

**SECOND SEMIANNUAL 2009
GROUNDWATER MONITORING, ANNUAL
SUMMARY, AND
PRODUCT EXTRACTION REPORT**

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

Prepared for:

**EMERYBAY COMMERCIAL ASSOCIATION
EMERYVILLE, CA 94608**

December 2009

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EMERYVILLE, CALIFORNIA**

Prepared for:

**EMERYBAY COMMERCIAL ASSOCIATION
6475 CHRISTIE AVENUE, SUITE 550
EMERYVILLE, CA 94608**

Prepared by:

**STELLAR ENVIRONMENTAL SOLUTIONS, INC.
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December 31, 2009

Project No. 2007-65

RECEIVED

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Alameda County
Environmental Health

December 31, 2009

Ms. Barbara Jakub
Hazardous Materials Specialist
Alameda County Department of Environmental Health
Local Oversight Program
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502

Subject: Second Semiannual 2009 Groundwater Monitoring, Annual Summary, & Product Extraction Report
EmeryBay Phase I Condo Parking Garage
6400 Christie Avenue, Emeryville, California

Dear Ms. Jakub:

Enclosed is the Stellar Environmental Solutions, Inc. report summarizing the site activities conducted between April 2009 and December 2009 at the above referenced site. This report is being submitted on behalf of the owner and Responsible Party, Emerybay Commercial Association. The subject site activities included an active product extraction event, three quarterly passive product removal events, and the second semiannual 2009 groundwater monitoring event.

While historical monitoring at the subject site had been sporadic, quarterly sampling conducted in 2008 firmly established hydrological and contaminant trends; therefore, in November 2009, the Alameda County Department of Environmental Health (ACEH) and the Responsible Party agreed that the sampling schedule would be reduced to semiannual events. This report summarizes the 11th sampling event conducted at the site since 1988. In accordance with regulatory requirements, an electronic copy of this report has been uploaded to ACEH and to the State Water Resources Control Board's GeoTracker system.

We declare, under penalty of perjury, that the information and/or recommendations contained in the attached document or report are true and correct to the best of our knowledge. 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. Sarah Irving, Emerybay Commercial Association



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1.0 INTRODUCTION

PROJECT BACKGROUND

The subject property, located at 6400 Christie Avenue in Emeryville, California, is owned by the Emerybay Commercial Association, 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



LEGEND

--- Subject property boundary

Image © 2008 TerraMetrics

© 2007 Google



SITE PLAN AND ADJACENT LAND USE

6400 Christie Ave.
Emeryville, CA

By: MJC

JANUARY 2008

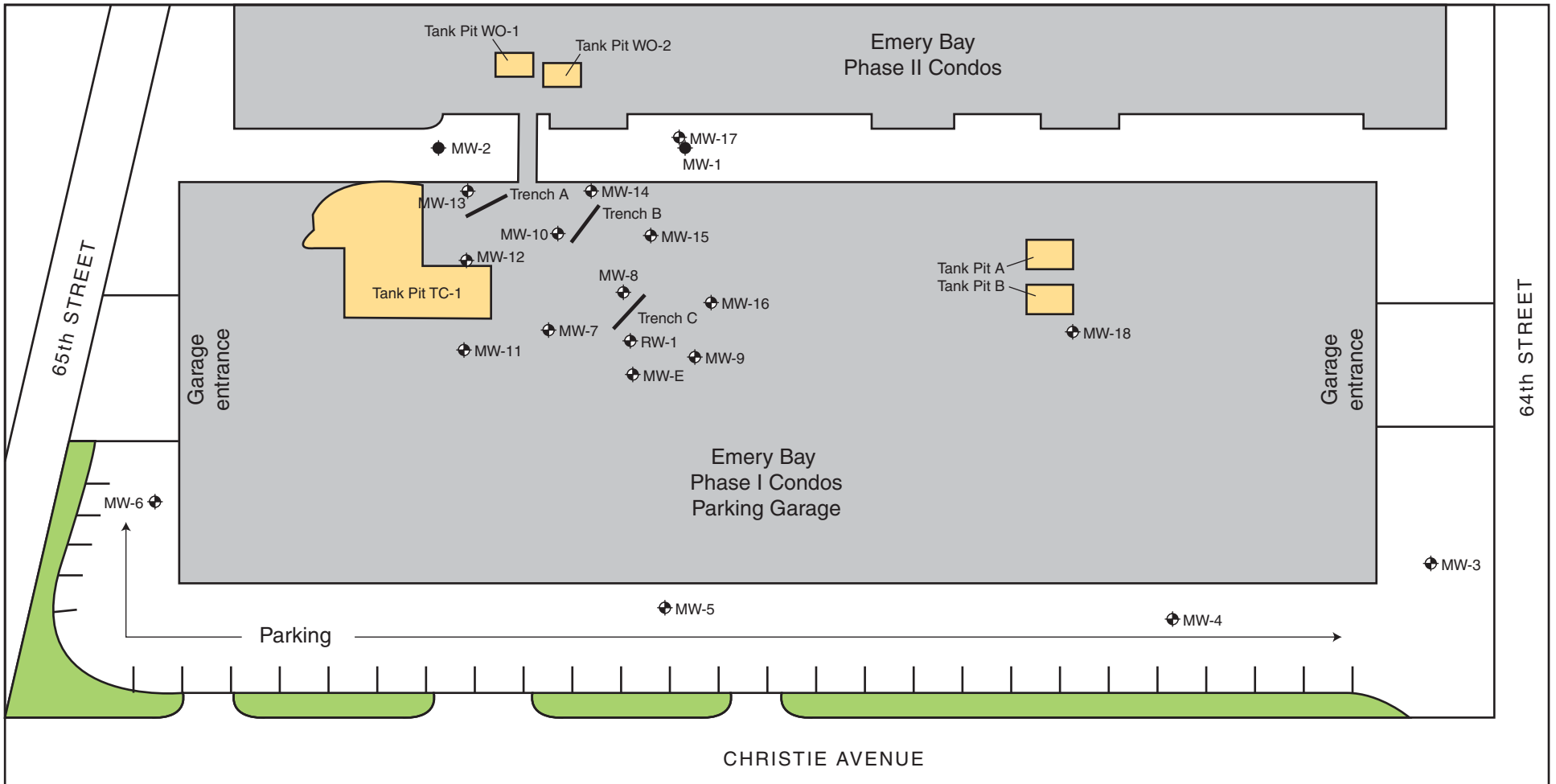
Figure 2








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 historical locations where the tanks were removed.

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 Environmental, Inc. (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:

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

REGULATORY OVERSIGHT

ACEH is the lead regulatory agency for the case, acting as a Local Oversight Program for the Regional Water Quality Control Board (Water Board). There are currently no ACEH or Water Board cleanup orders for the site; however, all site work has been conducted under the oversight of ACEH. ACEH assigned the site to its fuel leak case system (RO #2799), and the case officer is Ms. Barbara Jakub. In a November 2008 meeting with the Responsible Party (represented by Ms. Sarah Irving), SES (represented by Ms. Teal Glass and Mr. Richard Makdisi), and ACEH (represented by Ms. Jakub and Ms. Donna Drogas), it was agreed that quarterly sampling could be reduced to a semiannual schedule with the stipulation that an indoor air and preferential pathway study be completed. SES submitted a letter on November 24, 2008 to ACEH documenting the change in sampling frequency. The Indoor Air Survey and Preferential Pathway Report (SES, 2009b) was submitted to ACEH April 6, 2009.

The case has been assigned No. SLT2005561 in the Water Board's GeoTracker system. Electronic uploads of required data/reports are submitted to both agencies.

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. Drainage collected in storm sewers from the parking lot and from Christie, 64th, and 65th Streets 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 consists of a combination of fill and soft bay sediment. The upper 1 to 2½ feet of soil is generally pavement and imported fill. This is underlain by approximately 20 feet of firm soil consisting of primarily dense silty sand with intermittent layers of silty and sandy clay. Stiff to very stiff clay lies a depth of approximately 40 feet and extends to the depth of the borings, approximately 101.5 feet (Geomatrix, 1988).

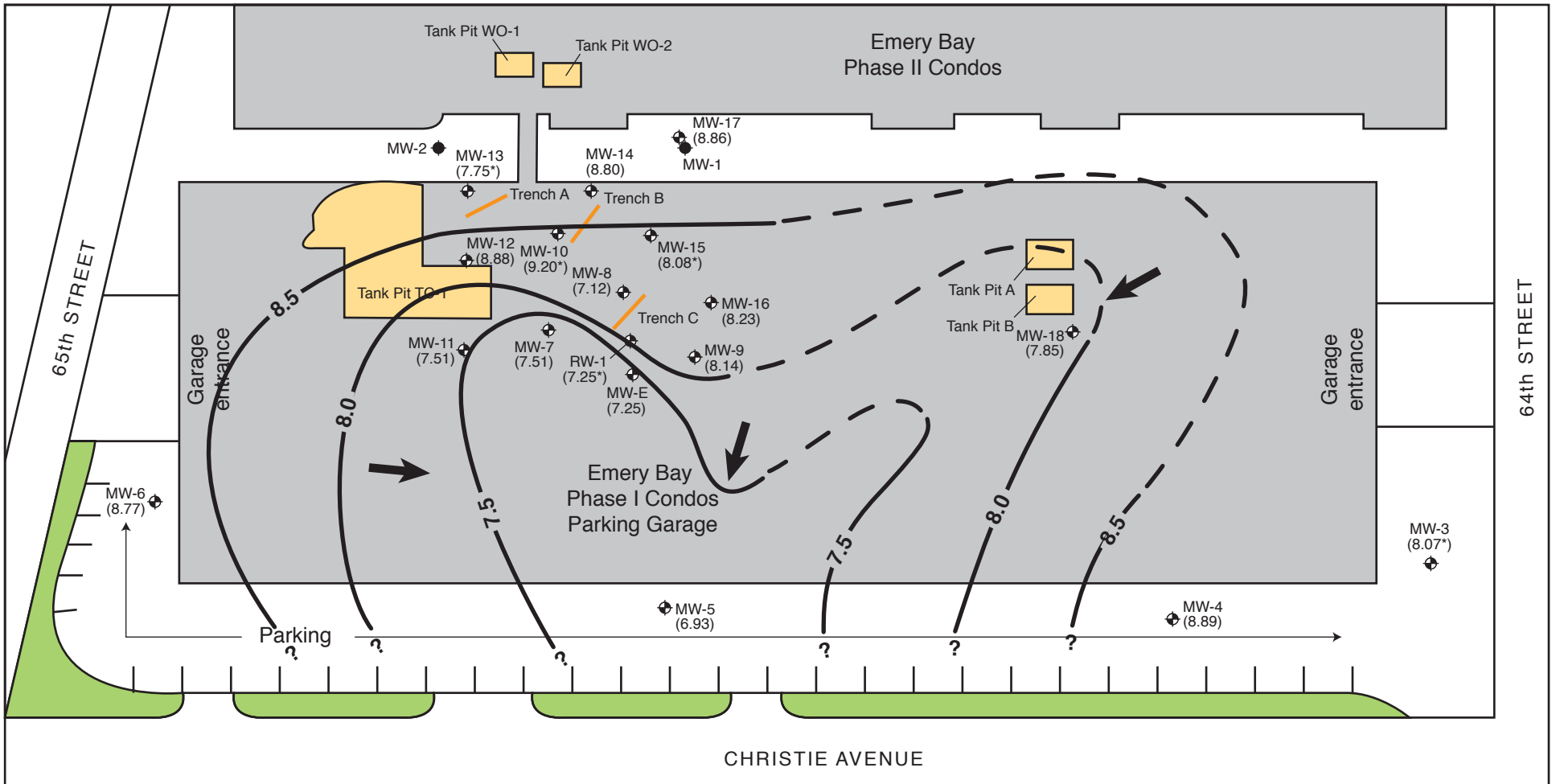
The closest major fault, the Hayward Fault, is located about 3 miles east of the property. While the site is located in a seismically active area, it is not within an Alquist-Priolo Special Studies active

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

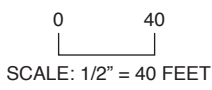
Regulatory agency records indicate that the direction of shallow groundwater flow in the site vicinity is to the west-northwest, toward San Francisco Bay. However, water levels and flow direction in this area are influenced by tidal patterns, and the groundwater gradient measured during the March 2009 monitoring event ranged from the southwest (on the northern portion of the site) to the west (on the central portion of the site) to the northwest (on the southern portion of the site). According to current and historical water level data obtained from onsite monitoring wells, depth to groundwater ranges from approximately 6 to 11 feet below ground surface (bgs). Groundwater elevations during the March 2009 event ranged from 7.41 to 10.37 feet above mean sea level. The average groundwater gradient was 0.001 foot/foot.

Figure 4 is a groundwater elevation map 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
- Projected groundwater elevation contour in feet amsl
- NM = Depth to groundwater could not be measured due to the presence of tar



GROUNDWATER ELEVATION MAP – September 16, 2009
6400 Christie Ave., Emeryville, CA

Figure 4

by: MJC

OCTOBER 2009

3.0 SEPTEMBER 2009 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 of the following contaminants:
 - benzene, toluene, ethyl benzene, and xylenes (BTEX)
 - methyl tertiary-butyl ether (MTBE)
 - total petroleum hydrocarbons as gasoline (TPHg)
 - total petroleum hydrocarbons as diesel (TPHd)

The 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

Blaine Tech Services conducted groundwater monitoring well water level measurements, purging, sampling, and field analyses on September 16, 17, and 18 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.

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 (TOC)	Thickness of Free Product (feet)	Groundwater Elevation (September 16, 2009)
MW-3	25	5 to 20	16.65	NA	NA	8.07
MW-4	25	5 to 20	16.29	NA	NA	8.89
MW-5	25	5 to 20	16.72	NA	NA	6.93
MW-6	25	5 to 20	16.82	NA	NA	8.77
MW-7	20	5 to 20	17.73	NA	NA	7.12
MW-8	16	5 to 16	17.84	(b)	(b)	9.29
MW-9	20	5 to 20	17.84	NA	NA	8.14
MW-10	20	5 to 20	17.83	8.52	0.11	9.20
MW-11	20	5 to 20	17.76	NA	NA	7.51
MW-12	20	5 to 20	17.83	NA	NA	8.88
MW-13	20	5 to 20	17.66	9.72	0.19	7.75
MW-14	20	5 to 20	17.60	NA	NA	8.80
MW-15	20	5 to 20	17.80	9.22	0.18	8.08
MW-16	20	5 to 20	17.74	NA	NA	8.23
MW-17	20	5 to 20	18.17	NA	NA	8.86
MW-18	20	5 to 20	16.35	NA	NA	7.85
MW-E	47	7 to 40	17.47	NA	NA	7.25
RW-1	30	unknown	16.70	(b)	(b)	7.25
TA-E	11-13	6-8 to 11-13	17.20	NM	NM	NM
TA-M	11-13	6-8 to 11-13	17.21	NM	NM	NM
TA-W	11-13	6-8 to 11-13	17.28	NM	NM	NM
TB-E	11-13	6-8 to 11-13	17.24	NM	NM	NM
TB-M	11-13	6-8 to 11-13	17.30	NM	NM	NM
TB-W	11-13	6-8 to 11-13	17.33	NM	NM	NM
TC-E	11-13	6-8 to 11-13	17.07	NM	NM	NM
TC-M	11-13	6-8 to 11-13	17.37	NM	NM	NM
TC-W	11-13	6-8 to 11-13	17.32	NM	NM	NM

Notes:

(a) Relative to mean sea level.

(b) Depth to groundwater and/or of free product could not be determined because free product density would not allow a clear delineation.

bgs = below ground surface

TOC = below top of casing

NA = not applicable (no free product in well)

NM = depth to groundwater and/or free product could not be determined due to the presence of tar

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.

Approximately 45 gallons of purge water and equipment decontamination rinse water from the current groundwater sampling event was containerized onsite in a labeled 55-gallon drum. In addition, 858.7 gallons of water and 0.4 gallons of product were removed/purged from select wells during the passive and active product removal events. All purged groundwater and free product were containerized in a 1,100-gallon onsite aboveground storage tank (AST). On September 29, 2009, Evergreen Oil, Inc. vacuumed and transported the water to its recycling facility under manifest number 004002863 (EPA ID No. CAL000331636). Appendix F contains copies of the manifest and recycling certificate.

4.0 REGULATORY CONSIDERATIONS, ANALYTICAL RESULTS, AND DISCUSSION OF FINDINGS

This section presents the analytical results of the most recent monitoring event and summarizes the relevant regulatory considerations. Appendix C contains the certified analytical laboratory report and chain-of-custody record.

REGULATORY CONSIDERATIONS

As specified in the East Bay Plain Groundwater beneficial Use Evaluation Report by the San Francisco Bay Region Water 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 property is listed as occurring within Zone B, designated as groundwater that is unlikely to be used as a 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 Environmental Screening Levels (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. 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 (e.g., monitoring plume stability to demonstrate no risk to sensitive receptors where drinking water is not threatened) may be warranted. Because the subject property is a residential property where groundwater is not a potential drinking water resource, 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 gasoline have decreased in the majority of the wells from the last sampling event; however, concentrations of

diesel have increased, with historic highs observed in eight of the wells (MW-4, MW-5, MW-9, MW-12, MW-13, MW-15, MW-16, and MW-18).

GROUNDWATER SAMPLE RESULTS

Table 2 and Figure 5 summarize the contaminant analytical results of the current monitoring event samples.

Table 2
Groundwater Sample Analytical Results – September 16, 17, and 18, 2009
6400 Christie Avenue, Emeryville, California

Well ID	Analytical Results						
	TPHg	TPHd	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE
MW-3	300	5,000	2.5	<0.5	<0.5	<0.5	<2.0
MW-4	<50	660	<0.5	<0.5	<0.5	<0.5	<2.0
MW-5	<50	5,600	<0.5	<0.5	<0.5	<0.5	<2.0
MW-6	<50	1,500	0.79	<0.5	<0.5	<0.5	<2.0
MW-7	620	6,800	310	9.5	27	117	<10
MW-8	26,000	9,200	8,600	100	630	230	170
MW-9	98	8,200	4.0	<0.5	<0.5	<0.5	<2.0
MW-10	1,400	6,100	1,200	35	19	31	<20
MW-11	1,900	6,400	320	13	9.8	15.2	2.0
MW-12	1,900	3,000	4,500	80	14	51	<40
MW-13	1,400,000	38,000	19,000	2,500	19,000	21,300	<1,000
MW-14	550	2,100	630	14	28	17	<20
MW-15	2,300	2,700	6,200	71	68	42	<50
MW-16	51	10,000	9.3	1.6	<0.5	<0.5	2.2
MW-17	2,200	3,000	800	95	82	111	<10.0
MW-18	<50	11,000	<0.5	<0.5	<0.5	<0.5	<2.0
MW-E	540	6,200	1,200	22	37	37.2	<2.0
RW-1	350	770	120	3.1	11	1.6	<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).

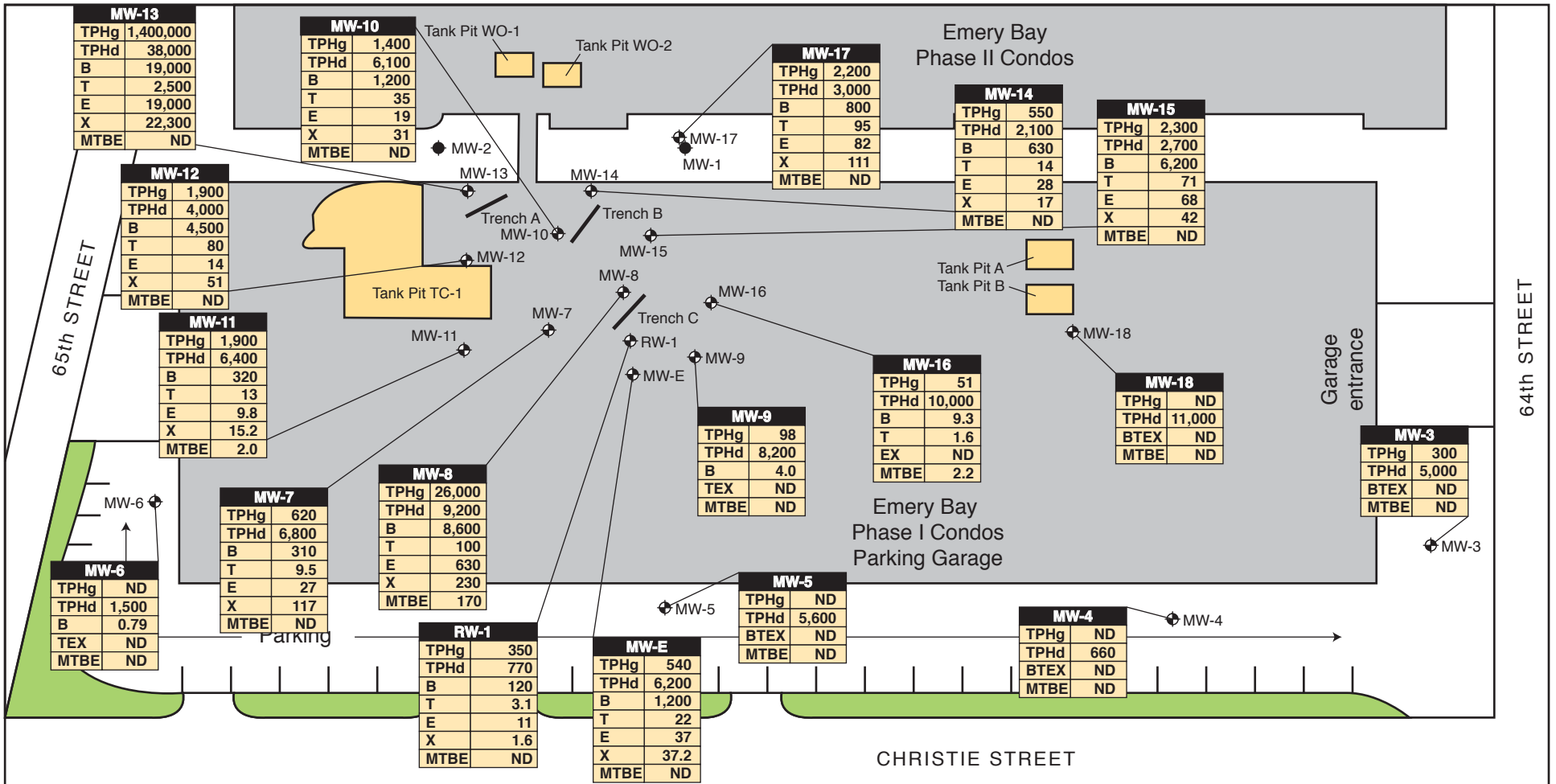
MTBE = methyl tertiary-butyl ether

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 at or 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

OCTOBER 2009

Petroleum Hydrocarbon Contaminants

During the September 2009 sampling event, several wells had reported hydrocarbon concentrations greatly in excess of the Water Board ESLs. However, hydrocarbon concentrations in wells can be significantly affected by the purging of accumulated hydrocarbons product, so large swings in concentration (both reductions and increases) could be seen due to this occurrence.

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 ESL where groundwater is not a drinking water resource (210 micrograms per liter [$\mu\text{g/L}$]). Gasoline was also detected in MW-9 and MW-16, but at concentrations below the ESL. The highest concentration (1,400,000 $\mu\text{g/L}$) was observed in MW-13. This concentration is well below the 2,700,000 $\mu\text{g/L}$ maximum concentration observed during the December 2008 event, but above the 330,000 $\mu\text{g/L}$ observed during the March 2009 event. It is also well above the 52,000 $\mu\text{g/L}$ observed during the September 2008 event.

Figure 6 shows an isoconcentration contour map of TPHg concentrations in groundwater based on the September 2009 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 September 2009 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 September 2009 sampling event. Figure 10 plots the change in crossgradient wells MW-18 and MW-3 from December 2006 to date.

Increases compared to the previous March 2009 monitoring event were observed in wells MW-3, MW-8, MW-11, and MW-13; and decreases were observed in wells MW-7, MW-9, MW-10, MW-12, MW-14, MW-15, MW-16, MW-17, MW-E and RW-1. Concentrations in perimeter wells MW-4, MW-5, MW-6, and MW-18 remained the same. When comparing the concentrations to the September 2008 sampling event, wells MW-3, MW-10, and MW-13 exhibited increases; wells MW-7, MW-8, MW-9, MW-11, MW-12, MW-14, MW-15, MW-16, MW-17, MW-E, and RW-1 showed decreases; and perimeter wells MW-4, MW-5, MW-6, and MW-18 remained the same.

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 (38,000 $\mu\text{g/L}$) was observed in MW-13. This concentration is significantly below the 2,000,000 $\mu\text{g/L}$ observed during the last March 2009 event (which is the historic maximum concentration) and below the 71,000 $\mu\text{g/L}$ observed during the September 2008 event. Increased diesel concentrations compared to the previous March 2009 monitoring event were observed in wells MW-3, MW-6, MW-18 and MW-E; and decreases were observed in wells MW-4, MW-5, MW-7, MW-8, MW-9, MW-10, MW-11, MW-12, MW-13, MW-14, MW-15, MW-16, and RW-1. The concentration in well MW-17 remained the same. When

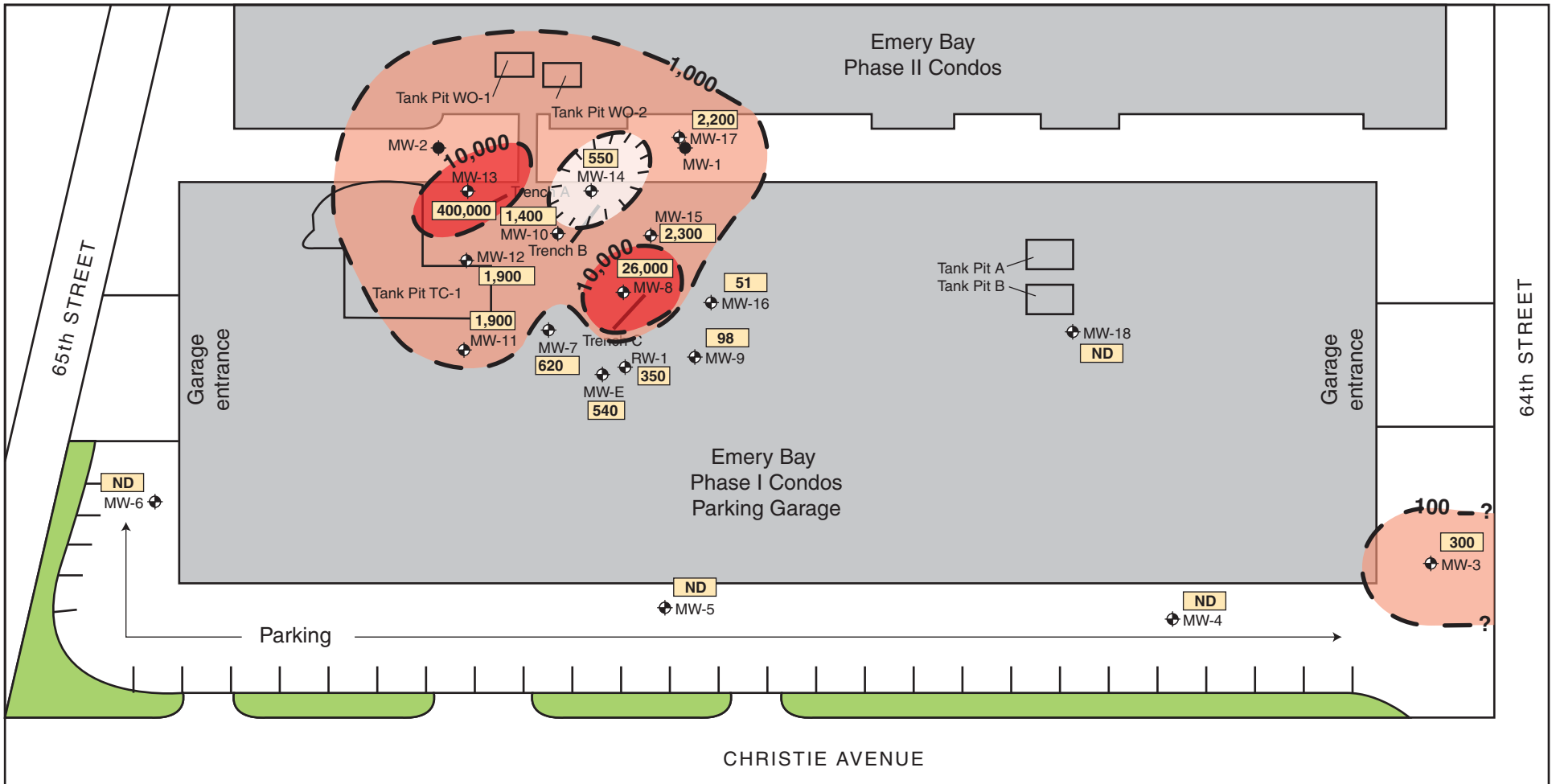
comparing the concentrations to the September 2008 sampling event, wells MW-3, MW-4, MW-5, MW-6, MW-10, MW-11, MW-16 and MW-18 exhibited increases; wells MW-7, MW-8, MW-9, MW-12, MW-13, MW-14, MW-15, MW-17, MW-E, and RW-1 showed decreases. Figure 7 is an isoconcentration contour map of TPHd concentrations in groundwater based on the September 2009 monitoring well analytical results.

Benzene concentrations exceeded the benzene ESL of 46 µg/L (where groundwater is not a likely drinking water resource) in MW-7, MW-8, MW-10, MW-11, MW-12, MW-13, MW-14, MW-15, MW-17, MW-E, and RW-1. Benzene was also reported in MW-3, MW-6, MW-9, and MW-16, but at concentrations below the ESL.

Toluene was detected above the ESL of 130 µg/L in monitoring wells MW-8 and MW-13. Ethylbenzene was detected above the 43-µg/L ESL (where groundwater is not a drinking water resource) in monitoring wells MW-8, MW-13, MW-15, and MW-17. Total xylene concentrations in monitoring wells MW-7, MW-8, MW-13, and MW-17 were above the 100-µg/L ESL where groundwater is not a drinking water resource. MTBE was not detected above the ESL of 1,800 µg/L in any of the monitoring wells.

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).



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

0 60
SCALE: 1/2" = 60 FEET

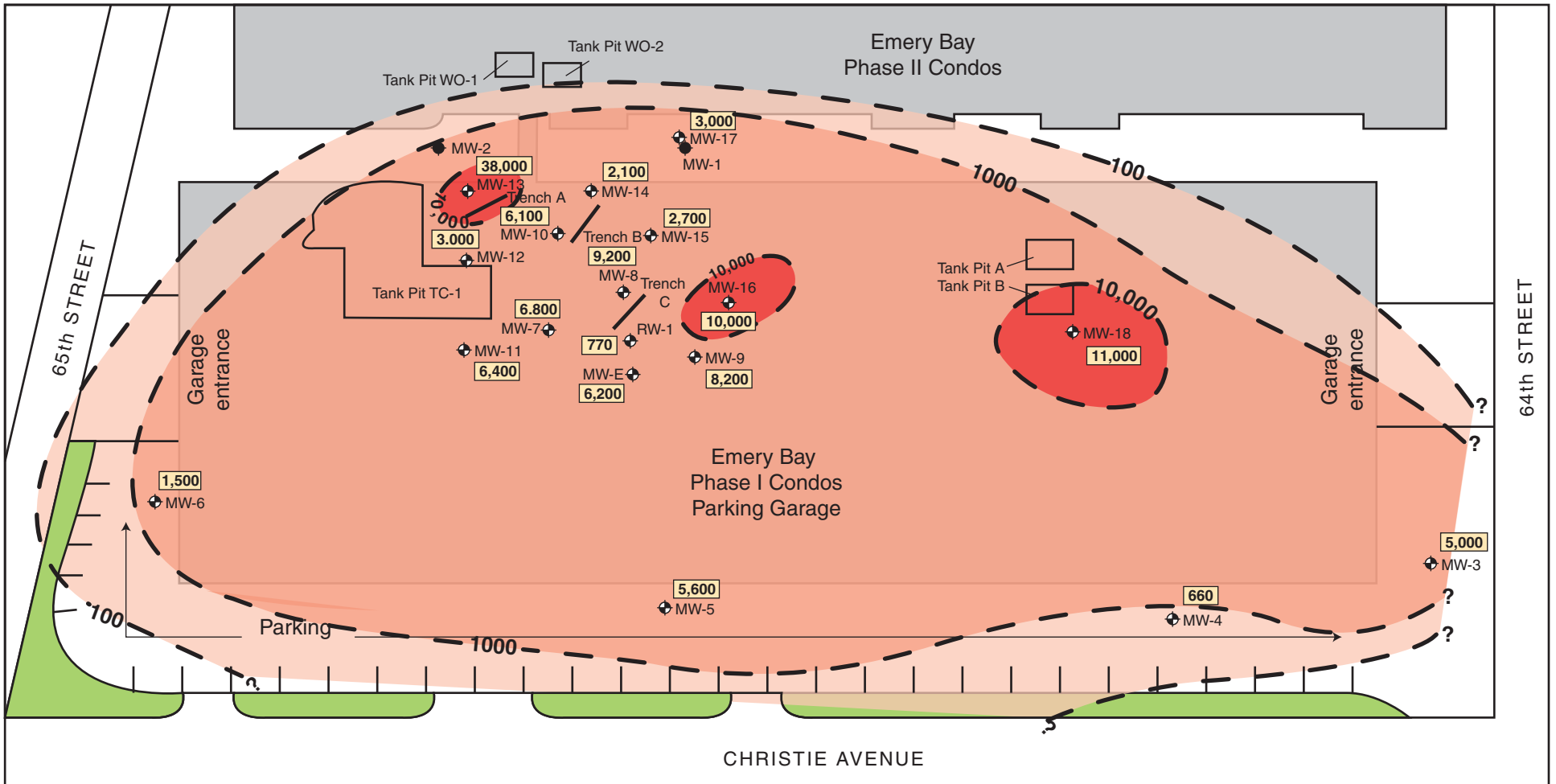


TOTAL PETROLEUM HYDROCARBON PLUME AS GASOLINE
6400 Christie Ave., Emeryville, CA

Figure 6

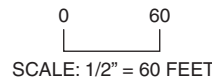
by: MJC

OCTOBER 2009



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



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

Figure 7

by: MJC

OCTOBER 2009

Figure 8
Historical Groundwater Analytical Results
Total Petroleum Hydrocarbons as Diesel (TPHd)
Downgradient Wells MW-5 and MW-6
February 1991 - September 2009

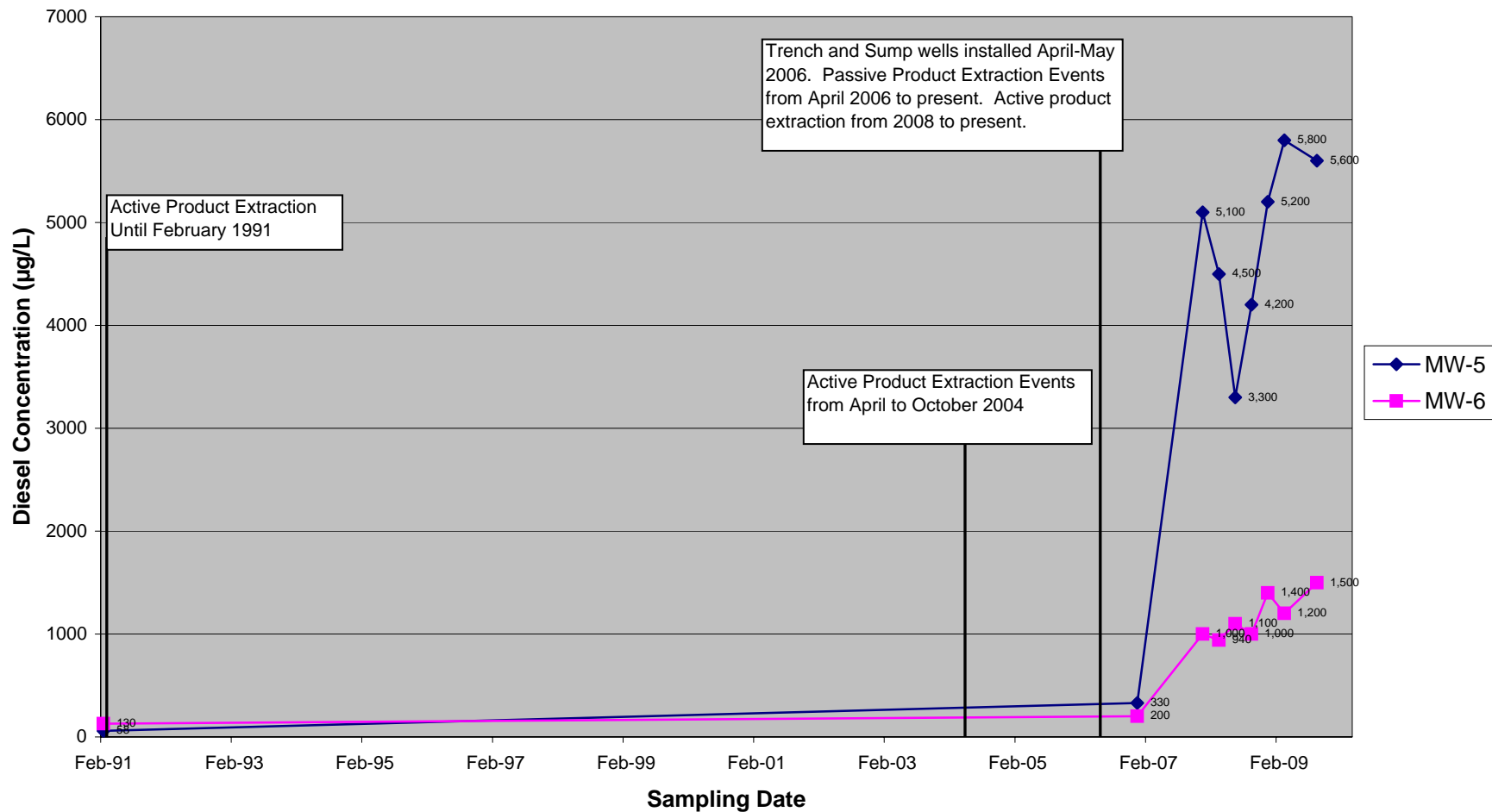


Figure 9
Historical Groundwater Analytical Results
Total Petroleum Hydrocarbons as Diesel (TPHd)
Source Wells MW-11 and MW-12
December 2006 - September 2009

