URS

February 18, 2010

Ms. My Le
Coordinator - Division of Environmental Protection
Department of Environmental Health
Alameda County Health Agency
1131 Harbor Bay Parkway
Alameda, California 94502-6577

Re: Third Quarter 2009 Groundwater Monitoring at Former Celis-Alliance Fuel Station Site, 4000 San Pablo Avenue, Emeryville, California

Dear Ms. Le or Current Case Officer,

On behalf of the City of Emeryville Redevelopment Agency (the City), URS Corporation (URS) is pleased to submit this *Third Quarter 2009 Groundwater Monitoring Report* for the evaluation of petroleum hydrocarbon contamination from the former Celis-Alliance Service Station. The former Celis-Alliance Service Station is located at the 40th Street Right-of-Way between San Pablo Avenue and Adeline Street. The work was performed in general accordance with the URS *Monitoring Well Installation Work Plan* dated December 15, 2006.

I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge.

Please feel free to contact us at (510) 874-3080 if you have any questions or comments.

Sincerely,

URS Corporation

Jacob Henry, P.G.
Senior Geologist

PROFESSIONAL GEOLOGIST
JACOB T. HENRY
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exp. 12/31/2011
STATE OF CALIFORNIA

REGISTERED GEOLOGIST
GEORGE MUEHLECK
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URS

February 18, 2010

Ms. My Le
Coordinator - Division of Environmental Protection
Department of Environmental Health
Alameda County Health Agency
1131 Harbor Bay Parkway
Alameda, California 94502-6577

Reference: **Alameda County Fuel Leak Case RO0000453**

Subject: **FINAL - Third Quarter 2009 Groundwater Monitoring**
Former Celis-Alliance Service Station
4000 San Pablo Avenue, Emeryville, California

Dear Ms. Le or Current Case Officer:

On behalf of the City of Emeryville Redevelopment Agency (the City), URS Corporation (URS) is pleased to submit this *Third Quarter 2009 Groundwater Monitoring Report* to Alameda County Environmental Health (ACEH) for the Former Celis-Alliance Service Station, located at the intersection of San Pablo Avenue and 40th Street in Emeryville, California (the site; Figures 1 and 2). The work described herein was performed in general accordance with the December 15, 2006, *Monitoring Well Installation Work Plan* (Work Plan; URS, 2006) prepared in response to an October 12, 2006, ACEH letter to the City (ACEH, 2006).

BACKGROUND

As described in the August 29, 2007, *Monitoring Well Installation* report (URS, 2007), five groundwater monitoring wells (URS-MW-1 through URS-MW-5; Figure 2) were installed at the site in June and July 2007 to evaluate the upgradient and downgradient areal extent of petroleum hydrocarbons originating from the former leaking underground storage tanks (USTs) located at the site (Figure 2). The existing downgradient monitoring well LF-MW-4 also was included in the URS monitoring program. An initial groundwater monitoring event was performed on July 10, 2007. This was followed by monitoring events on October 31, 2007, January 18, 2008, and September 21, 2009. The September 2009 monitoring event is summarized herein. The existing on-site URS well WCEW-1 is included in the adjacent Oak Walk Redevelopment groundwater monitoring program, and has not been monitored by URS since 2004. The URS monitoring program was coordinated with the adjacent Oak Walk site monitoring program. Celis' site monitoring well construction and groundwater elevation data are included in Table 1.

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GROUNDWATER MONITORING PROGRAM

The groundwater monitoring program consists of groundwater sample collection from six URS installed wells (URS-MW-1 through URS-MW-5) and one existing well (LF-MW-4). At the time of this sampling event, groundwater monitoring activities were to be coordinated with those at the adjacent SNK site as well as with the former Dunne Paint Company (also know as Green City Development), and the former ONE sites, as possible. Specific details of the groundwater monitoring program scope of work are outlined below:

- Prior to purging, static groundwater levels are measured to the nearest 0.01 foot in each well.
- The volume of water in each well is calculated, and a minimum of three casing volumes of water are removed from each well. The purged water is monitored for pH, temperature, specific conductance, and dissolved oxygen, which are recorded on field logs. The wells are allowed to recover to within 80 percent of the initial static water level whenever possible prior to sampling. All purge and sampling equipment used at each well is new and disposable, thereby requiring no decontamination prior to use or between monitoring well locations.
- Purge and decontamination water is stored in 55-gallon drums that meet the Department of Transportation (DOT) specifications for transport of potential hazardous material. The drums are labeled and transported off site to the City of Emeryville Corporation Yard for temporary storage pending the selection of a final disposal option.
- Sample bottles are labeled, packaged, and stored in an ice-chilled cooler with a trip blank and delivered under chain-of-custody protocol to a state-certified analytical laboratory for analysis for benzene, toluene, ethylbenzene, and total xylenes (BTEX); fuel oxygenates (methyl tertiary butyl ether [MTBE], tert-butyl alcohol [TBA], di-isopropyl ether [DIPE], ethyl tert-butyl ether [ETBE], and tert-amyl methyl ether [TAME]); total volatile hydrocarbons quantified as gasoline (TVH-g); total volatile hydrocarbons quantified as mineral spirits (TVH-ms); and total extractable hydrocarbons quantified as diesel (TEH-d).

FIELD ACTIVITIES

The third quarter 2009 groundwater monitoring event was performed on September 21, 2009 by URS subcontractor Blaine Tech Services, Inc. (BTS). Depth to water measurements and groundwater elevations are included in Table 1. Light nonaqueous phase liquid hydrocarbons (LNAPL) were not encountered in any well. Three casing volumes of water were purged from each well without dewatering, and sampling was conducted after recovery to 80 percent of initial static water level. Groundwater monitoring field logs are included in Attachment A. Samples were transported to Curtis & Tompkins, Ltd., of Berkeley, California. The chain-of-custody document is included in Attachment B.

RESULTS AND DISCUSSION

The following section of this report includes a summary of hydrogeologic conditions from water level monitoring data, analytical results, and the quality assurance/quality control evaluation for the analytical results.

Hydrogeologic Conditions

Static depth to groundwater in the monitoring wells ranged from 5.84 to 9.89 feet below top-of-casing (TOC). Water levels were slightly higher than in the previous July 2008 monitoring event. Groundwater elevation data indicate that the direction of groundwater flow is to the west-southwest at a gradient of 0.02 foot per foot, which is slightly greater than the previous monitoring event. A groundwater elevation contour map is presented as Figure 3. The groundwater gradient and flow direction were generally consistent with previous monitoring events. Historic groundwater flow direction data indicates that the monitoring wells are located as follows with respect to the Celis site:

- URS-MW-1 - Cross-Gradient
- URS-MW-2 - Downgradient
- URS-MW-3 - Downgradient
- URS-MW-4 - Downgradient
- URS-MW-5 - Upgradient of Celis and Cross-to Down-gradient of the San Francisco Bread Company site.
- LF-MW-4 – Cross- to Down-gradient.

Analytical Results

Analytical results are summarized below. Table 2 includes a summary of analytical results for all of the compounds analyzed. Laboratory reports are included in Attachment B.

Total Petroleum Hydrocarbons

TVH-g were detected above the laboratory reporting limits (RLs) in groundwater samples collected from wells URS-MW-1, URS-MW-5, and LF-MW-4 at 120 micrograms per liter (µg/L), 150 µg/L, and 490 µg/L, respectively. TVH-ms were detected above the RLs in groundwater samples collected from wells URS-MW-1, URS-MW-5, and LF-MW-4 at 83 µg/L, 99 µg/L and 320 µg/L, respectively. TEH-d were detected above the RLs in groundwater samples collected from wells URS-MW-1, URS-MW-2, URS-MW-4, URS-MW-5, and LF-MW-4 at 90 µg/L, 210 µg/L, 110 µg/L, 1,100 µg/L, and 1,600 µg/L, respectively. Laboratory chromatographic patterns did not match standards for gasoline, mineral spirits, and diesel, respectively, for detections of TVH-g in URS-MW-1, URS-MW-5 and LF-MW-4; TVH-ms in URS-MW-5 and LF-MW-4; and TEH-d in all wells sampled except URS-MW-3. Groundwater iso-concentration contour maps depicting TVH-g, TVH-ms and TEH-d concentrations are presented as Figures 4 and 5 respectively. Groundwater monitoring

has only been coordinated with the adjacent Oak Walk site. As such, the data in these figures has only been updated for the Celis and Oak Walk sites.

Generally, petroleum hydrocarbon concentrations have remained relatively stable or declined since the previous monitoring event in all wells. Three of the analytes detected in groundwater samples exceeded San Francisco Bay Regional Water Quality Control Board (RWQCB) updated Tier 1 environmental screening levels (ESLs) for sites where groundwater is not a potential drinking water resource (RWQCB, 2008; Tables B and D). The ESL of 210 µg/L for TVH-g was exceeded by the sample from LF-MW-4 (490 µg/L). The ESL of 210 µg/L for TVH-ms was exceeded by the sample from LF-MW-4 (320 µg/L). The ESL of 210 µg/L for TEH-d was exceeded by samples from URS-MW-2 (210 µg/L), URS-MW-5 (1,100 µg/L), and LF-MW-4 (1,600 µg/L). Since the last groundwater monitoring event (first quarter 2008) the ESLs have been updated. Accordingly, URS has updated Table 2 to account for the changes to the ESLs for TVH-g (previous Interim Final February 2005 of 500 µg/L to the current May 2008 Revision of 210 µg/L), TVH-ms (previous 640 µg/L to current 210 µg/L), and TEH-d (previous 640 µg/L to current 210 µg/L). Note that the Tier 1 ESLs are used in this report as a comparative reference, but as stated in RWQCB, 2008, they are not regulatory cleanup standards. Chemicals that fall below their respective ESLs are, however, under most circumstances, and within the limitations described in RWQCB, 2008, at concentrations that can be assumed to not pose a significant, long-term (chronic) threat to human health and the environment. The RWQCB further states that a chemical at a concentration in excess of an ESL does not necessarily indicate that adverse impacts to human health or the environment are occurring.

Analytical results of the groundwater samples collected during this event, compared with the previous first quarter 2008 event, indicated a decrease in TVH-g concentrations in samples collected from all wells. TVH-ms concentrations increased slightly in the sample collected from well URS-MW-1, and decreased in samples from wells URS-MW-5 and LF-MW-4. TEH-d concentrations decreased in samples collected from wells URS-MW-1 and URS-MW-5 during this event, and increased in samples from wells URS-MW-2 and LF-MW-4. TEH-d concentrations remained the same in the sample collected from well URS-MW-4.

BTEX

The only BTEX compound detected above the RLs was ethylbenzene in the groundwater sample collected from well LF-MW-4 (ethylbenzene at 7.9 µg/L). This represents a decrease in ethylbenzene in an LF-MW-4 from the prior 17 µg/L (January 2008) detection. A groundwater iso-concentration contour map depicting benzene concentrations is presented as Figure 6 (Celis and Oak Walk sites only). With this single detection of ethylbenzene in the LF-MW-4 sample there is no BTEX compound detection in any well that is comparable to an ESL for sites where groundwater is not a potential drinking water resource. In the sample from URS-MW-5 (located upgradient of Celis and cross- to downgradient of the San Francisco Bread Company site), neither benzene or ethylbenzene, detected in prior samples in July 2007, October 2007,

and January 2008, were detected in the September 2009 sample. With the exception of October 2007 and January 2008 samples from URS-MW-5 ethylbenzene exceedances, BTEX has never been detected in excess of the Revised May 2008 ESLs in any Celis monitoring well samples.

Fuel Oxygenates

MTBE was detected above the laboratory RLs in groundwater samples from wells URS-MW-2 (49 µg/L), URS-MW-3 (1.9 µg/L), URS-MW-4 (56 µg/L), URS-MW-5 (63 µg/L), and LF-MW-4 (2.0 µg/L). MTBE was not detected above the RLs in the groundwater sample collected from well URS-MW-1. TBA was detected above the laboratory RLs in the groundwater sample collected from well URS-MW-2 (40 µg/L). No other fuel oxygenate compounds were detected above the laboratory RLs in any groundwater samples analyzed nor are they at concentrations that could be compared to ESLs for sites where groundwater is not a potential drinking water resource. Sample results (July 2007 through October 2009) from Celis monitoring wells URS-MW-1 through URS-MW-5 and LF-MW-4, have never been detected at concentrations remotely comparable to the ESLs (Revised May 2008) for TBA and MTBE. A groundwater iso-concentration contour map depicting MTBE concentrations is presented as Figure 7 (Celis and Oak Walk sites only).

Quality Assurance/Quality Control

The analytical results were subject to a quality assurance/quality control (QA/QC) evaluation that included review of sample hold times, trip blanks, method blanks, laboratory control spikes (LCS) and laboratory control spike duplicates (LCSD), matrix spikes (MS) and matrix spike duplicates (MSD), blank spikes (BS) and blank spike duplicates (BSD), and surrogate spikes. All reported method blanks, LCS/LCSD recoveries, MS/MSD recoveries, BS/BSD recoveries, and surrogate spike recoveries were within laboratory quality control limits, except for the following:

- The continuing calibration verification (CCV) recovery was not within established laboratory control limits for tert butyl alcohol (TBA) and diisopropyl ether (DIPE) in Batch 155347. The TBA and DIPE nondetections in samples URS-MW-1, URS-MW-3, URS-MW-4, and Trip Blank were qualified with a UJ.
- The continuing calibration verification (CCV) recovery was not within established laboratory control limits for TBA and DIPE in Batch 155380. The TBA and DIPE nondetections in sample LF-URS-LF-4 was qualified with a UJ.
- The laboratory assigned many total petroleum hydrocarbons (TPH) as gasoline and diesel and mineral spirits results Y qualifier. A "Y" qualifier indicates that the sample exhibits a chromatographic pattern not resembling the laboratory standard.

No other analytical QA/QC problems were encountered. Chain-of-custody documentation was found to be complete and consistent. All samples were analyzed within the method specified holding time. Based on the data quality evaluation, no systematic problems were detected and

the overall data objectives for sample contamination, precision, accuracy, and sample integrity were met. These analytical data are of acceptable quality and may be used for their intended purposes.

RECOMMENDATIONS

At this time URS recommends that the City meet with ACEH along with Oak Walk consultant Dai Watkins (San Joaquin Co.) to discuss the need for continued monitoring at the Celis site as the value of continued monitoring is unclear with respect to the understanding of local groundwater quality conditions. This meeting is also essential in that the City and ACEH clearly establish a path to end groundwater monitoring and achieve site closure. This meeting is recommended prior to conducting additional Celis monitoring in conjunction with adjacent site monitoring programs. While it is apparent that Celis-specific releases of TVH-g and TEH-d and some related compounds have contributed to localized shallow groundwater quality impacts, these appear to be minimal and are of questionable concern with respect to posing a threat to human health and the environment. With the exception of ethylbenzene detections in the October 2007 and January 2008 samples from well URS-MW-5 (located upgradient of the Celis site and cross- and down-gradient of the San Francisco Bread Company site), BTEX has either not been detected or has only been quantified at concentrations well below the RWQCB Tier 1 ESLs for groundwater (Revised - May 2008) in all of the Celis monitoring well samples (July 2007, October 2007, January 2008, and September 2009). In addition, the fuel oxygenates TBA and MTBE have never been detected in any of the Celis site well samples at concentrations that are even remotely close to the RWQCB Tier 1 ESLs for groundwater (Revised - May 2008). For the October 2009 monitoring event, TVH-g and TVH-ms was only detected above the ESL in the sample from cross- to down-gradient well LF-MW-4. For the October 2009 monitoring event TEH-d was detected at the ESL in downgradient well URS-MW-2, in cross- to down-gradient well LF-MW-4, and in upgradient well URS-MW-5. In addition to the above, the USTs and TVH/TEH impacted soil at the Celis site had been removed to the water table (i.e, 9.5-feet bgs) with subsequent limited groundwater extraction from extraction well WCEW-1 (located at the northwest corner of the Celis property). Since the Celis site has been backfilled and is now under 40th Street, any further site-specific remediation is highly improbable. Soil and groundwater remediation has also been completed at the Oak Walk Site (north of the Celis site) and the SNK Andante Redevelopment area (south of the Celis site).

Please feel free to contact Jacob Henry at (510) 874-3252 or George Muehleck at (510) 874-3080 if you have any questions or comments.

Sincerely,

URS Corporation

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Senior Geologist

George Muehleck, PG
Project Manager/Senior Hydrogeologist

cc: Helen Bean, City of Emeryville
Markus Niebanck, PG, City of Emeryville
Dai Watkins, San Joaquin Company
Mary Hunter, Catellus Development Group, A Prologis Co.

REFERENCES

Alameda County Environmental Health Department, 2006, Letter to City of Emeryville, Fuel Leak Case RO0000453, Former Celis Alliance Service Station, 4000 San Pablo Avenue, Emeryville, California, October 12, 2006 (ACEH, 2006).

Regional Water Quality Control Board, 2005, San Francisco Bay Regional Water Quality Control Board Environmental Screening Levels, Interim Final, February 2005 (RWQCB,2008).

URS Corporation, Monitoring Well Installation Work Plan, 2006, Alameda County Fuel Leak Case RO0000453, Former Celis Alliance Service Station, 4000 San Pablo Avenue, Emeryville, California, December 15, 2006 (URS, 2006).

URS Corporation, Monitoring Well Installation Report, 2007, Alameda County Fuel Leak Case RO0000453, Former Celis Alliance Service Station, 4000 San Pablo Avenue, Emeryville, California, August 29, 2007 (URS, 2007).

