URS

May 26, 2010

Mr. Mark Detterman
Coordinator - Division of Environmental Protection
Department of Environmental Health
Alameda County Health Agency
1131 Harbor Bay Parkway
Alameda, California 94502-6577

Re: First Quarter 2010 Groundwater Monitoring at Former Celis-Alliance Fuel Station Site, 4000 San Pablo Avenue, Emeryville, California

Dear Mr. Detterman,

On behalf of the City of Emeryville Redevelopment Agency (the City), URS Corporation (URS) is pleased to submit this *First Quarter 2010 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 Jacob Henry at (510) 874-3252 if you have any questions or comments.

Sincerely,

URS Corporation

PROFESSIONAL GEOLOGIST
JACOB T. HENRY
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May 26, 2010

Mr. Mark Detterman
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: **First Quarter 2010 Groundwater Monitoring**
Former Celis-Alliance Service Station
4000 San Pablo Avenue, Emeryville, California

Dear Mr. Detterman:

On behalf of the City of Emeryville Redevelopment Agency (the City), URS Corporation (URS) is pleased to submit this *First Quarter 2010 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; Figure 1). 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). The purpose of the work described in 2006 Workplan document was the evaluation of subsurface conditions in the area downgradient of the former Celis service station. The area of the station itself was historically the subject of extensive post-operation remedial action and has since been abandoned for the construction of 40th Street.

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 (Figure 2) 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, September 21, 2009 and March 12, 2010. The March 2010 monitoring event is summarized herein. The existing on-site URS well WCEW-1 is included in the adjacent Oak

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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. However, the SNK site monitoring program has been delayed due to current redevelopment and is not apart of this first quarter monitoring event. Celis' site monitoring well construction and groundwater elevation data are included in Table 1.

GROUNDWATER MONITORING PROGRAM

The groundwater monitoring program consists of groundwater sample collection from five 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 water is stored in 55-gallon Department of Transportation (DOT) drums, which are labeled and stored off site at the City of Emeryville Corporation Yard 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] and tert-butyl alcohol [TBA], 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 first quarter 2010 groundwater monitoring event was performed on March 12, 2010 by URS subcontractor Blaine Tech Services, Inc. (BTS). Depth to water measurements and groundwater elevations are included in Table 1. Light non-aqueous phase liquid hydrocarbons (LNAPL) were not encountered in any well. Three casing volumes of groundwater 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 4.31 to 8.55 feet below top-of-casing (TOC). Groundwater level elevations ranged from 0.64 feet (URS-MW-1) to 1.53 feet (URS-MW-5) higher (average increase of 1.18 feet) than in the previous September 2009 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. Analytical results of the groundwater samples collected during this event are generally consistent with results of other events. Levels of residual fuel hydrocarbons in the wells monitored by URS were highest in URS-MW-5 and LF-MW-4.

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

Total Petroleum Hydrocarbons

TVH-g was detected above the laboratory reporting limits (RLs) in groundwater samples collected from wells URS-MW-1, URS-MW-5, and LF-MW-4 at 53 micrograms per liter (µg/L), 170 µg/L, and 1,200 µg/L, respectively. TVH-ms was detected above the RLs in

groundwater samples collected from wells URS-MW-5, and LF-MW-4 at 160 µg/L and 1,100 µg/L, respectively. TEH-d was 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 110 µg/L, 320 µg/L, 210 µg/L, 1,100 µg/L, and 820 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 TEH-d in URS-MW-1, URS-MW-2, URS-MW-4, and URS-MW-5. Groundwater iso-concentration contour maps depicting TVH-g, TVH-ms, and TEH-d concentrations are presented as Figures 4, 5, and 6, respectively. Groundwater monitoring has only been coordinated with the adjacent Oak Walk site. Data in these maps has been updated only for the Celis and Oak Walk sites.

BTEX

The only BTEX compounds detected at or above the RLs was benzene in the groundwater sample collected from LF-MW-4 (0.5 µg/L) and ethylbenzene in the groundwater samples collected from wells URS-MW-5 (1.0 µg/L) and LF-MW-4 (7.2 µg/L). This represents an insignificant increase in benzene and ethylbenzene at LF-MW-4 and URS-MW-5, respectively and a decrease in ethylbenzene at LF-MW-4 compared to the prior non-detects and 7.9 µg/L (September 2009) sample results. A groundwater iso-concentration contour map depicting benzene concentrations is presented as Figure 6 (Celis and Oak Walk sites only).

Fuel Oxygenates

MTBE was detected above the laboratory RLs in groundwater samples from wells URS-MW-2 (18 µg/L), URS-MW-3 (1.7 µg/L), URS-MW-4 (20 µg/L), URS-MW-5 (49 µg/L), and LF-MW-4 (1.1 µg/L). MTBE was not detected above the RLs in the groundwater sample collected from well URS-MW-1. TBA was only detected above the laboratory RLs in the groundwater sample collected from well URS-MW-2 (37 µg/L).

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:

- High bromofluorobenzene surrogate recovery was observed in sample LF-MW-LF-4. The gasoline and mineral spirit detections in sample LF-MW-LF-4 were qualified with a “J”. A “J” qualifier indicates that the analyte was positively identified, but that the associated numerical value is an approximate concentration of the analyte in the sample.

- High trifluorotoluene surrogate recovery was observed in the MS/MSD of batch 160929. The gasoline and mineral spirits detections in samples URS-MW-1, URS-MW-5, and LF-MW-LF-4 were qualified with a "J". A "J" qualifier indicates that the analyte was positively identified, but that the associated numerical value is an approximate concentration of the analyte in the sample.
- 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 issues 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.

SUMMARY

Results of groundwater monitoring and sample analysis are consistent with prior seasonal events. Measurements show levels of residual hydrocarbons in wells sampled by URS as greatest in LF-MW-4 and URS-MW-5. Well LF-MW-4 is located downgradient of a portion of the larger study area (OakWalk) that was not previously occupied by the Celis service station. Monitoring wells present upgradient of LF-MW-4 show levels of residual hydrocarbon impact as well, suggesting that LF-MW-4 measures conditions associated with a non-Celis source. URS-MW-5 is upgradient of the Celis site and clearly monitors conditions associated with other off-site sources. The balance of the wells sampled by URS are immediately downgradient from and show no enduring affect associated with the former Celis station, which was subject to extensive remedial action and now lies under 40th Street.

RECOMMENDATIONS

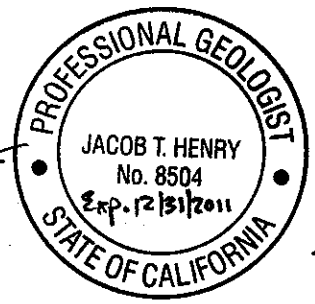
The purpose of the well installation and sampling proposed in the 2006 URS Workplan has been accomplished. Results of testing conducted over the past years have established subsurface conditions related to the Celis operation and adjoining sites. No further sampling of these wells is recommended at this time.

The wells should not be abandoned, as work on the neighboring Oak Walk site may benefit from their accessibility. A portion of the Oak Walk project purports to be associated with a release from the Celis site; for this reason the Celis file is not petitioned for agency closure at this time. Developments in association with the work at Oak Walk will inform appropriate next steps for Celis (if any are required).

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



Jacob Henry, P.G.
Senior Geologist

George Muehleck, P.G.
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, March 12, 2010
Figure 4	Distribution of Gasoline-Range Petroleum Hydrocarbons in Shallow Groundwater on March 12, 2010
Figure 5	Distribution of Middle Distillate-Range Hydrocarbons in Shallow Groundwater on March 12, 2010
Figure 6	Distribution of Benzene in Shallow Groundwater on March 12, 2010
Figure 7	Area Affected by MTBE in Groundwater on March 12, 2010

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
								3/12/2010	---	---	7.51	34.70
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
								3/12/2010	---	---	7.41	33.42
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
								3/12/2010	---	---	8.47	32.07
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
								3/12/2010	---	---	8.55	32.86
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
								3/12/2010	---	---	4.31	39.62
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
								3/12/2010	---	---	6.98	33.78

Notes:

*: Surveyed at vault box lid

bgs: Below Ground Surface

MSL: Mean Sea Level

TOC: Top of PVC Casing

LNAPL: Light Non-Aqueous Phase Liquids

BTOC: Below Top of Casing

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

---: 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
	3/12/2010	**53 Y**	<50	**110 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**
	3/12/2010	<50	<50	**320 Y**	<0.5	<0.5	<0.5	<0.5	**37 TBA, 18 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**
	3/12/2010	<50	<50	<50	<0.5	<0.5	<0.5	<0.5	**1.7 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**
	3/12/2010	<50	<50	**210 Y**	<0.5	<0.5	<0.5	<0.5	**20 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**
	3/12/2010	**170 Y**	**160 Y**	**1,100 Y**	<0.5	<0.5	**1.0**	<0.5	**49 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**
	3/12/2010	**1,200 Y**	**1,100**	**820**	**0.5**	<0.5	**7.2**	<0.5	**1.1 MTBE**
RWQCB ESLs (Updated May 2008)[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 the same ESL levels for COCs as Table D).

Detections are in bold, May 2008 ESL exceedences are shaded.

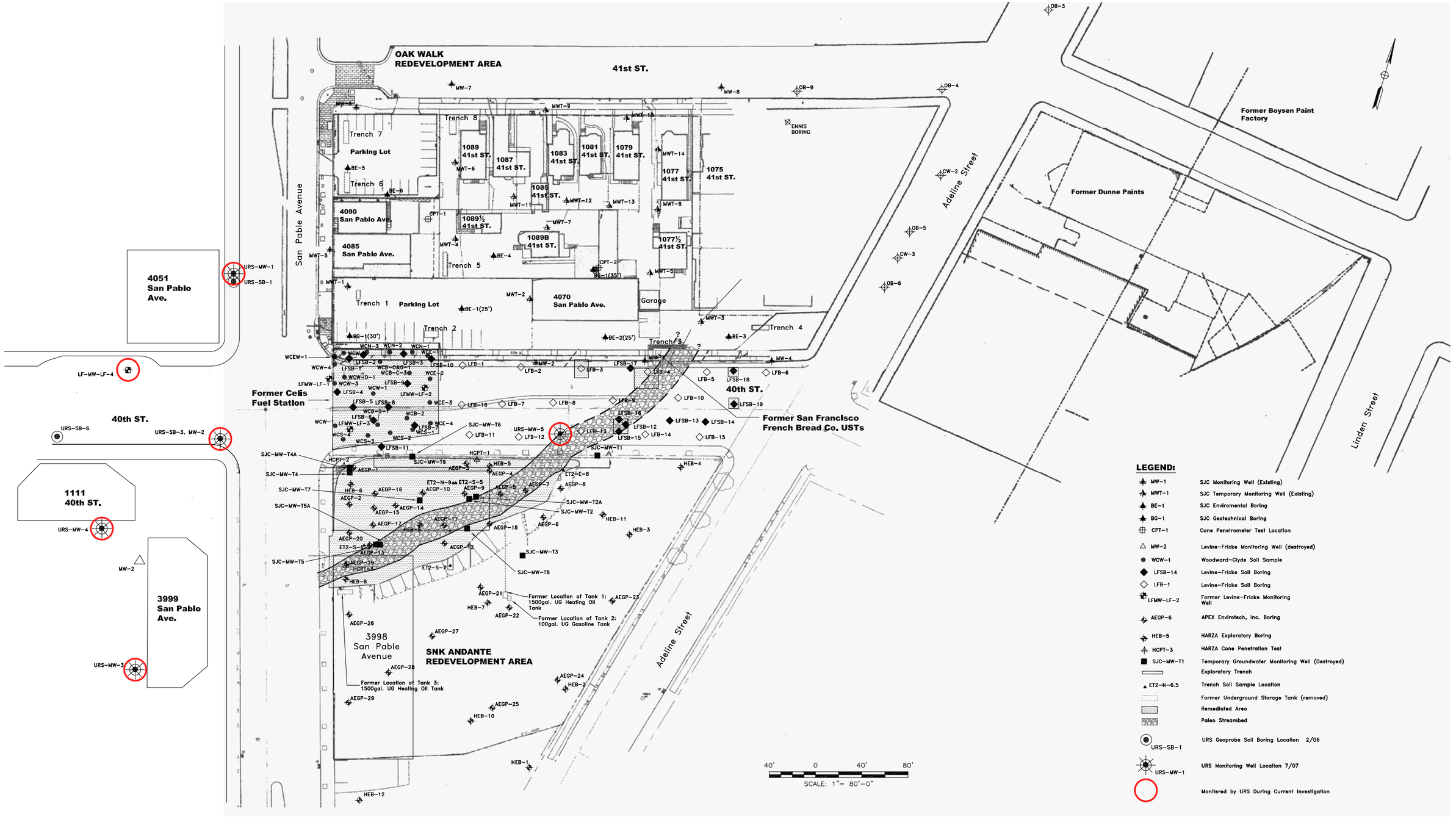
FIGURES

0 .125 .25 .375 .5 MILES

1 IN.= 1900 FT.

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

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



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 # 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)
- Sandis Humber Jones - ALTA / ACSM Land Title Survey; San Pablo Ave. & 40th Street Extension Drawing No. 600104.ALTA (7/25/01)
- 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