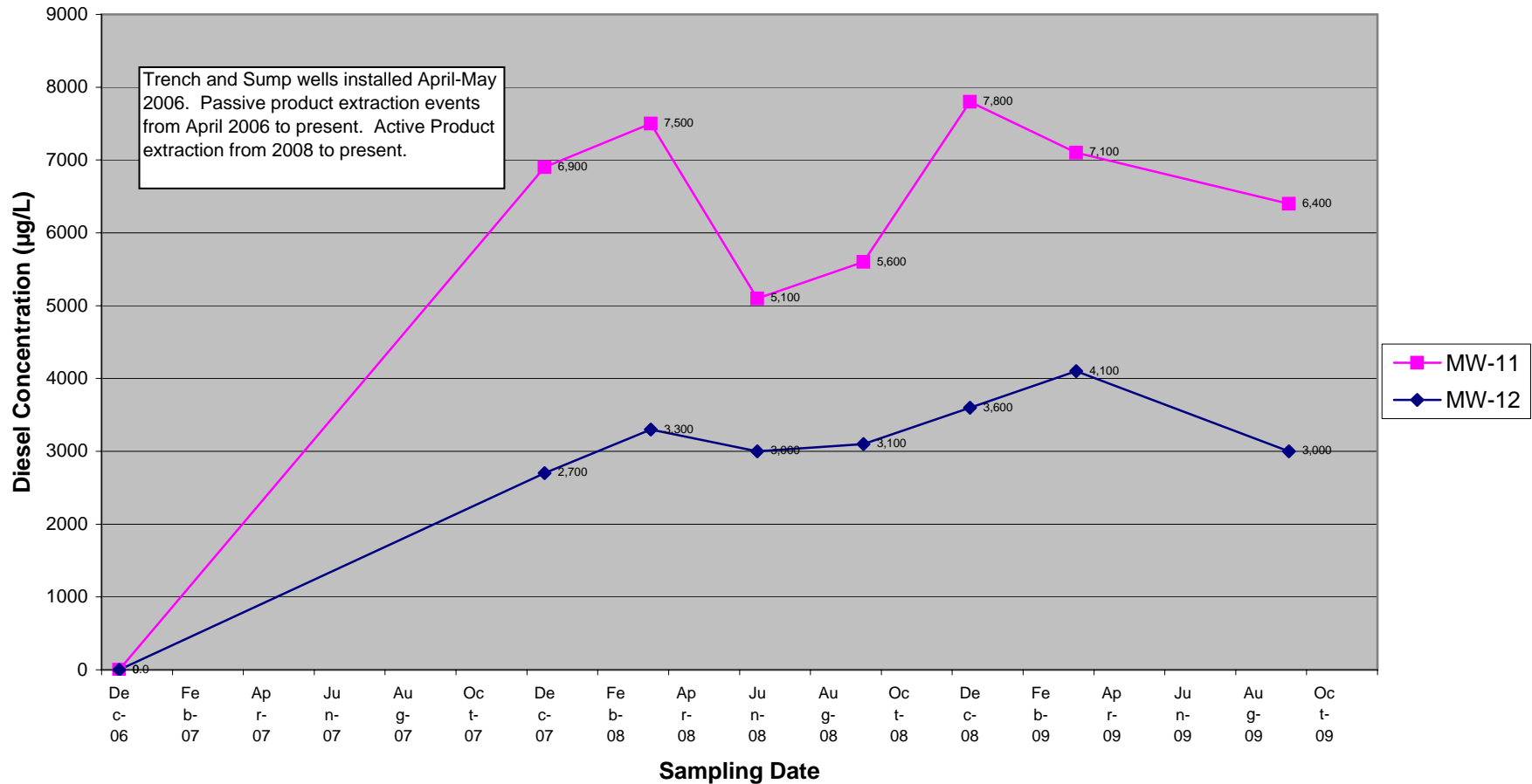
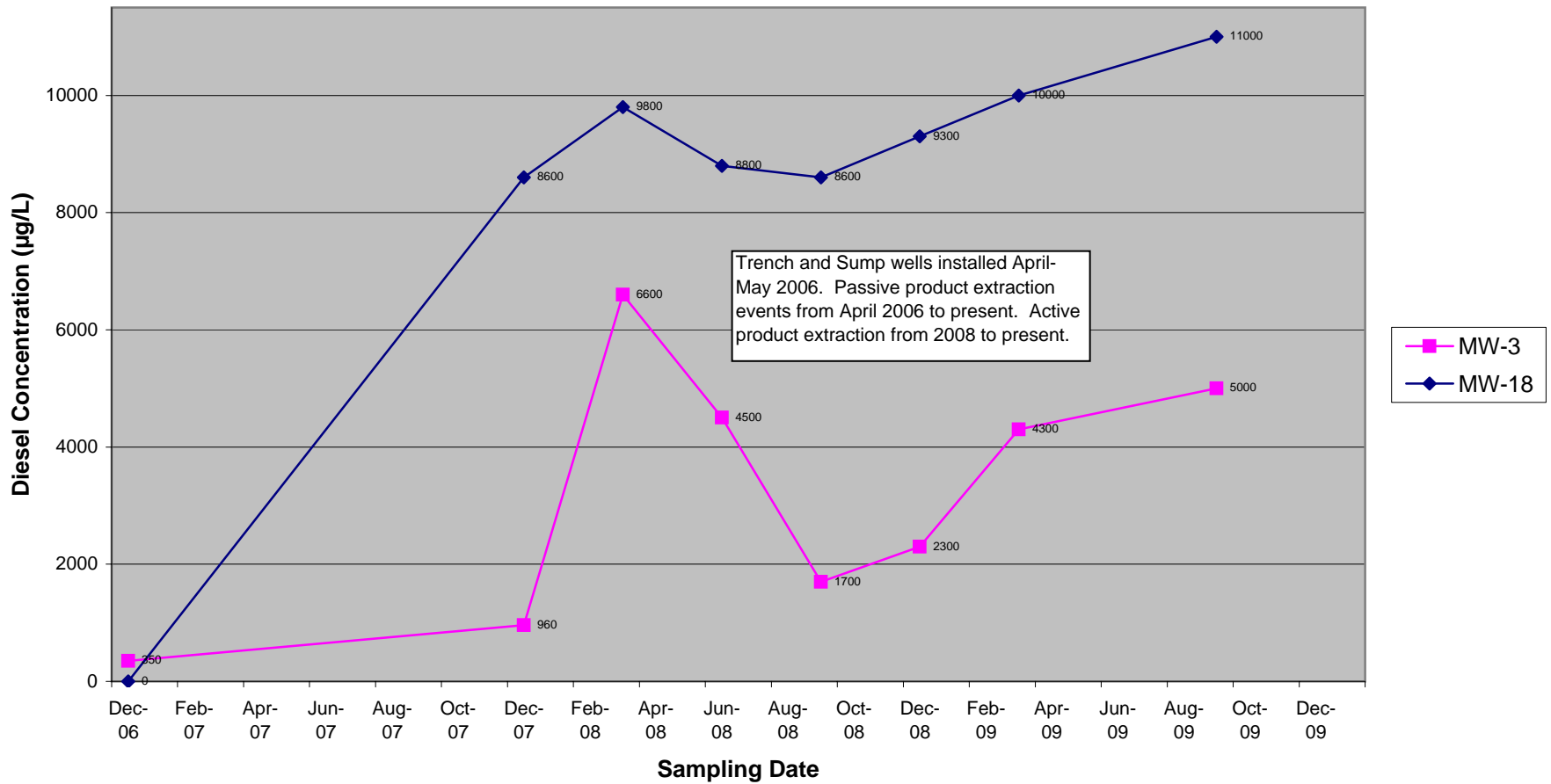


Figure 10
Historical Groundwater Analytical Results
Total Petroleum Hydrocarbons as Diesel (TPHd)
Crossgradient Well MW-3 and MW-18
December 2006 - September 2009



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 on June 18, 2009; September 14 and 15, 2009 (immediately prior to the sampling event); and December 18, 2009. Tables 3 and 4 summarize the product removed during the passive and active product removal events, respectively. Appendix E summarizes historical product removal.

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). 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.

HISTORICAL FREE PRODUCT EXTRACTION

As mentioned under the “Previous Investigations” subsection 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) in one day—although it appears to be clear by the better defined recovery in 2008 and 2009 that the volume of free product indicated to have been recovered at that well appears unrealistically high, most likely reflecting a mixture of hydrocarbon product mixed with water. To attempt 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 was removed in 2006; and 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. 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. Based on better defined recovery in 2008 and 2009 the volume of free product indicated to have been recovered by the system during 2004 and 2006 appears unrealistically high, suggesting again that free-phase product mixed with water was reported as free-phase product recovery.

ACTIVE AND PASSIVE PRODUCT REMOVAL EVENTS

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. 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 in September 2009.

A total of 0.5 gallon of free product was removed passively from the skimmers on June 18, 2009. SES conducted both passive and active product removal events during the 2 days prior (September 14 and 15) to the groundwater sampling event (March 16, 17, and 18) to determine the recharge rate of free product in wells. A total of approximately 862.7 gallons of groundwater yielding approximately 19 gallons (Table 4) of free product was removed during the September 2009 active product removal event, in addition to 0.4 gallons (Table 3) removed passively from the skimmers. A sample taken from the AST on September 29, 2009 contained a TVHg concentration of 3,300 µg/L; a TEHmo concentrations of 8,500 µg/L, and a TEHd concentration of 40,000 µg/L.

Table 3
Passive Trench Product Extraction – June 18, September 14, and December 18, 2009

Trench ID	Number of Skimmers in Well	Total Product Removed (gallons)		
		June 18, 2009	September 14, 2009	December 18, 2009
TA-E	2	NM	0.3	0.0
TA-M	2	0.5	0.0	0.9
TA-W	2	NM	0.1	0.06
TB-E	0	NM	NM	NM
TB-M	0	NM	NM	NM
TB-W	0	NM	NM	NM
TC-E	1	NM	0.0	0.0
TC-M	0	NM	NM	NM
TC-W	0	NM	NM	NM
Total Product Removed		0.5	0.4	0.96

Notes:

NM = Not measured. No skimmer was located in the well, or no product was present.

Table 4
Active Product Extraction – September 2009

Well	Total Gallons of Product Removed	Well	Total Gallons of Product Removed
MW-3	0.286	MW-17	0.176
MW-5	NP	MW-18	0.022
MW-6	NP	MW-E	0.066
MW-7	0.022	RW-1	7.150
MW-8	0.418	TA-E	1.100
MW-9	NP	TA-M	1.100
MW-10	0.176	TA-W	1.100
MW-11	0.308	TB-E	1.100
MW-12	0.176	TB-M	1.100
MW-13	0.088	TB-W	1.100
MW-14	0.007	TC-E	1.100
MW-15	0.176	TC-M	1.100
MW-16	0.088	TC-W	1.100
Total			19.059

Notes:

NP = not purged

Product removal estimates are based on the total amount of free product measured in the purge tank (19 gallons) per total amount of groundwater purged (862.7 gallons), which yields 0.022 gallon of product per 1 gallon of purge water

Based on the total amount of groundwater removed, 862.7 gallons, SES calculated that approximately 0.024 pound of gasoline, 0.061 pound of motor oil, and 0.288 pound of diesel were removed with the purged groundwater. SES removed an additional 1-gallon of free product passively during the December 18, 2009 event.

The active removal activities occurred as follows:

- On September 14, 2009, SES removed a total of 0.1 gallon from the skimmer in trench well TA-W (the second skimmer was empty) and then 50 gallons of groundwater actively. The skimmers in trench well TA-M were both filled with just water; however, SES removed 50 gallons actively. One skimmer in trench well TA-E contained 0.3g of product but the other was filled with only water. Fifty gallons were removed actively from this well. SES also removed 50 gallons actively from trenches TB-E, TB-M, TB-W, TC-E, TC-M, and TC-E. There were no skimmers present in the B trench wells and the one

skimmer located in trench TC-E was filled only with water. SES also removed 125 gallons from RW-1.

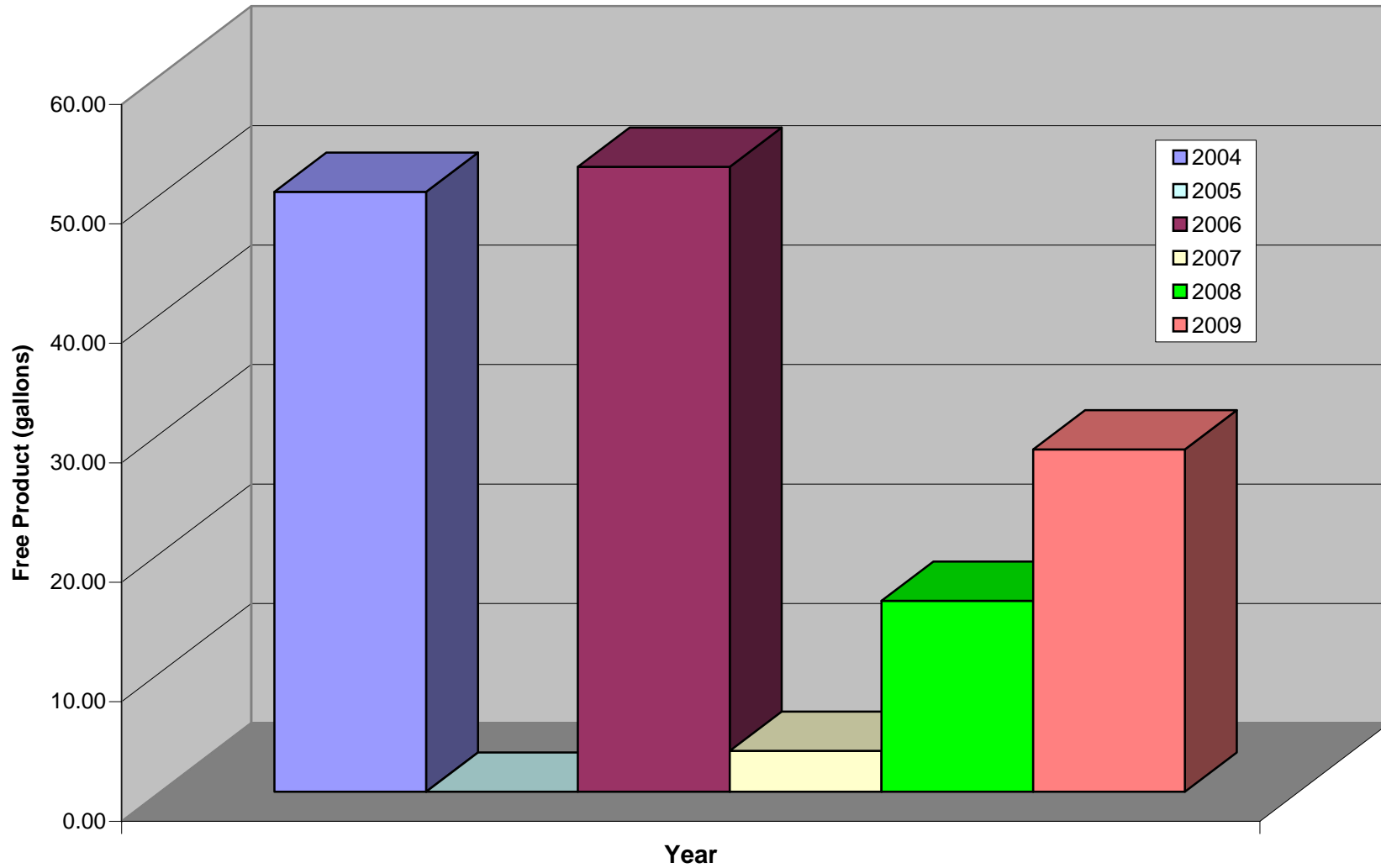
- On September 15, 2009, SES removed 0.1 gallon from well MW-13 before it dewatered. SES then removed 13 gallons from MW-3 before returning to MW-13 to removed another 0.2 gallon. SES then removed 8 gallons from MW-10, 8 gallons from MW-11, 0.1 gallon from MW-14, 8 gallons from MW-15, and 4 gallons from MW-16. SES also removed 1 gallon from MW-18, 11 gallons from MW-8, 3 gallons from MW-E, 1 gallon from MW-7, 6 gallons from MW-11, 8 gallons from MW-17. SES then removed 200 gallons from RW-1 before returning to removed an additional 0.1 gallons from MW-13, 0.2 gallons from MW-14, and 8 gallons from MW-8.

All of the purge water and free product extracted during these events was containerized onsite in the 1,100-gallon AST located in the northeastern-gated area of the garage. On September 29, 2009, Evergreen Oil vacuumed and transported the water to its recycling facility in Newark, California. The waste manifest and recycling certificate are included in Appendix F. A table containing the amount of product removed per well to date is included in Appendix E.

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; in addition, the “product” referred to by PES appears to actually have been a mixture of petroleum product and water. The PES report provides no documentation (e.g., manifests) of the removal of actual recovered petroleum product. 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-floating product was indicated to have been removed by active pumping. The majority of this petroleum product apparently was removed by active pumping and removal activities rather than from the trench well skimmers. Much of this “product” is likely to have been a mixture of water and hydrocarbons. Figure 11 is bar graph showing the total amount of product removed per date.

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



Thus, we conclude that the trench recovery system on its own has never been particularly effective. In 2007, passive extraction of free product through trench well skimmers removed only 3.41 gallons. SES removed approximately 5.65 gallons of free product from these passive skimmers during the 2008 removal events. Only 3.36 gallons were removed in 2009. Approximately 10.34 gallons were removed by active pumping on wells during 2008. Approximately 25.44 gallons of free product were removed by active pumping on wells in 2009.

As demonstrated by the analytical data, active pumping on certain wells has generally reduced gasoline concentrations; however, wells not included in the pumping schedule showed a lesser or no decrease. Diesel concentrations seem to be less affected by active pumping, even in wells that were included in the pumping schedule, such as RW-1. 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 a more cost-effective and productive method of removal is found.

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; quarterly groundwater monitoring events were conducted for the first time in 2008. The quarterly sampling was reduced to semiannual frequency in 2009.
- The site currently contains 17 monitoring wells, 1 recovery well, and 9 product extraction trench wells. This is the 12th 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. This is underlain by approximately 20 feet of firm soil consisting of 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 range from the southwest (on the northern portion of the site) to the west (on the central portion of the site) to the northwest (on the southern portion of the site).
- Groundwater elevations during the March 2009 event ranged from 7.12 to 9.29 feet above mean sea level. The average groundwater gradient was 0.001 foot/foot.
- Current contaminants of concern include TPHg, TPHd, and BTEX. Current groundwater concentrations exceeded the ESLs for these contaminants.

- 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 ESL where groundwater is not a drinking water resource (210 micrograms per liter [$\mu\text{g/L}$]). Gasoline was also detected in MW-9 and MW-16, but at concentrations below the ESL. The highest concentration (1,400,000 $\mu\text{g/L}$) was observed in MW-13. This concentration is well below the 2,700,000 $\mu\text{g/L}$ maximum concentration observed during the December 2008 event, but above the 330,000 $\mu\text{g/L}$ observed during the March 2009 event. Is it also well above the 52,000 $\mu\text{g/L}$ observed during the September 2008 event.
- When comparing the gasoline concentrations to the September 2008 sampling event, wells MW-3, MW-10, and MW-13 exhibited increases; wells MW-7, MW-8, MW-9, MW-11, MW-12, MW-14, MW-15, MW-16, MW-17, MW-E, and RW-1 showed decreases; and perimeter wells MW-4, MW-5, MW-6, and MW-18 remained the same.
- 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 (38,000 $\mu\text{g/L}$) was observed in MW 13. This concentration is well below the 2,000,000 $\mu\text{g/L}$ observed during the last March 2009 event (which is the historic maximum concentration) and below the 71,000 $\mu\text{g/L}$ observed during the September 2008 event.
- When comparing the diesel concentrations to the September 2008 sampling event, wells MW-3, MW-4, MW-5, MW-6, MW-10, MW-11, MW-16 and MW-18 exhibited increases; wells MW-7, MW-8, MW-9, MW-12, MW-13, MW-14, MW-15, MW-17, MW-E, and RW-1 showed decreases.
- In MW-7, MW-8, MW-10, MW-11, MW-12, MW-13, MW-14, MW-15, MW-17, MW-E, and RW 1, concentrations of benzene exceeded the ESL of 46 $\mu\text{g/L}$ where groundwater is not a drinking water resource. Benzene was also found in MW-3, MW-6, MW-9, and MW-16, but at concentrations below the ESL.
- Toluene was detected above the ESL of 130 $\mu\text{g/L}$ in monitoring wells MW-8 and MW-13.
- Ethylbenzene was detected above the 43- $\mu\text{g/L}$ ESL (where groundwater is not a drinking water resource) in monitoring wells MW-8, MW-13, MW-15, and MW-17.
- Total xylene concentrations in monitoring wells MW-7, MW 8, MW-13, and MW-17 were above the 100- $\mu\text{g/L}$ ESL where groundwater is not a drinking water resource.
- MTBE was not detected above the ESL of 1,800 $\mu\text{g/L}$ in any of the monitoring wells.
- SES conducted passive skimmer product removal on the trench wells during the June, September, and December 2009 removal events. A total of approximately 1.9 gallons were removed from trench wells TA-E, TA-M, TA-W, and TC-E.

- A total of approximately 862.7 gallons of groundwater yielding approximately 19 gallons of free product were removed during the September 2009 active product removal event. A sample taken from the AST on September 29, 2009 contained a TVHg concentration of 3,300 µg/L; a TEHmo concentrations of 8,500 µg/L, and a TEHd concentration of 40,000 µg/L. Based on the total amount of groundwater removed, 862.7 gallons, SES calculated that approximately 0.024 pound of gasoline, 0.061 pound of motor oil, and 0.288 pound of diesel were removed with the purged groundwater.
- The trench recovery system, where free product is designed to collect in 1-liter skimmers, is effective in removing small amounts of free product, but is not effective in decreasing the size of the plume overall. Active pumping at various wells appears to have some effect in lowering gasoline concentrations; however, it does not appear to be affecting the concentrations of diesel (which appear to be steadily increasing).

RECOMMENDATIONS

- Groundwater monitoring should be continued on a semiannual basis to document plume stability and manage contaminant concentrations over time.
- Both active and passive free product removal events should be continued to ascertain their effectiveness in managing the plume on site and reducing the plume size over time. Active product removal is being conducted on a semiannual basis immediately prior to the sampling event. Passive product removal from the skimmers is being conducted on a quarterly basis.
- Emergent best available technologies shall continue to be evaluated, as a new technology might cost-effectively remediate the site to move it toward full regulatory closure.
- Electronic uploads to ACEH's ftp system and the State Water Board's GeoTracker system should be continued as required.

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8.0 LIMITATIONS

This report has been prepared for the exclusive use of Emerybay Commercial Association, 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, 2008, and 2009. 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
9	Sep-08	1,700	280	NA	<0.5	<0.5	1.0	<0.5	<2.0
10	Dec-08	2,300	240	NA	<0.5	<0.5	1.1	<0.5	<2.0
11	Mar-09	4,300	260	NA	1.3	<0.5	1.8	0.5	2.9
12	Sep-09	5,000	300	NA	2.5	<0.5	<0.5	<0.5	<2.0

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
9	Sep-08	440	<50	NA	<0.5	<0.5	<0.5	<0.5	<2.0
10	Dec-08	730	<50	NA	<0.5	<0.5	<0.5	<0.5	<2.0
11	Mar-09	940	<50	NA	<0.5	<0.5	<0.5	<0.5	<2.0
12	Sep-09	660	<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
9	Sep-08	4,200	<50	NA	<0.5	<0.5	<0.5	<0.5	<2.0
10	Dec-08	5,200	<50	NA	0.61	<0.5	<0.5	<0.5	<2.0
11	Mar-09	5,800	<50	NA	<0.5	<0.5	<0.5	<0.5	<2.0
12	Sep-09	5,600	<50	NA	<0.5	<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
9	Sep-08	1,000	<50	NA	0.91	<0.5	<0.5	<0.5	<2.0
10	Dec-08	1,400	<50	NA	1	<0.5	<0.5	<0.5	<2.0
11	Mar-09	1,200	<50	NA	<0.5	<0.5	<0.5	<0.5	<2.0
12	Sep-09	1,500	<50	NA	0.79	<0.5	<0.5	<0.5	<2.0

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
6	Sep-08	9,400	1,200	NA	330	12	21	88	<2.0
7	Dec-08	8,700	2,200	NA	640	100	43	185	<4.0
8	Mar-09	8,700	1,700	NA	510	33	47	220	<10
9	Sep-09	6,800	620	NA	310	9.5	27	117	<10

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
6	Sep-08	13,000	35,000	NA	11,000	190	900	402	<100
7	Dec-08	7,600	19,000	NA	6,800	110	380	236	<50
8	Mar-09	10,000	22,000	NA	9,400	200	640	358	<50
9	Sep-09	9,200	26,000	NA	8,600	100	630	230	170

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
6	Sep-08	9,300	130	NA	4.6	<0.5	<0.5	<0.5	<50
7	Dec-08	7,800	95	NA	4.0	0.54	<0.5	<0.5	<2.0
8	Mar-09	9,400	130	NA	4.6	<0.5	<0.5	<0.5	<2.0
9	Sep-09	8,200	98	NA	4.0	<0.5	<0.5	<0.5	<2.0

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
6	Sep-08	4,700	1,200	NA	350	11	3.4	11	<2.0
7	Dec-08	3,200	2,900	NA	550	45	15	56	<20
8	Mar-09	6,200	8,200	NA	890	46	78	130	<20
9	Sep-09	6,100	1,400	NA	1,200	35	19	31	<20

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
5	Sep-08	5,600	2,200	NA	260	20	34	60	<2.0
6	Dec-08	7,800	2,100	NA	270	14	7.6	15.6	<2.0
7	Mar-09	7,100	1,400	NA	200	6.4	7.3	10.4	<2.0
8	Sep-09	6,400	1,900	NA	320	13	9.8	15.2	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
5	Sep-08	3,100	14,000	NA	6,200	79	18	83	<10
6	Dec-08	3,600	19,000	NA	7,900	140	72	124	<50
7	Mar-09	4,100	14,000	NA	6,100	150	130	111	<40
8	Sep-09	3,000	1,900	NA	4,500	80	14	51	<40

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
5	Sep-08	440,000	52,000	NA	<100	500	1,600	1,500	<100
6	Dec-08	1,100,000	2,700,000	NA	23,000	<250	40,000	45,000	<1,000
7	Mar-09	2,000,000	330,000	NA	25,000	1,300	6,400	8,500	<1,000
8	Sep-09	38,000	1,400,000	NA	19,000	2,500	19,000	21,300	<1,000

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
5	Sep-08	2,500	4,100	NA	1,300	50	80	61	<10
6	Dec-08	2,800	2,300	NA	830	27	45	30.7	<10
7	Mar-09	3,200	13,000	NA	4,300	870	260	283	<50
8	Sep-09	2,100	550	NA	630	14	28	17	<20

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
5	Sep-08	3,400	18,000	NA	7,800	73	270	59.9	<10
6	Dec-08	3,000	20,000	NA	7,600	95	300	84.2	<50
7	Mar-09	3,400	17,000	NA	7,200	91	170	60	<50
8	Sep-09	2,700	2,300	NA	6,200	71	68	42	<50

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
5	Sep-08	8,200	64	NA	9.9	1.9	<0.5	<0.5	<2.0
6	Dec-08	8,800	60	NA	11	2.8	<0.5	0.53	<2.0
7	Mar-09	14,000	78	NA	12	2.3	<0.5	<0.5	<2.0
8	Sep-09	10,000	51	NA	9.3	1.6	<0.5	<0.5	2.2

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
5	Sep-08	3,300	5,500	NA	900	63	69	69	<10
6	Dec-08	3,200	7,100	NA	1,100	530	190	390	<10
7	Mar-09	3,000	5,400	NA	770	150	87	161	<2.0
8	Sep-09	3,000	2,200	NA	120	3.1	11	1.6	<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
5	Sep-08	8,600	<50	NA	<0.5	<0.5	<0.5	<0.5	<2.0
6	Dec-08	9,300	<50	NA	<0.5	<0.5	<0.5	<0.5	<2.0
7	Mar-09	10,000	<50	NA	<0.5	<0.5	<0.5	<0.5	<2.0
8	Sep-09	11,000	<50	NA	<0.5	<0.5	<0.5	<0.5	<2.0

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
9	Sep-08	7,800	11,000	NA	3,800	170	130	257	<50
10	Dec-08	9,400	9,100	NA	3,400	110	180	182	<50
11	Mar-09	5,600	850	NA	270	7.5	13	17.5	<2.0
12	Sep-09	6,200	540	NA	1,200	22	37	37.2	<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
9	Sep-08	1,900	1,400	NA	280	9.8	10	6.7	<2.0
10	Dec-08	54,000	1,100,000	NA	500	<250	3,200	530	<1,000
11	Mar-09	2,800	950	NA	180	3.6	13	3	<2.0
12	Sep-09	770	350	NA	120	3.1	11	2	<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

WELL GAUGING DATA

Project # 090916-PCJ

Date 9/16/09

Client STELLAR

Site Bay Center Apts, Emeryville

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 <u>TOC</u>	Notes
MW-3	1105	2		No SPH detected			8.58	24.55		
MW-4	1108	2					7.40	24.88		✓SPH
MW-5	1119	2					9.79	24.82		
MW-6	1122	2					8.05	23.31		
MW-7	1000	3/4					10.61	19.87		
MW-8	1025	3/4	S/O	8.55	*		8.55	—		✓SPH
MW-9	1102	3/4					9.70	19.65		
MW-10	1030	3/4		8.52			8.63 8.50	—		✓SPH
MW-11	1052	3/4					10.25	19.68		
MW-12	1045	3/4					8.95	18.96		
MW-13	1042	3/4	S/O	9.72 [✓]			9.91 [✓]	—		✓SPH
MW-14	1034	3/4					8.80	19.52		
MW-15	1040	3/4		9.40	* difficult to		9.22 →	✓ on 9/17 - no product detected		✓SPH
MW-16	1058	3/4					9.51	19.05		
MW-17	1049	3/4		No SPH detected			9.31	19.49		✓SPH
MW-18	1015	3/4					8.50	19.55		
MW-E	956	2					10.22	44.90		

WELL GAUGING DATA

Project # 090916-PC1 Date 9/16/09 Client STELLAR

Site Bay Center Apts. Emeryville

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 <u>TOC</u>	Notes
RW-1	1012	10					*945	-	✓SPH	
↳ VJ'd DT SPH/DW: on 9/17 unable to get reading for either once probe hit SPH/water, the unit gave beeping noise until probe was removed & shut off. Extensive Decon required to achieve not tone from unit.										

WELLHEAD INSPECTION CHECKLIST

Date 9/16/09 Client STELLAR

Site Address Bay Center Apts., Emeryville

Job Number 090916-PCI Technician D. Cornish

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-7							K	
MW-6							K	
MW-18	K							
MW-10							K	
MW-14	K							
MW-15	X							
MW-12							K	
MW-13	K							
MW-17							K	
RW-1	K							
MW-11	K							
MW-8	K							
MW-9							K	
MW-16	X							
MW-3	K							
MW-4	K							
							Christy box - Expansion cap was not bolted	
			"	"	"	"	" " " "	

NOTES: MW-6 1/2 bolts missing No lock
 MW-7 1/2 bolts missing
 MW-10 1/2 bolts missing
 MW-12 2 1/2 " "
 MW-17 1/2 " " 1/2 tabs stripped
 MW-9 2 1/2 " " - No cap

WELLHEAD INSPECTION CHECKLIST

Date 9/16/09 Client STELLAR

Site Address Bay Center Apts, Emeryville

Job Number 090916-PC1 Technician P. Lornish

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-5	x						Christy box - Expansion cap has no lock	
MW-6	x							

NOTES: _____

WELL MONITORING DATA SHEET

Project #: 090916-PC1	Client: STELLAR
Sampler: FS	Date: 9-17-09
Well I.D.: MW-3	Well Diameter: <u>2</u> 3 4 6 8
Total Well Depth (TD): 24.55	Depth to Water (DTW): 8.58
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 Disposable Bailer Positive Air Displacement Electric Submersible	Waters <u>Peristaltic</u> Extraction Pump <u>Other</u> NEW TUBING	Sampling Method: Bailer Disposable Bailer Extraction Port Dedicated Tubing Other: <u>New Tubing</u>
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_____ (Gals.) X _____ = _____ Gals. 1 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 * 0.163</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
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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
0942	22.01	6.61	22x53	6	1500 mL	DTW 8.70
0945	22.3	6.51	22 77	5	3000 mL	8.82
—	PRODUCT	WELL,	PURPOSE	FDR	8 MIN.	