ATTACHMENTS

Tables:

Table 1	Well Construction and Groundwater Analytical Data
Table 2	Groundwater Analytical Results

Figures:

Figure 1	Vicinity Map
Figure 2	Site Locations Map
Figure 3	Groundwater Elevation Contour Map, September 21, 2009
Figure 4	Distribution of Gasoline-Range Petroleum Hydrocarbons in Shallow Groundwater on September 21, 2009
Figure 5	Distribution of Middle Distillate-Range Hydrocarbons in Shallow Groundwater on September 21, 2009
Figure 6	Distribution of Benzene in Shallow Groundwater on September 21, 2009
Figure 7	Area Affected by MTBE in Groundwater on September 21, 2009

Appendices:

Appendix A	Groundwater Monitoring Field Logs
Appendix B	Laboratory Analytical Reports and Chain-of-Custody Documentation

TABLES

Table 1
Well Construction and Groundwater Elevation Data
Former Celis-Alliance Fuel Station, Emeryville, California

Well ID	Casing Type	Casing Diameter (inches)	Total Depth (feet bgs)	Screened Interval (feet bgs)	Sand Pack Interval (feet bgs)	Ground Surface Elevation* (feet MSL)	TOC Elevation (feet MSL)	Monitoring Date	Depth to LNAPL (feet BTOC)	LNAPL Thickness (feet)	Depth to Water (feet BTOC)	Groundwater Elevation (feet AMSL)
URS-MW-1	sch 40 PVC	2	20	5-20	4-20	42.40	42.21	7/10/2007	---	---	8.90	33.31
								10/31/2007	---	---	8.86	33.35
								1/18/2008	---	---	7.90	34.31
								9/21/2009			8.15	34.06
URS-MW-2	sch 40 PVC	2	20	5-20	4-20	41.18	40.83	7/10/2007	---	---	7.89	32.94
								10/31/2007	---	---	7.70	33.13
								1/18/2008	---	---	7.25	33.58
								9/21/2009			8.63	32.20
URS-MW-3	sch 40 PVC	2	20	8-20	7-20	40.86	40.54	7/10/2007	---	---	8.16	32.38
								10/31/2007	---	---	7.36	33.18
								1/18/2008	---	---	7.22	33.32
								9/21/2009			9.89	30.65
URS-MW-4	sch 40 PVC	2	20	5-20	4-20	41.72	41.41	7/10/2007	---	---	8.58	32.83
								10/31/2007	---	---	8.35	33.06
								1/18/2008	---	---	8.80	32.61
								9/21/2009			9.81	31.60
URS-MW-5	sch 40 PVC	2	20	5-20	4-20	44.30	43.93	7/10/2007	---	---	6.00	37.93
								10/31/2007	---	---	6.20	37.73
								1/18/2008	---	---	5.54	38.39
								9/21/2009			5.84	38.09
LF-MW-4	sch 40 PVC	2	18	NA	NA	41.46	40.76	7/10/2007	---	---	8.30	32.46
								10/31/2007	---	---	8.17	32.59
								1/18/2008	---	---	7.26	33.50
								9/21/2009			8.00	32.76

Notes:

*: Surveyed at vault box lid

AMSL: Above Mean Sea Level as surveyed to NAVD 88 datum

bgs: Below Ground Surface

BTOC: Below Top of Casing

TOC: Top of PVC Casing

---: Not detected or measured

Table 2
Groundwater Analytical Results
Former Celis-Alliance Fuel Station, Emeryville, California

Sample ID	Date	Analytical Results (µg/L)							
		TVH-g	TVH-ms	TEH-d	Benzene	Toluene	Ethylbenzene	Xylenes	Oxygenates
URS-MW-1	7/10/2007	**960 H Y**	**550**	**580 H L Y**	<0.5	<0.5	<0.5	<0.5	**1.7 MTBE**
	10/31/2007	**270 Y**	**150**	**670 Y**	<0.5	<0.5	<0.5	<0.5	**1.3 MTBE**
	1/18/2008	**150 Y**	**79**	**220 Y**	<0.5	<0.5	<0.5	<0.5	**1.1 MTBE**
	9/21/2009	**120 Y**	**83**	**90 Y**	<0.5	<0.5	<0.5	<0.5	ND
URS-MW-2	7/10/2007	<50	<50	**240 H Y**	<0.5	<0.5	<0.5	<0.5	**18 TBA, 140 MTBE**
	10/31/2007	<50	<50	**180 Y**	<1.3	**4.4**	<1.3	**5.1**	**160 MTBE**
	1/18/2008	<50	<50	**170 Y**	<1.3	<1.3	<1.3	<1.3	**160 MTBE**
	9/21/2009	<50	<50	**210 Y**	<0.5	<0.5	<0.5	<0.5	**40 TBA, 49 MTBE**
URS-MW-3	7/10/2007	<50	<50	<50	<0.5	<0.5	<0.5	<0.5	**1.3 MTBE**
	10/31/2007	<50	<50	**50 Y**	<0.5	<0.5	<0.5	<0.5	ND
	1/18/2008	<50	<50	<50	<0.5	<0.5	<0.5	<0.5	ND
	9/21/2009	<50	<50	<50	<0.5	<0.5	<0.5	<0.5	**1.9 MTBE**
URS-MW-4	7/10/2007	<50	<50	**110 Y**	<0.5	<0.5	<0.5	<0.5	**82 MTBE**
	10/31/2007	<50	<50	**170 Y**	<0.5	<0.5	<0.5	<0.5	**7.2 MTBE**
	1/18/2008	<50	<50	**110 Y**	<0.5	<0.5	<0.5	<0.5	**3.9 MTBE**
	9/21/2009	<50	<50	**110 Y**	<0.5	<0.5	<0.5	<0.5	**56 MTBE**
URS-MW-5	7/10/2007	**270**	**160 Y**	**820 H Y**	**0.6**	<0.5	**22**	<0.5	**11 TBA, 99 MTBE**
	10/31/2007	**2,500**	**1,400**	**1,400 Y**	**3.9**	<2.0	**270**	<2.0	**47 MTBE**
	1/18/2008	**1,000**	**540Y**	**2,000 Y**	**3.3**	<1.0	**110**	<1.0	**49 MTBE**
	9/21/2009	**150 Y**	**99 Y**	**1,100 Y**	<0.5	<0.5	<0.5	<0.5	**63 MTBE**
LF-MW-4	7/10/2007	**450**	**260 Y**	**620 L Y**	**3.5**	<0.5	**11**	**1.8**	**6.2 MTBE**
	10/31/2007	**780**	**450**	**3,400 Y**	**1.3**	<0.5	**15**	**1.1**	**5.7 MTBE**
	1/18/2008	**970**	**500**	**1,000**	**4.1**	<0.5	**17**	**0.8**	**5.0 MTBE**
	9/21/2009	**490 Y**	**320 Y**	**1,600 Y**	<0.5	<0.5	**7.9**	<0.5	**2.0 MTBE**
RWQCB ESLs[1]		210	210	210	46	130	43	100	18,000 TBA, 1,800 MTBE

Notes:

µg/L: micrograms per liter

TVH-g: Total Volatile Hydrocarbons as Gasoline, range C7-C12, by EPA 8015B

TVH-ms: Total Volatile Hydrocarbons as Mineral Spirits, range C7-C12, by EPA 8015B

TEH-d: Total Extractable Hydrocarbons as Diesel, range C10-C24, by EPA 8015B

BTEX (benzene, toluene, ethylbenzene and total xylenes) by EPA 8260B

Oxygenates: Includes Methyl tert-Butyl Ether (MTBE), tert-Butyl Alcohol (TBA), Isopropyl Ether (DIPE), Ethyl tert-Butyl Ether (ETBE), Methyl tert-Amyl Ether (TAME), 1,2-Dichloroethane (1,2-DCA), and 1,2-Dibromoethane (1,2-DBA), by EPA 8260B

<: Not Detected at listed reporting limit

ND: Not Detected at analyte-specific reporting limit; refer to laboratory analytical reports

H: Heavier hydrocarbons contributed to the quantitation

L: Lighter hydrocarbons contributed to the quantitation

Y: Sample exhibits chromatographic pattern which does not resemble standard

RWQCB ESLs: San Francisco Bay Regional Water Quality Control Board Environmental Screening Levels, Interim Final - November 2007 (Revised May 2008).

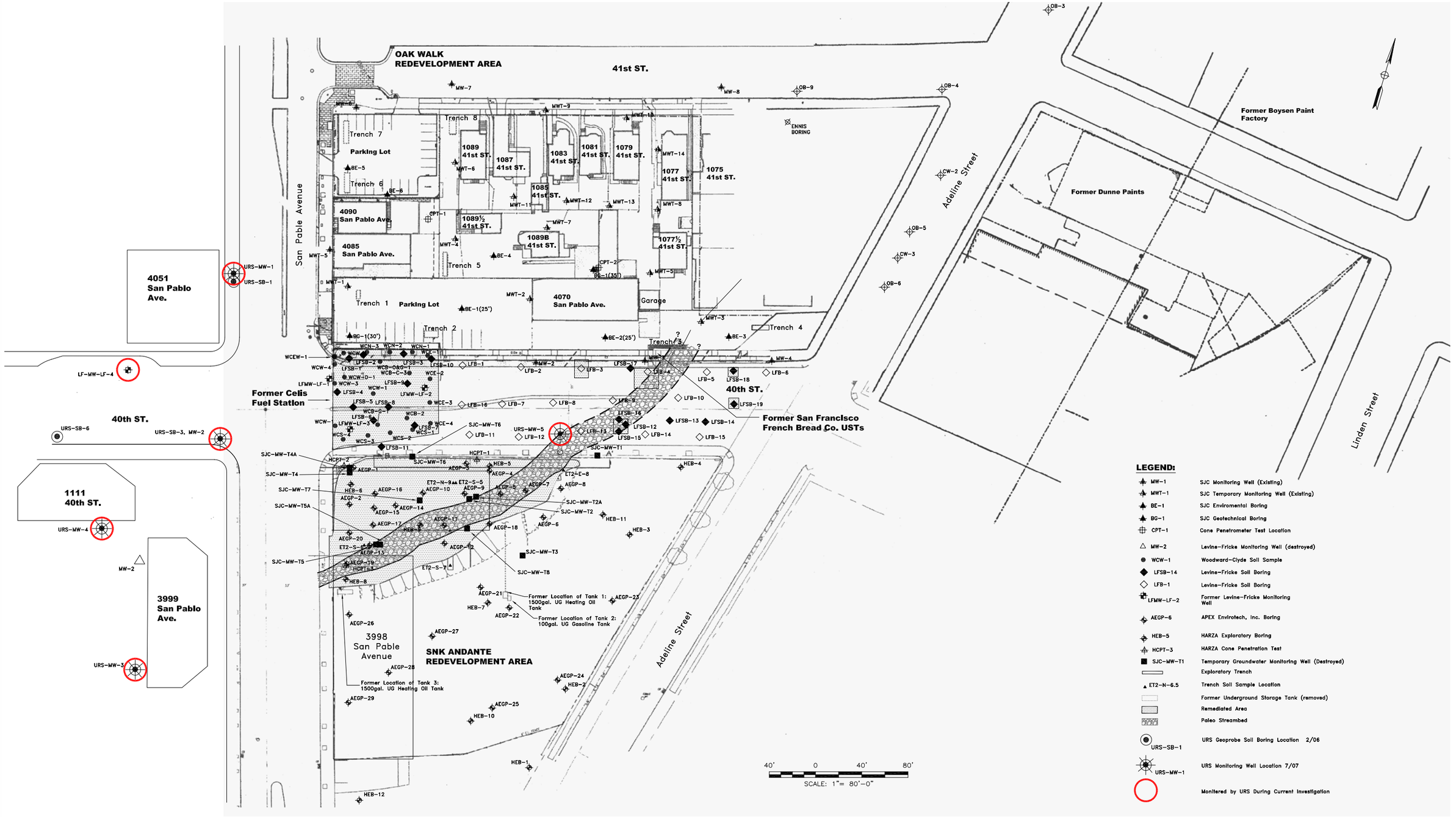
[1]Table D Deep Soils (>3m bgs) Groundwater is not a Current or Potential Source of Drinking Water (Note Table B Shallow Soil (<3m bgs) has same ESL levels for COCs as Table D).

Detections are in bold, ESL exceedences are shaded.

FIGURES

1333 BROADWAY, SUITE 800 Oakland, Ca 94612 Tel: (510) 893-3600 Fax: (510) 874-3268	URS	26814847 City of Emeryville Redevelopment Agency 1333 Park Avenue Emeryville, CA 94608	SITE LOCATION MAP Former Celis Alliance Fuel Station Site 4000 SAN PABLO AVENUE EMERYVILLE, Ca	FIGURE 1

May 10, 2006 - 3:51pm
J:\CADSHARED\ANDANTE\Figure 1.dwg



Base Map From The San Joaquin Company, Inc. (Dec 2004)

REV	DESCRIPTION OF REVISION	BY	DATE
1			

City of Emeryville Redevelopment Agency
1333 Park Avenue
Emeryville, CA 94608

URS
1333 BROADWAY, SUITE 800
Oakland, CA 94612
Tel: (510) 893-3600
Fax: (510) 874-3268

DESIGNED	–
DRAWN	MS
CHECKED	–
PEER REVIEWED	
PROJECT MANAGER	–
DATE	–

Monitoring Well Locations

VICINITY OF FORMER CELIS ALLIANCE
FUEL STATION SITE
4000 SAN PABLO AVE, EMERYVILLE , CA.

REVISION 1
PROJECT 26814847
FIGURE 2

Dec 07, 2007 - 10:57am
J:\CADSHARED\ANDANTE\Current-Celis-3Q07-QMR\Figure2.dwg

Base Map:
This base map was prepared from various resources, including information provided by:

- Hunt Hale Jones Architects
(Project # 42900l.00, Revision Date l2.03.08,)
- Bay Area Land Surveying - ALTA / ACSM Land Title Survey; Portion of Lots 3, 4, 5 & 6 of the H.C. Dohr's Homestead (Nov. 2003)
- Sandis Humber Jones - ALTA / ACSM Land Title Survey; San Pablo Ave. & 40th Street Extension Drawing No. 600l04.ALTA (7/25/0l)
- Clayton Group Services - Monitoring Well Locations Former Dunner Paints l007 41st St. Oakland, Figure 2, Project No. 70-03365.04 (l2/05/03)
- Clayton Group Services - Historical Subject Property Plan l007 41st St & 4050 Adeline St., Oakland, Figure 3, Project No. 70-03365.00 (09/06/02)
- Aerial Photography and Ground Measurement

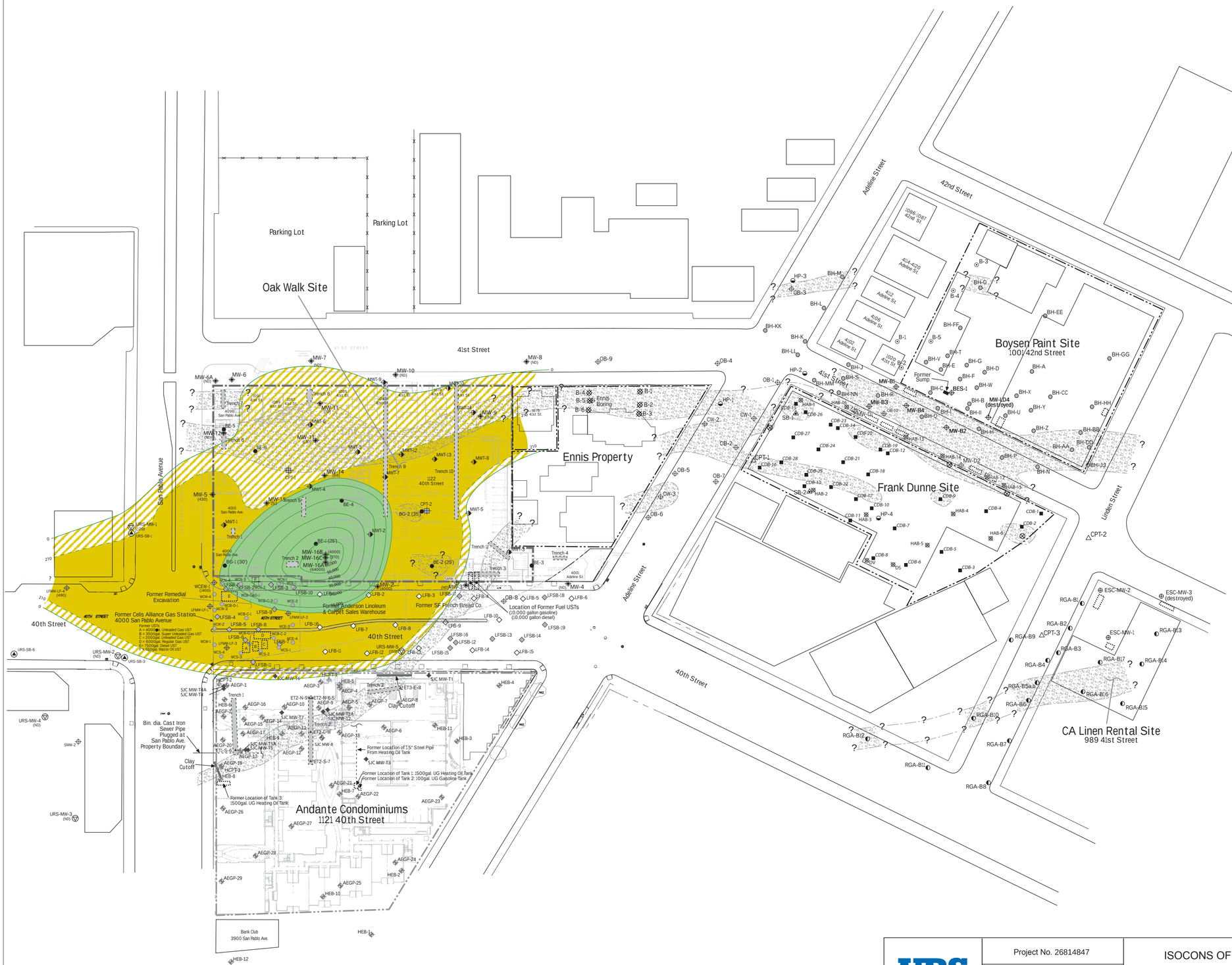
0 40 80 120
SCALE IN FEET
(approximate)

Note:
Except on Andante and Frank Dunn sites, location and continuity of paleo streambed deposits are tentative. Continuity of paleo streambed channels as shown on Boyson Paint Site, 41st Street, Ennis Property, 40th Street, California Linen Rental, and Adeline Street are assumed based on a preponderance of available boring log, hydrostratigraphic and geochemical data.

