 Sample Name: 204237-005,139822,20x, tvh+mbtxe
 Data File: \\Lims\gdrive\ezchrom\Projects\GC19\Data\182_037
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Software Version 3.1.7
 Run Date: 7/1/2008 8:54:40 AM
 Analysis Date: 7/1/2008 11:46:22 AM
 Sample Amount: 5 Multiplier: 5
 Vial & pH or Core ID: b1.3



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Integration Events

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Yes	Threshold	0	0	50

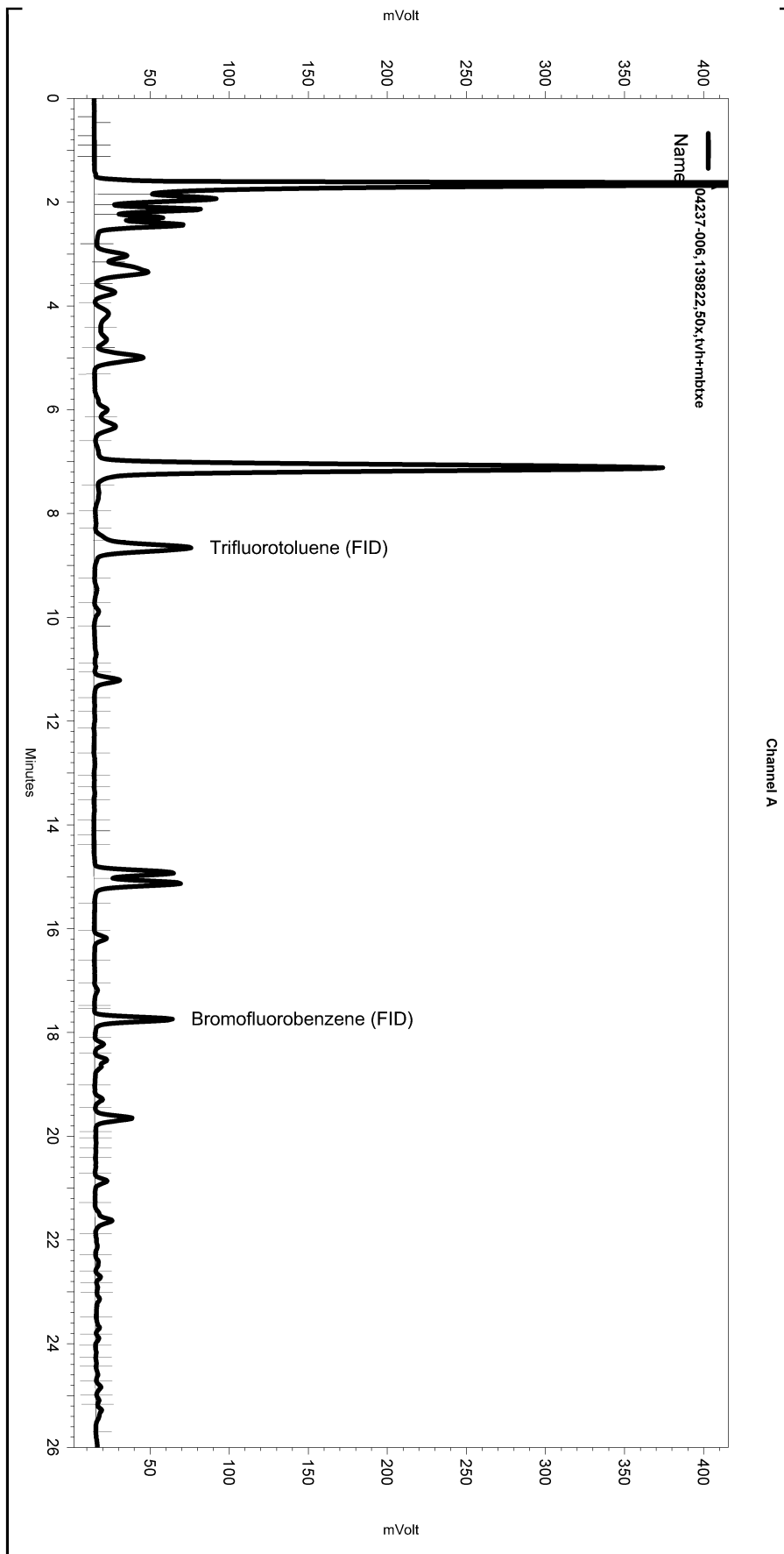
Manual Integration Fixes

Data File: \\Lims\gdrive\ezchrom\Projects\GC19\Data\182_037

Enabled	Event Type	Start (Minutes)	Stop (Minutes)	Value
Yes	Split Peak	8.526	0	0

Sequence File: \\Lims\gdrive\ezchrom\Projects\GC19\Sequence\182.seq
 Sample Name: 204237-006,139822,50x,tvh+mbtxe
 Data File: \\Lims\gdrive\ezchrom\Projects\GC19\Data\182_038
 Instrument: GC19 (Offline) Vial: N/A Operator: Tvh 2. Analyst (lims2k3\tvh2)
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Software Version 3.1.7
 Run Date: 7/1/2008 9:32:14 AM
 Analysis Date: 7/1/2008 11:47:29 AM
 Sample Amount: 5 Multiplier: 5
 Vial & pH or Core ID: b1.3



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Integration Events

Enabled	Event Type	Start (Minutes)	Stop (Minutes)	Value
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Yes	Threshold	0	0	50