Did well dewater? Yes No Gallons actually evacuated: _____

Sampling Date: 9-17-09 Sampling Time: 950 Depth to Water: 8.58

Sample I.D.: MW-3 Laboratory: Kiff CalScience Other: GLA SF

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

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>090916-PC1</u>	Client: <u>STELLAR</u>
Sampler: <u>PC</u>	Date: <u>9/17/09</u>
Well I.D.: <u>MW-4</u>	Well Diameter: <u>2</u> 3 4 6 8 _____
Total Well Depth (TD): <u>24.88</u>	Depth to Water (DTW): <u>7.40</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 <input checked="" type="checkbox"/> Disposable Bailer <input type="checkbox"/> Positive Air Displacement <input type="checkbox"/> Electric Submersible	Waterra <input type="checkbox"/> Peristaltic <input type="checkbox"/> Extraction Pump Other _____	Sampling Method: Bailer <input checked="" type="checkbox"/> Disposable Bailer <input type="checkbox"/> Extraction Port <input type="checkbox"/> Dedicated Tubing Other: _____
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$\underline{2.8} \text{ (Gals.)} \times \underline{3} = \underline{8.4} \text{ Gals.}$ I Case Volume Specified Volumes Calculated Volume	<table border="1" style="width: 100%; border-collapse: collapse; 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
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
938	20.2	7.24	1696	90.5	2.8	
948	19.9	7.38	1461	40.9	5.6	
1000	19.6	7.48	1377	82	8.5	

Did well dewater? Yes No Gallons actually evacuated: 8.5

Sampling Date: 9/17/09 Sampling Time: 1004 Depth to Water:

Sample I.D.: MW-4 Laboratory: Kiff CalScience Other: CPT

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

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>090916-PC1</u>	Client: <u>STELLAR</u>
Sampler: <u>PC</u>	Date: <u>9/16/09</u>
Well I.D.: <u>MW-5</u>	Well Diameter: <u>(2)</u> 3 4 6 8 _____
Total Well Depth (TD): <u>24.82</u>	Depth to Water (DTW): <u>9.79</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 <input checked="" type="checkbox"/> Disposable Bailer Positive Air Displacement Electric Submersible	Waterra Peristaltic Extraction Pump Other _____	Sampling Method: Bailer <input checked="" type="checkbox"/> Disposable Bailer Extraction Port Dedicated Tubing Other: _____
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<u>2.5</u>	(Gals.) X	<u>3</u>	=	<u>7.5</u>	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
1236	19.4	8.21	2530	>1000	2.5	grey
1245	19.2	8.01	2642	>1000	5	"
	well dewatered @ 6 gal DTW: 22.95					
1500	19.2	8.22	2675	350	-	

Did well dewater? <input checked="" type="checkbox"/> Yes No	Gallons actually evacuated: <u>5</u>	
Sampling Date: <u>9/16/09</u>	Sampling Time: <u>1500</u>	Depth to Water: <u>9.89</u>
Sample I.D.: <u>MW-5</u>	Laboratory: Kiff CalScience Other <u>CFT</u>	
Analyzed for: <u>(TPH-G BTEX MTBE TPH-D)</u> Oxygenates (5) Other:		
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 DRILLING DATA SHEET

Project #: <u>090916-PC1</u>	Client: <u>STELLAR</u>
Sampler: <u>PC</u>	Date: <u>9/16/09</u>
Well I.D.: <u>MW-6</u>	Well Diameter: <u>2</u> 3 4 6 8 _____
Total Well Depth (TD): <u>23.31</u>	Depth to Water (DTW): <u>8.05</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 <input checked="" type="checkbox"/> Disposable Bailer Positive Air Displacement Electric Submersible	Waters Peristaltic Extraction Pump Other _____	Sampling Method: Bailer <input checked="" type="checkbox"/> Disposable Bailer Extraction Port Dedicated Tubing Other _____
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$\frac{2.4 \text{ (Gals.)} \times 3}{\text{Specified Volumes}} = 7.2 \text{ Gals.} \text{ / Calculated Volume}$	<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 * 0.163</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														

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
1135	19.8	11.06	2347	72	2.5	odor
1142	19.2	11.33	1790	143	5	
1149	18.9	11.23	1793	362	7.2	

Did well dewater? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Gallons actually evacuated: <u>7.2</u>	
Sampling Date: <u>9/16/09</u>	Sampling Time: <u>1153</u>	Depth to Water: <u>8.05</u>
Sample I.D.: <u>MW-6</u>	Laboratory: Kiff CalScience Other <u>C&T</u>	
Analyzed for: <u>TPH-G BTEX MTBE TPH-D</u> Oxygenates (5) Other:		
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>090916 - PC1</u>	Client: <u>STELLAR</u>
Sampler: <u>F3</u>	Date: <u>9-17-09</u>
Well I.D.: <u>MW-7</u>	Well Diameter: 2 3 4 6 8 <u>3/4</u>
Total Well Depth (TD): <u>19.87</u>	Depth to Water (DTW): <u>10.61</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 Disposable Bailer Positive Air Displacement Electric Submersible	Waterra <u>Peristaltic</u> Extraction Pump Other: <u>NEW TUBING</u>	Sampling Method: Bailer Disposable Bailer Extraction Port Dedicated Tubing Other: <u>NEW TUBING</u>
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$\frac{0.4 \text{ (Gals.)} \times 3}{\text{Specified Volumes}} = \frac{1.2}{\text{Calculated Volume}} \text{ Gals.}$	<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														

Time	Temp (°F or °C)	pH	Cond. (mS or μ S)	Turbidity (NTUs)	Gals. Removed	Observations
1032	17.6	8.1	8039	PRODUCT	1500 ML	
1036	16.4	8.1	11420	"	3000 ML	
PRODUCT WELL, PURGED FOR 6 MIN.						
* SAMPLE REACTED WITH HCL IN SAMPLE CONTAINER						

Did well dewater? Yes <u>No</u>	Gallons actually evacuated: <u>3000 ML</u>	
Sampling Date: <u>9-17-09</u>	Sampling Time: <u>1045</u>	Depth to Water: <u>15.80</u>
Sample I.D.: <u>MW-7</u>	Laboratory: Kiff CalScience	Other: <u>ETA-SF</u>
Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5)	Other: <u>SOB 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: <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 #: 090916-PC1	Client: STOLLAR
Sampler: F3	Date: 9-17-09
Well I.D.: MW-8 A	Well Diameter: 2 3 4 6 8 3/4"
Total Well Depth (TD): —	Depth to Water (DTW): —
Depth to Free Product: 8-55	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 Disposable Bailer Positive Air Displacement Electric Submersible	Waterra Peristaltic Extraction Pump Other _____	Sampling Method: Bailer Disposable Bailer Extraction Port Dedicated Tubing Other: <u>NEW TUBING</u>
--	--	---

_____ (Gals.) X _____ = _____ Gals. 1 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 * 0.163</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														

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
—	PRODUCT		WELL	PURGED	FOR	5 MIN
1347	16.6	7.8	2278	55	1500 mL	
1350	16.1	7.8	2129	25	3000 mL	

Did well dewater? Yes No Gallons actually evacuated: 3000 mL

Sampling Date: 9-17-09 Sampling Time: 1355 Depth to Water:

Sample I.D.: MW-8 Laboratory: Kiff CalScience Other: GATA SF

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

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>090916-PC1</u>	Client: <u>STELLAR</u>
Sampler: <u>FS</u>	Date: <u>9-17-09</u>
Well I.D.: <u>MW-9</u>	Well Diameter: 2 3 4 6 8 <u>3/4"</u>
Total Well Depth (TD): <u>1965</u>	Depth to Water (DTW): <u>970</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 Water Sampling Method: Bailer
 Disposable Bailer Peristaltic Disposable Bailer
 Positive Air Displacement Extraction Pump Extraction Port
 Electric Submersible Other _____ Dedicated Tubing
 Other: NEW TUBING

$\frac{0.4 \text{ (Gals.)} \times 3}{\text{Specified Volumes}} = \frac{1.2}{\text{Calculated Volume}} \text{ Gals.}$	<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
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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
1106	16.3	9.6	2282	106	0.4	
1110	16.2	9.7	2158	75	0.8	
1113	16.2	9.7	2176	33	1.2	

Did well dewater? Yes No Gallons actually evacuated: 1.2

Sampling Date: 9-17-09 Sampling Time: 1120 Depth to Water: 1250

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

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

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 #: 090916-PCU	Client: STELLAR
Sampler: PC	Date: 9/17/09
Well I.D.: MW-10	Well Diameter: 2 3 4 6 8 <u>3/4</u>
Total Well Depth (TD):	Depth to Water (DTW): 8.63
Depth to Free Product: 8.52	Thickness of Free Product (feet): 0.11
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 Waterra Sampling Method: Bailer
 Disposable Bailer Peristaltic Disposable Bailer
 Positive Air Displacement Extraction Pump Extraction Port
 Electric Submersible Other _____ Dedicated Tubing
 Other: NEW tubing

6 min Purge - 300 ml/min

_____ (Gals.) X _____ = _____ 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 * 0.163

Time	Temp (°F or °C)	pH	Cond. (mS or μS)	Turbidity (NTUs)	Gals. Removed	Observations
1116						begin purge w/ Peric Pump
1122						purge ended

Did well dewater? Yes NO Gallons actually evacuated: 1.8

Sampling Date: 9/16/09 Sampling Time: 1130 Depth to Water: _____

Sample I.D.: MW-10 Laboratory: Kiff CalScience Other C&T

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

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:	<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 #: <u>090916-PC1</u>	Client: <u>STELLAR</u>
Sampler: <u>F3</u>	Date: <u>9-17-09</u>
Well I.D.: <u>MW-11</u>	Well Diameter: 2 3 4 6 8 <u>(3/4")</u>
Total Well Depth (TD): <u>19.68</u>	Depth to Water (DTW): <u>10.25</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	Waters: <u>(Peristaltic)</u>	Sampling Method: Bailer
Disposable Bailer	Extraction Pump	Disposable Bailer
Positive Air Displacement	Other: _____	Extraction Port
Electric Submersible		Dedicated Tubing
		<u>(Other): NEW TUBING</u>

<u>0.4</u> (Gals.) X	<u>3</u>	=	<u>1.2</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 * 0.163

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	(GALS) Gals. Removed	Observations
1130	15.7	7.0	2640	11	0.4	
1133	15.6	7.8	2647	5	0.8	
1136	15.5	7.7	2640	4	1.2	

Did well dewater? Yes (No) Gallons actually evacuated: 1.2

Sampling Date: 9-17-09 Sampling Time: 1140 Depth to Water: 12.28

Sample I.D.: MW-11 Laboratory: Kiff CalScience (Other) STARS

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

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>090916-PC1</u>	Client: <u>STELLAR</u>
Sampler: <u>PC</u>	Date: <u>9/17/09</u>
Well I.D.: <u>MW-12</u>	Well Diameter: 2 3 4 6 8 <u>3/4</u>
Total Well Depth (TD): <u>18.96</u>	Depth to Water (DTW): <u>8.95</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 Disposable Bailer Positive Air Displacement Electric Submersible	Waterra Peristaltic Extraction Pump Other _____	Sampling Method: Bailer Disposable Bailer Extraction Port Dedicated Tubing Other: <u>New Tubing</u>
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$\frac{0.4 \text{ (Gals.)} \times 3}{\text{Specified Volumes}} = \frac{1.2 \text{ Gals.}}{\text{Calculated Volume}}$	<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 * 0.163</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														

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
1028	16.1 15.7	7.73	1537	29	0.4	odor
1031	15.7	7.64	1496	15	0.8	"
1035	15.6	7.61	1475	8	1.2	"

Did well dewater? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Gallons actually evacuated: <u>1.2</u>	
Sampling Date: <u>9/17/09</u>	Sampling Time: <u>1042</u>	Depth to Water:
Sample I.D.: <u>MW-12</u>	Laboratory: Kiff CalScience	Other: <u>CAT</u>
Analyzed for: <u>TPH-G BTEX MTBE TPH-D</u>	Oxygenates (5)	Other:
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>090916-PC1</u>	Client: <u>STELLAR</u>
Sampler: <u>PC</u>	Date: <u>9/17/09</u>
Well I.D.: <u>MW-13</u>	Well Diameter: 2 3 4 6 8 <u>3/4</u>
Total Well Depth (TD): <u>—</u>	Depth to Water (DTW): <u>991</u>
Depth to Free Product: <u>972</u>	Thickness of Free Product (feet): <u>0.19</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]:	

Purge Method: Bailer Disposable Bailer Positive Air Displacement Electric Submersible	Waterra Peristaltic Extraction Pump Other _____	Sampling Method: Bailer Disposable Bailer Extraction Port Dedicated Tubing Other: <u>New tubing</u>
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6 min purge 200ml/min

_____ (Gals.) X _____ = _____ 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 * 0.163

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
<u>1045</u>	<u>Begin Purge</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>
<u>1052</u>	<u>Stop Purge</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>

Did well dewater? Yes No Gallons actually evacuated: 1.8L

Sampling Date: 9/17/09 Sampling Time: 1100 Depth to Water: _____

Sample I.D.: MW-13 Laboratory: Kiff CalScience Other CAT

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

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 #: 090916-PCI	Client: STELLAR
Sampler: P ₂	Date: 9/17/09
Well I.D.: MW-14	Well Diameter: 2 3 4 6 8 <u>3/4</u>
Total Well Depth (TD): 19.52	Depth to Water (DTW): 8.80
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVE</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 Disposable Bailer Positive Air Displacement Electric Submersible	Waterra <input checked="" type="checkbox"/> Peristaltic <input type="checkbox"/> Extraction Pump Other _____	Sampling Method: Bailer Disposable Bailer Extraction Port Dedicated Tubing Other: <u>new tubing</u>
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200 ml/min

0.4 (Gals.) X	3	= 1.2 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 * 0.163

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
1145	16.5	8.48	1519	22	0.4	odor
1153	16.3	8.41	1523	13	0.8	u
1202	16.3	8.39	1514	9	1.2	u

Did well dewater? Yes No Gallons actually evacuated: 1.2

Sampling Date: 9/17/09 Sampling Time: 1210 Depth to Water:

Sample I.D.: MW-14 Laboratory: Kiff CalScience Other: CAT

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

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

LL MONITORING DATA SHEET

Project #: <u>090916-PC1</u>	Client: <u>STELLAR</u>
Sampler: <u>PC</u>	Date: <u>9/17/09</u>
Well I.D.: <u>MW-15</u>	Well Diameter: 2 3 4 6 8 <u>3/4</u>
Total Well Depth (TD): <u>17.90</u>	Depth to Water (DTW): <u>9.22 → measured 9/17</u>
Depth to Free Product: <u>—</u>	Thickness of Free Product (feet):
Referenced to: <u>RVC</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 Waterra Sampling Method: Bailer
 Disposable Bailer ← Peristaltic Disposable Bailer
 Positive Air Displacement Extraction Pump Extraction Port
 Electric Submersible Other _____ Dedicated Tubing
 Other: New tubing

0.4 (Gals.) X 3 = 1.2 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
1215	16.3	7.49	1333	9	0.4	odor
1220	15.9	7.43	1356	7	0.8	odor
1224	15.9	7.43	1364	7	1.2	"

Did well dewater? Yes No Gallons actually evacuated: 1.2

Sampling Date: 9/17/09 Sampling Time: 12:30 Depth to Water:

Sample I.D.: MW-15 Laboratory: Kiff CalScience Other LETT

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

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 #: 090916-PCA	Client: STELLAR
Sampler: PC	Date: 9/16/09
Well I.D.: MW-16	Well Diameter: 2 3 4 6 8 <u>3/4</u>
Total Well Depth (TD): 19.05	Depth to Water (DTW): 9.51
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 Disposable Bailer Positive Air Displacement Electric Submersible	Waterra Peristaltic Extraction Pump Other _____	Sampling Method: Bailer Disposable Bailer Extraction Port Dedicated Tubing Other: <u>New Tubing</u>
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$\frac{0.4 \text{ (Gals.)} \times 3}{\text{Specified Volumes}} = \frac{1.2}{\text{Calculated Volume}} \text{ Gals.}$	<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														

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
1400	16.8	10.61	3458	59	0.4	clear
1407	16.8	10.65	3516	28	0.8	<<
1414	16.5	10.52	3569	37	1.2	<<

Did well dewater? Yes No Gallons actually evacuated: 1.2

Sampling Date: 9/16/09 Sampling Time: 1420 Depth to Water:

Sample I.D.: MW-16 Laboratory: Kiff CalScience Other: CAT

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

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>090918-PC1</u>	Client: <u>STELLAR</u>
Sampler: <u>PC</u>	Date: <u>9/17/09</u>
Well I.D.: <u>MW-17</u>	Well Diameter: 2 3 4 6 8 <u>3/4</u>
Total Well Depth (TD): <u>19.49</u>	Depth to Water (DTW): <u>9.31</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 Disposable Bailer Positive Air Displacement Electric Submersible	Waterra <input checked="" type="checkbox"/> Peristaltic Extraction Pump Other _____	Sampling Method: Bailer Disposable Bailer Extraction Port Dedicated Tubing Other: <u>New Tubing</u>
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$$\frac{0.4 \text{ (Gals.)} \times 3}{\text{Specified Volumes}} = \frac{1.2}{\text{Calculated Volume}} \text{ Gals.}$$

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
1006	17.9	7.83	1310	5.3	0.4	odor
1009	17.6	7.83	1323	19.6	0.8	"
1012	17.6	7.88	1329	2.43	1.2	"

Did well dewater? Yes No Gallons actually evacuated: 1.2

Sampling Date: 9/17/09 Sampling Time: 1020 Depth to Water:

Sample I.D.: MW-17 Laboratory: Kiff CalScience Other C&T

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

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>090910-PCI</u>	Client: <u>STELLAR</u>
Sampler: <u>PC</u>	Date: <u>9/16/09</u>
Well I.D.: <u>MW-18</u>	Well Diameter: 2 3 4 6 8 <u>3/4</u>
Total Well Depth (TD): <u>19.55</u>	Depth to Water (DTW): <u>8.50</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	Waters	Sampling Method: Bailer
Disposable Bailer	<input checked="" type="checkbox"/> Peristaltic	Disposable Bailer
Positive Air Displacement	Extraction Pump	Extraction Port
Electric Submersible	Other _____	Dedicated Tubing
		Other: <u>New Tubing</u>

200 ml/min

<u>0.4</u> (Gals.) X	<u>3</u>	= <u>1.2</u> 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
<u>1325</u>	<u>17.1</u>	<u>7.33</u>	<u>7800</u>	<u>560</u>	<u>0.4</u>	<u>gray</u>
<u>1332</u>	<u>16.4</u>	<u>7.23</u>	<u>7480</u>	<u>343</u>	<u>0.8</u>	<u>"</u>
<u>1340</u>	<u>16.3</u>	<u>7.24</u>	<u>7683</u>	<u>777</u>	<u>1.2</u>	<u>"</u>

Did well dewater? Yes No Gallons actually evacuated: 1.2

Sampling Date: 9/16/09 Sampling Time: 1345 Depth to Water:

Sample I.D.: MW-18 Laboratory: Kiff CalScience Other CDT

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

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 #: 090916-P81	Client: STOLLAR
Sampler: F ₃	Date: 9-17-09
Well I.D.: MW-E	Well Diameter: <u>(2)</u> 3 4 6 8 _____
Total Well Depth (TD): 44.90	Depth to Water (DTW): 10.22
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 Waterra Sampling Method: Bailer
 Disposable Bailer Peristaltic Disposable Bailer
 Positive Air Displacement Extraction Pump Extraction Port
 Electric Submersible Other: X Tubing w/ check valve Dedicated Tubing
 Other: X New Tubing

$\frac{5.6 \text{ (Gals.)} \times 3}{\text{Specified Volumes}} = \frac{16.8}{\text{Calculated Volume}} \text{ Gals.}$	<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														

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
1205	17.0	7.7	3511	177	5.6	DTW: 24.75
1220	—	WELL	DOWATERED	@ 9	GALS	—
1400	17.4	7.61	3421	98	—	

Did well dewater? (Yes) No Gallons actually evacuated: 9

Sampling Date: 9-17-09 Sampling Time: 1400 Depth to Water: 10.18

Sample I.D.: MW-E Laboratory: Kiff CalScience (Other) TA-SF

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

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>090916-PCI</u>	Client: <u>STELLAR</u>
Sampler: <u>PC</u>	Date: <u>9/17/09</u>
Well I.D.: <u>RW-1</u>	Well Diameter: 2 3 4 6 8 <u>10</u>
Total Well Depth (TD):	Depth to Water (DTW): <u>9.45</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>EVO</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 Disposable Bailer Positive Air Displacement Electric Submersible	Waterra Peristaltic Extraction Pump Other _____	Sampling Method: Bailer Disposable Bailer Extraction Port Dedicated Tubing Other: <u>new tubing</u>
--	---	---

Laminar Purge - @ 400 ml/min

_____ (Gals.) X _____	= _____ 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
<u>1335</u>	<u>Begin</u>	<u>purge w/ Perist Pump</u>				
<u>1341</u>	<u>End Purge</u>		<u>2.5L removed</u>		<u>unable to measure DTW</u>	<u>or DISPH</u>

Did well dewater? Yes No ~~Gallons~~ actually evacuated: 2.5 L

Sampling Date: 9/17/09 Sampling Time: 1350 Depth to Water: unable to measure

Sample I.D.: RW-1 Laboratory: Kiff CalScience Other CFT

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

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

APPENDIX C

Analytical Laboratory Report and Chain-of-Custody Record



Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878





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

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

Laboratory Job Number 215050
ANALYTICAL REPORT

Stellar Environmental Solutions
2198 6th Street
Berkeley, CA 94710

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

Table with 2 columns: Sample ID and Lab ID. Lists various sample identifiers (MW-4, MW-17, etc.) and their corresponding lab IDs (215050-001, 215050-002, etc.).

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 signature. 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: [Handwritten Signature]
Project Manager

Date: 10/02/2009

NELAP # 01107CA

CASE NARRATIVE

Laboratory number: 215050
Client: Stellar Environmental Solutions
Project: 2007-65
Location: Bay Center Apts
Request Date: 09/18/09
Samples Received: 09/18/09

This data package contains sample and QC results for eighteen water samples, requested for the above referenced project on 09/18/09. The samples were received cold and intact.

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

High responses were observed for a number of analytes in the CCV analyzed 09/28/09 14:22; affected data was qualified with "b". High surrogate recovery was observed for bromofluorobenzene (FID) in MW-13 (lab # 215050-004), due to interference from coeluting hydrocarbon peaks. High surrogate recoveries were observed for trifluorotoluene (FID) in MW-13 (lab # 215050-004) and MW-11 (lab # 215050-013), due to interference from coeluting hydrocarbon peaks. MW-7 (lab # 215050-011) and MW-18 (lab # 215050-017) had pH greater than 2. No other analytical problems were encountered.

TPH-Extractables by GC (EPA 8015B):

MW-13 (lab # 215050-004) and MW-8 (lab # 215050-014) were diluted due to the dark and viscous nature of the sample extracts. No other analytical problems were encountered.

Chain of Custody Record

215050

Lab job no. _____

Date 9/17/09

Page 2 of 3

Laboratory CET Method of Shipment LAB COURIER

Address 2323 FIFTH ST Shipment No. _____

BERKELEY, CA

Airbill No. _____

Project Owner _____ Cooler No. _____

Site Address 6400 CHRISTIE AVE Project Manager TEAL GLASS

BERKELEY, CA

Telephone No. (510) 644-3123

Project Name BAY CENTER APARTMENT Fax No. (510) 644-3859

Project Number 2007-65 Samplers: (Signature) [Signature]

Field Sample Number	Location/Depth	Date	Time	Sample Type	Type/Size of Container	Preservation			Analysis Required	Remarks
						Cooler	Chemical			
10	MW-3	9-17-09	950	W	HCL & NP VOA & I LAMBDA					
11	MW-7		1045							
12	MW-9		1120							
13	MW-11		1140							
14	MW-8		1355							

Filtered
 No. of Containers
 TEH-D (805m)
 TPH-G (805m)
 BTEX + MTBE

Relinquished by: <u>[Signature]</u> Signature _____ Printed <u>F. SRINONGTOM</u> Company <u>BLAND TECH SER</u>	Date <u>9/17/09</u> Time _____	Received by: <u>[Signature]</u> Signature _____ Printed <u>F. SRINONGTOM</u> Company <u>BLAND TECH SERVICES</u>	Date <u>9-17-09</u> Time <u>1805</u>	Relinquished by: <u>[Signature]</u> Signature _____ Printed <u>Michael Numb</u> Company <u>BTB</u>	Date <u>9/18/09</u> Time <u>1520</u>	Received by: <u>[Signature]</u> Signature _____ Printed <u>Ricky Glass</u> Company <u>CET</u>	Date <u>9/18/09</u> Time <u>1500</u>
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Turnaround Time: <u>STANDARD</u> Comments: <u>EDF REQUIRED</u> <u>GLOBAL ID # SLT 2005561</u>	Relinquished by: _____ Signature _____ Printed _____ Company _____
Date _____ Time _____	Received by: _____ Signature _____ Printed _____ Company _____

2000-00-01

intact cold RA

Chain of Custody Record

Lab job no. 215050
 Date 9/17/09
 Page 1 of 3

Laboratory CYT Method of Shipment LAB COURIER
 Address 2323 FIFTH ST Shipment No. _____
BERKELEY, CA
 Project Owner _____ Airbill No. _____
 Site Address 6400 CHRISTIE AVE Project Manager TEAL GLASS
BERKELEY, CA Telephone No. (510) 644-3123
 Project Name BAY CENTER APARTMENT Fax No. (510) 644-3859
 Project Number 2007-65 Samplers: (Signature) Patlin

Filtered
 No. of Containers
TEH-D (8015)
TPH-G (8015)
BTEX Y MTRC

	Field Sample Number	Location/ Depth	Date	Time	Sample Type	Type/Size of Container	Preservation		Analysis Required	Remarks
							Cooler	Chemical		
1	MW-4		9/17/09	1004	W	40ml Vial/16 Amber	Y	HEI/NE	X X X	
2	MW-7			1020					X X X	
3	MW-12			1042					X X X	
4	MW-13			1100					X X X	
5	MW-10			1130					X X X	
6	MW-14			1210					X X X	
7	MW-15			1230					X X X	
8	RW-1			1350					X X X	
9	MW-E			1400					X X X	

Relinquished by: Signature <u>Patlin</u> Printed <u>Pate Cornish</u> Company <u>BTS</u>	Date <u>9/17/09</u> Time <u>1600</u>	Received by: Signature <u>Patlin</u> Printed <u>Pate Cornish</u> Company <u>BTS</u>	Date <u>9/17/09</u> Time <u>1600</u>	Relinquished by: Signature <u>[Signature]</u> Printed <u>Michael Minkler</u> Company <u>BTS</u>	Date <u>9/18/09</u> Time <u>1500</u>	Received by: Signature <u>[Signature]</u> Printed <u>Ricky Grams</u> Company <u>CYT</u>	Date <u>9/18/09</u> Time <u>1500</u>
--	---	--	---	--	---	--	---

Turnaround Time: STANDARD
 Comments: EDF REQUIRED
GLOBAL ID # SLT2005561

10-00-0000

intact cold Rg

Chain of Custody Record

215050

Lab job no. _____
 Date 9/16/09
 Page 2 of 3

Laboratory CYT Method of Shipment LAB COURIER
 Address 2323 FIFTH ST Shipment No. _____
BERKELEY, CA
 Project Owner _____ Airbill No. _____
 Site Address 6400 CHRISTIE AVE Project Manager TEAL GLASS
BERKELEY, CA Telephone No. (510) 644-3123
 Project Name BAY CENTER APARTMENT Fax No. (510) 644-3859
 Project Number 2007-65 Samplers: (Signature) _____

Filtered
 No. of Containers
TEH-D (805ml)
TPH-G (805ml)
BTEX Y M TBE

Analysis Required

Remarks

Field Sample Number	Location/Depth	Date	Time	Sample Type	Type/Size of Container	Preservation		X	X	X											
						Cooler	Chemical														
15	MW-6	9/16/09	1153	W	40ml Non/1L Amber	5	HCl/ASP	X	X	X											
16	MW-5		1500					X	X	X											
17	MW-18		1345					X	X	X											
18	MW-16		1420					X	X	X											

Relinquished by: <u>Pete Cornich</u> Signature _____ Printed <u>Pete Cornich</u> Company <u>BTS</u>	Date <u>9/16/09</u> Time <u>1645</u>	Received by: <u>Pete Cornich</u> Signature _____ Printed <u>Pete Cornich</u> Company <u>BTS</u>	Date <u>9/16/09</u> Time <u>1615</u>	Relinquished by: <u>Michael Nurobala</u> Signature _____ Printed <u>Michael Nurobala</u> Company <u>BTS</u>	Date <u>9/16/09</u> Time <u>1520</u>	Received by: <u>Ricky Gross</u> Signature _____ Printed <u>Ricky Gross</u> Company <u>CST</u>	Date <u>9/16/09</u> Time <u>1520</u>
--	---	--	---	--	---	--	---

Turnaround Time: <u>STANDARD</u> Comments: <u>EDF REQUIRED</u> <u>GLOBAL ID # SLT 2005561</u>	Relinquished by: _____ Signature _____ Printed _____ Company _____
Date _____ Time _____	Received by: _____ Signature _____ Printed _____ Company _____

2000-00-01

intact cold kg

COOLER RECEIPT CHECKLIST



Login # 215050 Date Received 9/18/09 Number of coolers 2
 Client SES Project BAY CENTER APARTMENT

Date Opened 9/18/09 By (print) M. Villanueva (sign) [Signature]
 Date Logged in 9/21/09 By (print) ↓ (sign) ↓

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
- Bags
- None
- Cloth material
- Cardboard
- Styrofoam
- Paper towels

7. Temperature documentation:

Type of ice used: Wet Blue/Gel 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

SAMPLE # 2, 3, 4, 5, 7, 8, 11 & 16 4 vials w/ BUBBLE
 SAMPLE # 6 & 10 1/4 vials w/ BUBBLE
 SAMPLE # 9 & 18 1/4 vials w/ BUBBLE
 SAMPLE # 17 3/4 vials w/ BUBBLE
 SAMPLE # 4 OIL IN SAMPLE

Curtis & Tompkins Laboratories Analytical Report

Lab #: 215050	Location: Bay Center Apts
Client: Stellar Environmental Solutions	Prep: EPA 5030B
Project#: 2007-65	
Matrix: Water	Received: 09/18/09
Units: ug/L	

Field ID: MW-4	Batch#: 155391
Type: SAMPLE	Sampled: 09/17/09
Lab ID: 215050-001	Analyzed: 09/29/09
Diln Fac: 1.000	

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	64-147	EPA 8015B
Bromofluorobenzene (FID)	104	71-138	EPA 8015B
Trifluorotoluene (PID)	95	45-151	EPA 8021B
Bromofluorobenzene (PID)	94	54-134	EPA 8021B

Field ID: MW-17	Batch#: 155391
Type: SAMPLE	Sampled: 09/17/09
Lab ID: 215050-002	Analyzed: 09/29/09
Diln Fac: 5.000	

Analyte	Result	RL	Analysis
Gasoline C7-C12	2,200	250	EPA 8015B
MTBE	ND	10	EPA 8021B
Benzene	800	2.5	EPA 8021B
Toluene	95	2.5	EPA 8021B
Ethylbenzene	82	2.5	EPA 8021B
m,p-Xylenes	85	2.5	EPA 8021B
o-Xylene	26	2.5	EPA 8021B

Surrogate	%REC	Limits	Analysis
Trifluorotoluene (FID)	130	64-147	EPA 8015B
Bromofluorobenzene (FID)	110	71-138	EPA 8015B
Trifluorotoluene (PID)	120	45-151	EPA 8021B
Bromofluorobenzene (PID)	106	54-134	EPA 8021B

*= Value outside of QC limits; see narrative
 C= Presence confirmed, but RPD between columns exceeds 40%
 Y= Sample exhibits chromatographic pattern which does not resemble standard
 ND= Not Detected
 RL= Reporting Limit

Curtis & Tompkins Laboratories Analytical Report

Lab #: 215050	Location: Bay Center Apts
Client: Stellar Environmental Solutions	Prep: EPA 5030B
Project#: 2007-65	
Matrix: Water	Received: 09/18/09
Units: ug/L	

Field ID: MW-15	Batch#: 155391
Type: SAMPLE	Sampled: 09/17/09
Lab ID: 215050-007	Analyzed: 09/29/09
Diln Fac: 25.00	

Analyte	Result	RL	Analysis
Gasoline C7-C12	2,300	1,300	EPA 8015B
MTBE	ND	50	EPA 8021B
Benzene	6,200	13	EPA 8021B
Toluene	71	13	EPA 8021B
Ethylbenzene	68	13	EPA 8021B
m,p-Xylenes	42	13	EPA 8021B
o-Xylene	ND	13	EPA 8021B

Surrogate	%REC	Limits	Analysis
Trifluorotoluene (FID)	102	64-147	EPA 8015B
Bromofluorobenzene (FID)	104	71-138	EPA 8015B
Trifluorotoluene (PID)	105	45-151	EPA 8021B
Bromofluorobenzene (PID)	101	54-134	EPA 8021B

Field ID: RW-1	Batch#: 155391
Type: SAMPLE	Sampled: 09/17/09
Lab ID: 215050-008	Analyzed: 09/29/09
Diln Fac: 1.000	

Analyte	Result	RL	Analysis
Gasoline C7-C12	350	50	EPA 8015B
MTBE	ND	2.0	EPA 8021B
Benzene	120	0.50	EPA 8021B
Toluene	3.1 C	0.50	EPA 8021B
Ethylbenzene	11	0.50	EPA 8021B
m,p-Xylenes	1.6 C	0.50	EPA 8021B
o-Xylene	ND	0.50	EPA 8021B

Surrogate	%REC	Limits	Analysis
Trifluorotoluene (FID)	136	64-147	EPA 8015B
Bromofluorobenzene (FID)	124	71-138	EPA 8015B
Trifluorotoluene (PID)	119	45-151	EPA 8021B
Bromofluorobenzene (PID)	113	54-134	EPA 8021B

*= Value outside of QC limits; see narrative
 C= Presence confirmed, but RPD between columns exceeds 40%
 Y= Sample exhibits chromatographic pattern which does not resemble standard
 ND= Not Detected
 RL= Reporting Limit

Curtis & Tompkins Laboratories Analytical Report

Lab #: 215050	Location: Bay Center Apts
Client: Stellar Environmental Solutions	Prep: EPA 5030B
Project#: 2007-65	
Matrix: Water	Received: 09/18/09
Units: ug/L	

Field ID: MW-7 Diln Fac: 5.000
 Type: SAMPLE Sampled: 09/17/09
 Lab ID: 215050-011

Analyte	Result	RL	Batch#	Analyzed	Analysis
Gasoline C7-C12	620	250	155452	09/30/09	EPA 8015B
MTBE	ND	10	155452	09/30/09	EPA 8021B
Benzene	310	2.5	155452	09/30/09	EPA 8021B
Toluene	9.5	2.5	155536	10/01/09	EPA 8021B
Ethylbenzene	27	2.5	155536	10/01/09	EPA 8021B
m,p-Xylenes	93	2.5	155536	10/01/09	EPA 8021B
o-Xylene	24	2.5	155536	10/01/09	EPA 8021B

Surrogate	%REC	Limits	Batch#	Analyzed	Analysis
Trifluorotoluene (FID)	94	64-147	155452	09/30/09	EPA 8015B
Bromofluorobenzene (FID)	96	71-138	155452	09/30/09	EPA 8015B
Trifluorotoluene (PID)	91	45-151	155452	09/30/09	EPA 8021B
Bromofluorobenzene (PID)	93	54-134	155452	09/30/09	EPA 8021B

Field ID: MW-9 Batch#: 155452
 Type: SAMPLE Sampled: 09/17/09
 Lab ID: 215050-012 Analyzed: 09/30/09
 Diln Fac: 1.000

Analyte	Result	RL	Analysis
Gasoline C7-C12	98 Y	50	EPA 8015B
MTBE	ND	2.0	EPA 8021B
Benzene	4.0	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)	94	64-147	EPA 8015B
Bromofluorobenzene (FID)	97	71-138	EPA 8015B
Trifluorotoluene (PID)	87	45-151	EPA 8021B
Bromofluorobenzene (PID)	88	54-134	EPA 8021B

*= Value outside of QC limits; see narrative
 C= Presence confirmed, but RPD between columns exceeds 40%
 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 #:	215050	Location:	Bay Center Apts
Client:	Stellar Environmental Solutions	Prep:	EPA 5030B
Project#:	2007-65	Analysis:	EPA 8021B
Matrix:	Water	Batch#:	155391
Units:	ug/L	Analyzed:	09/28/09
Diln Fac:	1.000		

Type: BS Lab ID: QC514005

Analyte	Spiked	Result	%REC	Limits
MTBE	20.00	20.00	100	58-143
Benzene	20.00	23.29 b	116	75-116
Toluene	20.00	23.85 b	119	72-124
Ethylbenzene	20.00	23.72 b	119	74-127
m,p-Xylenes	20.00	23.50 b	118	73-128
o-Xylene	20.00	23.69 b	118	73-126

Surrogate	%REC	Limits
Trifluorotoluene (PID)	109	45-151
Bromofluorobenzene (PID)	114	54-134

Type: BSD Lab ID: QC514006

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
MTBE	20.00	20.20	101	58-143	1	31
Benzene	20.00	20.66 b	103	75-116	12	22
Toluene	20.00	21.02 b	105	72-124	13	24
Ethylbenzene	20.00	20.92 b	105	74-127	13	25
m,p-Xylenes	20.00	20.56 b	103	73-128	13	27
o-Xylene	20.00	20.98 b	105	73-126	12	25

Surrogate	%REC	Limits
Trifluorotoluene (PID)	104	45-151
Bromofluorobenzene (PID)	110	54-134

b= See narrative

RPD= Relative Percent Difference

Batch QC Report

Curtis & Tompkins Laboratories Analytical Report

Lab #:	215050	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:	QC514007	Batch#:	155391
Matrix:	Water	Analyzed:	09/28/09
Units:	ug/L		

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	2,000	2,077	104	77-118

Surrogate	%REC	Limits
Trifluorotoluene (FID)	144	64-147
Bromofluorobenzene (FID)	135	71-138

Batch QC Report

Curtis & Tompkins Laboratories Analytical Report

Lab #:	215050	Location:	Bay Center Apts
Client:	Stellar Environmental Solutions	Prep:	EPA 5030B
Project#:	2007-65	Analysis:	EPA 8015B
Field ID:	MW-5	Batch#:	155391
MSS Lab ID:	215050-016	Sampled:	09/16/09
Matrix:	Water	Received:	09/18/09
Units:	ug/L	Analyzed:	09/29/09
Diln Fac:	1.000		

Type: MS Lab ID: QC514008

Analyte	MSS Result	Spiked	Result	%REC	Limits
Gasoline C7-C12	14.76	2,000	1,841	91	66-110

Surrogate	%REC	Limits
Trifluorotoluene (FID)	118	64-147
Bromofluorobenzene (FID)	111	71-138

Type: MSD Lab ID: QC514009

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	2,000	1,665	82	66-110	10	11

Surrogate	%REC	Limits
Trifluorotoluene (FID)	115	64-147
Bromofluorobenzene (FID)	105	71-138

RPD= Relative Percent Difference

Batch QC Report
Curtis & Tompkins Laboratories Analytical Report

Lab #:	215050	Location:	Bay Center Apts
Client:	Stellar Environmental Solutions	Prep:	EPA 5030B
Project#:	2007-65	Analysis:	EPA 8021B
Matrix:	Water	Diln Fac:	1.000
Units:	ug/L	Batch#:	155452

Type: BS Analyzed: 09/29/09
 Lab ID: QC514249

Analyte	Spiked	Result	%REC	Limits
MTBE	10.00	9.008	90	58-143
Benzene	10.00	8.623	86	75-116
Toluene	10.00	9.568	96	72-124
Ethylbenzene	10.00	9.786	98	74-127
m,p-Xylenes	10.00	9.931	99	73-128
o-Xylene	10.00	9.579	96	73-126

Surrogate	%REC	Limits
Trifluorotoluene (PID)	77	45-151
Bromofluorobenzene (PID)	79	54-134

Type: BSD Analyzed: 09/30/09
 Lab ID: QC514250

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
MTBE	20.00	20.52	103	58-143	13	31
Benzene	20.00	19.43	97	75-116	12	22
Toluene	20.00	19.57	98	72-124	2	24
Ethylbenzene	20.00	19.93	100	74-127	2	25
m,p-Xylenes	20.00	19.60	98	73-128	1	27
o-Xylene	20.00	19.46	97	73-126	2	25

Surrogate	%REC	Limits
Trifluorotoluene (PID)	78	45-151
Bromofluorobenzene (PID)	81	54-134

RPD= Relative Percent Difference

Batch QC Report

Curtis & Tompkins Laboratories Analytical Report

Lab #:	215050	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:	QC514251	Batch#:	155452
Matrix:	Water	Analyzed:	09/29/09
Units:	ug/L		

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	1,000	1,137	114	77-118

Surrogate	%REC	Limits
Trifluorotoluene (FID)	116	64-147
Bromofluorobenzene (FID)	105	71-138

Batch QC Report

Curtis & Tompkins Laboratories Analytical Report

Lab #:	215050	Location:	Bay Center Apts
Client:	Stellar Environmental Solutions	Prep:	EPA 5030B
Project#:	2007-65	Analysis:	EPA 8015B
Field ID:	MW-6	Batch#:	155452
MSS Lab ID:	215050-015	Sampled:	09/16/09
Matrix:	Water	Received:	09/18/09
Units:	ug/L	Analyzed:	09/29/09
Diln Fac:	1.000		

Type: MS Lab ID: QC514252

Analyte	MSS Result	Spiked	Result	%REC	Limits
Gasoline C7-C12	37.88	2,000	2,035	100	66-110

Surrogate	%REC	Limits
Trifluorotoluene (FID)	128	64-147
Bromofluorobenzene (FID)	116	71-138

Type: MSD Lab ID: QC514253

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	2,000	2,003	98	66-110	2	11

Surrogate	%REC	Limits
Trifluorotoluene (FID)	122	64-147
Bromofluorobenzene (FID)	109	71-138

RPD= Relative Percent Difference

Batch QC Report
Curtis & Tompkins Laboratories Analytical Report

Lab #:	215050	Location:	Bay Center Apts
Client:	Stellar Environmental Solutions	Prep:	EPA 5030B
Project#:	2007-65		
Matrix:	Water	Batch#:	155536
Units:	ug/L	Analyzed:	10/01/09
Diln Fac:	1.000		

Type: BS Lab ID: QC514597

Analyte	Spiked	Result	%REC	Limits	Analysis
Gasoline C7-C12	1,000	1,040	104	77-118	EPA 8015B

Surrogate	%REC	Limits	Analysis
Trifluorotoluene (FID)	118	64-147	EPA 8015B
Bromofluorobenzene (FID)	109	71-138	EPA 8015B
Trifluorotoluene (PID)	95	45-151	EPA 8021B
Bromofluorobenzene (PID)	84	54-134	EPA 8021B

