URS

August 29, 2007

Mr. Barney Chan
Division of Environmental Protection
Department of Environmental Health
Alameda County Health Agency
11131 Harbor Bay Parkway, 2nd Floor
Alameda, CA 94502

Re: Monitoring Well Installation at Former Celis' Alliance Fuel Station Site
4000 San Pablo Avenue, Emeryville, California

Dear Mr. Chan,

On behalf of the City of Emeryville Redevelopment Agency (the City), URS Corporation (URS) is pleased to submit this *Monitoring Well Installation Report* for the evaluation of petroleum hydrocarbon contamination from the former Celis' Alliance Fuel Station. The former Celis Alliance Fuel 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.

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

URS Corporation

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MONITORING WELL INSTALLATION AT FORMER CELIS' ALLIANCE SERVICE STATION

4000 SAN PABLO AVENUE
EMERYVILLE, CALIFORNIA

Prepared for

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

August 29, 2007

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1.1 SITE DESCRIPTION

The former Celis Alliance service station site (Site) is located at 4000 San Pablo Avenue, at the intersection of 40th Street, in Emeryville, California (Figure 1). The Site covers an area of less than 1 acre. The service station was demolished in 1994 when 40th Street was constructed. The Site is now within the 40th Street right-of-way east of and adjacent to the San Pablo Avenue intersection. The Site is publicly accessible via the street and sidewalks. The Site is relatively flat, sloping gently towards the west, with an average ground surface elevation of approximately 38 feet above mean sea level (msl). The Site lies approximately 1.15 miles to the east of San Francisco Bay in a mixed commercial and residential area. The area north of 40th Street (including the northern portion of the Site) is currently planned for mixed commercial and residential use redevelopment as part of the Oak Walk Redevelopment Area (Oak Walk site). The SNK Andante Redevelopment Area (SNK site) is located next to and south of the 40th Street right-of-way, and was redeveloped in 2004 for mixed commercial and residential use. The entire Site is paved with asphalt or concrete. Storm water runoff from the Site enters the City of Emeryville below-grade storm drainage system via drains located at the San Pablo Avenue and 40th Street intersection.

1.2 SITE USE AND INVESTIGATION HISTORY

Prior to 1995, 40th Street did not exist to the west of Adeline Street. As reported by Levine-Fricke in its "Phase I Environmental Site Assessment, 40th Street right-of-way, Emeryville, California" (Levine-Fricke 1993a), the right-of-way section between Adeline Street and San Pablo Avenue, was occupied by a gas station (fronting San Pablo Avenue), a carpet warehouse, and railroad tracks (see Figure 2). The gas station (the Site) was owned and operated by a succession of petroleum companies and independent owners from approximately 1936 until 1995 (ending with construction of the 40th Street right-of-way) when it had the name of Celis' Alliance Service Station. Petroleum hydrocarbons have been found in soil and groundwater at the Site and three other nearby sites (the carpet warehouse [once occupied by the San Francisco Bread Company (SFBC)], the SNK site and the Oak Walk site). The history of the Celis Site, the SFBC site, the SNK site and the Oak Walk site and their relationship to each other are summarized below (more detailed site summaries are included in URS, April 2005):

Celis Site

Levine-Fricke's Phase I assessment (Levine-Fricke 1993a) reported the presence of six underground storage tanks (USTs) at the Site:

- One 7,000-gallon diesel;
- One 6,000-gallon regular gasoline;
- One 4,000-gallon unleaded gasoline;
- One 2,000-gallon unleaded gasoline;
- One 3,500-gallon super unleaded gasoline; and
- One 550-gallon waste oil.

The service station building, fuel dispenser island, USTs and associated piping were removed in May 1994 (Levine-Fricke 1994b). All six USTs were of single-walled welded steel construction. Holes were noted in the 2,000-gallon unleaded gasoline tank and the 550-gallon waste oil tank, but not in the other four tanks. Holes were also noted in previously abandoned product piping that appeared to have been connected to the 6,000-gallon regular gasoline tank.

Through several phases of investigation, five monitoring wells were installed, LF-MW-1 through LF-MW-3 in August 1993, LF-MW-4 in January 1994, and WCEW-1 in March 1997 (Levine-Fricke 1993b & 1994a, Woodward-Clyde 1997). Wells LF-MW-1 through -3 were only sampled once in August 1993 before being destroyed in May 1994 in preparation for UST removals. LF-MW-4 and WCEW-1 still exist as of this date. Free-phase petroleum product was once identified in LF-MW-1 and WCEW-1.

Soil and groundwater samples collected throughout the 40th Street Right-of-Way between Adeline Street and San Pablo Avenue indicated high concentrations of petroleum hydrocarbons within and at many areas outside the Site. At the direction of the Alameda County Department of Environmental Health (ACDEH) and the Emeryville Redevelopment Agency (ERDA), Woodward-Clyde removed approximately 2,318 cubic yards of soil from surface to just above the shallow groundwater table (approximately 9.5 feet below surface [bgs]) over the entire Site (Woodward-Clyde 1995). Confirmation soil samples collected from sidewalls and the floor of the excavation indicated that significant petroleum hydrocarbon concentrations still remained on-site with the potential for offsite migration. Levine-Fricke removed affected soil from isolated areas outside the Site (Levine-Fricke 1994a,c). Excavated soils were transported to offsite waste management facilities and clean fill was imported to backfill the area. The 40th Street Right-of-Way was constructed in 1995 following completion of affected soil removal activities.

To remove floating product that had been observed on the water table, a recovery well (WCEW-1) was installed in March 1997 in the northwestern corner of the Site. Floating product/groundwater extraction from the WCEW-1 continued from June 1997 until December 1997 when the floating product was reduced to sheen only. The extracted liquid was transported to an offsite facility for treatment and disposal.

Quarterly groundwater monitoring of LF-MW-4 and WCEW-1 was discontinued after the June 1998 event. At that time, samples from LF-MW-4 contained 400 micrograms per liter (µg/L) total petroleum hydrocarbons as gasoline (TPH-g), 7.9 µg/L benzene, 0.52 µg/L toluene, 9.5 µg/L ethylbenzene, 36 µg/L total xylenes, and 14 µg/L methyl tertiary butyl ether (MTBE). Samples from WCEW-1 contained 18,000 µg/L TPH-g, 3,400 µg/L total petroleum hydrocarbons as diesel (TPH-d), 550 µg/L total petroleum hydrocarbons as motor oil (TPH-mo), 2,100 µg/L benzene, 460 µg/L toluene, 910 µg/L ethylbenzene, 2,990 µg/L total xylenes, 350 µg/L MTBE, and 120 µg/L naphthalene. A May 19, 2004 WCEW-1 follow-up sample was found to contain 3,700 µg/L TPH-g, 600 µg/L total petroleum hydrocarbons as mineral spirits (TPH-ms), 90 µg/L benzene, 0.66 µg/L toluene, 48 µg/L ethylbenzene, 56 µg/L total xylenes, 170 µg/L MTBE, and 120 µg/L naphthalene.

Additional soil and groundwater investigation was proposed in the *Review of Investigation and Remediation Results and Work Plan for Additional Investigation at Former Celis' Alliance Service Station Site* submitted by URS in April 2005, and the subsequent *Work Plan Addendum* submitted by OTG EnviroEngineering Solutions, Inc. (OTG) on July 14, 2005. As described in the URS report *Additional Investigation at Former Celis' Alliance Service Station,* dated May

31, 2006, three (3) new soil borings (SB-1, SB-3, and SB-6) were advanced in February 2006 in an attempt to evaluate the downgradient areal extent of petroleum hydrocarbons originating from the former leaking underground fuel storage tanks (USTs) located at the former Celis' Alliance Service Station site. Five (5) of the proposed soil borings (SB-2, SB-4, SB-5, SB-7, and SB-8) could not be advanced due to the presence of numerous underground utilities.

Each boring was advanced to depths ranging from 16 to 20 feet bgs by continuous coring direct push methods. The approximate locations of the borings are illustrated on Figure 2. Petroleum hydrocarbons including Gasoline Range Organics (GRO) at 220 µg/L, Diesel Range Organics (DRO) at 310 µg/L, Mineral Spirit Range Organics (MSRO) at 110 µg/L), and MTBE at 5.2 µg/L were detected in the SB-1 groundwater sample during this investigation. SB-1 is located northwest and side- to down-gradient of the Site. In addition low concentrations of DRO (5.1 mg/kg) and MSRO (6.2 mg/kg) were detected in a 10 to 10.5 foot bgs soil sample from SB-1. MTBE (10 mg/kg) was detected in 15.5 to 16 foot bgs soil sample from SB-3, which is located west-southwest and downgradient of the Site. These soil sample detections were below first encountered groundwater in both borings (8.62 feet bgs in SB-1 and 9.5 feet bgs in SB-3) and are thought to be more indicative of groundwater rather than soil quality.

A conduit survey and well/receptor survey were also performed as part of the 2006 investigation (URS, May 2006). The results of the conduit survey indicate that an 8-inch diameter sewer main (located approximately 6.5 to 9 feet bgs near the middle of the San Pablo Avenue) and a 12- to 18-inch diameter storm drain (located approximately 8 to 9 feet bgs roughly 15 feet from the western boundary of the Site under the north-bound lane of San Pablo Avenue) each have the potential to act as preferential pathways for contaminant migration because they are of a depth that is consistent with shallow groundwater (historically 5 to 10 feet bgs).

The results of the well surveys indicate that the area within ~2 mile radius of the Site has historically been an industrial, commercial and residential mixed use area that includes numerous contaminated sites under investigation and remediation as evidenced by the sheer number of monitoring wells recorded by the ACPWA-WRS. Within a ½ mile radius of the Site, it appears that no domestic or water supply wells have been installed since WRS started tracking well installation in 1980s. The three older water wells that were recorded in the state database as being within ½ mile of the Site included: one within ~1/8 mile of the Site but cross-gradient with respect to shallow groundwater flow; a second well located ~3/8 mile from the Site but upgradient with respect to shallow groundwater flow; and a third well located ~3/8 mile from the site, cross-to-down-gradient with respect to shallow groundwater flow. These three wells could not be located in a field verification survey conducted on May 18, 2006. URS considers it highly unlikely that Site-specific contaminants of concern could impact these wells based on their location with respect to the Site and historic shallow groundwater flow direction, even if they were still in existence.

In their October 12, 2006 letter containing review comments of the URS May 2006 report, ACEH requested that additional groundwater monitoring wells be installed to determine the petroleum hydrocarbon plume extent and provide trend data for petroleum hydrocarbons in groundwater. In response, URS submitted the *Monitoring Well Installation Work Plan, Former Celis' Alliance Service Station* on December 15, 2006, which proposed the drilling of five (5) additional borings to 20 feet bgs with completion as groundwater monitoring wells.

SFBC Site

The carpet warehouse site, located east of and adjacent to the Celis Site within the 40th Street right-of-way, was once occupied by the SFBC, which maintained a truck maintenance facility with two USTs:

- One 10,000-gallon gasoline
- One 10,000-gallon diesel

These USTs were removed in May 1989 when SFBC still owned the property. They were found to have leaked and a limited amount of soil was excavated and disposed of offsite as part of the tank removal activities. The south half of the two USTs were located under what is now the 40th Street right-of-way and the north half were located under what is now the Oak Walk Redevelopment Area. At the direction of ACDEH, monitoring well (SMW-1) was installed in September 1992, a short distance downgradient (with respect to shallow groundwater flow direction) of the former USTs. It was sampled quarterly from September 1992 through March 1994 before being destroyed in late 1994 in preparation for 40th Street right-of-way construction. TPH related chemicals found in groundwater samples from SMW-1 were as follows: TPHg ranged from 700 and 5,800 µg/L, benzene ranged from non-detect (ND) to 1,700 µg/L**,** toluene ranged from ND to 230 µg/L, ethylbenzene ranged from ND to 230 µg/L, and total xylenes ranged from 1.1 to 490 µg/L. Samples were never analyzed for total recoverable petroleum hydrocarbons (TRPH), TPHd, TPHmo or MTBE. During road construction activities, soil with high levels of TPH gas, diesel and BTEX were excavated from a 20 x 20 x 10 foot deep area south of and adjacent to the former USTs. No other known documented remediation activities have been directly linked to the former SFBC USTs.

SNK Site

Redevelopment of the SNK site, (located next to and south of the 40th Street right-of-way - see Figure 2) was completed by the end of 2004. Redevelopment activities included the installation of exploratory borings, trenches and temporary wells to assess potential environmental concerns. Extensive petroleum hydrocarbon contamination was identified in the northwestern portion of the SNK site (The San Joaquin Company, 2003). Under ACDEH's supervision, soil was excavated from land surface to depths ranging between 8 to 13 feet bgs in the northwestern portion of the site (downgradient of the SFBC site and adjacent to the southern boundary of the Celis Site). The location of this excavation is included on Figure 2. A total of 8,877 tons of petroleum-impacted soil was excavated and disposed of offsite. The excavation was backfilled with clean, imported engineered fill.

The most significant discovery during SNK site investigation and remedial activities was the identification of a paleo-stream channel (reportedly consisting of coarse sand and gravel) within the shallow water-bearing zone. As shown on Figure 2, this channel appears to trend in a southwesterly direction through the SNK site from its northeastern boundary at 40th Street to its' southwestern boundary at San Pablo Avenue. Groundwater samples from within the paleo-channel were found to contain benzene up to 2,700 µg/L, TPH gas up to 510,000 µg/L, and diesel range TPH (but not standard diesel) up to 20,000 µg/L. The paleo-channel sediments were removed and backfilled with clean engineered fill. Clay plugs were also installed at the ends of the paleo-channel entering and exiting the SNK redevelopment area to minimize or eliminate its potential as preferential pathway for contaminant migration.

Three old USTs (two 1,500-gallon heating oil tanks and one 100-gallon gas tank – see Figure 2) were also found within the SNK site, but outside the excavation area described above. These tanks were removed under permit and oversight of ACDEH and the Emeryville Fire Department. Soil samples collected from the bottom of the UST removal pits indicated they were not a source of site-specific petroleum hydrocarbons.

Oak Walk Redevelopment Area

A mixture of single-family houses and commercial buildings and parking lots currently occupy the Oak Walk site, which is located next to and north of the 40th Street right-of-way. The commercial and residential buildings are mostly vacant and in poor condition. Since November 2003, the San Joaquin Company (SJC) has been conducting environmental investigations at the site that have included exploratory trenches, soil borings, temporary monitoring wells (MWT-series wells) and permanent monitoring wells (MW-series wells), as shown on Figure 2. Extensive petroleum hydrocarbon contamination was found at the Oak Walk site. Exploratory Trench 3, excavated next to the former SFBC USTs, revealed the presence of paleo-channel deposits (sand and gravel) similar to those found on the SNK site. As shown on Figure 2, this paleo-channel likely continued under the 40th Street Right-of-Way, trending southwesterly under the SNK site.

Former Dunne Paints and Boysen Paint Sites

Two former paint manufacturing and distribution facilities (Dunne Paints and the Boysen Paint Factory) are located upgradient (with respect to shallow groundwater flow) of the Oak Walk site, the SFBC, the 40th Street Extension, the Celis Site and the SNK site, as shown on Figure 2. The two sites are currently under the ACDEH's supervision for investigation and remediation of paint-related petroleum hydrocarbons (paint thinner, Stoddard solvent, mineral spirits, etc.) and other chemicals.

1.3 DISTRIBUTION AND SOURCES OF PETROLEUM HYDROCARBONS

The Celis Site is a known source of petroleum hydrocarbon contamination in the area. While the contaminated unsaturated zone soil on the Celis Site was remediated (through excavation and offsite disposal), excavation floor and sidewall confirmation samples indicate site-specific TPH migration to the south impacting the SNK site and to the north impacting the Oak Walk site. The Celis Site, however, is not the only petroleum hydrocarbon source in the area. As summarized in Section 1.2, other local potential petroleum hydrocarbon source areas include the SFBC site, the former Dunne Paints site (Dunne site), and the Boysen Paint Factory site (Boysen site). The distribution and sources of petroleum hydrocarbons in the area are discussed in detail in URS 2005 and URS 2006 and are summarized below.

Concentrations of gasoline (G), diesel (D), mineral spirits (S), benzene (B) and MTBE (M), in groundwater at individual sampling points are shown on Figures 4 through 8, respectively. Groundwater samples for this evaluation were collected from the Oak Walk Site on May 19, 2004 (MW-wells and MWT-1 through MWT-10) and on November 6, 2004 (MWT-11 through MWT-14) and from the SNK site on April 17, 2003 (with the SJC-MW-8 sample collected on March 9, 2005). June 2, 1998 data was used from Celis Site well LFMW-4 (the last time it was sampled). Figures 4 through 8 in this report were updated from Figure 3 in the URS April 2005 Workplan with December 1994 through December 1995 sample data from former monitoring

well MW-2 (that was located west of 3999 San Pablo Avenue). These monitoring results, while not being as representative as a snap-shot sampling round for all wells, allow approximate interpretation of 1,000 and 100 µg/L, and non-detect (ND) less than 50 µg/L, iso-concentration contours for both benzene and MTBE (Figures 7 and 8). The north-south elongate shape of the contours along San Pablo Ave. suggests that north-south trending underground utilities may act as a preferential pathway contributing to contaminant migration. An eight-inch diameter sewer main is located approximately 6.5 to 9 feet bgs near the middle of San Pablo Avenue. A storm drain (varying from 12 to 18 inches in diameter) with a trench bottom at 8.5 to 9 feet bgs is located beneath the north-bound lane of San Pablo Avenue. With historic groundwater depths ranging from 5 to 10 feet bgs, it appears that each of these utility trenches have the potential to act as preferential pathways for contaminant migration especially in light of the fact that they are located just downgradient (with respect to shallow groundwater flow direction) of the Site.

It appears that MTBE and benzene in the Celis site area groundwater has a slightly pronounced north-south side-gradient component of migration when compared to the west-northwest to west-southwest shallow groundwater flow direction. It is also apparent that Celis area MTBE and benzene impacted the area that was excavated at the SNK site. As summarized above, petroleum hydrocarbons from the Celis Site, however, may not be the only source of contaminants detected in the SNK site paleo-channel. High benzene and TPH as gasoline concentrations, but very low concentrations to ND of MTBE, were found in paleo-channel groundwater samples from SJC-MW-T5A, ET2-G-W and SJC-MW-2A. Since the gasoline stored in the SFBC USTs did not contain MTBE, and these USTs were located partially within or adjacent to paleo-channel sediments, it is considered a likely contributing source to gasoline on the SNK site. The Celis site is also considered a likely contributor to petroleum hydrocarbons found on the SNK site because it operated before MTBE was in use and it is located relatively close to the mapped paleo-channel. It may never be possible to separate source-specific contribution to the SNK site. Because the paleo-channel is such a small portion of the total remediated area on the SNK site and excavation sidewall and bottom samples from the Celis Site indicated impacts beyond the Site boundary, the Celis Site holds some of the responsibility for SNK site impacts.

Historical data from former monitoring well MW-2 (destroyed in March 2004) suggests that TPH related contamination in groundwater extended to at least that location. MW-2 was part of environmental investigations on Yerba Buena / East Bay Bridge Development site located to the west-southwest of the San Pablo Ave. / 40th Street intersection. December 1994 to December 1995 sample results from MW-2 are as follows: TPHg ranged from 900 to 7,100 µg/L, TPHd ranged from ND (<50 µg/L) to 300 µg/L, benzene ranged from 11 to 65 µg/L, toluene ranged from ND (<0.5 µg/L) to 9 µg/L, ethylbenzene ranged from 32 to 130 µg/L and total xylenes ranged from 72 to 470 µg/L. TPHmo was never detected in groundwater samples from MW-2. MTBE analysis was never run on an MW-2 sample. TPH related constituents in MW-2 could be either related to the former Celis Site or to the SFBC site (through transport in the paleo-channel identified on the SNK site) or to both sites or to other unknown sources.

Figures 7 and 8 also indicate that MTBE and benzene from the Celis area impacted a narrow strip of the area on the Oak Walk site. The rest of the area on the Oak Walk site has been impacted by petroleum hydrocarbons that do not contain MTBE and benzene. The Celis Site and the SFBC are considered highly unlikely as the source of petroleum hydrocarbons on the Oak Walk site that does not contain MTBE and benzene. If the reported mineral spirits, gasoline and diesel are plotted as shown on Figures 4, 5 and 6), sources such as the former Dunne Paints site

and/or the former Boysen Paint Factory site may also be contributing to local contamination. The non-gas non-diesel (ie: mineral spirits) TPH plots also indicate that shallow groundwater beneath the Oak Walk site has been impacted by possibly one or more of the many varieties of solvents, at concentrations above 1,000 µg/L.

Although the analytical data set from the February 2006 soil and groundwater investigation performed by URS is limited with respect to the original number of borings planned (URS, May 2006), the results remain roughly consistent with the iso-concentration contours presented in the URS *Work Plan* (April 2005) with the exception of using historical data from former well MW-2 that was located west of 3999 San Pablo Ave. Data from the February 2006 URS investigation is included in Figures 4 through 8. The petroleum hydrocarbon detections in the SB-1 groundwater and soil samples (10 to 10.5 feet bgs) generally agree with what would be expected in this area which is cross-gradient of the site and is probably influenced by lateral migration of TPH related constituents from underground utilities serving as secondary conduits. MTBE was detected at 10 mg/kg in the 15.5 to 16 foot bgs soil sample from boring SB-3 (again below first encountered groundwater at 9.5 feet bgs and most likely indicative of groundwater rather than soil quality). SB-3 is located at the southwest corner of the San Pablo Avenue and 40th Street intersection, and downgradient from the Site. To further characterize this area, new monitoring wells URS-MW-1 and URS-MW-2 (adjacent to previous soil borings URS-SB-1 and URS-SB-3, respectively) were located during the current investigation in a downgradient transect along the San Pablo Avenue right-of-way perpendicular to the petroleum hydrocarbon plume.

Petroleum hydrocarbons were not detected in any SB-6 soil samples above or below what would be expected to be first encountered groundwater (~10 feet bgs). SB-6 is located on the south side of 40th Street, roughly 240 feet downgradient of the Site. This suggests that the downgradient extent of petroleum hydrocarbons is somewhat defined to the west-southwest. The historical presence of petroleum hydrocarbons in well LFMW-4 during the last sampling event in 1998 indicates that petroleum hydrocarbons in groundwater probably extend to the area somewhere between LFMW-4 and SB-6. No additional wells were proposed in this area for the current investigation; instead, existing well LFMW-4 will be added to the monitoring program.

Since the four proposed borings SB-4, SB-5, SB-7, and SB-8 could not be advanced south and southwest of the subject site, the extent of petroleum hydrocarbons in groundwater in this direction could not be assessed other than to rely on historical data from former monitoring well MW-2 as previously described. To further characterize this area, new downgradient monitoring wells URS-MW-3 and URS-MW-4 were located during the current investigation in the shopping center parking lot (behind 3999 San Pablo Ave. and 1111 40th Street, respectively) in a transect perpendicular to the petroleum hydrocarbon plume. New upgradient monitoring well URS-MW-5 was located during the current investigation on the south side of 40th Street in the paleo-stream channel (identified in previous SNK and Oak Walk investigations) to aid in characterizing the area between the Former San Francisco Bread Company site and the Celis' site.

As proposed in the *Monitoring Well Installation Work Plan* (URS, December 2006), URS drilled and completed five soil borings as groundwater monitoring wells to further characterize the petroleum hydrocarbon plume in groundwater downgradient and upgradient of the former Celis' site. Locations of the five proposed Celis' site monitoring wells are shown on Figure 2. Monitoring well URS-MW-1 is located in the sidewalk along the west side of San Pablo Avenue north of 40th Street, adjacent to Black and White Liquors at 4051 San Pablo Avenue. URS-MW-2 is located at the southwest corner of the intersection of San Pablo Avenue and 40th Street. Monitoring wells URS-MW-3 and URS-MW-4 are located in the shopping center parking lot (behind 3999 San Pablo Ave. and 1111 40th Street, respectively). URS-MW-5 is located on the south side of 40th Street 208 feet east of San Pablo Avenue.

The scope of work for this investigation included the following:

- Pre-drilling details included: developing a site health and safety plan; obtaining a property access agreement from the owners of the shopping center at the southwest corner of San Pablo Avenue and 40th Street; obtaining well construction permits from Alameda County Public Works Agency; obtaining encroachment permits from Caltrans and the City of Emeryville; and underground utility clearance (obtaining as-built drawings, contacting Underground Service Alert [USA], contracting to an independent utility locator to clear proposed locations, and hand augering or air knifing to 5 feet below ground surface [bgs] prior to drilling).
- Drilled five (5) well borings with a hollow stem auger (HSA) drill rig to 20 feet bgs, and collecting soil samples at intervals of approximately 5, 10, 15 and 20 feet bgs.
- Completed the borings as 2-inch diameter Schedule 40 PVC groundwater monitoring wells URS-MW-1 through URS-MW-5 with a screened interval of 5 to 20 feet bgs (except URS-MW-3, which has a screened interval of 8 to 20 feet bgs). Wellheads were completed with flush-mounted traffic-rated vault boxes.
- Submitted three soil samples from each boring (at 5, 10, and 15 bgs or as selected by the site geologist based on field observations) to a State of California certified environmental analytical laboratory under chain-of-custody protocol for analysis of benzene, toluene, ethylbenzene, and total xylenes (BTEX), five fuel oxygenates, Total Volatile Hydrocarbons as gasoline (TVH-g), Total Volatile Hydrocarbons as mineral spirits (TVH-ms) and Total Extractable Hydrocarbons as diesel (TEH-d).
- Developed the monitoring wells with surge blocks and bailers, followed by pumping until the well water cleared and water quality parameters of pH, conductivity, temperature and turbidity stabilized.
- Surveyed the five new wells URS-MW-1 through URS-MW-5, plus the existing well LFMW-LF-4 with respect to latitude and longitude by NAD 1983 datum, and elevation above mean sea level (flush mounted traffic box rim and top of PVC well casing [i.e., measuring point]) by NAVD 1988 datum.
- Performed initial monitoring and sampling of new wells URS-MW-1 through URS-MW-5, plus the existing well LFMW-LF-4, with submittal of groundwater samples to a

State of California certified environmental analytical laboratory under chain-of-custody protocol for analysis of BTEX, five fuel oxygenates, TVH-g, TVH-ms and TEH-d.