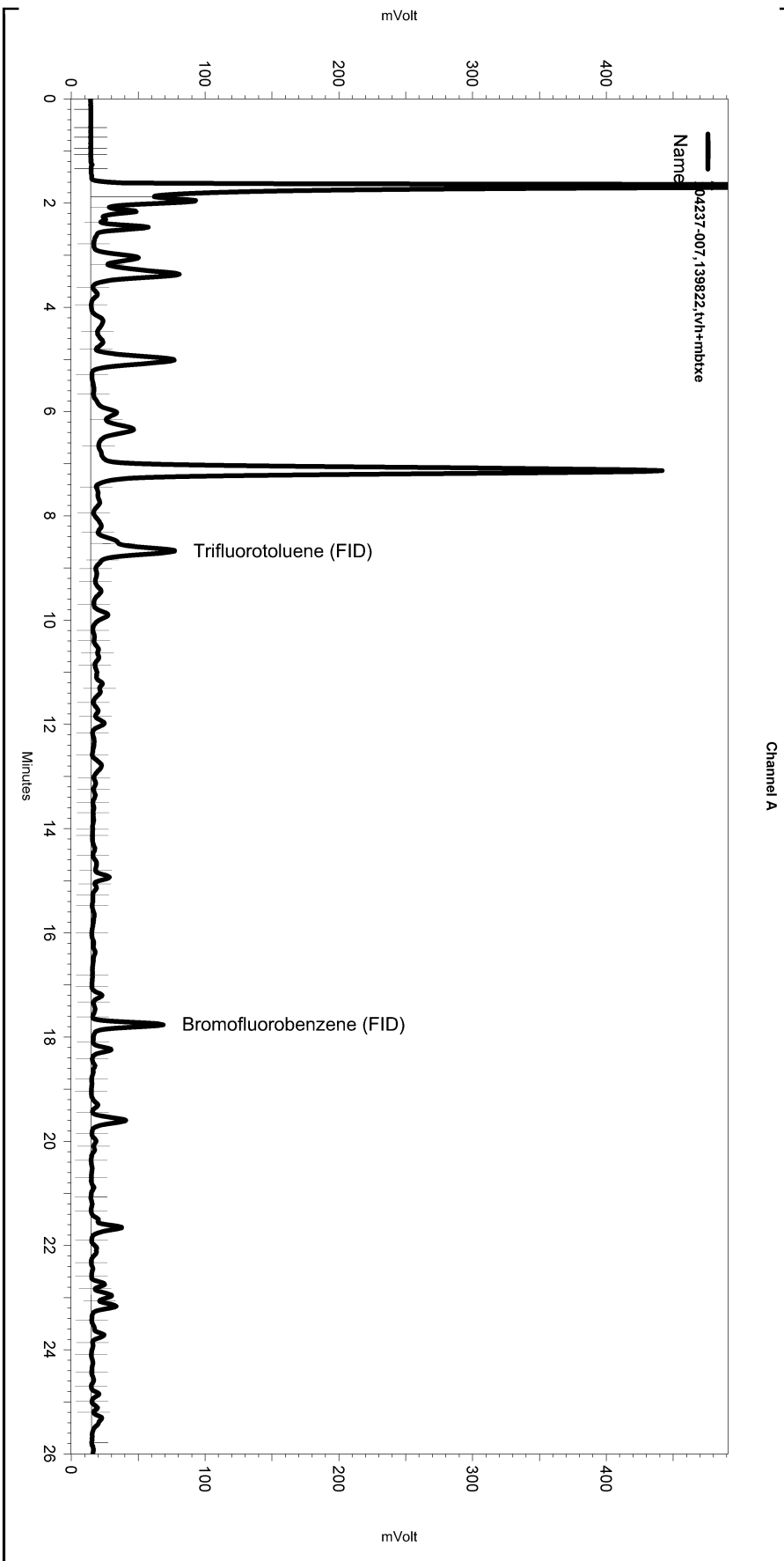
Manual Integration Fixes

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Enabled	Event Type	Start (Minutes)	Stop (Minutes)	Value
Yes	Split Peak	8.519	0	0

Sequence File: \\Lims\gdrive\ezchrom\Projects\GC19\Sequence\182.seq
 Sample Name: 204237-007,139822,tvh+mbtxe
 Data File: \\Lims\gdrive\ezchrom\Projects\GC19\Data\182_014
 Instrument: GC19 (Offline) Vial: N/A Operator: Tvh 2. Analyst (lims2k3\tvh2)
 Method Name: \\Lims\gdrive\ezchrom\Projects\GC19\Method\TVHBTXE143.met

Software Version 3.1.7
 Run Date: 6/30/2008 6:31:43 PM
 Analysis Date: 7/1/2008 11:38:05 AM
 Sample Amount: 5 Multiplier: 5
 Vial & pH or Core ID: b1.3



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Integration Events

Enabled	Event Type	Start (Minutes)	Stop (Minutes)	Value
Yes	Width	0	0	0.2
Yes	Threshold	0	0	50

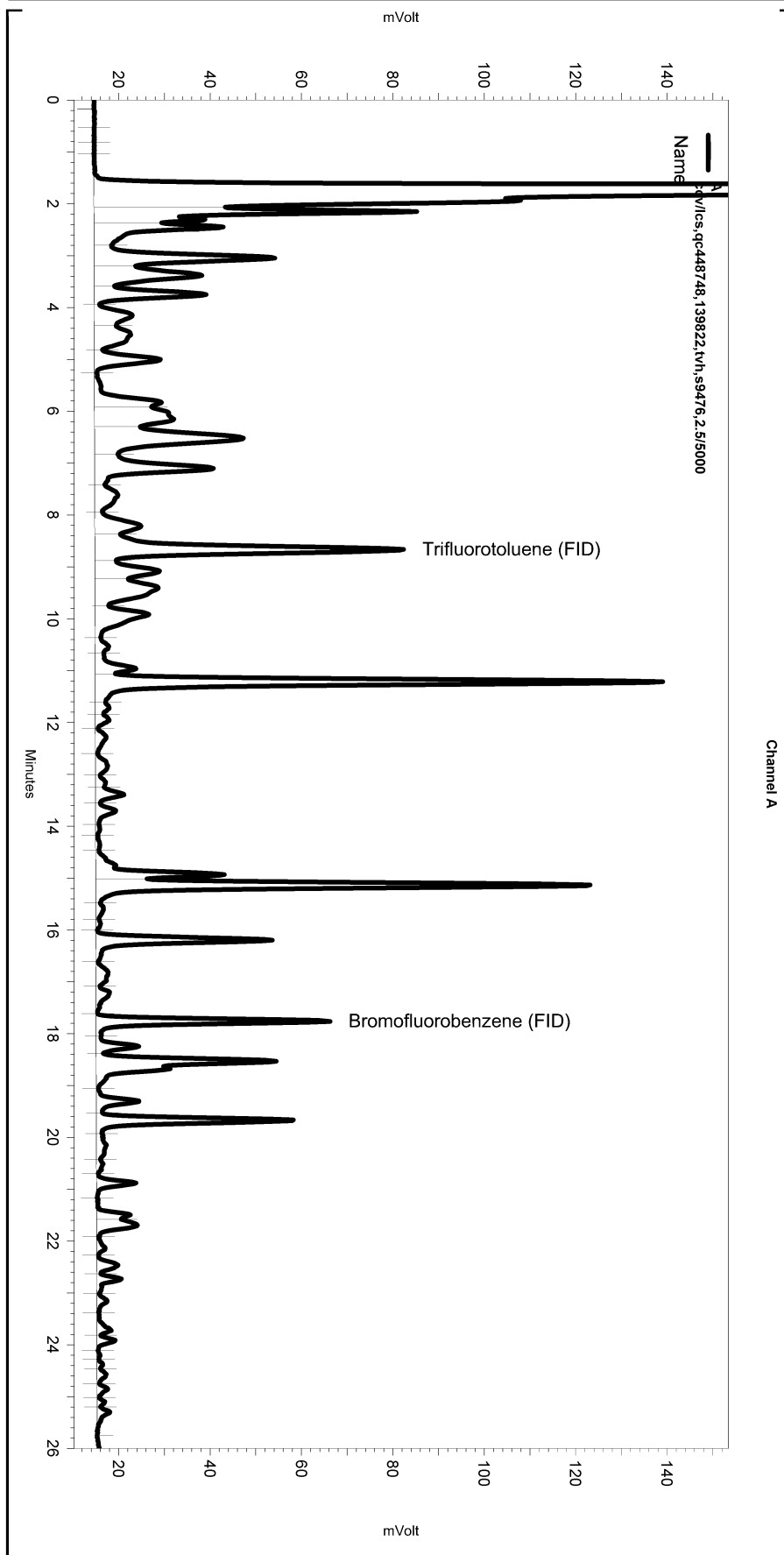
Manual Integration Fixes

Data File: \\Lims\gdrive\ezchrom\Projects\GC19\Data\182_014

Enabled	Event Type	Start (Minutes)	Stop (Minutes)	Value
Yes	Split Peak	8.529	0	0
Yes	Split Peak	8.842	0	0

Sequence File: \\Lims\gdrive\ezchrom\Projects\GC19\Sequence\182.seq
 Sample Name: ccv/lcs,qc448748,139822,tvh,s9476,2.5/5000
 Data File: \\Lims\gdrive\ezchrom\Projects\GC19\Data\182_004
 Instrument: GC19 (Offline) Vial: N/A Operator: Tvh 2. Analyst (lims2k3\tvh2)
 Method Name: \\Lims\gdrive\ezchrom\Projects\GC19\Method\tvhbtxe143.met

Software Version 3.1.7
 Run Date: 6/30/2008 11:24:23 AM
 Analysis Date: 7/1/2008 6:57:36 AM
 Sample Amount: 5 Multiplier: 5
 Vial & pH or Core ID: {Data Description}



---< General Method Parameters >---

No items selected for this section

---< A >---

No items selected for this section

Integration Events

Enabled	Event Type	Start (Minutes)	Stop (Minutes)	Value
Yes	Width	0	0	0.2
Yes	Threshold	0	0	50

Manual Integration Fixes

Data File: \\Lims\gdrive\ezchrom\Projects\GC19\Data\182_004

Enabled	Event Type	Start (Minutes)	Stop (Minutes)	Value
None				

Total Extractable Hydrocarbons			
Lab #:	204237	Location:	Bay Center Apts
Client:	Stellar Environmental Solutions	Prep:	EPA 3520C
Project#:	2007-65	Analysis:	EPA 8015B
Matrix:	Water	Sampled:	06/25/08
Units:	ug/L	Received:	06/25/08
Batch#:	139725	Prepared:	06/26/08