EXPLANATION

- (31.0) Groundwater Elevation Contour (9/2l/09) Contour Interval 0.5'
- MW-1 SJC Monitoring Well (Oak Walk)
- MWT-1 SJC Temporary Monitoring Well (Oak Walk)
- BE-1 SJC Environmental Boring (Oak Walk)
- BG-1 SJC Geotech Boring (Oak Walk)
- CPT-1 Cone Penetrometer Test Location (Oak Walk)
- Exploratory Trench
- Underground Storage Tank (removed)
- WCEW-1 Woodward-Clyde Extraction Well
- OB-6 Clayton Monitoring Well (CW) & Temporary Monitoring Well (OB)
- B-2 Clayton Boring (Ennis)
- CDB-10 Clayton Boring (Dunn)
- B-2 ERM Boring (6/06)
- MW-B1 Kozel Property Monitoring Well
- URS-SB-1 URS Geoprobe Soil Boring
- URS-MW-3 URS Monitoring Well
- RGA-B17 RGA Environmental Boring
- Extraction Well
- WCW-1 Woodward-Clyde Soil Sample
- LFSB-14 Levine • Fricke Soil Boring
- LFB-1 Levine • Fricke Soil Boring
- LFMW-LF-2 Levine • Fricke Monitoring Well
- HEB-2 Harza Exploratory Boring
- SMW-1 SECOR Monitoring Well
- AEGP-6 APEX Envirotech , Inc. Boring
- SJC MW-T1 SJC Temporary Monitoring Well (SNK Andante)
- Paleo Streambed, Gravelly Areas
- ET1-S-6 Trench Soil Sample Location
- MW-D1 Dunne Paints Monitoring Well
- HP-2 ASE Boring
- BH-S ASE Temporary Well
- ESC-MW-1 Environmental Strategies Corp Monitoring Well
- HAB-4 Hageman-Aguiar, Inc. Soil Boring
- CPT-2 Cone Penetrometer Test (SCI)
- SB-2 Soil Boring (SCI)

URS	Project No. 26814847 THE SAN JOAQUIN COMPANY INC.	GROUNDWATER COUNTOURS AT OAK WALK & CELIS SITES (9/21/09) Oak Walk Site, Emeryville, California
		Figure 3



Base Map:
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- Hunt Hale Jones Architects (Project # 42900.00, Revision Date 12.03.08,)
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- Clayton Group Services - Monitoring Well Locations Former Dunner Paints 1007 41st St. Oakland, Figure 2, Project No. 70-03365.04 (12/05/03)
- Clayton Group Services - Historical Subject Property Plan 1007 41st St & 4050 Adeline St., Oakland, Figure 3, Project No. 70-03365.00 (09/06/02)
- Aerial Photography and Ground Measurement

0 40 80 120
SCALE IN FEET
(approximate)

Note:
Except on Andante and Frank Dunn sites, location and continuity of paleo streambed deposits are tentative. Continuity of paleo streambed channels as shown on Boyson Paint Site, 41st Street, Ennis Property, 40th Street, California Linen Rental, and Adeline Street are assumed based on a preponderance of available boring log, hydrostratigraphic and geochemical data.

EXPLANATION

- MW-1 — SJC Monitoring Well (Oak Walk)
- MWT-1 — SJC Temporary Monitoring Well (Oak Walk)
- BE-1 — SJC Environmental Boring (Oak Walk)
- BG-1 — SJC Geotech Boring (Oak Walk)
- CPT-1 — Cone Penetrometer Test Location (Oak Walk)
- Exploratory Trench
- Underground Storage Tank (removed)
- WCEW-1 — Woodward-Clyde Extraction Well
- OB-6 — Clayton Monitoring Well (CW) & Temporary Monitoring Well (OB)
- B-2 — Clayton Boring (Ennis)
- CDB-10 — Clayton Boring (Dunn)
- B-2 — ERM Boring (6/06)
- MW-B1 — Kozel Property Monitoring Well
- URS-SB-1 — URS Geoprobe Soil Boring
- URS-MW-3 — URS Monitoring Well
- RGA-BI7 — RGA Environmental Boring
- Extraction Well
- WCW-1 — Woodward-Clyde Soil Sample
- LFSB-14 — Levine • Fricke Soil Boring
- LFB-1 / LFMW-LF-2 — Levine • Fricke Soil Boring
- Levine • Fricke Monitoring Well
- HEB-2 — Harza Exploratory Boring
- SMW-1 — SECOR Monitoring Well
- AEGP-6 — APEX Envirotech , Inc. Boring
- SJC MW-T1 — SJC Temporary Monitoring Well (SNK Andante)
- Paleo Streambed, Gravelly Areas
- ET1-S-6 — Trench Soil Sample Location
- MW-D1 — Dunne Paints Monitoring Well
- HP-2 — ASE Boring
- BH-S — ASE Temporary Well
- ESC-MW-1 — Environmental Strategies Corp Monitoring Well
- HAB-4 — Hageman-Aguiar, Inc. Soil Boring
- CPT-2 — Cone Penetrometer Test (SCI)
- SB-2 — Soil Boring (SCI)
- (800) — Result of analysis of gasoline-range hydrocarbons in groundwater (µg/L) (9/09)
- 5000 — Isocon of gasoline-range hydrocarbons in groundwater (µg/L)
- Gasoline-range hydrocarbons 0-210 µg/L
- Gasoline-range hydrocarbons 210 to 4999 µg/L
- Gasoline-range hydrocarbons >5000 µg/L

URS	Project No. 26814847 THE SAN JOAQUIN COMPANY INC.	ISOCONS OF GASOLINE-RANGE HYDROCARBONS IN GROUNDWATER FOR COMBINED OAK WALK & CELIS SITES (September 2009) Oak Walk Site, Emeryville, California	Figure 4

Base Map:
This base map was prepared from various resources, including information provided by:

- Hunt Hale Jones Architects (Project # 429001.00, Revision Date 12.03.08,)
- Bay Area Land Surveying - ALTA / ACSM Land Title Survey; Portion of Lots 3, 4, 5 & 6 of the H.C. Dohr's Homestead (Nov. 2003)
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- Clayton Group Services - Historical Subject Property Plan 1007 41st St & 4050 Adeline St., Oakland, Figure 3, Project No. 70-03365.00 (09/06/02)
- Aerial Photography and Ground Measurement

N

0 40 80 120

SCALE IN FEET
(approximate)

Note:
Except on Andante and Frank Dunn sites, location and continuity of paleo streambed deposits are tentative. Continuity of paleo streambed channels as shown on Boyson Paint Site, 41st Street, Ennis Property, 40th Street, California Linen Rental, and Adeline Street are assumed based on a preponderance of available boring log, hydrostratigraphic and geochemical data.

EXPLANATION

- MW-1 — SJC Monitoring Well (Oak Walk)
- MWT-1 — SJC Temporary Monitoring Well (Oak Walk)
- BE-1 — SJC Environmental Boring (Oak Walk)
- BG-1 — SJC Geotech Boring (Oak Walk)
- CPT-1 — Cone Penetrometer Test Location (Oak Walk)
- Exploratory Trench
- Underground Storage Tank (removed)
- WCEW-1 — Woodward-Clyde Extraction Well
- OB-6 — Clayton Monitoring Well (CW) & Temporary Monitoring Well (OB)
- B-2 — Clayton Boring (Ennis)
- CDB-10 — Clayton Boring (Dunn)
- B-2 — ERM Boring (6/06)
- MW-B1 — Kozel Property Monitoring Well
- URS-SB-1 — URS Geoprobe Soil Boring
- URS-MW-3 — URS Monitoring Well
- RGA-B17 — RGA Environmental Boring
- Extraction Well
- WCW-1 — Woodward-Clyde Soil Sample
- LFSB-14 — Levine • Fricke Soil Boring
- LFB-1 / LFMW-LF-2 — Levine • Fricke Soil Boring / Levine • Fricke Monitoring Well
- HEB-2 — Harza Exploratory Boring
- SMW-1 — SECOR Monitoring Well
- AEGP-6 — APEX Envirotech , Inc. Boring
- SJC MW-T1 — SJC Temporary Monitoring Well (SNK Andante)
- Paleo Streambed, Gravelly Areas
- ET1-S-6 — Trench Soil Sample Location
- MW-D1 — Dunne Paints Monitoring Well
- HP-2 — ASE Boring
- BH-S — ASE Temporary Well
- ESC-MW-1 — Environmental Strategies Corp Monitoring Well
- HAB-4 — Hageman-Aguiar, Inc. Soil Boring
- CPT-2 — Cone Penetrometer Test (SCI)
- SB-2 — Soil Boring (SCI)
- (370) — Result of analysis of middle distillate-range hydrocarbons in groundwater (µg/L) (9/09)
- 1000 — Isocon of middle distillate-range hydrocarbons in groundwater (µg/L)
- Middle distillate-range hydrocarbons 0 to 210 µg/L
- Middle distillate-range hydrocarbons 210 to 999 µg/L
- Middle distillate-range hydrocarbons >1,000 µg/L

URS	Project No. 26814847 THE SAN JOAQUIN COMPANY INC.	ISOCONS OF MIDDLE DISTILLATE-RANGE HYDROCARBONS IN GROUNDWATER FOR COMBINED OAK WALK & CELIS SITES (September 2009) Oak Walk Site, Emeryville, California	Figure 5

Base Map:
This base map was prepared from various resources, including information provided by:

- Hunt Hale Jones Architects (Project # 42900l.00, Revision Date l2.03.08,)
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- Clayton Group Services - Historical Subject Property Plan l007 41st St & 4050 Adeline St., Oakland, Figure 3, Project No. 70-03365.00 (09/06/02)
- Aerial Photography and Ground Measurement

N

0 40 80 120

SCALE IN FEET
(approximate)

Note:
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EXPLANATION

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- MWT-1 — SJC Temporary Monitoring Well (Oak Walk)
- BE-1 — SJC Environmental Boring (Oak Walk)
- BG-1 — SJC Geotech Boring (Oak Walk)
- CPT-1 — Cone Penetrometer Test Location (Oak Walk)
- Exploratory Trench
- Underground Storage Tank (removed)
- WCEW-1 — Woodward-Clyde Extraction Well
- OB-6 — Clayton Monitoring Well (CW) & Temporary Monitoring Well (OB)
- B-2 — Clayton Boring (Ennis)
- CDB-10 — Clayton Boring (Dunn)
- B-2 — ERM Boring (6/06)
- MW-B1 — Kozel Property Monitoring Well
- URS-SB-1 — URS Geoprobe Soil Boring
- URS-MW-3 — URS Monitoring Well
- RGA-BI7 — RGA Environmental Boring
- Extraction Well
- WCW-1 — Woodward-Clyde Soil Sample
- LFSB-14 — Levine • Fricke Soil Boring
- LFB-1 LFMW-LF-2 — Levine • Fricke Monitoring Well
- HEB-2 — Harza Exploratory Boring
- SMW-1 — SECOR Monitoring Well
- AEGP-6 — APEX Envirotech , Inc. Boring
- SJC MW-T1 — SJC Temporary Monitoring Well (SNK Andante)
- Paleo Streambed, Gravelly Areas
- ET1-S-6 — Trench Soil Sample Location
- MW-D1 — Dunne Paints Monitoring Well
- HP-2 — ASE Boring
- BH-S — ASE Temporary Well
- ESC-MW-1 — Environmental Strategies Corp Monitoring Well
- HAB-4 — Hageman-Aguiar, Inc. Soil Boring
- CPT-2 — Cone Penetrometer Test (SCI)
- SB-2 — Soil Boring (SCI)
- (90) — Result of analysis of Benzene in groundwater (µg/L) (9/09)
- 5000 — Isocon of Benzene in groundwater (µg/L)
- Benzene 0-46 µg/L
- Benzene >46 µg/L

URS	Project No. 26814847 THE SAN JOAQUIN COMPANY INC.	ISOCONS OF BENZENE IN GROUNDWATER FOR COMBINED OAK WALK & CELIS SITES (September 2009) Oak Walk Site, Emeryville, California
		Figure 6

Base Map:
This base map was prepared from various resources, including information provided by:

- Hunt Hale Jones Architects (Project # 429001.00, Revision Date 12.03.08,)
- Bay Area Land Surveying - ALTA / ACSM Land Title Survey; Portion of Lots 3, 4, 5 & 6 of the H.C. Dohr's Homestead (Nov. 2003)
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- Aerial Photography and Ground Measurement

0 40 80 120
SCALE IN FEET
(approximate)

Note:
Except on Andante and Frank Dunn sites, location and continuity of paleo streambed deposits are tentative. Continuity of paleo streambed channels as shown on Boyson Paint Site, 41st Street, Ennis Property, 40th Street, California Linen Rental, and Adeline Street are assumed based on a preponderance of available boring log, hydrostratigraphic and geochemical data.

EXPLANATION

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- MWT-1 SJC Temporary Monitoring Well (Oak Walk)
- BE-1 SJC Environmental Boring (Oak Walk)
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- CPT-1 Cone Penetrometer Test Location (Oak Walk)
- Exploratory Trench
- Underground Storage Tank (removed)
- WCEW-1 Woodward-Clyde Extraction Well
- OB-6 Clayton Monitoring Well (CW) & Temporary Monitoring Well (OB)
- B-2 Clayton Boring (Ennis)
- CDB-10 Clayton Boring (Dunn)
- B-2 ERM Boring (6/06)
- MW-B1 Kozel Property Monitoring Well
- URS-SB-1 URS Geoprobe Soil Boring
- URS-MW-3 URS Monitoring Well
- RGA-BI7 RGA Environmental Boring
- Extraction Well
- WCW-1 Woodward-Clyde Soil Sample
- LFSB-14 Levine • Fricke Soil Boring
- LFB-1 Levine • Fricke Soil Boring
- LFMW-LF-2 Levine • Fricke Monitoring Well
- HEB-2 Harza Exploratory Boring
- SMW-1 SECOR Monitoring Well
- AEGP-6 APEX Envirotech , Inc. Boring
- SJC MW-T1 SJC Temporary Monitoring Well (SNK Andante)
- Paleo Streambed, Gravelly Areas
- ET1-S-6 Trench Soil Sample Location
- MW-D1 Dunne Paints Monitoring Well
- HP-2 ASE Boring
- BH-S ASE Temporary Well
- ESC-MW-1 Environmental Strategies Corp Monitoring Well
- HAB-4 Hageman-Aguiar, Inc. Soil Boring
- CPT-2 Cone Penetrometer Test (SCI)
- SB-2 Soil Boring (SCI)
- (66) Result of analysis of MTBE in groundwater (9/09)
- Area affected by MTBE at concentrations above the applicable ESL for groundwater
- Area affected by MTBE at concentrations below the applicable ESL for groundwater

URS	Project No. 26814847 THE SAN JOAQUIN COMPANY INC.	AREAS OF THE COMBINED OAK WALK & CELIS SITES AFFECTED BY MTBE IN GROUNDWATER (September 2009) Oak Walk Site, Emeryville, California	Figure 7

ATTACHMENT A

Groundwater Monitoring Field Logs

SPH or Purge Water Drum Log

Client: URS

Site Address: 4000 San Pablo Ave, Emeryville

STATUS OF DRUM(S) UPON ARRIVAL

Date	7/5/07	7/10/07	10/31/07	01/18/08	9-21-09	
Number of drum(s) empty:				—	—	
Number of drum(s) 1/4 full:				—	—	
Number of drum(s) 1/2 full:			1	—	—	
Number of drum(s) 3/4 full:				1	1	
Number of drum(s) full:	7	9	1	—	—	
Total drum(s) on site:	7	9	2 Non BTS	4(3) not BTS	1	
Are the drum(s) properly labeled?	Y	X	Y	Y	Y	
Drum ID & Contents:	Soil from install	purge/soil	Purge H2O	Purge H2O	PURGE H2O	
If any drum(s) are partially or totally filled, what is the first use date:	-				(1) NO DATE	

- If you add any SPH to an empty or partially filled drum, drum must have at least 20 gals. of Purgewater or DI Water.

-If drum contains SPH, the drum MUST be steel AND labeled with the appropriate label.

-All BTS drums MUST be labeled appropriately.