(31.0)	Groundwater Elevation Contour (3/12/10) Contour Interval 0.5'	WCW-1	Woodward-Clyde Soil Sample
MW-1	SJC Monitoring Well (Oak Walk)	LFSB-14	Levine • Fricke Soil Boring
MWT-1	SJC Temporary Monitoring Well (Oak Walk)	LFB-1	Levine • Fricke Soil Boring
BE-1	SJC Environmental Boring (Oak Walk)	LFMW-LF-2	Levine • Fricke Monitoring Well
BG-1	SJC Geotech Boring (Oak Walk)	HEB-2	Harza Exploratory Boring
CPT-1	Cone Penetrometer Test Location (Oak Walk)	SMW-1	SECOR Monitoring Well
	Exploratory Trench	AEGP-6	APEX Envirotech , Inc. Boring
	Underground Storage Tank (removed)	SJC MW-T1	SJC Temporary Monitoring Well (SNK Andante)
WCEW-1	Woodward-Clyde Extraction Well		Paleo Streambed, Gravelly Areas
OB-6	Clayton Monitoring Well (CW) & Temporary Monitoring Well (OB)	ET1-S-6	Trench Soil Sample Location
B-2	Clayton Boring (Ennis)	MW-D1	Dunne Paints Monitoring Well
CDB-10	Clayton Boring (Dunn)	HP-2	ASE Boring
B-2	ERM Boring (6/06)	BH-S	ASE Temporary Well
MW-B1	Kozel Property Monitoring Well	ESC-MW-1	Environmental Strategies Corp Monitoring Well
URS-SB-1	URS Geoprobe Soil Boring	HAB-4	Hageman-Aguiar, Inc. Soil Boring
URS-MW-3	URS Monitoring Well	CPT-2	Cone Penetrometer Test (SCI)
RGA-B17	RGA Environmental Boring	SB-2	Soil Boring (SCI)
	Extraction Well		

URS	Project No. 26814847 THE SAN JOAQUIN COMPANY INC.	GROUNDWATER COUNTOURS AT OAK WALK & CELIS SITES (3/12/10) Oak Walk Site, Emeryville, California

Figure 3

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)
- Sandis Humber Jones - ALTA / ACSM Land Title Survey; San Pablo Ave. & 40th Street Extension Drawing No. 600104.ALTA (7/25/01)
- 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

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 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)
- (370) Result of analysis of middle distillate-range hydrocarbons in groundwater (g/L) (3/10)
- 1000 Isocon of middle distillate-range hydrocarbons in groundwater (g/L)
- Middle distillate-range hydrocarbons 0 to 210 g/L
- Middle distillate-range hydrocarbons 210 to 999 g/L
- Middle distillate-range hydrocarbons >1,000 g/L

URS	Project No. 26814847 THE SAN JOAQUIN COMPANY INC.	ISOCONS OF GASOLINE-RANGE HYDROCARBONS IN GROUNDWATER FOR COMBINED OAK WALK & CELIS SITES (3/12/10) 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)
- Sandis Humber Jones - ALTA / ACSM Land Title Survey; San Pablo Ave. & 40th Street Extension Drawing No. 600104.ALTA (7/25/01)
- 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-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)
- (800) Result of analysis of gasoline-range hydrocarbons in groundwater (g/L) (3/10)
- 5000 Isocon of gasoline-range hydrocarbons in groundwater (g/L)
- Gasoline-range hydrocarbons 0-210 g/L
- Gasoline-range hydrocarbons 210 to 4999 g/L
- Gasoline-range hydrocarbons >5000 g/L

URS	Project No. 26814847 THE SAN JOAQUIN COMPANY INC.	ISOCONS OF MIDDLE DISTILLATE-RANGE HYDROCARBONS IN GROUNDWATER FOR COMBINED OAK WALK & CELIS SITES (3/12/10) 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 # 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 - 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-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 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 (g/L) (3/10)
- 5000 Isocon of Benzene in groundwater (g/L)
- Benzene 0-46 g/L
- Benzene >46 g/L

URS	Project No. 26814847 THE SAN JOAQUIN COMPANY INC.	ISOCONS OF BENZENE IN GROUNDWATER FOR COMBINED OAK WALK & CELIS SITES (3/12/10) Oak Walk Site, Emeryville, California

Figure 6

Regional Direction of Groundwater Flow

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.)
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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 — 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 (3/10)
- Area affected by MTBE at concentrations above the applicable ESL for groundwater
- Area affected by MTBE at concentrations below the applicable ESL for groundwater

Regional Direction of Groundwater Flow

URS	Project No. 26814847 THE SAN JOAQUIN COMPANY INC.	AREAS OF THE COMBINED OAK WALK & CELIS SITES AFFECTED BY MTBE IN GROUNDWATER (3/12/10) Oak Walk Site, Emeryville, California	Figure 7

ATTACHMENT A

Groundwater Monitoring Field Logs

S[illegible] or Purge Water Drum Lo[illegible]

Client: URS

Site Address: Celis- Alliance, Emeryville

STATUS OF DRUM(S) UPON ARRIVAL						
Date	3/12/10					
Number of drum(s) empty:	—					
Number of drum(s) 1/4 full:	—					
Number of drum(s) 1/2 full:	—					
Number of drum(s) 3/4 full:	—					
Number of drum(s) full:	2					
Total drum(s) on site:	2					
Are the drum(s) properly labeled?	Y					
Drum ID & Contents:	Purgewater					
If any drum(s) are partially or totally filled, what is the first use date:	9/21/09					

- 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	3/12/10					
Number of drums empty:	—					
Number of drum(s) 1/4 full:	—					
Number of drum(s) 1/2 full:	—					
Number of drum(s) 3/4 full:	1					
Number of drum(s) full:	2					
Total drum(s) on site:	3					
Are the drum(s) properly labeled?	Y					
Drum ID & Contents:	Purgewater					

LOCATION OF DRUM(S)
Describe location of drum(s): City of Emeryville Corp Yard.

FINAL STATUS						
Number of new drum(s) left on site this event	1					
Date of inspection:	3/12/10					
Drum(s) labelled properly:	Y					
Logged by BTS Field Tech:	PC					
Office reviewed by:	[illegible]					

;st Instrument Calibration Lo(

Project: 100312-PCI Job Number 100312-PCI Date 3/12/10

Client URS Site Number

Site Address 4000 San Pablo Ave. Emeryville

Date / Time	Equipment	Equipment #	Standards Used	Equipment Reading	Recalib.	Initials
3/12/10 845	Myron L	615688	4 pH	4.13		R
↓	ultrameter		7	6.93		
			10	9.69		
			3900 µS	3999		
↓	YSI 550	06E1424	To 100%	98.6%		R

WELLHEAD INSPECTION CHECKLIST

Date 3/12/10 Client URS

Site Address 4000 San Pablo Ave, Emeryville

Job Number 100312-PC1 Technician P. Garnish

Well ID	Well Inspected - No Corrective Action Required	Water Bailed From Wellbox	Wellbox Components Cleaned	Cap Replaced	Debris Removed From Wellbox	Lock Replaced	Other Action Taken (explain below)	Well Not Inspected (explain below)
MW-1		1/2	bolts missing tabs broken					
MW-2		"	"	"	1/2 tabs broken			
MW-3		1/2	tabs broken					
MW-4	X							
MW-5	X							
LMW-LF-4	X							

NOTES:

WELL GAUGING DATA

Project # 100312-DC1 Date 3/12/10 Client URS

Site 4000 San Pablo Ave., 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 TOC	Notes
URS-MW-4	840	2					8.55	19.80		
URS-MW-3	844	2					8.47	19.82		
URS-MW-5	1000	2					4.31	19.62		
URS-MW-2	930	2					7.41	19.59		
URSMW-1	1040	2					7.51	19.60		
LMW-LF-4	1105	2					6.98	18.06		
WIC-EW-1	1020	4					6.5	—	TOC	

W[illegible]L MONITORING DATA SHE[illegible]

Project #: 100312-8c1	Client: URS
Sampler: RC	Date: 3/12/10
Well I.D.: URS-MW-4	Well Diameter: (2) 3 4 6 8 ____
Total Well Depth (TD): 19.80	Depth to Water (DTW): 8.55
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
1156	16.4	6.84	939.9	940	1.8	
1202	17.7	6.76	954.4	314	3.6	
1208	18.0	6.75	939.2	>1000	5.4	

Did well dewater? Yes (No) Gallons actually evacuated: 5.5

Sampling Date: 3/12/10 Sampling Time: 1215 Depth to Water: 10.80

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

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

WELL MONITORING DATA SHEET

Project #: 100312-RC1	Client: URS
Sampler: RC	Date: 3/12/10
Well I.D.: URS-MW-1	Well Diameter: (2) 3 4 6 8 ____
Total Well Depth (TD): 19.60	Depth to Water (DTW): 7.51
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]: 9.93	

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	radius^2 * 0.163

Time	Temp (°F or (°C))	pH	Cond. (mS or (µS))	Turbidity (NTUs)	Gals. Removed	Observations
1050	15.7	7.12	663.7	125	2	
1054	16.4	6.94	650.9	295	4	
1100	16.1	6.92	654.4	235	5.7	

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

Sampling Date: 3/12/10 Sampling Time: 1105 Depth to Water: ~~7.7~~ 7.72

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

WELL MONITORING DATA SHEET

Project #: 100312-PCJ	Client: URS
Sampler: PC	Date: 3/12/10
Well I.D.: URS-MW-5	Well Diameter: (2) 3 4 6 8 ____
Total Well Depth (TD): 19.02	Depth to Water (DTW): 4.31
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]: 7.37	

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: _____

2.4 (Gals.) X	3	=	7.2 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
1012	14.1	6.89	1568	343	2.5	
1020	15.1	6.73	1591	735	5.0	
1028	15.3	6.82	1593	7/000	7.2	