Field ID: MW-E Diln Fac: 1.000
 Type: SAMPLE Analyzed: 06/29/08
 Lab ID: 204237-001

Analyte	Result	RL
Diesel C10-C24	5,200 Y	50

Surrogate	%REC	Limits
Hexacosane	85	63-130

Field ID: MW-14 Diln Fac: 1.000
 Type: SAMPLE Analyzed: 06/29/08
 Lab ID: 204237-002

Analyte	Result	RL
Diesel C10-C24	2,600 Y	50

Surrogate	%REC	Limits
Hexacosane	90	63-130

Field ID: MW-15 Diln Fac: 1.000
 Type: SAMPLE Analyzed: 06/29/08
 Lab ID: 204237-003

Analyte	Result	RL
Diesel C10-C24	2,900 Y	50

Surrogate	%REC	Limits
Hexacosane	93	63-130

Field ID: MW-8 Diln Fac: 1.000
 Type: SAMPLE Analyzed: 06/29/08
 Lab ID: 204237-004

Analyte	Result	RL
Diesel C10-C24	7,300 Y	50

Surrogate	%REC	Limits
Hexacosane	74	63-130

Y= Sample exhibits chromatographic pattern which does not resemble standard
 ND= Not Detected
 RL= Reporting Limit

Total Extractable Hydrocarbons			
Lab #:	204237	Location:	Bay Center Apts
Client:	Stellar Environmental Solutions	Prep:	EPA 3520C
Project#:	2007-65	Analysis:	EPA 8015B
Matrix:	Water	Sampled:	06/25/08
Units:	ug/L	Received:	06/25/08
Batch#:	139725	Prepared:	06/26/08

Field ID: MW-10 Diln Fac: 1.000
 Type: SAMPLE Analyzed: 06/29/08
 Lab ID: 204237-005

Analyte	Result	RL
Diesel C10-C24	4,800 Y	50
Surrogate	%REC	Limits
Hexacosane	96	63-130

Field ID: MW-13 Diln Fac: 5.000
 Type: SAMPLE Analyzed: 06/29/08
 Lab ID: 204237-006

Analyte	Result	RL
Diesel C10-C24	71,000	250
Surrogate	%REC	Limits
Hexacosane	75	63-130

Field ID: RW-1 Diln Fac: 1.000
 Type: SAMPLE Analyzed: 06/30/08
 Lab ID: 204237-007

Analyte	Result	RL
Diesel C10-C24	1,500 Y	50
Surrogate	%REC	Limits
Hexacosane	95	63-130

Type: BLANK Diln Fac: 1.000
 Lab ID: QC448372 Analyzed: 06/30/08

Analyte	Result	RL
Diesel C10-C24	ND	50
Surrogate	%REC	Limits
Hexacosane	104	63-130

Y= Sample exhibits chromatographic pattern which does not resemble standard
 ND= Not Detected
 RL= Reporting Limit

Batch QC Report

Total Extractable Hydrocarbons			
Lab #:	204237	Location:	Bay Center Apts
Client:	Stellar Environmental Solutions	Prep:	EPA 3520C
Project#:	2007-65	Analysis:	EPA 8015B
Matrix:	Water	Batch#:	139725
Units:	ug/L	Prepared:	06/26/08
Diln Fac:	1.000	Analyzed:	06/30/08

Type: BS Lab ID: QC448373

Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24	2,500	1,748	70	61-120

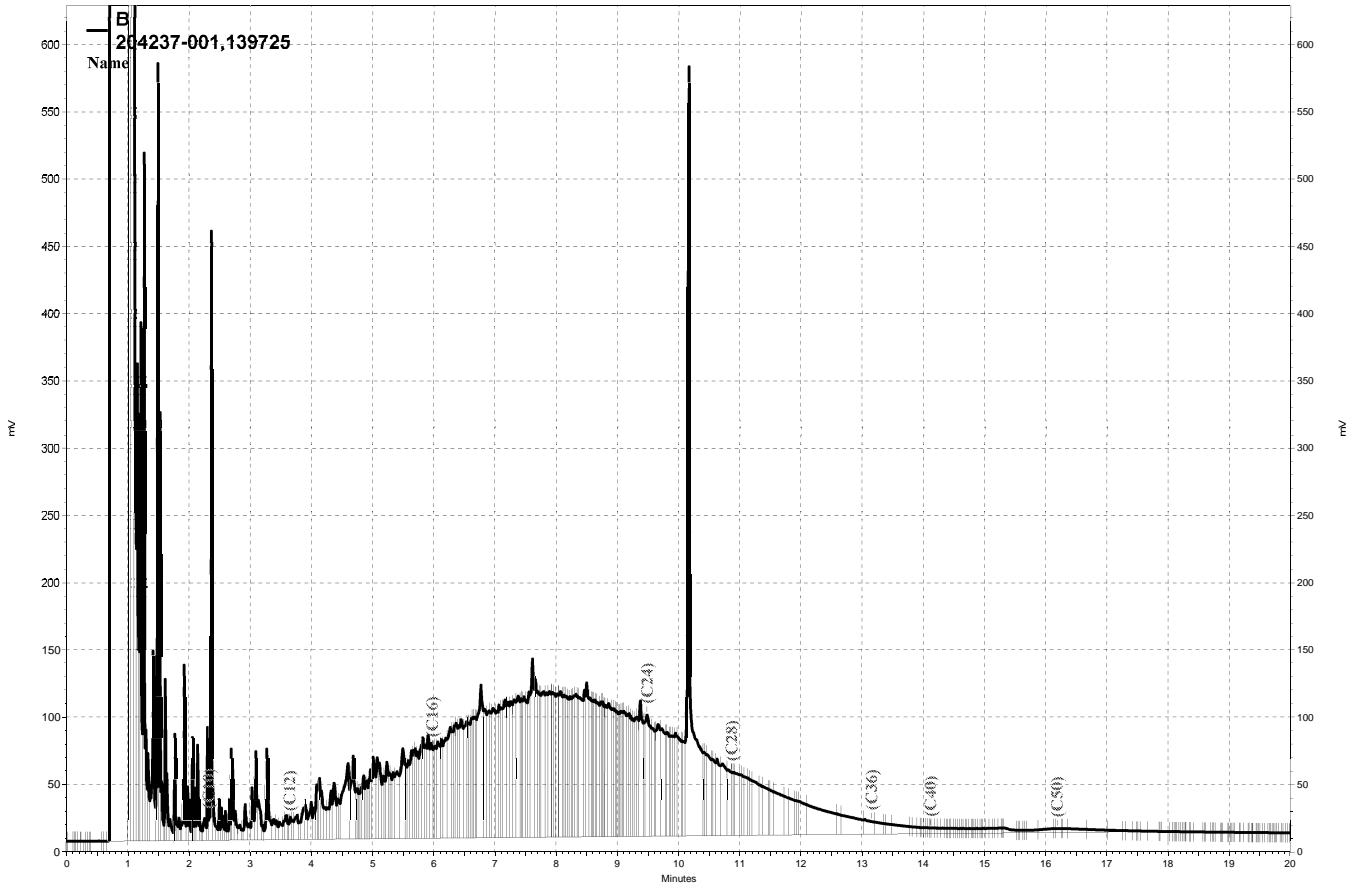
Surrogate	%REC	Limits
Hexacosane	97	63-130