- Stored soil cuttings, decontamination, well development water and well purge water offsite at the City of Emeryville Corporation Yard in properly labeled DOT approved 55 gallon drums awaiting final disposal option selection. Collected composite soil samples from the drums for disposal profiling analysis.
- Prepared a monitoring well installation report supported with summary tables, figures, boring logs and well construction diagrams, along with hard copies of chemical analytical reports and chain-of-custody documents.
- Will perform a quarterly groundwater monitoring program of the five newly installed wells (URS-MW-1 through URS-MW-5) and one existing well (LFMW-4) for one year, including sampling and laboratory analysis of BTEX, five fuel oxygenates, TVH-g, TVH-ms and TEH-d.
- Will prepare a letter report presenting sampling results, groundwater contours, findings and recommendations, following each quarterly groundwater monitoring event.

3.1 PRELIMINARY FIELD ACTIVITIES

Before initiating field activities, URS obtained monitoring well installation permits from the Alameda County Public Works Agency (ACPWA), an access agreement from the owners of the property at 3999 San Pablo Avenue, access and encroachment permits from the City of Emeryville and Caltrans, prepared a traffic control plan per Caltrans' requirement, updated the Site specific Health and Safety Plan (HASP) describing hazards associated with the proposed work, and conducted subsurface utility clearance. The utility clearance included notifying Underground Service Alert of the pending work a minimum of 48 hours before initiating the field investigation and securing the services of a private utility-locating company to confirm the absence of underground utilities at each boring location. Copies of the drilling permits and Caltrans and Emeryville encroachment permits are included in Appendix A.

The HASP addressed safety concerns associated with the proposed Geoprobe™ borings. A copy of the HASP was available on-site at all times. The subcontractors who performed field activities were provided with a copy of the HASP before initiating work, and the URS Site supervisor held a tailgate meeting covering aspects of the HASP before the start of any work.

3.2 SOIL BORINGS AND SAMPLING

On June 28, 2007, URS geologists supervised Gregg Drilling and Testing, Inc. (Gregg) in clearing the locations of the five proposed monitoring wells URS-MW-1 through URS-MW-5 of underground utilities. Gregg used non-destructive air knife and vacuum extraction methods to advance pilot holes to 5 feet bgs. The pilot holes at the URS-MW-2 and URS-MW-3 locations could only be cleared to depths of less than 2 feet bgs before refusal was encountered.

On June 29 and July 2, 2007, URS geologists supervised Gregg in advancing five borings URS-MW-1 through URS-MW-5 using Mobil B-61 and Marl M5T hollow stem auger drill rigs. Each boring was advanced to a total depth of 20 feet bgs. The approximate locations of the borings are illustrated on Figure 2.

Soil samples were collected at approximately 5-foot intervals for lithologic description using a 2-inch diameter California Modified split spoon sampler. Samples were classified by a URS geologist according to the Unified Soil Classification System and examined using visual and manual methods for parameters including odor, staining, color, grain size, and moisture content. The soil boring logs are included in Appendix B.

Soil samples were screened for volatile hydrocarbons by collecting headspace measurements using a photo-ionization detector (PID). Selected soil samples were submitted for chemical analysis, typically at 5, 10 and 15 feet bgs depth intervals, or as selected by the site geologist based on field observations. Each sample selected for chemical analysis was covered at each end with Teflon™ sheeting, capped with plastic end caps, labeled, and placed in an ice-filled cooler for preservation. Samples selected for laboratory anlysis were placed on ice and transported to Curtis and Tompkins, Ltd. (C&T) in Berkeley, California, a State of California certified analytical laboratory for analysis under URS chain-of-custody (COC) procedures. The soil and groundwater samples were analyzed by C&T for TVH-g, TVH-ms and TEH-d by EPA Method 8015B, and for BTEX and five fuel oxygenates by EPA Method 8260B.

3.3 MONITORING WELL CONSTRUCTION

The wells were constructed and finished in accordance with local and state well regulations. The wells were constructed with flush threaded 2-inch inside diameter (ID) Schedule 40 PVC casing and factory slotted screen. The screen slot size is 0.02-inch with a Lonestar 2/12 sand pack. The screened interval of the wells (except for URS-MW-3) extends from 5- to 20-feet bgs in order to extend both above and below the water table with adequate length for collecting water samples, allowing for approximate seasonal water level fluctuations between 6- and 12-feet bgs. The screened interval of well URS-MW-3 extends from 8- to 20-feet bgs. The sand pack extends one foot above the top of the uppermost screen slots, followed by two feet of hydrated bentonite chips followed by neat cement grout to land surface. The wells were completed to grade with lockable wellheads in flush mounted, traffic rated, bolted well boxes. Well construction diagrams are included in Appendix B.

3.4 MONITORING WELL DEVELOPMENT

After a minimum of 72 hours following completion, the monitoring wells were developed on July 5, 2007 by Blaine Tech Services, Inc. (BTS) with surge blocks, followed by purging with an electric submersible pump until the well water cleared and water quality parameters of pH, conductivity, temperature and turbidity stabilized. Well development field logs are included in Appendix C.

3.5 WELL LOCATION AND ELEVATION SURVEYING

The new wells URS-MW-1 through URS-MW-5, plus the existing well LFMW-LF-4, were surveyed by URS with respect to latitude and longitude by NAD 1983 datum, and elevation above mean sea level (flush mounted traffic box rim and top of PVC well casing [TOC, i.e., measuring point]) by NAVD 1988 datum, in accordance with State Water Resources Control Board (SWRCB) GeoTracker requirements. Well survey datum were coordinated with those at the adjacent SNK and Oak Walk sites. Survey data are included in Appendix D, and TOC data in Table 1.

3.6 GROUNDWATER MONITORING

Initial well sampling was performed by BTS on July 10, 2007, more than 48-hours after completion of well development. The new wells URS-MW-1 through URS-MW-5, plus the existing well LFMW-LF-4, were sampled and submitted to a state certified analytical laboratory (C&T) for the analysis of BTEX, five fuel oxygenates, TVH-g, TVH-ms and TEH-d. The groundwater monitoring event was preceded with a water level survey to establish depth to water, and water surface elevation (flow direction and gradient), and calculation of the wetted well casing volume that needed to be removed (typically 3 to 5 wetted casing volumes) prior to collecting a representative groundwater sample. Light non-aqueous phase liquid hydrocarbons (LNAPLs) were not encountered in any well. Groundwater monitoring field logs are included in Appendix C. Depth to water data and groundwater elevation data are included in Table 1.

3.7 SITE HYDROGEOLOGY

Soils encountered in the borings below pavement and fill material consisted of interbedded silty to sandy clay, clayey to sandy silt, and gravelly clay to clayey gravel to the total explored depth of 20 feet bgs. Asphalt or concrete pavement and fill material consisting of sandy to clayey gravel and gravelly clay was present in all borings to depths of 1.5 to 5 feet bgs. The fill material was underlain primarily by silty to sandy clay or clayey to sandy silt, with interbedded clayey gravel and gravelly clay layers present at approximate depths of 10.2 to 18 feet bgs in boring URS-MW-1, 14 to 18 feet bgs in boring URS-MW-3, 8 to 8.7 feet bgs and 13 to 20 feet bgs in boring URS-MW-4, and 12 to 20 feet bgs in boring URS-MW-5. It is uncertain from the observed lithology whether URS-MW-5 is located within the paleo-stream channel extending from the SFBC site; however black asphalt-like fragments encountered in the 5 to 6.5 feet bgs sample interval are characteristic of the paleo-stream channel sediments, according to Dai Watkins of San Joaquin Company (personal communication, July 27, 2007). Although URS-MW-3 also appears to be located in the vicinity of the southwestern extension of the same paleo-stream channel, little or no indication of the paleo-stream channel's presence is apparent in the lithology encountered in that boring.

Groundwater was first encountered while drilling at depths of 15.1 feet bgs in URS-MW-1, 19.2 feet bgs in URS-MW-4, and 18.5 feet bgs in URS-MW-5. Groundwater was not initially apparent while drilling in borings URS-MW-2 and URS-MW-3, but slowly rose from the total depth of 20 feet bgs to static level. Static depth to groundwater in the completed monitoring wells ranged from 6.00 to 8.90 feet below TOC, indicating confined conditions within the shallow water bearing zones. Groundwater elevation data indicates that the direction of groundwater flow is to the west at a gradient of 0.017 feet per foot. Groundwater elevation data is presented in Table 1, and a groundwater elevation contour map is presented as Figure 3.

4.1 SOIL ANALYTICAL RESULTS

The analytical results for the soil samples are summarized below. Table 2 includes a summary of the analytical results for all of the compounds analyzed. The complete laboratory reports and chain of custodies are included in Appendix E.

Total Petroleum Hydrocarbons

TVH-g were detected above the laboratory reporting limits (RLs) only in samples collected from boring URS-MW-5 at depths of 6-6.5 feet bgs and 9.5-10 feet bgs at concentrations of 3.8 milligrams per kilogram (mg/kg) and 120 mg/kg, respectively. TVH-ms were detected above the RLs only in samples collected from boring URS-MW-5 at depths of 6 to 6.5 feet bgs and 9.5 to 10 feet bgs at concentrations of 2.2 mg/kg and 68 mg/kg, respectively. TEH-d were detected above the RLs in samples from borings URS-MW-1 (at 6-6.5 feet bgs and 15.5-16 feet bgs, at 1.9 mg/kg and 11 mg/kg, respectively), URS-MW-2 (at 5-5.5 feet bgs and 10.5-11 feet bgs, at 1.3 mg/kg and 1.4 mg/kg, respectively), URS-MW-3 (at 14.5-15 feet bgs and 19.5-20 feet bgs, at 1.8 mg/kg and 1.3 mg/kg, respectively), URS-MW-4 (at 8.5-9 feet bgs and 14-14.5 feet bgs, at 8.0 mg/kg and 6.7 mg/kg, respectively), and URS-MW-5 (at 6-6.5 feet bgs and 9.5-10 feet bgs, at 5.1 mg/kg and 13 mg/kg, respectively).

Laboratory chromatographic patterns for most detections of TVH-g, TVH-ms and TEH-d did not match standards for gasoline, mineral spirits, and diesel, respectively. URS notes that the soil samples from URS-MW-1 at 15.5-16 feet bgs, and URS-MW-3 at 19.5-20 feet bgs, were collected at or below first encountered groundwater (15.1 and approximately 20 feet bgs, respectively) and may be more indicative of groundwater rather than soil quality. URS did not select soil samples from the 5 feet bgs interval in borings URS-MW-3 and URS-MW-4 for analysis. Because of the considerable distance of these locations from the former Celis' site, it is unlikely that any potential soil vadose zone contaminants at that shallow depth would originate from the subject site; therefore the 20 feet bgs interval was analyzed instead to further delineate potential groundwater contaminant transport downgradient.

BTEX and MTBE

BTEX was not detected above the RLs in any of the soil samples submitted for analysis with the exception of ethylbenzene detected in one sample (URS-MW-5 at 9.5-10 feet bgs, at 2.3 mg/kg). MTBE was detected above the RLs in two samples (URS-MW-2 at 15.5-16 feet bgs, at 0.016 mg/kg; and URS-MW-4 at 19.5-20 feet bgs, at 0.011 mg/kg). No other fuel oxygenates were detected above RLs in any soil samples analyzed. URS notes that the soil sample from URS-MW-4 was collected below first encountered groundwater (19.5 feet bgs) and may be more indicative of groundwater rather than soil quality.

4.2 GROUNDWATER ANALYTICAL RESULTS

The analytical results for the groundwater samples are summarized below. Table 3 includes a summary of analytical results for all of the compounds analyzed. The complete laboratory reports and chain of custodies are included in Appendix E.

Total Petroleum Hydrocarbons

TVH-g were detected above the RLs in groundwater samples collected from wells URS-MW-1, URS-MW-5 and LF-MW-LF-4 at 960 micrograms per liter (µg/L), 270 µg/L and 450 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-LF-4 at 550 µg/L, 160 µg/L and 260 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-LF-4 at 580 µg/L, 240 µg/L, 110 µg/L, 820 µg/L and 620 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; TVH-ms in URS-MW-5 and LFMW-LF-4; and TEH-d in URS-MW-1, 2, 4 and 5, and LFMW-LF-4. Groundwater iso-concentration contour maps depicting TVH-g, TVH-ms, and TEH-d concentrations are presented as Figures 4, 5 and 6, respectively.

BTEX and MTBE

The only BTEX compounds detected above the RLs were in groundwater samples from URS-MW-5 (benzene at 0.6 µg/L and ethylbenzene at 22 µg/L), and LFMW-LF-4 (benzene at 3.5 µg/L, ethylbenzene at 11 µg/L and total xylenes at 1.8 µg/L). Toluene was not detected above the RLs in any sample analyzed. MTBE was detected above the RLs in groundwater samples from all wells sampled, including URS-MW-1 (1.7 µg/L), URS-MW-2 (140 µg/L), URS-MW-3 (1.3 µg/L), URS-MW-5 (99 µg/L) and LFMW-LF-4 (6.2 µg/L). Tert-butyl alcohol (TBA) was detected above the RLs in groundwater samples from URS-MW-2 (18 µg/L) and URS-MW-5 (6.2 µg/L). No other fuel oxygenate compounds were detected above the RLs in any groundwater samples analyzed. Groundwater iso-concentration contour maps depicting benzene and MTBE concentrations are presented as Figures 7 and 8, respectively.

The analytical results were subject to a quality assurance (QA) evaluation that included review of sample hold times, trip blanks (TB), method blanks (MB), 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 MBs, LCS/LCSD recoveries, MS/MSD recoveries, and surrogate spike recoveries were within laboratory quality control limits, except for the following: High MS/MSD recoveries were observed for diesel (parent soil sample was not a project sample). High surrogate recoveries were observed for hexacosane in soil samples URS-MW-3-10.0, URS-MW-5-15.0, and URS-MW-4-20.0 (no target analytes were detected in these samples). Low recovery was observed in the BSD for ethyl tert-butyl ether (ETBE), but was not associated with any reported results. No other analytical QA/QC problems were encountered.

COC 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.

Petroleum hydrocarbons and fuel oxygenates including TVH-g, TVH-ms, TEH-d, total xylenes, and MTBE were detected in soil samples from all five borings drilled in this investigation. TVH-g were detected only in soil samples from boring URS-MW-5 at depths of 6-6.5 feet bgs and 19.5-20 feet bgs, at concentrations of 3.8 milligrams per kilogram (mg/kg) and 120 mg/kg, respectively. TVH-ms were detected only in soil samples from boring URS-MW-5 at depths of 6 to 6.5 feet bgs and 9.5 to 10 feet bgs, at concentrations of 2.2 mg/kg and 68 mg/kg, respectively. TEH-d were detected in samples from borings URS-MW-1 (at 6-6.5 feet bgs and 15.5-16 feet bgs, at 1.9 mg/kg and 11 mg/kg, respectively), URS-MW-2 (at 5-5.5 feet bgs and 10.5-11 feet bgs, at 1.3 mg/kg and 1.4 mg/kg, respectively), URS-MW-3 (at 14.5-15 feet bgs and 19.5-20 feet bgs, at 1.8 mg/kg and 1.3 mg/kg, respectively), URS-MW-4 (at 8.5-9 feet bgs and 14-14.5 feet bgs, at 8.0 mg/kg and 6.7 mg/kg, respectively), and URS-MW-5 (at 6-6.5 feet bgs and 9.5-10 feet bgs, at 5.1 mg/kg and 13 mg/kg, respectively). The highest TVH-g, TVH-ms and TEH-d concentrations were detected in URS-MW-5 at 9.5-10 feet bgs. URS notes that the soil samples from URS-MW-1 at 15.5-16 feet bgs, and URS-MW-3 at 19.5-20 feet bgs, were collected at or below first encountered groundwater and may be more indicative of groundwater rather than soil quality.

BTEX was not detected in any of the soil samples with the exception of ethylbenzene detected in one sample (URS-MW-5 at 9.5-10 feet bgs, at 2.3 mg/kg). No fuel oxygenates were detected in any soil samples except for MTBE in two samples (URS-MW-2 at 15.5-16 feet bgs, at 0.016 mg/kg; and URS-MW-4 at 19.5-20 feet bgs, at 0.011 mg/kg).

None of the analytes detected in soil samples exceeded San Francisco Bay Regional Water Quality Control Board (RWQCB) Environmental Screening Levels (ESLs) for residential sites where groundwater is not a potential drinking water resource, with the possible exception of the sample collected from URS-MW-5 at 9.5 to 10 feet bgs, where TVH-g was detected at 120 mg/kg. The sample was collected at the boundary between the shallow soil (less than 9.9 feet bgs) ESL of 100 mg/kg, and the deep soil (greater than 9.9 feet bgs) ESL of 400 mg/kg for gasoline range total petroleum hydrocarbons (RWQCB, 2005, Tables B and D).

TVH-g were detected in groundwater samples collected from wells URS-MW-1, URS-MW-5 and LF-MW-LF-4 at 960 micrograms per liter (µg/L), 270 µg/L and 450 µg/L, respectively. TVH-ms were detected in groundwater samples collected from wells URS-MW-1, URS-MW-5 and LF-MW-LF-4 at 550 µg/L, 160 µg/L and 260 µg/L, respectively. TEH-d were detected in groundwater samples collected from wells URS-MW-1, URS-MW-2, URS-MW-4, URS-MW-5 and LF-MW-LF-4 at 580 µg/L, 240 µg/L, 110 µg/L, 820 µg/L and 620 µg/L, respectively.

The only BTEX compounds detected in groundwater samples were from URS-MW-5 (benzene at 0.6 µg/L and ethylbenzene at 22 µg/L), and LFMW-LF-4 (benzene at 3.5 µg/L, ethylbenzene at 11 µg/L and total xylenes at 1.8 µg/L). Toluene was not detected in any sample analyzed. MTBE was detected in groundwater samples from all wells sampled, including URS-MW-1 (1.7 µg/L), URS-MW-2 (140 µg/L), URS-MW-3 (1.3 µg/L), URS-MW-4 (82 ug/L), URS-MW-5 (99 µg/L) and LFMW-LF-4 (6.2 µg/L). Tert-butyl alcohol (TBA) was detected in groundwater samples from URS-MW-2 (18 µg/L) and URS-MW-5 (11 µg/L). No other fuel oxygenate compounds were detected in any groundwater samples analyzed.

None of the analytes detected in groundwater samples exceeded San Francisco Bay Regional Water Quality Control Board (RWQCB) Environmental Screening Levels (ESLs) for residential sites where groundwater is not a potential drinking water resource, with the exception of 960

µg/L TVH-g detected in URS-MW-1 (ESL is 500 µg/L), and 820 µg/L TEH-d detected in URS-MW-5 (ESL is 640 µg/L, RWQCB, 2005, Tables B and D).

The results of the analytical data set from this investigation phase remain roughly consistent with the groundwater iso-concentration contours presented in the previous *Additional Investigation* report (URS May 2006). Updated groundwater iso-concentration contour maps for TVH-g, TEH-d, TVH-ms, benzene, and MTBE are included in Figures 4 through 8.

The petroleum hydrocarbon detections in the URS-MW-1 groundwater and soil samples (at 6-6.5 feet bgs and 15.5-16 feet bgs) are consistent with concentrations detected in nearby boring SB-1 during the previous investigation (URS, May 2006) and generally agree with what would be expected in this area, which is cross- to down-gradient of the Site and is probably influenced by lateral migration of TPH related constituents from underground utilities serving as secondary conduits. URS-MW-1 contained the highest TVH-g and TVH-ms concentrations detected in groundwater samples during this investigation.

URS-MW-2 is located at the southwest corner of the San Pablo Avenue and 40th Street intersection, and downgradient from the Site. The petroleum hydrocarbon detections in the URS-MW-2 soil samples (at 5-5.5 feet bgs, 10.5-11 feet bgs and 15.5-16 feet bgs) are consistent with concentrations detected earlier in nearby boring SB-3 during the previous investigation (URS, May 2006). MTBE was detected at 0.016 mg/kg in the 15.5 to 16 foot bgs soil sample from boring URS-MW-2, as compared to 0.010 mg/kg in the 15.5 to 16 foot bgs soil sample from boring SB-3. TEH-d was detected at a maximum concentration of 1.4 mg/kg in soil samples from URS-MW-2 at 5-5.5 feet bgs and 10.5-11 feet bgs, but was not detected in SB-3. Groundwater was not observed during the drilling of boring URS-MW-2 until about 20 feet bgs; however first encountered groundwater in the adjacent boring SB-3 was at 9.5 feet bgs, therefore the petroleum hydrocarbon detections in soil samples from both borings are most likely indicative of groundwater rather than soil quality.

Since groundwater samples were not collected from boring SB-3 due to poor recovery, comparison of groundwater analytical results with well URS-MW-2 is not possible. Petroleum hydrocarbons detected in groundwater samples from well URS-MW-2 are consistent with its downgradient location from the Site and contained the highest MTBE concentrations (140 µg/L) detected in groundwater during this investigation. TEH-d and TBA were also detected in groundwater samples from URS-MW-2 at 240 µg/L and 18 µg/L, respectively.

URS-MW-3 is located south-southwest of the San Pablo Avenue and 40th Street intersection, and cross- to downgradient from the Site and in the vicinity of the projected southwestern extension of the paleo-stream channel leading from the SNK site. The only petroleum hydrocarbons detected in soil samples from URS-MW-3 were low concentrations of TEH-d at 14.5-15 feet bgs and 19.5-20 feet bgs; these concentrations are most likely indicative of groundwater rather than soil quality. The only petroleum hydrocarbons detected in groundwater samples from URS-MW-3 were low concentrations of MTBE, which probably represents the cross- to downgradient margin of the groundwater hydrocarbon plume. Petroleum hydrocarbon related constituents in URS-MW-3 could be either related to the former Celis Site, the SFBC site (through transport in the paleo-stream channel identified on the SNK site) or to both sites as well as to other unknown sources.

URS-MW-4 is located southwest of the San Pablo Avenue and 40th Street intersection, and downgradient from the Site. Petroleum hydrocarbons detected in soil and groundwater samples

from well URS-MW-4 are consistent with its downgradient location from the Site. The only petroleum hydrocarbons detected in soil samples from URS-MW-4 were low concentrations of TEH-d at 8.5-9 feet bgs and 14-14.5 feet bgs and MTBE at 19.5-20 feet bgs; the MTBE concentrations are most likely indicative of groundwater rather than soil quality. The only petroleum hydrocarbons detected in groundwater samples from URS-MW-4 were low to moderate concentrations of TEH-d and MTBE, which represent further attenuation of the groundwater hydrocarbon plume downgradient from URS-MW-2.

The petroleum hydrocarbon detections in the URS-MW-5 groundwater and soil samples (at 6-6.5 feet bgs and 9.5-10.0 feet bgs) are generally consistent with its upgradient location from the Celis' site. Petroleum hydrocarbon related constituents in URS-MW-5 could be either related to the SFBC site (through transport in the paleo-stream channel identified on the SNK site) or to other unknown sources. The highest concentrations of TVH-g, TVH-ms and TEH-d detected in soil samples during this investigation were from URS-MW-5 (at 10 to 10.5 feet bgs), which is consistent with its proximity to the paleo-channel leading from the SFBC site farther upgradient. URS-MW-5 contained the highest TEH-d and ethylbenzene concentrations detected in groundwater samples during this investigation. The petroleum hydrocarbon detections in groundwater from URS-MW-5 are also consistent with its location except that the relatively high MTBE concentrations detected are unexpected from within the paleo-stream channel downgradient from the SFBC site. The MTBE detections in groundwater are inconsistent with the lack of detections in any soil samples from URS-MW-5, which may be due to the lack of analysis of soil samples collected below first encountered groundwater (18.5 feet bgs). This seems to imply that the MTBE did not originate from a nearby source area, but was transported by groundwater from an upgradient source.