Did well dewater? Yes (No) Gallons actually evacuated: 7.2

Sampling Date: 3/12/10 Sampling Time: 1037 Depth to Water: 9.70 Traffic sound

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

WELL MONITORING DATA SHEET

Project #: 100212-RC1	Client: URS
Sampler: TC	Date: 3/12/10
Well I.D.: URS-MW2	Well Diameter: (2) 3 4 6 8 ____
Total Well Depth (TD): 19.59	Depth to Water (DTW): 7.41
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]: 9.85	

Purge Method: Bailer; Waterra; Sampling Method: Bailer
X Disposable Bailer; Peristaltic; Disposable Bailer
Positive Air Displacement; Extraction Pump; Extraction Port
Electric Submersible; Other_____; 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	radius^2 * 0.163

Time	Temp (°F or (°C))	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
936	15.2	7.18	1344	722	2	
940	15.9	6.75	1342	>1000	4	
942	16.2	6.72	1340	>1000	5.7	

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

Sampling Date: 3/12/10 Sampling Time: 950 Depth to Water: 9.21

Sample I.D.: URS-MW2 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:	0.72	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:		mV

WELL MONITORING DATA SHEET

Project #: 100312-PC	Client: URS
Sampler: PC	Date: 3/12/10
Well I.D.: URS-MW-3	Well Diameter: (2) 3 4 6 8 ____
Total Well Depth (TD): 19.82	Depth to Water (DTW): 8.47
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]: 10.74	

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	radius^2 * 0.163

Time	Temp (°F or (°C))	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
850	17.1	7.24	947.0	>1000	1.8	cloudy
855	18.8	6.78	675.4	>1000	3.6	brown
859	18.3	6.74	681.9	>1000	5.5	"

Did well dewater? Yes (No) Gallons actually evacuated: 5.5

Sampling Date: 3/12/10 Sampling Time: 905 Depth to Water: 10.70

Sample I.D.: URS-MW-3 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:	0.58 mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

WELL MONITORING DATA SHEET

Project #: 100312-RC1	Client: URS
Sampler: RC	Date: 3/12/10
Well I.D.: LMW-LF-4	Well Diameter: (2) 3 4 6 8 ____
Total Well Depth (TD): 18.05	Depth to Water (DTW): 6.98
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (RVC) Grade	D.O. Meter (if req'd): (YSI) HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 9.20	

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
1120	16.7	6.98	716.9	53	1.8	
1125	16.9	6.87	715.1	64	3.6	
1130	16.6	6.92	715.2	115	5.4	

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

Sampling Date: 3/12/10 Sampling Time: 1136 Depth to Water: 7.05

Sample I.D.: LMW-LF-4 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:	0.34 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 218778
ANALYTICAL REPORT

URS Corporation	Project : 26814847.08000
1333 Broadway	Location : Former Celis Alliance
Oakland, CA 94612	Level : II

Sample ID	Lab ID
URS-MW-1	218778-001
URS-MW-2	218778-002
URS-MW-3	218778-003
URS-MW-4	218778-004
URS-MW-5	218778-005
LF-MW-LF-4	218778-006
TRIP BLANK	218778-007

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: _____ Date: 03/19/2010
Project Manager

NELAP # 01107CA

Curtis & Tompkins, Ltd.

CASE NARRATIVE

Laboratory number:	**218778**
Client:	**URS Corporation**
Project:	**26814847.08000**
Location:	**Former Celis Alliance**
Request Date:	**03/12/10**
Samples Received:	**03/12/10**

This data package contains sample and QC results for six water samples, requested for the above referenced project on 03/12/10. The samples were received cold and intact.

TPH-Purgeables and/or BTXE by GC (EPA 8015B):
High surrogate recovery was observed for trifluorotoluene (FID) in the MS of URS-MW-4 (lab # 218778-004); the corresponding bromofluorobenzene (FID) surrogate recovery was within limits. High surrogate recovery was observed for bromofluorobenzene (FID) in LF-MW-LF-4 (lab # 218778-006); the corresponding trifluorotoluene (FID) surrogate recovery was within limits. No other analytical problems were encountered.

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

Volatile Organics by GC/MS (EPA 8260B):
No 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 #: 218778

Sampler: Jacob Henry

Project No.: 26814847.08000 | Report To: jacob_henry@urscorp.com

Project Name: Former Celia's Alliance | Company: URS

Project P.O.: See email From Sylvia Verduzco | Telephone: 510-874-3252

Turnaround Time: Standard | 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: TPHg	TPHms by SPA 8015M	TPH-d by SPA 8015M	BTEX & MTBE by SPA 8260
1	URS-MW-1	3/12/10 1108		X		8	X			X	X	X	X	X
2	URS-MW-2	0950				8	X			X	X	X	X	X
3	URS-MW-3	0908				8	X			X	X	X	X	X
4	URS-MW-4	1215				8	X			X	X	X	X	X
5	URS-MW-5	1032				8	X			X	X	X	X	X
6	LF-MW-LF4	1136				8	X			X	X	X	X	X
7	Trip Blank	1155				3	X			X				

Notes:

3.8

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

RELINQUISHED BY: J. Henry — 3/12/10 1:30 DATE / TIME

DATE / TIME

DATE / TIME

SIGNATURE

RECEIVED BY: Pat Hanly — 3/12/10 1:00 DATE / TIME

DATE / TIME

DATE / TIME

COOLER RECEIPT CHECKLIST

Curtis & Tompkins, Ltd.

Login # 218778 Date Received 3-12-10 Number of coolers 1
Client URS Project FORMER CEL 12' ALLIANCE

Date Opened 3-12-10 By (print) S. EVANS (sign)
Date Logged in 1 By (print) 1 (sign) 1

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) 3.8

☐ 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 #:	218778	Location:	Former Celis Alliance
Client:	URS Corporation	Prep:	EPA 5030B
Project#:	26814847.08000	Analysis:	EPA 8015B
Matrix:	Water	Sampled:	03/12/10
Units:	ug/L	Received:	03/12/10
Diln Fac:	1.000	Analyzed:	03/15/10
Batch#:	160929		

Field ID: URS-MW-1 Lab ID: 218778-001
Type: SAMPLE

Analyte	Result	RL
Gasoline C7-C12	53 Y	50
Mineral Spirits C7-C12	ND	50

Surrogate	%REC	Limits
Trifluorotoluene (FID)	97	48-162
Bromofluorobenzene (FID)	107	52-158

Field ID: URS-MW-2 Lab ID: 218778-002
Type: SAMPLE

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

Surrogate	%REC	Limits
Trifluorotoluene (FID)	98	48-162
Bromofluorobenzene (FID)	99	52-158

Field ID: URS-MW-3 Lab ID: 218778-003
Type: SAMPLE

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

Surrogate	%REC	Limits
Trifluorotoluene (FID)	102	48-162
Bromofluorobenzene (FID)	104	52-158

Field ID: URS-MW-4 Lab ID: 218778-004
Type: SAMPLE

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

Surrogate	%REC	Limits
Trifluorotoluene (FID)	100	48-162
Bromofluorobenzene (FID)	103	52-158

*= Value outside of QC limits; see narrative
Y= Sample exhibits chromatographic pattern which does not resemble standard
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Total Volatile Hydrocarbons

Lab #:	218778	Location:	Former Celis Alliance
Client:	URS Corporation	Prep:	EPA 5030B
Project#:	26814847.08000	Analysis:	EPA 8015B
Matrix:	Water	Sampled:	03/12/10
Units:	ug/L	Received:	03/12/10
Diln Fac:	1.000	Analyzed:	03/15/10
Batch#:	160929		

Field ID: URS-MW-5 Lab ID: 218778-005
Type: SAMPLE

Analyte	Result	RL
Gasoline C7-C12	170 Y	50
Mineral Spirits C7-C12	160 Y	50

Surrogate	%REC	Limits
Trifluorotoluene (FID)	102	48-162
Bromofluorobenzene (FID)	102	52-158

Field ID: LF-MW-LF-4 Lab ID: 218778-006
Type: SAMPLE

Analyte	Result	RL
Gasoline C7-C12	1,200 Y	50
Mineral Spirits C7-C12	1,100	50

Surrogate	%REC	Limits
Trifluorotoluene (FID)	135	48-162
Bromofluorobenzene (FID)	159 *	52-158

Type: BLANK Lab ID: QC536075

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

Surrogate	%REC	Limits
Trifluorotoluene (FID)	89	48-162
Bromofluorobenzene (FID)	87	52-158

*= Value outside of QC limits; see narrative
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 #:	218778	Location:	Former Celis Alliance
Client:	URS Corporation	Prep:	EPA 5030B
Project#:	26814847.08000	Analysis:	EPA 8015B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC536076	Batch#:	160929
Matrix:	Water	Analyzed:	03/15/10
Units:	ug/L		

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	1,000	878.7	88	73-121

Surrogate	%REC	Limits
Trifluorotoluene (FID)	131	48-162
Bromofluorobenzene (FID)	105	52-158

Curtis & Tompkins, Ltd.

Batch QC Report

Total Volatile Hydrocarbons

Lab #:	218778	Location:	Former Celis Alliance
Client:	URS Corporation	Prep:	EPA 5030B
Project#:	26814847.08000	Analysis:	EPA 8015B
Field ID:	URS-MW-4	Batch#:	160929
MSS Lab ID:	218778-004	Sampled:	03/12/10
Matrix:	Water	Received:	03/12/10
Units:	ug/L	Analyzed:	03/15/10
Diln Fac:	1.000		

Type: MS Lab ID: QC536077

Analyte	MSS Result	Spiked	Result	%REC	Limits
Gasoline C7-C12	17.89	2,000	1,905	94	49-129

Surrogate	%REC	Limits
Trifluorotoluene (FID)	164 *	48-162
Bromofluorobenzene (FID)	111	52-158

Type: MSD Lab ID: QC536078

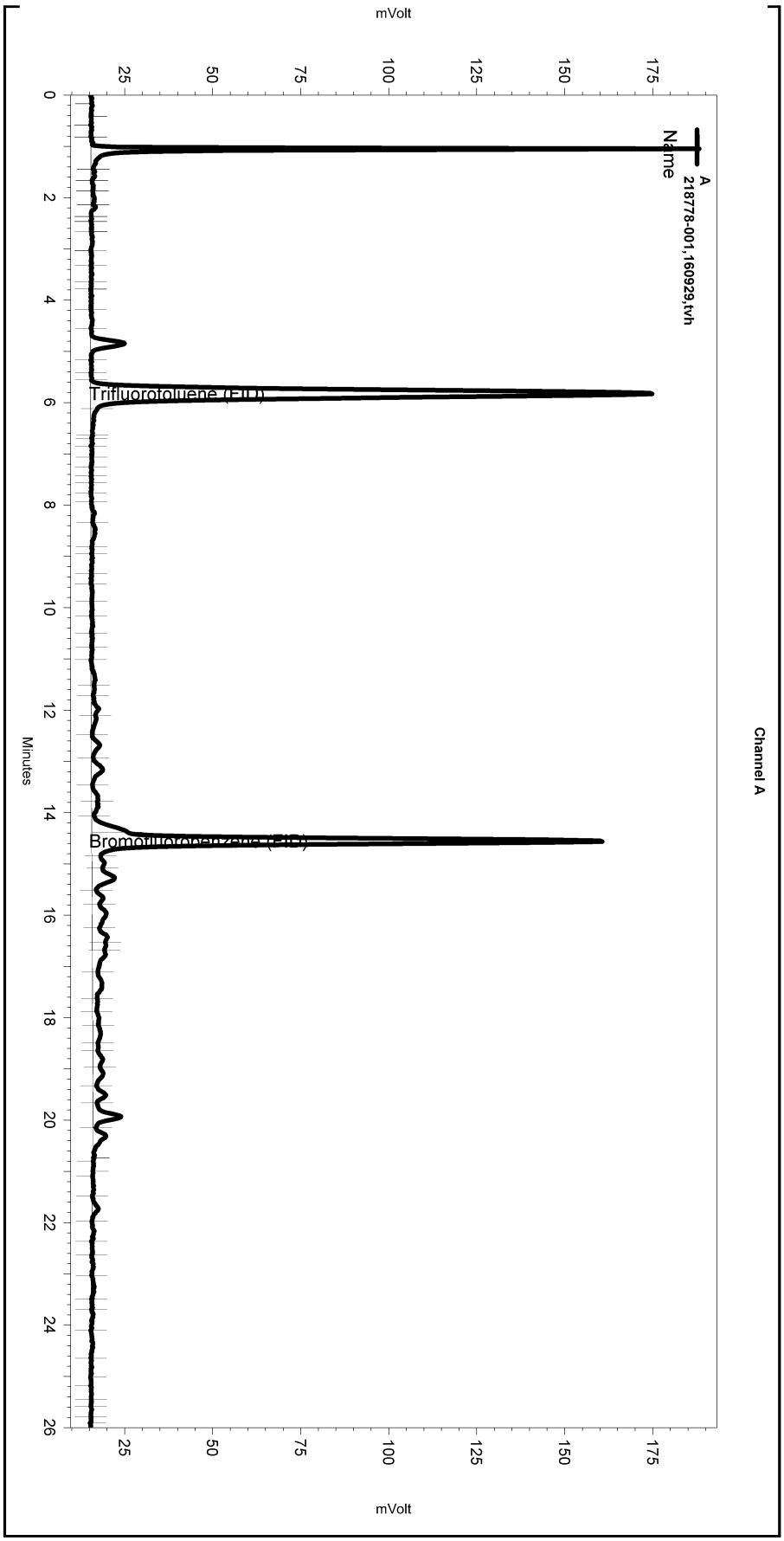
Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	2,000	1,878	93	49-129	1	19