Type: BSD Lab ID: QC514598

Analyte	Spiked	Result	%REC	Limits	RPD	Lim	Analysis
Gasoline C7-C12	1,000	1,086	109	77-118	4	23	EPA 8015B

Surrogate	%REC	Limits	Analysis
Trifluorotoluene (FID)	116	64-147	EPA 8015B
Bromofluorobenzene (FID)	104	71-138	EPA 8015B
Trifluorotoluene (PID)	95	45-151	EPA 8021B
Bromofluorobenzene (PID)	82	54-134	EPA 8021B

RPD= Relative Percent Difference

Batch QC Report

Curtis & Tompkins Laboratories Analytical Report

Lab #:	215050	Location:	Bay Center Apts
Client:	Stellar Environmental Solutions	Prep:	EPA 5030B
Project#:	2007-65		
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC514680	Batch#:	155536
Matrix:	Water	Analyzed:	10/02/09
Units:	ug/L		

Analyte	Spiked	Result	%REC	Limits	Analysis
Gasoline C7-C12	2,000	2,275	114	77-118	EPA 8015B

Surrogate	%REC	Limits	Analysis
Trifluorotoluene (FID)	137	64-147	EPA 8015B
Bromofluorobenzene (FID)	114	71-138	EPA 8015B
Trifluorotoluene (PID)	107	45-151	EPA 8021B
Bromofluorobenzene (PID)	89	54-134	EPA 8021B

Batch QC Report

Curtis & Tompkins Laboratories Analytical Report

Lab #:	215050	Location:	Bay Center Apts
Client:	Stellar Environmental Solutions	Prep:	EPA 5030B
Project#:	2007-65		
Field ID:	ZZZZZZZZZZ	Batch#:	155536
MSS Lab ID:	215133-001	Sampled:	09/23/09
Matrix:	Water	Received:	09/23/09
Units:	ug/L	Analyzed:	10/01/09
Diln Fac:	1.000		

Type: MS Lab ID: QC514681

Analyte	MSS Result	Spiked	Result	%REC	Limits	Analysis
Gasoline C7-C12	17.31	2,000	2,222	110	66-110	EPA 8015B

Surrogate	%REC	Limits	Analysis
Trifluorotoluene (FID)	140	64-147	EPA 8015B
Bromofluorobenzene (FID)	114	71-138	EPA 8015B
Trifluorotoluene (PID)	114	45-151	EPA 8021B
Bromofluorobenzene (PID)	89	54-134	EPA 8021B

Type: MSD Lab ID: QC514682

Analyte	Spiked	Result	%REC	Limits	RPD	Lim	Analysis
Gasoline C7-C12	2,000	2,142	106	66-110	4	11	EPA 8015B

Surrogate	%REC	Limits	Analysis
Trifluorotoluene (FID)	137	64-147	EPA 8015B
Bromofluorobenzene (FID)	113	71-138	EPA 8015B
Trifluorotoluene (PID)	116	45-151	EPA 8021B
Bromofluorobenzene (PID)	89	54-134	EPA 8021B

RPD= Relative Percent Difference

Sequence File: \\Lims\gdrive\ezchrom\Projects\GC19\Sequence\271.seq
 Sample Name: 215050-002,155391,5x,mbtxe+tvh
 Data File: \\Lims\gdrive\ezchrom\Projects\GC19\Data\271_025
 Instrument: GC19 (Offline) Vial: N/A Operator: Tvh 2. Analyst (lims2k3\tvh2)
 Method Name: \\Lims\gdrive\ezchrom\Projects\GC19\Method\tvhbtxe271.met

Software Version 3.1.7
 Run Date: 9/29/2009 1:15:06 AM
 Analysis Date: 9/29/2009 10:38:12 AM
 Sample Amount: 5 Multiplier: 5
 Vial & pH or Core ID: a1.0
 hs<1

---< General Method Parameters >---

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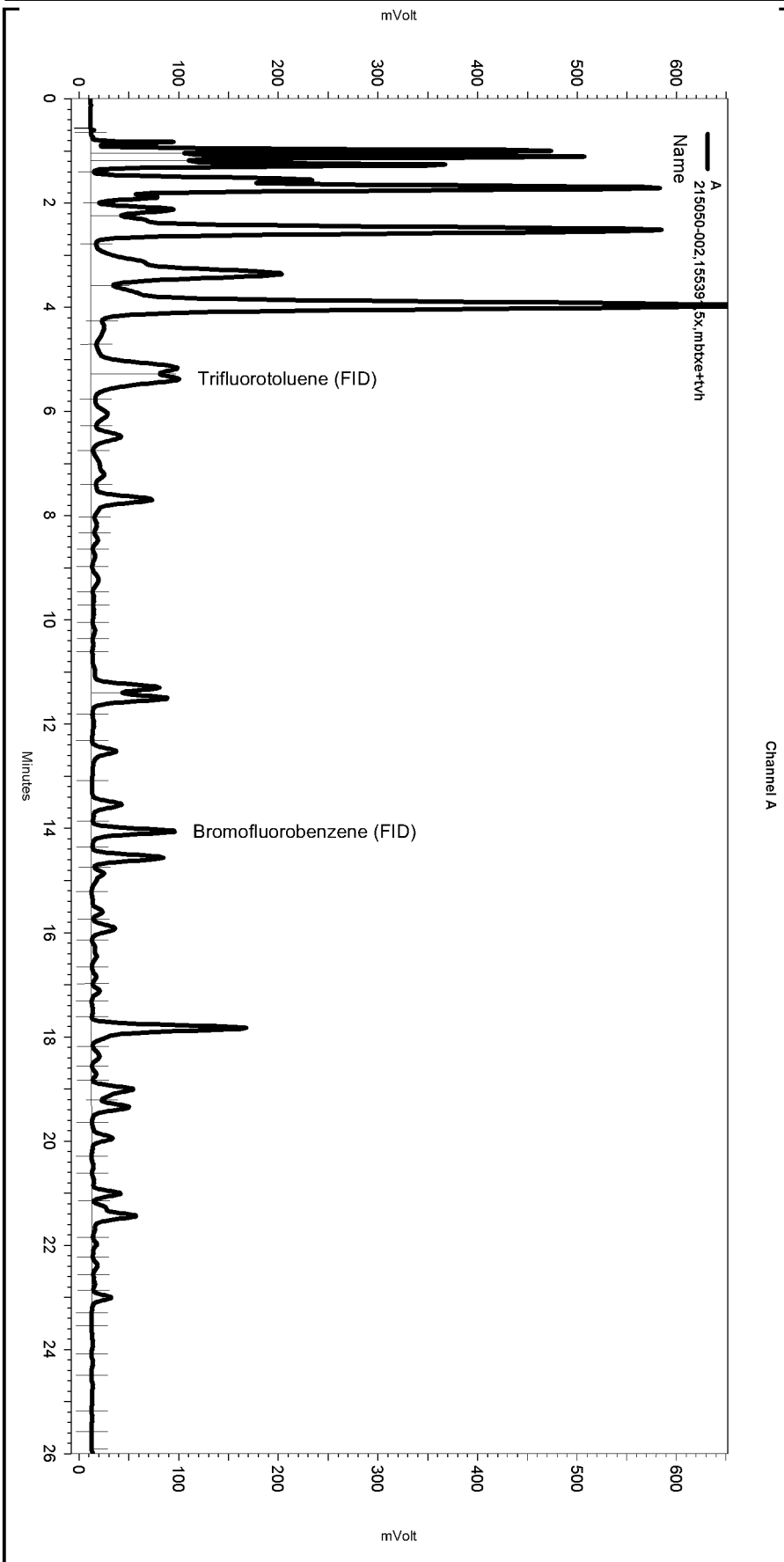
Integration Events

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

Manual Integration Fixes

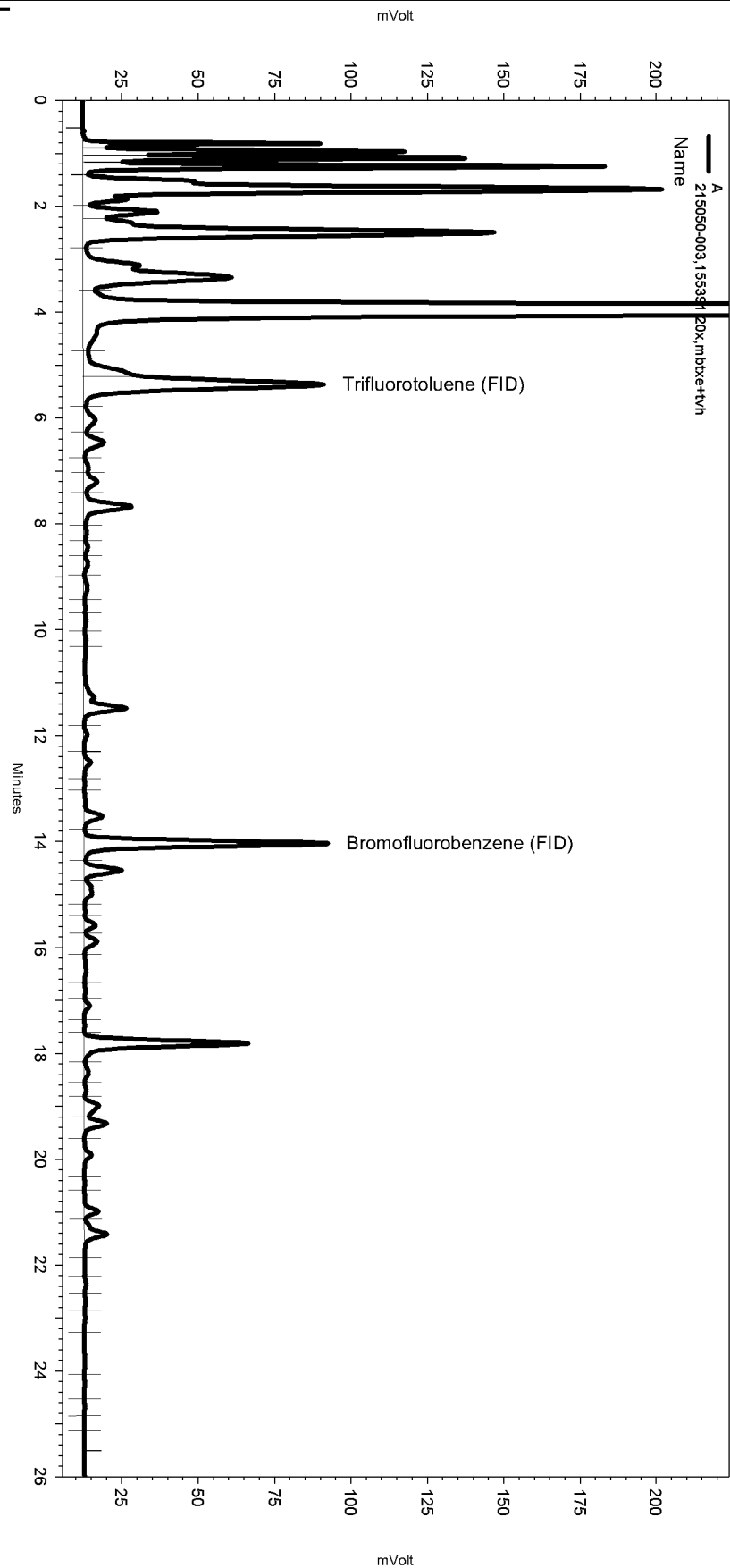
Data File: \\Lims\gdrive\ezchrom\Projects\GC19\Data\271_025

Enabled	Event Type	Start (Minutes)	Stop (Minutes)	Value
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Sequence File: \\Lims\gdrive\ezchrom\Projects\GC19\Sequence\271.seq
 Sample Name: 215050-003,155391,20x,mbtxe+tvh
 Data File: \\Lims\gdrive\ezchrom\Projects\GC19\Data\271_026
 Instrument: GC19 (Offline) Vial: N/A Operator: Tvh 2. Analyst (lims2k3\tvh2)
 Method Name: \\Lims\gdrive\ezchrom\Projects\GC19\Method\tvhbtxe265.met

Software Version 3.1.7
 Run Date: 9/29/2009 1:52:39 AM
 Analysis Date: 9/29/2009 11:30:17 AM
 Sample Amount: 5 Multiplier: 5
 Vial & pH or Core ID: a1.0
 hs<1



Channel A

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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

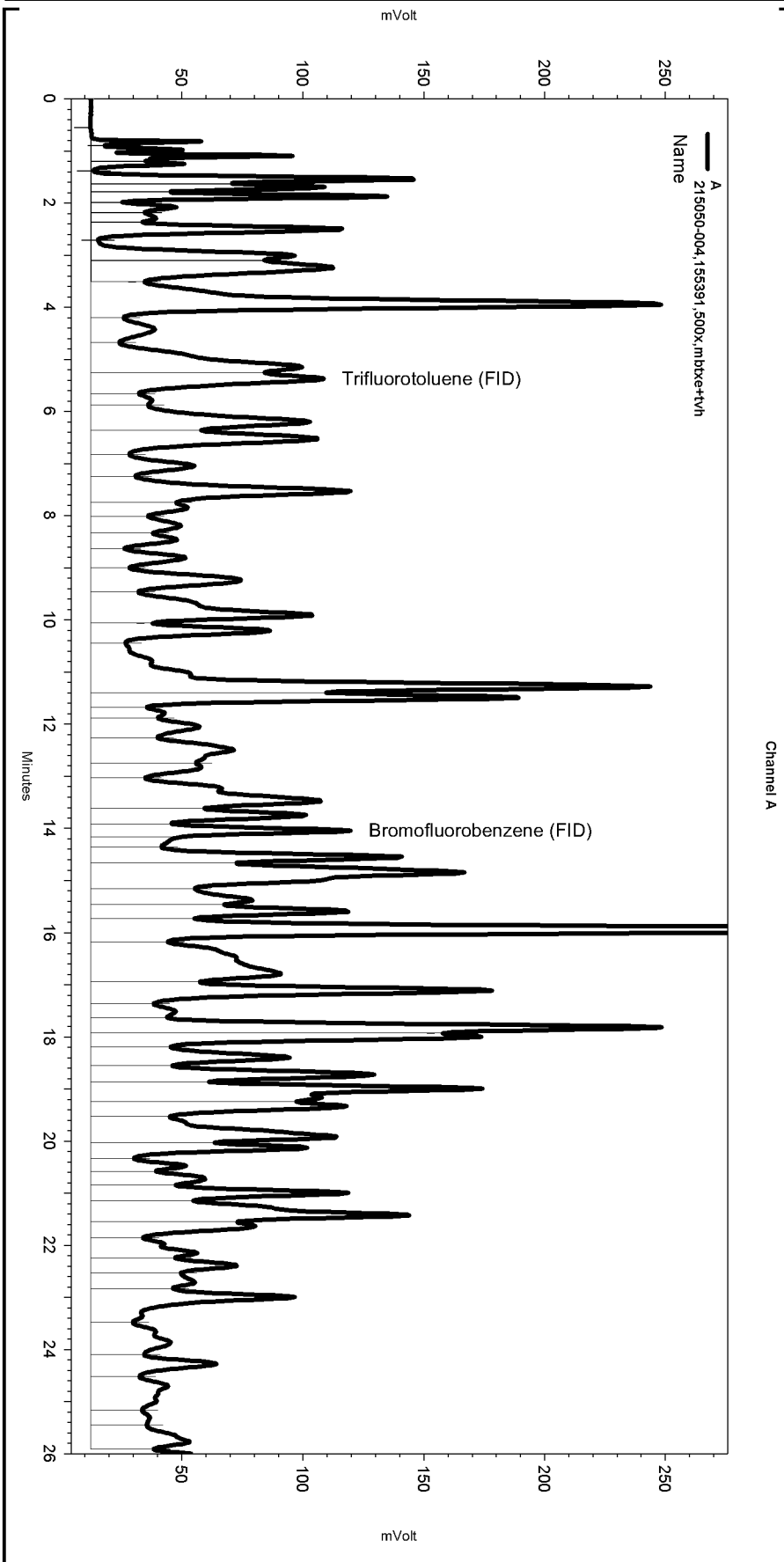
Manual Integration Fixes

Data File: \\Lims\gdrive\ezchrom\Projects\GC19\Data\271_026

Enabled	Event Type	Start (Minutes)	Stop (Minutes)	Value
Yes	Split Peak	5.215	0	0

Sequence File: \\Lims\gdrive\ezchrom\Projects\GC19\Sequence\271.seq
 Sample Name: 215050-004,155391,500x,mbtxe+tvh
 Data File: \\Lims\gdrive\ezchrom\Projects\GC19\Data\271_030
 Instrument: GC19 (Offline) Vial: N/A Operator: Tvh 2. Analyst (lims2k3\tvh2)
 Method Name: \\Lims\gdrive\ezchrom\Projects\GC19\Method\TVHBTXE265.MET

Software Version 3.1.7
 Run Date: 9/29/2009 4:22:59 AM
 Analysis Date: 9/29/2009 11:36:04 AM
 Sample Amount: 5 Multiplier: 5
 Vial & pH or Core ID: a1.0



---< General Method Parameters >---

No items selected for this section

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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

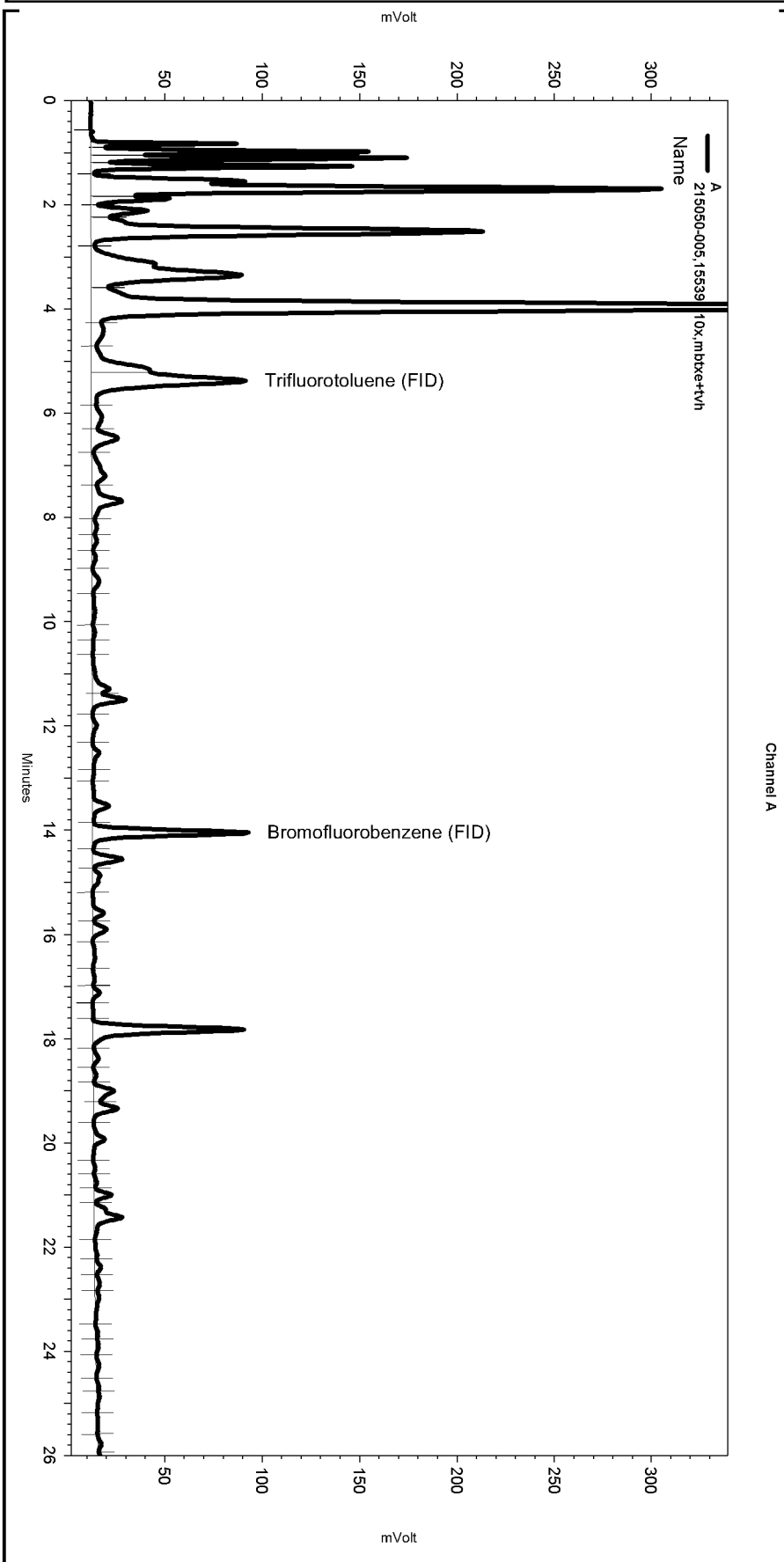
Manual Integration Fixes

Data File: \\Lims\gdrive\ezchrom\Projects\GC19\Data\271_030

Enabled	Event Type	Start (Minutes)	Stop (Minutes)	Value
Yes	Lowest Point Horizontal Baseline	0	26.017	0
Yes	Split Peak	14.167	0	0

Sequence File: \\Lims\gdrive\ezchrom\Projects\GC19\Sequence\271.seq
 Sample Name: 215050-005,155391,10x,mbtxe+tvh
 Data File: \\Lims\gdrive\ezchrom\Projects\GC19\Data\271_027
 Instrument: GC19 (Offline) Vial: N/A Operator: Tvh 2. Analyst (lims2k3\tvh2)
 Method Name: \\Lims\gdrive\ezchrom\Projects\GC19\Method\tvhbtxe265.met

Software Version 3.1.7
 Run Date: 9/29/2009 2:30:09 AM
 Analysis Date: 9/29/2009 11:31:33 AM
 Sample Amount: 5 Multiplier: 5
 Vial & pH or Core ID: a1.0
 hs<1



---< 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

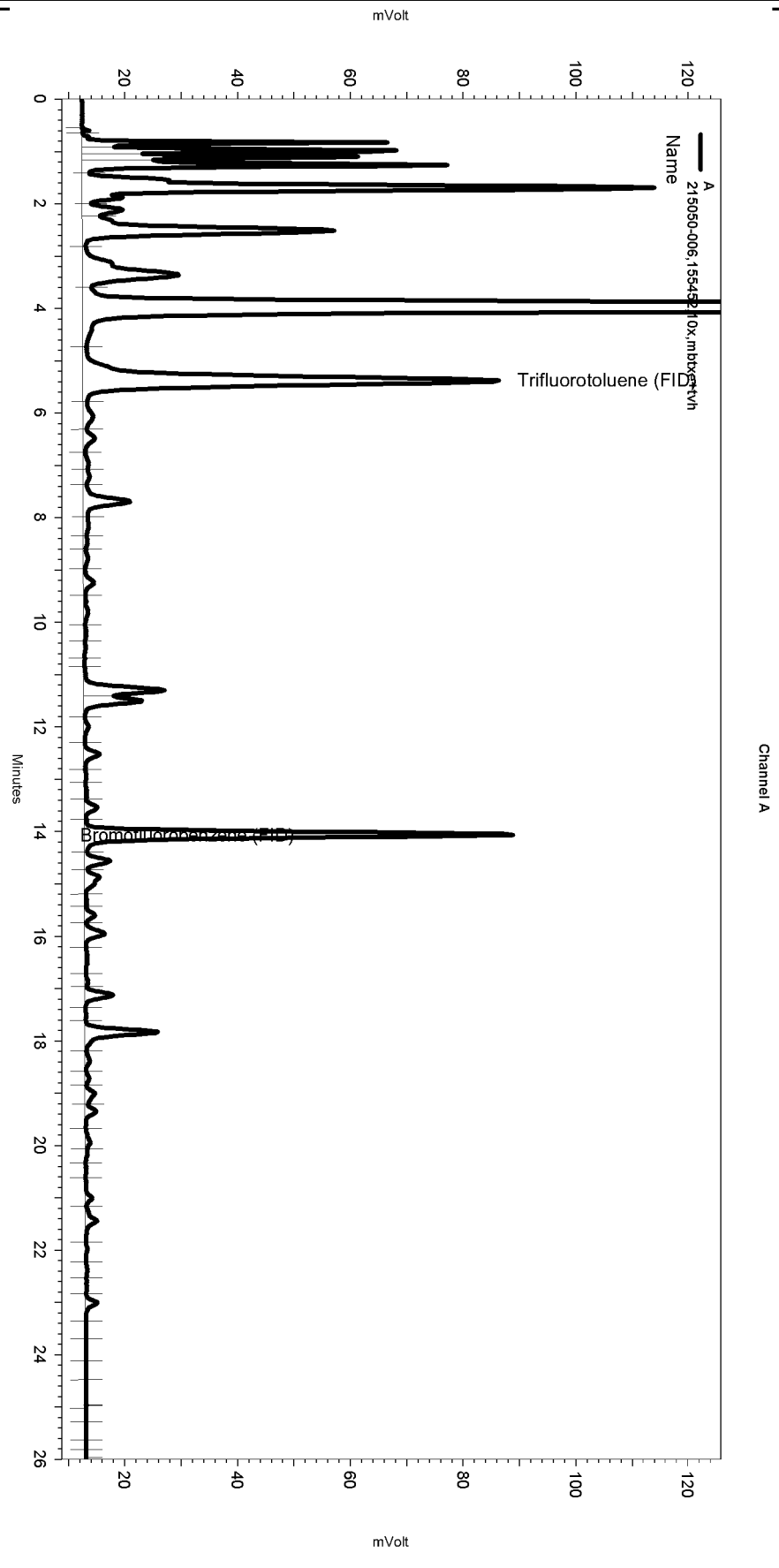
Manual Integration Fixes

Data File: \\Lims\gdrive\ezchrom\Projects\GC19\Data\271_027

Enabled	Event Type	Start (Minutes)	Stop (Minutes)	Value
Yes	Split Peak	5.221	0	0

Sequence File: \\Lims\gdrive\ezchrom\Projects\GC19\Sequence\272.seq
 Sample Name: 215050-006,155452,10x,mbtxe+tvh
 Data File: \\Lims\gdrive\ezchrom\Projects\GC19\Data\272_014
 Instrument: GC19 (Offline) Vial: N/A Operator: Tvh 2. Analyst (lims2k3\tvh2)
 Method Name: \\Lims\gdrive\ezchrom\Projects\GC19\Method\TVHBTXE271.met

Software Version 3.1.7
 Run Date: 9/29/2009 11:19:06 PM
 Analysis Date: 9/30/2009 11:36:41 AM
 Sample Amount: 5 Multiplier: 5
 Vial & pH or Core ID: b1.0
 hs<1



---< General Method Parameters >---

No items selected for this section

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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

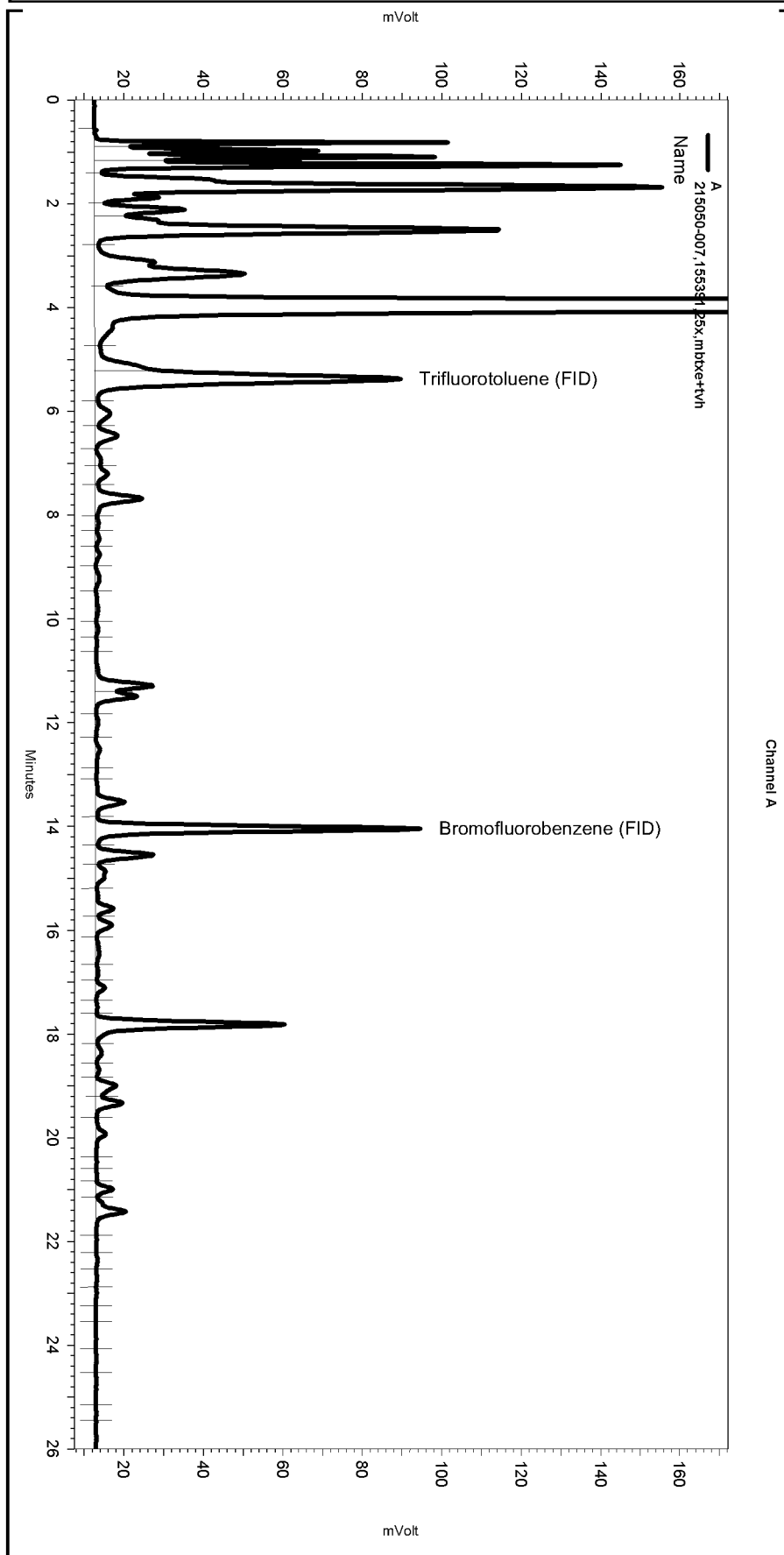
Manual Integration Fixes

Data File: \\Lims\gdrive\ezchrom\Projects\GC19\Data\272_014

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

Sequence File: \\Lims\gdrive\ezchrom\Projects\GC19\Sequence\271.seq
 Sample Name: 215050-007,155391,25x,mbtxe+tvh
 Data File: \\Lims\gdrive\ezchrom\Projects\GC19\Data\271_029
 Instrument: GC19 (Offline) Vial: N/A Operator: Tvh 2. Analyst (lims2k3\tvh2)
 Method Name: \\Lims\gdrive\ezchrom\Projects\GC19\Method\tvhbtxe265.met

Software Version 3.1.7
 Run Date: 9/29/2009 3:45:24 AM
 Analysis Date: 9/29/2009 11:33:51 AM
 Sample Amount: 5 Multiplier: 5
 Vial & pH or Core ID: a1.0
 hs<1



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No items selected for this section

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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

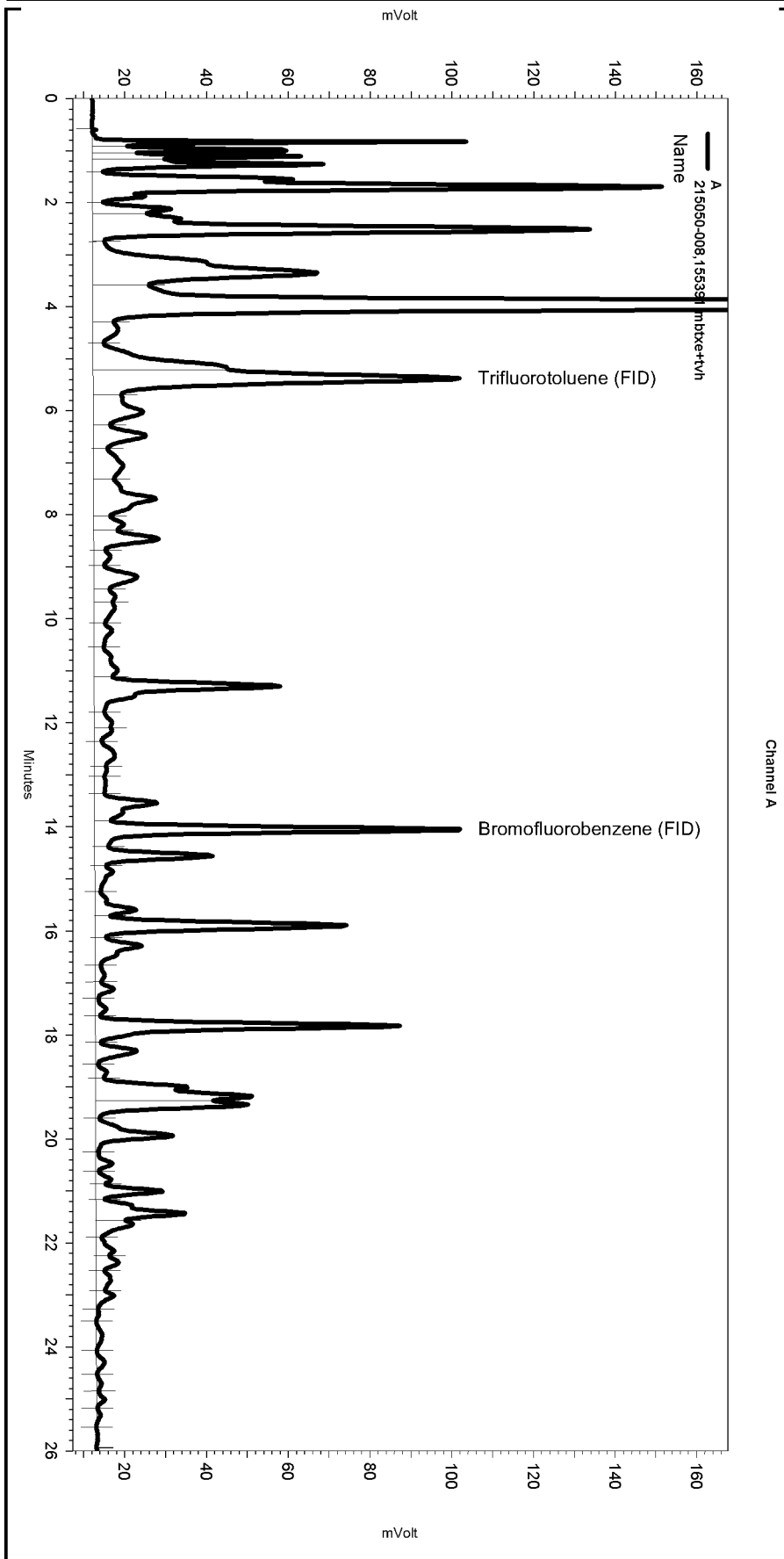
Manual Integration Fixes

Data File: \\Lims\gdrive\ezchrom\Projects\GC19\Data\271_029

Enabled	Event Type	Start (Minutes)	Stop (Minutes)	Value
Yes	Split Peak	5.211	0	0

Sequence File: \\Lims\gdrive\ezchrom\Projects\GC19\Sequence\271.seq
 Sample Name: 215050-008,155391,mbtXe+tvh
 Data File: \\Lims\gdrive\ezchrom\Projects\GC19\Data\271_023
 Instrument: GC19 (Offline) Vial: N/A Operator: Tvh 2. Analyst (lims2k3\tvh2)
 Method Name: \\Lims\gdrive\ezchrom\Projects\GC19\Method\TVHBTXE271.met

Software Version 3.1.7
 Run Date: 9/29/2009
 Analysis Date: 9/29/2009 11:20:23 AM
 Sample Amount: 5 Multiplier: 5
 Vial & pH or Core ID: a1.0
 hs<1



---< General Method Parameters >---

No items selected for this section

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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