STATUS OF DRUM(S) UPON DEPARTURE

Date	7/5/07	7/10/07	10/31/07	01/18/08	9-21-09	
Number of drums empty:				—	—	
Number of drum(s) 1/4 full:				—	—	
Number of drum(s) 1/2 full:			2	—	1	
Number of drum(s) 3/4 full:		1		1	—	
Number of drum(s) full:	9	9	1	—	1	
Total drum(s) on site:	9	10	3 1(BTS)	4	2	
Are the drum(s) properly labeled?	Y	Y	Y	Y	Y	
Drum ID & Contents:	Soil & Water	Soil & water	Purge H2O	Purge H2O	PURGE H2O	

LOCATION OF DRUM(S)

Describe location of drum(s): Corp yard - City of Emeryville

FINAL STATUS

Number of new drum(s) left on site this event	2	1	1	0	1	
Date of inspection:	7/5/07	7/10/07	10/31/07	01/14/09	9/21/09	
Drum(s) labelled properly:	Y	Y	Y	Y	Y	
Logged by BTS Field Tech:	PU	JV	DR	[signature]	FG	
Office reviewed by:	[signature]	[signature]	PC	[signature]	[signature]	

TEST EQUIPMENT CALIBRATION LOG

PROJECT NAME UES @ COLIS				PROJECT NUMBER 090921-F31			
EQUIPMENT NAME	EQUIPMENT NUMBER	DATE/TIME OF TEST	STANDARDS USED	EQUIPMENT READING	CALIBRATED TO: OR WITHIN 10%:	TEMP.	INITIALS
HACH TURBIDITY METER	04050003S704	9/21/09 900	5/60/580	5/54/535	-	24.2	F1
MYRON ULTRA METER	6226032	9/21/09 905	pH 4.0/7.0/10.0 COND.: 3900µS	3.9/6.9/10.0 3885	YES	24.2	F1
SLOPE INDICATOR WATER LEVEL	51690030	9/21/09	WATER LEVEL - DTB-			—	

WELLHEAD INSPECTION CHECKLIST

Date 9-21-09 Client URS

Site Address 4000 SAN PABLO AVE EMERYVILLE

Job Number 090921-FS1 Technician FS

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)
URS-MW-1		1/2	BOLTS MISSING					
URS-MW-2		1/2	BOLTS MISSING					
URS-MW-3		1/2	"					
URS-MW-4	✓							
URS-MW-5	✓							
LF-MW-LF-4	✓							
WCEW-1	✓	NO	LOCK					

NOTES:

WELL GAUGING DATA

Project # 090921-FS1 Date 9-21-09 Client URS

Site 4000 SAN PABLO. AVE. EMERYVILLE, CA

Well ID	Time	Well Size (in.)	Sheen / Odor	Depth to Immiscible Liquid (ft.)	Thickness of Immiscible Liquid (ft.)	Volume of Immiscibles Removed (ml)	Depth to water (ft.)	Depth to well bottom (ft.)	Survey Point: TOB or TOC	Notes
URS-MW-1	935	2					8.15	19.45	TOC	
URS-MW-2	1030	2					8.63	19.52		
URS-MW-3	945	2					9.89	19.67		
URS-MW-4	950	2					9.81	19.61		
URS-MW-5	1135	2					5.84	19.35		
LF-MW-LF-4	1220	2					8.00	17.96		
WCE-W	1300	4					7.71	20.53		

W[illegible]LL MONITORING DATA SH[illegible]

Project #: 090921-FS1	Client: URS @ CELIS 4000 SAN PABLO AVE, EMERYVILLE
Sampler: FS	Date: 9-21-09
Well I.D.: URS-MW-1	Well Diameter: (2) 3 4 6 8 ____
Total Well Depth (TD): 19.95	Depth to Water (DTW): 8.15
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]: 10.91	

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:____

1.9 (Gals.) X 3 = 5.7 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	radius² * 0.163

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
1310	20.5	7.30	666	>1000	1.9	
1315	20.7	6.90	660	>1000	3.8	
1319	20.9	6.91	658	>1000	5.7	

Did well dewater? Yes (No) Gallons actually evacuated: 5.7

Sampling Date: 9-21-09 Sampling Time: 1325 Depth to Water: 8.21

Sample I.D.: URS-MW-1 Laboratory: Kiff CalScience (Other) CET

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

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

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

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	0.25 mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

W[illegible]L MONITORING DATA SHE[illegible]

Project #: 090921-FS1	Client: URS @ CELIS 4000 SAN PABLO AVE, EMERYVILLE
Sampler: FS	Date: 9-21-09
Well I.D.: URS-MW-2	Well Diameter: (2) 3 4 6 8 ____
Total Well Depth (TD): 19.52	Depth to Water (DTW): 8.63
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]: 10.80	

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:____

1.8 (Gals.) X 3 = 5.4 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	radius² * 0.163

Time	Temp (°F or (°C))	pH	Cond. (mS or (µS))	Turbidity (NTUs)	Gals. Removed	Observations
1040	22.0	7.35	1186	>1000	1.8	
1044	21.5	6.61	1206	>1000	3.6	
1047	20.9	6.51	1282	>1000	5.4	

Did well dewater? Yes (No) Gallons actually evacuated: 5.4

Sampling Date: 9-21-09 Sampling Time: 1055 Depth to Water: 8.85

Sample I.D.: URS-MW-2 Laboratory: Kiff CalScience (Other) CDT

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

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

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

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	0.13 mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

WELL MONITORING DATA SHEET

Project #: 090921-FS1	Client: URS @ CELIS 4000 SAN PABLO AVE, EMERYVILLE
Sampler: FS	Date: 9-21-09
Well I.D.: URS-MW-3	Well Diameter: (2) 3 4 6 8 ____
Total Well Depth (TD): 19.67	Depth to Water (DTW): 9.89
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]: 11.84	

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:_____

1.6 (Gals.) X	3	= 4.8 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	radius² * 0.163

Time	Temp (°F or (°C))	pH	Cond. (mS or (µS))	Turbidity (NTUs)	Gals. Removed	Observations
1418	22.2	7.61	552	71000	1.6	
1421	220	~~7.3~~ 6.9	592	71000	3.2	
1424	21.9	6.8	600	71000	4.8	

Did well dewater? Yes (No) Gallons actually evacuated: 4.8

Sampling Date: 9-21-09 Sampling Time: 1430 Depth to Water: 11.45

Sample I.D.: URS-MW-3 Laboratory: Kiff CalScience (Other) CET

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

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

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

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	0.70 mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

WELL MONITORING DATA SHEET

Project #: 090921-FS1	Client: URS @ CELIS 4000 SAN PABLO AVE, EMERYVILLE
Sampler: FS	Date: 9-21-09
Well I.D.: URS-MW-4	Well Diameter: (2) 3 4 6 8 ____
Total Well Depth (TD): 19.61	Depth to Water (DTW): 9.81
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]: 11.77	

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:_____

1.6 (Gals.) X 3 = 4.8 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	radius² * 0.163

Time	Temp (°F or (°C))	pH	Cond. (mS or (µS))	Turbidity (NTUs)	Gals. Removed	Observations
1450	21.7	6.75	1009	71000	1.6	
1452	21.0	6.59	1006	71000	3.2	
1455	21.2	6.50	996	71000	4.8	

Did well dewater? Yes (No) Gallons actually evacuated: 4.8

Sampling Date: 9-21-09 Sampling Time: 1500 Depth to Water: 11.51

Sample I.D.: URS-MW-4 Laboratory: Kiff CalScience (Other) C&T

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

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

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

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	0.14 mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

WELL MONITORING DATA SHEET

Project #: 090921-FS1	Client: URS @ CELIS 4000 SAN PABLO AVE, EMERYVILLE
Sampler: FS	Date: 9-21-09
Well I.D.: URS-MW-5	Well Diameter: (2) 3 4 6 8 ____
Total Well Depth (TD): 19.35	Depth to Water (DTW): 5.84
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]: 8.54	

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:_____

2.2 (Gals.) X	3	= 6.6 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	radius² * 0.163

Time	Temp (°F or (°C))	pH	Cond. (mS or (µS))	Turbidity (NTUs)	Gals. Removed	Observations
1143	20.8	6.9	1468	71000	2.2	
1147	20.9	6.6	1497	71000	4.4	
1151	20.7	6.7	1499	>1000	6.6	

Did well dewater? Yes (No) Gallons actually evacuated: 6.6

Sampling Date: 9-21-09 Sampling Time: 1200 Depth to Water: 8.58

Sample I.D.: URS-MW-5 Laboratory: Kiff CalScience (Other) C&T

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

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

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

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	0.55 mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

W[illegible]L MONITORING DATA SHE[illegible]

Project #: 090921-FS1	Client: URS @ CELIS 4000 SAN PABLO AVE, EMERYVILLE
Sampler: FS	Date: 9-21-09
Well I.D.: LFMW-LF4	Well Diameter: (2) 3 4 6 8 ____
Total Well Depth (TD): 17.96	Depth to Water (DTW): 8.00
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]: 9.99	

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: _____

1.6 (Gals.) X	3	= 4.8 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	radius² * 0.163

Time	Temp (°F or (°C))	pH	Cond. (mS or (µS))	Turbidity (NTUs)	Gals. Removed	Observations
1229	20.2	7.21	733	>1000	1.6	
1232	20.8	6.92	722	860	3.2	
1235	21.0	6.88	719	751	4.8	

Did well dewater? Yes (No) Gallons actually evacuated: 4.8

Sampling Date: 9-21-09 Sampling Time: 1240 Depth to Water: 8.09

Sample I.D.: LFMW-LF4 Laboratory: Kiff CalScience (Other) C&T

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

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

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

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	0.13 mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

ATTACHMENT B

Laboratory Analytical Reports
and
Chain of Custody Document


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 215124
ANALYTICAL REPORT

URS Corporation	Project : 26814847.06000
1333 Broadway	Location : Celis-Emeryville
Oakland, CA 94612	Level : II

Sample ID	Lab ID
URS-MW-1	215124-001
URS-MW-2	215124-002
URS-MW-3	215124-003
URS-MW-4	215124-004
URS-MW-5	215124-005
LF-MW-LF-4	215124-006
TRIP BLANK	215124-007

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following 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: Trig Bolton
Project Manager

Date: 10/05/2009

NELAP # 01107CA

Curtis & Tompkins, Ltd.

CASE NARRATIVE

Laboratory number:	**215124**
Client:	**URS Corporation**
Project:	**26814847.06000**
Location:	**Celis-Emeryville**
Request Date:	**09/21/09**
Samples Received:	**09/21/09**

This data package contains sample and QC results for seven water samples, requested for the above referenced project on 09/21/09. The samples were received cold and intact.

TPH-Purgeables and/or BTXE by GC (EPA 8015B):
No analytical problems were encountered.

TPH-Extractables by GC (EPA 8015B):
No analytical problems were encountered.

Volatile Organics by GC/MS (EPA 8260B):
High responses were observed for isopropyl ether (DIPE) and tert-butyl alcohol (TBA) in the CCV analyzed 09/26/09 17:06; affected data was qualified with "b". High response was observed for isopropyl ether (DIPE) in the CCV analyzed 09/26/09 11:09; affected data was qualified with "b". High responses were observed for isopropyl ether (DIPE) and tert-butyl alcohol (TBA) in the CCV analyzed 09/28/09 12:19; affected data was qualified with "b". High recoveries were observed for isopropyl ether (DIPE) in the BS/BSD for batch 155347; the associated RPD was within limits, and this analyte was not detected at or above the RL in the associated samples. High recoveries were observed for isopropyl ether (DIPE) and tert-butyl alcohol (TBA) in the MS/MSD for batch 155347; the parent sample was not a project sample, the associated RPDs were within limits, and these analytes were not detected at or above the RL in the associated samples. High recoveries were observed for isopropyl ether (DIPE) and tert-butyl alcohol (TBA) in the BS/BSD for batch 155380; the associated RPDs were within limits, and these analytes were not detected at or above the RL in the associated sample. No other analytical problems were encountered.

Curtis & Tompkins, Ltd.
Analytical Laboratory Since 1878
2323 Fifth Street
Berkeley, CA 94710
(510) 486-0900 Phone
(510) 486-0532 Fax

CHAIN OF CUSTODY

C & T LOGIN #: 21524

Project No.: 26814547
Project Name: Former Celis' Alliance
Project P.O.: See email from Sylvia Verduzco
Turnaround Time: Standard

Sampler: Jacob Henry
Report To: Jacob Henry
Company: URS Corp
email: jacob-henry@urscorp.com
Telephone: 510 874-3252
Fax: 510 874-3268

Lab No.	Sample ID.	Sampling Date Time	Matrix: Soil	Water	Waste	# of Containers	Preservative: HCL	H_2SO_4	HNO_3	ICE	Analysis: TPH-g/TPH-ms by EPA 5015	TPH-d by EPA 8015	BTEX & MTBE by 8260
1	URS-MW-1	9/21/09 1325		X		7	X			X	X	X	X
2	URS MW-2	1055		X		7	X			X	X	X	X
3	URS MW-3	1430		X		7	X			X	X	X	X
4	URS-MW-4	1500		X		7	X			X	X	X	X
5	URS-MW-5	1200		X		7	X			X	X	X	X
6	LF-MW-LF-4	1240		X		7	X			X	X	X	X
7	Trip Blank	1500		X		7	X			X	[redacted]		X

Notes:

SAMPLE RECEIPT
☐ Intact ☐ Cold
☐ On Ice ☐ Ambient
Preservative Correct?
☐ Yes ☐ No ☐ N/A

RELINQUISHED BY: J Henry — 9/21/09 1603 DATE / TIME
DATE / TIME
DATE / TIME
SIGNATURE

RECEIVED BY: — 9/21/09 16:03 DATE / TIME
DATE / TIME
DATE / TIME

COOLER RECEIPT CHECKLIST

Curtis & Tompkins, Ltd.

Login # 715124 Date Received 9/21/09 Number of coolers 1
Client URS Project FORMER CELIS ALLIANCE

Date Opened 9/21/09 By (print) M. VILLANUEVA (sign)
Date Logged in 9/23/9 By (print) SEVAN (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

_____
_____
_____
_____
_____
_____
_____
_____

Curtis & Tompkins, Ltd.

Total Volatile Hydrocarbons

Lab #:	215124	Location:	Celis-Emeryville
Client:	URS Corporation	Prep:	EPA 5030B
Project#:	26814847.06000	Analysis:	EPA 8015B
Matrix:	Water	Batch#:	155627
Units:	ug/L	Sampled:	09/21/09
Diln Fac:	1.000	Received:	09/21/09

Field ID: URS-MW-1 Lab ID: 215124-001
Type: SAMPLE Analyzed: 10/03/09

Analyte	Result	RL
Gasoline C7-C12	120 Y	50
Mineral Spirits C7-C12	83	50

Surrogate	%REC	Limits
Trifluorotoluene (FID)	99	64-147
Bromofluorobenzene (FID)	100	71-138

Field ID: URS-MW-2 Lab ID: 215124-002
Type: SAMPLE Analyzed: 10/03/09

Analyte	Result	RL
Gasoline C7-C12	ND	50
Mineral Spirits C7-C12	ND	50

Surrogate	%REC	Limits
Trifluorotoluene (FID)	102	64-147
Bromofluorobenzene (FID)	96	71-138

Field ID: URS-MW-3 Lab ID: 215124-003
Type: SAMPLE Analyzed: 10/03/09

Analyte	Result	RL
Gasoline C7-C12	ND	50
Mineral Spirits C7-C12	ND	50

Surrogate	%REC	Limits
Trifluorotoluene (FID)	101	64-147
Bromofluorobenzene (FID)	96	71-138

Field ID: URS-MW-4 Lab ID: 215124-004
Type: SAMPLE Analyzed: 10/03/09

Analyte	Result	RL
Gasoline C7-C12	ND	50
Mineral Spirits C7-C12	ND	50

Surrogate	%REC	Limits
Trifluorotoluene (FID)	104	64-147
Bromofluorobenzene (FID)	97	71-138

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

Curtis & Tompkins, Ltd.

Total Volatile Hydrocarbons

Lab #:	215124	Location:	Celis-Emeryville
Client:	URS Corporation	Prep:	EPA 5030B
Project#:	26814847.06000	Analysis:	EPA 8015B
Matrix:	Water	Batch#:	155627
Units:	ug/L	Sampled:	09/21/09
Diln Fac:	1.000	Received:	09/21/09

Field ID: URS-MW-5 Lab ID: 215124-005
Type: SAMPLE Analyzed: 10/03/09

Analyte	Result	RL
Gasoline C7-C12	150 Y	50
Mineral Spirits C7-C12	99 Y	50

Surrogate	%REC	Limits
Trifluorotoluene (FID)	110	64-147
Bromofluorobenzene (FID)	94	71-138

Field ID: LF-MW-LF-4 Lab ID: 215124-006
Type: SAMPLE Analyzed: 10/04/09

Analyte	Result	RL
Gasoline C7-C12	490 Y	50
Mineral Spirits C7-C12	320 Y	50

Surrogate	%REC	Limits
Trifluorotoluene (FID)	139	64-147
Bromofluorobenzene (FID)	114	71-138

Type: BLANK Analyzed: 10/03/09
Lab ID: QC514986

Analyte	Result	RL
Gasoline C7-C12	ND	50
Mineral Spirits C7-C12	ND	50

Surrogate	%REC	Limits
Trifluorotoluene (FID)	99	64-147
Bromofluorobenzene (FID)	90	71-138

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

Curtis & Tompkins, Ltd.

Batch QC Report

Total Volatile Hydrocarbons

Lab #:	215124	Location:	Celis-Emeryville
Client:	URS Corporation	Prep:	EPA 5030B
Project#:	26814847.06000	Analysis:	EPA 8015B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC514987	Batch#:	155627
Matrix:	Water	Analyzed:	10/03/09
Units:	ug/L		

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	2,000	2,125	106	77-118

Surrogate	%REC	Limits
Trifluorotoluene (FID)	139	64-147
Bromofluorobenzene (FID)	100	71-138

Curtis & Tompkins, Ltd.