Surrogate	%REC	Limits
Trifluorotoluene (FID)	161	48-162
Bromofluorobenzene (FID)	110	52-158

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

Sequence File: **\\Lims\gdrive\ezchrom\Projects\GC04\Sequence\074.seq**
Sample Name: **218778-001,160929,tvh**
Data File: **\\Lims\gdrive\ezchrom\Projects\GC04\Data\074_012**
Instrument: GC04 (Offline) Vial: N/A Operator: RSK-175 Analyst (lims2k3\rsk175)
Method Name: \\Lims\gdrive\ezchrom\Projects\GC04\Method\tvhbtxe036.met

Software Version 3.1.7
Run Date: 3/15/2010 8:48:28 PM
Analysis Date: 3/16/2010 11:52:46 AM
Sample Amount: 5 Multiplier: 5
Vial & pH or Core ID: a1.0



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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

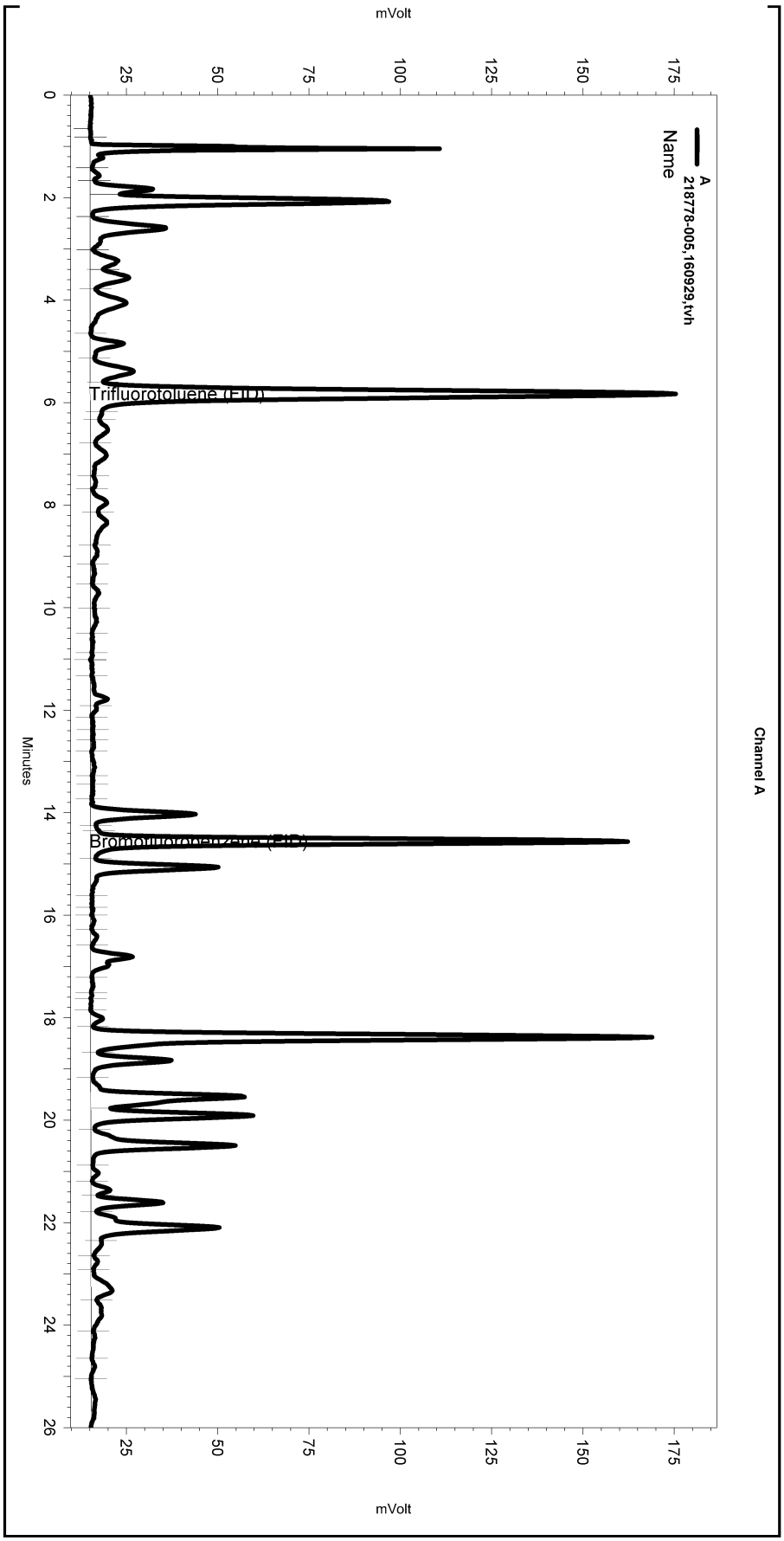
Manual Integration Fixes

Data File: \\Lims\gdrive\ezchrom\Projects\GC04\Data\074_012

Enabled	Event Type	Start (Minutes)	Stop (Minutes)	Value
Yes	Split Peak	5.558	0	0
Yes	Split Peak	6.116	0	0
Yes	Split Peak	14.39	0	0

Sequence File: **\\Lims\gdrive\ezchrom\Projects\GC04\Sequence\074.seq**
Sample Name: **218778-005,160929,tvh**
Data File: **\\Lims\gdrive\ezchrom\Projects\GC04\Data\074_015**
Instrument: GC04 (Offline) Vial: N/A Operator: RSK-175 Analyst (lims2k3\rsk175)
Method Name: \\Lims\gdrive\ezchrom\Projects\GC04\Method\tvhbtxe036.met

Software Version 3.1.7
Run Date: 3/15/2010 10:41:18 PM
Analysis Date: 3/16/2010 11:53:24 AM
Sample Amount: 5 Multiplier: 5
Vial & pH or Core ID: a1.0



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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

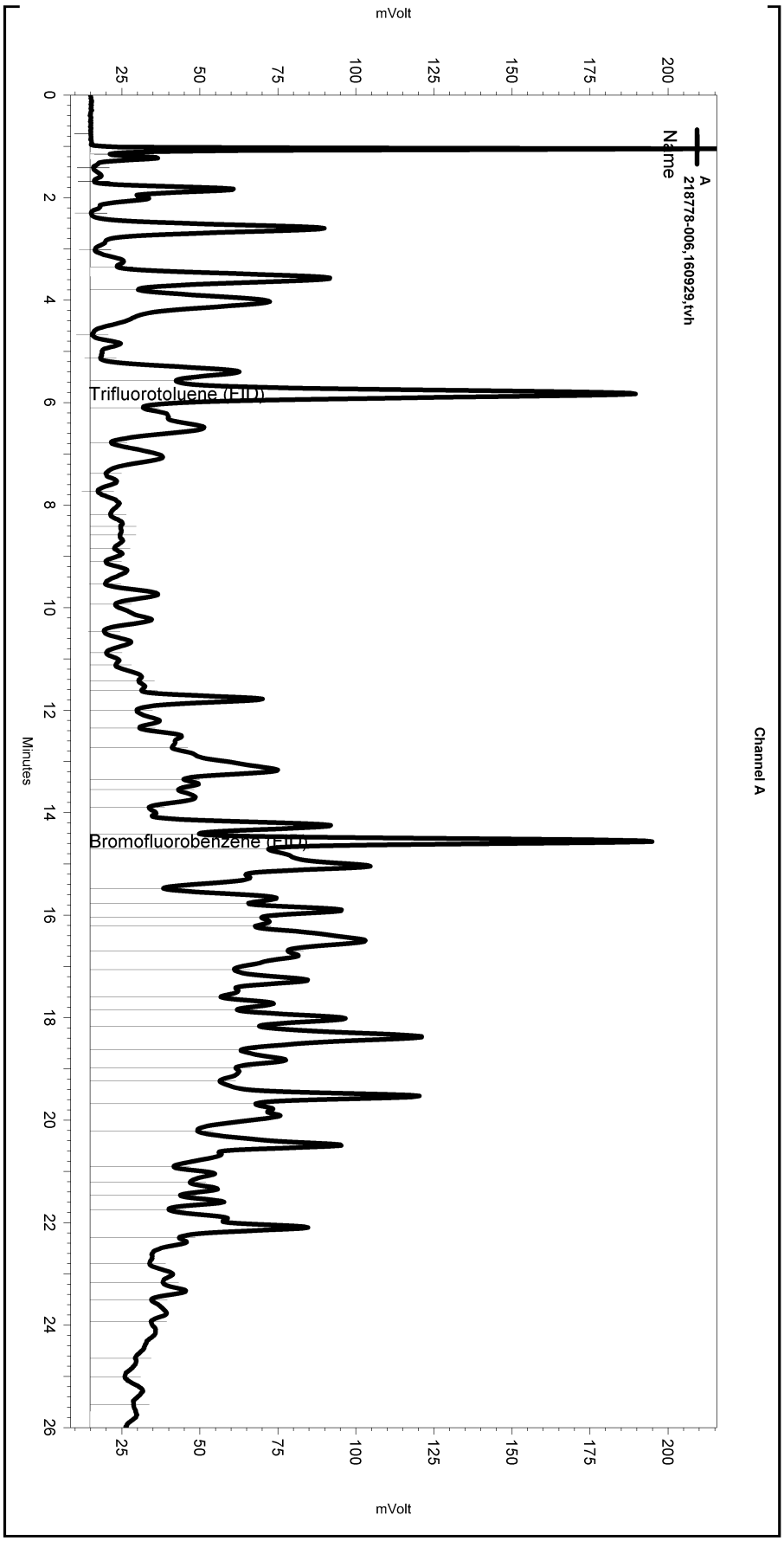
Manual Integration Fixes

Data File: \\Lims\gdrive\ezchrom\Projects\GC04\Data\074_015

Enabled	Event Type	Start (Minutes)	Stop (Minutes)	Value
Yes	Split Peak	6.184	0	0
Yes	Split Peak	14.358	0	0