Type: BSD Lab ID: QC448374

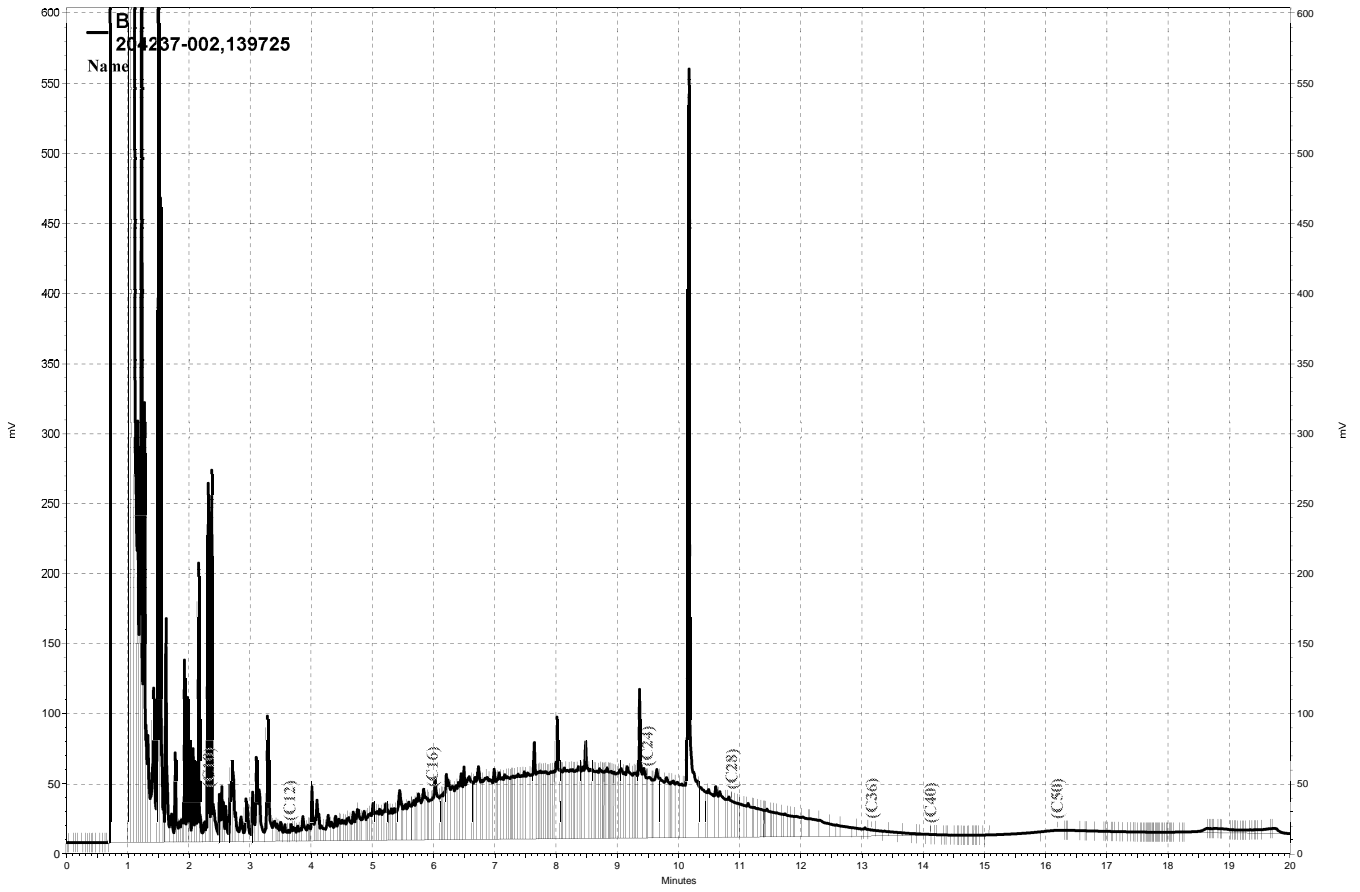
Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Diesel C10-C24	2,500	1,535	61	61-120	13	29