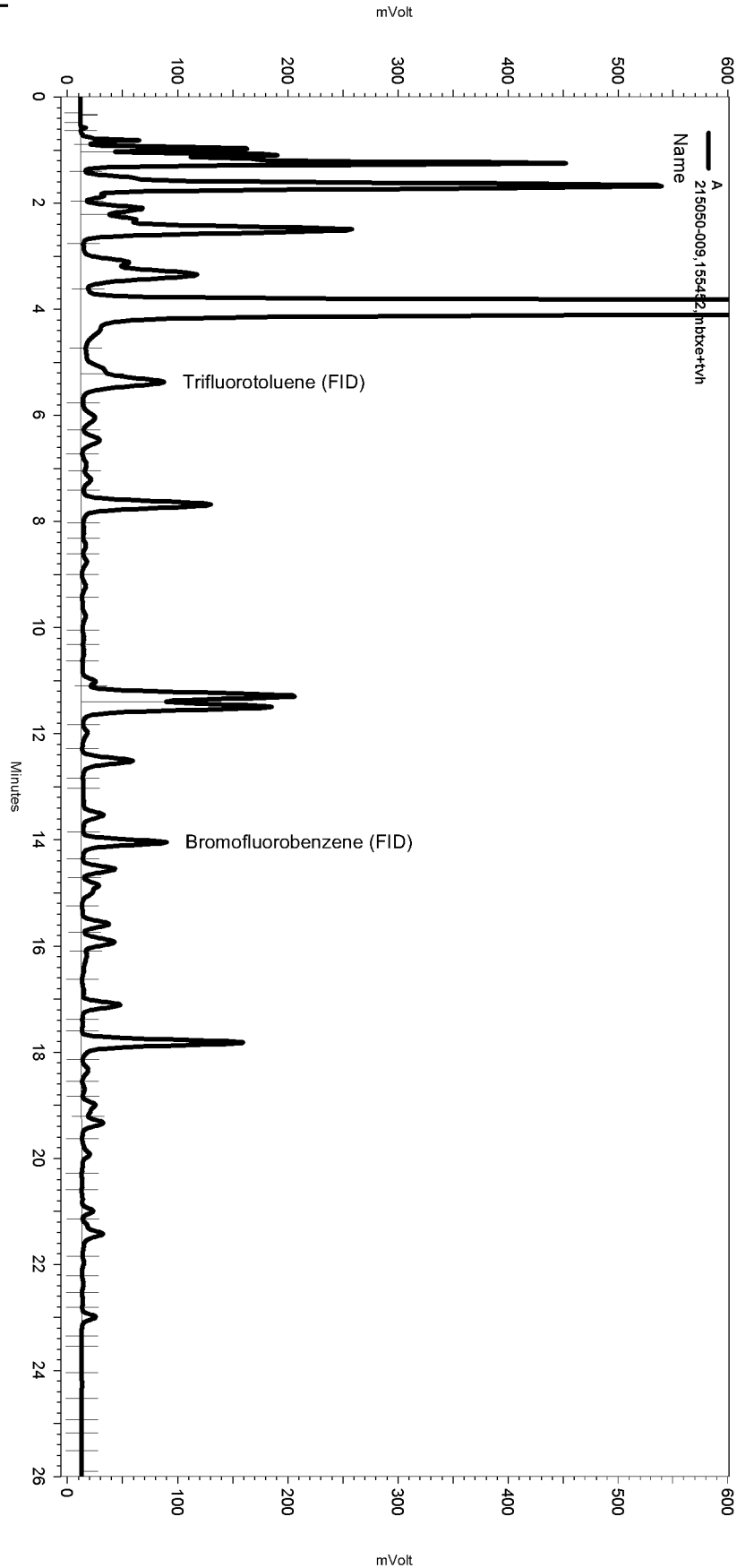
Manual Integration Fixes

Data File: \\Lims\gdrive\ezchrom\Projects\GC19\Data\271_023

Enabled	Event Type	Start (Minutes)	Stop (Minutes)	Value
Yes	Split Peak	5.222	0	0

Sequence File: \\Lims\gdrive\ezchrom\Projects\GC19\Sequence\272.seq
 Sample Name: 215050-009,155452,mbtXe+tvh
 Data File: \\Lims\gdrive\ezchrom\Projects\GC19\Data\272_012
 Instrument: GC19 (Offline) Vial: N/A Operator: Tvh 2. Analyst (lims2k3\tvh2)
 Method Name: \\Lims\gdrive\ezchrom\Projects\GC19\Method\Tvhbtxe271.met

Software Version 3.1.7
 Run Date: 9/29/2009 10:03:54 PM
 Analysis Date: 10/2/2009 1:37:42 PM
 Sample Amount: 5 Multiplier: 5
 Vial & pH or Core ID: a1.0



---< 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

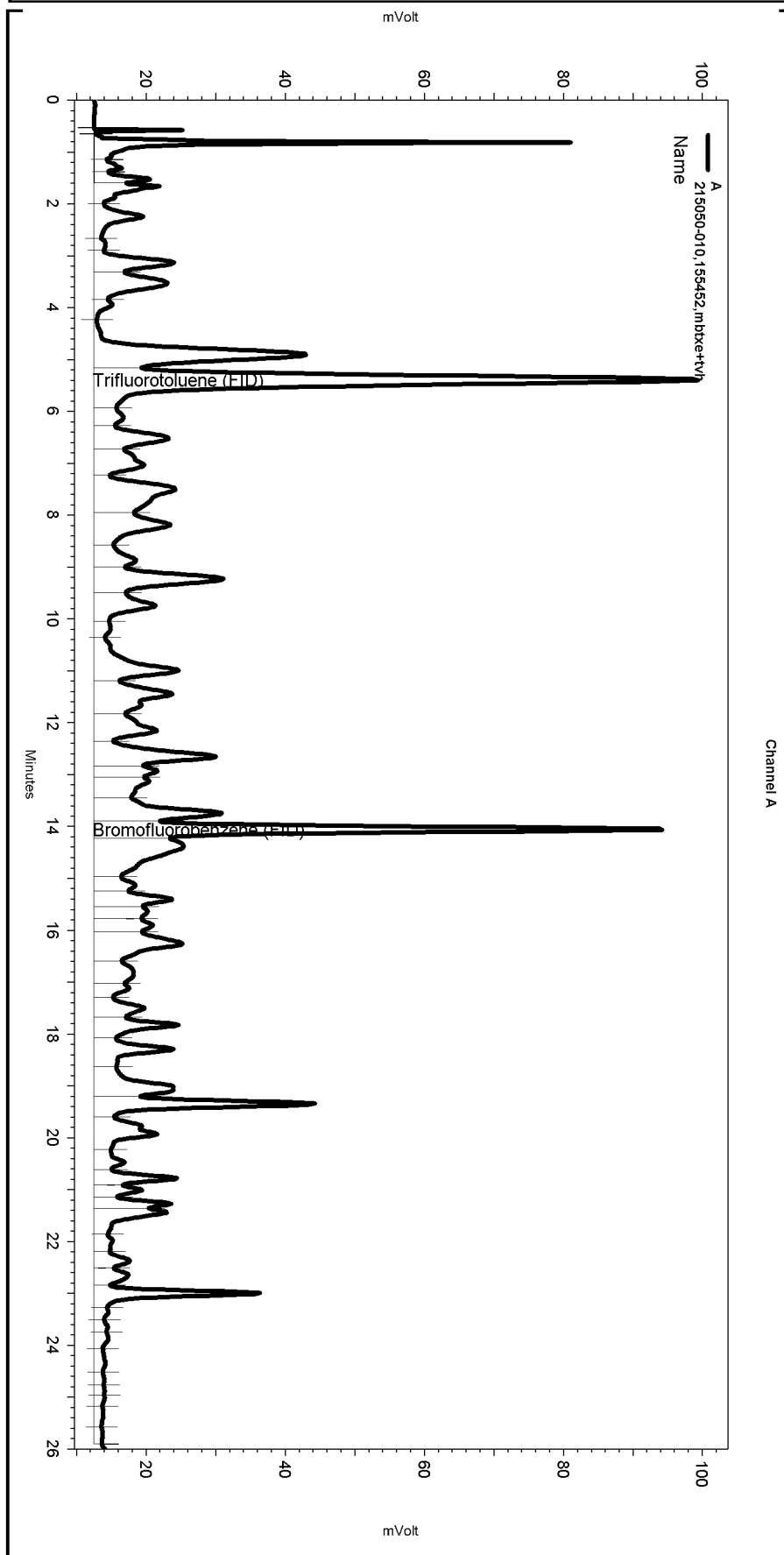
Manual Integration Fixes

Data File: \\Lims\gdrive\ezchrom\Projects\GC19\Data\272_012

Enabled	Event Type	Start (Minutes)	Stop (Minutes)	Value
Yes	Split Peak	5.211	0	0

Sequence File: \\Lims\gdrive\ezchrom\Projects\GC19\Sequence\272.seq
 Sample Name: 215050-010,155452,mbtxe+tvh
 Data File: \\Lims\gdrive\ezchrom\Projects\GC19\Data\272_021
 Instrument: GC19 (Offline) Vial: N/A Operator: Tvh 2. Analyst (lims2k3\tvh2)
 Method Name: \\Lims\gdrive\ezchrom\Projects\GC19\Method\TVHBTXE271.met

Software Version 3.1.7
 Run Date: 9/30/2009 3:42:19 AM
 Analysis Date: 9/30/2009 11:41:27 AM
 Sample Amount: 5 Multiplier: 5
 Vial & pH or Core ID: a1.0



---< 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

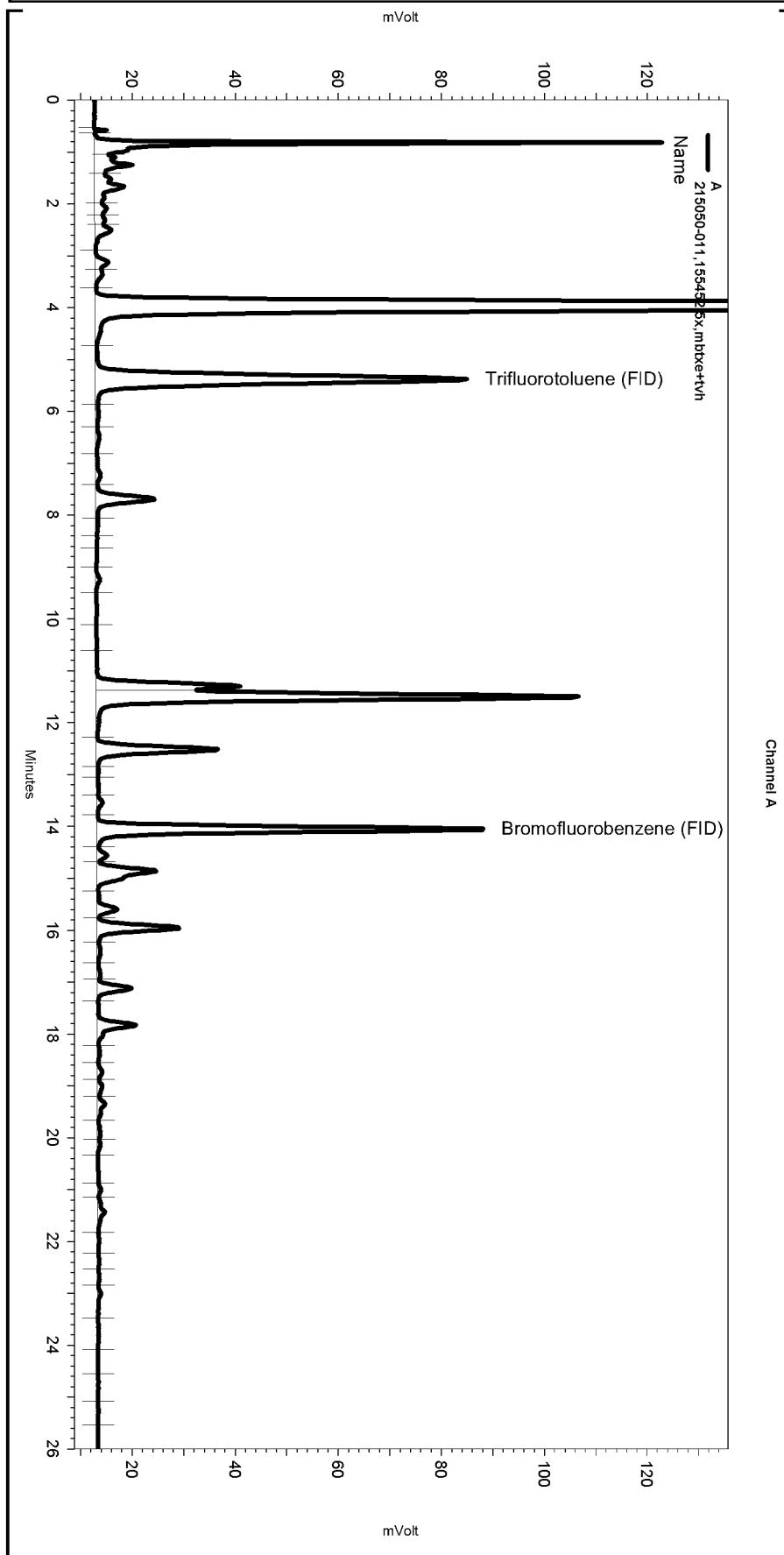
Manual Integration Fixes

Data File: \\Lims\gdrive\ezchrom\Projects\GC19\Data\272_021

Enabled	Event Type	Start (Minutes)	Stop (Minutes)	Value
Yes	Lowest Point Horizontal Baseline	0	26.017	0

Sequence File: \\Lims\gdrive\ezchrom\Projects\GC19\Sequence\272.seq
 Sample Name: 215050-011,155452,5x,mbtxe+tvh
 Data File: \\Lims\gdrive\ezchrom\Projects\GC19\Data\272_022
 Instrument: GC19 (Offline) Vial: N/A Operator: Tvh 2. Analyst (lims2k3\tvh2)
 Method Name: \\Lims\gdrive\ezchrom\Projects\GC19\Method\TVHBTXE271.met

Software Version 3.1.7
 Run Date: 9/30/2009 4:19:55 AM
 Analysis Date: 9/30/2009 7:56:33 AM
 Sample Amount: 5 Multiplier: 5
 Vial & pH or Core ID: c8.0



---< General Method Parameters >---

No items selected for this section

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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

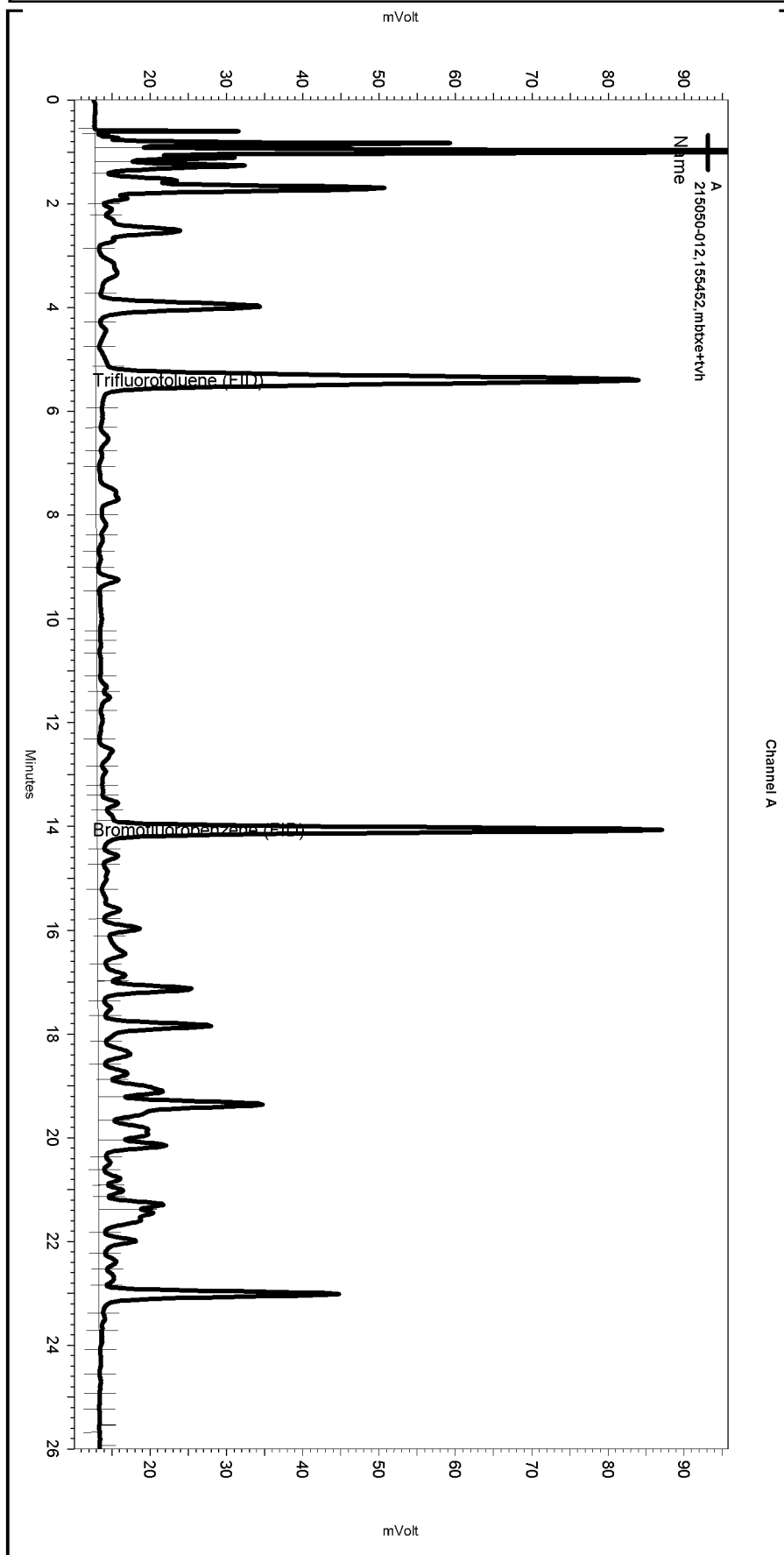
Manual Integration Fixes

Data File: \\Lims\gdrive\ezchrom\Projects\GC19\Data\272_022

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

Sequence File: \\Lims\gdrive\ezchrom\Projects\GC19\Sequence\272.seq
 Sample Name: 215050-012,155452,mbtixe+tvh
 Data File: \\Lims\gdrive\ezchrom\Projects\GC19\Data\272_023
 Instrument: GC19 (Offline) Vial: N/A Operator: Tvh 2. Analyst (lims2k3\tvh2)
 Method Name: \\Lims\gdrive\ezchrom\Projects\GC19\Method\tvhbtixe271.met

Software Version 3.1.7
 Run Date: 9/30/2009 4:57:29 AM
 Analysis Date: 9/30/2009 11:43:49 AM
 Sample Amount: 5 Multiplier: 5
 Vial & pH or Core ID: a1.0



---< General Method Parameters >---

No items selected for this section

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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

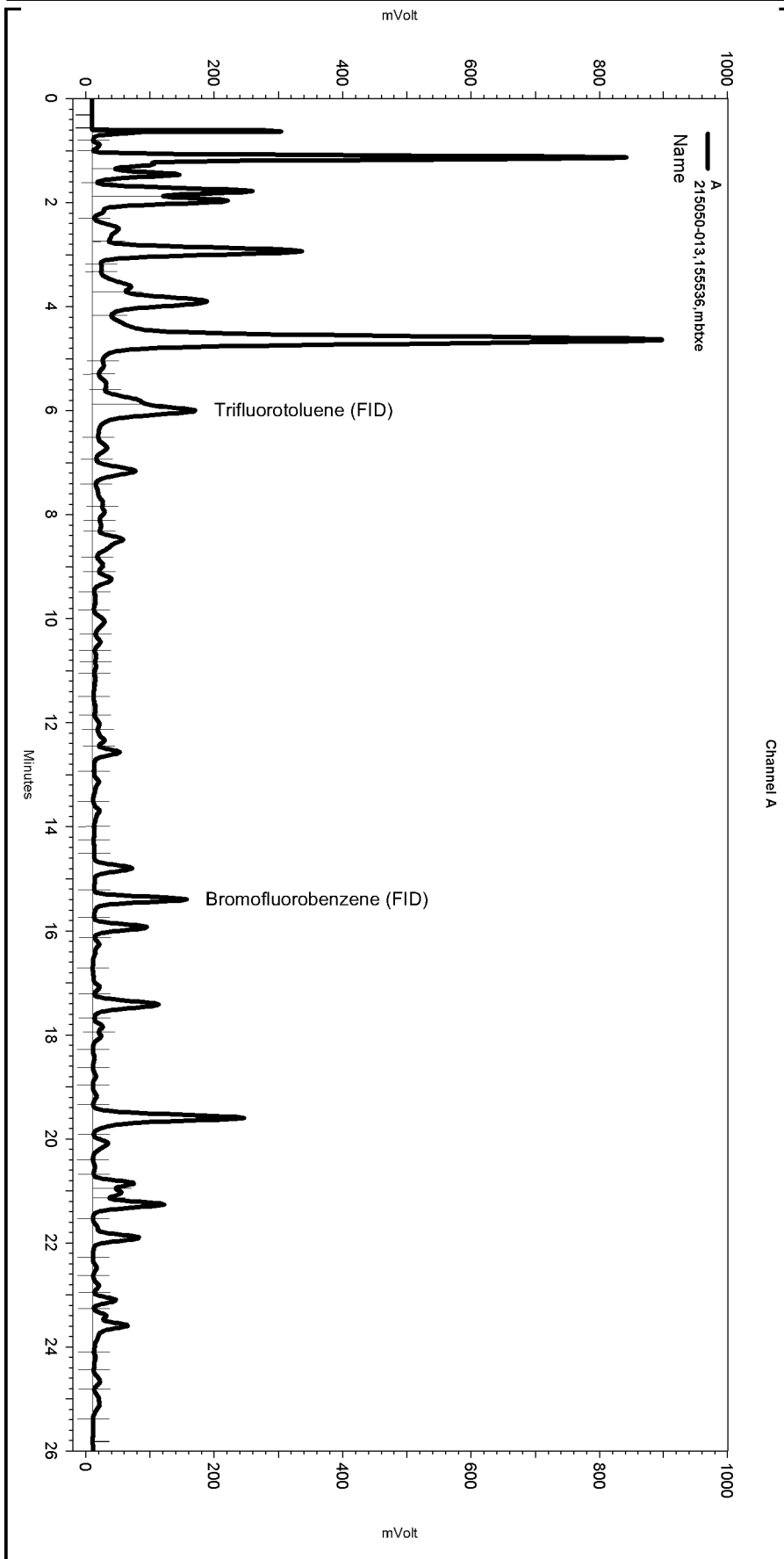
Manual Integration Fixes

Data File: \\Lims\gdrive\ezchrom\Projects\GC19\Data\272_023

Enabled	Event Type	Start (Minutes)	Stop (Minutes)	Value
Yes	Split Peak	5.14	0	0
Yes	Split Peak	13.888	0	0

Sequence File: \\Lims\gdrive\ezchrom\Projects\GC07\Sequence\274.seq
 Sample Name: 215050-013,155536,mbtxe
 Data File: \\Lims\gdrive\ezchrom\Projects\GC07\Data\274_016
 Instrument: GC07 (Offline) Vial: N/A Operator: Tvh 2. Analyst (lims2k3\tvh2)
 Method Name: \\Lims\gdrive\ezchrom\Projects\GC07\Method\tvhbtxe267.met

Software Version 3.1.7
 Run Date: 10/1/2009 6:58:39 PM
 Analysis Date: 10/2/2009 1:57:10 PM
 Sample Amount: 5 Multiplier: 5
 Vial & pH or Core ID: d1.0



---< General Method Parameters >---

No items selected for this section

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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

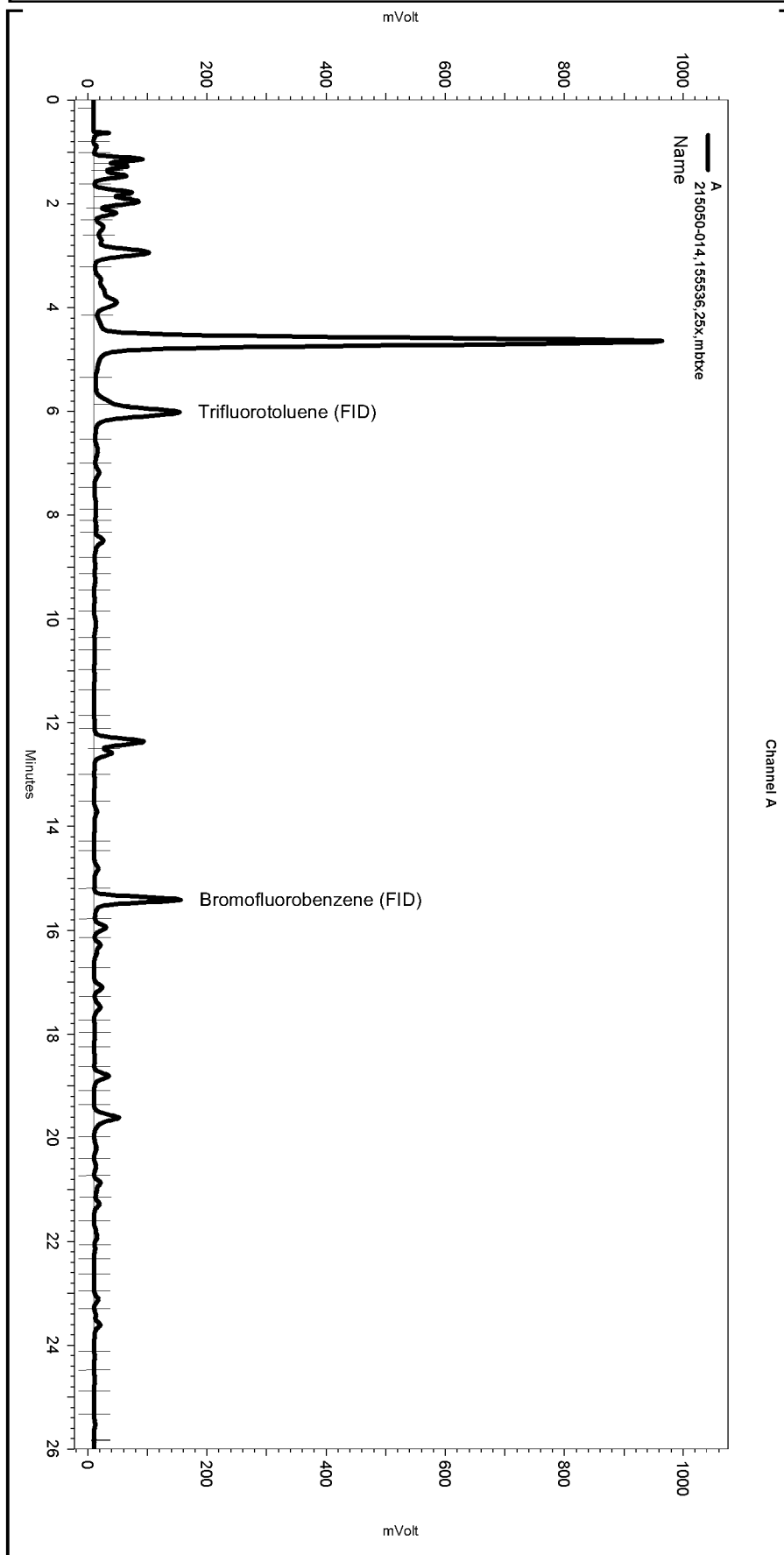
Manual Integration Fixes

Data File: \\Lims\gdrive\ezchrom\Projects\GC07\Data\274_016

Enabled	Event Type	Start (Minutes)	Stop (Minutes)	Value
Yes	Split Peak	5.877	0	0

Sequence File: \\Lims\gdrive\ezchrom\Projects\GC07\Sequence\274.seq
 Sample Name: 215050-014,155536,25x,mbtxe
 Data File: \\Lims\gdrive\ezchrom\Projects\GC07\Data\274_018
 Instrument: GC07 (Offline) Vial: N/A Operator: Tvh 2. Analyst (lims2k3\tvh2)
 Method Name: \\Lims\gdrive\ezchrom\Projects\GC07\Method\TVHBTXE267.met

Software Version 3.1.7
 Run Date: 10/1/2009 8:10:43 PM
 Analysis Date: 10/2/2009 3:19:46 PM
 Sample Amount: 5 Multiplier: 5
 Vial & pH or Core ID: c1.0



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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

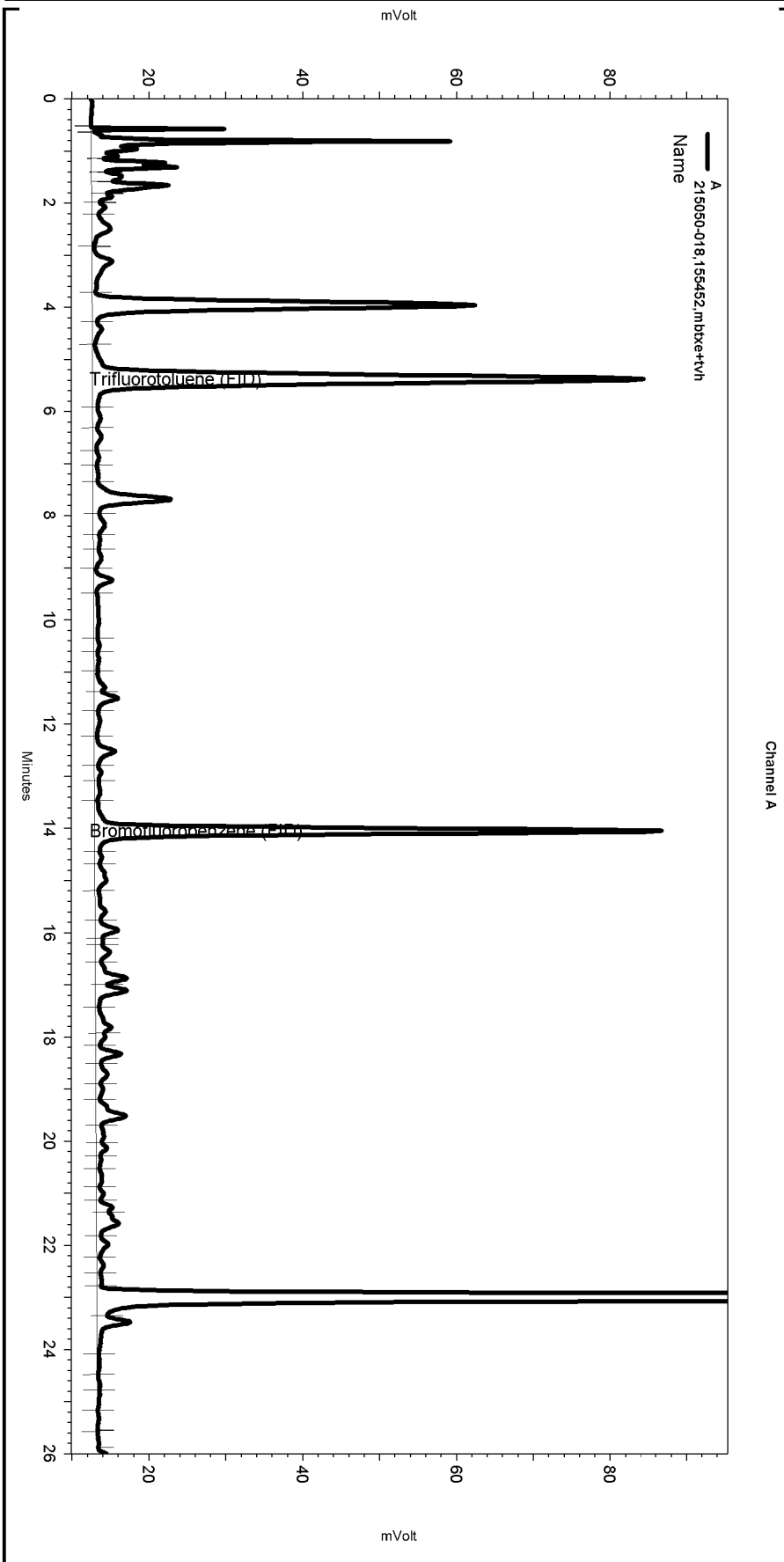
Manual Integration Fixes

Data File: \\Lims\gdrive\ezchrom\Projects\GC07\Data\274_018

Enabled	Event Type	Start (Minutes)	Stop (Minutes)	Value
Yes	Split Peak	5.862	0	0

Sequence File: \\Lims\gdrive\ezchrom\Projects\GC19\Sequence\272.seq
 Sample Name: 215050-018,155452,mbtxe+tvh
 Data File: \\Lims\gdrive\ezchrom\Projects\GC19\Data\272_013
 Instrument: GC19 (Offline) Vial: N/A Operator: Tvh 2. Analyst (lims2k3\tvh2)
 Method Name: \\Lims\gdrive\ezchrom\Projects\GC19\Method\TVHBTXE271.met

Software Version 3.1.7
 Run Date: 9/29/2009 10:41:31 PM
 Analysis Date: 9/30/2009 11:32:19 AM
 Sample Amount: 5 Multiplier: 5
 Vial & pH or Core ID: b1.0



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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

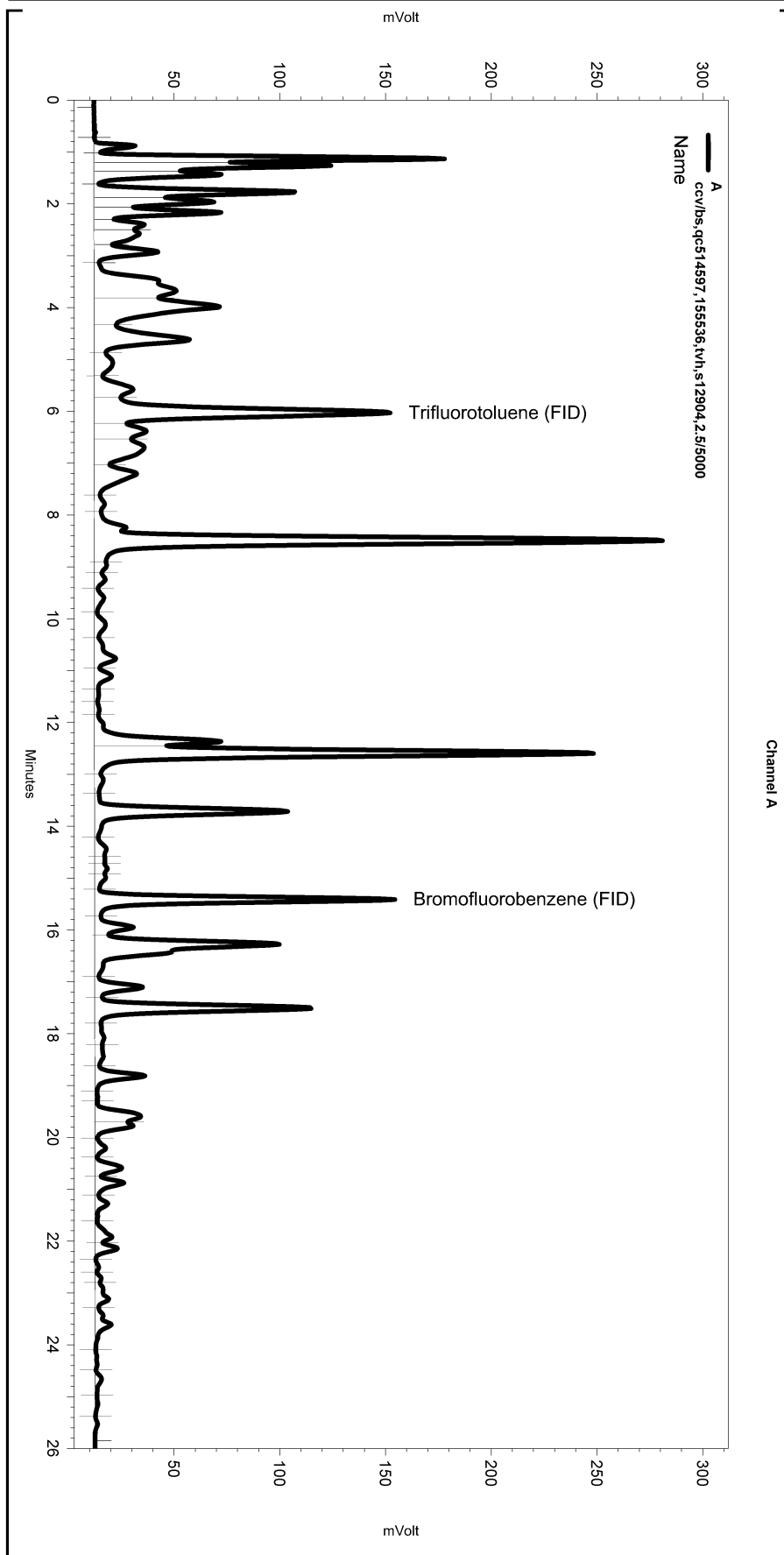
Manual Integration Fixes

Data File: \\Lims\gdrive\ezchrom\Projects\GC19\Data\272_013

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

Sequence File: \\Lims\gdrive\ezchrom\Projects\GC07\Sequence\274.seq
 Sample Name: ccv/bs,qc514597,155536,tvh,s12904,2.5/5000
 Data File: \\Lims\gdrive\ezchrom\Projects\GC07\Data\274_003
 Instrument: GC07 Vial: N/A Operator: Tvh 3. Analyst (lims2k3\tvh3)
 Method Name: \\Lims\gdrive\ezchrom\Projects\GC07\Method\TVHBTXE267.met

Software Version 3.1.7
 Run Date: 10/1/2009 8:41:13 AM
 Analysis Date: 10/1/2009 11:47:56 AM
 Sample Amount: 5 Multiplier: 5
 Vial & pH or Core ID: {Data Description}



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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\GC07\Data\274_003

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

Total Extractable Hydrocarbons			
Lab #:	215050	Location:	Bay Center Apts
Client:	Stellar Environmental Solutions	Prep:	EPA 3520C
Project#:	2007-65	Analysis:	EPA 8015B
Matrix:	Water	Received:	09/18/09
Units:	ug/L		

Field ID:	MW-4	Batch#:	155394
Type:	SAMPLE	Sampled:	09/17/09
Lab ID:	215050-001	Prepared:	09/28/09
Diln Fac:	1.000	Analyzed:	09/30/09

Analyte	Result	RL
Diesel C10-C24	660	50

Surrogate	%REC	Limits
o-Terphenyl	101	60-130

Field ID:	MW-17	Batch#:	155394
Type:	SAMPLE	Sampled:	09/17/09
Lab ID:	215050-002	Prepared:	09/28/09
Diln Fac:	1.000	Analyzed:	09/30/09

Analyte	Result	RL
Diesel C10-C24	3,000	50

Surrogate	%REC	Limits
o-Terphenyl	102	60-130

Field ID:	MW-12	Batch#:	155394
Type:	SAMPLE	Sampled:	09/17/09
Lab ID:	215050-003	Prepared:	09/28/09
Diln Fac:	1.000	Analyzed:	09/30/09

Analyte	Result	RL
Diesel C10-C24	3,000	50

Surrogate	%REC	Limits
o-Terphenyl	103	60-130

Field ID:	MW-13	Batch#:	155394
Type:	SAMPLE	Sampled:	09/17/09
Lab ID:	215050-004	Prepared:	09/28/09
Diln Fac:	3.000	Analyzed:	09/29/09

Analyte	Result	RL
Diesel C10-C24	38,000	150

Surrogate	%REC	Limits
o-Terphenyl	118	60-130

Total Extractable Hydrocarbons			
Lab #:	215050	Location:	Bay Center Apts
Client:	Stellar Environmental Solutions	Prep:	EPA 3520C
Project#:	2007-65	Analysis:	EPA 8015B
Matrix:	Water	Received:	09/18/09
Units:	ug/L		

Field ID:	MW-10	Batch#:	155394
Type:	SAMPLE	Sampled:	09/17/09
Lab ID:	215050-005	Prepared:	09/28/09
Diln Fac:	1.000	Analyzed:	09/30/09

Analyte	Result	RL
Diesel C10-C24	6,100	50

Surrogate	%REC	Limits
o-Terphenyl	108	60-130

Field ID:	MW-14	Batch#:	155394
Type:	SAMPLE	Sampled:	09/17/09
Lab ID:	215050-006	Prepared:	09/28/09
Diln Fac:	1.000	Analyzed:	09/30/09