Sequence File: **\\Lims\gdrive\ezchrom\Projects\GC04\Sequence\074.seq**
Sample Name: **218778-006,160929,tvh**
Data File: **\\Lims\gdrive\ezchrom\Projects\GC04\Data\074_016**
Instrument: GC04 (Offline) Vial: N/A Operator: RSK-175 Analyst (lims2k3\rsk175)
Method Name: \\Lims\gdrive\ezchrom\Projects\GC04\Method\tvhbtxe036.met

Software Version 3.1.7
Run Date: 3/15/2010 11:18:55 PM
Analysis Date: 3/16/2010 11:53:34 AM
Sample Amount: 5 Multiplier: 5
Vial & pH or Core ID: a1.0



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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

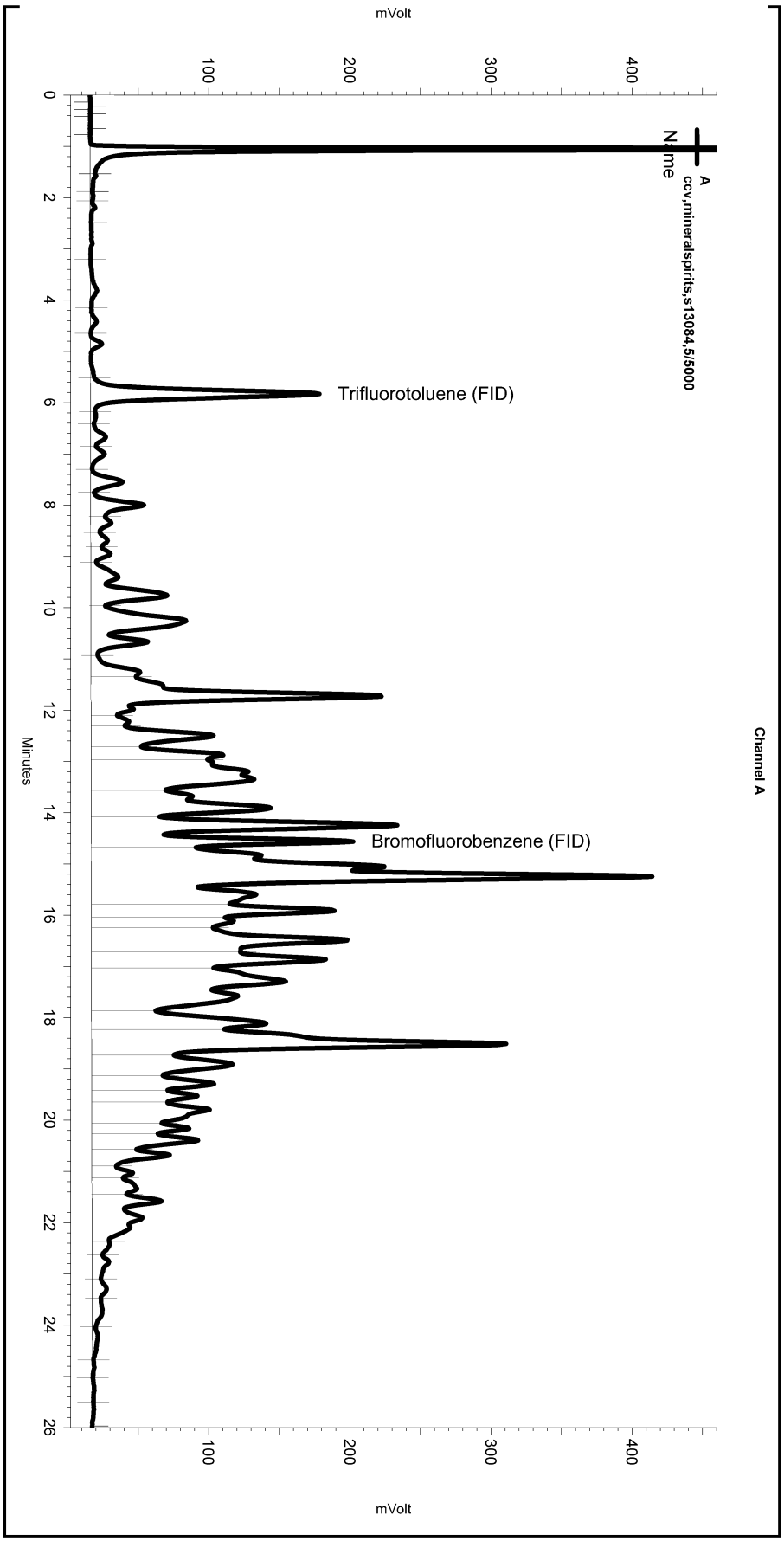
Manual Integration Fixes

Data File: \\Lims\gdrive\ezchrom\Projects\GC04\Data\074_016

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\074.seq**
Sample Name: **ccv,mineralspirits,s13084,5/5000**
Data File: **\\Lims\gdrive\ezchrom\Projects\GC04\Data\074_006**
Instrument: GC04 (Offline) Vial: N/A Operator: RSK-175 Analyst (lims2k3\rsk175)
Method Name: \\Lims\gdrive\ezchrom\Projects\GC04\Method\tvhbtxe036.met

Software Version 3.1.7
Run Date: 3/15/2010 1:07:24 PM
Analysis Date: 3/16/2010 11:05:17 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

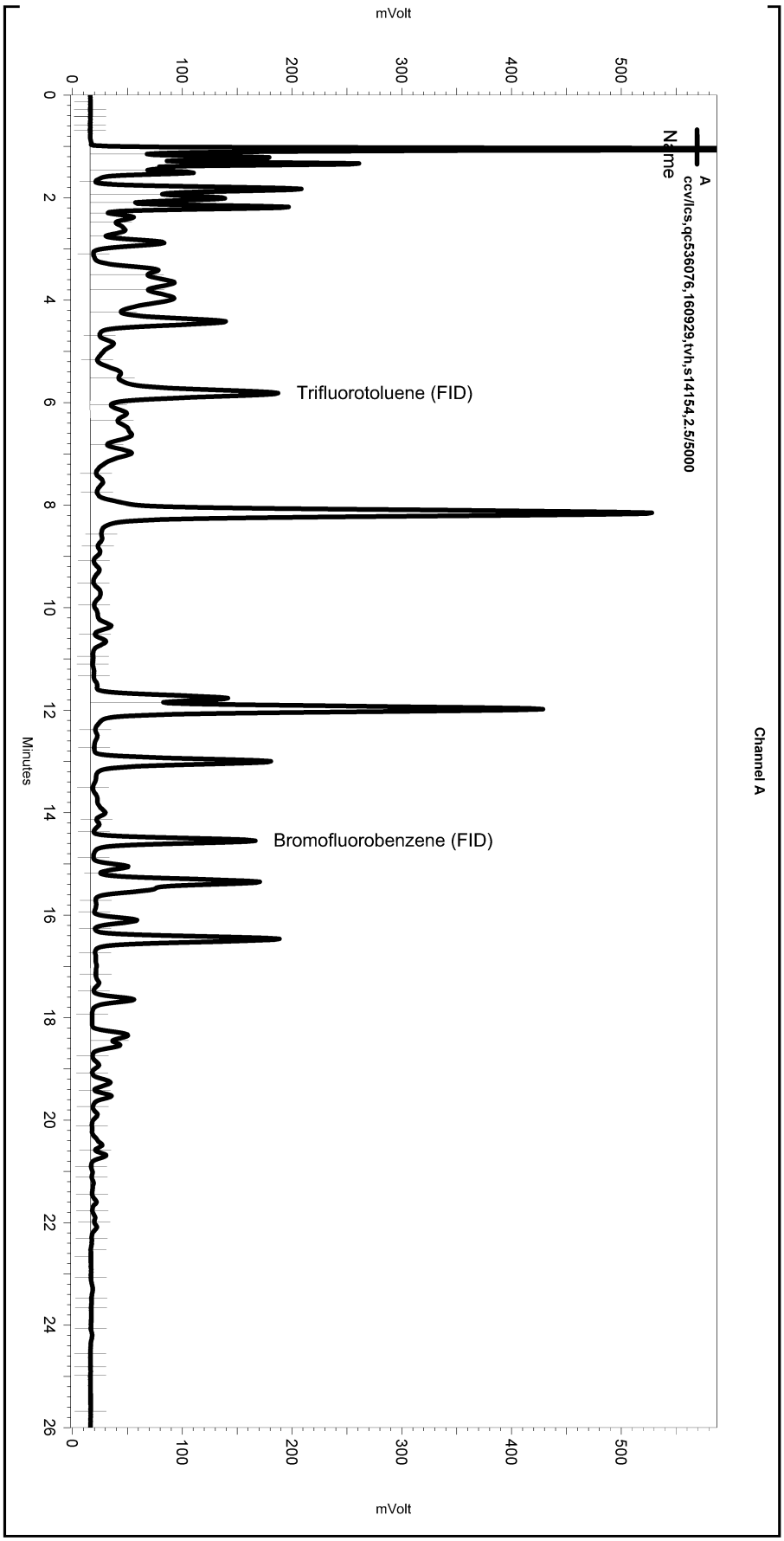
Manual Integration Fixes

Data File: \\Lims\gdrive\ezchrom\Projects\GC04\Data\074_006

Enabled	Event Type	Start (Minutes)	Stop (Minutes)	Value
Yes	Split Peak	5.514	0	0

Sequence File: **\\Lims\gdrive\ezchrom\Projects\GC04\Sequence\074.seq**
Sample Name: **ccv/lcs,qc536076,160929,tvh,s14154,2.5/5000**
Data File: **\\Lims\gdrive\ezchrom\Projects\GC04\Data\074_004**
Instrument: GC04 (Offline) Vial: N/A Operator: RSK-175 Analyst (lims2k3\rsk175)
Method Name: \\Lims\gdrive\ezchrom\Projects\GC04\Method\tvhbtxe036.met

Software Version 3.1.7
Run Date: 3/15/2010 9:53:27 AM
Analysis Date: 3/16/2010 11:04:57 AM
Sample Amount: 5 Multiplier: 5
Vial & pH or Core ID: {Data Description}



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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\074_004

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

None

Curtis & Tompkins, Ltd.

Total Extractable Hydrocarbons

Lab #:	218778	Location:	Former Celis Alliance
Client:	URS Corporation	Prep:	EPA 3520C
Project#:	26814847.08000	Analysis:	EPA 8015B
Matrix:	Water	Sampled:	03/12/10
Units:	ug/L	Received:	03/12/10
Diln Fac:	1.000	Prepared:	03/15/10
Batch#:	160933		

Field ID: URS-MW-1 Lab ID: 218778-001
Type: SAMPLE Analyzed: 03/16/10

Analyte	Result	RL
Diesel C10-C24	110 Y	50

Surrogate	%REC	Limits
o-Terphenyl	100	39-150

Field ID: URS-MW-2 Lab ID: 218778-002
Type: SAMPLE Analyzed: 03/17/10

Analyte	Result	RL
Diesel C10-C24	320 Y	50

Surrogate	%REC	Limits
o-Terphenyl	105	39-150

Field ID: URS-MW-3 Lab ID: 218778-003
Type: SAMPLE Analyzed: 03/17/10

Analyte	Result	RL
Diesel C10-C24	ND	50

Surrogate	%REC	Limits
o-Terphenyl	102	39-150

Field ID: URS-MW-4 Lab ID: 218778-004
Type: SAMPLE Analyzed: 03/17/10

Analyte	Result	RL
Diesel C10-C24	210 Y	50

Surrogate	%REC	Limits
o-Terphenyl	107	39-150

Field ID: URS-MW-5 Lab ID: 218778-005
Type: SAMPLE Analyzed: 03/17/10

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

Surrogate	%REC	Limits
o-Terphenyl	99	39-150

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

Curtis & Tompkins, Ltd.