Surrogate	%REC	Limits
Hexacosane	82	63-130

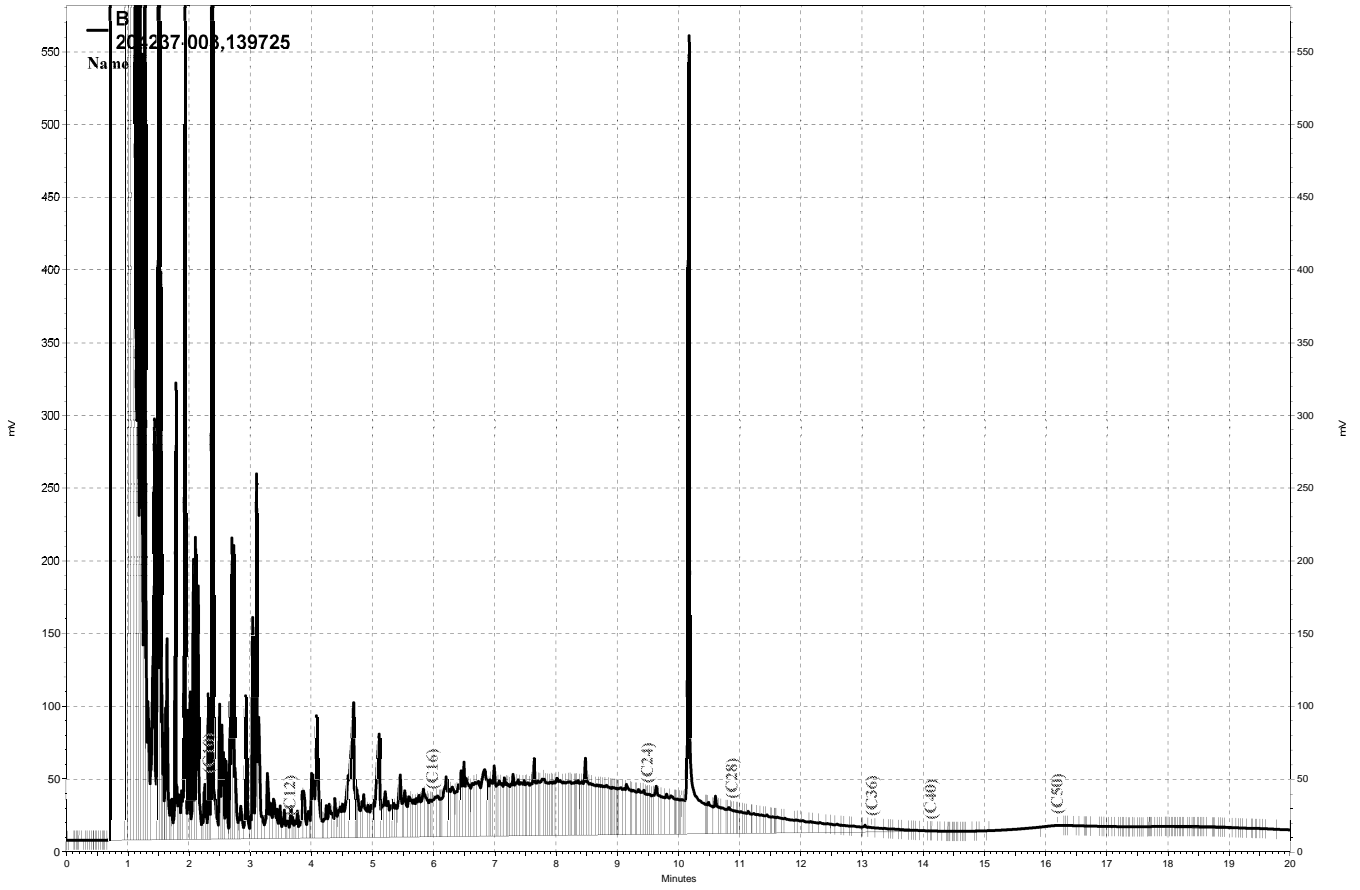
RPD= Relative Percent Difference



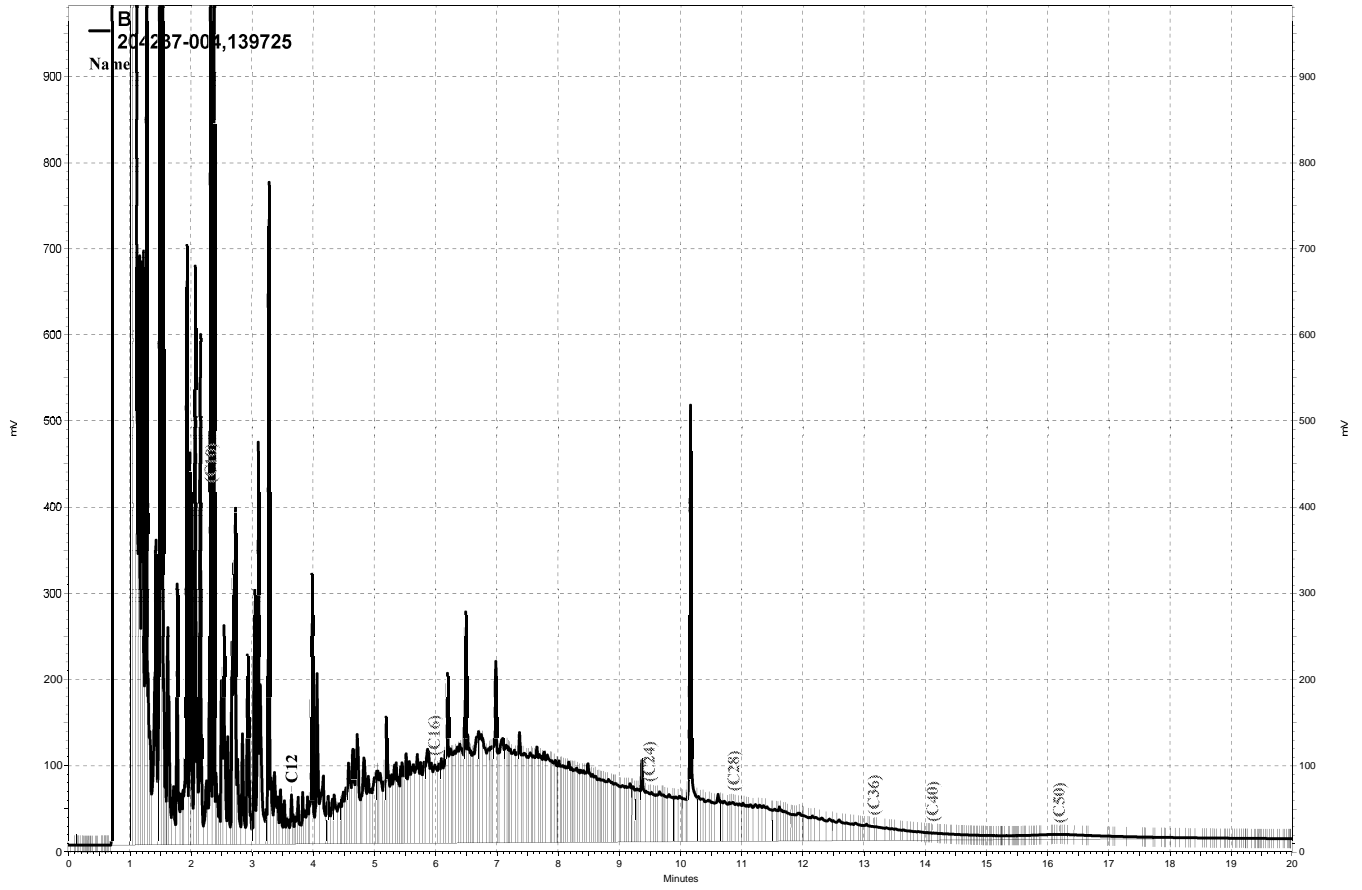
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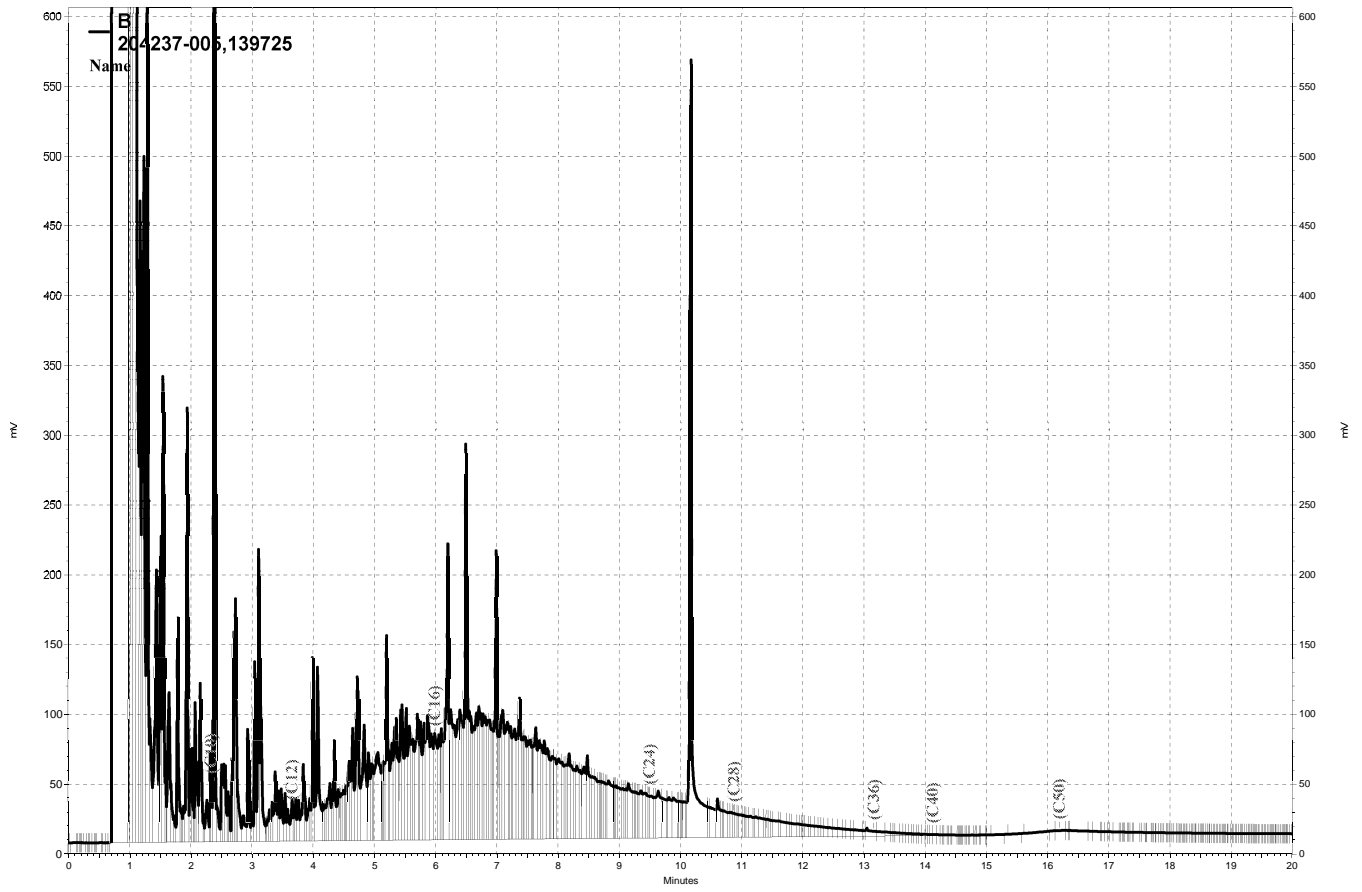
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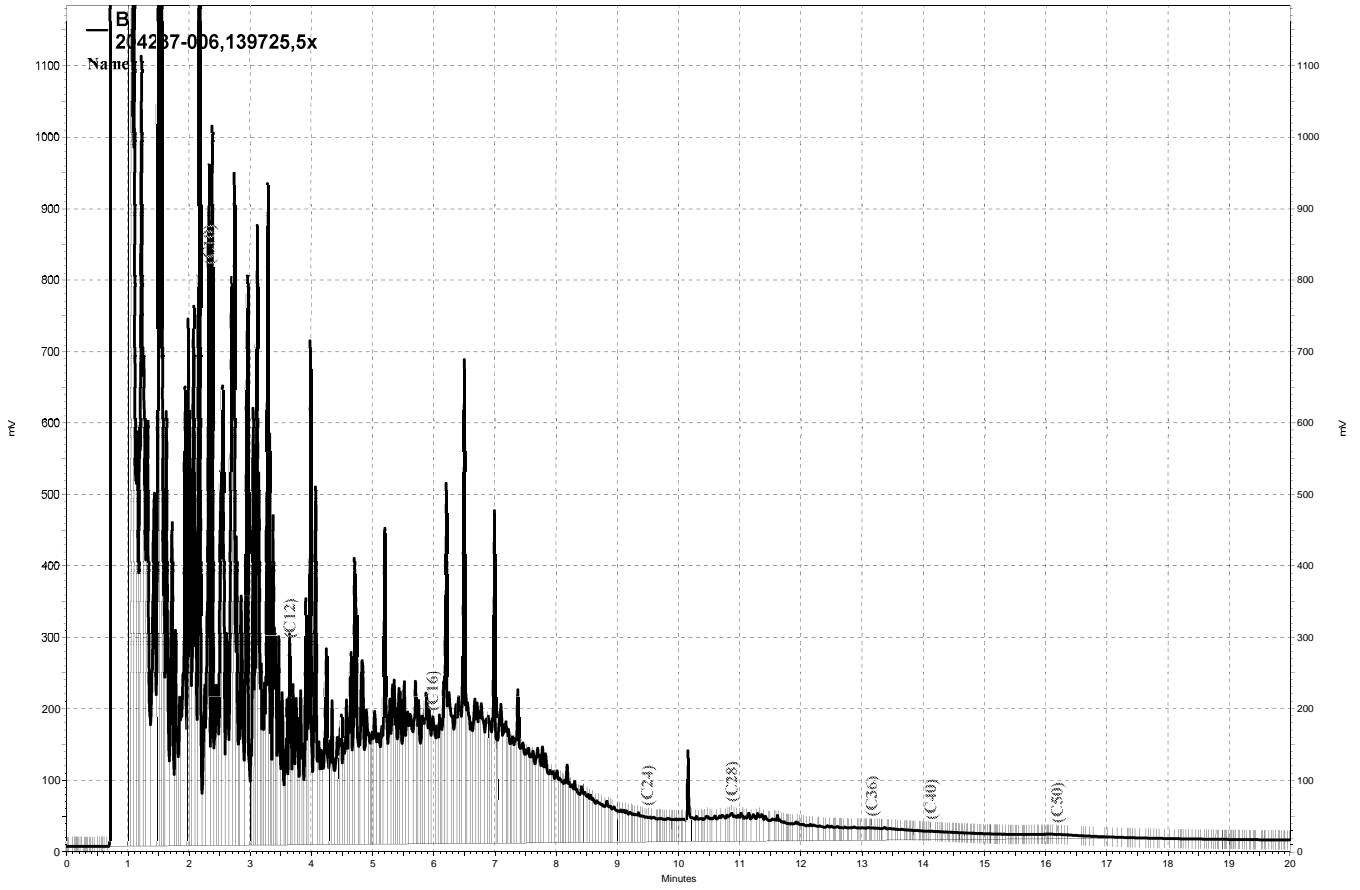