The low to moderate petroleum hydrocarbon concentrations detected in groundwater samples from previously existing monitoring well LFMW-LF-4, located downgradient from the Site, indicate the attenuation of the groundwater hydrocarbon plume from the higher concentrations detected in wells URS-MW-1 and URS-MW-2 farther upgradient. The only concentrations of petroleum hydrocarbon constituents in LFMW-LF-4 that exceeded those in URS-MW-1 and URS-MW-2 were benzene, ethylbenzene, and total xylenes. The benzene and total xylene concentrations in LFMW-LF-4, although low, were the highest detected in groundwater samples during this investigation. Petroleum hydrocarbon concentrations detected this event in LFMW-LF-4 are either consistent or slightly lower than those detected during the last sampling event in 1998 (400 µg/L TPH-g, 7.9 µg/L benzene and 14 µg/L MTBE), except for TEH-d, which was not detected in 1998, and TVH-ms, which was not analyzed in 1998. Since petroleum hydrocarbons were not detected (during the 2006 investigation) in soil samples from below groundwater in boring SB-6, located downgradient from LFMW-LF-4, the data suggests that the downgradient extent of petroleum hydrocarbons is somewhat defined to the west-southwest of the Site between LFMW-LF-4 and SB-6.

URS notes that soil remediation activities have been completed to the extent practicable at the former Celis Site and the SNK site. Partial soil remediation activities have also been completed at the former SFBC site. Extensive development of the area precludes any additional soil remediation activities with respect to the protection of groundwater quality, with the exception of potential soil remediation that may be conducted as part of Oak Walk Redevelopment activities. As illustrated on Figure 3, a narrow strip of land on the Oak Walk site next to 40th Street appears to have been impacted by petroleum hydrocarbons originating from the former Celis Site. It is the City's understanding that the petroleum hydrocarbon impacted soil will be removed for off-site disposal as part of the Oak Walk redevelopment. This redevelopment is currently underway.

With this in mind, the remaining TPH related constituents in groundwater are acknowledged, fairly well documented and are undergoing natural attenuation. As natural attenuation occurs, impacted groundwater that could be attributed to the former Celis Site does not appear to pose a threat to any known receptors. No drinking water wells were found within the vicinity of the former Celis Site. According to the East Bay Plain Groundwater Basin Beneficial Use Evaluation Report (RWQCB, 1999), the former Celis Site is located in an area designated as Zone B, which indicates that groundwater is unlikely to be used as a drinking water resource. In this area, the basin is shallow; with depths generally less than 300 feet and well yields are generally not sufficient for municipal supply (RWQCB, 1999). In addition, the former Celis Site and vicinity are located in the Emeryville Brownfields Groundwater Management Zone where groundwater is not used for any municipal, domestic, industrial or agricultural purpose and no extractive beneficial uses are planned in the future.

The City plans to conduct four quarterly groundwater monitoring events of at the Celis Site. Considering the above factors no additional soil borings or groundwater monitoring wells are necessary at or down-gradient of the former Celis Site and no additional investigation or remediation work associated with the former Celis Site is recommended, with the exception of the planned soil removal at the Oak Walk site as discussed above. Accordingly, the City requests the closure of the former Celis Site case once soil remediation at the Oak Walk site is completed and one year (four quarterly events) of groundwater monitoring has been completed.

Levine-Fricke (LF) (1993a), Phase I Environmental Site Assessment, 40th Street Right-of-Way, Emeryville, California. Prepared for Catellus Development Corporation. Dated June 1993.

Levine-Fricke (LF) (1993b), Phase II Investigation Results, Proposed 40th Street Right-of-Way, Emeryville, California. Prepared for Catellus Development Corporation. Dated September 1993.

Levine-Fricke (LF) (1994a), Further Soil and Groundwater Investigation, Fuel Station, 40th Street Right-of-Way, Emeryville, California, Prepared for Catellus Development Corporation. Dated March 1994.

Levine-Fricke (LF) (1994b), Report on Removal of Six Underground Fuel Storage Tanks and Associated Piping, Celis Alliance Fueling Station, 4000 San Pablo Avenue, Emeryville, California, Prepared for Catellus Development Corporation. Dated July 6, 1994.

Levine-Fricke (LF) (1994c), Summary of Environmental Activities, Propoased 40th Steet Extension, Emeryville, California. Prepared for Catellus Development Corporation. Dated November 1994.

OTG EnviroEngineering Solutions, Inc. (OTG) (2005), Work Plan Addendum - Review of Investigation and Remediation Results and Work Plan for Additional Investigation at Former Celis' Alliance Service Station Site. July 14, 2005

Regional Water Quality Control Board – San Francisco Bay (RWQCB) (1999) East Bay Plain Groundwater Basin Beneficial Use Evaluation Report. June 1999

Regional Water Quality Control Board – San Francisco Bay (RWQCB) (2005) Screening for Environmental Concerns at Sites With Contaminated Soil ans Groundwater, Volume 1: Summary Tier 1 Lookup Tables. Interim Final – February 2005.

The San Joaquin Company Inc. (SJC) (2003), Corrective Action Report, SNK Andante Project, 3992 San Pablo Avenue, Emeryville, California. Prepared for SNK Captec Andante LLC. August 2003.

URS Corporation (URS) (2005), Review of Investigation and Remediation Results and Work Plan for Additional Investigation at Former Celis' Alliance Service Station, 4000 San Pablo Avenue Emeryville, California. April 2005

URS Corporation (URS) (2006), Additional Investigation at Former Celis' Alliance Service Station, 4000 San Pablo Avenue Emeryville, California. May 31, 2006

URS Corporation (URS) (2006), Monitoring Well Installation Work Plan, Former Celis' Alliance Service Station, 4000 San Pablo Avenue Emeryville, California. December 15, 2006

Woodward-Clyde Consultants (WCC) (1995), Report on Soil Remediation at the Former Celis Alliance Fueling Station, 4000 San Pablo Avenue, Emeryville, California. Prepared for City of Emeryville Redevelopment Agency, Dated January 6, 1995.

Woodward-Clyde Consultants (1997), 3rd Quarter 1997 Groundwater Monitoring Results and Well Construction Report for Extraction Well EW-1, Former Celis Alliance Gas Station Site, Emeryville, California. Dated November 13, 1997.

Woodward-Clyde Consultants (1998), Quarterly Groundwater Monitoring Results for the 2nd Quarter 1998, The Former Celis Alliance Gas Station at 4000 San Pablo Avenue, Emeryville, California. July 17, 1998.

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)	LNAPL Thickness (feet)	Depth to Water (feet)	Groundwater Elevation (feet MSL)
URS-MW-1	sch 40 PVC	2	20	5-20	4-20	42.40	42.21	7/10/2007	---	---	8.90	33.31
URS-MW-2	sch 40 PVC	2	20	5-20	4-20	41.18	40.83	7/10/2007	---	---	7.89	32.94
URS-MW-3	sch 40 PVC	2	20	8-20	7-20	40.86	40.54	7/10/2007	---	---	8.16	32.38
URS-MW-4	sch 40 PVC	2	20	5-20	4-20	41.72	41.41	7/10/2007	---	---	8.58	32.83
URS-MW-5	sch 40 PVC	2	20	5-20	4-20	44.30	43.93	7/10/2007	---	---	6.00	37.93
LFMW-LF-4	sch 40 PVC	2	18	NA	NA	41.46	40.76	7/10/2007	---	---	8.30	32.46

Notes:

bgs: Below Ground Surface

*: Surveyed at vault box lid

MSL: Mean Sea Level as surveyed to NAVD 88 datum

TOC: Top of PVC Casing

---: Not detected or measured

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

Sample ID	Date	Depth (ft bgs)	Analytical Results (mg/kg)							
			TVH-g	TVH-ms	TEH-d	Benzene	Toluene	Ethylbenzene	Xylenes	Oxygenates
URS-MW-1-6.5	7/2/2007	6.0-6.5	<0.97	<0.97	**1.9 H Y**	<0.0049	<0.0049	<0.0049	<0.0049	ND
URS-MW-1-11.0	7/2/2007	10.5-11.0	<1.0	<1.0	<0.99	<0.005	<0.005	<0.005	<0.005	ND
URS-MW-1-16.0	7/2/2007	15.5-16.0	<0.95	<0.95	**11 H Y**	<0.0049	<0.0049	<0.0049	<0.0049	ND
URS-MW-2-5.5	7/2/2007	5.0-5.5	<0.98	<0.98	**1.3 H Y**	<0.0045	<0.0045	<0.0045	<0.0045	ND
URS-MW-2-11.0	7/2/2007	10.5-11.0	<1.0	<1.0	**1.4 H Y**	<0.0046	<0.0046	<0.0046	<0.0046	ND
URS-MW-2-16.0	7/2/2007	15.5-16.0	<1.0	<1.0	<0.99	<0.0045	<0.0045	<0.0045	<0.0045	**0.016 MTBE**
URS-MW-3-10.0	6/29/2007	9.5-10.0	<1.0	<1.0	<0.99	<0.0046	<0.0046	<0.0046	<0.0046	ND
URS-MW-3-15.0	6/29/2007	14.5-15.0	<0.98	<0.98	**1.8 Y**	<0.0045	<0.0045	<0.0045	<0.0045	ND
URS-MW-3-20.0	6/29/2007	19.5-20.0	<1.0	<1.0	**1.3 Y**	<0.0049	<0.0049	<0.0049	<0.0049	ND
URS-MW-4-9.0	6/29/2007	8.5-9.0	<0.96	<0.96	**8.0 H Y**	<0.045	<0.045	<0.045	<0.045	ND
URS-MW-4-14.5	6/29/2007	14.0-14.5	<0.95	<0.95	**6.7 H Y**	<0.005	<0.005	<0.005	<0.005	ND
URS-MW-4-20.0	6/29/2007	19.5-20.0	<1.1	<1.1	<1.0	<0.0047	<0.0047	<0.0047	<0.0047	**0.011 MTBE**
URS-MW-5-6.5	6/29/2007	6.0-6.5	**3.8 H L Y**	**2.2 H L Y**	**5.1 Y**	<0.0047	<0.0047	<0.0047	<0.0047	ND
URS-MW-5-10.0	6/29/2007	9.5-10.0	**120 H**	**68 H L**	**13 Y**	<0.17	<0.17	**2.3**	<0.17	ND
URS-MW-5-15.0	6/29/2007	14.5-15.0	<1.0	<1.0	<1.0	<0.0046	<0.0046	<0.0046	<0.0046	ND
RWQCB ESLs (shallow soil, residential)[1]		<9.9	100	100	100	0.18	9.3	32	11	2 MTBE
RWQCB ESLs (deep soil, residential)[2]		>9.9	400	500	500	0.18	9.3	32	11	2 MTBE

Notes:

ft bgs: feet below ground surface

mg/kg: milligrams per kilogram

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

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 - February 2005.

[1]Table B for shallow soil <9.9 feet bgs where groundwater is not a potential drinking water resource, with residential land use.

[2]Table D for deep soil >9.9 feet bgs where groundwater is not a potential drinking water resource, with residential land use.

Detections are in bold, ESL exceedences are shaded.

Table 3
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**
URS-MW-2	7/10/2007	<50	<50	**240 H Y**	<0.5	<0.5	<0.5	<0.5	**18 TBA, 140 MTBE**
URS-MW-3	7/10/2007	<50	<50	<50	<0.5	<0.5	<0.5	<0.5	**1.3 MTBE**
URS-MW-4	7/10/2007	<50	<50	**110 Y**	<0.5	<0.5	<0.5	<0.5	**82 MTBE**
URS-MW-5	7/10/2007	**270**	**160 Y**	**820 H Y**	**0.6**	<0.5	**22**	<0.5	**11 TBA, 99 MTBE**
LFMW-LF-4	7/10/2007	**450**	**260 Y**	**620 L Y**	**3.5**	<0.5	**11**	**1.8**	**6.2 MTBE**
RWQCB ESLs (residential)[1]		500	640	640	46	130	290	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-Dichloroethar and 1,2-Dibromoethane (1,2-DBA), by EPA 8260B

<: Not Detected at listed reporting limit

ND: Not Detected at analyte-specific reporting limit

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 - February 2005.

[1]Table B for residential land use where groundwater is not a potential drinking water resource.

Detections are in bold, ESL exceedences are shaded.

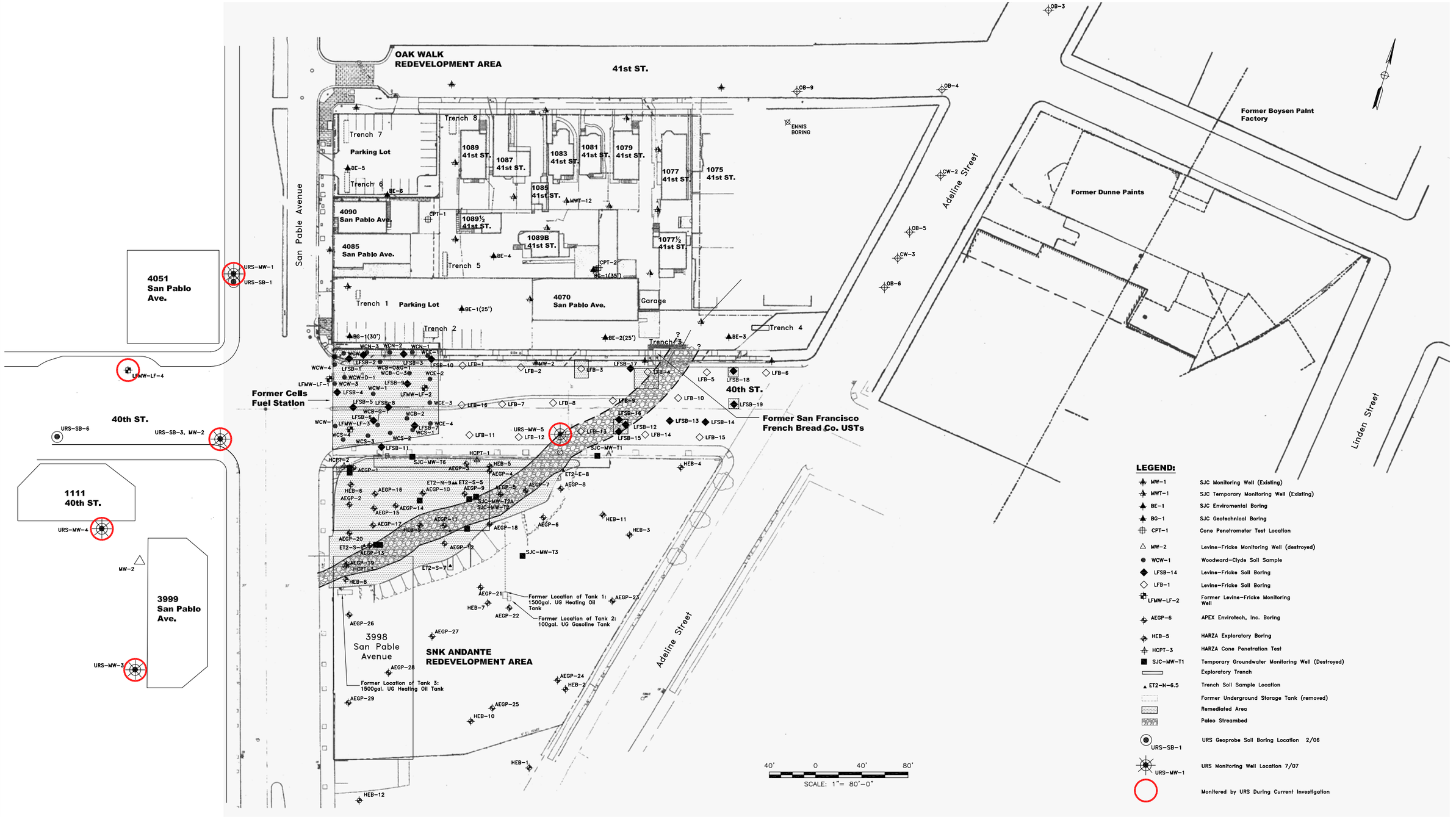
Figures

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	–
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PEER REVIEWED	
PROJECT MANAGER	–
DATE	–

Additional Monitoring Well Locations

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

REVISION 1
PROJECT 26814847
FIGURE 2

Aug 22, 2007 - 2:59pm
J:\CADSHARED\ANDANTE\Current_Celis_MWI_7_07\MWI_WORKPLAN_Figure2.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

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Oakland, CA 94612
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Fax: (510) 874-3268

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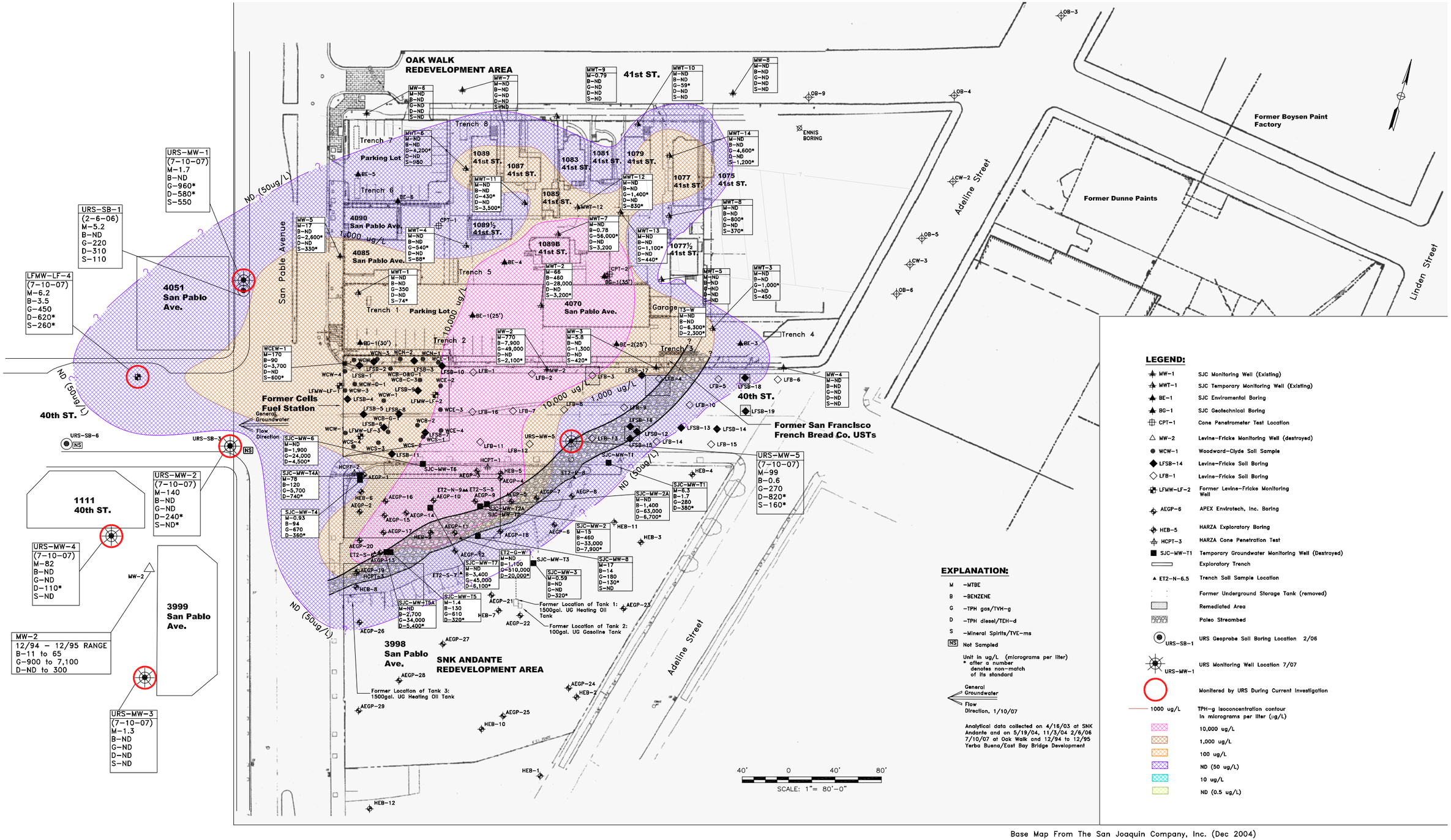
PEER REVIEWED	
PROJECT MANAGER	–
DATE	8-3-07

Groundwater Elevation Contour Map, July 10, 2007

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

REVISION 1
PROJECT 26814847
FIGURE 3

Aug 22, 2007 - 3:01pm
J:\CADSHARED\ANDANTE\Current_Celis_MWI_7_07\MWI_WORKPLAN_Figure3.dwg



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

REV	DESCRIPTION OF REVISION	BY	DATE

City of Emeryville Redevelopment Agency
1333 Park Avenue
Emeryville, Ca. 94608

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Oakland, CA 94612
Tel: (510) 893-3600
Fax: (510) 874-3268

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PEER REVIEWED	
PROJECT MANAGER	–
DATE	–

Distribution of Gasoline Range Petroleum Hydrocarbons in Shallow Groundwater on July 10, 2007

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

REVISION	1
PROJECT	26814847
FIGURE	4

Aug 22, 2007 - 3:12pm
J:\CADSHARED\ANDANTE\Current_Celis_MWI_7_07\Figure4.dwg

LEGEND:

- MW-1 — SJC Monitoring Well (Existing)
- MWT-1 — SJC Temporary Monitoring Well (Existing)
- BE-1 — SJC Enviromental Boring
- BG-1 — SJC Geotechnical Boring
- CPT-1 — Cone Penetrometer Test Location
- MW-2 — Levine-Fricke Monitoring Well (destroyed)
- WCW-1 — Woodward-Clyde Soil Sample
- LFSB-14 — Levine-Fricke Soil Boring
- LFB-1 — Levine-Fricke Soil Boring
- LFMW-LF-2 — Former Levine-Fricke Monitoring Well
- AEGP-6 — APEX Envirotech, Inc. Boring
- HEB-5 — HARZA Exploratory Boring
- HCPT-3 — HARZA Cone Penetration Test
- SJC-MW-T1 — Temporary Groundwater Monitoring Well (Destroyed)
- Exploratory Trench
- ET2-N-6.5 — Trench Soil Sample Location
- Former Underground Storage Tank (removed)
- Remediated Area
- Paleo Streambed
- URS-SB-1 — URS Geoprobe Soil Boring Location 2/06
- URS-MW-1 — URS Monitoring Well Location 7/07
- Monitered by URS During Current Investigation
- 1000 ug/L — TPH-ms Isoconcentration contour in micrograms per liter (ug/L)
- 10,000 ug/L
- 1,000 ug/L
- 100 ug/L
- ND (50 ug/L)
- 10 ug/L
- ND (0.5 ug/L)

EXPLANATION:

M –MTBE
B –BENZENE
G –TPH gas/TVH-g
D –TPH diesel/TEH-d
S –Mineral Spirits/TVE-ms
NS Not Sampled

Unit in ug/L
* after a number denotes non-match of its standard

General Groundwater Flow Direction, 1/10/07

Analytical data collected on 4/16/03 at SNK Andante and on 5/19/04, 11/3/04 2/6/06 7/10/07 at Oak Walk and 12/94 to 12/95 Yerba Buena/East Bay Bridge Development

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

REV	DESCRIPTION OF REVISION	BY	DATE
1			

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1333 Park Avenue
Emeryville, Ca. 94608

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Oakland, CA 94612
Tel: (510) 893-3600
Fax: (510) 874-3268

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PROJECT MANAGER	–
DATE	–

Distribution of Mineral Spirit Range Petroleum Hydrocarbons in Shallow Groundwater on July 10, 2007

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

REVISION 1
PROJECT 26814847
FIGURE 5

Aug 22, 2007 - 3:14pm
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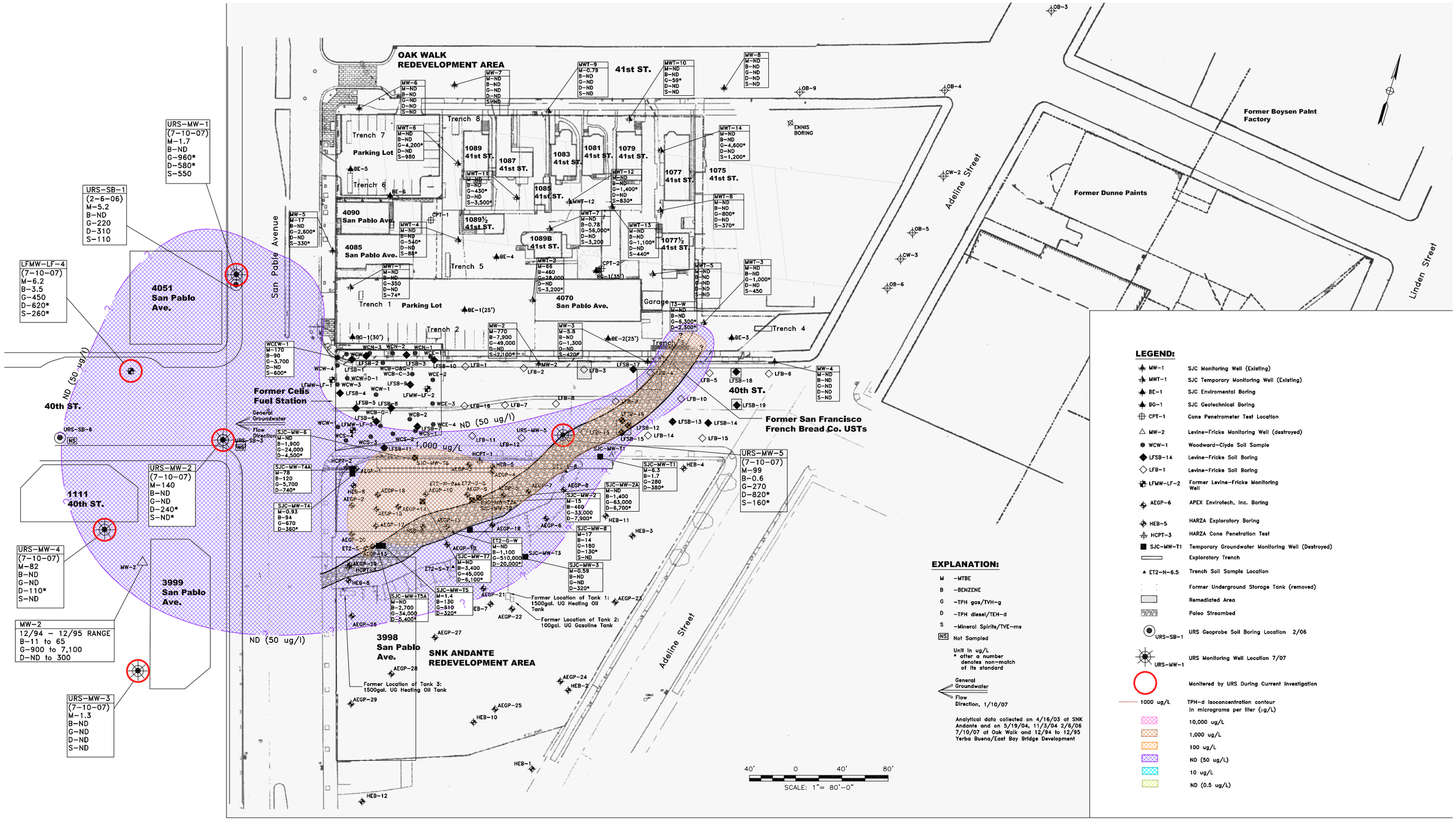