Batch QC Report

Total Volatile Hydrocarbons

Lab #:	215124	Location:	Celis-Emeryville
Client:	URS Corporation	Prep:	EPA 5030B
Project#:	26814847.06000	Analysis:	EPA 8015B
Field ID:	URS-MW-1	Batch#:	155627
MSS Lab ID:	215124-001	Sampled:	09/21/09
Matrix:	Water	Received:	09/21/09
Units:	ug/L	Analyzed:	10/03/09
Diln Fac:	1.000		

Type: MS Lab ID: QC514988

Analyte	MSS Result	Spiked	Result	%REC	Limits
Gasoline C7-C12	124.3	2,000	2,313	109	66-110

Surrogate	%REC	Limits
Trifluorotoluene (FID)	135	64-147
Bromofluorobenzene (FID)	111	71-138

Type: MSD Lab ID: QC514989

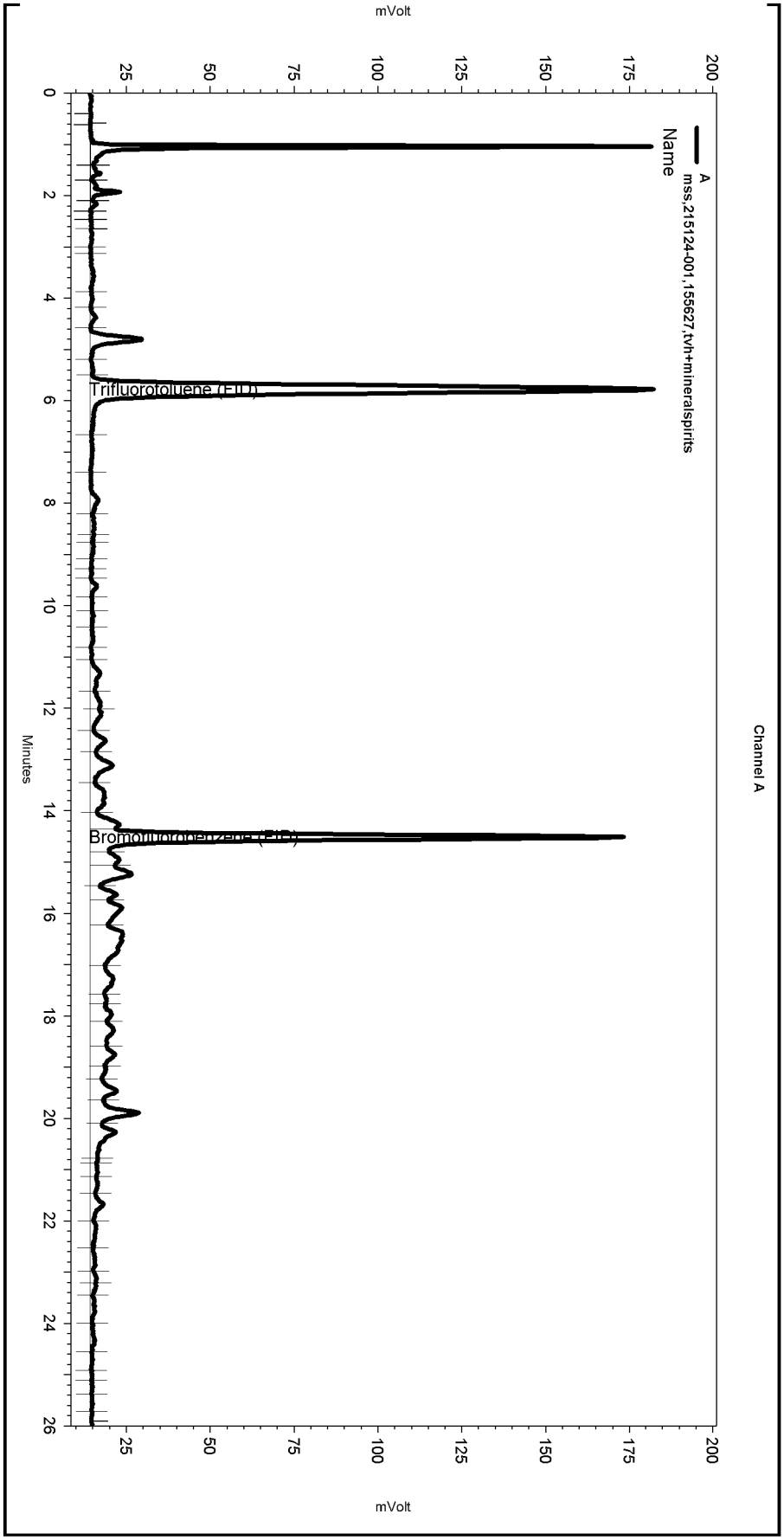
Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	2,000	2,227	105	66-110	4	11

Surrogate	%REC	Limits
Trifluorotoluene (FID)	135	64-147
Bromofluorobenzene (FID)	112	71-138

RPD= Relative Percent Difference

Sequence File: **\\Lims\gdrive\ezchrom\Projects\GC04\Sequence\276.seq**
Sample Name: **mss,215124-001,155627,tvh+mineralspirits**
Data File: **\\Lims\gdrive\ezchrom\Projects\GC04\Data\276_011**
Instrument: GC04 (Offline) Vial: N/A Operator: Tvh 2. Analyst (lims2k3\tvh2)
Method Name: \\Lims\gdrive\ezchrom\Projects\GC04\Method\tvhbtxe256.met

Software Version 3.1.7
Run Date: 10/3/2009 6:30:48 PM
Analysis Date: 10/5/2009 12:12:45 PM
Sample Amount: 5 Multiplier: 5
Vial & pH or Core ID: d1.0



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No items selected for this section

Integration Events

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

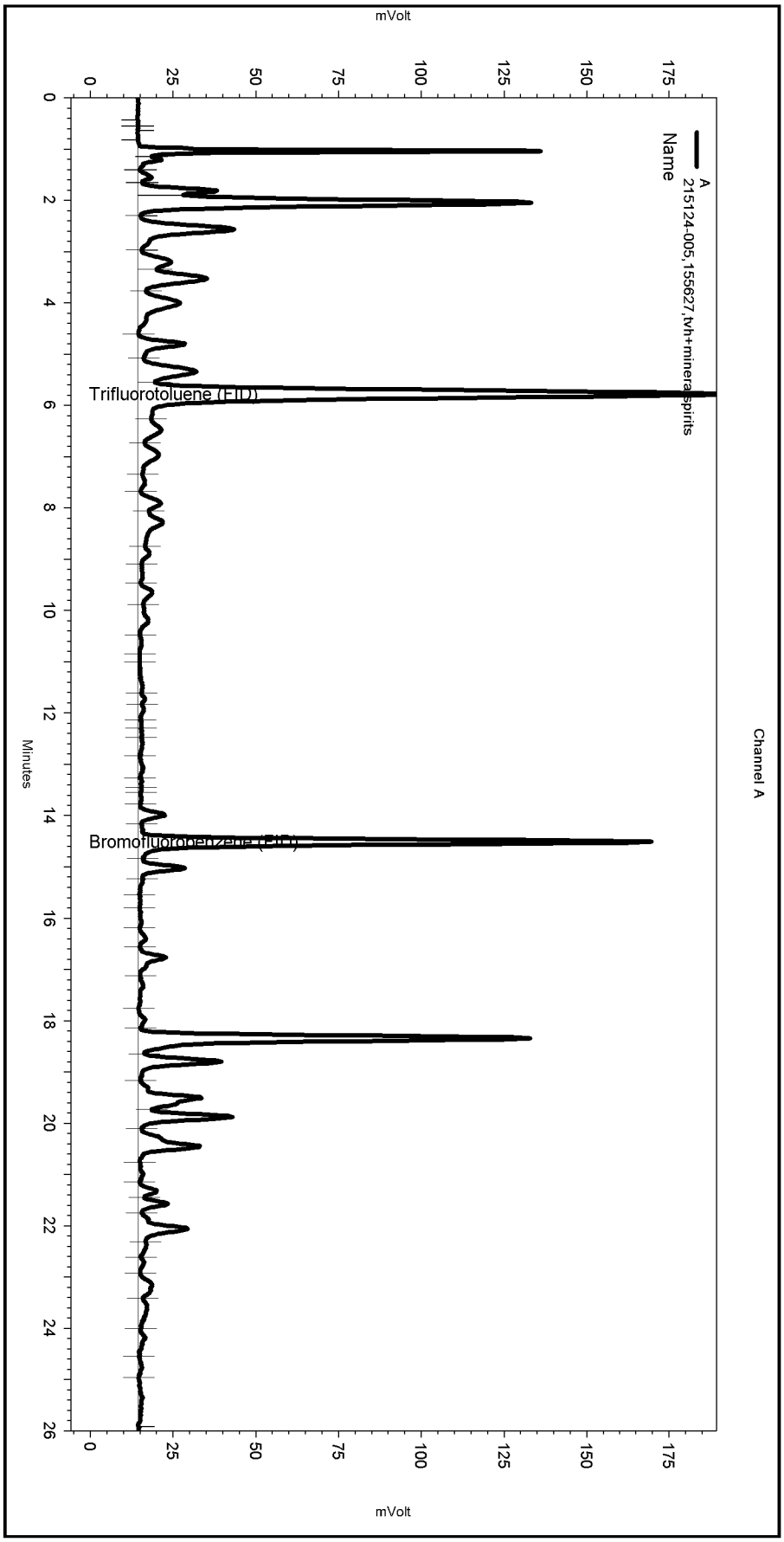
Manual Integration Fixes

Data File: \\Lims\gdrive\ezchrom\Projects\GC04\Data\276_011

Enabled	Event Type	Start (Minutes)	Stop (Minutes)	Value
Yes	Lowest Point Horizontal Baseli	0.731	26.017	0

Sequence File: **\\Lims\gdrive\ezchrom\Projects\GC04\Sequence\276.seq**
Sample Name: **215124-005,155627,tvh+mineralspirits**
Data File: **\\Lims\gdrive\ezchrom\Projects\GC04\Data\276_017**
Instrument: GC04 Vial: N/A Operator: lims2k3\tvh3
Method Name: \\Lims\gdrive\ezchrom\Projects\GC04\Method\tvhbtxe256.met

Software Version 3.1.7
Run Date: 10/3/2009 10:16:30 PM
Analysis Date: 10/3/2009 10:45:59 PM
Sample Amount: 5 Multiplier: 5
Vial & pH or Core ID: d1.0



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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

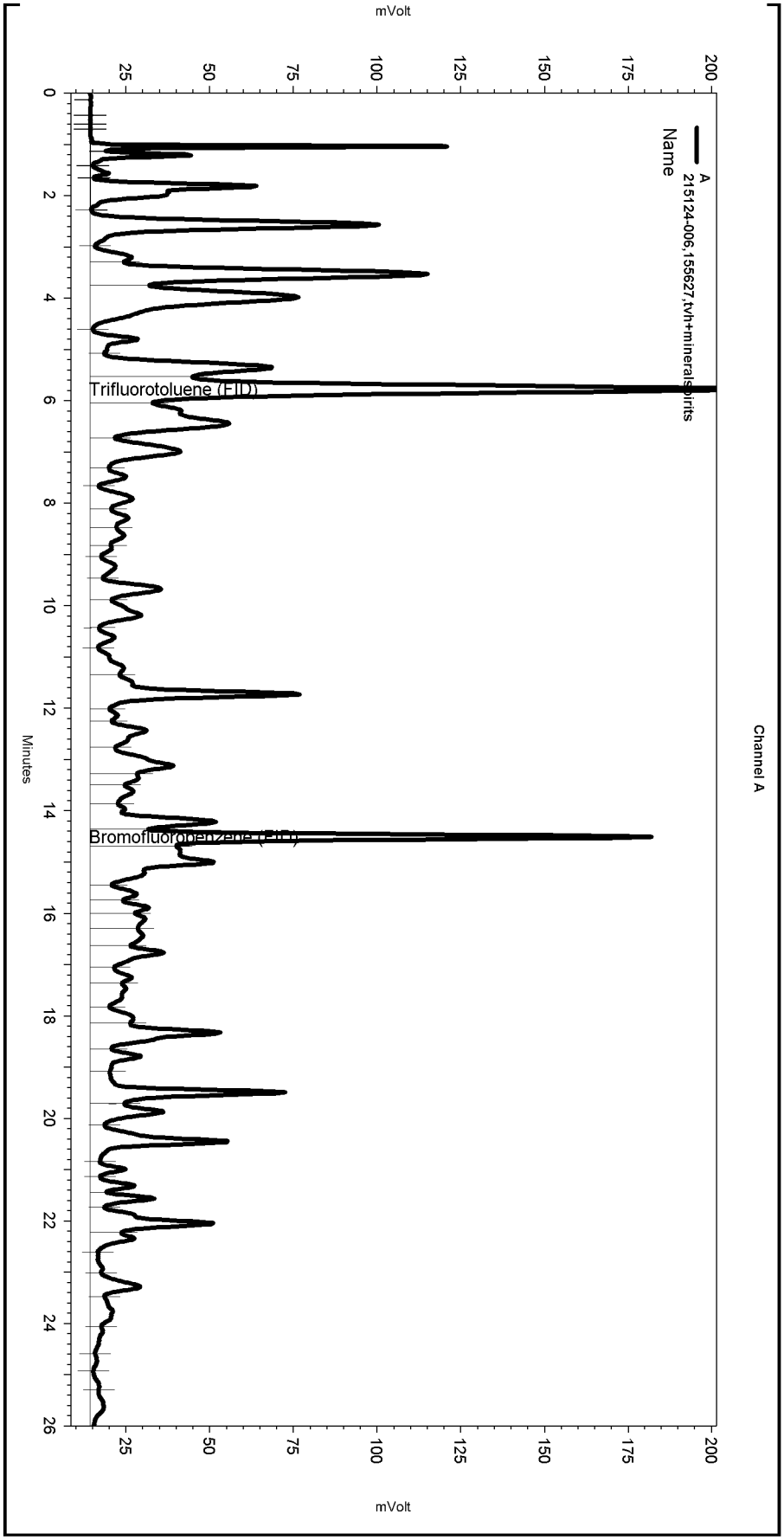
Data File: C:\Documents and Settings\All Users\Application Data\ChromatographySystem\Recovery Data\Instrument.10047\276_017_5C3A.tmp

Enabled	Event Type	Start (Minutes)	Stop (Minutes)	Value

None

Sequence File: **\\Lims\gdrive\ezchrom\Projects\GC04\Sequence\276.seq**
Sample Name: **215124-006,155627,tvh+mineralspirits**
Data File: **\\Lims\gdrive\ezchrom\Projects\GC04\Data\276_025**
Instrument: GC04 (Offline) Vial: N/A Operator: Tvh 2. Analyst (lims2k3\tvh2)
Method Name: \\Lims\gdrive\ezchrom\Projects\GC04\Method\tvhbtxe256.met

Software Version 3.1.7
Run Date: 10/4/2009 3:17:28 AM
Analysis Date: 10/5/2009 12:20:58 PM
Sample Amount: 5 Multiplier: 5
Vial & pH or Core ID: d1.0



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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

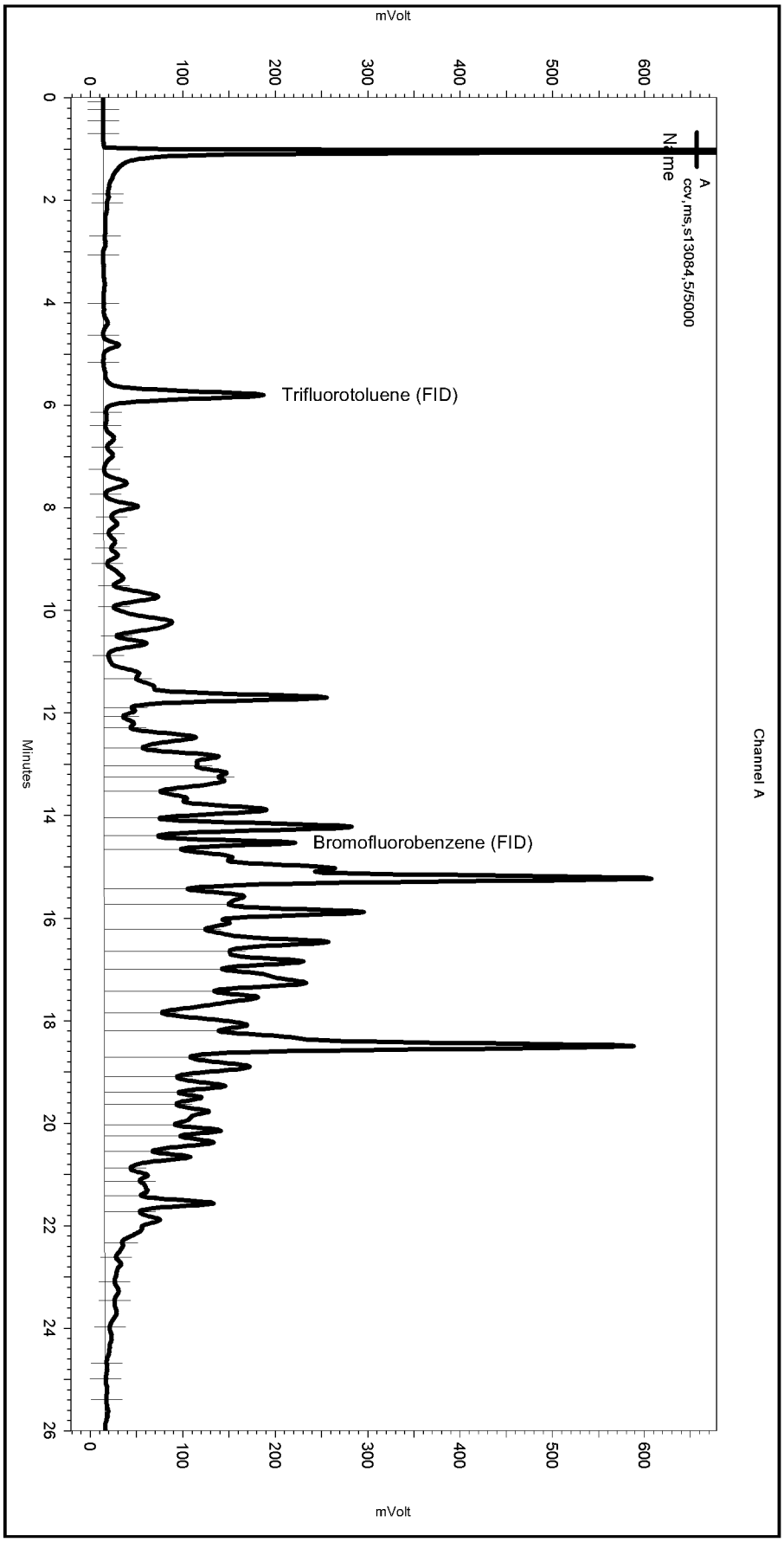
Manual Integration Fixes

Data File: \\Lims\gdrive\ezchrom\Projects\GC04\Data\276_025

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

Sequence File: **\\Lims\gdrive\ezchrom\Projects\GC04\Sequence\276.seq**
Sample Name: **ccv,ms,s13084,5/5000**
Data File: **\\Lims\gdrive\ezchrom\Projects\GC04\Data\276_007**
Instrument: GC04 Vial: N/A Operator: lims2k3\tvh3
Method Name: \\Lims\gdrive\ezchrom\Projects\GC04\Method\tvhbtxe256.met