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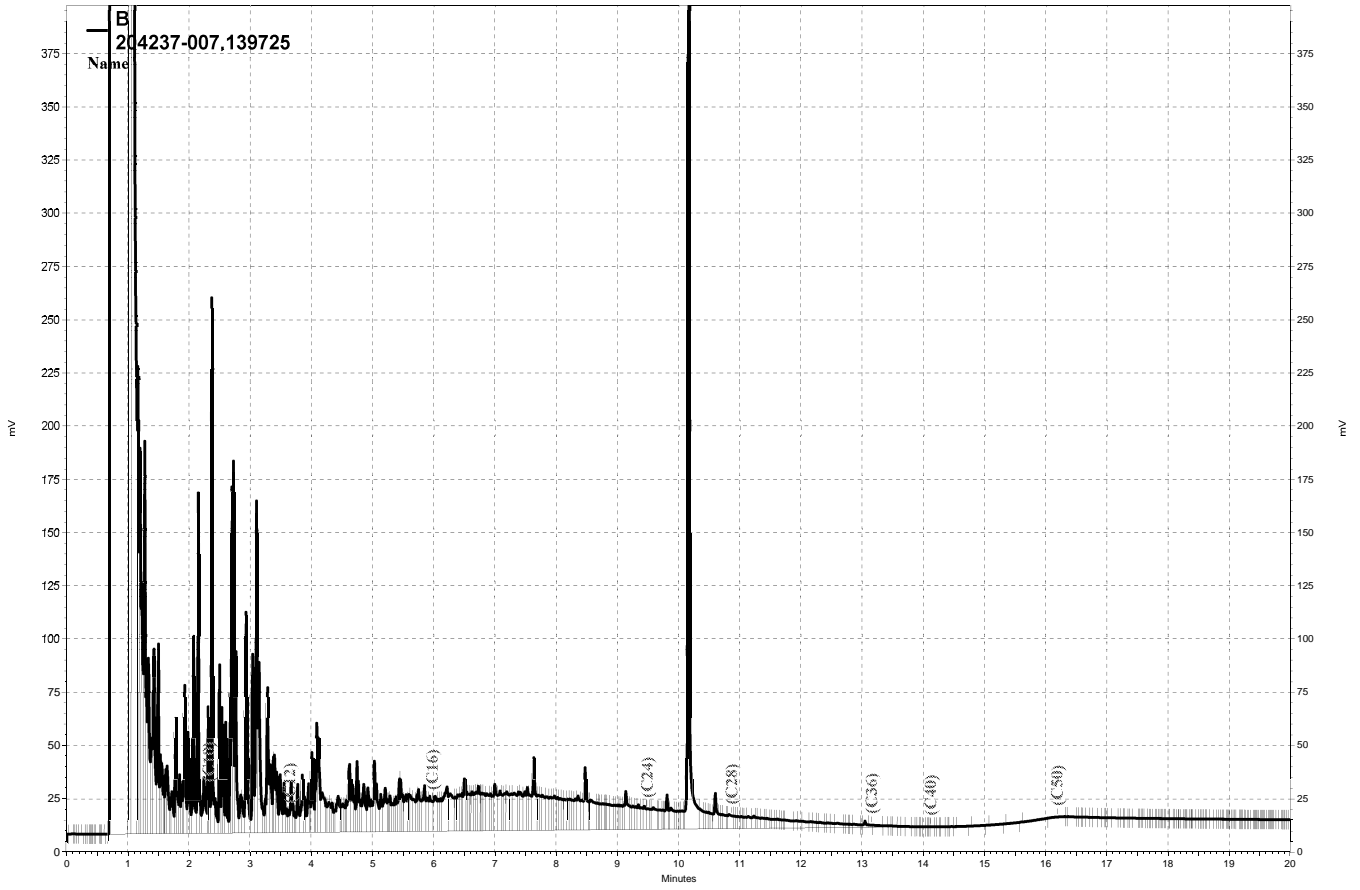
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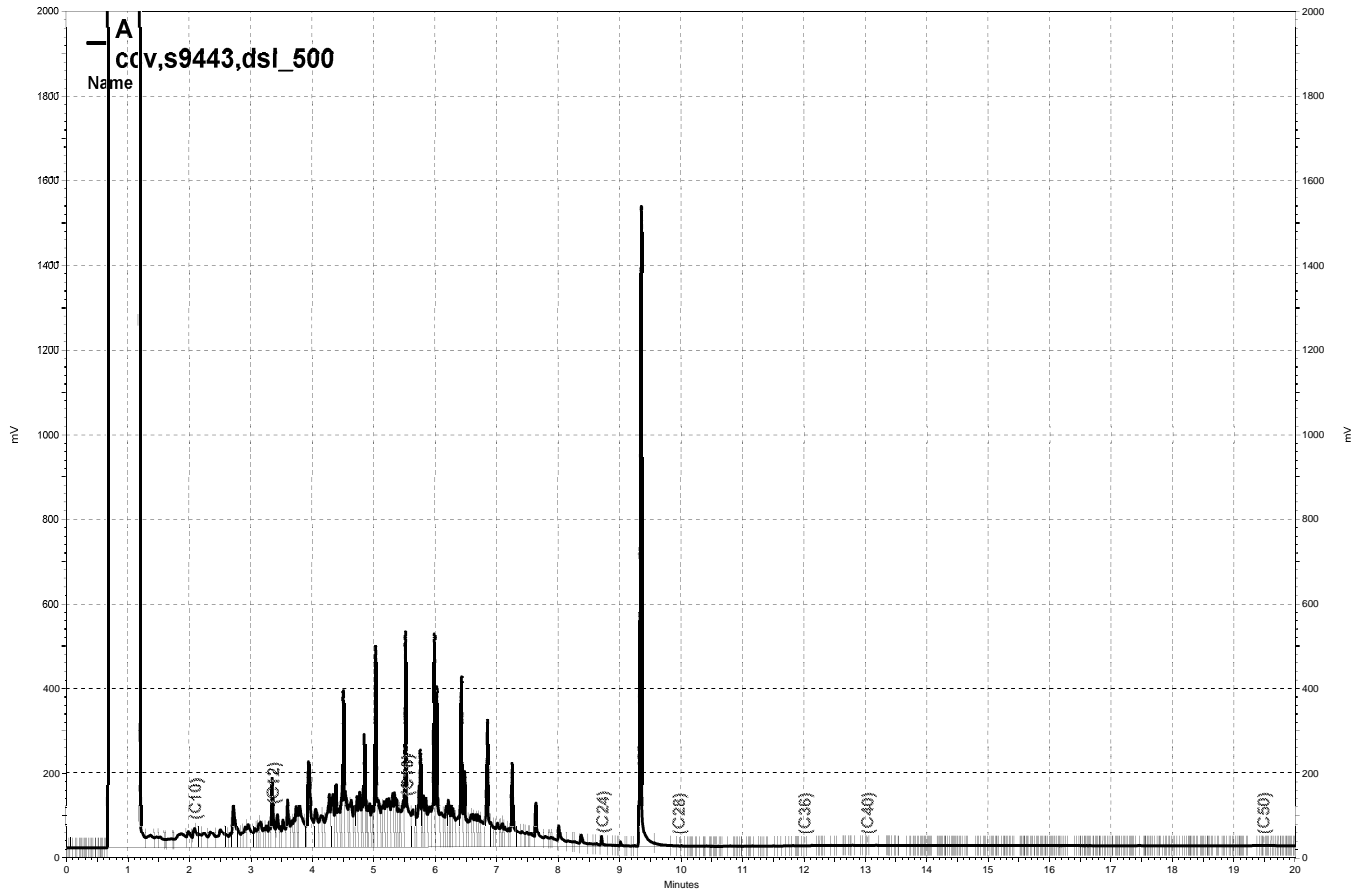
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— \\Lims\gdrive\ezchrom\Projects\GC26\Data\181b017, B