Total Extractable Hydrocarbons

Lab #:	218778	Location:	Former Celis Alliance
Client:	URS Corporation	Prep:	EPA 3520C
Project#:	26814847.08000	Analysis:	EPA 8015B
Matrix:	Water	Sampled:	03/12/10
Units:	ug/L	Received:	03/12/10
Diln Fac:	1.000	Prepared:	03/15/10
Batch#:	160933		

Field ID:	LF-MW-LF-4	Lab ID:	218778-006
Type:	SAMPLE	Analyzed:	03/17/10

Analyte	Result	RL
Diesel C10-C24	820	50

Surrogate	%REC	Limits
o-Terphenyl	105	39-150

Type:	BLANK	Analyzed:	03/16/10
Lab ID:	QC536089		

Analyte	Result	RL
Diesel C10-C24	ND	50

Surrogate	%REC	Limits
o-Terphenyl	108	39-150

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 #:	218778	Location:	Former Celis Alliance
Client:	URS Corporation	Prep:	EPA 3520C
Project#:	26814847.08000	Analysis:	EPA 8015B
Matrix:	Water	Batch#:	160933
Units:	ug/L	Prepared:	03/15/10
Diln Fac:	1.000	Analyzed:	03/16/10

Type: BS Cleanup Method: EPA 3630C
Lab ID: QC536090

Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24	2,500	2,841	114	34-144

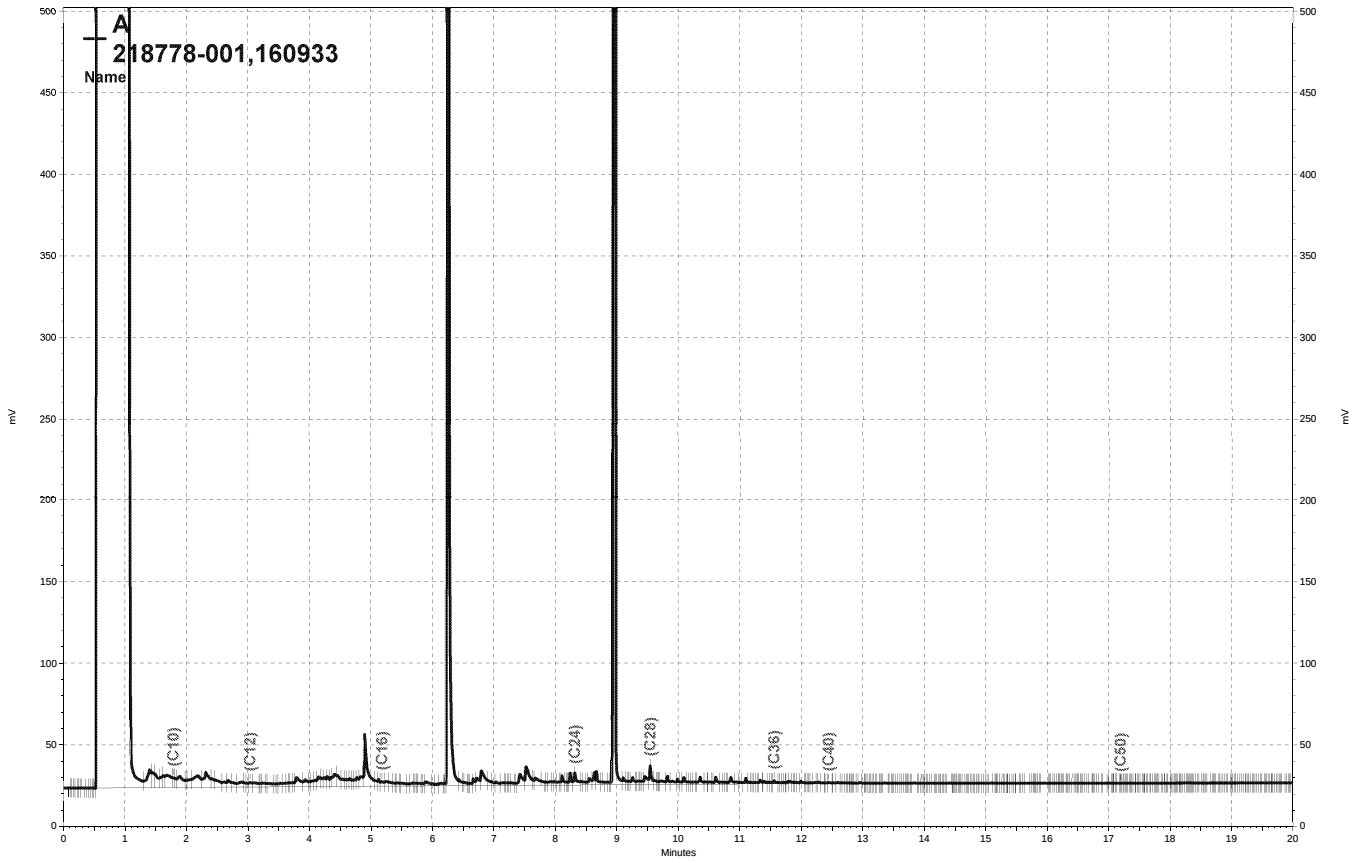
Surrogate	%REC	Limits
o-Terphenyl	123	39-150

Type: BSD Cleanup Method: EPA 3630C
Lab ID: QC536091

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Diesel C10-C24	2,500	2,695	108	34-144	5	48

Surrogate	%REC	Limits
o-Terphenyl	114	39-150

RPD= Relative Percent Difference



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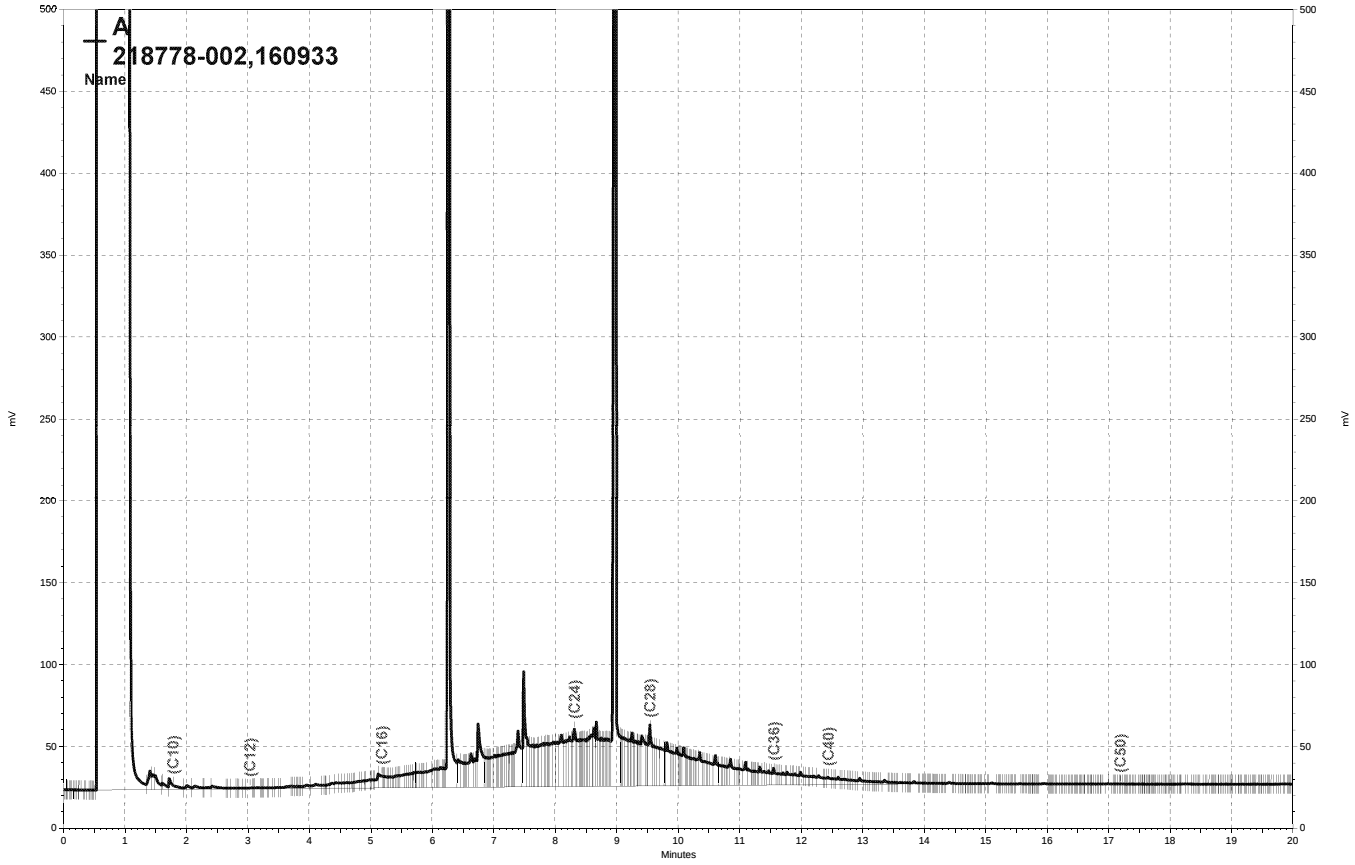

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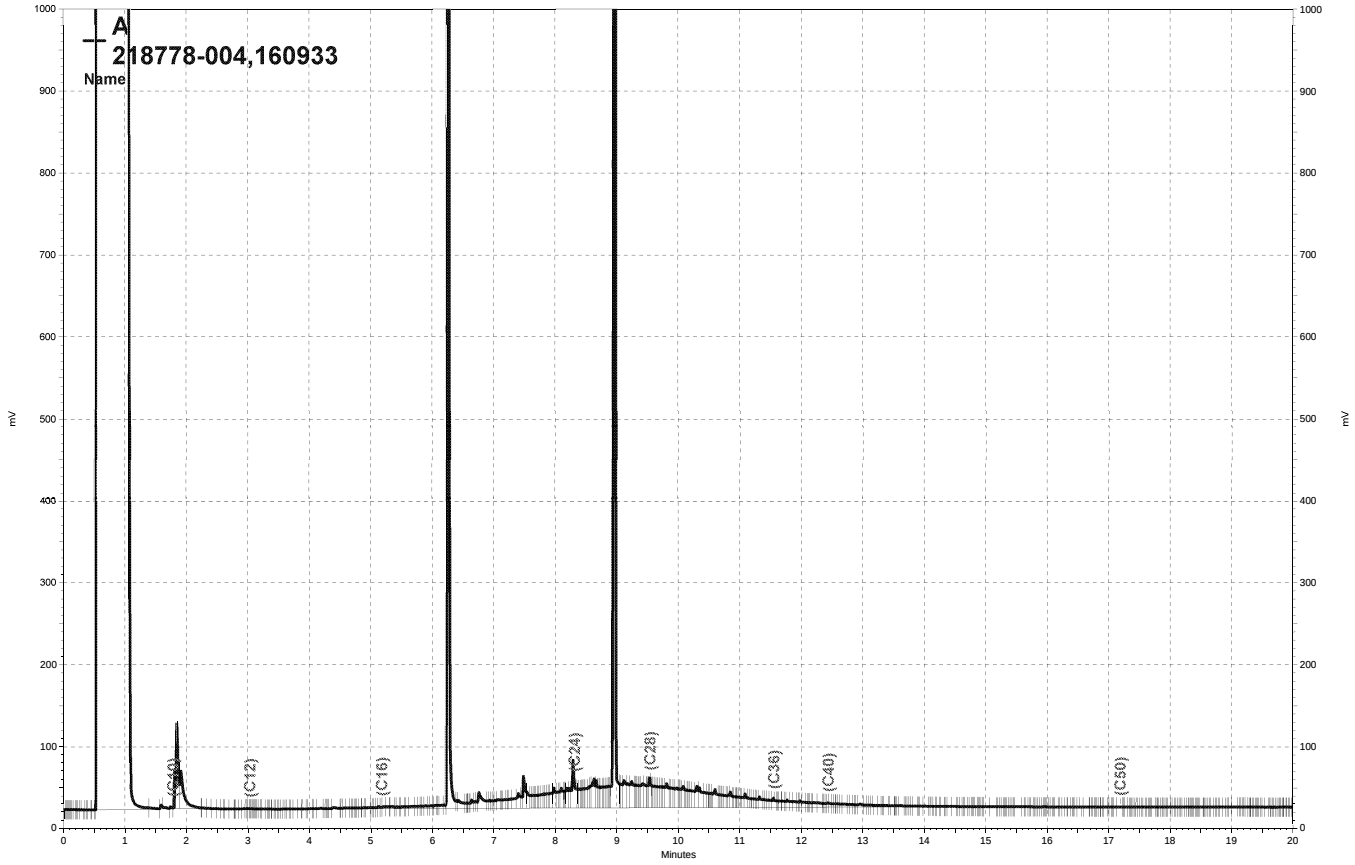