Software Version 3.1.7
Run Date: 10/3/2009 3:50:52 PM
Analysis Date: 10/3/2009 4:20:20 PM
Sample Amount: 5 Multiplier: 5
Vial & pH or Core ID: {Data Description}



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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

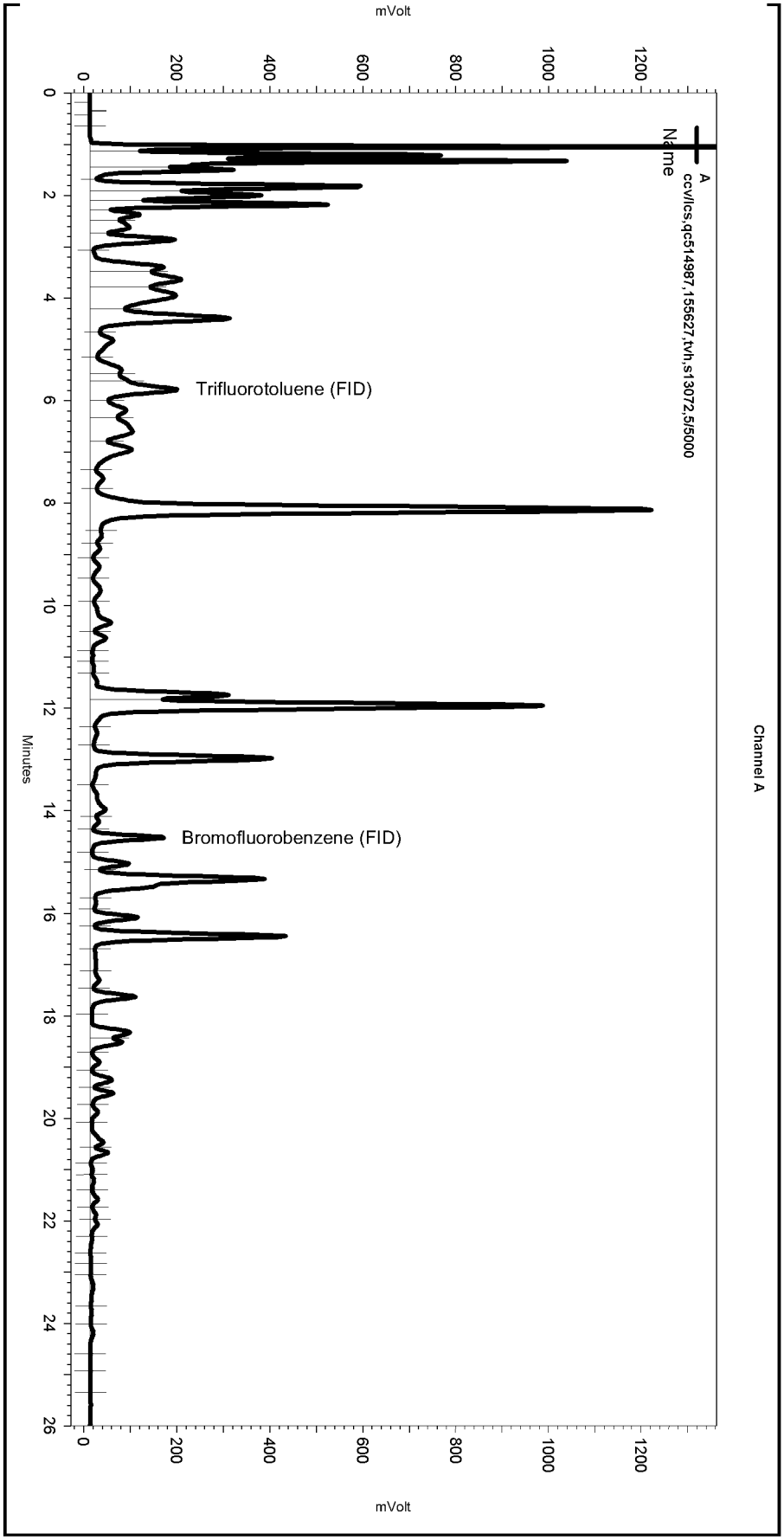
Data File: C:\Documents and Settings\All Users\Application Data\ChromatographySystem\Recovery Data\Instrument.10047\276_007_5C30.tmp

Enabled	Event Type	Start (Minutes)	Stop (Minutes)	Value

None

Sequence File: **\\Lims\gdrive\ezchrom\Projects\GC04\Sequence\276.seq**
Sample Name: **ccv/lcs,qc514987,155627,tvh,s13072,5/5000**
Data File: **\\Lims\gdrive\ezchrom\Projects\GC04\Data\276_006**
Instrument: GC04 (Offline) Vial: N/A Operator: Tvh 2. Analyst (lims2k3\tvh2)
Method Name: \\Lims\gdrive\ezchrom\Projects\GC04\Method\tvhbtxe256.met

Software Version 3.1.7
Run Date: 10/3/2009 2:01:55 PM
Analysis Date: 10/5/2009 11:59:50 AM
Sample Amount: 5 Multiplier: 5
Vial & pH or Core ID: {Data Description}



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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\GC04\Data\276_006

Enabled	Event Type	Start (Minutes)	Stop (Minutes)	Value
Yes	Split Peak	5.624	0	0

Curtis & Tompkins, Ltd.

Total Extractable Hydrocarbons

Lab #:	215124	Location:	Celis-Emeryville
Client:	URS Corporation	Prep:	EPA 3520C
Project#:	26814847.06000	Analysis:	EPA 8015B
Matrix:	Water	Sampled:	09/21/09
Units:	ug/L	Received:	09/21/09
Diln Fac:	1.000	Prepared:	09/25/09
Batch#:	155344		

Field ID: URS-MW-1 Lab ID: 215124-001
Type: SAMPLE Analyzed: 09/29/09

Analyte	Result	RL
Diesel C10-C24	90 Y	50

Surrogate	%REC	Limits
o-Terphenyl	101	60-130

Field ID: URS-MW-2 Lab ID: 215124-002
Type: SAMPLE Analyzed: 09/29/09

Analyte	Result	RL
Diesel C10-C24	210 Y	50

Surrogate	%REC	Limits
o-Terphenyl	101	60-130

Field ID: URS-MW-3 Lab ID: 215124-003
Type: SAMPLE Analyzed: 09/29/09

Analyte	Result	RL
Diesel C10-C24	ND	50

Surrogate	%REC	Limits
o-Terphenyl	84	60-130

Field ID: URS-MW-4 Lab ID: 215124-004
Type: SAMPLE Analyzed: 09/29/09

Analyte	Result	RL
Diesel C10-C24	110 Y	50

Surrogate	%REC	Limits
o-Terphenyl	91	60-130

Field ID: URS-MW-5 Lab ID: 215124-005
Type: SAMPLE Analyzed: 09/29/09

Analyte	Result	RL
Diesel C10-C24	1,100 Y	50

Surrogate	%REC	Limits
o-Terphenyl	100	60-130

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

Curtis & Tompkins, Ltd.

Total Extractable Hydrocarbons

Lab #:	215124	Location:	Celis-Emeryville
Client:	URS Corporation	Prep:	EPA 3520C
Project#:	26814847.06000	Analysis:	EPA 8015B
Matrix:	Water	Sampled:	09/21/09
Units:	ug/L	Received:	09/21/09
Diln Fac:	1.000	Prepared:	09/25/09
Batch#:	155344		

Field ID:	LF-MW-LF-4	Lab ID:	215124-006
Type:	SAMPLE	Analyzed:	09/30/09

Analyte	Result	RL
Diesel C10-C24	1,600 Y	50

Surrogate	%REC	Limits
o-Terphenyl	87	60-130

Type:	BLANK	Analyzed:	09/29/09
Lab ID:	QC513801		

Analyte	Result	RL
Diesel C10-C24	ND	50

Surrogate	%REC	Limits
o-Terphenyl	97	60-130

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

Curtis & Tompkins, Ltd.

Batch QC Report

Total Extractable Hydrocarbons

Lab #:	215124	Location:	Celis-Emeryville
Client:	URS Corporation	Prep:	EPA 3520C
Project#:	26814847.06000	Analysis:	EPA 8015B
Matrix:	Water	Batch#:	155344
Units:	ug/L	Prepared:	09/25/09
Diln Fac:	1.000	Analyzed:	09/29/09

Type: BS
Lab ID: QC513802
Cleanup Method: EPA 3630C

Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24	2,500	2,292	92	53-122

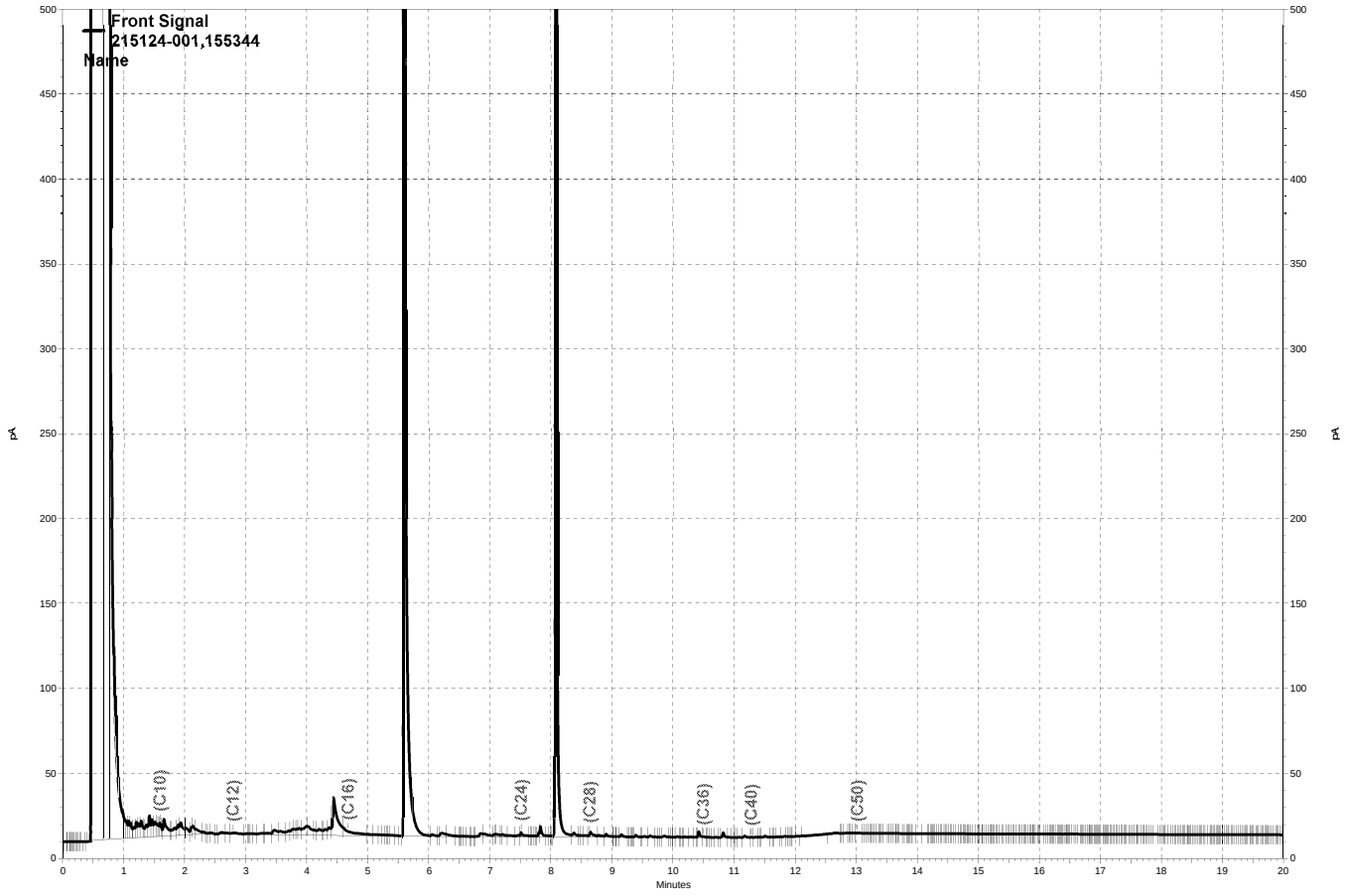
Surrogate	%REC	Limits
o-Terphenyl	100	60-130

Type: BSD
Lab ID: QC513803
Cleanup Method: EPA 3630C

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Diesel C10-C24	2,500	2,180	87	53-122	5	36

Surrogate	%REC	Limits
o-Terphenyl	96	60-130

RPD= Relative Percent Difference



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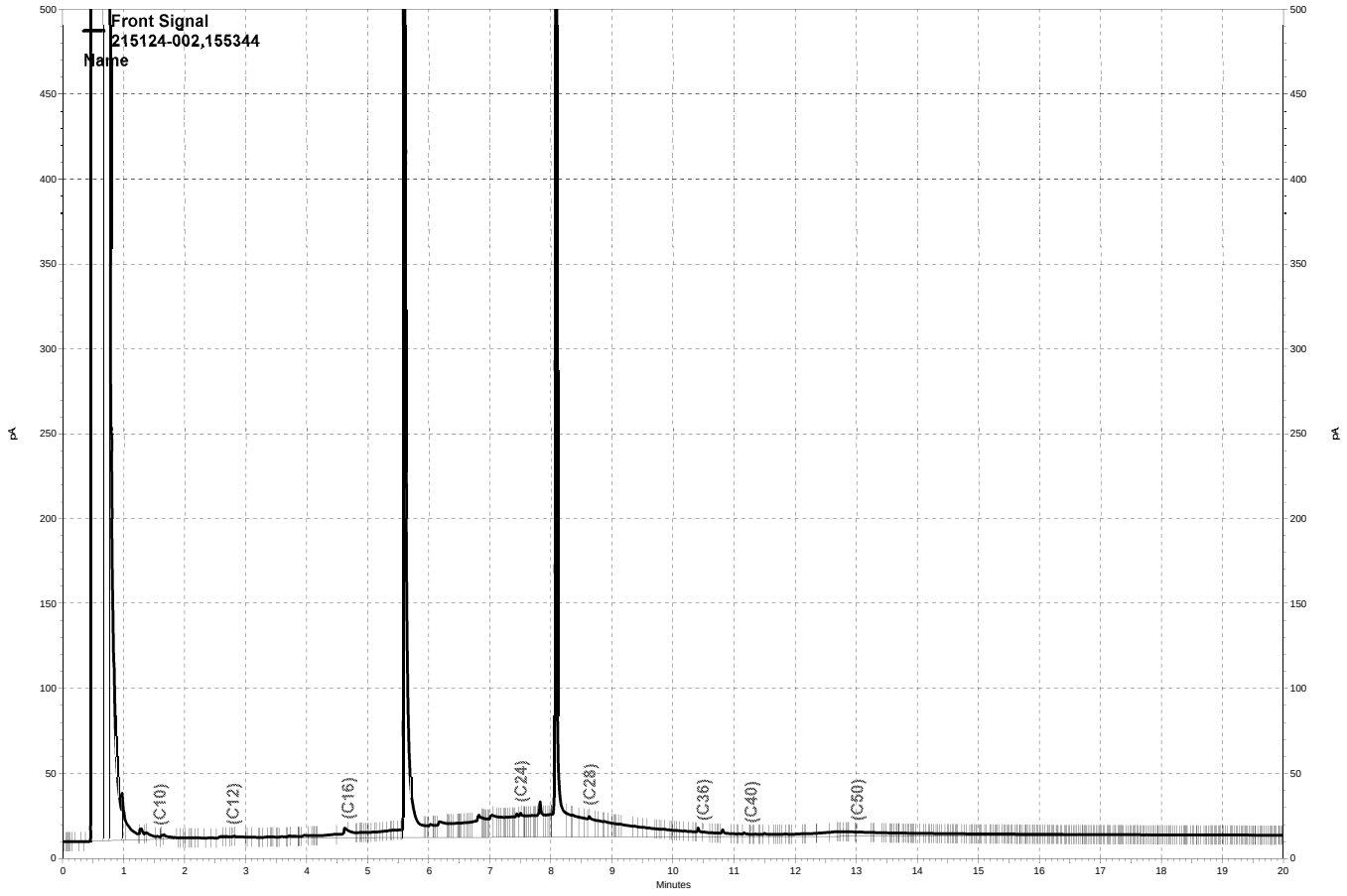