\\Lims\gdrive\ezchrom\Projects\GC11A\Data\181a035, A

APPENDIX D

Historical Groundwater Elevation Data

TABLE B
Historical Monitoring, Extraction, and Trench Well Elevations
6400 Christie Avenue, Emeryville, California

MW-1					
Sampling Event No.	Date	TOC Elevation	DTW	DTP	GW Elevation
1	Dec-88	14.39	9.60	NP	4.79
2	May-89	14.31 ^(a)	8.73	NP	5.58
3	Feb-91	14.31	9.18	NP	5.13
Monitoring well abandoned - date unclear					

MW-2					
Sampling Event No.	Date	TOC Elevation	DTW	DTP	GW Elevation
1	Dec-88	14.36	9.64	NP	4.72
2	May-89	14.28 ^(a)	8.78	NP	5.50
3	Feb-91	14.28	9.61	NP	4.67
Monitoring well abandoned - date unclear					

MW-3					
Sampling Event No.	Date	TOC Elevation	DTW	DTP	GW Elevation
1	Dec-88	14.53	8.93	trace	5.60
2	May-89	14.43 ^(a)	8.69	NP	5.74
3	Feb-91	14.43	8.31	NP	6.12
4	Mar-04	16.96 ^(b)	9.47	NP	7.49
5	Dec-06	NA	NA	NA	NA
6	Dec-07	16.65 ^(c)	7.76 ^(e)	7.76	8.89
7	Mar-08	16.65	8.72	8.70	7.93
8	Jun-08	16.65	8.56	NP	8.09

MW-4					
Sampling Event No.	Date	TOC Elevation	DTW	DTP	GW Elevation
1	Dec-88	14.21	8.29	NP	5.92
2	May-89	14.12 ^(a)	7.75	NP	6.37
3	Feb-91	14.12	8.04	NP	6.08
4	Mar-04	16.74 ^(b)	6.90	NP	7.49
5	Dec-06	NA	NA	NA	NA
6	Dec-07	16.29 ^(c)	6.61	NP	9.68
7	Mar-08	16.29	7.24	NP	9.05
8	Jun-08	16.29	6.94	NP	9.35

MW-5					
Sampling Event No.	Date	TOC Elevation	DTW	DTP	GW Elevation
1	Dec-88	14.65	10.23	NP	4.42
2	May-89	14.56 ^(a)	9.29	NP	5.27
3	Feb-91	14.56	10.04	NP	4.52
4	Mar-04	17.11 ^(b)	9.10	NP	8.01
5	Dec-06	NA	NA	NA	NA
6	Dec-07	16.72 ^(c)	9.66	NA	7.06
7	Mar-08	16.72	9.72	NP	7.00
8	Jun-08	16.72	9.72	NP	7.00

MW-6					
Sampling Event No.	Date	TOC Elevation	DTW	DTP	GW Elevation
1	Dec-88	14.75	8.10	NP	6.65
2	May-89	14.67 ^(a)	7.58	NP	7.09
3	Feb-91	14.67	7.05	NP	7.62
4	Mar-04	17.22 ^(b)	6.51	NP	10.71
5	Dec-06	NA	NA	NA	NA
6	Dec-07	16.82 ^(c)	6.61	NP	10.21
7	Mar-08	16.82	7.02	NP	9.80
8	Jun-08	16.82	7.55	NP	9.27

MW-7					
Sampling Event No.	Date	TOC Elevation	DTW	DTP	GW Elevation
Installed March 2004					
1	Mar-04	18.09	9.93	NP	8.16
2	Dec-06	NA	NA	NA	NA
3	Dec-07	17.73 ^(c)	10.30	NP	7.43
4	Mar-08	17.73	10.51	NP	7.22
5	Jun-08	17.73	10.50	NP	7.23

MW-8					
Sampling Event No.	Date	TOC Elevation	DTW	DTP	GW Elevation
Installed March 2004					
1	Mar-04	18.25	9.32	8.15	8.93
2	Nov-06 ^(d)	16.96	10.59	NP	6.37
3	Dec-07	17.84 ^(c)	9.42	NP	8.42
4	Mar-08	17.84	10.50	9.18	7.34
5	Jun-08	17.84	9.68	9.10	8.16

MW-9					
Sampling Event No.	Date	TOC Elevation	DTW	DTP	GW Elevation
Installed March 2004					
1	Mar-04	18.27	9.38	NP	8.89
2	Dec-06	NA	NA	NA	NA
3	Dec-07	17.84 ^(c)	9.54	NP	8.30
4	Mar-08	17.84	9.77	NP	8.07
5	Jun-08	17.84	9.68	NP	9.27

MW-10					
Sampling Event No.	Date	TOC Elevation	DTW	DTP	GW Elevation
Installed March 2004					
1	Mar-04	18.21	9.87	8.24	8.34
2	Dec-06	18.21	9.30	8.86	8.91
3	Dec-07	17.83 ^(c)	8.98 ^(c)	8.98	8.85
4	Mar-08	17.83	9.28	8.98	8.55
5	Jun-08	17.83	8.86	8.78	7.23

MW-11					
Sampling Event No.	Date	TOC Elevation	DTW	DTP	GW Elevation
Installed May 2004					
1	Nov-06 ^(d)	17.76 ^(c)	10.33	NP	7.43
2	Dec-07	17.76	10.27	NP	7.49
3	Mar-08	17.76	10.34	NP	7.42
4	Jun-08	17.76	10.20	NP	8.16