Analyte	Result	RL
Diesel C10-C24	2,100	50

Surrogate	%REC	Limits
o-Terphenyl	100	60-130

Field ID:	MW-15	Batch#:	155394
Type:	SAMPLE	Sampled:	09/17/09
Lab ID:	215050-007	Prepared:	09/28/09
Diln Fac:	1.000	Analyzed:	09/30/09

Analyte	Result	RL
Diesel C10-C24	2,700	50

Surrogate	%REC	Limits
o-Terphenyl	95	60-130

Field ID:	RW-1	Batch#:	155394
Type:	SAMPLE	Sampled:	09/17/09
Lab ID:	215050-008	Prepared:	09/28/09
Diln Fac:	1.000	Analyzed:	09/30/09

Analyte	Result	RL
Diesel C10-C24	770	50

Surrogate	%REC	Limits
o-Terphenyl	106	60-130

ND= Not Detected
 RL= Reporting Limit

Total Extractable Hydrocarbons

Lab #: 215050	Location: Bay Center Apts
Client: Stellar Environmental Solutions	Prep: EPA 3520C
Project#: 2007-65	Analysis: EPA 8015B
Matrix: Water	Received: 09/18/09
Units: ug/L	

Field ID: MW-E	Batch#: 155394
Type: SAMPLE	Sampled: 09/17/09
Lab ID: 215050-009	Prepared: 09/28/09
Diln Fac: 1.000	Analyzed: 09/30/09

Analyte	Result	RL
Diesel C10-C24	6,200	50

Surrogate	%REC	Limits
o-Terphenyl	98	60-130

Field ID: MW-3	Batch#: 155394
Type: SAMPLE	Sampled: 09/17/09
Lab ID: 215050-010	Prepared: 09/28/09
Diln Fac: 1.000	Analyzed: 09/30/09

Analyte	Result	RL
Diesel C10-C24	5,000	50

Surrogate	%REC	Limits
o-Terphenyl	105	60-130

Field ID: MW-7	Batch#: 155394
Type: SAMPLE	Sampled: 09/17/09
Lab ID: 215050-011	Prepared: 09/28/09
Diln Fac: 1.000	Analyzed: 09/30/09

Analyte	Result	RL
Diesel C10-C24	6,800	50

Surrogate	%REC	Limits
o-Terphenyl	81	60-130

Field ID: MW-9	Batch#: 155394
Type: SAMPLE	Sampled: 09/17/09
Lab ID: 215050-012	Prepared: 09/28/09
Diln Fac: 1.000	Analyzed: 09/30/09

Analyte	Result	RL
Diesel C10-C24	8,200	50

Surrogate	%REC	Limits
o-Terphenyl	101	60-130

ND= Not Detected
 RL= Reporting Limit

Total Extractable Hydrocarbons			
Lab #:	215050	Location:	Bay Center Apts
Client:	Stellar Environmental Solutions	Prep:	EPA 3520C
Project#:	2007-65	Analysis:	EPA 8015B
Matrix:	Water	Received:	09/18/09
Units:	ug/L		

Field ID:	MW-11	Batch#:	155394
Type:	SAMPLE	Sampled:	09/17/09
Lab ID:	215050-013	Prepared:	09/28/09
Diln Fac:	1.000	Analyzed:	09/30/09

Analyte	Result	RL
Diesel C10-C24	6,400	50
Surrogate	%REC	Limits
o-Terphenyl	101	60-130

Field ID:	MW-8	Batch#:	155394
Type:	SAMPLE	Sampled:	09/17/09
Lab ID:	215050-014	Prepared:	09/28/09
Diln Fac:	5.000	Analyzed:	09/30/09

Analyte	Result	RL
Diesel C10-C24	9,200	250
Surrogate	%REC	Limits
o-Terphenyl	106	60-130

Field ID:	MW-6	Batch#:	155293
Type:	SAMPLE	Sampled:	09/16/09
Lab ID:	215050-015	Prepared:	09/24/09
Diln Fac:	1.000	Analyzed:	09/28/09

Analyte	Result	RL
Diesel C10-C24	1,500	50
Surrogate	%REC	Limits
o-Terphenyl	107	60-130

Field ID:	MW-5	Batch#:	155293
Type:	SAMPLE	Sampled:	09/16/09
Lab ID:	215050-016	Prepared:	09/24/09
Diln Fac:	1.000	Analyzed:	09/28/09

Analyte	Result	RL
Diesel C10-C24	5,600	50
Surrogate	%REC	Limits
o-Terphenyl	106	60-130

ND= Not Detected
 RL= Reporting Limit

Total Extractable Hydrocarbons			
Lab #:	215050	Location:	Bay Center Apts
Client:	Stellar Environmental Solutions	Prep:	EPA 3520C
Project#:	2007-65	Analysis:	EPA 8015B
Matrix:	Water	Received:	09/18/09
Units:	ug/L		

Field ID:	MW-18	Batch#:	155293
Type:	SAMPLE	Sampled:	09/16/09
Lab ID:	215050-017	Prepared:	09/24/09
Diln Fac:	1.000	Analyzed:	09/28/09

Analyte	Result	RL
Diesel C10-C24	11,000	50

Surrogate	%REC	Limits
o-Terphenyl	111	60-130

Field ID:	MW-16	Batch#:	155293
Type:	SAMPLE	Sampled:	09/16/09
Lab ID:	215050-018	Prepared:	09/24/09
Diln Fac:	1.000	Analyzed:	09/28/09

Analyte	Result	RL
Diesel C10-C24	10,000	50

Surrogate	%REC	Limits
o-Terphenyl	100	60-130

Type:	BLANK	Batch#:	155293
Lab ID:	QC513591	Prepared:	09/24/09
Diln Fac:	1.000	Analyzed:	09/28/09

Analyte	Result	RL
Diesel C10-C24	ND	50

Surrogate	%REC	Limits
o-Terphenyl	108	60-130

Type:	BLANK	Batch#:	155394
Lab ID:	QC514017	Prepared:	09/28/09
Diln Fac:	1.000	Analyzed:	09/29/09

Analyte	Result	RL
Diesel C10-C24	ND	50

Surrogate	%REC	Limits
o-Terphenyl	97	60-130

ND= Not Detected
 RL= Reporting Limit

Batch QC Report

Total Extractable Hydrocarbons			
Lab #:	215050	Location:	Bay Center Apts
Client:	Stellar Environmental Solutions	Prep:	EPA 3520C
Project#:	2007-65	Analysis:	EPA 8015B
Matrix:	Water	Batch#:	155293
Units:	ug/L	Prepared:	09/24/09
Diln Fac:	1.000	Analyzed:	09/28/09

Type: BS Cleanup Method: EPA 3630C
 Lab ID: QC513592

Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24	2,500	2,315	93	53-122

Surrogate	%REC	Limits
o-Terphenyl	102	60-130

Type: BSD Cleanup Method: EPA 3630C
 Lab ID: QC513593

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Diesel C10-C24	2,500	2,101	84	53-122	10	36

Surrogate	%REC	Limits
o-Terphenyl	105	60-130

RPD= Relative Percent Difference

Batch QC Report

Total Extractable Hydrocarbons			
Lab #:	215050	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:	QC514018	Batch#:	155394
Matrix:	Water	Prepared:	09/28/09
Units:	ug/L	Analyzed:	09/30/09

Cleanup Method: EPA 3630C

Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24	5,000	4,914	98	53-122

Surrogate	%REC	Limits
o-Terphenyl	111	60-130

Batch QC Report

Total Extractable Hydrocarbons			
Lab #:	215050	Location:	Bay Center Apts
Client:	Stellar Environmental Solutions	Prep:	EPA 3520C
Project#:	2007-65	Analysis:	EPA 8015B
Field ID:	ZZZZZZZZZZ	Batch#:	155394
MSS Lab ID:	215143-001	Sampled:	09/22/09
Matrix:	Water	Received:	09/24/09
Units:	ug/L	Prepared:	09/28/09
Diln Fac:	1.000	Analyzed:	09/30/09

Type: MS Cleanup Method: EPA 3630C
 Lab ID: QC514019

Analyte	MSS Result	Spiked	Result	%REC	Limits
Diesel C10-C24	<9.639	2,500	2,011	80	45-137

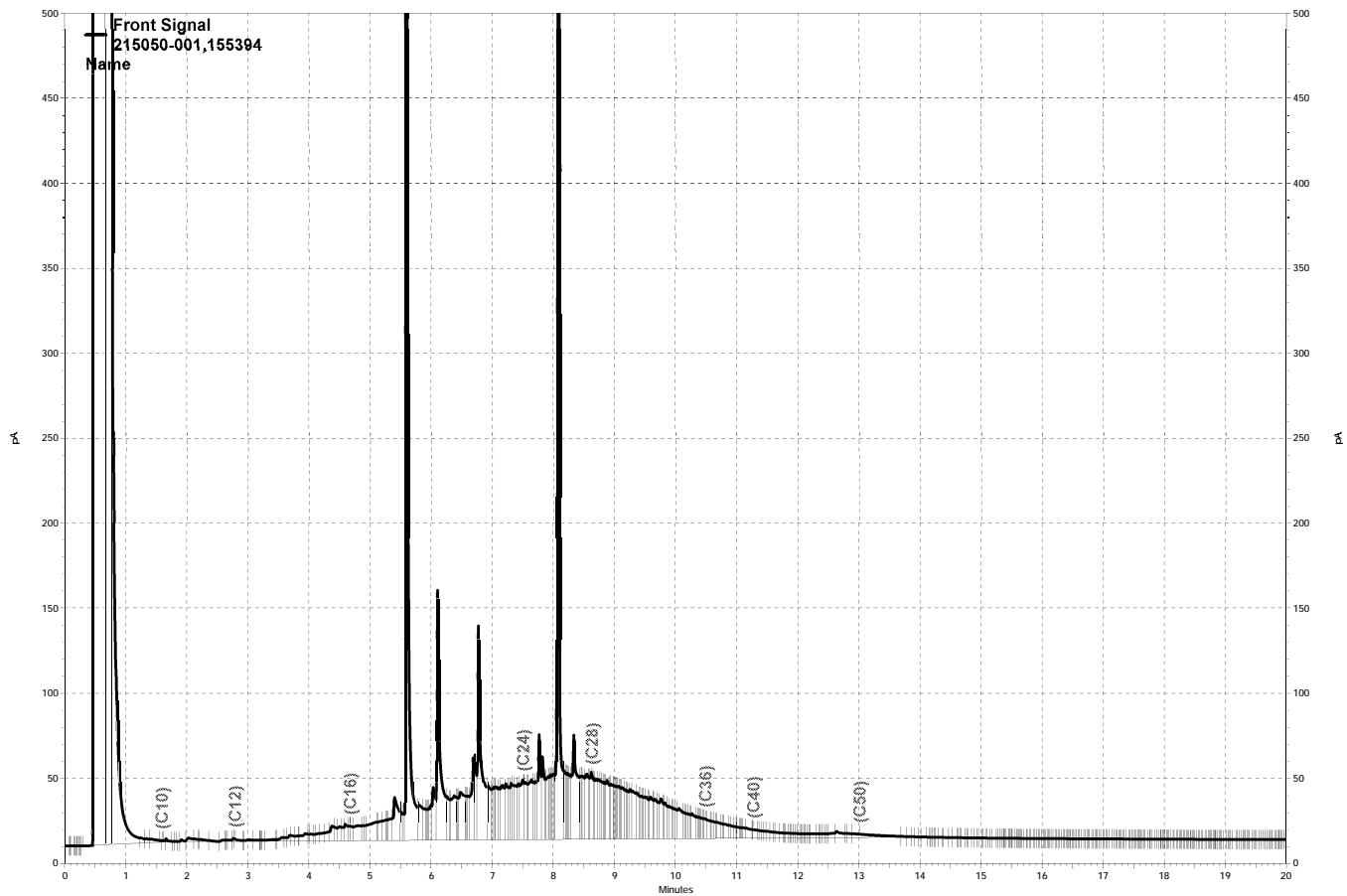
Surrogate	%REC	Limits
o-Terphenyl	78	60-130

Type: MSD Cleanup Method: EPA 3630C
 Lab ID: QC514020

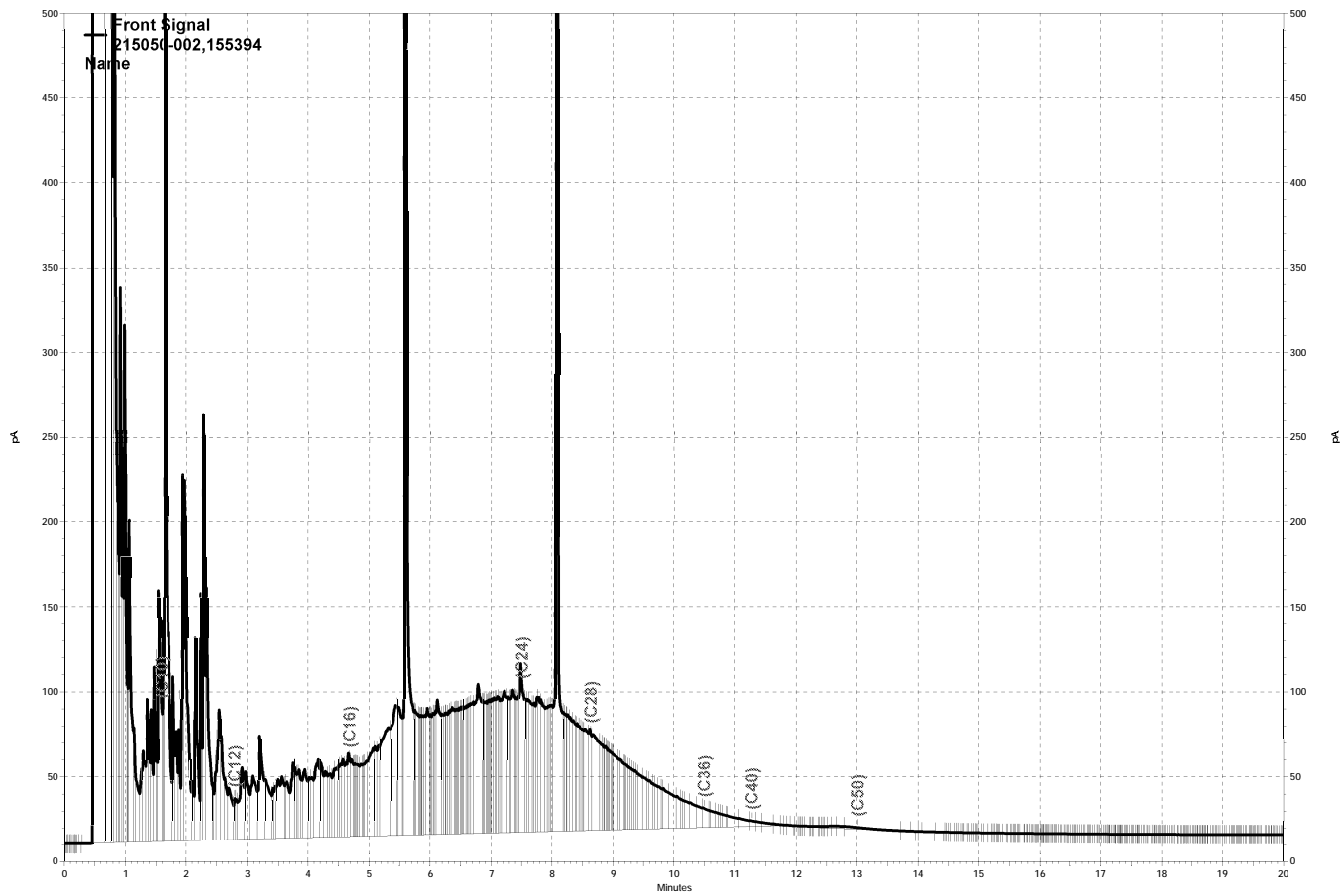
Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Diesel C10-C24	2,500	2,297	92	45-137	13	37

Surrogate	%REC	Limits
o-Terphenyl	90	60-130

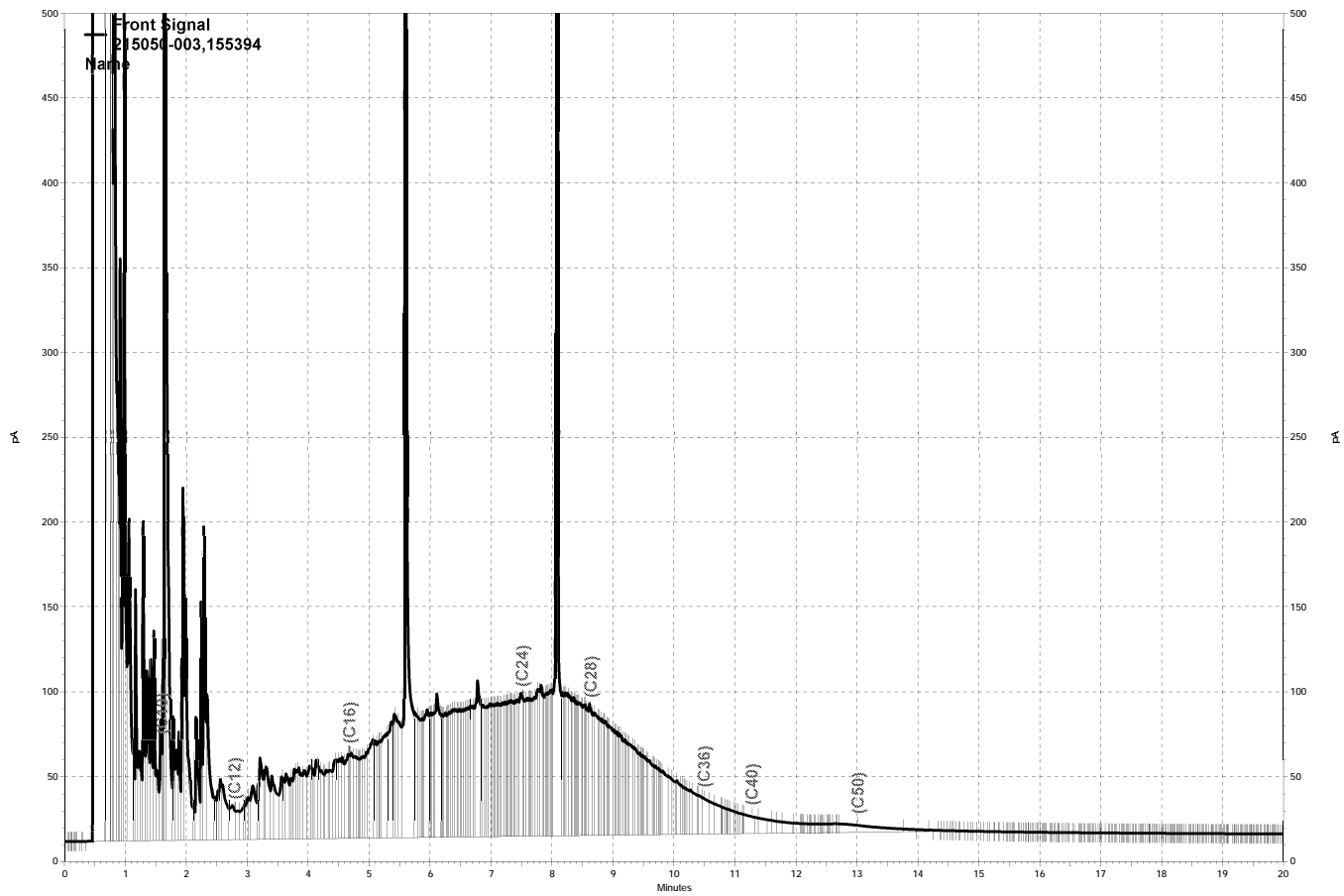
RPD= Relative Percent Difference



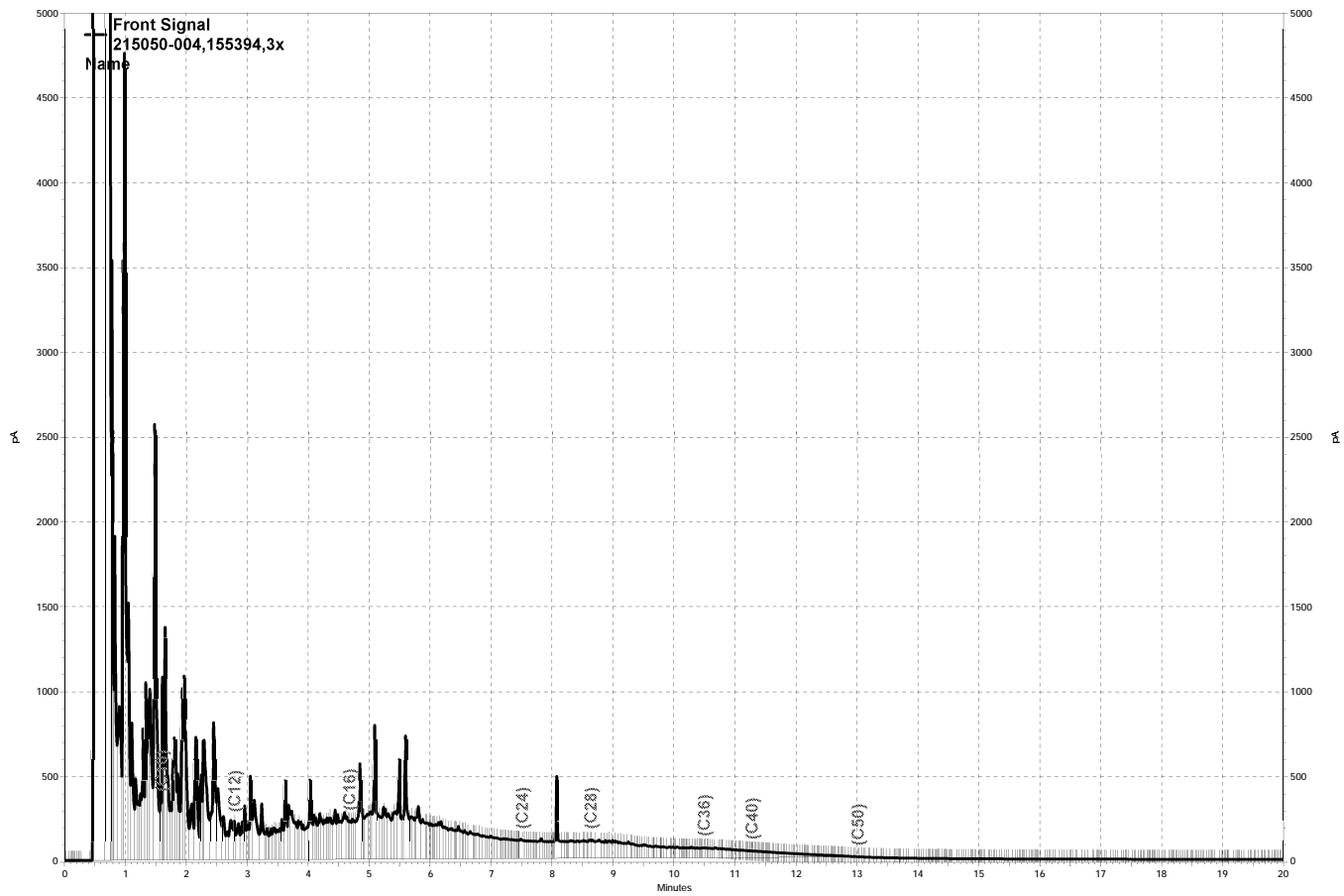
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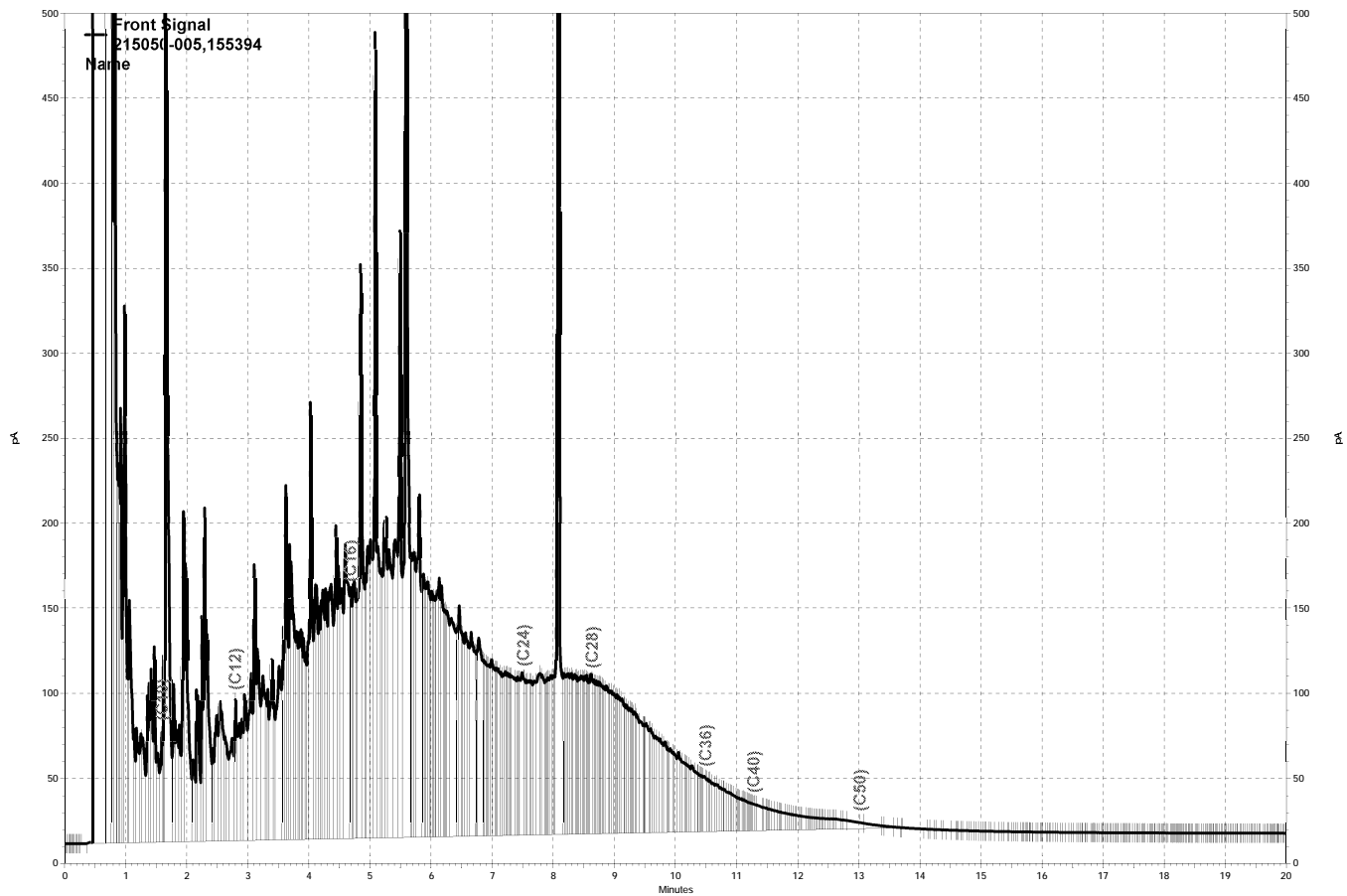
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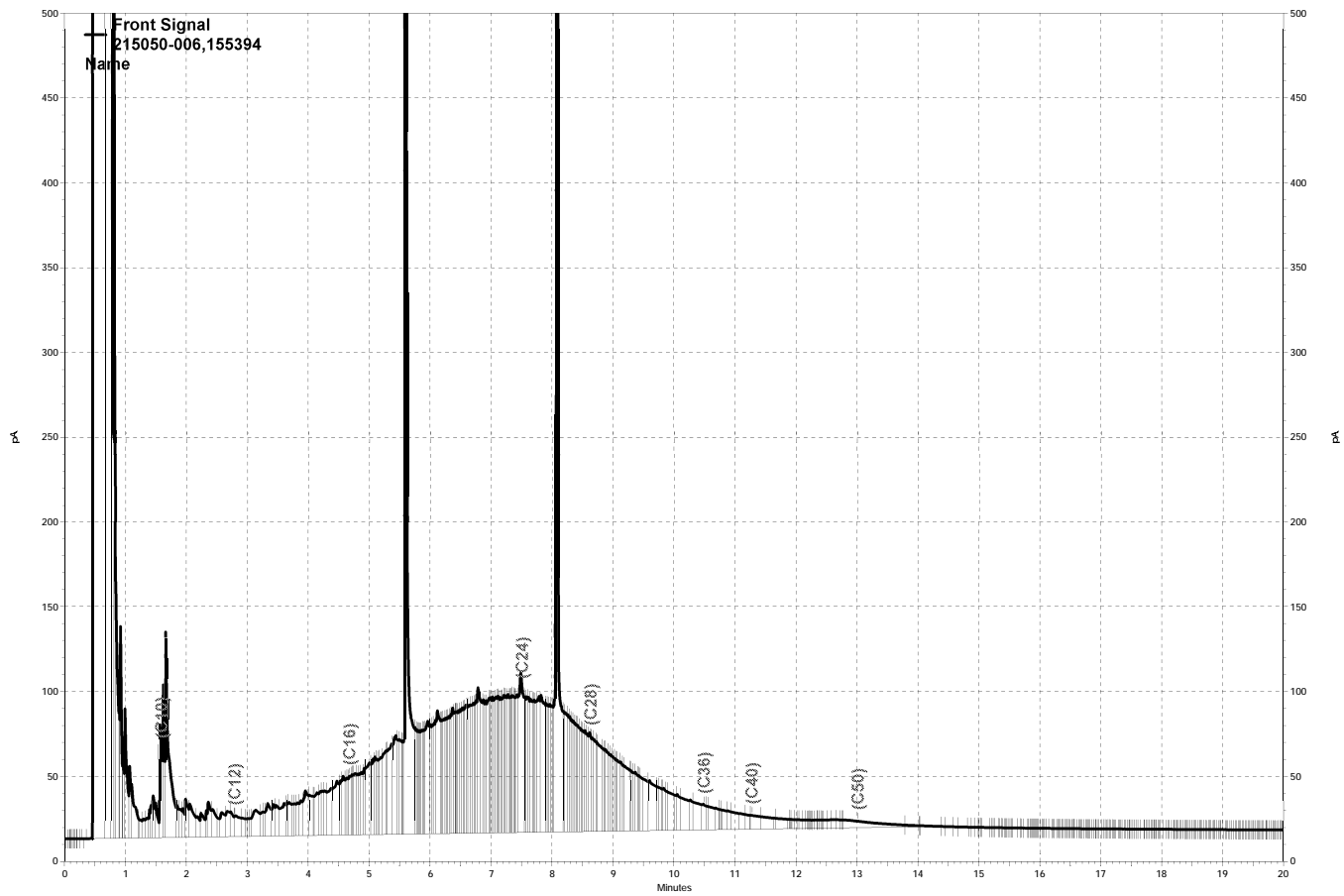
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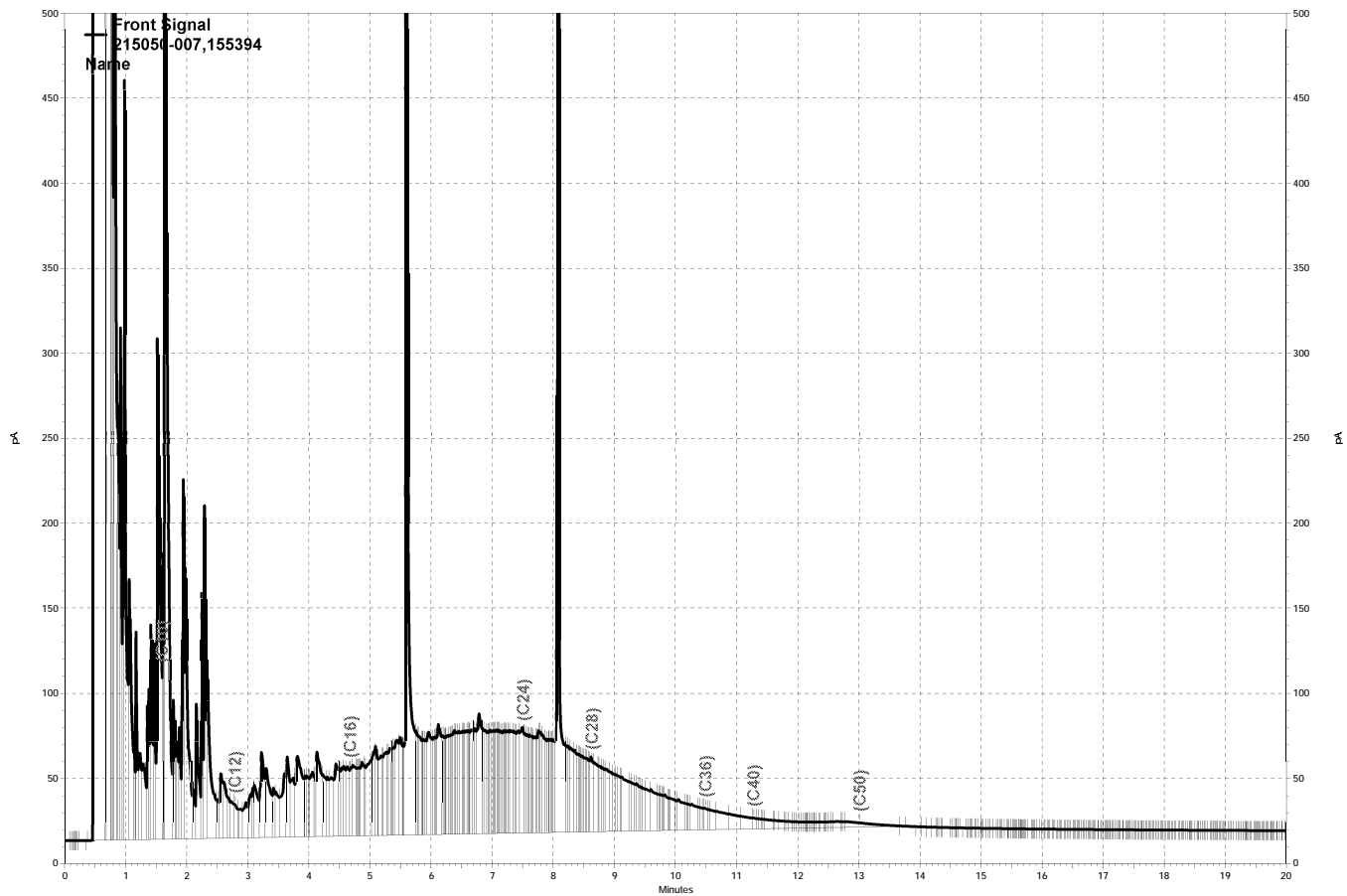


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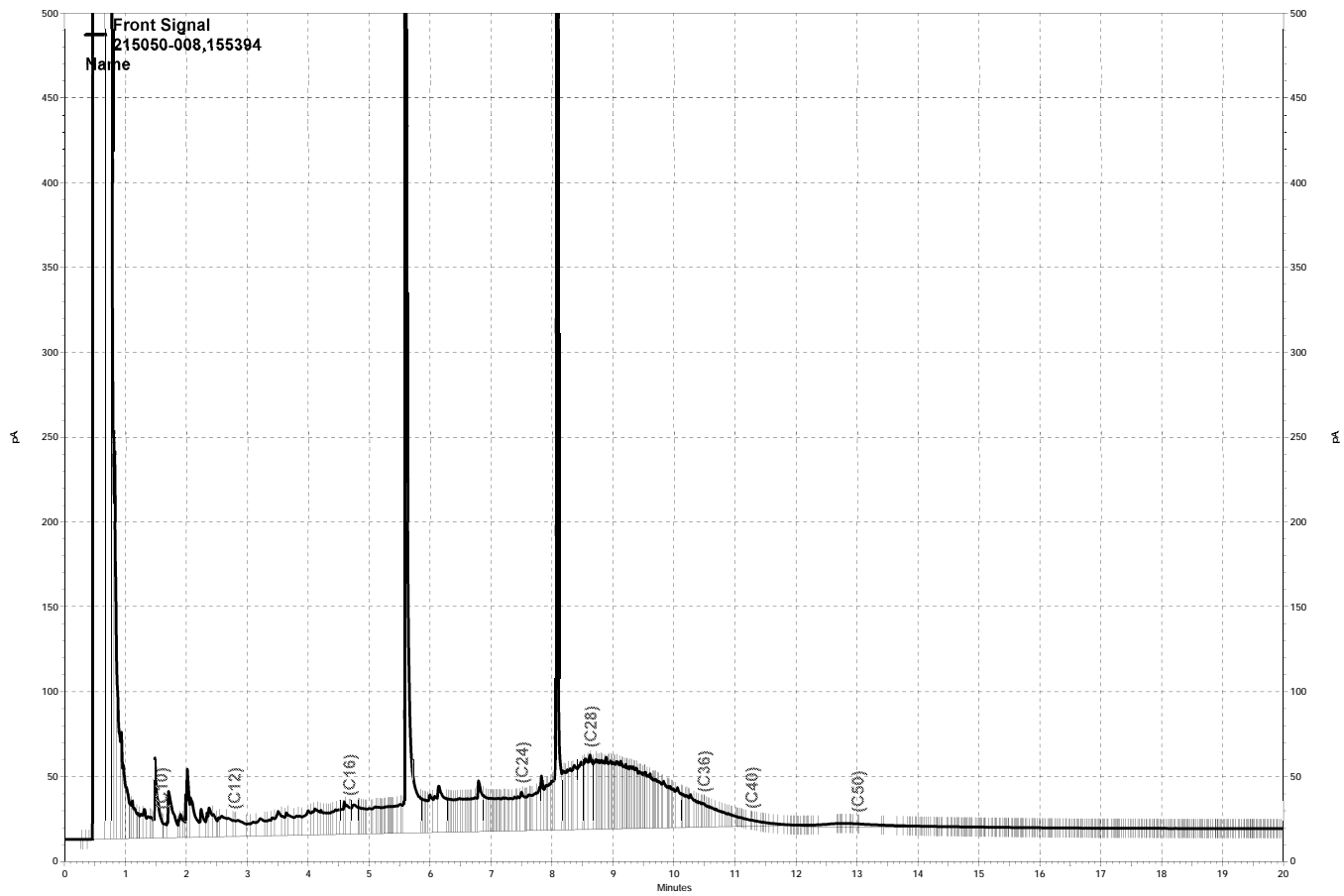