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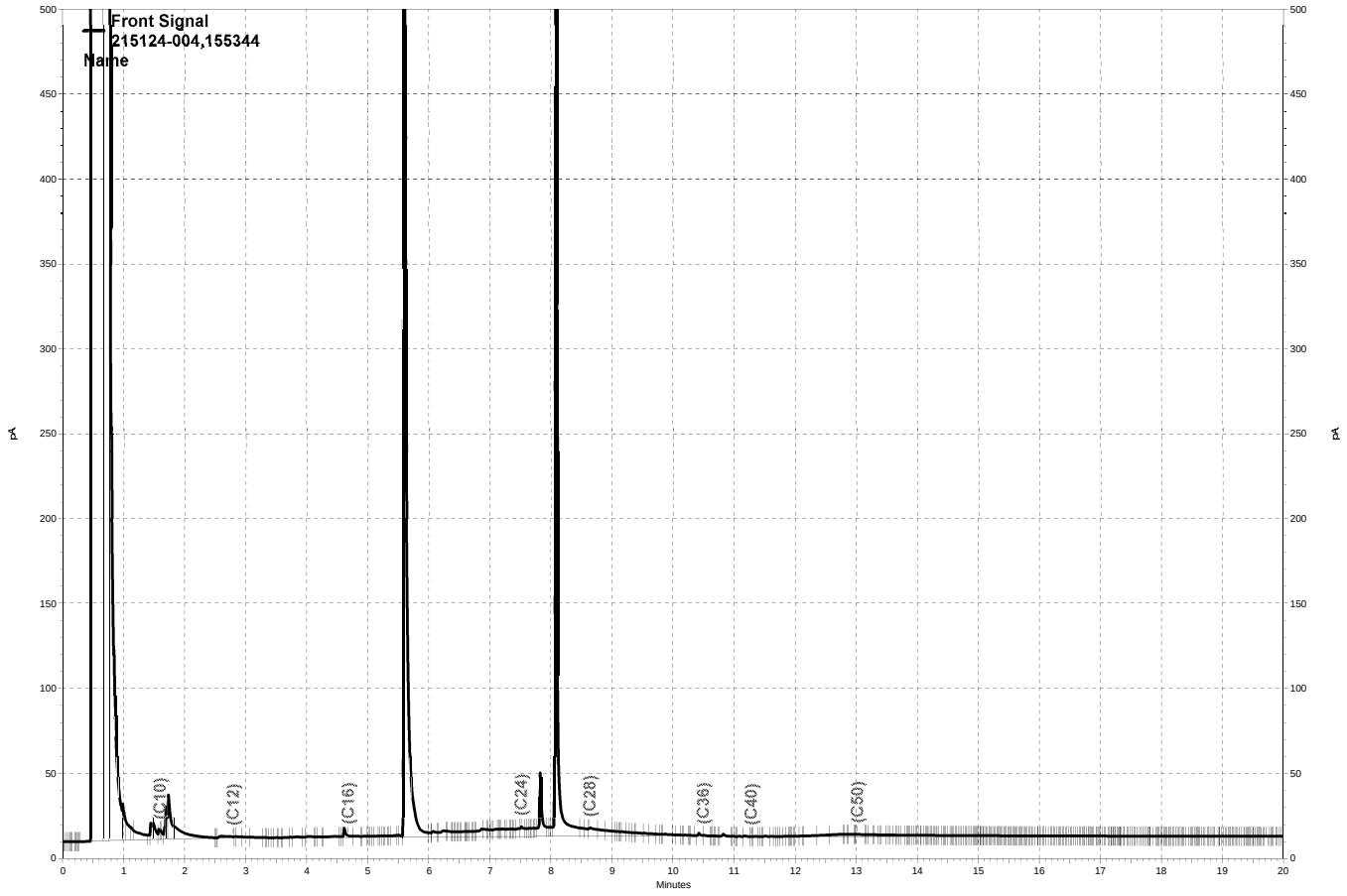

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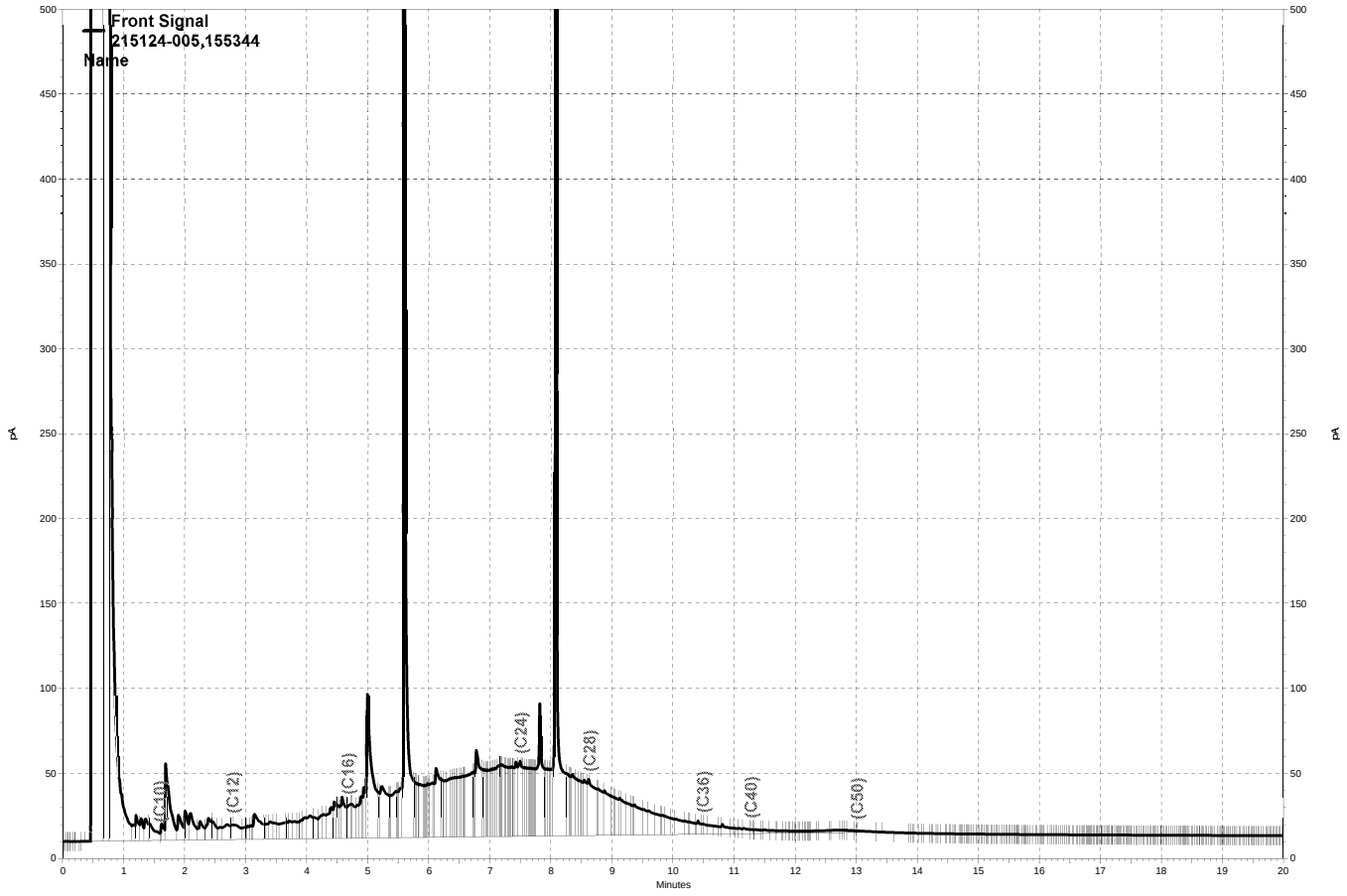

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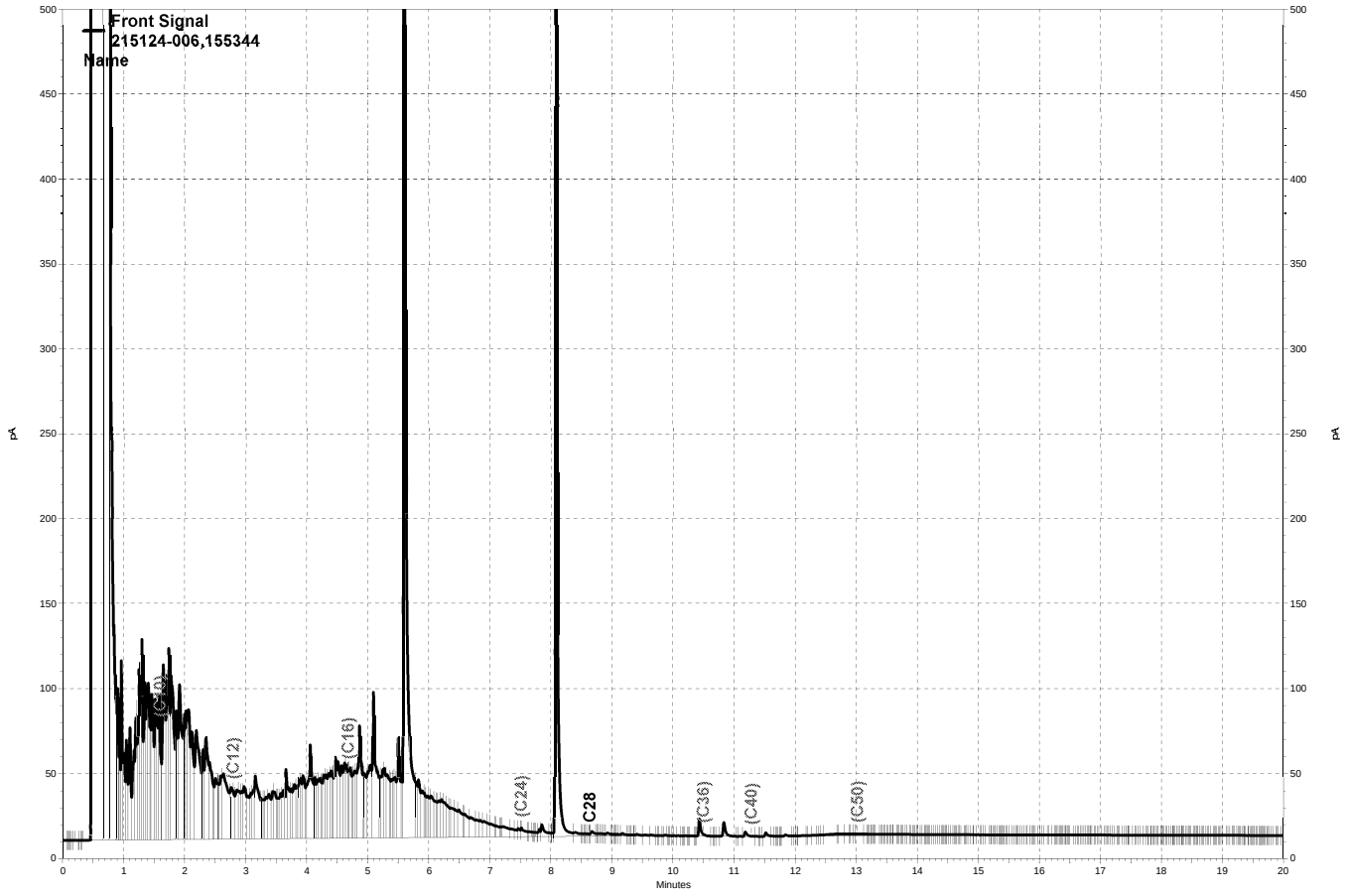

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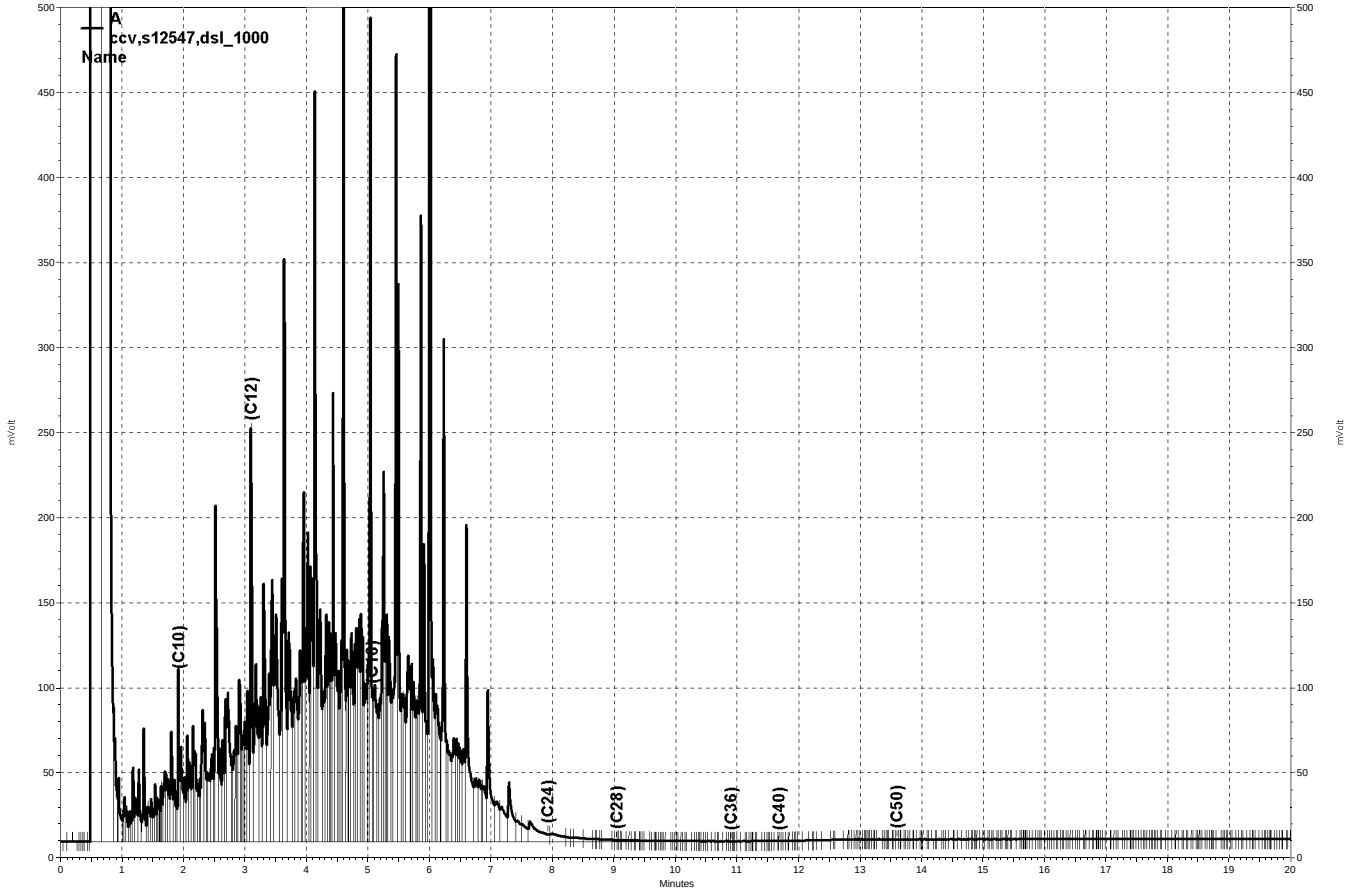

\\Lims\gdrive\ezchrom\Projects\GC26\Data\272a004, A

Curtis & Tompkins, Ltd.