MW-12					
Sampling Event No.	Date	TOC Elevation	DTW	DTP	GW Elevation
Installed between 2004-2006					
1	Nov-06 ^(d)	17.83 ^(c)	9.37	NP	8.46
2	Dec-07	17.83	9.15	NP	8.68
3	Mar-08	17.83	9.11	NP	8.72
4	Jun-08	17.83	8.86	NP	8.97

MW-13					
Sampling Event No.	Date	TOC Elevation	DTW	DTP	GW Elevation
Installed between 2004-2006					
1	Dec-06	17.66 ^(c)	9.81	9.44	7.85
2	Dec-07	17.66	9.95	9.39	7.71
3	Mar-08	17.66	10.02	9.54	7.64
4	Jun-08	17.66	9.86	9.45	7.80

MW-14					
Sampling Event No.	Date	TOC Elevation	DTW	DTP	GW Elevation
Installed between 2004-2006					
1	Nov-06 ^(d)	17.60 ^(c)	9.11	9.11(sheen)	8.49
2	Dec-07	17.60	8.86	8.84	8.74
3	Mar-08	17.60	8.91	8.88	8.69
4	Jun-08	17.60	8.66	8.62	8.94

MW-15					
Sampling Event No.	Date	TOC Elevation	DTW	DTP	GW Elevation
Installed between 2004-2006					
1	Dec-06	17.80 ^(c)	9.15	NP	8.65
2	Dec-07	17.80	9.30	NP	8.50
3	Mar-08	17.80	9.20	9.18	8.60
4	Jun-08	17.80	9.60	9.63	8.20

MW-16					
Sampling Event No.	Date	TOC Elevation	DTW	DTP	GW Elevation
Installed between 2004-2006					
1	Dec-06	NA	NA	NA	NA
2	Dec-07	17.74 ^(c)	9.36	NP	8.38
3	Mar-08	17.74	9.88	NP	7.86
4	Jun-08	17.74	9.25	NP	7.80

MW-17					
Sampling Event No.	Date	TOC Elevation	DTW	DTP	GW Elevation
Installed between 2004-2006					
1	Dec-06	NA	NA	NA	NA
2	Dec-07	18.17 ^(c)	9.40	9.32	8.77
3	Mar-08	18.17	9.34	9.18	8.83
4	Jun-08	18.17	8.98	8.97	9.19

MW-18					
Sampling Event No.	Date	TOC Elevation	DTW	DTP	GW Elevation
Installed between 2004-2006					
1	Dec-06	NA	NA	NA	NA
2	Dec-07	16.35 ^(c)	8.30	NP	8.05
3	3.28-04	16.35	8.34	NP	8.01
4	Jun-08	16.35	8.34	NP	8.20

MW-E					
Sampling Event No.	Date	TOC Elevation	DTW	DTP	GW Elevation
1	Dec-88	NM	NM	NM	NM
2	May-89	15.32	10.39	NP	4.93
3	Feb-91	NM	NM	NM	NM
4	Mar-04	17.80	9.92	NP	7.88
5	Nov-06 ^(d)	17.80	10.22	NP	7.58
6	Dec-07	17.47 ^(c)	10.03	NP	7.44
7	Mar-08	17.47	10.21	NP	7.26
8	Jun-08	17.47	10.20	NP	7.27

RW-1					
Sampling Event No.	Date	TOC Elevation	DTW	DTP	GW Elevation
1	Dec-88	NM	NM	NM	NM
2	May-89	14.54	10.17	10.14	4.37
3	Feb-91	14.54	11.46	10.85	3.57
4	Mar-04	18.32	7.20	5.62	11.12
5	Nov-06 ^(d)	18.32	9.15	9.11	9.17
6	Dec-07	16.70 ^(c)	9.53 ^(c)	9.53	7.17
7	Mar-08	16.70	8.99	8.92	7.71
8	Jun-08	16.70	8.95	8.87	7.75

Notes:

The 1988, 1989, and 1991 water elevations were measured by Groundwater Technology, Inc.

The 2004 and 2006 water elevations were measured by PES Environmental.

NS = Not sampled

NP = No product

NA = data not available from the previous consultant for this event

TOC Elevation = Top of Casing Elevation

DTW = Depth to water from the top of the casing

DTP = Depth to product from the top of the casing

GW Elevation - Groundwater elevation as compared to mean sea level

^(d) Wells resurveyed in May 1989

^(b) New elevation recorded by PES. Date of survey unclear.

^(c) Wells resurveyed by PES in April 2007

^(d) no water level data available for the December 2006 sampling event

^(e) Thickness of product interfered with determining oil/water interface.

Depth to groundwater = depth to free product as difference could not be determined

APPENDIX E

Historical Product Extraction Data Table

Table D
Historical Trench and Monitoring Well Product Recovery
6400 Christie Avenue, Emeryville, CA

Extraction Date	Well or Trench Location																									Total Extracted	
	MW-3	MW-5	MW-6	MW-7	MW-8	MW-9	MW-10	MW-11	MW-12	MW-13	MW-14	MW-15	MW-16	MW-17	MW-18	MW-E	RW-1	TA-E	TA-M	TA-W	TB-E	TB-M	TB-W	TC-E	TC-M		TC-W
Apr-04	---	---	---	---	1	---	1	---	---	---	---	---	---	---	---	---	19.75	---	---	---	---	---	---	---	---	---	21.75
May-04	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	22.5	---	---	---	---	---	---	---	---	---	22.50
Sep-04	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.74	---	---	---	---	---	---	---	---	---	0.74
Oct-04	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	5.22	---	---	---	---	---	---	---	---	---	5.22
2004 Total																										50.21	
Jan-05	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.00
Apr-06	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	3.3	---	---	---	---	---	---	3.30
Jun-06	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	8.9	9.2	10.3	---	---	---	---	---	---	28.40
Jul-06	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	3.6	5	5.3	---	---	---	---	---	---	13.90
Aug-06	---	---	---	---	0.8	---	0.8	---	---	1	0.2	0.2	---	---	---	---	---	0.2	0.2	0.4	---	---	---	---	---	---	3.80
Sep-06	---	---	---	---	---	---	0.8	---	---	0.2	0.3	---	---	---	---	---	---	0.6	---	0.6	---	---	---	---	---	---	2.50
Nov-06	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.2	---	---	---	---	---	---	---	---	0.20
Dec-06	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.2	---	---	---	---	---	---	---	---	0.20
2006 Total																										52.30	
Jan-07	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.2	---	---	---	---	---	---	---	---	0.20
Feb-07	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.2	---	---	---	---	---	---	---	---	0.20
Mar-07	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.2	---	---	---	---	---	---	---	---	0.20
Nov-07	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.81	0.68	---	---	---	---	0.63	---	2.12
Dec-07	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.01	0.61	0.07	---	---	---	---	0.002	---	0.69
2007 Total																										3.41	
Feb-08	0.03	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.45	0.08	0.06	0.18	0.04	0.06	0.06	0.08	0.05	0.05	1.14
Feb-08	---	0.05	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.45	0.15	0.15	0.30	---	---	---	---	---	---	1.10
Mar-08	---	---	0.02	0.002	0.02	0.001	0.04	0.02	0.03	0.004	0.01	0.02	0.01	0.01	0.003	0.012	0.3	0.09	0.06	0.09	---	---	---	0.06	---	0.80	
Mar-08	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.002	0.008	---	---	---	---	---	---	0.01
May-08	0.09	---	---	---	---	---	0.075	---	0.075	0.019	0.009	---	---	0.13	---	---	1.397	0.866	1.466	1.431	---	---	---	---	---	5.56	
Jun-08	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.15	0.11	0.57	---	---	---	---	---	---	0.83
2008 Total																										9.44	
Total Extracted	0.12	0.05	0.02	0.002	1.82	0.001	2.72	0.02	0.11	1.22	0.52	0.22	0.01	0.14	0.00	0.01	50.81	15.65	17.67	23.23	0.04	0.06	0.06	0.77	0.05	0.05	115.36

Note:
All free product quantities presented in gallons
Product extraction events conducted before November 2007 were completed by PES Environmental