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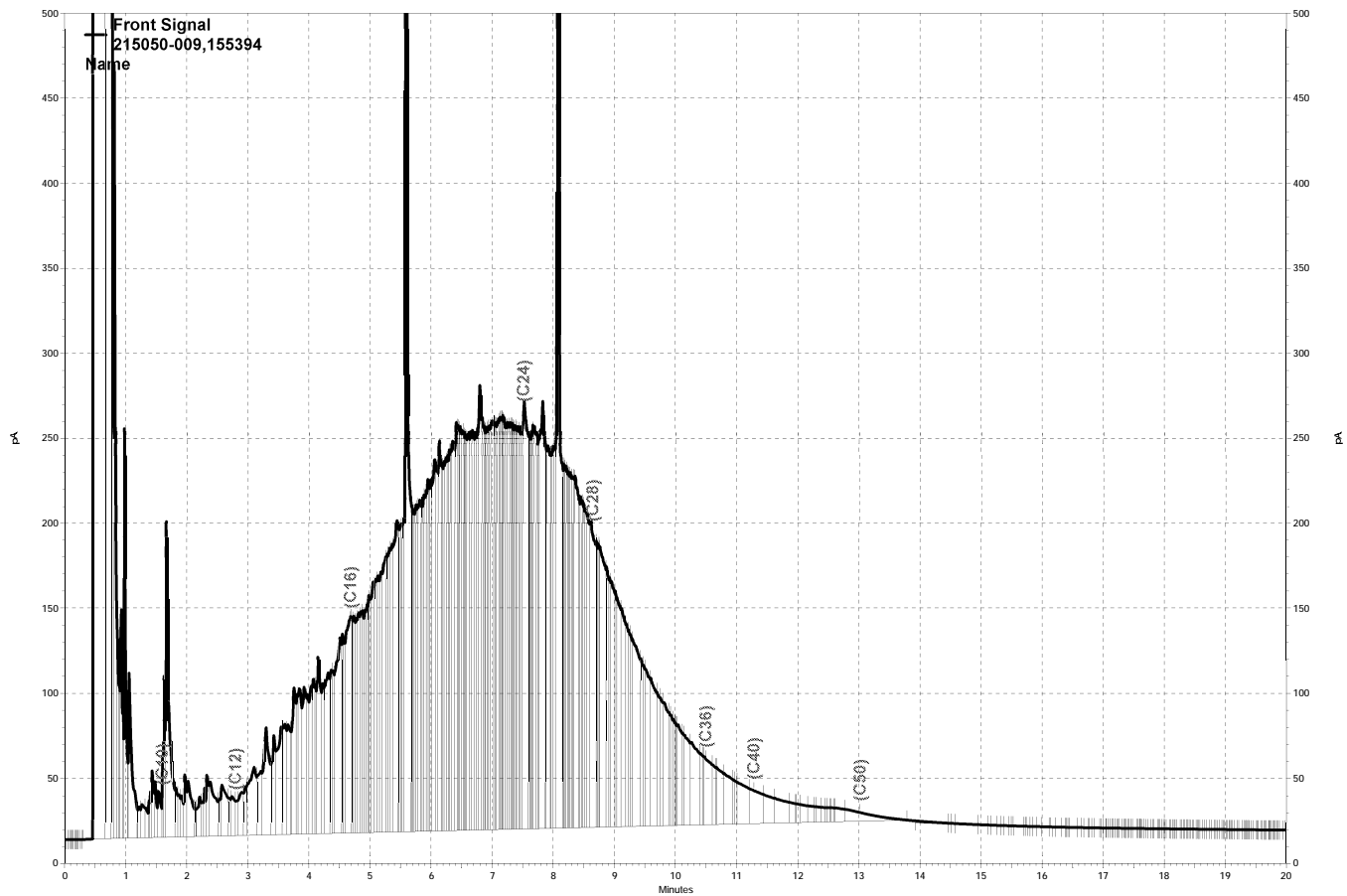




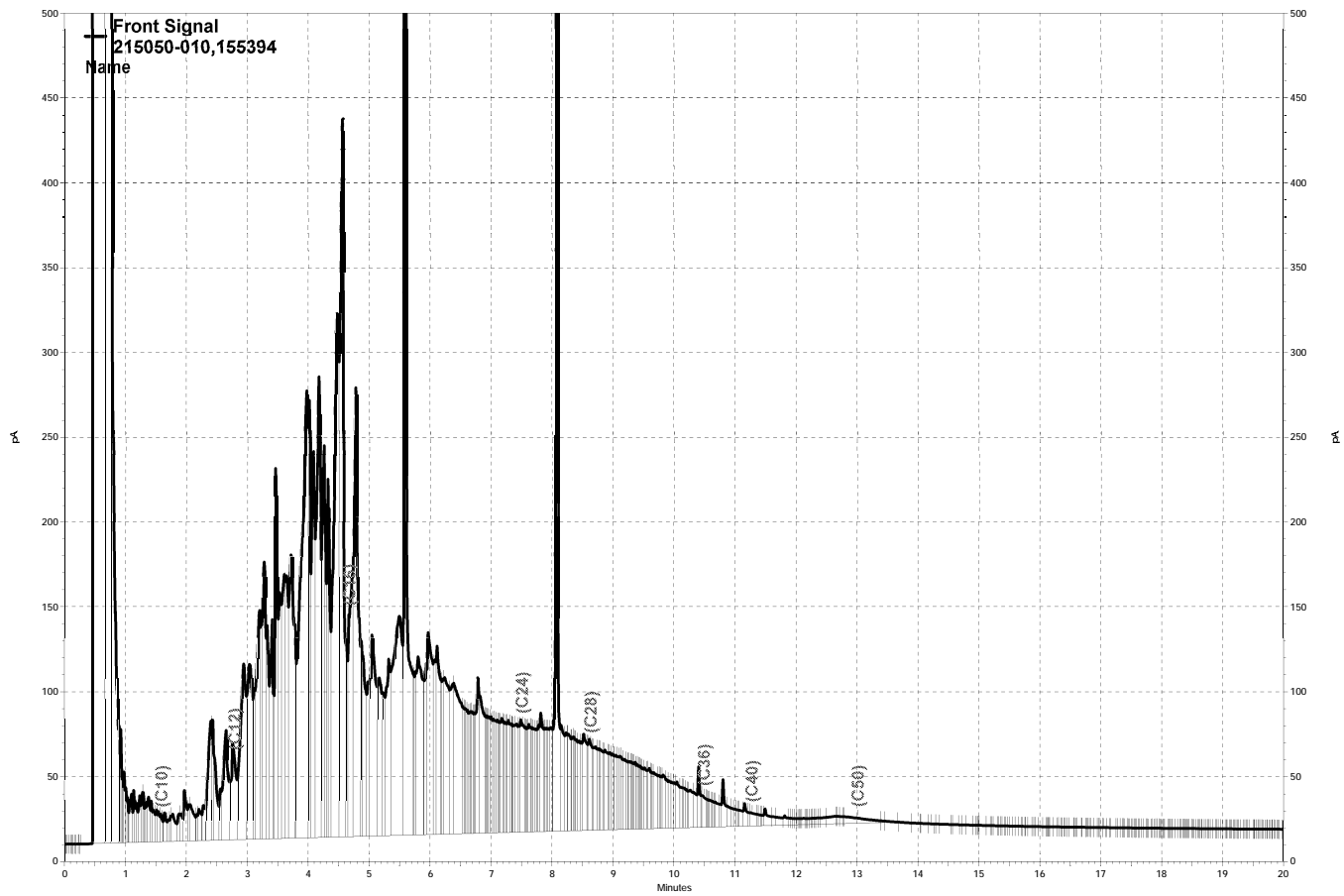
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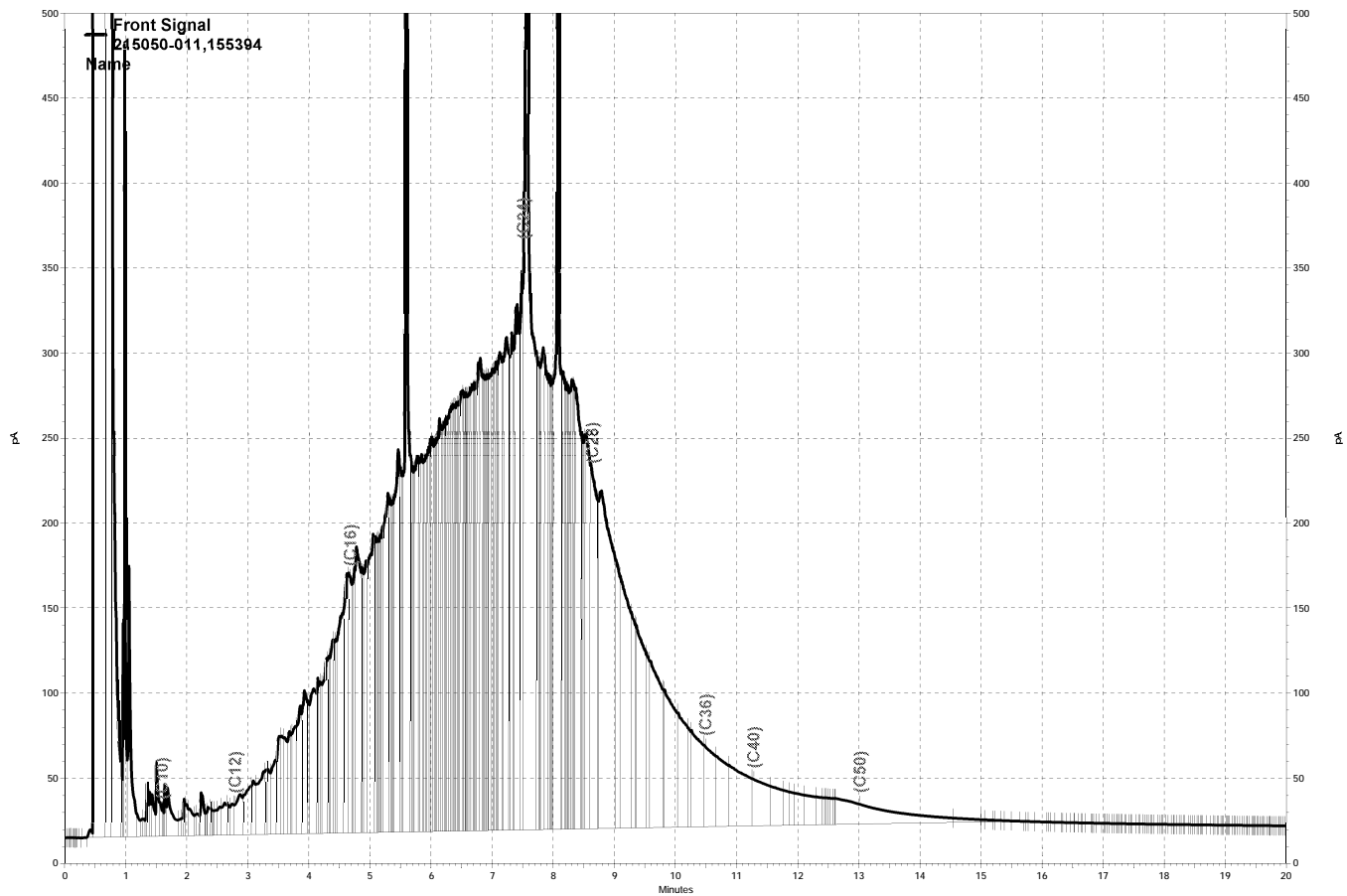
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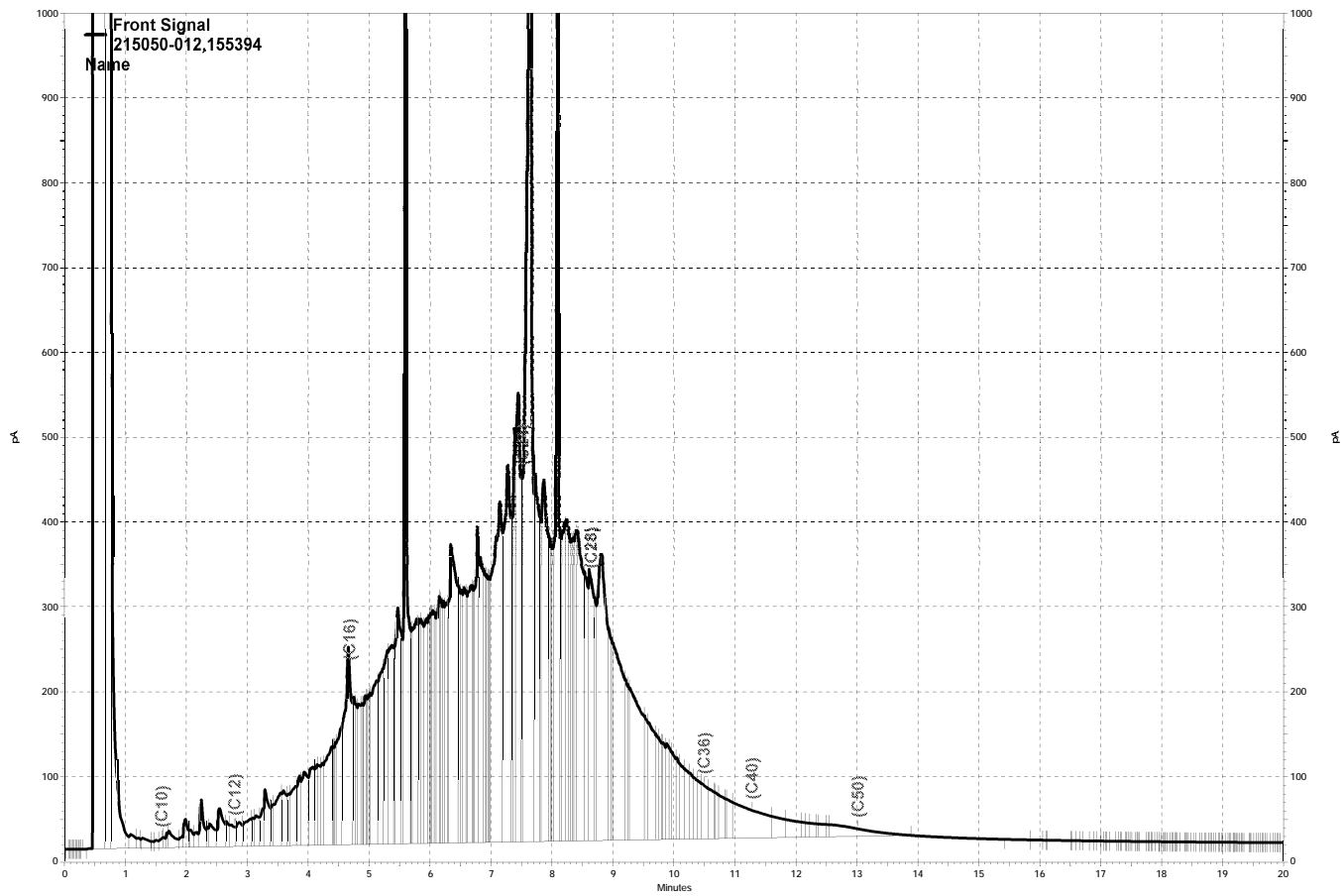
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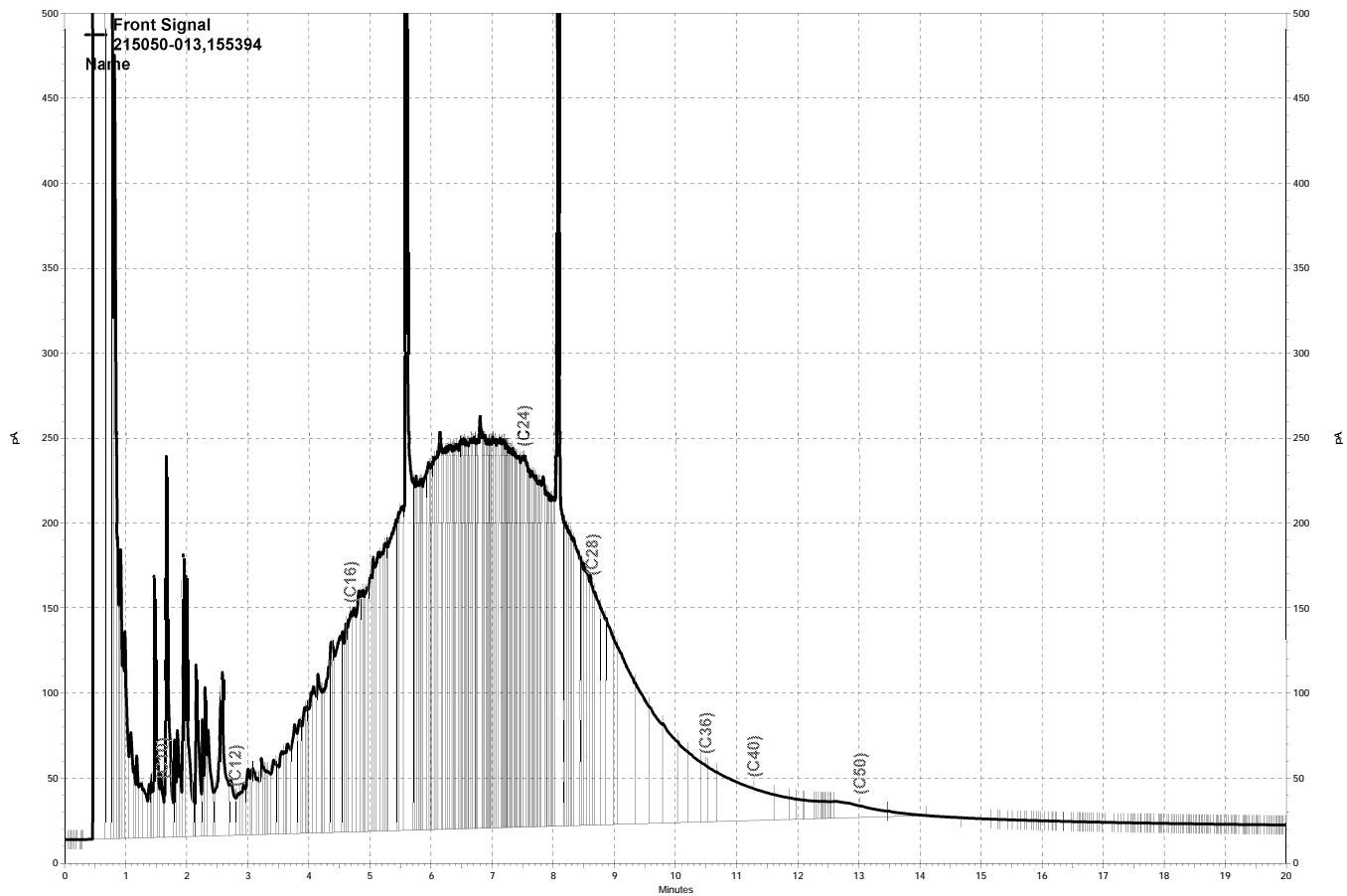
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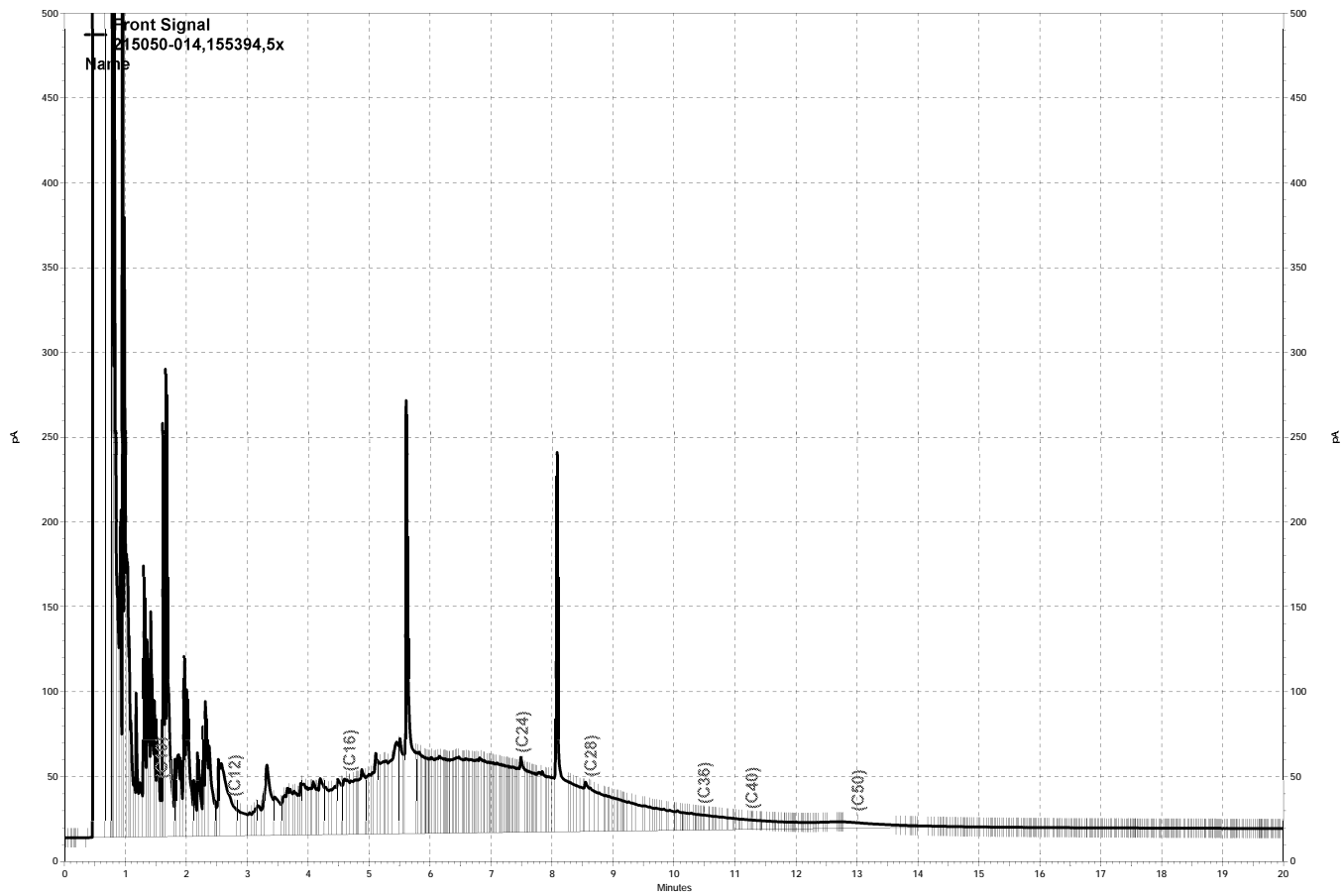
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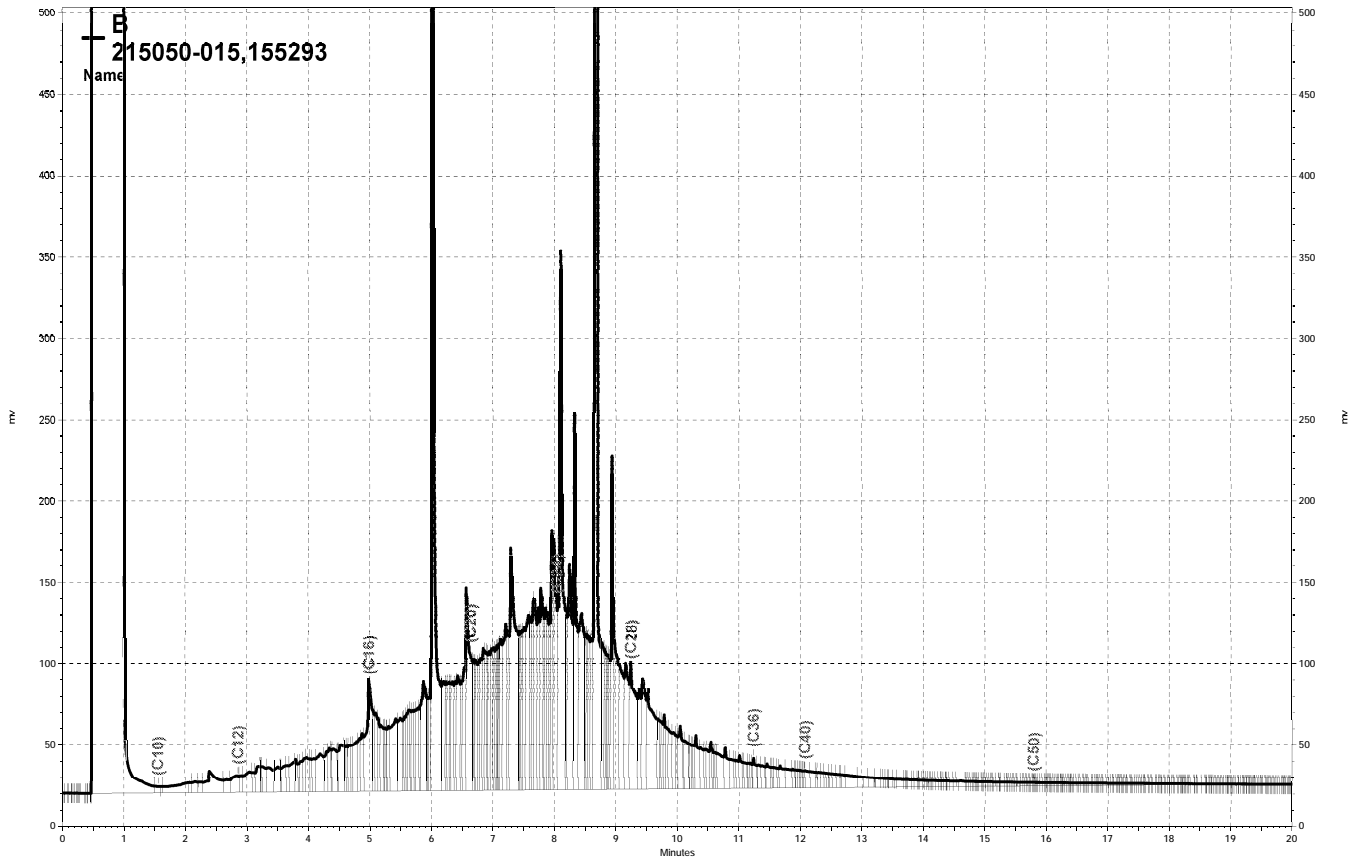
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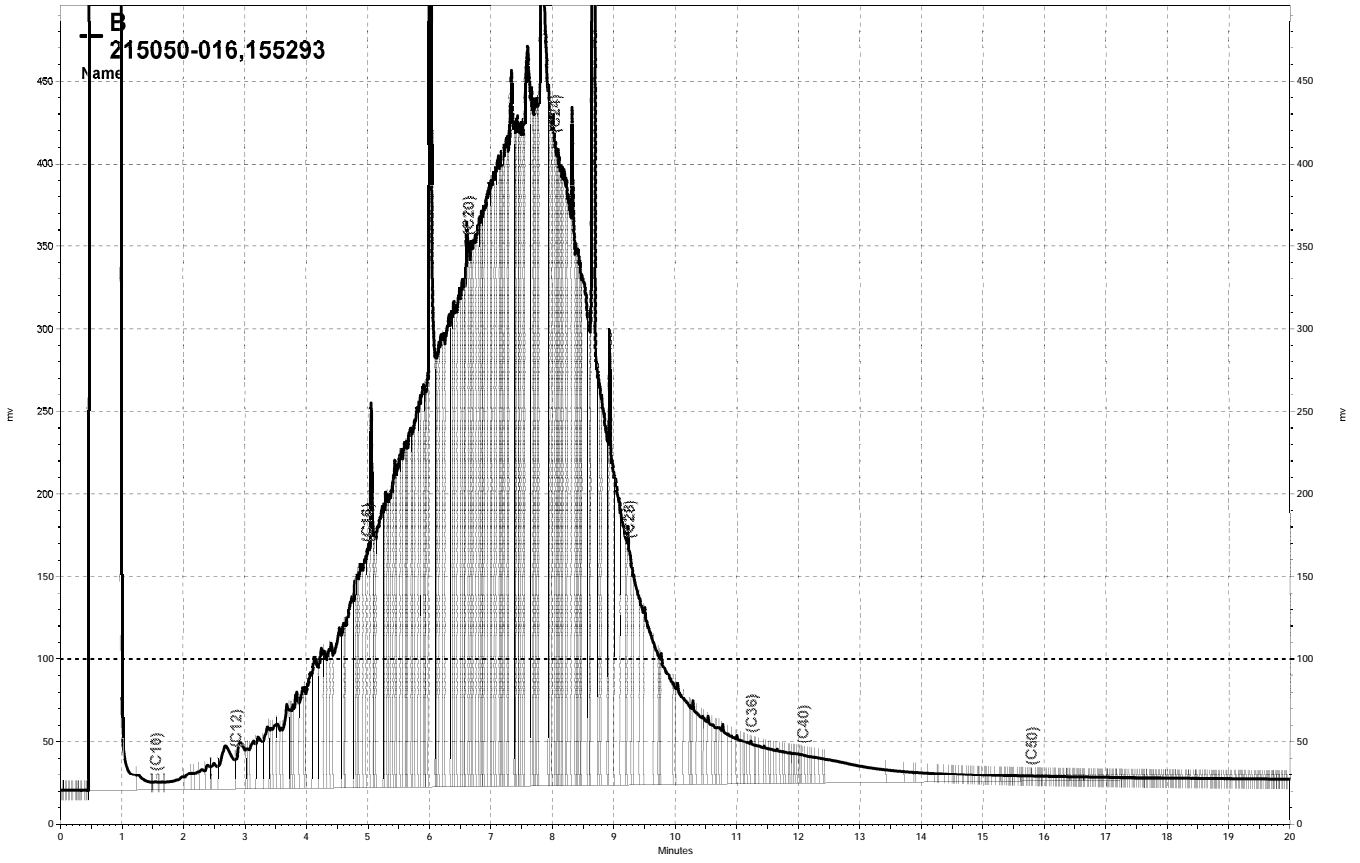
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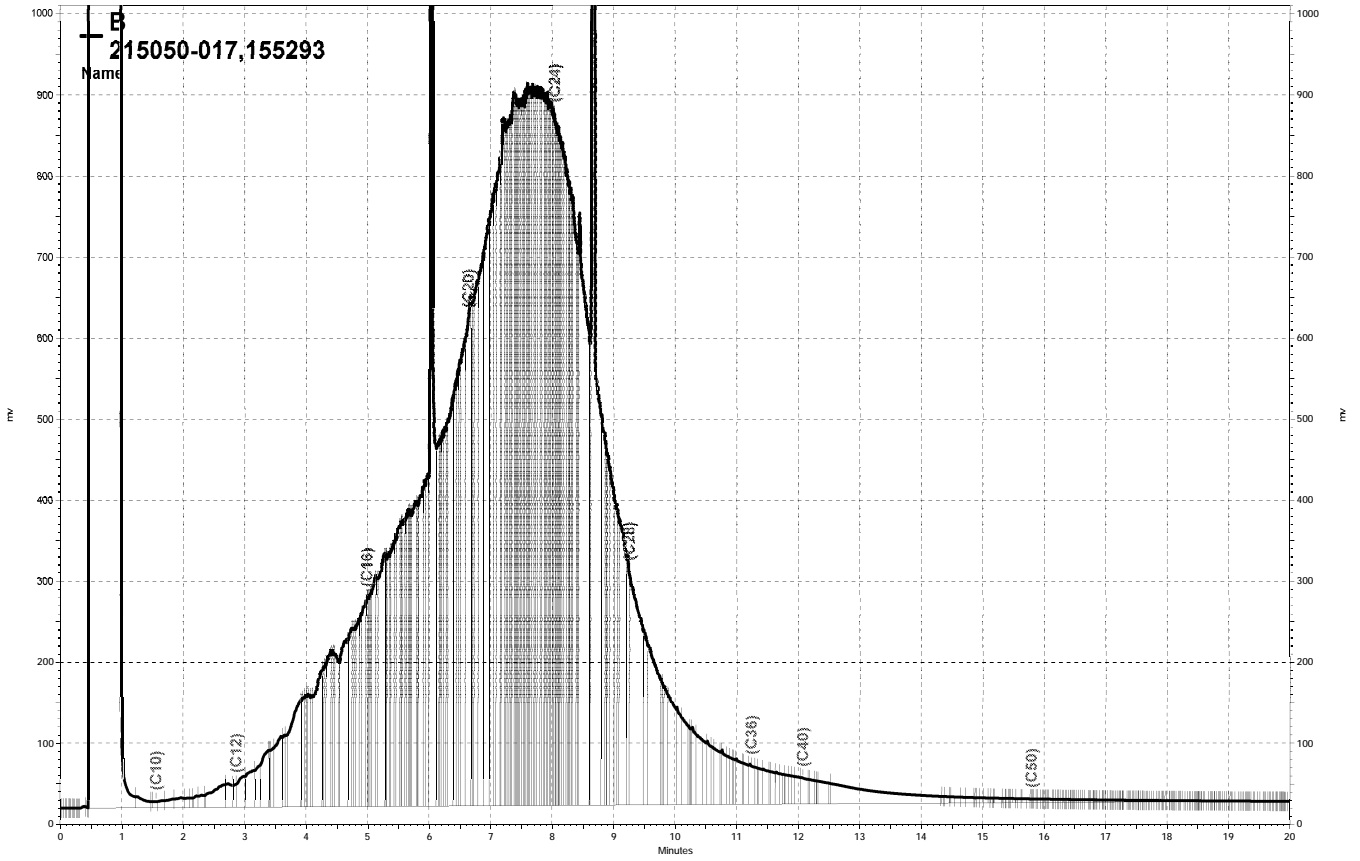
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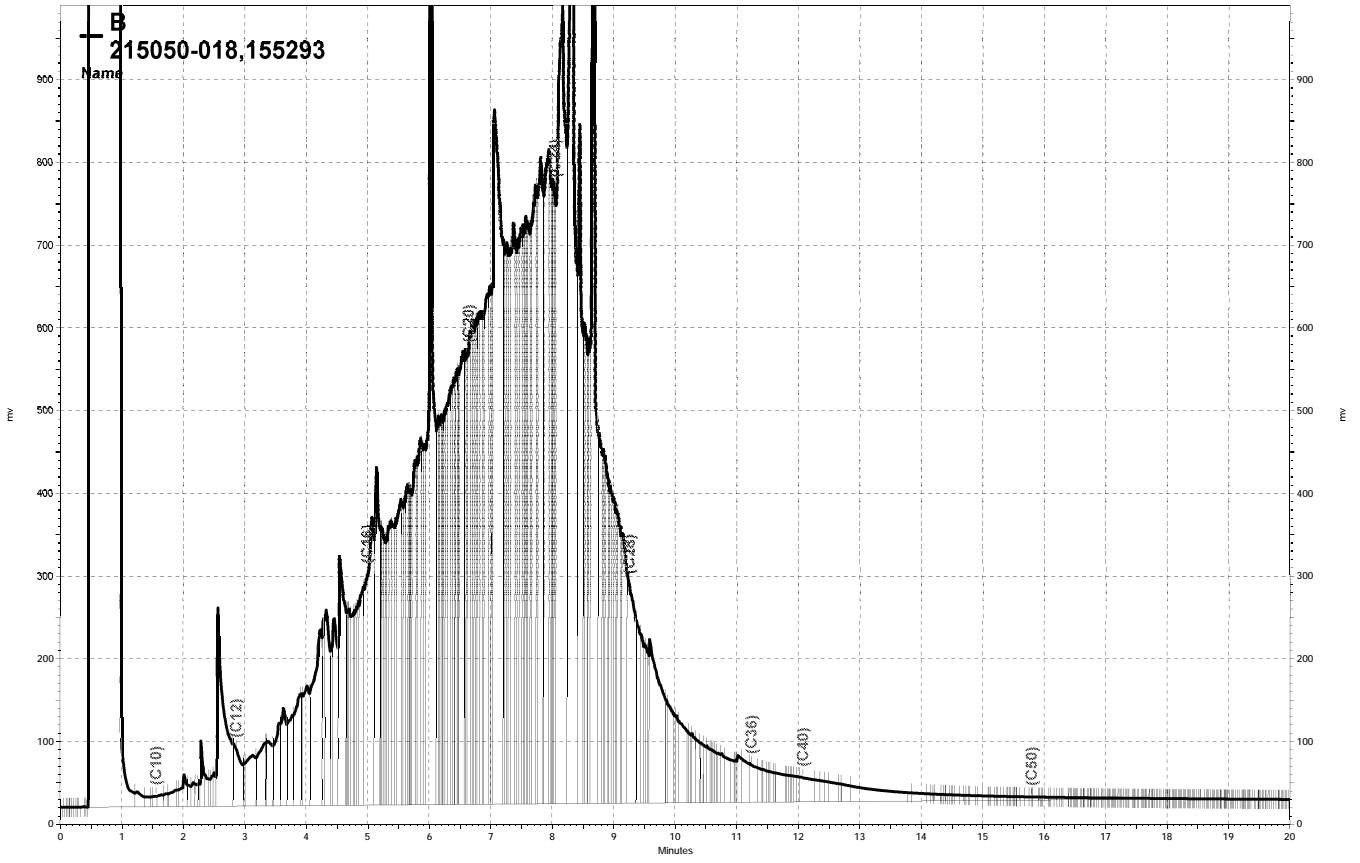
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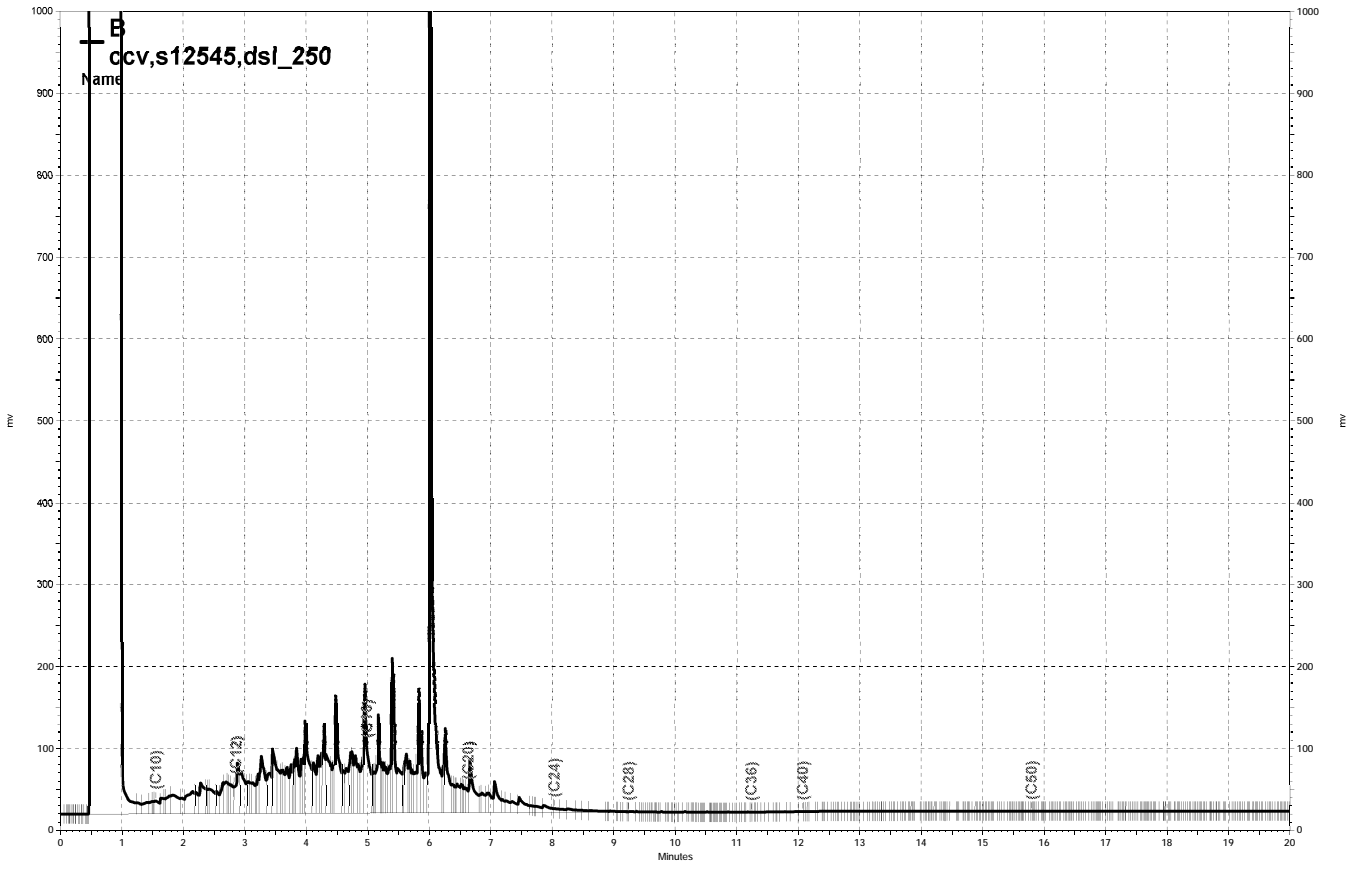
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Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878





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

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

**Laboratory Job Number 215283
ANALYTICAL REPORT**

Stellar Environmental Solutions
2198 6th Street
Berkeley, CA 94710

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

Sample ID
TANK-1

Lab ID
215283-001

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 signature. 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: 10/07/2009

NELAP # 01107CA

CASE NARRATIVE

Laboratory number: 215283
Client: Stellar Environmental Solutions
Project: 2007-65
Location: Bay Center Apts
Request Date: 09/29/09
Samples Received: 09/29/09

This data package contains sample and QC results for one water sample, requested for the above referenced project on 09/29/09. The sample was 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):

TANK-1 (lab # 215283-001) was diluted due to the dark and viscous nature of the sample extract. No other analytical problems were encountered.