BTXE & Oxygenates

Lab #:	215124	Location:	Celis-Emeryville
Client:	URS Corporation	Prep:	EPA 5030B
Project#:	26814847.06000	Analysis:	EPA 8260B
Field ID:	URS-MW-1	Batch#:	155347
Lab ID:	215124-001	Sampled:	09/21/09
Matrix:	Water	Received:	09/21/09
Units:	ug/L	Analyzed:	09/26/09
Diln Fac:	1.000		

Analyte	Result	RL
tert-Butyl Alcohol (TBA)	ND	10
MTBE	ND	0.5
Isopropyl Ether (DIPE)	ND	0.5
Ethyl tert-Butyl Ether (ETBE)	ND	0.5
1,2-Dichloroethane	ND	0.5
Benzene	ND	0.5
Methyl tert-Amyl Ether (TAME)	ND	0.5
Toluene	ND	0.5
1,2-Dibromoethane	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	106	80-120
1,2-Dichloroethane-d4	124	75-137
Toluene-d8	103	80-120
Bromofluorobenzene	112	80-123

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

BTXE & Oxygenates

Lab #:	215124	Location:	Celis-Emeryville
Client:	URS Corporation	Prep:	EPA 5030B
Project#:	26814847.06000	Analysis:	EPA 8260B
Field ID:	URS-MW-2	Batch#:	155491
Lab ID:	215124-002	Sampled:	09/21/09
Matrix:	Water	Received:	09/21/09
Units:	ug/L	Analyzed:	09/30/09
Diln Fac:	1.000		

Analyte	Result	RL
tert-Butyl Alcohol (TBA)	40	10
MTBE	49	0.5
Isopropyl Ether (DIPE)	ND	0.5
Ethyl tert-Butyl Ether (ETBE)	ND	0.5
1,2-Dichloroethane	ND	0.5
Benzene	ND	0.5
Methyl tert-Amyl Ether (TAME)	ND	0.5
Toluene	ND	0.5
1,2-Dibromoethane	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	100	80-120
1,2-Dichloroethane-d4	109	75-137
Toluene-d8	102	80-120
Bromofluorobenzene	106	80-123

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

BTXE & Oxygenates

Lab #:	215124	Location:	Celis-Emeryville
Client:	URS Corporation	Prep:	EPA 5030B
Project#:	26814847.06000	Analysis:	EPA 8260B
Field ID:	URS-MW-3	Batch#:	155347
Lab ID:	215124-003	Sampled:	09/21/09
Matrix:	Water	Received:	09/21/09
Units:	ug/L	Analyzed:	09/26/09
Diln Fac:	1.000		

Analyte	Result	RL
tert-Butyl Alcohol (TBA)	ND	10
MTBE	1.9	0.5
Isopropyl Ether (DIPE)	ND	0.5
Ethyl tert-Butyl Ether (ETBE)	ND	0.5
1,2-Dichloroethane	ND	0.5
Benzene	ND	0.5
Methyl tert-Amyl Ether (TAME)	ND	0.5
Toluene	ND	0.5
1,2-Dibromoethane	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	106	80-120
1,2-Dichloroethane-d4	123	75-137
Toluene-d8	103	80-120
Bromofluorobenzene	111	80-123

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

BTXE & Oxygenates

Lab #:	215124	Location:	Celis-Emeryville
Client:	URS Corporation	Prep:	EPA 5030B
Project#:	26814847.06000	Analysis:	EPA 8260B
Field ID:	URS-MW-4	Batch#:	155347
Lab ID:	215124-004	Sampled:	09/21/09
Matrix:	Water	Received:	09/21/09
Units:	ug/L	Analyzed:	09/26/09
Diln Fac:	1.000		

Analyte	Result	RL
tert-Butyl Alcohol (TBA)	ND	10
MTBE	56	0.5
Isopropyl Ether (DIPE)	ND	0.5
Ethyl tert-Butyl Ether (ETBE)	ND	0.5
1,2-Dichloroethane	ND	0.5
Benzene	ND	0.5
Methyl tert-Amyl Ether (TAME)	ND	0.5
Toluene	ND	0.5
1,2-Dibromoethane	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	107	80-120
1,2-Dichloroethane-d4	124	75-137
Toluene-d8	101	80-120
Bromofluorobenzene	110	80-123

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

BTXE & Oxygenates

Lab #:	215124	Location:	Celis-Emeryville
Client:	URS Corporation	Prep:	EPA 5030B
Project#:	26814847.06000	Analysis:	EPA 8260B
Field ID:	URS-MW-5	Batch#:	155491
Lab ID:	215124-005	Sampled:	09/21/09
Matrix:	Water	Received:	09/21/09
Units:	ug/L	Analyzed:	09/30/09
Diln Fac:	1.000		

Analyte	Result	RL
tert-Butyl Alcohol (TBA)	ND	10
MTBE	63	0.5
Isopropyl Ether (DIPE)	ND	0.5
Ethyl tert-Butyl Ether (ETBE)	ND	0.5
1,2-Dichloroethane	ND	0.5
Benzene	ND	0.5
Methyl tert-Amyl Ether (TAME)	ND	0.5
Toluene	ND	0.5
1,2-Dibromoethane	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	100	80-120
1,2-Dichloroethane-d4	104	75-137
Toluene-d8	100	80-120
Bromofluorobenzene	106	80-123

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

BTXE & Oxygenates

Lab #:	215124	Location:	Celis-Emeryville
Client:	URS Corporation	Prep:	EPA 5030B
Project#:	26814847.06000	Analysis:	EPA 8260B
Field ID:	LF-MW-LF-4	Batch#:	155380
Lab ID:	215124-006	Sampled:	09/21/09
Matrix:	Water	Received:	09/21/09
Units:	ug/L	Analyzed:	09/29/09
Diln Fac:	1.000		

Analyte	Result	RL
tert-Butyl Alcohol (TBA)	ND	10
MTBE	2.0	0.5
Isopropyl Ether (DIPE)	ND	0.5
Ethyl tert-Butyl Ether (ETBE)	ND	0.5
1,2-Dichloroethane	ND	0.5
Benzene	ND	0.5
Methyl tert-Amyl Ether (TAME)	ND	0.5
Toluene	ND	0.5
1,2-Dibromoethane	ND	0.5
Ethylbenzene	7.9	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	103	80-120
1,2-Dichloroethane-d4	123	75-137
Toluene-d8	104	80-120
Bromofluorobenzene	110	80-123

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

BTXE & Oxygenates

Lab #:	215124	Location:	Celis-Emeryville
Client:	URS Corporation	Prep:	EPA 5030B
Project#:	26814847.06000	Analysis:	EPA 8260B
Field ID:	TRIP BLANK	Batch#:	155347
Lab ID:	215124-007	Sampled:	09/21/09
Matrix:	Water	Received:	09/21/09
Units:	ug/L	Analyzed:	09/26/09
Diln Fac:	1.000		

Analyte	Result	RL
tert-Butyl Alcohol (TBA)	ND	10
MTBE	ND	0.5
Isopropyl Ether (DIPE)	ND	0.5
Ethyl tert-Butyl Ether (ETBE)	ND	0.5
1,2-Dichloroethane	ND	0.5
Benzene	ND	0.5
Methyl tert-Amyl Ether (TAME)	ND	0.5
Toluene	ND	0.5
1,2-Dibromoethane	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	105	80-120
1,2-Dichloroethane-d4	122	75-137
Toluene-d8	102	80-120
Bromofluorobenzene	110	80-123

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

BTXE & Oxygenates

Lab #:	215124	Location:	Celis-Emeryville
Client:	URS Corporation	Prep:	EPA 5030B
Project#:	26814847.06000	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC513812	Batch#:	155347
Matrix:	Water	Analyzed:	09/26/09
Units:	ug/L		

Analyte	Result	RL
tert-Butyl Alcohol (TBA)	ND	10
MTBE	ND	0.5
Isopropyl Ether (DIPE)	ND	0.5
Ethyl tert-Butyl Ether (ETBE)	ND	0.5
1,2-Dichloroethane	ND	0.5
Benzene	ND	0.5
Methyl tert-Amyl Ether (TAME)	ND	0.5
Toluene	ND	0.5
1,2-Dibromoethane	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	107	80-120
1,2-Dichloroethane-d4	121	75-137
Toluene-d8	102	80-120
Bromofluorobenzene	111	80-123

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

BTXE & Oxygenates

Lab #:	215124	Location:	Celis-Emeryville
Client:	URS Corporation	Prep:	EPA 5030B
Project#:	26814847.06000	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	155347
Units:	ug/L	Analyzed:	09/26/09
Diln Fac:	1.000		

Type: BS Lab ID: QC513813

Analyte	Spiked	Result	%REC	Limits
tert-Butyl Alcohol (TBA)	106.3	135.2	127	51-141
MTBE	21.25	22.13	104	70-120
Isopropyl Ether (DIPE)	21.25	29.30 b	138 *	65-130
Ethyl tert-Butyl Ether (ETBE)	21.25	23.96	113	74-126
1,2-Dichloroethane	21.25	24.38	115	70-137
Benzene	21.25	20.77	98	80-120
Methyl tert-Amyl Ether (TAME)	21.25	21.50	101	80-120
Toluene	21.25	20.42	96	80-120
1,2-Dibromoethane	21.25	21.42	101	80-120
Ethylbenzene	21.25	20.39	96	80-122
m,p-Xylenes	42.50	44.12	104	80-123
o-Xylene	21.25	21.56	101	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	102	80-120
1,2-Dichloroethane-d4	113	75-137
Toluene-d8	102	80-120
Bromofluorobenzene	105	80-123

Type: BSD Lab ID: QC513814

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
tert-Butyl Alcohol (TBA)	106.3	146.5	138	51-141	8	20
MTBE	21.25	23.31	110	70-120	5	20
Isopropyl Ether (DIPE)	21.25	31.82 b	150 *	65-130	8	20
Ethyl tert-Butyl Ether (ETBE)	21.25	25.61	121	74-126	7	20
1,2-Dichloroethane	21.25	27.11	128	70-137	11	20
Benzene	21.25	23.53	111	80-120	12	20
Methyl tert-Amyl Ether (TAME)	21.25	23.30	110	80-120	8	20
Toluene	21.25	21.99	103	80-120	7	20
1,2-Dibromoethane	21.25	24.04	113	80-120	12	20
Ethylbenzene	21.25	22.78	107	80-122	11	20
m,p-Xylenes	42.50	48.01	113	80-123	8	20
o-Xylene	21.25	23.53	111	80-120	9	20

Surrogate	%REC	Limits
Dibromofluoromethane	103	80-120
1,2-Dichloroethane-d4	115	75-137
Toluene-d8	102	80-120
Bromofluorobenzene	105	80-123

*= Value outside of QC limits; see narrative
b= See narrative
RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

BTXE & Oxygenates

Lab #:	215124	Location:	Celis-Emeryville
Client:	URS Corporation	Prep:	EPA 5030B
Project#:	26814847.06000	Analysis:	EPA 8260B
Field ID:	ZZZZZZZZZZ	Batch#:	155347
MSS Lab ID:	215145-004	Sampled:	09/22/09
Matrix:	Water	Received:	09/24/09
Units:	ug/L	Analyzed:	09/27/09
Diln Fac:	1.000		

Type: MS Lab ID: QC513841

Analyte	MSS Result	Spiked	Result	%REC	Limits
tert-Butyl Alcohol (TBA)	<2.000	125.0	176.0 b	141 *	61-131
MTBE	<0.1000	25.00	27.24	109	73-120
Isopropyl Ether (DIPE)	<0.1000	25.00	38.27 b	153 *	74-125
Ethyl tert-Butyl Ether (ETBE)	<0.1000	25.00	30.61	122	80-124
1,2-Dichloroethane	<0.1217	25.00	30.07	120	79-135
Benzene	<0.1000	25.00	26.51	106	80-122
Methyl tert-Amyl Ether (TAME)	<0.1000	25.00	25.74	103	80-120
Toluene	<0.1000	25.00	25.29	101	80-122
1,2-Dibromoethane	<0.1024	25.00	26.19	105	80-120
Ethylbenzene	<0.1525	25.00	26.17	105	80-122
m,p-Xylenes	<0.1000	50.00	55.14	110	80-122
o-Xylene	<0.1000	25.00	26.79	107	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	105	80-120
1,2-Dichloroethane-d4	113	75-137
Toluene-d8	103	80-120
Bromofluorobenzene	106	80-123

Type: MSD Lab ID: QC513842

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
tert-Butyl Alcohol (TBA)	125.0	175.8 b	141 *	61-131	0	20
MTBE	25.00	27.10	108	73-120	1	20
Isopropyl Ether (DIPE)	25.00	37.70 b	151 *	74-125	2	20
Ethyl tert-Butyl Ether (ETBE)	25.00	30.35	121	80-124	1	20
1,2-Dichloroethane	25.00	30.10	120	79-135	0	20
Benzene	25.00	26.12	104	80-122	1	20
Methyl tert-Amyl Ether (TAME)	25.00	26.02	104	80-120	1	20
Toluene	25.00	25.23	101	80-122	0	20
1,2-Dibromoethane	25.00	25.66	103	80-120	2	20
Ethylbenzene	25.00	25.80	103	80-122	1	20
m,p-Xylenes	50.00	53.53	107	80-122	3	20
o-Xylene	25.00	25.99	104	80-120	3	20

Surrogate	%REC	Limits
Dibromofluoromethane	105	80-120
1,2-Dichloroethane-d4	114	75-137
Toluene-d8	102	80-120
Bromofluorobenzene	106	80-123

*= Value outside of QC limits; see narrative
b= See narrative
RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

BTXE & Oxygenates

Lab #:	215124	Location:	Celis-Emeryville
Client:	URS Corporation	Prep:	EPA 5030B
Project#:	26814847.06000	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC513956	Batch#:	155380
Matrix:	Water	Analyzed:	09/28/09
Units:	ug/L		

Analyte	Result	RL
tert-Butyl Alcohol (TBA)	ND	10
MTBE	ND	0.5
Isopropyl Ether (DIPE)	ND	0.5
Ethyl tert-Butyl Ether (ETBE)	ND	0.5
1,2-Dichloroethane	ND	0.5
Benzene	ND	0.5
Methyl tert-Amyl Ether (TAME)	ND	0.5
Toluene	ND	0.5
1,2-Dibromoethane	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	107	80-120
1,2-Dichloroethane-d4	124	75-137
Toluene-d8	104	80-120
Bromofluorobenzene	112	80-123

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

BTXE & Oxygenates

Lab #:	215124	Location:	Celis-Emeryville
Client:	URS Corporation	Prep:	EPA 5030B
Project#:	26814847.06000	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	155380
Units:	ug/L	Analyzed:	09/28/09
Diln Fac:	1.000		

Type: BS Lab ID: QC513957

Analyte	Spiked	Result	%REC	Limits
tert-Butyl Alcohol (TBA)	112.5	157.6 b	140	51-141
MTBE	22.50	23.44	104	70-120
Isopropyl Ether (DIPE)	22.50	32.53 b	145 *	65-130
Ethyl tert-Butyl Ether (ETBE)	22.50	26.29	117	74-126
1,2-Dichloroethane	22.50	26.97	120	70-137
Benzene	22.50	22.58	100	80-120
Methyl tert-Amyl Ether (TAME)	22.50	23.13	103	80-120
Toluene	22.50	21.68	96	80-120
1,2-Dibromoethane	22.50	23.09	103	80-120
Ethylbenzene	22.50	22.03	98	80-122
m,p-Xylenes	45.00	46.90	104	80-123
o-Xylene	22.50	22.99	102	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	103	80-120
1,2-Dichloroethane-d4	113	75-137
Toluene-d8	102	80-120
Bromofluorobenzene	103	80-123

Type: BSD Lab ID: QC513958

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
tert-Butyl Alcohol (TBA)	112.5	163.4 b	145 *	51-141	4	20
MTBE	22.50	24.23	108	70-120	3	20
Isopropyl Ether (DIPE)	22.50	32.91 b	146 *	65-130	1	20
Ethyl tert-Butyl Ether (ETBE)	22.50	26.81	119	74-126	2	20
1,2-Dichloroethane	22.50	27.83	124	70-137	3	20
Benzene	22.50	23.18	103	80-120	3	20
Methyl tert-Amyl Ether (TAME)	22.50	23.34	104	80-120	1	20
Toluene	22.50	22.31	99	80-120	3	20
1,2-Dibromoethane	22.50	24.09	107	80-120	4	20
Ethylbenzene	22.50	22.95	102	80-122	4	20
m,p-Xylenes	45.00	47.99	107	80-123	2	20
o-Xylene	22.50	23.55	105	80-120	2	20

Surrogate	%REC	Limits
Dibromofluoromethane	105	80-120
1,2-Dichloroethane-d4	113	75-137
Toluene-d8	103	80-120
Bromofluorobenzene	106	80-123

*= Value outside of QC limits; see narrative
b= See narrative
RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

BTXE & Oxygenates

Lab #:	215124	Location:	Celis-Emeryville
Client:	URS Corporation	Prep:	EPA 5030B
Project#:	26814847.06000	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC514421	Batch#:	155491
Matrix:	Water	Analyzed:	09/30/09
Units:	ug/L		

Analyte	Result	RL
tert-Butyl Alcohol (TBA)	ND	10
MTBE	ND	0.5
Isopropyl Ether (DIPE)	ND	0.5
Ethyl tert-Butyl Ether (ETBE)	ND	0.5
1,2-Dichloroethane	ND	0.5
Benzene	ND	0.5
Methyl tert-Amyl Ether (TAME)	ND	0.5
Toluene	ND	0.5
1,2-Dibromoethane	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	103	80-120
1,2-Dichloroethane-d4	107	75-137
Toluene-d8	101	80-120
Bromofluorobenzene	101	80-123

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

BTXE & Oxygenates

Lab #:	215124	Location:	Celis-Emeryville
Client:	URS Corporation	Prep:	EPA 5030B
Project#:	26814847.06000	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	155491
Units:	ug/L	Analyzed:	09/30/09
Diln Fac:	1.000		

Type: BS Lab ID: QC514422

Analyte	Spiked	Result	%REC	Limits
tert-Butyl Alcohol (TBA)	125.0	133.6	107	51-141
MTBE	25.00	24.35	97	70-120
Isopropyl Ether (DIPE)	25.00	25.61	102	65-130
Ethyl tert-Butyl Ether (ETBE)	25.00	24.79	99	74-126
1,2-Dichloroethane	25.00	28.23	113	70-137
Benzene	25.00	27.48	110	80-120
Methyl tert-Amyl Ether (TAME)	25.00	24.92	100	80-120
Toluene	25.00	27.47	110	80-120
1,2-Dibromoethane	25.00	27.54	110	80-120
Ethylbenzene	25.00	28.00	112	80-122
m,p-Xylenes	50.00	58.61	117	80-123
o-Xylene	25.00	27.95	112	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	101	80-120
1,2-Dichloroethane-d4	101	75-137
Toluene-d8	101	80-120
Bromofluorobenzene	99	80-123

Type: BSD Lab ID: QC514423

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
tert-Butyl Alcohol (TBA)	125.0	130.8	105	51-141	2	20
MTBE	25.00	26.03	104	70-120	7	20
Isopropyl Ether (DIPE)	25.00	26.58	106	65-130	4	20
Ethyl tert-Butyl Ether (ETBE)	25.00	25.87	103	74-126	4	20
1,2-Dichloroethane	25.00	28.82	115	70-137	2	20
Benzene	25.00	28.01	112	80-120	2	20
Methyl tert-Amyl Ether (TAME)	25.00	26.29	105	80-120	5	20
Toluene	25.00	28.25	113	80-120	3	20
1,2-Dibromoethane	25.00	28.44	114	80-120	3	20
Ethylbenzene	25.00	28.01	112	80-122	0	20
m,p-Xylenes	50.00	58.49	117	80-123	0	20
o-Xylene	25.00	27.79	111	80-120	1	20

Surrogate	%REC	Limits
Dibromofluoromethane	102	80-120
1,2-Dichloroethane-d4	101	75-137
Toluene-d8	98	80-120
Bromofluorobenzene	101	80-123

RPD= Relative Percent Difference