LEGEND:

- MW-1 — SJC Monitoring Well (Existing)
- MWT-1 — SJC Temporary Monitoring Well (Existing)
- BE-1 — SJC Enviromental Boring
- BG-1 — SJC Geotechnical Boring
- CPT-1 — Cone Penetrometer Test Location
- MW-2 — Levine-Fricke Monitoring Well (destroyed)
- WCW-1 — Woodward-Clyde Soil Sample
- LFSB-14 — Levine-Fricke Soil Boring
- LFB-1 — Levine-Fricke Soil Boring
- LFMW-LF-2 — Former Levine-Fricke Monitoring Well
- AEGP-6 — APEX Envirotech, Inc. Boring
- HEB-5 — HARZA Exploratory Boring
- HCPT-3 — HARZA Cone Penetration Test
- SJC-MW-T1 — Temporary Groundwater Monitoring Well (Destroyed)
- Exploratory Trench
- ET2-N-6.5 — Trench Soil Sample Location
- Former Underground Storage Tank (removed)
- Remediated Area
- Paleo Streambed
- URS-SB-1 — URS Geoprobe Soil Boring Location 2/06
- URS-MW-1 — URS Monitoring Well Location 7/07
- Monitered by URS During Current Investigation
- 1000 ug/L — TPH-d Isoconcentration contour in micrograms per liter (ug/L)
- 10,000 ug/L
- 1,000 ug/L
- 100 ug/L
- ND (50 ug/L)
- 10 ug/L
- ND (0.5 ug/L)

EXPLANATION:

- M —MTBE
- B —BENZENE
- G —TPH gas/TVH-g
- D —TPH diesel/TEH-d
- S —Mineral Spirits/TVE-ms
- NS — Not Sampled

Unit in ug/L
* after a number denotes non-match of its standard

General Groundwater Flow Direction, 1/10/07

Analytical data collected on 4/16/03 at SNK Andante and on 5/19/04, 11/3/04 2/6/06 7/10/07 at Oak Walk and 12/94 to 12/95 Yerba Buena/East Bay Bridge Development

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

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PEER REVIEWED
PROJECT MANAGER —
DATE —

Distribution of Diesel Range Petroleum Hydrocarbons in Shallow Groundwater on July 10, 2007

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

REVISION 1
PROJECT 26814847
FIGURE 6

Aug 29, 2007 - 2:17pm
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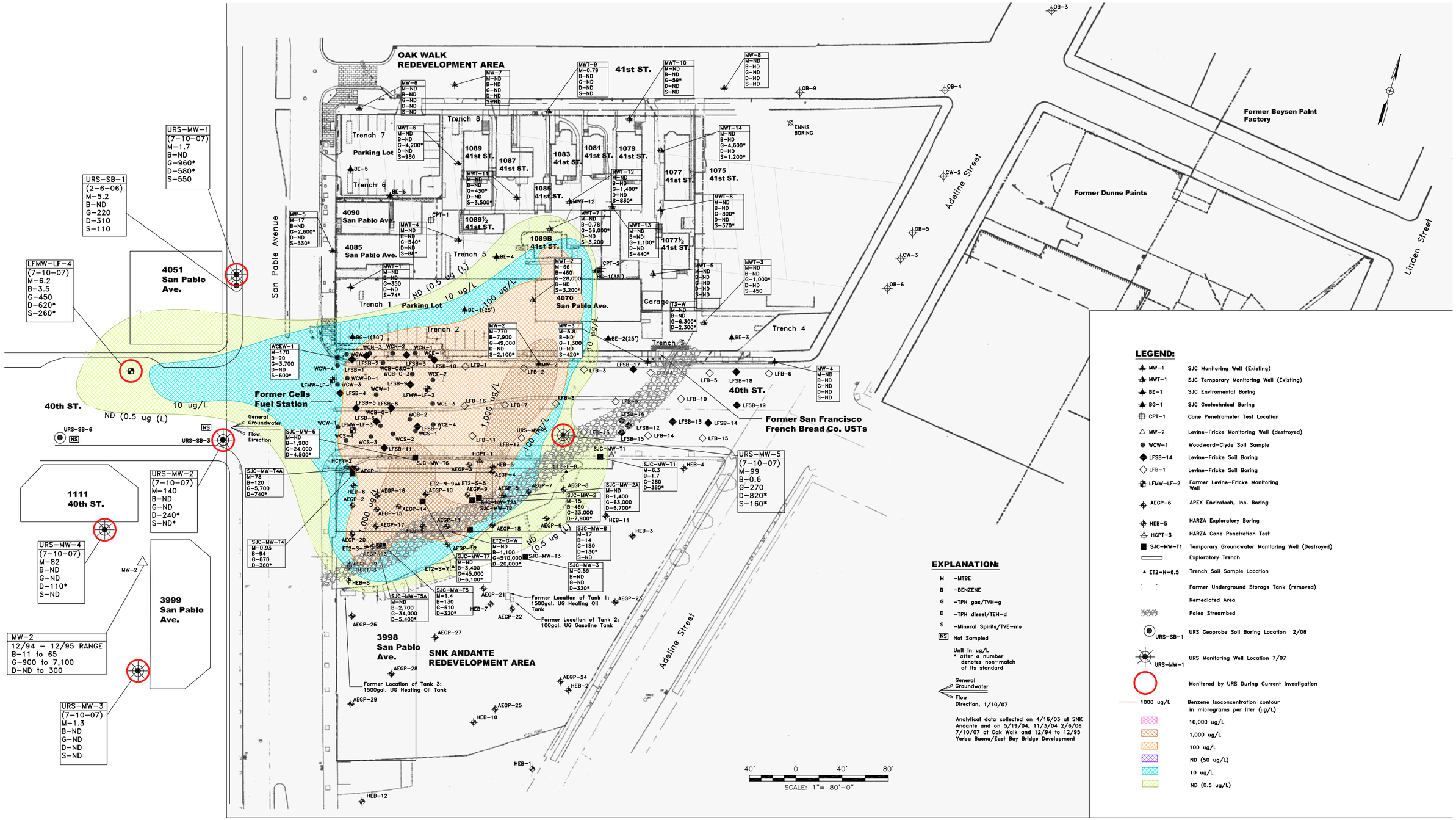

LEGEND:

- MW–1 SJC Monitoring Well (Existing)
- MWT–1 SJC Temporary Monitoring Well (Existing)
- BE–1 SJC Environmental Boring
- BG–1 SJC Geotechnical Boring
- CPT–1 Cone Penetrometer Test Location
- MW–2 Levine–Fricke Monitoring Well (destroyed)
- WCW–1 Woodward–Clyde Soil Sample
- LFSB–14 Levine–Fricke Soil Boring
- LFB–1 Levine–Fricke Soil Boring
- LFMW–LF–2 Former Levine–Fricke Monitoring Well
- AEGP–6 APEX Envirotech, Inc. Boring
- HEB–5 HARZA Exploratory Boring
- HCPT–3 HARZA Cone Penetration Test
- SJC–MW–T1 Temporary Groundwater Monitoring Well (Destroyed)
- Exploratory Trench
- ET2–N–6.5 Trench Soil Sample Location
- Former Underground Storage Tank (removed)
- Remediated Area
- Paleo Streambed
- URS–SB–1 URS Geoprobe Soil Boring Location 2/06
- URS–MW–1 URS Monitoring Well Location 7/07
- Monitered by URS During Current Investigation
- 1000 ug/L Benzene Isoconcentration contour in micrograms per liter (µg/L)
- 10,000 ug/L
- 1,000 ug/L
- 100 ug/L
- ND (50 ug/L)
- 10 ug/L
- ND (0.5 ug/L)

EXPLANATION:

M –MTBE
B –BENZENE
G –TPH gas/TVH–g
D –TPH diesel/TEH–d
S –Mineral Spirits/TVE–ms
NS Not Sampled

Unit in ug/L
* after a number denotes non–match of its standard

General Groundwater Flow Direction, 1/10/07

Analytical data collected on 4/16/03 at SNK Andante and on 5/19/04, 11/3/04 2/6/06 7/10/07 at Oak Walk and 12/94 to 12/95 Yerba Buena/East Bay Bridge Development

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

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1			

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Emeryville, Ca. 94608

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Oakland, CA 94612
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Fax: (510) 874–3268

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PROJECT MANAGER –
DATE –

Distribution of Benzene Range Petroleum Hydrocarbons in Shallow Groundwater on July 10, 2007

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

REVISION 1
PROJECT 26814847
FIGURE 7

Aug 22, 2007 – 3:16pm
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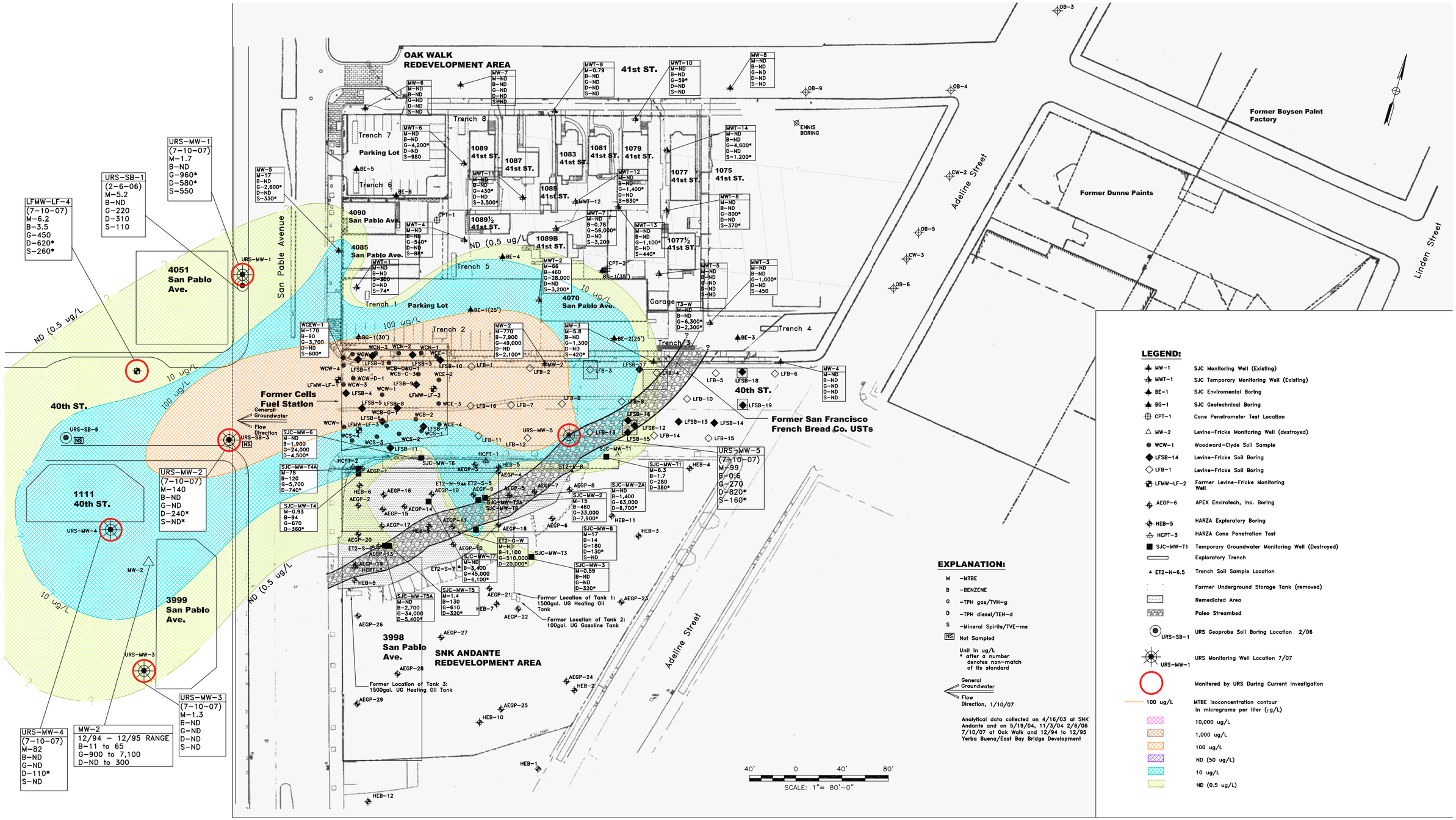

LEGEND:

- MW-1 — SJC Monitoring Well (Existing)
- MWT-1 — SJC Temporary Monitoring Well (Existing)
- BE-1 — SJC Enviromental Boring
- BG-1 — SJC Geotechnical Boring
- CPT-1 — Cone Penetrometer Test Location
- MW-2 — Levine-Fricke Monitoring Well (destroyed)
- WCW-1 — Woodward-Clyde Soil Sample
- LFSB-14 — Levine-Fricke Soil Boring
- LFB-1 — Levine-Fricke Soil Boring
- LFMW-LF-2 — Former Levine-Fricke Monitoring Well
- AEGP-6 — APEX Envirotech, Inc. Boring
- HEB-5 — HARZA Exploratory Boring
- HCPT-3 — HARZA Cone Penetration Test
- SJC-MW-T1 — Temporary Groundwater Monitoring Well (Destroyed)
- Exploratory Trench
- ET2-N-6.5 — Trench Soil Sample Location
- Former Underground Storage Tank (removed)
- Remediated Area
- Paleo Streambed
- URS-SB-1 — URS Geoprobe Soil Boring Location 2/06
- URS-MW-1 — URS Monitoring Well Location 7/07
- Monitered by URS During Current Investigation
- 100 ug/L — MTBE Isoconcentration contour in micrograms per liter (ug/L)
- 10,000 ug/L
- 1,000 ug/L
- 100 ug/L
- ND (50 ug/L)
- 10 ug/L
- ND (0.5 ug/L)

EXPLANATION:

M –MTBE
B –BENZENE
G –TPH gas/TVH-g
D –TPH diesel/TEH-d
S –Mineral Spirits/TVE-ms
NS Not Sampled

Unit in ug/L
* after a number denotes non-match of its standard

General Groundwater Flow Direction, 1/10/07

Analytical data collected on 4/16/03 at SNK Andante and on 5/19/04, 11/3/04 2/6/06 7/10/07 at Oak Walk and 12/94 to 12/95 Yerba Buena/East Bay Bridge Development

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

REV	DESCRIPTION OF REVISION	BY	DATE

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	–

Distribution of MTBE in Shallow Groundwater on July 10, 2007

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

REVISION 1
PROJECT 26814847
FIGURE 8

Aug 22, 2007 - 3:21pm
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Appendix A
Permits

Alameda County Public Works Agency - Water Resources Well Permit

399 Elmhurst Street
Hayward, CA 94544-1395
Telephone: (510)670-6633 Fax:(510)782-1939

Application Approved on: 06/06/2007 By jamesy

Permit Numbers: W2007-0667 to W2007-0669
Permits Valid from 06/29/2007 to 07/02/2007

Application Id:	1180563481487	**City of Project Site:**	Emeryville
Site Location:	4000 San Pablo Avenue at 40th Street, Emeryville, CA		
Project Start Date:	06/29/2007	**Completion Date:**	07/02/2007
Applicant:	URS Corporation - Leonard Niles 1333 Broadway, Suite 800, Oakland, CA 94612	**Phone:**	510-874-1720
Property Owner:	City of Emeryville Redevelopment Agency 1333 Park Avenue, Emeryville, CA 94608	**Phone:**	510-596-4356
Client:	Ignacio Dayrit 1333 Park Avenue, Emeryville, CA 94608	**Phone:**	510-596-4356
Contact:	Leonard Niles	**Phone:** **Cell:**	-- --

	Total Due:	$900.00
Receipt Number: WR2007-0252	**Total Amount Paid:**	$900.00
Payer Name : URS Corporation	Paid By: CHECK	**PAID IN FULL**

Works Requesting Permits:

Well Construction-Monitoring-Monitoring - 3 Wells
Driller: Gregg Drilling and Testing, Inc. - Lic #: 485165 - Method: hstem **Work Total: $900.00**

Specifications

Permit #	Issued Date	Expire Date	Owner Well Id	Hole Diam.	Casing Diam.	Seal Depth	Max. Depth
W2007-0667	06/06/2007	09/27/2007	URS-MW-1	8.00 in.	2.00 in.	5.00 ft	20.00 ft
W2007-0668	06/06/2007	09/27/2007	URS-MW-2	8.00 in.	2.00 in.	5.00 ft	20.00 ft
W2007-0669	06/06/2007	09/27/2007	URS-MW-5	8.00 in.	2.00 in.	5.00 ft	20.00 ft

Specific Work Permit Conditions

1. Permittee shall assume entire responsibility for all activities and uses under this permit and shall indemnify, defend and save the Alameda County Public Works Agency, its officers, agents, and employees free and harmless from any and all expense, cost, liability in connection with or resulting from the exercise of this Permit including, but not limited to, properly damage, personal injury and wrongful death.

2. Permitte, permittee's contractors, consultants or agents shall be responsible to assure that all material or waters generated during drilling, boring destruction, and/or other activities associated with this Permit will be safely handled, properly managed, and disposed of according to all applicable federal, state, and local statutes regulating such. In no case shall these materials and/or waters be allowed to enter, or potentially enter, on or off-site storm sewers, dry wells, or waterways or be allowed to move off the property where work is being completed.

3. Prior to any drilling activities, it shall be the applicant's responsibility to contact and coordinate an Underground Service Alert (USA), obtain encroachment permit(s), excavation permit(s) or any other permits or agreements required for that Federal, State, County or City, and follow all City or County Ordinances. No work shall begin until all the permits and requirements have been approved or obtained. It shall also be the applicants responsibilities to provide to the Cities or to Alameda County an Traffic Safety Plan for any lane closures or detours planned. No work shall begin until all the permits and requirements have been approved or obtained.

4. Compliance with the well-sealing specifications shall not exempt the well-sealing contractor from complying with appropriate State reporting-requirements related to well destruction (Sections 13750 through 13755 (Division 7, Chapter 10, Article 3) of the California Water Code). Contractor must complete State DWR Form 188 and mail original to the Alameda County Public Works Agency, Water Resources Section, within 60 days. Including permit number and site map.

5. Applicant shall contact Vicky Hamlin for an inspection time at 510-670-5443 or email to vickyh@acpwa.org at least five (5) working days prior to starting, once the permit has been approved. Confirm the scheduled date(s) at least 24 hours prior to drilling.

6. Wells shall have a Christy box or similar structure with a locking cap or cover. Well(s) shall be kept locked at all times. Well(s) that become damaged by traffic or construction shall be repaired in a timely manner or destroyed immediately (through permit process). No well(s) shall be left in a manner to act as a conduit at any time.

7. Minimum surface seal thickness is two inches of cement grout placed by tremie

8. Minimum seal (Neat Cement seal) depth for monitoring wells is 5 feet below ground surface(BGS) or the maximum depth practicable or 20 feet.

9. Copy of approved drilling permit must be on site at all times. Failure to present or show proof of the approved permit application on site shall result in a fine of $500.00.

Alameda County Public Works Agency - Water Resources Well Permit

399 Elmhurst Street
Hayward, CA 94544-1395
Telephone: (510)670-6633 Fax:(510)782-1939

Application Approved on: 06/06/2007 By jamesy

Permit Numbers: W2007-0670 to W2007-0671
Permits Valid from 06/29/2007 to 07/02/2007

Application Id:	1180566119654	**City of Project Site:**	Emeryville
Site Location:	3999 San Pablo Avenue at 40th Street, Emeryville, CA		
Project Start Date:	06/29/2007	**Completion Date:**	07/02/2007
Applicant:	URS Corporation - Leonard Niles 1333 Broadway, Suite 800, Oakland, CA 94612	**Phone:**	510-874-1720
Property Owner:	Valerie Lane, Catellus Development Group 807 Broadway, Oakland, CA 94607	**Phone:**	510-267-0646
Client:	Ignacio Dayrit, City of Emeryville Redevelopment Agency 1333 Park Avenue, Emeryville, CA 94608	**Phone:**	510-596-4356
Contact:	Leonard Niles	**Phone:** **Cell:**	-- --

Total Due: $600.00
Receipt Number: WR2007-0253 **Total Amount Paid:** $600.00
Payer Name : URS Corporation Paid By: CHECK **PAID IN FULL**

Works Requesting Permits:

Well Construction-Monitoring-Monitoring - 2 Wells
Driller: Gregg Drilling and Testing, Inc. - Lic #: 485165 - Method: hstem **Work Total: $600.00**

Specifications

Permit #	Issued Date	Expire Date	Owner Well Id	Hole Diam.	Casing Diam.	Seal Depth	Max. Depth
W2007-0670	06/06/2007	09/27/2007	URS-MW-3	8.00 in.	2.00 in.	5.00 ft	20.00 ft
W2007-0671	06/06/2007	09/27/2007	URS-MW-4	8.00 in.	2.00 in.	5.00 ft	20.00 ft

Specific Work Permit Conditions

1. Permittee shall assume entire responsibility for all activities and uses under this permit and shall indemnify, defend and save the Alameda County Public Works Agency, its officers, agents, and employees free and harmless from any and all expense, cost, liability in connection with or resulting from the exercise of this Permit including, but not limited to, properly damage, personal injury and wrongful death.

2. Permitte, permittee's contractors, consultants or agents shall be responsible to assure that all material or waters generated during drilling, boring destruction, and/or other activities associated with this Permit will be safely handled, properly managed, and disposed of according to all applicable federal, state, and local statutes regulating such. In no case shall these materials and/or waters be allowed to enter, or potentially enter, on or off-site storm sewers, dry wells, or waterways or be allowed to move off the property where work is being completed.

3. Prior to any drilling activities, it shall be the applicant's responsibility to contact and coordinate an Underground Service Alert (USA), obtain encroachment permit(s), excavation permit(s) or any other permits or agreements required for that Federal, State, County or City, and follow all City or County Ordinances. No work shall begin until all the permits and requirements have been approved or obtained. It shall also be the applicants responsibilities to provide to the Cities or to Alameda County an Traffic Safety Plan for any lane closures or detours planned. No work shall begin until all the permits and requirements have been approved or obtained.

4. Compliance with the well-sealing specifications shall not exempt the well-sealing contractor from complying with appropriate State reporting-requirements related to well destruction (Sections 13750 through 13755 (Division 7, Chapter 10, Article 3) of the California Water Code). Contractor must complete State DWR Form 188 and mail original to the Alameda County Public Works Agency, Water Resources Section, within 60 days. Including permit number and site map.

5. Applicant shall contact Vicky Hamlin for an inspection time at 510-670-5443 or email to vickyh@acpwa.org at least five (5) working days prior to starting, once the permit has been approved. Confirm the scheduled date(s) at least 24 hours prior to drilling.

6. Wells shall have a Christy box or similar structure with a locking cap or cover. Well(s) shall be kept locked at all times. Well(s) that become damaged by traffic or construction shall be repaired in a timely manner or destroyed immediately (through permit process). No well(s) shall be left in a manner to act as a conduit at any time.

7. Minimum surface seal thickness is two inches of cement grout placed by tremie

8. Minimum seal (Neat Cement seal) depth for monitoring wells is 5 feet below ground surface(BGS) or the maximum depth practicable or 20 feet.

9. Copy of approved drilling permit must be on site at all times. Failure to present or show proof of the approved permit application on site shall result in a fine of $500.00.

10. Prior to any drilling activities onto any public right-of-ways, it shall be the applicants responsibilities to contact and coordinate a Underground Service Alert (USA), obtain encroachment permit(s), excavation permit(s) or any other permits required for that City or to the County and follow all City or County Ordinances. It shall also be the applicants responsibilities to provide to the Cities or to Alameda County a Traffic Safety Plan for any lane closures or detours planned. No work shall begin until all the permits and requirements have been approved or obtained.

STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION

ENCROACHMENT PERMIT

TR-0120

A-B

Permit No.	0407-NSV0946
Dist/Co/Rte/PM	04-Ala-123-0.38
Date	June 18, 2007
Fee Paid	$
Deposit	$
Performance Bond Amount (1)	–
Payment Bond Amount (2)	
Bond Company	
Bond Number (1)	
Bond Number (2)	

In compliance with (*Check one*):

☒ Your application of June 07, 2007

☐ Utility Notice No. _____ of _____

☐ Agreement No. _____ of _____

☐ R/W Contract No. _____ of _____

TO: ☐ CITY OF EMERYVILLE
Redevelopment Agency
1333 Park Avenue
Emeryville, CA 94608-3517
Attn: Leonard Niles
☐ Phone: (510) 874-1720 ☐, **PERMITTEE**

and subject to the following, **PERMISSION IS HEREBY GRANTED** to:

Perform soil borings and install 2 monitoring wells for environmental investigation on State Highway 04-Ala-123, Post Mile 0.38, at 40th Street, in the City of Emeryville.

A minimum of one week prior to start of work under this permit, notice shall be given to, and approval of construction details, operations, public safety, and traffic control shall be obtained from State Representative Norm Freitag, 600 Lewelling Boulevard, San Leandro, CA 94579, 510-614 5951, weekdays, between 7:30 AM and 4:00 PM.

All permitted work requires the Permittee to apply for and obtain a work authorization number prior to start of work. See the attached "Encroachment Permit Project Work Scheduling Procedures" and the attached "Permit Project Work Scheduling Request Form". Additional time beyond the minimum seven-day advanced notice required in the above paragraph may be required for obtaining the traffic control approval.

The following attachments are also included as part of this permit (*Check applicable*):

☒ Yes	☐ No	General Provisions
☐ Yes	☒ No	Utility Maintenance Provisions
☒ Yes	☐ No	Storm Water Special Provisions
☐ Yes	☒ No	A Cal-OSHA permit required prior to beginning work: # _____

In addition to fee, the permittee will be billed actual costs for:

☐ Yes	☒ No	Review
☐ Yes	☒ No	Inspection
☒ Yes	---------	Field Work

(If any Caltrans effort expended)

☐ Yes ☒ No The information in the environmental documentation has been reviewed and considered prior to approval of this permit.

This permit is void unless the work is completed before December 31, 2007
This permit is to be strictly construed and no other work other than specifically mentioned is hereby authorized.
No project work shall be commenced until all other necessary permits and environmental clearances have been obtained.

APB
CC: MMc, NF,
DTM-B.Loo, J.Richardson,
URS Corp.-L.Niles

APPROVED:

BIJAN SARTIPI, District Director

BY:

Acting for

MICHAEL D. CONDIE, District Permit Engineer

Immediately following completion of the work permitted herein, the Permittee shall fill out and mail the Notice of completion attached to this permit.

All Permittee's personnel shall wear appropriate personal protective equipment, including hard hats and bright colored vests, shirts, or jackets with retro-reflective material while on State highway right of way.

Any damage to existing facilities, landscaping or irrigation within the State's Right of Way shall be replaced in kind by the permittee at permittee's expense.

When approved traffic control performed under this permit shall be in accordance with the appropriate State Standard Plans T-10 through T-14. Where required by the plan, the use of flashing arrow-board is MANDATORY.

Traffic control is restricted to closure of one lane or shoulder, authorized only between 9:00 A.M. and 3:00 P.M., Monday through Friday, holidays excluded (See attached Standard Plan T-11).

Any collected data requested by Caltrans shall be furnished to Caltrans without charge.

While performing survey operations Permittee shall furnish, place and maintain signs and safety equipment in accordance with the MUTCD Part 6, and the MUTCD, California Supplement "Temporary Traffic Control", which can be located at:
http://www.dot.ca.gov/hq/traffops/signtech/mutcdsupp/pdf/MUTCD2003CASupp.pdf

Any painted markings shall be made with water-soluble paint.

The location of the monitoring wells shall not be within the traveled way portion of the highway. Their location shall be reviewed and approved by the State's representative before starting the work.

Drainage of treated or untreated effluent into the State drainage system is not permitted.

No excavation shall be left open overnight without written permission from the Caltrans representative or unless otherwise specified herein.

Upon completion of observation and testing, the well shall be abandoned in compliance with the requirements the Department of Water Resources publication "California Well Standards"- Bulletin 74 –90 latest edition.

Certain details of work authorized hereby are shown on permittee's plan (proj. # 26814847) submitted with request for permit.

Notwithstanding General Provision # 4, your contractor is required to apply for and obtain an encroachment permit prior to starting work. A fee/deposit of $492.00 is required at the time of application.

In case of significant traffic congestion or other incidents (related to or not related to the permitted activity) occur within, or close to the permitted activity, the permittee shall immediately stop work and remove traffic controls from the highway unless public health, welfare and safety is endangered by unfinished work. Only traffic control to protect open excavations may remain in place. After free traffic flow is restored, work in accordance with the conditions of the permit may be resumed.

Caltrans/District 4 – Office of Permits

Encroachment Permit Transmittal

County/Route/Postmile: Ala-123-0.38 | **Permit Number:** 0407-NSV0946

X-Street: Washington Ave.

Routing:

- ☒ Permit Writer — APB
- ☒ Branch Permit Eng. — BZ
- ☒ Permits Adm/Distribution — EW
- ☒ Permits Admin/Database — RR

cc:

- ☒ Maintenance Region (2 ea.) — MMc,
- ☒ Permits Area Insp. (2 ea.) — NF
- ☐ Permits SWPPP Insp.
- ☐ Permits Electrical Insp.
- ☐ Permits Duty Desk
- ☐ District Construction Office
- ☐ Construction Area Office
- ☐ Landscape M'tce Insp.
- ☐ Adopt-a-Highway
- ☒ District Traffic Manager — P.Chan
- ☒ Transportation M'gmt Center — J. Richardson
- ☐ Design Oversight/Office
- ☐ Signal Ops
- ☐ Public Info
- ☐ Local Jurisdiction
- ☐ CHP Area Office
- ☐ Surety
- ☒ Other — URS Corp. – L. Niles
- ☐ Other
- ☐ Other

Attachments:

- ☒ TR-0045 General Provisions
- ☐ T-10, Fwy/Expwy Lane Closure
- ☐ T-10A, Fwy/Expwy Complete Closure
- ☒ T-11, Multi-lane Hwy Lane Closure
- ☐ T-12, Multi-lane Hwy, Half Roadway Closure
- ☐ T-13, 2-Lane Hwy, One-way Traffic Control
- ☐ T-14, Ramp Closure
- ☒ Work Authorization Request & Instructions
- ☒ Storm Water Special Provisions
- ☐ Trench Paving Detail
- ☐ Safety Requirements
- ☐ Utility, Tree Trimming, & Removal Provisions
- ☒ Permittee Completion Request Card
- ☐ Project Plans
- ☐
- ☐

Permit Fees Collected:

Inspection (included in collected fees)*

Function	Regular (hrs)	OT (hrs)
Civil	4	
Electrical		
Signal Ops		
Trans-Lab		
Structures		
Stormwater		
Maintenance		
TMT		
Duty Desk		

Estimated cost of improvements within the State Right-of-Way: $20,000.00

Database updated? ☐ No ☐ Yes, (Enter Initials/date)

Permits Work Authorization Number Required? ☒ Yes ☐ No

Does Permitted Work result in permanent improvements within access control? ☐ Yes ☒ No

Permits Stormwater Pollution Prevention Assessment form completed? ☐ Yes ☒ No

Permits Inspection Charge Information:

937700

☒ Permit Project [1] E.A.: _____ Subjob: _____ Special Designation: [2] _____

Charge travel time to Subjob:

[1] Contact Permits Branch Chief @ 286-4425 or Permits Area Field Coordinator @-614-5951 with any questions, including changes to plans and/or permit conditions; exceeding estimated inspection hours (above); or when work is completed.

[2] Enter Permit Number in the field for Special Designation on the time sheet.

☐ Oversight Project [3] E.A.: _____ Subjob: _____ Special Designation: _____

[3] Contact Project Manager: _____ @ Tel. _____ with all questions including time-sheet charges, etc.

Notes:

STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION

ENCROACHMENT PERMIT

TR-0120

Permit No.	
0407-6DP1055	
Dist/Co/Rte/PM	
04-Ala-123-0.38	
Date	
June 25, 2007	
Fee Paid	Deposit
$492.00	$
Performance Bond Amount (1)	Payment Bond Amount (2)
Bond Company	
Bond Number (1)	Bond Number (2)

In compliance with (*Check one*):

☒ Your application of June 22, 2007

☐ Utility Notice No. _____ of _____

☐ Agreement No. _____ of _____

☐ R/W Contract No. _____ of _____

TO: URS CORPORATION
1333 Broadway, Suite 800
Oakland, CA 94612

Attn: Leonard Niles
Phone: (510) 874-1720

, **PERMITTEE**

and subject to the following, **PERMISSION IS HEREBY GRANTED** to:

Perform the following work for the City of Emeryville : drill soil borings and install 2 monitoring wells for environmental investigation on State Highway 04-Ala-123, Post Mile 0.38, at 40th Street, in the City of Emeryville.

A minimum of one week prior to start of work under this permit, notice shall be given to, and approval of construction details, operations, public safety, and traffic control shall be obtained from State Representative Norm Freitag, 600 Lewelling Boulevard, San Leandro, CA 94579, 510-614 5951, weekdays, between 7:30 AM and 4:00 PM.

All permitted work requires the Permittee to apply for and obtain a work authorization number prior to start of work. See the attached "Encroachment Permit Project Work Scheduling Procedures" and the attached "Permit Project Work Scheduling Request Form". Additional time beyond the minimum seven-day advanced notice

The following attachments are also included as part of this permit (*Check applicable*):

☒ Yes	☐ No	General Provisions
☐ Yes	☒ No	Utility Maintenance Provisions
☒ Yes	☐ No	Storm Water Special Provisions
☐ Yes	☒ No	A Cal-OSHA permit required prior to beginning work: # _____

In addition to fee, the permittee will be billed actual costs for:

☐ Yes	☒ No	Review
☐ Yes	☒ No	Inspection
☒ Yes	--------	Field Work

(If any Caltrans effort expended)

☐ Yes ☒ No The information in the environmental documentation has been reviewed and considered prior to approval of this permit.

This permit is void unless the work is completed before December 31, 2007
This permit is to be strictly construed and no other work other than specifically mentioned is hereby authorized.
No project work shall be commenced until all other necessary permits and environmental clearances have been obtained.

APB
CC: MMc, NF,
DTM-B.Loo, J.Richardson,
City of Emeryville

APPROVED:

BIJAN SARTIPI, District Director

BY:

Acting for Bahram Zarrin

MICHAEL D. CONDIE, District Permit Engineer

Immediately following completion of the work permitted herein, the Permittee shall fill out and mail the Notice of completion attached to this permit.

All Permittee's personnel shall wear appropriate personal protective equipment, including hard hats and bright colored vests, shirts, or jackets with retro-reflective material while on State highway right of way.

Any damage to existing facilities, landscaping or irrigation within the State's Right of Way shall be replaced in kind by the permittee at permittee's expense.

When approved traffic control performed under this permit shall be in accordance with the appropriate State Standard Plans T-10 through T-14. Where required by the plan, the use of flashing arrow-board is MANDATORY.

Traffic control is restricted to closure of one lane or shoulder, authorized only between 9:00 A.M. and 3:00 P.M., Monday through Friday, holidays excluded (See attached Standard Plan T-11).

Any collected data requested by Caltrans shall be furnished to Caltrans without charge.

While performing survey operations Permittee shall furnish, place and maintain signs and safety equipment in accordance with the MUTCD Part 6, and the MUTCD, California Supplement "Temporary Traffic Control", which can be located at:
http://www.dot.ca.gov/hq/traffops/signtech/mutcdsupp/pdf/MUTCD2003CASupp.pdf

Any painted markings shall be made with water-soluble paint.

The location of the monitoring wells shall not be within the traveled way portion of the highway. Their location shall be reviewed and approved by the State's representative before starting the work.

Drainage of treated or untreated effluent into the State drainage system is not permitted.

No excavation shall be left open overnight without written permission from the Caltrans representative or unless otherwise specified herein.

Upon completion of observation and testing, the well shall be abandoned in compliance with the requirements the Department of Water Resources publication "California Well Standards"- Bulletin 74 –90 latest edition.

Certain details of work authorized hereby are shown on permittee's plan (proj. # 26814847) submitted with request for permit.

In case of significant traffic congestion or other incidents (related to or not related to the permitted activity) occur within, or close to the permitted activity, the permittee shall immediately stop work and remove traffic controls from the highway unless public health, welfare and safety is endangered by unfinished work. Only traffic control to protect open excavations may remain in place. After free traffic flow is restored, work in accordance with the conditions of the permit may be resumed.

Encroachment Permit Work Scheduling Request Form

Submit request to schedule traffic control weekly, 7 days in advance, using this form. Submit to Permit Duty Station by FAX, **510-286-3960**, or E-mail: *Permit_Duty_Engineer@dot.ca.gov*. ***Reminder!*** - Notify Inspector listed on page 1 or 2 of your Permit. Check Permit Special Provisions for authorized **work hours.** Any deviation from the Permit must be requested in writing.

INSTRUCTIONS AND ABBREVIATIONS: See Procedures on reverse of this form (page 2).

1. Permit No.: 0407-NSV0946 2.Expiration Date: 12/31/07 3. Request Date: 6/26/07
4. Caltrans Inspector: Norm Freitag 5. Requested Work Week: 6/28 to 7/2/07
6. Route: 123 7. County: Alameda 8. City or township: Emeryville
9. ☑PostMiles or ☐Kilopost: From: 0.38 To: 0.38 10. Existing Lanes (in each Dir): Dir 5 Lns 0 / Dir ___ Lns ___
11. Describe Location (use landmark if necessary): From 4051 San Pablo Ave. To: 4051 San Pablo Ave (west side)
12 Name of Conventional Highway or Surface St: west sidewalk of San Pablo Avenue (80 ft north of 40th St.)
13. (a through k) Fill in or 'x' if applicable: (a) ☒Divided Hwy *or* ☐ Undivided Hwy (b) ☐ Full-Closure ☒ 1 dir or ☐ both dir
(c) ☐One-way Traffic Control: Only on "Undivided" Hwy (*Alternate use of same lane for both directions--hold trfc 5 –10 min w/flaggers*)
(d) ☐Connector Ramp: (*State Highway #*) _____ to (*State Highway #*) _____ Closed ☐ *or* Lane # _____
(e) ☐Off/ramp: (*Freeway to City St*) Ramp Name: _____ Off/ramp Closed ☐ *or* Lane#: _____
(f) ☐On/ramp: (*City St to Freeway*) Ramp Name: _____ On/ramp Closed ☐ *or* Lane#: _____
(g) ☒Divert Trfc or Contra Flow: Reconfigure parking lanes/divert trfc to Lane# NA in the SB Direction; 2 Lane(s) open ea direction.
(h) ☒Intermittent Traffic Control (i) ☐Various Locations (j) ☐Long-Term (24± hours continuous) ETO ___

(k) Year:			Time		Dir		* * * * * * Restricted Lanes * * * * * *														Brks		Closure ID#
From DATE	To DATE	DAY(S) SU-M-T-W-TH-F-SA	24-HR CLOCK Start (10-97)	Finish (10-98)	NB	SB EB / WB	Full Closure See Detour	SHLDR L	SHLDR R	1	2	3	4	5	6	V L	Aux or Coll	CD or Med	TURN PCKT(S) L	TURN PCKT(S) R	Park Strip	5 to 15 Min	Roll -ing	*Caltrans will complete & return*
6/28	7/2	TH,F,M	900	1500		SB			X												X			

14. Description of work/comments: Drilling soil boring and installing groundwater monitoring well (MW-1) in sidewalk at 4051 San Pablo Avenue, on west side of street, 80 feet north of 40th Street. Will close parking lane (SB), shoulder & sidewalk.
15. Detour (*Required for full closure*): _____
16. Contingency Plan: Will only block off parking lane, shoulder and sidewalk. Will re-route pedestrians.
17. On-site during work (*circle if applicable*) CHP / PD / Other: United Rentals Highway Technology – traffic control

18. Name:	Permittee: City of Emeryville Redevelopment Agency	Contractor (if different than permittee): URS Corporation
Address:	1333 Park Ave., Emeryville, CA 94608	1333 Broadway, Suite 800, Oakland, CA 94612
On-site Personnel Contact Name(s) & Phone No.	Name: Ignacio Dayrit	Name: Leonard Niles
	Office: (510) 596-4356	Office: (510) 874-1720
	Cell:	Cell: (510) 697-2424
	FAX: (510) 596-4389	FAX: (510) 874-3268

19. **"REAL-TIME" STATUS INSTRUCTIONS – PLEASE MAKE YOUR FIELD PERSONNEL AWARE & RESPONSIBLE!**
Permittee shall **STATUS** scheduled work **DAILY** via Caltrans 24-Hour Communication Center at **510-286-6359.** Status using Closure ID No(s) at the start of work, **(10-97),** and again when work is finished for the day, **(10-98).** To cancel **(10-22),** phone **510-286-6359** or fax to **510-286-6358** before the scheduled 10-97 time, but no later than 1 hour prior to the scheduled 10-98 time. Any **delay** in picking up your closure must be reported immediately to **510-286-6359** or Permit Inspector. See item 9 on reverse/page 2.

Encroachment Permit Work Scheduling Request Form

Caltrans

Submit request to schedule traffic control weekly, 7 days in advance, using this form. Submit to Permit Duty Station by FAX, **510-286-3960**, or E-mail. *Permit_Duty_Engineer@dot.ca.gov.* ***Reminder!*** - Notify Inspector listed on page 1 or 2 of your Permit. Check Permit Special Provisions for authorized **work hours.** Any deviation from the Permit must be requested in writing.

INSTRUCTIONS AND ABBREVIATIONS: See Procedures on reverse of this form (page 2).

1. Permit No.: 0407-NSV0946 2.Expiration Date: 12/31/07 3. Request Date: 6/26/07
4. Caltrans Inspector: Norm Freitag 5. Requested Work Week: 6/28 to 7/2/07
6. Route: 123 7. County: Alameda 8. City or township: Emeryville
9. ☒PostMiles or ☐Kilopost: From: 0.38 To: 0.38 10. Existing Lanes (in each Dir): Dir E Lns 1 / Dir ___ Lns ___
11. Describe Location (use landmark if necessary): From: 1111 40th Street To: 3999 San Pablo Avenue
12 Name of Conventional Highway or Surface St: SW corner of intersection of 40th St. & San Pablo Ave.
13. (a through k) Fill in or 'x' if applicable: (a) ☐ Divided Hwy *or* ☐ Undivided Hwy (b) ☐ Full-Closure ☐ 1 dir or ☐ both dir
(c) ☐ One-way Traffic Control: Only on "Undivided" Hwy (*Alternate use of same lane for both directions--hold trfc 5–10 min w/flaggers*)
(d) ☐ Connector Ramp: (*State Highway #*) _____ to (*State Highway #*) _____ Closed ☐ *or* Lane # _____
(e) ☐ Off/ramp: (*Freeway to City St*) Ramp Name: _____ Off/ramp Closed ☐ *or* Lane#: _____
(f) ☐ On/ramp: (*City St to Freeway*) Ramp Name: 40th Street On/ramp Closed ☐ *or* Lane#: _____
(g) ☒ Divert Trfc or Contra Flow: Reconfigure lanes/divert trfc to Lane# 2 in the E Direction; 2 Lane(s) open ea direction.
(h) ☒ Intermittent Traffic Control (i) ☐ Various Locations (j) ☐ Long-Term (24± hours continuous) ETO _____

(k) Year:			Time		Dir		* * * * * * Restricted Lanes * * * * * *														Brks		Closure ID#
From DATE	To DATE	DAY(S) SU-M-T-W-TH-F-SA	24-HR CLOCK Start (10-97)	Finish (10-98)	NB EB	SB WB	Full Closure See Detour	SHLDR L	SHLDR R	1	2	3	4	5	6	V L	Aux or Coll	CD or Med	TURN PCKT(S) L	TURN PCKT(S) R	Park Strip	5 to 15 Min	Roll -ing	*Caltrans will complete & return*
6/28	7/2	Th,F,M	900	1500	EB				X	X										X	X			

14. Description of work/comments: Drilling soil boring and installing groundwater monitoring well (MW-2) in crosswalk at southwest corner of intersection of 40th St. and San Pablo Ave., will close lane #1 on 40th St. and right turn lane onto San Pablo Avenue; leave 40th St. Lane #2 open for right turns. Close crosswalk to pedestrians, detour.)
15. Detour (*Required for full closure*): _____
16. Contingency Plan: Close south Lane #1 (EB) 40th St. & right turn lane onto San Pablo
17. On-site during work (*circle if applicable*) CHP / PD / Other: United Rentals Highway Technology (traffic control)

18. Name:	Permittee: City of Emeryville Redevelopment Agency	Contractor (if different than permittee): URS Corporation
Address:	1333 Park Ave, Emeryville, CA 94608	1333 Broadway, Suite 800, Oakland, CA 94612
On-site Personnel Contact Name(s) & Phone No.	Name: Ignacio Dayrit	Name: Leonard Niles
	Office: (510) 596-4356	Office: (510) 874-1720
	Cell:	Cell: (510) 697-2424
	FAX: (510) 596-4389	FAX: (510) 874-3268

19. **"REAL-TIME" STATUS INSTRUCTIONS – PLEASE MAKE YOUR FIELD PERSONNEL AWARE & RESPONSIBLE!**
Permittee shall **STATUS** scheduled work **DAILY** via Caltrans 24-Hour Communication Center at **510-286-6359.** Status using Closure ID No(s) at the start of work, **(10-97),** and again when work is finished for the day, **(10-98).** To cancel **(10-22),** phone **510-286-6359** or fax to **510-286-6358** before the scheduled 10-97 time, but no later than 1 hour prior to the scheduled 10-98 time. Any **delay** in picking up your closure must be reported immediately to **510-286-6359** or Permit Inspector. See item 9 on reverse/page 2.

NOTICE OF COMPLETION

Permit No.: 0407-1055 A1a-123 - 38

Inspector: N Freitag

All work authorized by the above-numbered permit was completed on July 2, 2007.

Leonard Niles

Permittee Signature

City of Emeryville • Department of Public Works
Encroachment Permit

Permit No._____ Date_____
Permit Admin. Fee_____
Permit Inspection Deposit (2 hr. min.)_____
Cost Recovery Estimate_____
Required Security Deposit:
□ $1,000 cash
□ $10,000 Bond, Bond #_____
□100% Perf. Bond,
Bond Value_____ Bond #_____
Total Payment Required _____
Received:_____ Date_____
Receipt #_____
Failure to obtain approval of a Final Inspection of the work covered by this Encroachment Permit within one (1) year of the estimated completion date shall result in the loss of the security deposit which shall be retained by the City of Emeryville.

APPLICANT URS Corporation
CONTACT PERSON Leonard Niles
ADDRESS 1333 Broadway, Suite 800, Oakland, CA 94612
PHONE (510) 874-1720
FAX (510) 874-3268

OWNER/DEVELOPER OF FACILITIES
City of Emeryville Redevelopment Agency
ADDRESS 1333 Park Avenue, Emeryville, CA 94608
PHONE (510) 596-4356 (Mr. Ignacio Dayrit)
FAX (510) 596-4389

CONTRACTOR DOING WORK
Gregg Drilling and Testing, Inc.
CONTACT PERSON Chris Pruner
ADDRESS 950 Howe Road, Martinez, CA 94553 PHONE (925) 313-5800 FAX (925) 313-0302
LICENSE NO. 485165 CLASS C-57
X Yes □No CURRENT CITY BUSINESS LICENSE ON FILE
X Yes □No PROVIDE PROOF OF INSURANCE
EST. START DATE 6/28/07 EST. COMPLETION DATE 7/2/07 EST. COST IN CITY R/W $16,000

LOCATION OF WORK 4000 San Pablo Avenue at 40th Street intersection, Emeryville
CHECK ALL THAT APPLY
x Traffic Control x Survey x Sidewalk Detour □Dumpster x Temporary No Parking
□ Private Facilities on Public Right of Way □ Construction □ Sidewalk □ Driveway Approach □Curb & Gutter □Pedestrian Ramp □Water Service □Gas Service □Electric Service □Roof Drain □Utility Maintenance □Fence □ Excavation □ Obstruction □Access Road x Monitoring Well □ Sewer Lateral □ Storm Drain □Crane □Block Party
FULLY DESCRIBE PROPOSED WORK WITHIN CITY RIGHT-OF-WAY (additional space on reverse if needed): Attach 3 complete sets of plans 8 ½ X 11, if applicable.

Three 8-inch diameter soil borings to be drilled to 20 feet below grade with hollow-stem auger drill rig. Top 5 feet of borings to be advanced using air knife to clear for underground utilities. Borings to be completed as 2-inch diameter PVC groundwater monitoring wells, with flush-mounted traffic-rated vault boxes at the surface. Refer to attached Monitoring Well Installation Work Plan, well location map, and well completion details diagram. Also refer to attached letter dated 1/19/07 from Alameda County Environmental Health Services Agency requiring five monitoring wells for environmental investigation. Total of five borings to be drilled and completed as wells in site vicinity, but only three are located within City of Emeryville and/or Caltrans right-of-way. One well (URS-MW-1) will be located on sidewalk along west side of San Pablo Avenue about 80 feet north of the intersection with 40th Street. The second well (URS-MW-2) will be located on the pavement at the southwest corner of the intersection of San Pablo Avenue and 40th Street within the crosswalk. The third well (URS-MW-5) will be located on the pavement along the south side of 40th Street about 208 feet east of the intersection with San Pablo Avenue.