COOLER RECEIPT CHECKLIST



Curtis & Tompkins, Ltd.

Login # 25283 Date Received 9/29/09 Number of coolers 1
Client YES Project ENERGY PHASE 1 CONDOS
Date Opened 9/29/09 By (print) M. Villanueva (sign) [Signature]
Date Logged in [Initials] By (print) [Initials] (sign) [Initials]

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 YES 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. Temperature documentation:

Type of ice used: Wet Blue/Gel 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

[Blank lines for comments]

Curtis & Tompkins Laboratories Analytical Report

Lab #: 215283	Location: Bay Center Apts
Client: Stellar Environmental Solutions	Prep: EPA 5030B
Project#: 2007-65	
Field ID: TANK-1	Batch#: 155723
Matrix: Water	Sampled: 09/29/09
Units: ug/L	Received: 09/29/09
Diln Fac: 1.000	

Type: SAMPLE Analyzed: 10/07/09
 Lab ID: 215283-001

Analyte	Result	RL	Analysis
Gasoline C7-C12	3,300	50	EPA 8015B
MTBE	9.8	2.0	EPA 8021B
Benzene	ND	0.50	EPA 8021B
Toluene	11	0.50	EPA 8021B
Ethylbenzene	12	0.50	EPA 8021B
m,p-Xylenes	79 C	0.50	EPA 8021B
o-Xylene	26	0.50	EPA 8021B

Surrogate	%REC	Limits	Analysis
Trifluorotoluene (FID)	127	64-147	EPA 8015B
Bromofluorobenzene (FID)	115	71-138	EPA 8015B
Trifluorotoluene (PID)	96	45-151	EPA 8021B
Bromofluorobenzene (PID)	93	54-134	EPA 8021B

Type: BLANK Analyzed: 10/06/09
 Lab ID: QC515352

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)	100	64-147	EPA 8015B
Bromofluorobenzene (FID)	101	71-138	EPA 8015B
Trifluorotoluene (PID)	77	45-151	EPA 8021B
Bromofluorobenzene (PID)	79	54-134	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 #:	215283	Location:	Bay Center Apts
Client:	Stellar Environmental Solutions	Prep:	EPA 5030B
Project#:	2007-65	Analysis:	EPA 8021B
Matrix:	Water	Batch#:	155723
Units:	ug/L	Analyzed:	10/06/09
Diln Fac:	1.000		

Type: BS Lab ID: QC515353

Analyte	Spiked	Result	%REC	Limits
MTBE	10.00	8.839	88	58-143
Benzene	10.00	9.749	97	75-116
Toluene	10.00	9.738	97	72-124
Ethylbenzene	10.00	11.32	113	74-127
m,p-Xylenes	10.00	11.08	111	73-128
o-Xylene	10.00	11.13	111	73-126

Surrogate	%REC	Limits
Trifluorotoluene (PID)	83	45-151
Bromofluorobenzene (PID)	85	54-134

Type: BSD Lab ID: QC515354

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
MTBE	10.00	8.190	82	58-143	8	31
Benzene	10.00	8.881	89	75-116	9	22
Toluene	10.00	8.379	84	72-124	15	24
Ethylbenzene	10.00	9.031	90	74-127	22	25
m,p-Xylenes	10.00	9.447	94	73-128	16	27
o-Xylene	10.00	9.598	96	73-126	15	25

Surrogate	%REC	Limits
Trifluorotoluene (PID)	86	45-151
Bromofluorobenzene (PID)	85	54-134

RPD= Relative Percent Difference

Batch QC Report

Curtis & Tompkins Laboratories Analytical Report

Lab #:	215283	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:	QC515355	Batch#:	155723
Matrix:	Water	Analyzed:	10/06/09
Units:	ug/L		

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	1,000	913.8	91	77-118

Surrogate	%REC	Limits
Trifluorotoluene (FID)	116	64-147
Bromofluorobenzene (FID)	107	71-138

Batch QC Report

Curtis & Tompkins Laboratories Analytical Report

Lab #:	215283	Location:	Bay Center Apts
Client:	Stellar Environmental Solutions	Prep:	EPA 5030B
Project#:	2007-65	Analysis:	EPA 8015B
Field ID:	ZZZZZZZZZZ	Batch#:	155723
MSS Lab ID:	215247-007	Sampled:	09/25/09
Matrix:	Water	Received:	09/25/09
Units:	ug/L	Analyzed:	10/06/09
Diln Fac:	1.000		

Type: MS Lab ID: QC515356

Analyte	MSS Result	Spiked	Result	%REC	Limits
Gasoline C7-C12	334.3	2,000	2,515	109	66-110

Surrogate	%REC	Limits
Trifluorotoluene (FID)	124	64-147
Bromofluorobenzene (FID)	107	71-138

Type: MSD Lab ID: QC515357

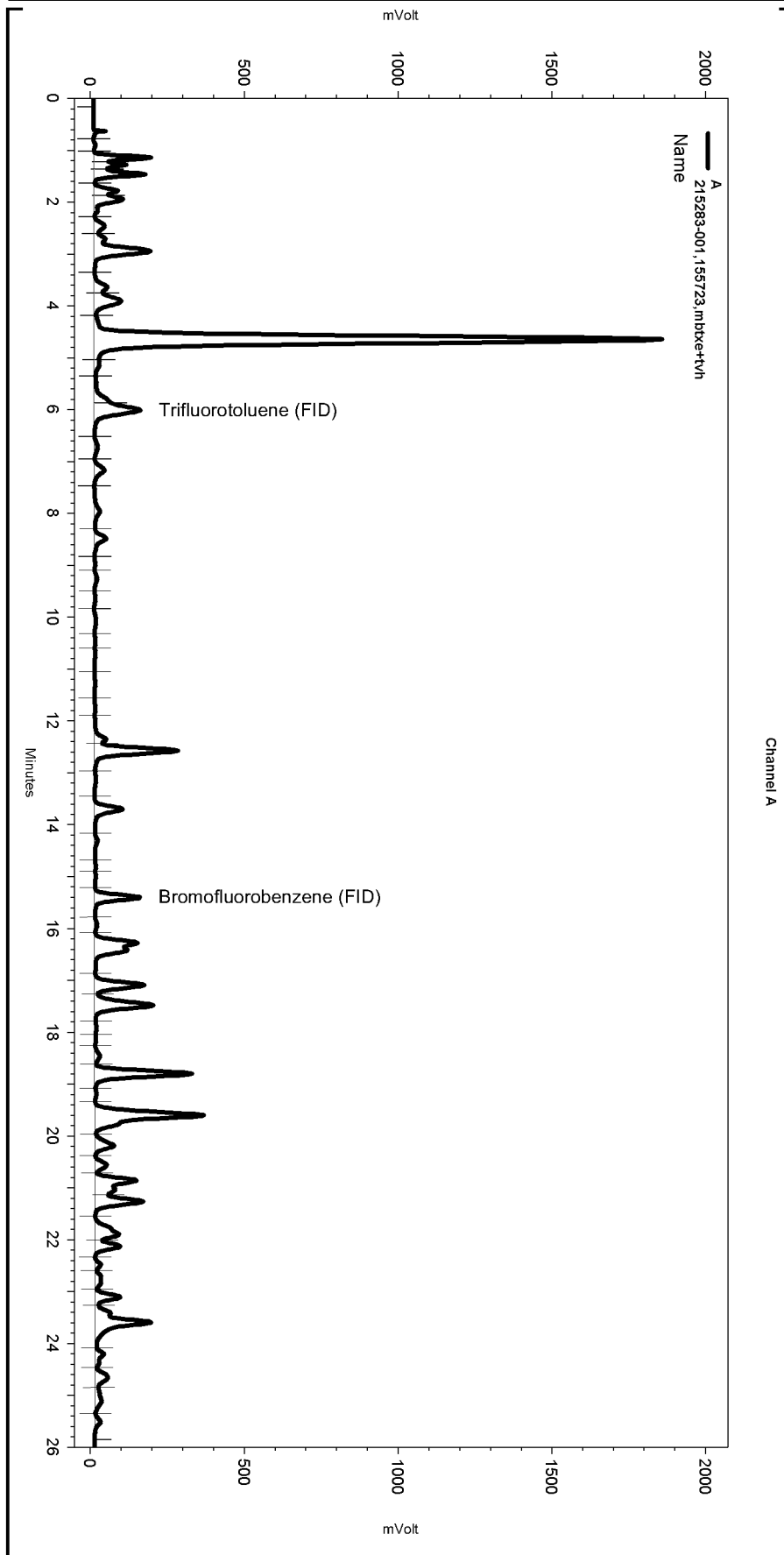
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Gasoline C7-C12	2,000	2,511	109	66-110	0	11

Surrogate	%REC	Limits
Trifluorotoluene (FID)	132	64-147
Bromofluorobenzene (FID)	107	71-138

RPD= Relative Percent Difference

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 Data File: \\Lims\gdrive\ezchrom\Projects\GC07\Data\279_030
 Instrument: GC07 (Offline) Vial: N/A Operator: Tvh 2. Analyst (lims2k3\tvh2)
 Method Name: \\Lims\gdrive\ezchrom\Projects\GC07\Method\TVHBTXE267.met

Software Version 3.1.7
 Run Date: 10/7/2009 3:08:38 AM
 Analysis Date: 10/7/2009 10:08:38 AM
 Sample Amount: 5 Multiplier: 5
 Vial & pH or Core ID: a1.0



---< 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

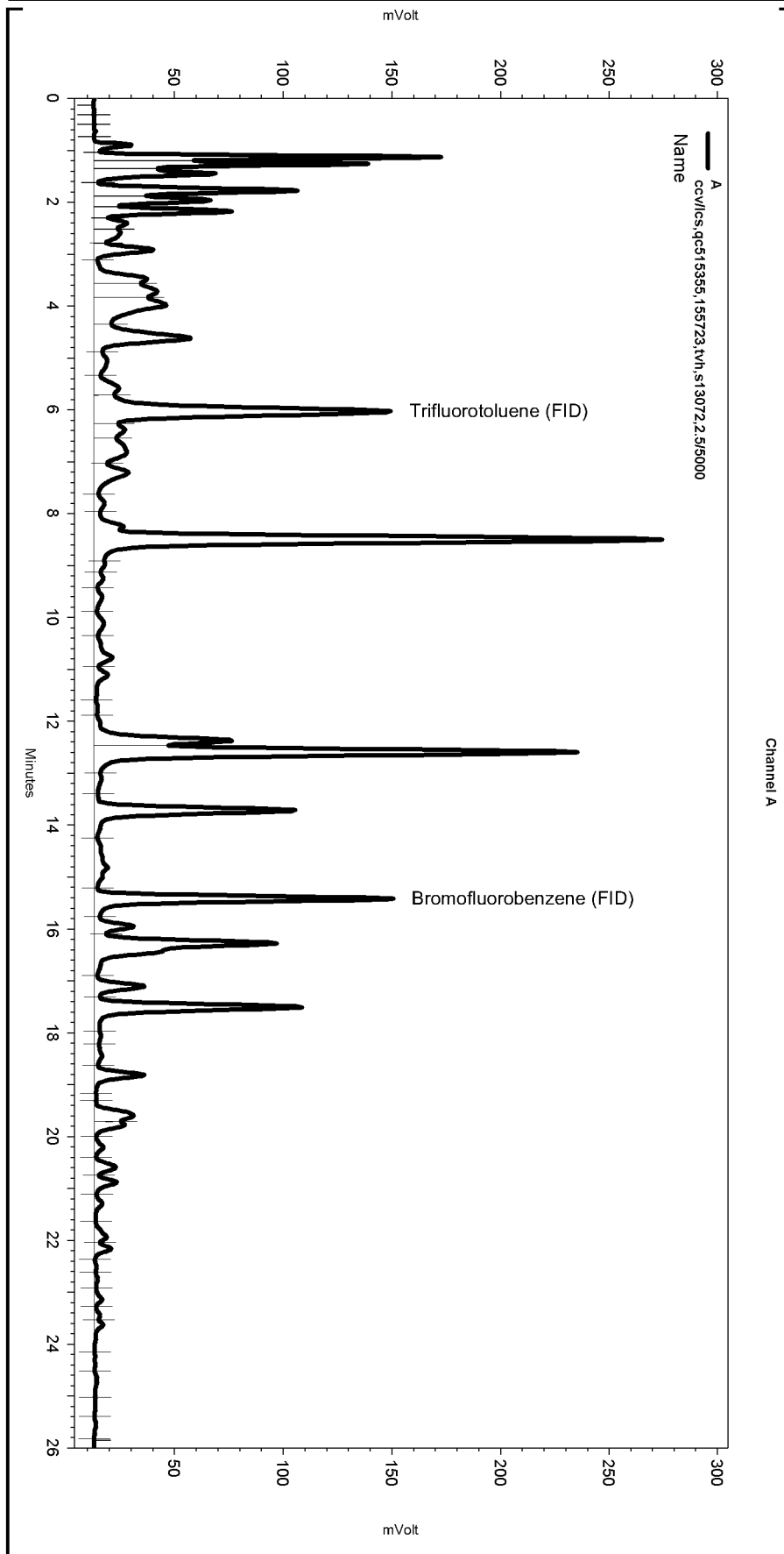
Manual Integration Fixes

Data File: \\Lims\gdrive\ezchrom\Projects\GC07\Data\279_030

Enabled	Event Type	Start (Minutes)	Stop (Minutes)	Value
Yes	Split Peak	5.873	0	0

Sequence File: \\Lims\gdrive\ezchrom\Projects\GC07\Sequence\279.seq
 Sample Name: ccv\lcs,qc515355,155723,tvh,s13072,2,5/5000
 Data File: \\Lims\gdrive\ezchrom\Projects\GC07\Data\279_005
 Instrument: GC07 (Offline) Vial: N/A Operator: Tvh 2. Analyst (lms2k3\tvh2)
 Method Name: \\Lims\gdrive\ezchrom\Projects\GC07\Method\tvhbtxe267.met

Software Version 3.1.7
 Run Date: 10/6/2009 9:59:43 AM
 Analysis Date: 10/7/2009 8:58:02 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\GC07\Data\279_005

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

Total Extractable Hydrocarbons			
Lab #:	215283	Location:	Bay Center Apts
Client:	Stellar Environmental Solutions	Prep:	EPA 3520C
Project#:	2007-65	Analysis:	EPA 8015B
Field ID:	TANK-1	Sampled:	09/29/09
Matrix:	Water	Received:	09/29/09
Units:	ug/L	Prepared:	10/01/09
Batch#:	155561		

Type: SAMPLE Diln Fac: 5.000
 Lab ID: 215283-001 Analyzed: 10/05/09

Analyte	Result	RL
Diesel C10-C24	40,000	250
Motor Oil C24-C36	8,500	1,500

Surrogate	%REC	Limits
o-Terphenyl	119	60-130

Type: BLANK Diln Fac: 1.000
 Lab ID: QC514703 Analyzed: 10/04/09

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

Surrogate	%REC	Limits
o-Terphenyl	98	60-130

ND= Not Detected
 RL= Reporting Limit

Batch QC Report

Total Extractable Hydrocarbons			
Lab #:	215283	Location:	Bay Center Apts
Client:	Stellar Environmental Solutions	Prep:	EPA 3520C
Project#:	2007-65	Analysis:	EPA 8015B
Matrix:	Water	Batch#:	155561
Units:	ug/L	Prepared:	10/01/09
Diln Fac:	1.000	Analyzed:	10/04/09

Type: BS Cleanup Method: EPA 3630C
 Lab ID: QC514704

Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24	2,500	2,376	95	53-122

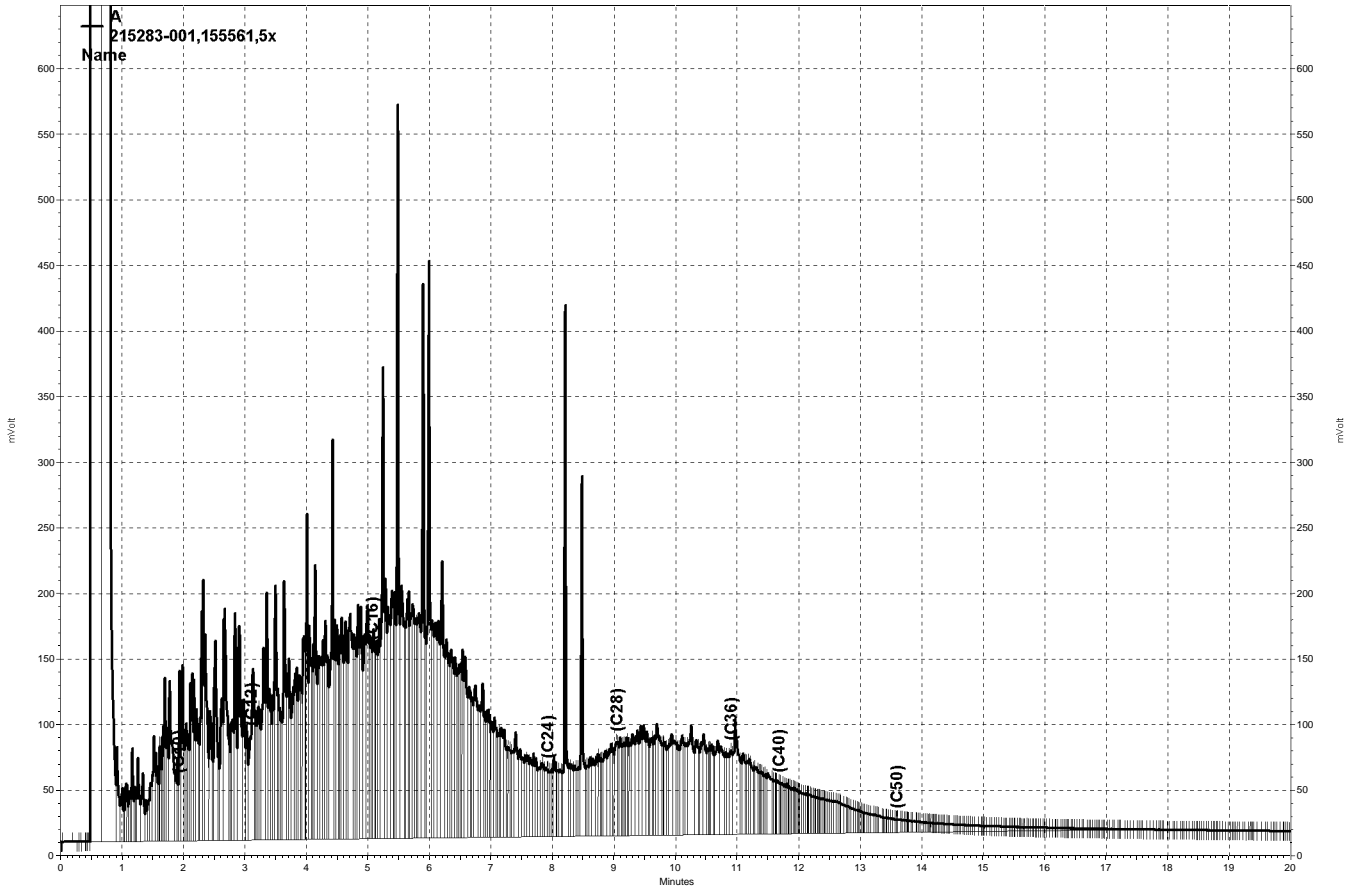
Surrogate	%REC	Limits
o-Terphenyl	105	60-130

Type: BSD Cleanup Method: EPA 3630C
 Lab ID: QC514705

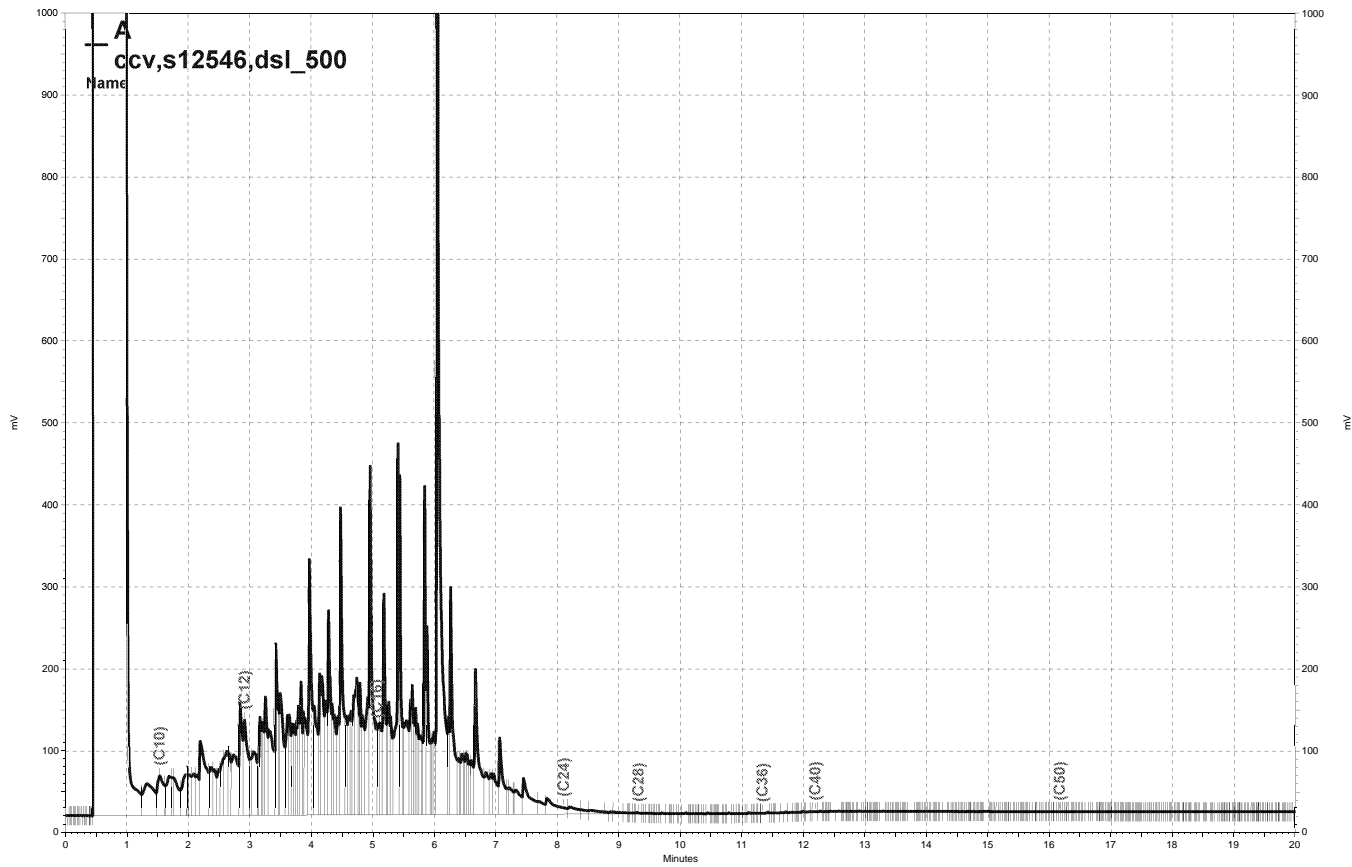
Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Diesel C10-C24	2,500	2,428	97	53-122	2	36

Surrogate	%REC	Limits
o-Terphenyl	109	60-130

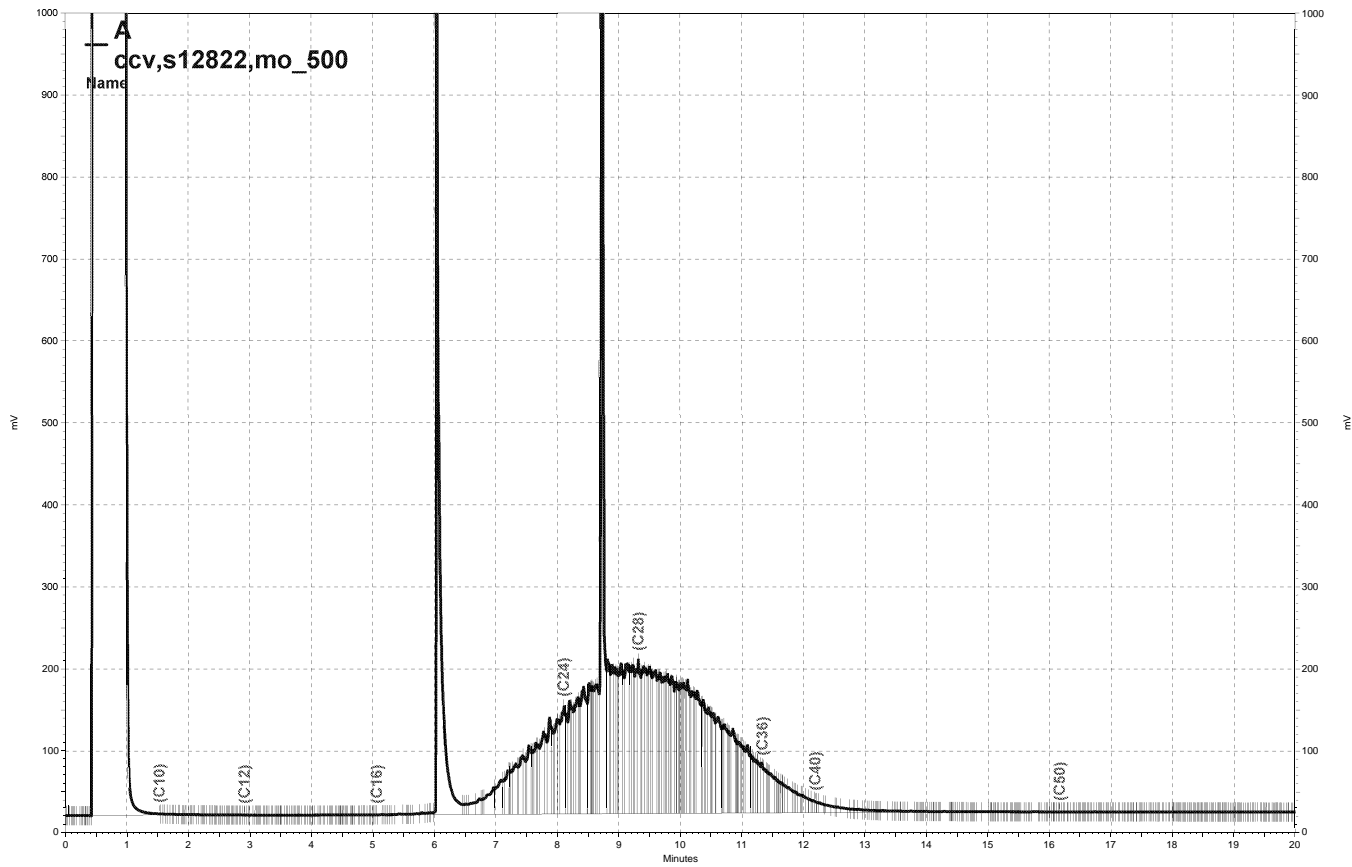
RPD= Relative Percent Difference



— \\Lims\gdrive\ezchrom\Projects\GC26\Data\277a050, A



— \\Lims\gdrive\ezchrom\Projects\GC17A\Data\277a019, A



— \\Lims\gdrive\ezchrom\Projects\GC17A\Data\277a020, 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
9	Sep-08	16.65	9.27	7.95	7.38
10	Dec-08	16.65	8.36	7.49	8.29
11	Mar-09	16.65	7.94	NP	8.71

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
9	Sep-08	16.29	6.85	NP	6.85
10	Dec-08	16.29	7.42	NP	8.87
11	Mar-09	16.29	6.90	NP	9.39

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
9	Sep-08	16.72	8.56	NP	8.16
10	Dec-08	16.72	9.75	NP	6.97
11	Mar-09	16.72	9.31	NP	7.41

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
9	Sep-08	16.82	6.06	NP	10.76
10	Dec-08	16.82	6.91	NP	9.91
11	Mar-09	16.82	6.45	NP	10.37

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
6	Sep-08	17.73	10.37	NP	7.36
7	Dec-08	17.73	10.60	NP	7.13
8	Mar-09	17.73	10.13	NP	7.60

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
6	Sep-08	17.84	9.63	8.89	8.21
7	Dec-08	17.84	9.58	8.89	8.26
8	Mar-09	17.84	9.62	8.89	8.22

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
6	Sep-08	17.84	9.30	NP	8.54
7	Dec-08	17.84	9.83	NP	8.01
8	Mar-09	17.84	9.37	NP	8.47

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 ^(e)	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
6	Sep-08	17.83	8.95	8.84	8.88
7	Dec-08	17.83	8.97	8.74	8.86
8	Mar-09	17.83	9.25	8.54	9.25

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
5	Sep-08	17.76	10.03	NP	7.73
6	Dec-08	17.76	10.34	NP	7.42
7	Mar-09	17.76	10.20	NP	7.56

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
5	Sep-08	17.83	8.76	NP	9.07
6	Dec-08	17.83	8.98	NP	8.85
7	Mar-09	17.83	8.50	NP	9.33

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
5	Sep-08	17.66	10.34	9.54	7.32
6	Dec-08	17.66	10.54	9.65	7.12
7	Mar-09	17.66	9.26	9.14	8.40

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
5	Sep-08	17.60	8.64	NP	8.96
6	Dec-08	17.60	8.70	NP	8.90
7	Mar-09	17.60	9.25	NP	9.25

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
5	Sep-08	17.80	8.84	8.84 ^(f)	8.96
6	Dec-08	17.80	9.19	8.36	8.61
7	Mar-09	17.80	8.70	NP	9.10

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
5	Sep-08	17.74	9.07	NP	8.67
6	Dec-08	17.74	9.45	NP	8.29
7	Mar-09	17.74	8.88	NP	8.86

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
5	Sep-08	18.17	9.21	7.92	8.96
6	Dec-08	18.17	9.25	9.11	8.92
7	Mar-09	18.17	8.89	NP	9.28

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	Mar-04	16.35	8.34	NP	8.01
4	Jun-08	16.35	8.34	NP	8.20
5	Sep-08	16.35	8.48	NP	7.87
6	Dec-08	16.35	8.61	NP	7.74
7	Mar-09	16.35	7.75	NP	8.60

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
9	Sep-08	17.47	9.55	NP	7.92
10	Dec-08	17.47	10.32	NP	7.15
11	Mar-09	17.47	9.79	NP	7.68

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 ^(e)	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
9	Sep-08	16.70	NM ^(c)	NM ^(c)	NM ^(c)
10	Dec-08	16.70	NM ^(c)	NM ^(c)	NM ^(c)
11	Mar-09	16.70	9.06 ^(c)	9.06 ^(c)	7.64

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

NM - Not measured

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

^(a) 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.

^(f) 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	
Aug-08	0.12	---	---	---	---	---	0.048	---	0.024	0.009	---	---	---	---	---	---	0.75	0.9	1.6	0.7	0.3	0.3	---	0.15	---	4.90	
Sep-08	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.03	0.09	0.048	---	---	---	---	---	0.17	
Nov-08	0.078	---	---	---	0.009	---	---	---	0.06	0.009	---	---	---	0.003	0.06	---	0.6	0.1	0.03	---	0.06	0.06	0.06	0.06	0.09	0.09	1.37
Dec-08	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.0003	0.08	---	---	---	---	0.03	---	---	0.11
2008 Total	15.99																										
Mar-09	0.279	---	---	---	0.378	---	0.369	---	0.261	0.007	0.023	0.117	---	0.342	---	0.023	1.800	0.750	0.950	1.010	0.153	0.153	0.153	0.653	0.153	0.153	7.73
Jun-09	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.5	---	---	---	---	---	---	---	---	0.50
Sep-09	0.286	---	---	0.022	0.418	---	0.176	0.308	0.176	0.088	0.007	0.176	0.088	0.176	0.022	0.066	7.15	1.4	1.1	1.2	1.1	1.1	1.1	1.1	1.1	1.1	19.46
Dec-09	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0	0.9	0.06	---	---	---	0	---	---	0.96
2009 Total	28.65																										
Total Extracted	0.88	0.05	0.02	0.02	2.63	0.00	3.31	0.33	0.63	1.34	0.55	0.51	0.10	0.72	0.03	0.10	61.11	19.33	22.42	26.25	1.65	1.67	1.37	2.77	1.39	1.39	150.56

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

APPENDIX F

Groundwater Disposal Documentation

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator ID Number CA1000331636	2. Page 1 of 1	3. Emergency Response Phone 800-424-9300	4. Manifest Tracking Number 004002863 JJK		
5. Generator's Name and Mailing Address Bay Center Apartments 6400 Christie St Emeryville CA 94604				Generator's Site Address (if different than mailing address)			
6. Transporter 1 Company Name EVERGREEN ENVIRONMENTAL SERVICES				U.S. EPA ID Number CAD982413262			
7. Transporter 2 Company Name				U.S. EPA ID Number			
8. Designated Facility Name and Site Address EVERGREEN OIL, INC. 6880 SMITH AVENUE NEWARK CA 94560				U.S. EPA ID Number CAD980867419			
Facility's Phone: 510-795-4400							
9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers		11. Total Quantity	12. Unit Wt./Vol	13. Waste Codes	
		No	Type				
1.	NON-RCRA HAZARDOUS WASTE. LIQUID (oil & water)	001	TT	1120	G	223	
2.							
3.							
4.							
14. Special Handling Instructions and Additional Information PROFILE # _____ Invoice # 523350 DOT ERG# 171 WEAR PROTECTIVE CLOTHING Sales Order # 0246114							
15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.							
Generator's/Officer's Printed/Typed Name Teal Gross				Signature <i>[Signature]</i>		Month Day Year 10/25/09	
16. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S. Port of entry/exit: _____ Transporter signature (for exports only): _____ Date leaving U.S.: _____							
17. Transporter Acknowledgment of Receipt of Materials							
Transporter 1 Printed/Typed Name STESS FALONE				Signature <i>[Signature]</i>		Month Day Year 10/25/09	
Transporter 2 Printed/Typed Name				Signature		Month Day Year	
18. Discrepancy							
18a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection							
18b. Alternate Facility (or Generator)						Manifest Reference Number	
Facility's Phone:						U.S. EPA ID Number	
18c. Signature of Alternate Facility (or Generator)						Month Day Year	
19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)							
1. H-135		2.		3.		4.	
20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a							
Printed/Typed Name DeAndre Green				Signature <i>[Signature]</i>		Month Day Year 9/29/09	