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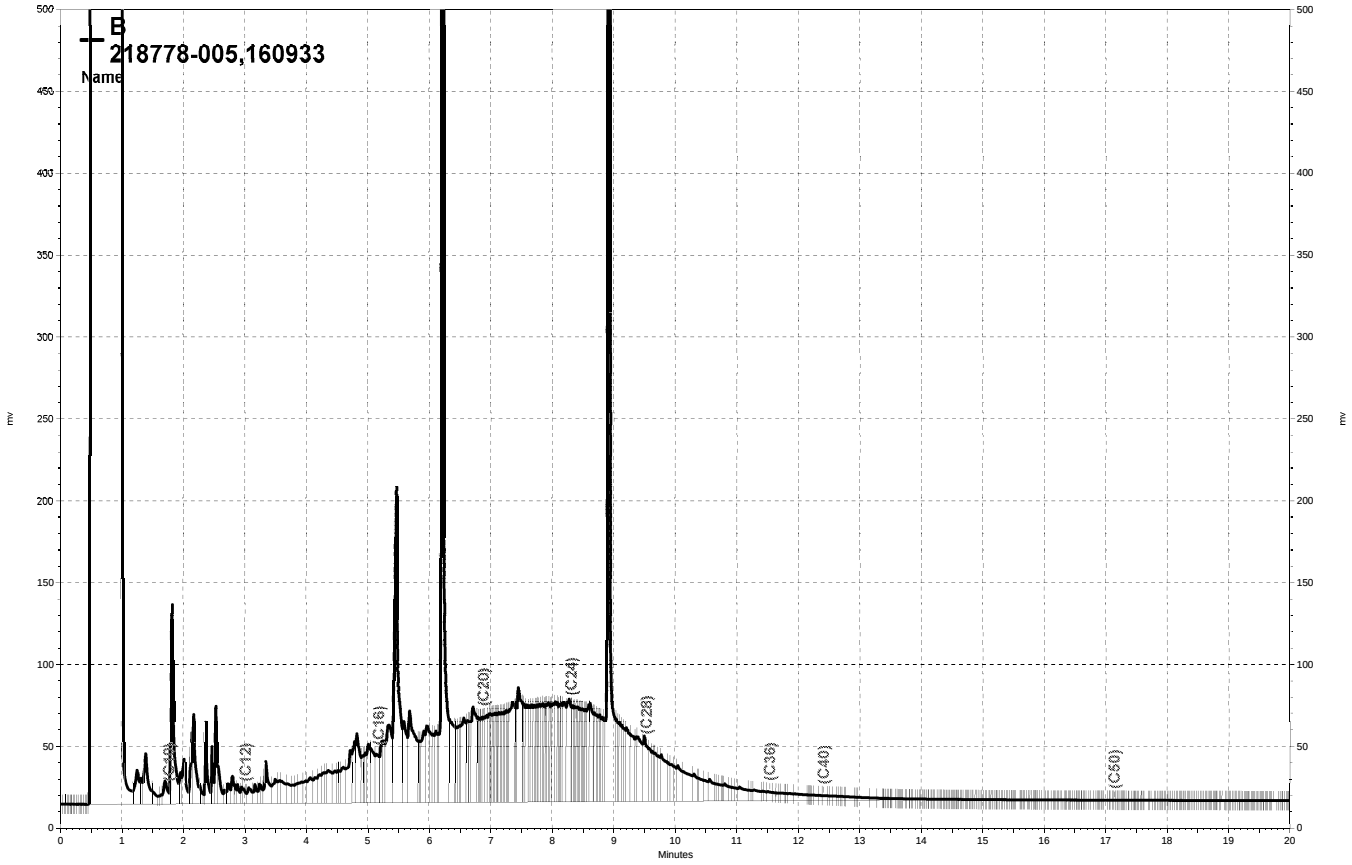

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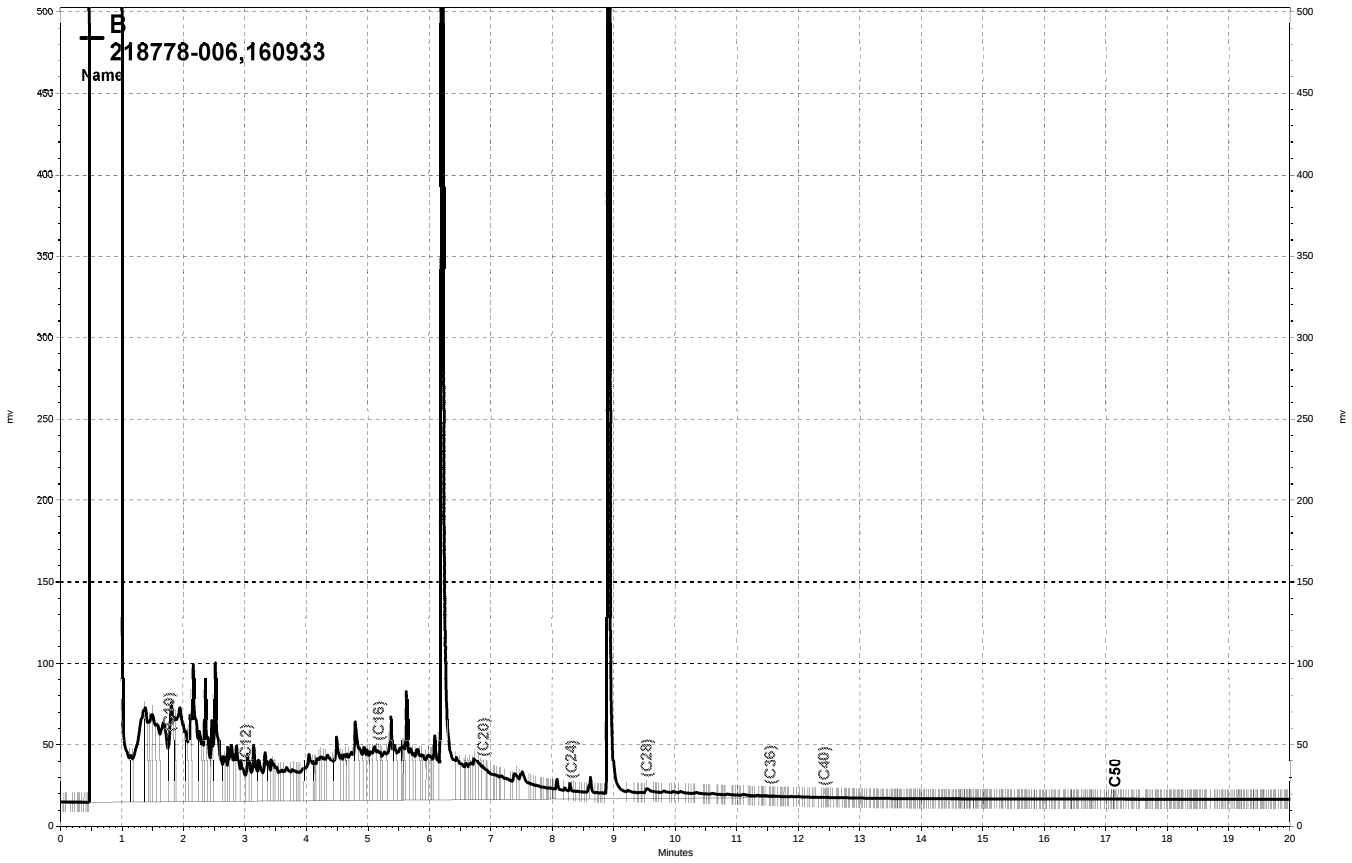

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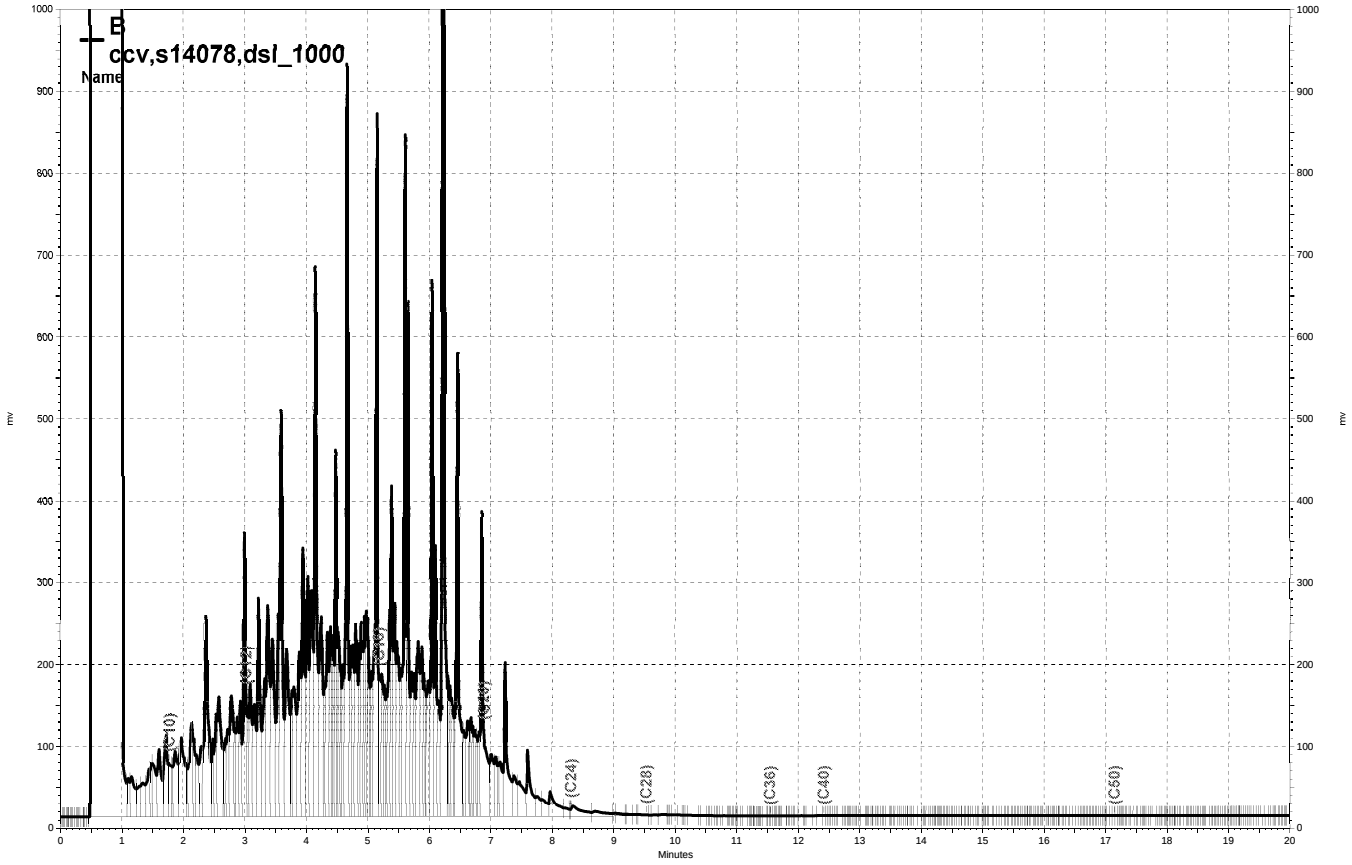

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Curtis & Tompkins, Ltd.