I hereby agree to protect and indemnify the City of Emeryville and hold it harmless in every way from all claim or suits for injury or damage to persons or property as set forth in the Standard Provisions. I agree not to begin construction until all materials to be used are on hand; to perform all work in accordance with the plans submitted (if any), the Standard Provisions to Encroachment Permit, and all applicable Special Conditions of Approval, and to pay all inspection and engineering costs in addition to those paid at the time of issuance of this permit. I further agree to complete the work to the satisfaction of the City Engineer and if for any reason the City of Emeryville is required to complete this work, I will pay all costs for such work.

Applicant Signature Leonard Niles Date 6/13/07

After final inspection is approved, please contact the Public Works Department at 510-596-4330 to determine final cost, and for final payment or reimbursement of deposit.

FOR CITY USE ONLY ○*Temporary Permit* #_____*days* ○*Long Term Permit*

The following documents are attached and incorporated into this permit and have been given to the applicant:
□ Standard Provisions to Encroachment Permit □ Special Conditions of Approval
□ City Standard Details (List Details) □ Handout, Urban Runoff BMP's

_____

□Other_____
Remarks_____

□ 48 HOUR NOTICE PRIOR TO START OF WORK,
□ PROVIDE CONSTRUCTION SCHEDULE 5 DAYS PRIOR TO START OF WORK
□ AS-BUILT PLANS REQUIRED
□ PLEASE CALL FOR INSPECTION AT 510-596-4333
□ PLEASE NOTIFY POLICE (510-596-3700) AND FIRE (510-596-3750) 24 HOURS IN ADVANCE.
This permit is void unless the work is completed before_____, 20____
This permit is to be strictly construed and no other work than is specifically mentioned is hereby authorized.
APPROVED_____TITLE_____ DATE_____
FINAL INSPECTION APPROVED_____TITLE_____DATE_____

Appendix B
Boring Logs and Well Construction Diagrams

URS

1333 Broadway, Suite 800
Oakland, California 94612

MONITORING WELL LOG

Well ID: URS-MW-1

Total Depth: 20 feet

PROJECT INFORMATION	DRILLING INFORMATION
Project: Celis - Emeryville	**Drilling Company:** Gregg Drilling
Site Location: 4000 San Pablo Avenue, Emeryville, CA	**Driller:** Jesse
Site Name: Former Celis Alliance Service Station	**Type of Drilling Rig:** Marl M5T (Rhino)
Project Manager: George Muehleck	**Drilling Method:** Hollow Stem Auger, 8.25" OD
Geologist: Leonard Niles	**Sampling Method:** 1.5" standard penetrometer
Job/Cost Code Number: 26814847.06000	**Hand Auger Depth:** 5 feet bgs
PG: Leonard Niles	**Date(s) Drilled:** 6/28, 7/2/07

WELL INFORMATION

Groundwater Depth (ft bgs): 15.13' (initial); 9.09' (7/10/07)	**Well Location:** 4051 West San Pablo Ave., sidewalk
Top of Casing Elevation (ft msl): 42.21' msl	**Well Diameter:** 2 inches
Coordinates: **Latitude** 37.83131172 **Longitude** 122.2801338	**Screened Interval:** 5-20 feet bgs

Depth (ft)	Symbol	Lithologic Description	USCS	PID	Recovery	Sample ID and Interval	Well Completion	Well Description/ Comments
0		CONCRETE						8" traffic-rated vault box; concrete (outside box) to 1.0 feet bgs
		CLAYEY GRAVEL: Base rock	GC					
2		CLAYEY SILT WITH SAND: Very dark grayish brown; fine sand, minor coarse sand to fine gravel, low plasticity, damp, hard, contains root material	ML					Cement from 1 to 2 feet bgs
4								Bentonite chips from 2 to 4 feet bgs
6		SANDY CLAYEY SILT: Very dark brown (10YR2/2); 30-40% very fine to coarse sand, clayey to silty fines, low plasticity, damp	ML/C	0		URS-MW-1-6.5		2-inch schedule 40 PVC well casing from 0 to 5 feet bgs.
8		SILTY CLAY: Very dark brown, <5% fine sand, moderate to high plasticity, damp	CL					#2.5 sand filter pack from 4 to 20 feet bgs
10								▼ 7/10/07
12		CLAYEY GRAVEL: Greenish gray (5GY5/1); mottled with yellowish brown (10YR4/4), 20-30% clayey to silty fines, 20-30% fine to coarse sand, 40-60% fine angular gravel, low plasticity, damp	GC	6.4		URS-MW-1-11.0		Screened interval (0.020" screen slot size) from 5 to 20 feet bgs
14								
16		As above, except dark yellowish brown (10YR4/4), 30-40% fine to coarse sand, 30-50% fine gravel, moist to wet		0		URS-MW-1-16.0		▽ 9:10, 7/2/07
18		SILTY CLAY WITH SAND: Dark yellowish brown (10YR4/4), 5-10% very fine to fine sand, moderate plasticity, damp to moist	CL			URS-MW-1-20.0		
20		Bottom of boring 20 feet bgs.		0				PVC threaded bottom cap at 20' bgs

URS

1333 Broadway, Suite 800
Oakland, California 94612

MONITORING WELL LOG

Well ID: URS-MW-2

Total Depth: 20 feet

PROJECT INFORMATION	DRILLING INFORMATION
Project: Celis - Emeryville	**Drilling Company:** Gregg Drilling
Site Location: 4000 San Pablo Ave, Emeryville, CA	**Driller:** Jesse
Site Number: Former Celis Alliance Service Station	**Type of Drilling Rig:** Marl M5T (Rhino)
Project Manager: George Muehleck	**Drilling Method:** Hollow Stem Auger, 8.25" OD
Geologist: Leonard Niles	**Sampling Method:** 1.5" standard penetrometer
Job/Cost Code Number: 26814847.06000	**Hand Auger / Airknife Depth:** 5 feet bgs
PG: Leonard Niles	**Date(s) Drilled:** 6/28, 7/2/07

WELL INFORMATION

Groundwater Depth (ft bgs): 20' (1st), 8.24' (7/10/07)	**Well Location:** SW corner of 40th Street and San Pablo Ave, in crosswalk
Top of Casing Elevation (ft msl): 40.83' msl	**Well Diameter:** 2 inches
Coordinates: **Latitude** 37.83090567 **Longitude** 122.2800391	**Screened Interval:** 5-20 feet bgs

Depth (ft)	Symbol	Lithologic Description	USCS	PID	Recovery	Sample ID and Interval	Well Completion	Well Description/ Comments
0		ASPHALT						8" traffic-rated vault box; concrete (outside box) to 1.0 feet bgs
		CONCRETE						
2		SANDY GRAVEL: Very dark grayish brown (10YR2/2); <10% fines, 30-40% fine to coarse sand, fine to coarse subangular gravel, dry (fill)	GW					Cement from 1 to 2 feet bgs
4								Bentonite chips from 2 to 4 feet bgs
				0				2-inch schedule 40 PVC well casing from 0 to 5 feet bgs.
6		SANDY CLAYEY SILT: Very dark brown (10YR2/2); 10-15% fine sand (borderline clay/silt), low plasticity, damp	ML/CL			URS-MW-2-5.5		
8								#2.5 sand filter pack from 4 to 20 feet bgs ▼ 7/10/07
10		As above, except color change to olive brown (5Y4/3) mottled with yellowish brown (10YR4/3)						
				0.2		URS-MW-2-11.0		
12								Screened interval (0.020" screen slot size) from 5 to 20 feet bgs
14								
		As above, except 20-25% fine sand, 5% coarse sand to fine gravel, damp to moist		0.9				
16						URS-MW-2-16.0		
		Grades to SANDY CLAY						
18		SANDY CLAY: Olive brown (5Y4/3) mottled with yellowish brown (10YR4/3); 10% fine sand, moderate plasticity, damp to moist	CL			URS-MW-2-19.5		
				0.7				11:20, 7/2/07 ▽ PVC threaded bottom cap at 20' bgs
20		Bottom of boring 20 feet bgs.						

URS

1333 Broadway, Suite 800
Oakland, California 94612

MONITORING WELL LOG

Well ID: URS-MW-3

Total Depth: 20 feet

PROJECT INFORMATION	DRILLING INFORMATION
Project: Celis - Emeryville	**Drilling Company:** Gregg Drilling
Site Location: 4000 San Pablo Ave, Emeryville, CA	**Driller:** Jeremy Neff
Site Number: Former Celis Alliance Service Station	**Type of Drilling Rig:** Mobil B-61
Project Manager: George Muehleck	**Drilling Method:** Hollow Stem Auger, 8.25" OD
Geologist: Leonard Niles	**Sampling Method:** 2" ID Split Spoon
Job/Cost Code Number: 26814847.06000	**Hand Auger / Airknife Depth:** 5 feet bgs
PG: Leonard Niles	**Date(s) Drilled:** 6/28, 6/29/07

WELL INFORMATION

Groundwater Depth (ft bgs): 20' (1st), 8.48' (7/10/07)	**Well Location:** 3999 San Pablo Ave., parking lot at 40th St. & San Pablo
Top of Casing Elevation (ft msl): 40.54' msl	**Well Diameter:** 2 inches
Coordinates: **Latitude** 37.83036066 **Longitude** 122.2800307	**Screened Interval:** 8-20 feet bgs

Depth (ft)	Symbol	Lithologic Description	USCS	PID	Recovery	Sample ID and Interval	Well Completion	Well Description/ Comments
0		ASPHALT						8" traffic-rated vault box; concrete (outside box) to 1.0 feet bgs
		CLAYEY GRAVEL: Baserock; very dense	GC					
2		SANDY CLAY with GRAVEL: Very dark gray; fine to coarse sand, minor subangular fine gravel, large subangular cobble-sized gravel clasts to 3" diameter, low to moderate plasticity, hard, damp, (fill)	CL					Cement from 1 to 5 feet bgs
								Bentonite chips from 5 to 7 feet bgs
4				0				
								2-inch schedule 40 PVC well casing from 0 to 8 feet bgs.
6		SILTY CLAY: Very dark brown (10YR2/2); <5% very fine sand, moderate to high plasticity, damp, root material, very stiff		0		URS-MW-3-5.5		
								#2.5 sand filter pack from 7 to 20 feet bgs
8		As above, except color change to olive brown (5Y2/3); 5-10% fine sand, minor caliche fragments						▼ 7/10/07
10				0		URS-MW-3-10.0		
12		SANDY CLAY: Olive brown (5Y2/3) mottled with yellowish brown (10YR6/3); 20-30% fine to coarse sand, minor fine gravel, low plasticity, damp; increasing sand and gravel at 14' bgs, hard						Screened interval (0.020" screen slot size) from 8 to 20 feet bgs
14		GRAVELLY CLAY: As above, except 10-20% fine angular gravel, 30-40% fine to coarse sand, hard		0		URS-MW-3-15.0		
16								▽ 8:44, 6/29/07
18		SANDY CLAY: Yellowish brown (10YR4/3); 10-15% fine to medium sand, stiff, moderate plasticity, damp to moist				URS-MW-3-20.0		
				0				▽ 8:20, 6/29/07
20		Bottom of boring 20 feet bgs.						PVC threaded bottom cap at 20' bgs

URS

1333 Broadway, Suite 800
Oakland, California 94612

MONITORING WELL LOG

Well ID: URS-MW-4

Total Depth: 20 feet

PROJECT INFORMATION	DRILLING INFORMATION
Project: Celis - Emeryville	**Drilling Company:** Gregg Drilling
Site Location: 4000 San Pablo Ave, Emeryville, CA	**Driller:** Jeremy Neff
Site Number: Former Celis Alliance Service Station	**Type of Drilling Rig:** Mobil B-61
Project Manager: George Muehleck	**Drilling Method:** Hollow Stem Auger, 8.25" OD
Geologist: Leonard Niles	**Sampling Method:** 2" Split Spoon
Job/Cost Code Number: 26814847.06000	**Hand Auger / Airknife Depth:** 5 feet bgs
PG: Leonard Niles	**Date(s) Drilled:** 6/28, 6/29/07

WELL INFORMATION

Groundwater Depth (ft bgs): 19.2' (1st), 8.89' (7/10/07)	**Well Location:** 1111 40th St., parking lot at 40th St. and San Pablo Ave.
Top of Casing Elevation (ft msl): 41.41' msl	**Well Diameter:** 2 inches
Coordinates: **Latitude** 37.83065511 **Longitude** 122.2802217	**Screened Interval:** 5-20 feet bgs

Depth (ft)	Symbol	Lithologic Description	USCS	PID	Recovery	Sample ID and Interval	Well Completion	Well Description/ Comments
0		ASPHALT						8" traffic-rated vault box; concrete (outside box) to 1.0 feet bgs
2		GRAVELLY CLAY: Fill; asphalt chunks at 1.8' bgs	CL					Cement from 1 to 2 feet bgs; Bentonite chips from 2 to 4 feet bgs
4								2-inch schedule 40 PVC well casing from 0 to 5 feet bgs.
6		SANDY CLAY with GRAVEL: Black (N2.5/); 20-30% fine to coarse sand, 5% fine angular gravel, moderate plasticity, very stiff, damp		0		URS-MW-4-5.5		#2.5 sand filter pack from 4 to 20 feet bgs
8		CLAYEY GRAVEL: Very dark brown (10YR2/2); 20-30% clayey to silty fines, fine to coarse sand, fine subangular gravel, loose, low plasticity, moist to wet	GC	0.6		URS-MW-4-9.0		7/10/07
10		SANDY CLAY: Black (N2.5/); 20-30% fine to coarse sand, moderate plasticity, stiff, moist	CL					
12		GRAVELLY CLAY: Greenish gray (5GY5/1); 20-30% fine to coarse sand, 10-20% fine angular gravel, stiff, low plasticity, damp		7.8		URS-MW-4-14.5		Screened interval (0.020" screen slot size) from 5 to 20 feet bgs
14								
16								
18		SANDY CLAY WITH GRAVEL: Yellow brown (10YR6/8); 20-30% fine to coarse sand, 10% subangular fine gravel, Fe/Mn staining, hard, moist		0.8				12:34, 6/29/07
20		Bottom of boring 20 feet bgs.				URS-MW-2-20.0		PVC threaded bottom cap at 20' bgs

URS

1333 Broadway, Suite 800
Oakland, California 94612

MONITORING WELL LOG

Well ID: URS-MW-5

Total Depth: 20 feet

PROJECT INFORMATION	DRILLING INFORMATION
Project: Celis - Emeryville	**Drilling Company:** Gregg Drilling
Site Location: 4000 San Pablo Ave, Emeryville, CA	**Driller:** Jeremy Neff
Site Number: Former Celis Alliance Service Station	**Type of Drilling Rig:** Mobil B-61
Project Manager: George Muehleck	**Drilling Method:** Hollow Stem Auger
Geologist: Leonard Niles	**Sampling Method:** 2" Split Spoon
Job/Cost Code Number: 26814847.06000	**Hand Auger / Airknife Depth:** 5 feet bgs
PG: Leonard Niles	**Date(s) Drilled:** 6/28, 6/29/07

WELL INFORMATION

Groundwater Depth (ft bgs): 18.5' (1st), 6.37 (7/10/07)	**Well Location:** South side of 40th St., 206' East of San Pablo Ave.
Top of Casing Elevation (ft msl): 43.93' msl	**Well Diameter:** 2 inches
Coordinates: **Latitude** 37.83109836 **Longitude** 122.2790285	**Screened Interval:** 5-20 feet bgs

Depth (ft)	Symbol	Lithologic Description	USCS	PID	Recovery	Sample ID and Interval	Well Completion	Well Description/ Comments
0		CONCRETE						12" traffic-rated vault box; concrete (outside box) to 1.0 feet bgs
		CLAYEY GRAVEL: Dark gray; base rock	GC					
2		SANDY CLAY: Dark grayish brown; fine to coarse sand, fine gravel, moderate plasticity, moist (fill)	CL					Cement from 1 to 2 feet bgs Bentonite chips from 2 to 4 feet bgs
4								
6		SILTY CLAY: Very dark brown (10YR2/2); 5-10% fine sand, minor (<5%) coarse sand to fine gravel, black asphalt-like fragments, moderate plasticity, damp, faint HC odor, very stiff (fill?)		9.1		URS-MW-5-6.5		2-inch schedule 40 PVC well casing from 0 to 5 feet bgs. ▼ 7/10/07 #2.5 sand filter pack from 4 to 20 feet bgs
8		SANDY CLAY: Greenish gray (5G5/1); 10-20% fine to coarse sand, minor angular fine gravel, moderate plasticity, very stiff, damp, faint HC odor		1.5 62.5		URS-MW-5-10.0		▽ 11:38, 6/29/07
10								
12		SANDY TO GRAVELLY CLAY: Olive brown (5Y2/3) mottled with yellowish brown (10YR6/8); 20-30% fine to coarse sand, 10-20% fine angular gravel, hard, low plasticity						Screened interval (0.020" screen slot size) from 5 to 20 feet bgs
14				3.5		URS-MW-5-15.0		
16								
18		GRAVELLY CLAY: As above, except yellowish brown (10YR4/3), moderate plasticity, moist to wet						▽ 10:25, 6/29/07
20				1.3		URS-MW-5-20.0		
		Bottom of boring 20 feet bgs.						PVC threaded bottom cap at 20' bgs

Appendix C

Well Development and Groundwater Monitoring Field Logs

TEST EQUIPMENT CALIBRATION LOG

PROJECT NAME URS - Celis Alliance, Emeryville				PROJECT NUMBER 070705-pc1			
EQUIPMENT NAME	EQUIPMENT NUMBER	DATE/TIME OF TEST	STANDARDS USED	EQUIPMENT READING	CALIBRATED TO: OR WITHIN 10%:	TEMP.	INITIALS
Myron L Ultrameter	02068955	7/5/07 745	4.0 pH	4.0 pH	Y		PC
			7.0	6.9			
			10.0	10.0			
			3900 µs	3991 µs			
Hach Turbidimeter	00060C017103		100 NTU	103 NTU			
			1	0.32			
			800	782			

WELL DEVELOPMENT DATA SHEET

Project #: 070706-PC	Client: URS
Developer: PC	Date Developed: 7/5/07
Well I.D. URS-MW-1	Well Diameter: (circle one) (2) 3 4 6 ___
Total Well Depth: Before 19.51 After 19.52	Depth to Water: Before 8.89 After 9.22
Reason not developed:	If Free Product, thickness:
Additional Notations: Bottom hard w/ No silt on probe @ Gauging	

Volume Conversion Factor (VCF):
{12 x (d^2/4) x π} /231
where
12 = in / foot
d = diameter (in.)
π = 3.1416
231 = in 3/gal

Well dia.		VCF
2"	=	0.16
3"	=	0.37
4"	=	0.65
6"	=	1.47
10"	=	4.08
12"	=	6.87

1.7	X	10	=	17
1 Case Volume		Specified Volumes		gallons

Purging Device:
- ☐ Bailer
- ☐ Suction Pump
- ☐ Electric Submersible
- ☒ Positive Air Displacement

Type of Installed Pump ___
Other equipment used 2" surgeblock

TIME	TEMP (F)	pH	Cond. (mS or µS)	TURBIDITY (NTUs)	VOLUME REMOVED:	(ft.) DTW:	NOTATIONS:
852	Surge well for 15min w/ 2" surgeblock				gal		
910	Begin Purge w/ PAD pump						
913	67.2	7.70	1187	>1000	1.7 gal	10.05	silty, brown
916	66.9	7.31	1011	>1000	3.4	10.18	
919	66.7	7.02	855.6	>1000	5.1	10.21	
922	66.3	6.93	762.8	>1000	6.8	10.28	
925	66.4	6.85	732.3	>1000	8.5	10.32	
927	66.4	6.80	704.6	>1000	10.2	10.34	
929	66.4	6.80	684.4	>1000	11.9	10.34	
931	66.3	6.80	6662.1	>1000	13.6	10.38	slightly clearer
933	66.4	6.77	647.3	>1000	15.3	10.38	
935	66.4	6.80	639.8	>1000	17.0	10.38	

Did Well Dewater? No | If yes, note above. | Gallons Actually Evacuated: 17

WELL DEVELOPMENT DATA SHEET

Project #: 070705-.	Client: URS
Developer: PC	Date Developed: 7/5/07
Well I.D. URS-MW-2	Well Diameter: (circle one) (2) 3 4 6 __
Total Well Depth: Before 19.60 After 19.60	Depth to Water: Before 7.70 After 13.40
Reason not developed:	If Free Product, thickness:
Additional Notations:	

Volume Conversion Factor (VCF):	Well dia.		VCF
(12 x (d^2/4) x π) /231	2"	=	0.16
where	3"	=	0.37
12 = in / foot	4"	=	0.65
d = diameter (in.)	6"	=	1.47
π = 3.1416	10"	=	4.08
231 = in 3/gal	12"	=	6.87

1.9	X	10	=	19
1 Case Volume		Specified Volumes		gallons

Purging Device:
- ☐ Bailer
- ☐ Suction Pump
- ☐ Electric Submersible
- ☒ Positive Air Displacement

Type of Installed Pump _____
Other equipment used 2" Surgeblock

TIME	TEMP (F)	pH	Cond. (mS or µS)	TURBIDITY (NTUs)	VOLUME REMOVED:	(DTL) DTW: NOTATIONS:
956	Surged well 15 min		w/ 2" surge block			
1014	Begin Purge w/ PAD Pump.					
1017	68.2	6.85	3030	>1,000	1.9 gal	10.60 light brown, silty
1020	68.10	6.77	32,000	>1000	3.8	12.90 slowed Pump brown, silty
1023	68.1	6.77	2527	>1000	5.7	12.99 brown, silty
1027	67.9	6.68	2171	>1000	7.6	14.02
1032	67.8	6.67	1970	>1000	9.5	14.65
1036	67.7	6.65	1767	>1000	11.4	14.92
1041	67.6	6.63	1696	>1000	13.3	15.12
1045	67.4	6.67	1549	>1000	15.2	15.45
1049	67.6	6.62	1462	>1000	17.1	15.82
1054	67.1	6.65	1415	>1000	19.0	15.98

Did Well Dewater? No | If yes, note above. | Gallons Actually Evacuated: 19

WELL DEVELOPMENT DATA SHEET

Project #: 070705.PCI	Client: URS
Developer: PC	Date Developed: 7/5/07
Well I.D. URS-MW3	Well Diameter: (circle one) (2) 3 4 6 ___
Total Well Depth: Before 19.80 After 19.80	Depth to Water: Before 8.32 After 17.65 - Displacement
Reason not developed:	If Free Product, thickness:
Additional Notations:	

Volume Conversion Factor (VCF):	Well dia.		VCF
{12 x (d^2/4) x π} /231	2"	=	0.16
where	3"	=	0.37
12 = in / foot	4"	=	0.65
d = diameter (in.)	6"	=	1.47
π = 3.1416	10"	=	4.08
231 = in 3/gal	12"	=	6.87

1.8	X	10	=	18
1 Case Volume		Specified Volumes		gallons

Purging Device:
- ☐ Bailer
- ☐ Suction Pump
- ☐ Electric Submersible
- ☒ Positive Air Displacement

Type of Installed Pump ___

Other equipment used 2" surge block

TIME	TEMP (F)	pH	Cond. (mS or µS)	TURBIDITY (NTUs)	VOLUME REMOVED:	(ft.) DTW: NOTATIONS:
1346	Surge well for 15min w/2" surge block					
1351402	Begin Purge w/ PAD Pump					
1406	71.4	7.01	1989	>1000	1.8 gal	10.82 light brown, silty
1410	71.4	7.15	2085	>1000	3.6	11.00
1415	71.2	7.19	1940	>1000	5.4	13.02
1418	71.0	7.10	1957	>1000	7.2	15.35 slowed pump
1424	70.9	6.99	1935	>1000	9	16.50 brown, silty, thick
1430	71.3	6.98	1462	>1000	10.8	16.52
1435	71.4	6.91	1459	>1000	12.6	16.52
1440	71.5	@7.80	1179	>1000	14.4	16.52
1445	72.8	7.62	1109	>1000	16.2	16.55
1450	71.7	7.65	1024	>1000	18	16.57

Did Well Dewater? No	If yes, note above.	Gallons Actually Evacuated: 18

WELL DEVELOPMENT DATA SHEET

Project #: 47045.PCL	Client: URS
Developer: PC	Date Developed: 7/5/07
Well I.D. URS-MW-4	Well Diameter: (circle one) (2) 3 4 6
Total Well Depth: Before 19.41 After 19.88	Depth to Water: Before 8.46 After 16.00
Reason not developed:	If Free Product, thickness:
Additional Notations:	

Volume Conversion Factor (VCF):
{12 x (d^2/4) x π} /231
where
12 = in / foot
d = diameter (in.)
π = 3.1416
231 = in 3/gal

Well dia.		VCF
2"	=	0.16
3"	=	0.37
4"	=	0.65
6"	=	1.47
10"	=	4.08
12"	=	6.87

1.7	X	10	=	17
1 Case Volume		Specified Volumes		gallons

Purging Device:
- ☐ Bailer
- ☐ Suction Pump
- ☐ Electric Submersible
- ☒ Positive Air Displacement

Type of Installed Pump _____
Other equipment used 2" Surge block

TIME	TEMP (F)	pH	Cond. (mS or µS)	TURBIDITY (NTUs)	VOLUME REMOVED:	(ft.) DTW: NOTATIONS:
1222	Surged well for 15 min w/ 2" surge block					
1240	Begin Purge w/ PAD Pump					
1244	68.9	7.22	2279	>1000	1.7 gal	11.62 dark brown, silty
1248	69.8	6.79	2457	>1000	3.4	13.105
1253	69.8	6.83	2330	>1000	5.1	13.68
1258	69.2	6.81	2149	>1000	6.8	14.36 slowed Pump
1304	69.1	6.74	1780	>1000	8.5	15.20 Light brown, silty
1310	68.9	6.70	1678	>1000	10.2	15.25
1316	69.0	6.68	1518	>1000	11.9	15.80
1322	68.9	6.68	1474	>1000	13.6	16.30
1328	68.8	6.67	1451	>1000	15.3	16.42
1334	68.9	6.69	1463	>1000	17	16.50
Did Well Dewater? No	If yes, note above.		Gallons Actually Evacuated: 17			

WELL DEVELOPMENT DATA SHEET

Project #: 0707705.PC1	Client: URS
Developer: PC	Date Developed: 7/5/07
Well I.D. URS-MW-5	Well Diameter: (circle one) (2) 3 4 6
Total Well Depth: Before 19.60 After 19.60	Depth to Water: Before 6.02 After 16.80 ← displacement
Reason not developed:	If Free Product, thickness:
Additional Notations:	

Volume Conversion Factor (VCF):	Well dia.		VCF
(12 x (d^2/4) x π) /231	2"	=	0.16
where	3"	=	0.37
12 = in / foot	4"	=	0.65
d = diameter (in.)	6"	=	1.47
π = 3.1416	10"	=	4.08
231 = in 3/gal	12"	=	6.87

= bailer test performed to check for product - Nothing detected

2.2	X	10	=	22
1 Case Volume		Specified Volumes		gallons

Purging Device:
- ☒ Bailer
- ☐ Suction Pump
- ☐ Electric Submersible
- ☒ Positive Air Displacement

Type of Installed Pump _____
Other equipment used 2" surge block

TIME	TEMP (F)	pH	Cond. (mS or uS)	TURBIDITY (NTUs)	VOLUME REMOVED:	(ft.) DTW: NOTATIONS:
1058	surged well for 15 min w/surge block					
1103	begin purge w/ PAD Pump.					
1113	67.6	6.68	2407	>1000	2.2 gal	8.90 brown, silty
1119	68.5	6.74	2681	>1000	4.4	11.25
1122	68.4	6.70	2590	>1000	6.6	12.40
1127	67.2	6.73	2282	>1000	8.8	14.90 slowed Pump brown
1134	66.4	6.64	2130	>1000	11	16.21 brown, silty
1140	66.4	6.90	1790	>1000	13.2	16.40
1148	66.1	7.22	1844	>1000	15.4	16.50
1154	66.7	7.41	1876	>1000	17.6	16.48
1202	66.7	7.60	1709	>1000	19.8	16.45
1210	66.9	7.60	1592	>1000	22	16.50 slightly cleaver

Did Well Dewater? No. If yes, note above. Gallons Actually Evacuated: 22

WELLHEAD INSPECTION CHECKLIST

Date 7/10/07 Client URS Corp

Site Address 4000 San Pablo Ave Emeryville CA

Job Number 070710-TV1 Technician Tony Vega

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-4	X							
URS-MW-3	X							
URS-MW-2	X							
URS-MW-5	X							
URS-MW-1	X							
LFMW-LF-4	X							

NOTES:

TEST EQUIPMENT CALIBRATION LOG

PROJECT NAME				PROJECT NUMBER			
EQUIPMENT NAME	EQUIPMENT NUMBER	DATE/TIME OF TEST	STANDARDS USED	EQUIPMENT READING	CALIBRATED TO: OR WITHIN 10%:	TEMP.	INITIALS
Myron Ultrameter II	6Z10806	7/10/07 0750	pH 4 7 10 Cond. 1413 5300	3.87 7.16 10.04 3822	Yes	73.2	TV
HACH 2100P Turbidimeter	21019	7/10/07 758	NTU 20 100 800	19.1 98.8 797.9	Yes	—	TV

WELL GAUGING DATA

Project # 070710 - TV1 Date 7/10/07 Client URS Corp

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-4	0802	2					8.58	17.87	TOC	
URS-MW-3	0807	2					8.16	19.82	↓	
URS-MW-5	1010	2					6.00	19.60		
URS-MW-1	1105	2					8.90	19.55		
~~URS-MW-TV~~										
LFAW-LF-4	1156	2					8.30	18.02	↓	
URS-MW-2	0927	2					7.89	19.60		

WELL MONITORING DATA SHEET

Project #: 070710-TV1	Client: URS
Sampler: TV	Date: 7/10/07
Well I.D.: URS-MW-1	Well Diameter: (2) 3 4 6 8 ___
Total Well Depth (TD): 19.55	Depth to Water (DTW): 08.90
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]: 11.03	

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: _____

1.7 (Gals.) X 3 = 5.1 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
1110	66.0	7.97	631.7	>1000	1.7	cloudy
1112	66.4	7.29	607.9	↓	3.4	"
1115	66.5	7.10	608.3	↓	5.1	"

Did well dewater? Yes (No) Gallons actually evacuated: 5.1

Sampling Date: 7/10/07 Sampling Time: 1120 Depth to Water: 8.97

Sample I.D.: URS-MW-1 Laboratory: Kiff CalScience Other Curtis & Tompkins

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

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

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

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

WELL MONITORING DATA SHEET

Project #: 070710-TV1	Client: URS
Sampler: TV	Date: 7/10/07
Well I.D.: URS-MW-2	Well Diameter: (2) 3 4 6 8 ___
Total Well Depth (TD): 19.60	Depth to Water (DTW): 7.89
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (TOC) Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 10.23	

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 Case Volume	(Gals.) X	Specified Volumes	=	Calculated Volume	Gals.
1.9		3		5.7	

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
0932	67.3	7.01	1733	>1000	1.9	cloudy
0935	67.3	6.40	1635	↓	3.8	"
0937	67.2	6.36	1566	↓	5.7	"

Did well dewater? Yes (No)		Gallons actually evacuated: 5.7	
Sampling Date: 7/10/07	Sampling Time: 0940	Depth to Water: 08.60	
Sample I.D.: URS-MW-2		Laboratory: Kiff CalScience Other Curtis & Tompkins	
Analyzed for: (TPH-G) (BTEX) MTBE (TPH-D)		Oxygenates (5)	Other: TVH-MS
EB I.D. (if applicable):	@ Time	Duplicate I.D. (if applicable):	
Analyzed for: TPH-G BTEX MTBE TPH-D		Oxygenates (5)	Other:
D.O. (if req'd): Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd): Pre-purge:	mV	Post-purge:	mV

WELL MONITORING DATA SHEET

Project #: 070710-TV1	Client: URS
Sampler: TV	Date: 7/10/07
Well I.D.: URS-MW-3	Well Diameter: (2) 3 4 6 8 ___
Total Well Depth (TD): 19.82	Depth to Water (DTW): 8.16
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]: 10.47	

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
1251	70.6	7.53	1101	>1000	1.9	cloudy
1253	70.3	7.24	971.4	>1000	3.8	"
1256	69.8	7.13	982.8	>1000	5.7	"

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

Sampling Date: 7/10/07 Sampling Time: 1302 Depth to Water: 9.01

Sample I.D.: URS-MW-3 Laboratory: Kiff CalScience Other Curtis & Tompkins

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

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

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

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

WELL MONITORING DATA SHEET

Project #: 070710-TV1	Client: URS
Sampler: TV	Date: 7/10/07
Well I.D.: URS-MW-4	Well Diameter: (2) 3 4 6 8 ____
Total Well Depth (TD): 19.87	Depth to Water (DTW): 8.58
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]: 10.84	

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:_____

1.8 (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
1326	68.4	7.29	841.3	>1000	1.8	cloudy
1322	68.1	7.11	887.2	↓	3.6	"
1325	67.8	7.02	878.4	↓	5.4	"

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

Sampling Date: 7/10/07 Sampling Time: 1330 Depth to Water: 9.48

Sample I.D.: URS-MW-4 Laboratory: Kiff CalScience Other Curtis & Tompkins

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

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

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

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

WELL MONITORING DATA SHEET

Project #: 070710-TV1	Client: URS
Sampler: TV	Date: 7/10/07
Well I.D.: URS-MW-5	Well Diameter: (2) 3 4 6 8 ____
Total Well Depth (TD): 19.60	Depth to Water (DTW): 6.00
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]: 8.72	

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
1014	67.3	7.07	1780	>1000	2.2	cloudy
1016	67.0	6.60	1899	>1000	4.4	"
1019	66.0	6.57	1895	>1000	6.6	"

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

Sampling Date: 7/10/07 Sampling Time: 1030 Depth to Water: 8.72

Sample I.D.: URS-MW-5 Laboratory: Kiff CalScience Other Curtis Tompkins

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

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

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

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

WELL MONITORING DATA SHEET

Project #: 070710-TV1	Client: URS
Sampler: TV	Date: 7/10/07
Well I.D.: LFMW-LF-4	Well Diameter: (2) 3 4 6 8 ____
Total Well Depth (TD): 18.02	Depth to Water (DTW): 8.30
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]: 10.24	

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: _____

1.5 (Gals.) X	3	=	4.5 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
1203	69.0	6.81	719.0	126	1.5	clear
1206	68.7	6.68	717.5	124	3.0	"
1209	68.5	6.62	709.8	117	4.5	"

Did well dewater? Yes (No) Gallons actually evacuated: 4.5

Sampling Date: 7/10/07 Sampling Time: 1215 Depth to Water: 8.87

Sample I.D.: LFMW-LF-4 Laboratory: Kiff CalScience Other Curtis & Tompkins

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

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

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

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

SPH or Purge Water Drum Log

Client: URS

Site Address: 4000 Sea Pabble Ave, Emeryville

STATUS OF DRUM(S) UPON ARRIVAL

Date	7/5/07	7/10/07				
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:	7	9				
Total drum(s) on site:	7	9				
Are the drum(s) properly labeled?	Y	Y				
Drum ID & Contents:	soil from install	purge water				
If any drum(s) are partially or totally filled, what is the first use date:	-					

- If you add any SPH to an empty or partially filled drum, drum must have 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				
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:	9	9				
Total drum(s) on site:	9	10				
Are the drum(s) properly labeled?	Y	Y				
Drum ID & Contents:	soil & water	soil & water				

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				
Date of inspection:	7/6/07	7/10/07				
s) labelled properly:	Y	Y				
by BTS Field Tech:	PU	SV				
iewed by:	N	N6				

Appendix D
Well Survey Data

GLOBAL_ID	FIELD_PT_NAME	FIELD_PT_CLASS	XY_SURVEY_DATE	LATITUDE	LONGTITUDE	XY_METHOD	XY_DATUM	XY_ACC_VAL	XY_SURVEY_ORG	GPS_EQUIP_TYPE	XY_SURVEY_DESC	SITE
	MW-2	MW	7/10/2007	37.8309057	-122.2800391	CGPS	NAD83	0.02	URS	T48	0.0000000	
	MW-1	MW	7/10/2007	37.8313117	-122.2801338	CGPS	NAD83	0.02	URS	T48	0.0000000	
	MW-LF-4	MW	7/10/2007	37.8310368	-122.2802954	CGPS	NAD83	0.02	URS	T48	0.0000000	
	MW-5	MW	7/10/2007	37.8310984	-122.2790285	CGPS	NAD83	0.02	URS	T48	0.0000000	
	MW-4	MW	7/10/2007	37.8306551	-122.2802217	CGPS	NAD83	0.02	URS	T48	0.0000000	
	MW-3	MW	7/10/2007	37.8303607	-122.2800307	CGPS	NAD83	0.02	URS	T48	0.0000000	

Number	Latitude dec.	Longitude dec.	shot elevation-ft	Raw desc	Feature	Desc	diff. To ground	ground elev -ft	casing type
1001	37.83090567	-122.2800391	40.830	LID/GRD	MW-2		-0.347	41.177	2" PVC
1004	37.83131172	-122.2801338	42.209	LID/GRD	MW-1		-0.192	42.401	2" PVC
1006	37.83103683	-122.2802954	40.757	LID/GRD	MW-LF-4		-0.705	41.462	2" PVC
1008	37.83109836	-122.2790285	43.929	LID/GRD	MW-5		-0.372	44.301	2" PVC
1011	37.83065511	-122.2802217	41.413	LID/GRD	MW-4		-0.310	41.723	2" PVC
1014	37.83036066	-122.2800307	40.543	LID/GRD	MW-3		-0.313	40.856	2" PVC

GLOBAL_ID	FIELD_PT_NAME	ELEV_SURVEY_DATE	ELEVATION ft	ELEV_METHOD	ELEV_DATUM	ELEV_ACC_VAL	ELEV_SURVEY_ORG	RISER_HT	ELEV_DESC	SITE	29 Datum Elevation
	MW-2	1/24/2007	40.83	CGPS	88	0.02	URS	0.347	2" PVC		38.11
	MW-1	1/24/2007	42.21	CGPS	88	0.02	URS	0.192	2" PVC		39.49
	MW-LF-4	1/24/2007	40.76	CGPS	88	0.02	URS	0.705	2" PVC		38.03
	MW-5	39106.0000000	43.93	CGPS	88	0.02	URS	0.372	2" PVC		41.21
	MW-4	39106.0000000	41.41	CGPS	88	0.02	URS	0.310	2" PVC		38.69
	MW-3	39106.0000000	40.54	CGPS	88	0.02	URS	0.313	2" PVC		37.82

Appendix E

Laboratory Analytical Reports And Chain Of Custody Documents

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

Laboratory Job Number 195723

URS Corporation
1333 Broadway
Oakland, CA 94612

Project : 26814847.06000
Location : Celis-Emeryville
Level : II

Sample ID	Lab ID
URS-MW-3-5.5	195723-001
URS-MW-3-10.0	195723-002
URS-MW-3-15.0	195723-003
URS-MW-3-20.0	195723-004
URS-MW-5-6.5	195723-005
URS-MW-5-10.0	195723-006
URS-MW-5-15.0	195723-007
URS-MW-5-20.0	195723-008
URS-MW-4-5.5	195723-009
URS-MW-4-9.0	195723-010
URS-MW-4-14.5	195723-011
URS-MW-4-20.0	195723-012

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signatures. The results contained in this report meet all requirements of NELAC and pertain only to those samples which were submitted for analysis.

Signature: _____ Date: 07/09/2007
Project Manager

Signature: _____ Date: 07/09/2007
Operations Manager

NELAP # 01107CA

Curtis & Tompkins, Ltd.

CASE NARRATIVE

Laboratory number:	**195723**
Client:	**URS Corporation**
Project:	**26814847.06000**
Location:	**Celis-Emeryville**
Request Date:	**06/29/07**
Samples Received:	**06/29/07**

This hardcopy data package contains sample and QC results for nine soil samples, requested for the above referenced project on 06/29/07. The samples were received on ice and intact, directly from the field.

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

TPH-Extractables by GC (EPA 8015B):
High recoveries were observed for diesel C10-C24 in the MS/MSD for batch 126900; the parent sample was not a project sample, the LCS was within limits, and the associated RPD was within limits. High surrogate recoveries were observed for hexacosane in URS-MW-3-10.0 (lab # 195723-002), URS-MW-5-15.0 (lab # 195723-007), and URS-MW-4-20.0 (lab # 195723-012); no target analytes were detected in these samples. No other analytical problems were encountered.

Volatile Organics by GC/MS (EPA 8260B):
No analytical problems were encountered.

Curtis & Tompkins, Ltd.

Total Volatile Hydrocarbons

Lab #:	195723	Location:	Celis-Emeryville
Client:	URS Corporation	Prep:	EPA 5030B
Project#:	26814847.06000	Analysis:	EPA 8015B
Matrix:	Soil	Batch#:	126880
Units:	mg/Kg	Sampled:	06/29/07
Basis:	as received	Received:	06/29/07

Field ID: URS-MW-3-10.0 Diln Fac: 1.000
Type: SAMPLE Analyzed: 07/02/07
Lab ID: 195723-002

Analyte	Result	RL
Gasoline C7-C12	ND	1.0
Mineral Spirits C7-C12	ND	1.0

Surrogate	%REC	Limits
Trifluorotoluene (FID)	103	70-132
Bromofluorobenzene (FID)	109	66-138

Field ID: URS-MW-3-15.0 Diln Fac: 1.000
Type: SAMPLE Analyzed: 07/02/07
Lab ID: 195723-003

Analyte	Result	RL
Gasoline C7-C12	ND	0.98
Mineral Spirits C7-C12	ND	0.98

Surrogate	%REC	Limits
Trifluorotoluene (FID)	106	70-132
Bromofluorobenzene (FID)	105	66-138

Field ID: URS-MW-3-20.0 Diln Fac: 1.000
Type: SAMPLE Analyzed: 07/02/07
Lab ID: 195723-004

Analyte	Result	RL
Gasoline C7-C12	ND	1.0
Mineral Spirits C7-C12	ND	1.0

Surrogate	%REC	Limits
Trifluorotoluene (FID)	107	70-132
Bromofluorobenzene (FID)	108	66-138

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

Curtis & Tompkins, Ltd.

Total Volatile Hydrocarbons

Lab #:	195723	Location:	Celis-Emeryville
Client:	URS Corporation	Prep:	EPA 5030B
Project#:	26814847.06000	Analysis:	EPA 8015B
Matrix:	Soil	Batch#:	126880
Units:	mg/Kg	Sampled:	06/29/07
Basis:	as received	Received:	06/29/07

Field ID: URS-MW-5-6.5 Diln Fac: 1.000
Type: SAMPLE Analyzed: 07/02/07
Lab ID: 195723-005

Analyte	Result	RL
Gasoline C7-C12	3.8 H L Y	0.94
Mineral Spirits C7-C12	2.2 H L Y	0.94

Surrogate	%REC	Limits
Trifluorotoluene (FID)	117	70-132
Bromofluorobenzene (FID)	108	66-138

Field ID: URS-MW-5-10.0 Diln Fac: 10.00
Type: SAMPLE Analyzed: 07/02/07
Lab ID: 195723-006

Analyte	Result	RL
Gasoline C7-C12	120 H	10
Mineral Spirits C7-C12	68 H L	10

Surrogate	%REC	Limits
Trifluorotoluene (FID)	111	70-132
Bromofluorobenzene (FID)	107	66-138

Field ID: URS-MW-5-15.0 Diln Fac: 1.000
Type: SAMPLE Analyzed: 07/03/07
Lab ID: 195723-007

Analyte	Result	RL
Gasoline C7-C12	ND	1.0
Mineral Spirits C7-C12	ND	1.0

Surrogate	%REC	Limits
Trifluorotoluene (FID)	90	70-132
Bromofluorobenzene (FID)	98	66-138

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

Curtis & Tompkins, Ltd.

Total Volatile Hydrocarbons

Lab #:	195723	Location:	Celis-Emeryville
Client:	URS Corporation	Prep:	EPA 5030B
Project#:	26814847.06000	Analysis:	EPA 8015B
Matrix:	Soil	Batch#:	126880
Units:	mg/Kg	Sampled:	06/29/07
Basis:	as received	Received:	06/29/07

Field ID: URS-MW-4-9.0 Diln Fac: 1.000
Type: SAMPLE Analyzed: 07/03/07
Lab ID: 195723-010

Analyte	Result	RL
Gasoline C7-C12	ND	0.96
Mineral Spirits C7-C12	ND	0.96

Surrogate	%REC	Limits
Trifluorotoluene (FID)	98	70-132
Bromofluorobenzene (FID)	106	66-138

Field ID: URS-MW-4-14.5 Diln Fac: 1.000
Type: SAMPLE Analyzed: 07/03/07
Lab ID: 195723-011

Analyte	Result	RL
Gasoline C7-C12	ND	0.95
Mineral Spirits C7-C12	ND	0.95

Surrogate	%REC	Limits
Trifluorotoluene (FID)	95	70-132
Bromofluorobenzene (FID)	104	66-138

Field ID: URS-MW-4-20.0 Diln Fac: 1.000
Type: SAMPLE Analyzed: 07/03/07
Lab ID: 195723-012

Analyte	Result	RL
Gasoline C7-C12	ND	1.1
Mineral Spirits C7-C12	ND	1.1

Surrogate	%REC	Limits
Trifluorotoluene (FID)	110	70-132
Bromofluorobenzene (FID)	113	66-138

Type: BLANK Diln Fac: 1.000
Lab ID: QC394660 Analyzed: 07/02/07

Analyte	Result	RL
Gasoline C7-C12	ND	1.0
Mineral Spirits C7-C12	ND	1.0

Surrogate	%REC	Limits
Trifluorotoluene (FID)	102	70-132
Bromofluorobenzene (FID)	100	66-138

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

Curtis & Tompkins, Ltd.

Batch QC Report

Total Volatile Hydrocarbons

Lab #:	195723	Location:	Celis-Emeryville
Client:	URS Corporation	Prep:	EPA 5030B
Project#:	26814847.06000	Analysis:	EPA 8015B
Type:	LCS	Basis:	as received
Lab ID:	QC394661	Diln Fac:	1.000
Matrix:	Soil	Batch#:	126880
Units:	mg/Kg	Analyzed:	07/02/07

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	10.00	10.58	106	80-120

Surrogate	%REC	Limits
Trifluorotoluene (FID)	115	70-132
Bromofluorobenzene (FID)	105	66-138

Curtis & Tompkins, Ltd.