BTXE & Oxygenates

Lab #:	218778	Location:	Former Celis Alliance
Client:	URS Corporation	Prep:	EPA 5030B
Project#:	26814847.08000	Analysis:	EPA 8260B
Field ID:	URS-MW-1	Batch#:	160952
Lab ID:	218778-001	Sampled:	03/12/10
Matrix:	Water	Received:	03/12/10
Units:	ug/L	Analyzed:	03/16/10
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	100	81-124
1,2-Dichloroethane-d4	118	73-140
Toluene-d8	102	88-113
Bromofluorobenzene	102	80-127

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

BTXE & Oxygenates

Lab #:	218778	Location:	Former Celis Alliance
Client:	URS Corporation	Prep:	EPA 5030B
Project#:	26814847.08000	Analysis:	EPA 8260B
Field ID:	URS-MW-2	Batch#:	160994
Lab ID:	218778-002	Sampled:	03/12/10
Matrix:	Water	Received:	03/12/10
Units:	ug/L	Analyzed:	03/17/10
Diln Fac:	1.000		

Analyte	Result	RL
tert-Butyl Alcohol (TBA)	37	10
MTBE	18	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	96	81-124
1,2-Dichloroethane-d4	113	73-140
Toluene-d8	102	88-113
Bromofluorobenzene	98	80-127

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

BTXE & Oxygenates

Lab #:	218778	Location:	Former Celis Alliance
Client:	URS Corporation	Prep:	EPA 5030B
Project#:	26814847.08000	Analysis:	EPA 8260B
Field ID:	URS-MW-3	Batch#:	160952
Lab ID:	218778-003	Sampled:	03/12/10
Matrix:	Water	Received:	03/12/10
Units:	ug/L	Analyzed:	03/16/10
Diln Fac:	1.000		

Analyte	Result	RL
tert-Butyl Alcohol (TBA)	ND	10
MTBE	1.7	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	99	81-124
1,2-Dichloroethane-d4	119	73-140
Toluene-d8	100	88-113
Bromofluorobenzene	101	80-127

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

BTXE & Oxygenates

Lab #:	218778	Location:	Former Celis Alliance
Client:	URS Corporation	Prep:	EPA 5030B
Project#:	26814847.08000	Analysis:	EPA 8260B
Field ID:	URS-MW-4	Batch#:	160952
Lab ID:	218778-004	Sampled:	03/12/10
Matrix:	Water	Received:	03/12/10
Units:	ug/L	Analyzed:	03/16/10
Diln Fac:	1.000		

Analyte	Result	RL
tert-Butyl Alcohol (TBA)	ND	10
MTBE	20	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	101	81-124
1,2-Dichloroethane-d4	117	73-140
Toluene-d8	100	88-113
Bromofluorobenzene	99	80-127

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

BTXE & Oxygenates

Lab #:	218778	Location:	Former Celis Alliance
Client:	URS Corporation	Prep:	EPA 5030B
Project#:	26814847.08000	Analysis:	EPA 8260B
Field ID:	URS-MW-5	Batch#:	160994
Lab ID:	218778-005	Sampled:	03/12/10
Matrix:	Water	Received:	03/12/10
Units:	ug/L	Analyzed:	03/17/10
Diln Fac:	1.000		

Analyte	Result	RL
tert-Butyl Alcohol (TBA)	ND	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	1.0	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	96	81-124
1,2-Dichloroethane-d4	116	73-140
Toluene-d8	101	88-113
Bromofluorobenzene	96	80-127

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

BTXE & Oxygenates

Lab #:	218778	Location:	Former Celis Alliance
Client:	URS Corporation	Prep:	EPA 5030B
Project#:	26814847.08000	Analysis:	EPA 8260B
Field ID:	LF-MW-LF-4	Batch#:	160952
Lab ID:	218778-006	Sampled:	03/12/10
Matrix:	Water	Received:	03/12/10
Units:	ug/L	Analyzed:	03/16/10
Diln Fac:	1.000		

Analyte	Result	RL
tert-Butyl Alcohol (TBA)	ND	10
MTBE	1.1	0.5
Isopropyl Ether (DIPE)	ND	0.5
Ethyl tert-Butyl Ether (ETBE)	ND	0.5
1,2-Dichloroethane	ND	0.5
Benzene	0.5	0.5
Methyl tert-Amyl Ether (TAME)	ND	0.5
Toluene	ND	0.5
1,2-Dibromoethane	ND	0.5
Ethylbenzene	7.2	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	99	81-124
1,2-Dichloroethane-d4	117	73-140
Toluene-d8	101	88-113
Bromofluorobenzene	100	80-127

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

BTXE & Oxygenates

Lab #:	218778	Location:	Former Celis Alliance
Client:	URS Corporation	Prep:	EPA 5030B
Project#:	26814847.08000	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	160952
Units:	ug/L	Analyzed:	03/16/10
Diln Fac:	1.000		

Type: BS Lab ID: QC536171

Analyte	Spiked	Result	%REC	Limits
tert-Butyl Alcohol (TBA)	125.0	114.8	92	36-156
MTBE	25.00	21.51	86	61-123
Isopropyl Ether (DIPE)	25.00	22.38	90	54-139
Ethyl tert-Butyl Ether (ETBE)	25.00	23.06	92	64-133
1,2-Dichloroethane	25.00	27.94	112	66-141
Benzene	25.00	24.71	99	81-122
Methyl tert-Amyl Ether (TAME)	25.00	22.63	91	73-124
Toluene	25.00	24.40	98	82-122
1,2-Dibromoethane	25.00	24.63	99	81-122
Ethylbenzene	25.00	25.47	102	86-125
m,p-Xylenes	50.00	48.93	98	83-127
o-Xylene	25.00	24.39	98	81-122

Surrogate	%REC	Limits
Dibromofluoromethane	101	81-124
1,2-Dichloroethane-d4	116	73-140
Toluene-d8	103	88-113
Bromofluorobenzene	99	80-127

Type: BSD Lab ID: QC536172

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
tert-Butyl Alcohol (TBA)	125.0	121.3	97	36-156	5	23
MTBE	25.00	21.90	88	61-123	2	11
Isopropyl Ether (DIPE)	25.00	22.14	89	54-139	1	11
Ethyl tert-Butyl Ether (ETBE)	25.00	22.88	92	64-133	1	11
1,2-Dichloroethane	25.00	27.42	110	66-141	2	12
Benzene	25.00	24.63	99	81-122	0	12
Methyl tert-Amyl Ether (TAME)	25.00	22.89	92	73-124	1	11
Toluene	25.00	24.78	99	82-122	2	12
1,2-Dibromoethane	25.00	25.44	102	81-122	3	11
Ethylbenzene	25.00	25.71	103	86-125	1	12
m,p-Xylenes	50.00	49.70	99	83-127	2	13
o-Xylene	25.00	24.38	98	81-122	0	12

Surrogate	%REC	Limits
Dibromofluoromethane	100	81-124
1,2-Dichloroethane-d4	115	73-140
Toluene-d8	103	88-113
Bromofluorobenzene	99	80-127

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

BTXE & Oxygenates

Lab #:	218778	Location:	Former Celis Alliance
Client:	URS Corporation	Prep:	EPA 5030B
Project#:	26814847.08000	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC536175	Batch#:	160952
Matrix:	Water	Analyzed:	03/16/10
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	98	81-124
1,2-Dichloroethane-d4	116	73-140
Toluene-d8	100	88-113
Bromofluorobenzene	104	80-127

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

BTXE & Oxygenates

Lab #:	218778	Location:	Former Celis Alliance
Client:	URS Corporation	Prep:	EPA 5030B
Project#:	26814847.08000	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	160994
Units:	ug/L	Analyzed:	03/17/10
Diln Fac:	1.000		

Type: BS Lab ID: QC536337

Analyte	Spiked	Result	%REC	Limits
tert-Butyl Alcohol (TBA)	125.0	114.6	92	36-156
MTBE	25.00	20.35	81	61-123
Isopropyl Ether (DIPE)	25.00	20.33	81	54-139
Ethyl tert-Butyl Ether (ETBE)	25.00	20.97	84	64-133
1,2-Dichloroethane	25.00	25.00	100	66-141
Benzene	25.00	22.33	89	81-122
Methyl tert-Amyl Ether (TAME)	25.00	21.69	87	73-124
Toluene	25.00	23.05	92	82-122
1,2-Dibromoethane	25.00	24.38	98	81-122
Ethylbenzene	25.00	24.04	96	86-125
m,p-Xylenes	50.00	47.38	95	83-127
o-Xylene	25.00	22.90	92	81-122

Surrogate	%REC	Limits
Dibromofluoromethane	98	81-124
1,2-Dichloroethane-d4	111	73-140
Toluene-d8	102	88-113
Bromofluorobenzene	97	80-127

Type: BSD Lab ID: QC536338

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
tert-Butyl Alcohol (TBA)	125.0	115.0	92	36-156	0	23
MTBE	25.00	21.26	85	61-123	4	11
Isopropyl Ether (DIPE)	25.00	20.98	84	54-139	3	11
Ethyl tert-Butyl Ether (ETBE)	25.00	22.05	88	64-133	5	11
1,2-Dichloroethane	25.00	25.44	102	66-141	2	12
Benzene	25.00	23.24	93	81-122	4	12
Methyl tert-Amyl Ether (TAME)	25.00	22.43	90	73-124	3	11
Toluene	25.00	23.88	96	82-122	4	12
1,2-Dibromoethane	25.00	25.46	102	81-122	4	11
Ethylbenzene	25.00	24.95	100	86-125	4	12
m,p-Xylenes	50.00	48.83	98	83-127	3	13
o-Xylene	25.00	24.54	98	81-122	7	12

Surrogate	%REC	Limits
Dibromofluoromethane	97	81-124
1,2-Dichloroethane-d4	108	73-140
Toluene-d8	101	88-113
Bromofluorobenzene	97	80-127

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

BTXE & Oxygenates

Lab #:	218778	Location:	Former Celis Alliance
Client:	URS Corporation	Prep:	EPA 5030B
Project#:	26814847.08000	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC536341	Batch#:	160994
Matrix:	Water	Analyzed:	03/17/10
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	96	81-124
1,2-Dichloroethane-d4	114	73-140
Toluene-d8	99	88-113
Bromofluorobenzene	97	80-127

ND= Not Detected
RL= Reporting Limit