Batch QC Report

Total Volatile Hydrocarbons

Lab #:	195723	Location:	Celis-Emeryville
Client:	URS Corporation	Prep:	EPA 5030B
Project#:	26814847.06000	Analysis:	EPA 8015B
Field ID:	ZZZZZZZZZZ	Diln Fac:	1.000
MSS Lab ID:	195707-001	Batch#:	126880
Matrix:	Soil	Sampled:	06/28/07
Units:	mg/Kg	Received:	06/29/07
Basis:	as received	Analyzed:	07/02/07

Type: MS Lab ID: QC394662

Analyte	MSS Result	Spiked	Result	%REC	Limits
Gasoline C7-C12	<0.06988	9.901	10.05	101	36-120

Surrogate	%REC	Limits
Trifluorotoluene (FID)	112	70-132
Bromofluorobenzene (FID)	108	66-138

Type: MSD Lab ID: QC394663

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	9.615	9.358	97	36-120	4	29

Surrogate	%REC	Limits
Trifluorotoluene (FID)	111	70-132
Bromofluorobenzene (FID)	105	66-138

RPD= Relative Percent Difference

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Sample Name: **195723-005,126880,tvh+m.spirits**
Data File: **\\Lims\gdrive\ezchrom\Projects\GC07\Data\183_014**
Instrument: GC07 (Offline) Vial: N/A Operator: Tvh 2. Analyst (lims2k3\tvh2)
Method Name: \\Lims\gdrive\ezchrom\Projects\GC07\Method\tvhbtxe121.met

Software Version 3.1.7
Run Date: 7/2/2007 9:19:31 PM
Analysis Date: 7/3/2007 9:16:41 AM
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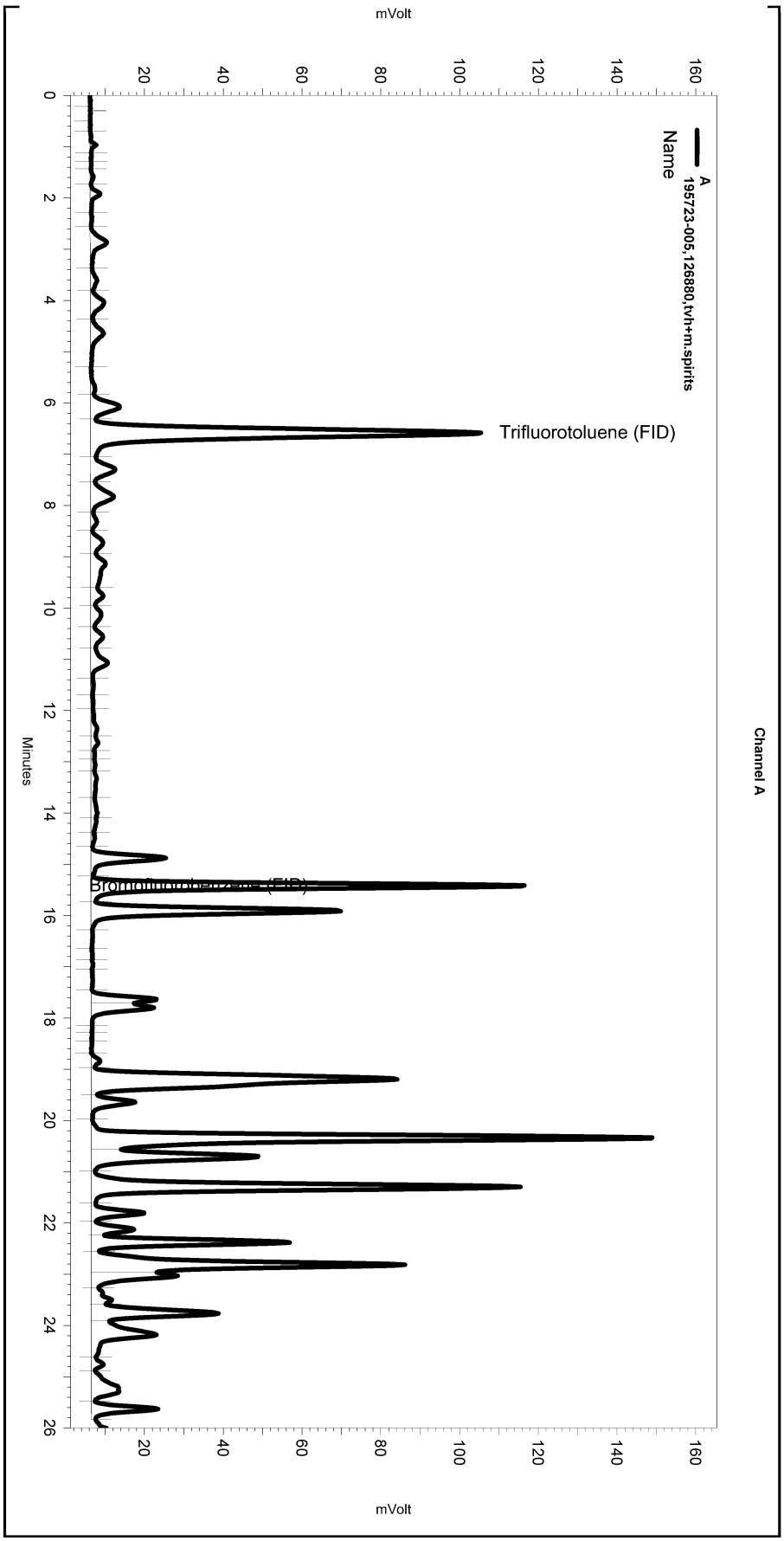
Vial & pH or Core ID: A



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Yes	Threshold	0	0	50

Manual Integration Fixes

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Enabled	Event Type	Start (Minutes)	Stop (Minutes)	Value
Yes	Horizontal Baseline	18.673	26.017	0

Sequence File: **\\Lims\gdrive\ezchrom\Projects\GC07\Sequence\183.seq**
Sample Name: **195723-006,126880,10x,tvh+m.spirits**
Data File: **\\Lims\gdrive\ezchrom\Projects\GC07\Data\183_008**
Instrument: GC07 (Offline) Vial: N/A Operator: Tvh 2. Analyst (lims2k3\tvh2)
Method Name: \\Lims\gdrive\ezchrom\Projects\GC07\Method\tvhbtxe121.met

Software Version 3.1.7
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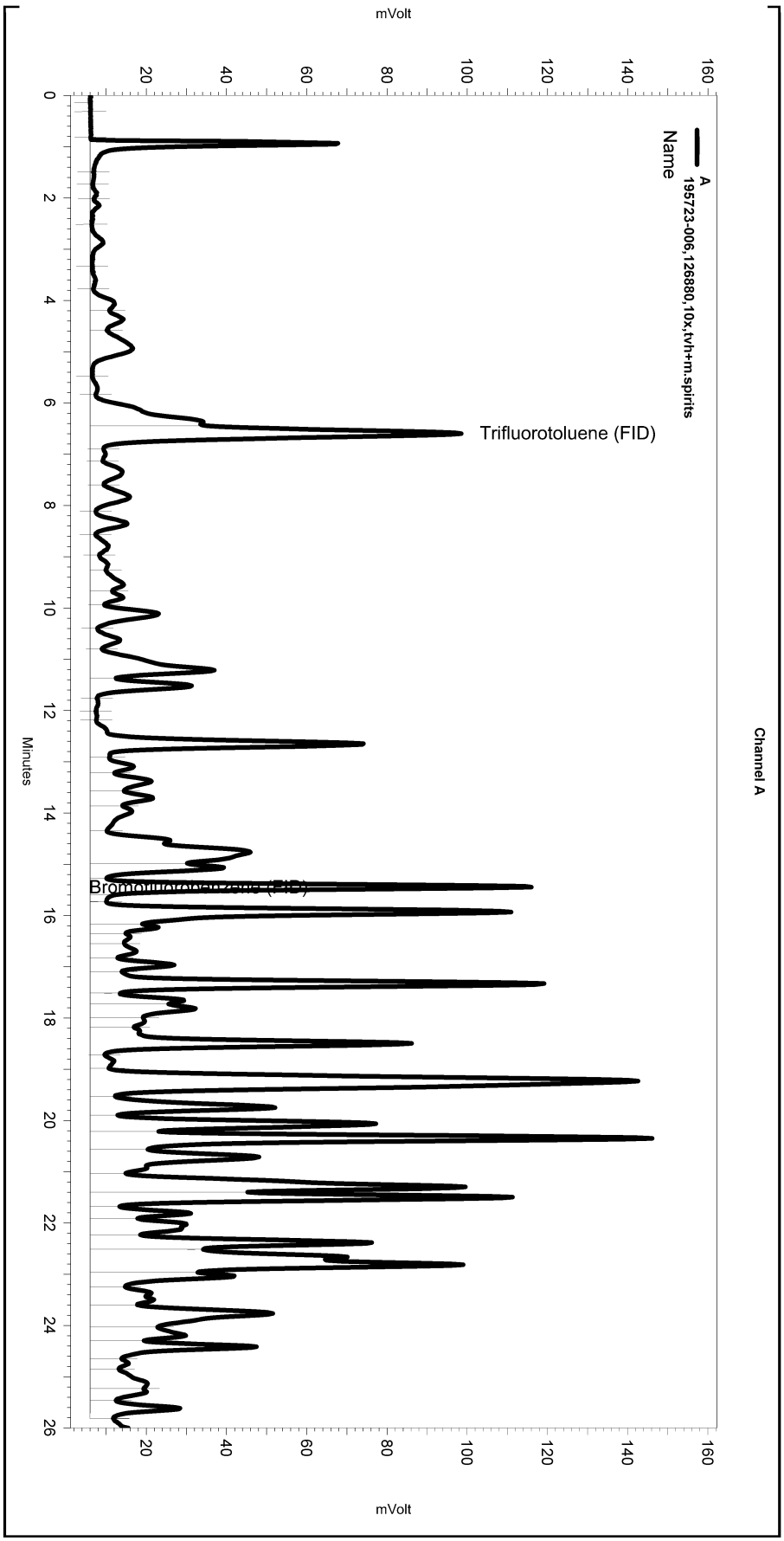
Analysis Date: 7/3/2007 9:16:18 AM
Sample Amount: 1 Multiplier: 1
Vial & pH or Core ID: A



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Integration Events

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

Manual Integration Fixes

Data File: \\Lims\gdrive\ezchrom\Projects\GC07\Data\183_008

Enabled	Event Type	Start (Minutes)	Stop (Minutes)	Value
Yes	Lowest Point Horizontal Baseli	0.694	26.017	0
Yes	Split Peak	6.453	0	0
Yes	Split Peak	15.602	0	0

Sequence File: **\\Lims\gdrive\ezchrom\Projects\GC07\Sequence\183.seq**
Sample Name: **ccv,mineralspirits,s6087,5/5000**
Data File: **\\Lims\gdrive\ezchrom\Projects\GC07\Data\183_005**
Instrument: GC07 (Offline) Vial: N/A Operator: Tvh 2. Analyst (lims2k3\tvh2)
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Software Version 3.1.7
Run Date: 7/2/2007 1:55:16 PM
Analysis Date: 7/3/2007 9:16:07 AM
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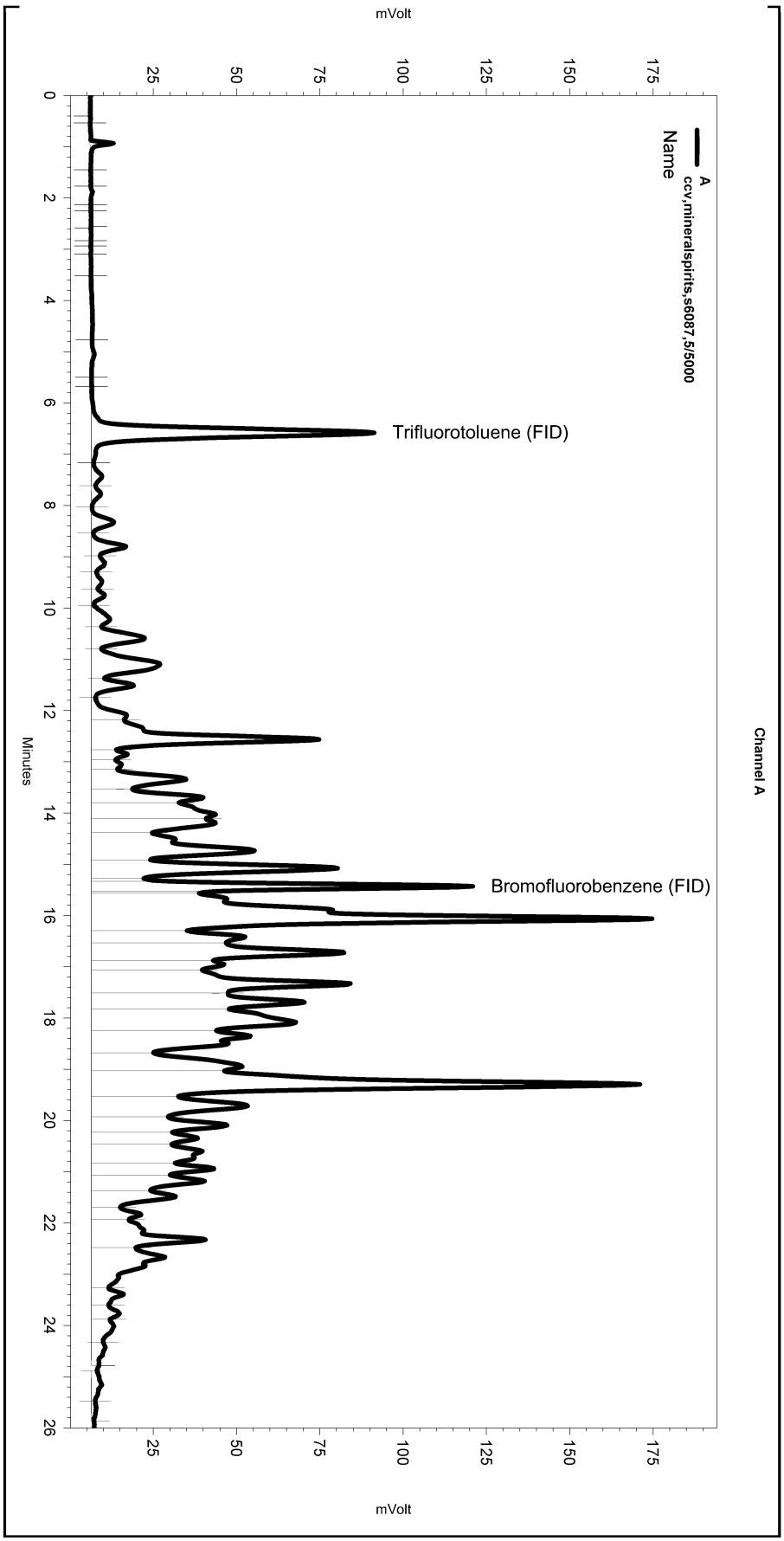
Vial & pH or Core ID: {Data Description}



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Integration Events

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

Manual Integration Fixes

Data File: \\Lims\gdrive\ezchrom\Projects\GC07\Data\183_005

Enabled	Event Type	Start (Minutes)	Stop (Minutes)	Value
Yes	Horizontal Baseline	5.531	26.017	0
Yes	Split Peak	15.327	0	0
Yes	Split Peak	15.54	0	0

Sequence File: **\\Lims\gdrive\ezchrom\Projects\GC07\Sequence\183.seq**
Sample Name: **ccv/lcs,qc394661,126880,s6393,5/5000**
Data File: **\\Lims\gdrive\ezchrom\Projects\GC07\Data\183_002**
Instrument: GC07 (Offline) Vial: N/A Operator: Tvh 2. Analyst (lims2k3\tvh2)
Method Name: \\Lims\gdrive\ezchrom\Projects\GC07\Method\tvhbtxe121.met

Software Version 3.1.7
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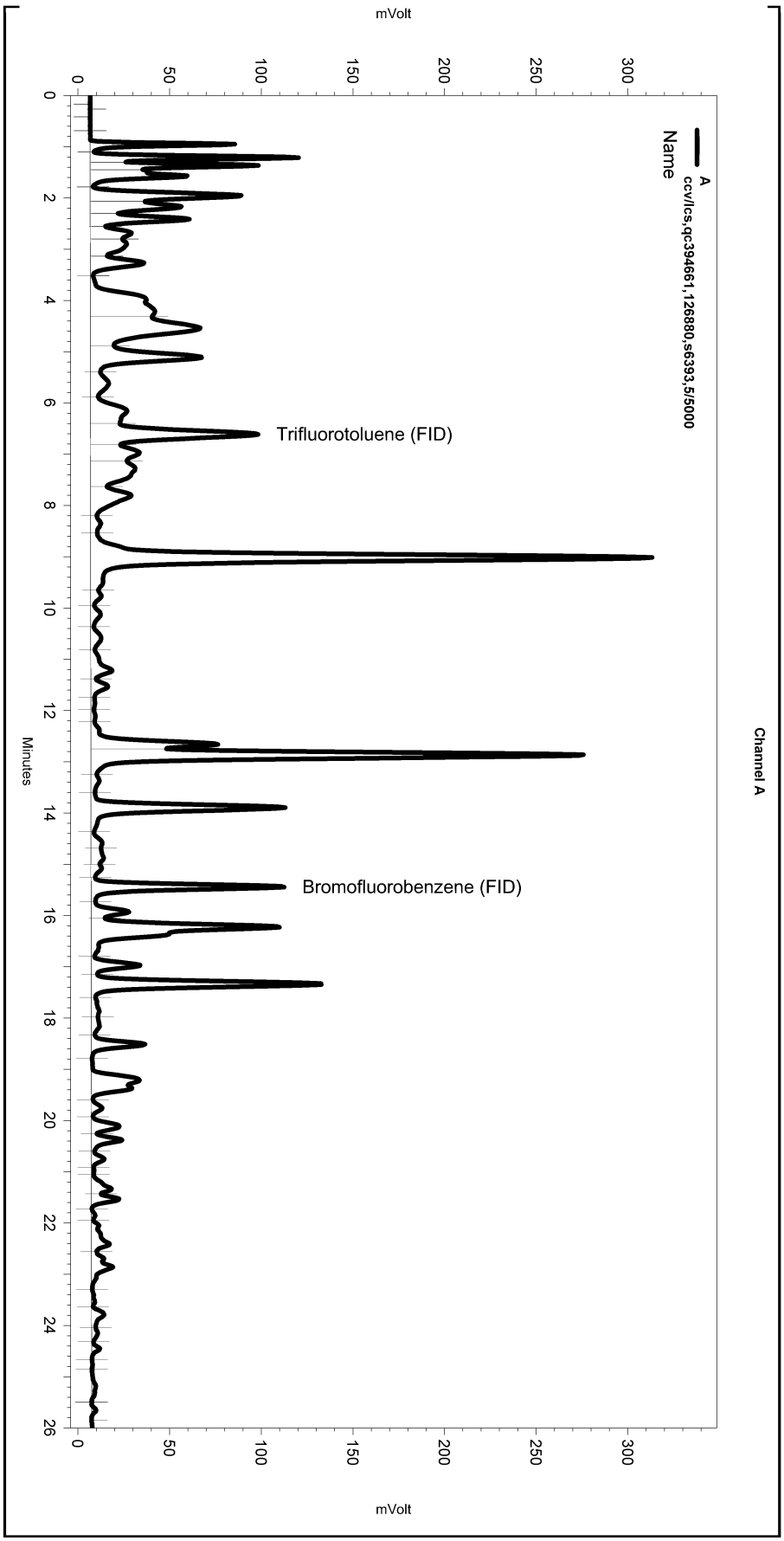
Analysis Date: 7/3/2007 9:15:56 AM
Sample Amount: 1 Multiplier: 1
Vial & pH or Core ID: {Data Description}



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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

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

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Curtis & Tompkins, Ltd.

Total Extractable Hydrocarbons

Lab #:	195723	Location:	Celis-Emeryville
Client:	URS Corporation	Prep:	SHAKER TABLE
Project#:	26814847.06000	Analysis:	EPA 8015B
Matrix:	Soil	Batch#:	126900
Units:	mg/Kg	Sampled:	06/29/07
Basis:	as received	Received:	06/29/07
Diln Fac:	1.000	Prepared:	07/03/07

Field ID: URS-MW-3-10.0 Lab ID: 195723-002
Type: SAMPLE Analyzed: 07/03/07

Analyte	Result	RL
Diesel C10-C24	ND	0.99

Surrogate	%REC	Limits
Hexacosane	144 *	40-127

Field ID: URS-MW-3-15.0 Lab ID: 195723-003
Type: SAMPLE Analyzed: 07/05/07

Analyte	Result	RL
Diesel C10-C24	1.8 Y	1.0

Surrogate	%REC	Limits
Hexacosane	98	40-127

Field ID: URS-MW-3-20.0 Lab ID: 195723-004
Type: SAMPLE Analyzed: 07/05/07

Analyte	Result	RL
Diesel C10-C24	1.3 Y	0.99

Surrogate	%REC	Limits
Hexacosane	94	40-127

Field ID: URS-MW-5-6.5 Lab ID: 195723-005
Type: SAMPLE Analyzed: 07/05/07

Analyte	Result	RL
Diesel C10-C24	5.1 Y	1.0

Surrogate	%REC	Limits
Hexacosane	93	40-127

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

Curtis & Tompkins, Ltd.

Total Extractable Hydrocarbons

Lab #:	195723	Location:	Celis-Emeryville
Client:	URS Corporation	Prep:	SHAKER TABLE
Project#:	26814847.06000	Analysis:	EPA 8015B
Matrix:	Soil	Batch#:	126900
Units:	mg/Kg	Sampled:	06/29/07
Basis:	as received	Received:	06/29/07
Diln Fac:	1.000	Prepared:	07/03/07

Field ID: URS-MW-5-10.0 Lab ID: 195723-006
Type: SAMPLE Analyzed: 07/05/07

Analyte	Result	RL
Diesel C10-C24	13 Y	0.99

Surrogate	%REC	Limits
Hexacosane	90	40-127

Field ID: URS-MW-5-15.0 Lab ID: 195723-007
Type: SAMPLE Analyzed: 07/03/07

Analyte	Result	RL
Diesel C10-C24	ND	1.0

Surrogate	%REC	Limits
Hexacosane	139 *	40-127

Field ID: URS-MW-4-9.0 Lab ID: 195723-010
Type: SAMPLE Analyzed: 07/05/07

Analyte	Result	RL
Diesel C10-C24	8.0 H Y	1.0

Surrogate	%REC	Limits
Hexacosane	88	40-127

Field ID: URS-MW-4-14.5 Lab ID: 195723-011
Type: SAMPLE Analyzed: 07/05/07

Analyte	Result	RL
Diesel C10-C24	6.7 H Y	0.99

Surrogate	%REC	Limits
Hexacosane	104	40-127

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

Curtis & Tompkins, Ltd.

Total Extractable Hydrocarbons

Lab #:	195723	Location:	Celis-Emeryville
Client:	URS Corporation	Prep:	SHAKER TABLE
Project#:	26814847.06000	Analysis:	EPA 8015B
Matrix:	Soil	Batch#:	126900
Units:	mg/Kg	Sampled:	06/29/07
Basis:	as received	Received:	06/29/07
Diln Fac:	1.000	Prepared:	07/03/07

Field ID:	URS-MW-4-20.0	Lab ID:	195723-012
Type:	SAMPLE	Analyzed:	07/03/07

Analyte	Result	RL
Diesel C10-C24	ND	1.0

Surrogate	%REC	Limits
Hexacosane	128 *	40-127

Type:	BLANK	Analyzed:	07/03/07
Lab ID:	QC394742		

Analyte	Result	RL
Diesel C10-C24	ND	1.0

Surrogate	%REC	Limits
Hexacosane	92	40-127

*= Value outside of QC limits; see narrative
H= Heavier hydrocarbons contributed to the quantitation
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 #:	195723	Location:	Celis-Emeryville
Client:	URS Corporation	Prep:	SHAKER TABLE
Project#:	26814847.06000	Analysis:	EPA 8015B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC394743	Batch#:	126900
Matrix:	Soil	Prepared:	07/03/07
Units:	mg/Kg	Analyzed:	07/03/07
Basis:	as received		

Cleanup Method: EPA 3630C

Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24	49.90	40.58	81	58-127

Surrogate	%REC	Limits
Hexacosane	88	40-127

Curtis & Tompkins, Ltd.

Batch QC Report

Total Extractable Hydrocarbons

Lab #:	195723	Location:	Celis-Emeryville
Client:	URS Corporation	Prep:	SHAKER TABLE
Project#:	26814847.06000	Analysis:	EPA 8015B
Field ID:	ZZZZZZZZZZ	Batch#:	126900
MSS Lab ID:	195683-026	Sampled:	06/28/07
Matrix:	Soil	Received:	06/28/07
Units:	mg/Kg	Prepared:	07/03/07
Basis:	as received	Analyzed:	07/03/07
Diln Fac:	3.000		

Type: MS Cleanup Method: EPA 3630C
Lab ID: QC394744

Analyte	MSS Result	Spiked	Result	%REC	Limits
Diesel C10-C24	80.77	49.95	241.4	322 *	29-147

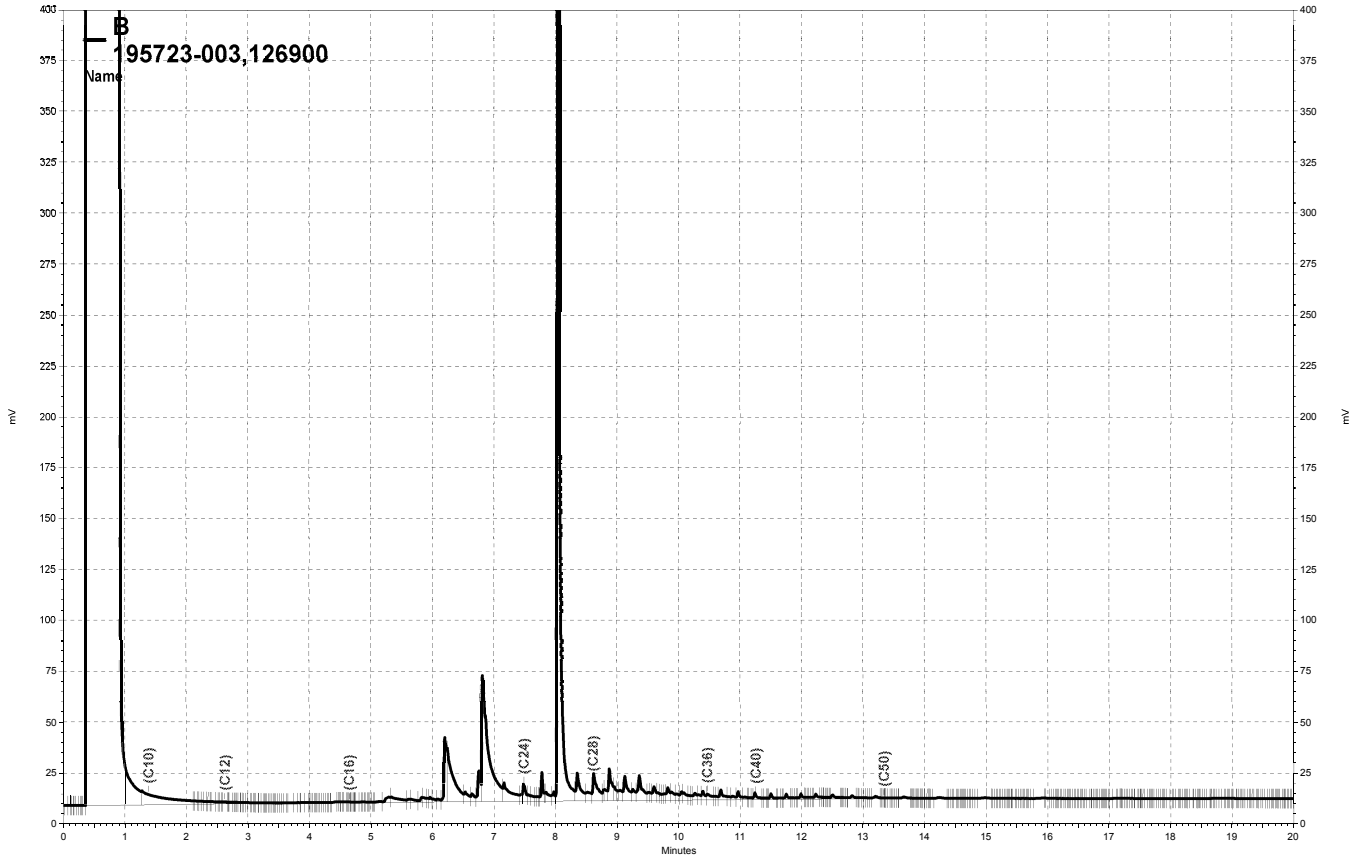
Surrogate	%REC	Limits
Hexacosane	100	40-127

Type: MSD Cleanup Method: EPA 3630C
Lab ID: QC394745

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Diesel C10-C24	49.94	156.6	152 *	29-147	43	46

Surrogate	%REC	Limits
Hexacosane	94	40-127

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



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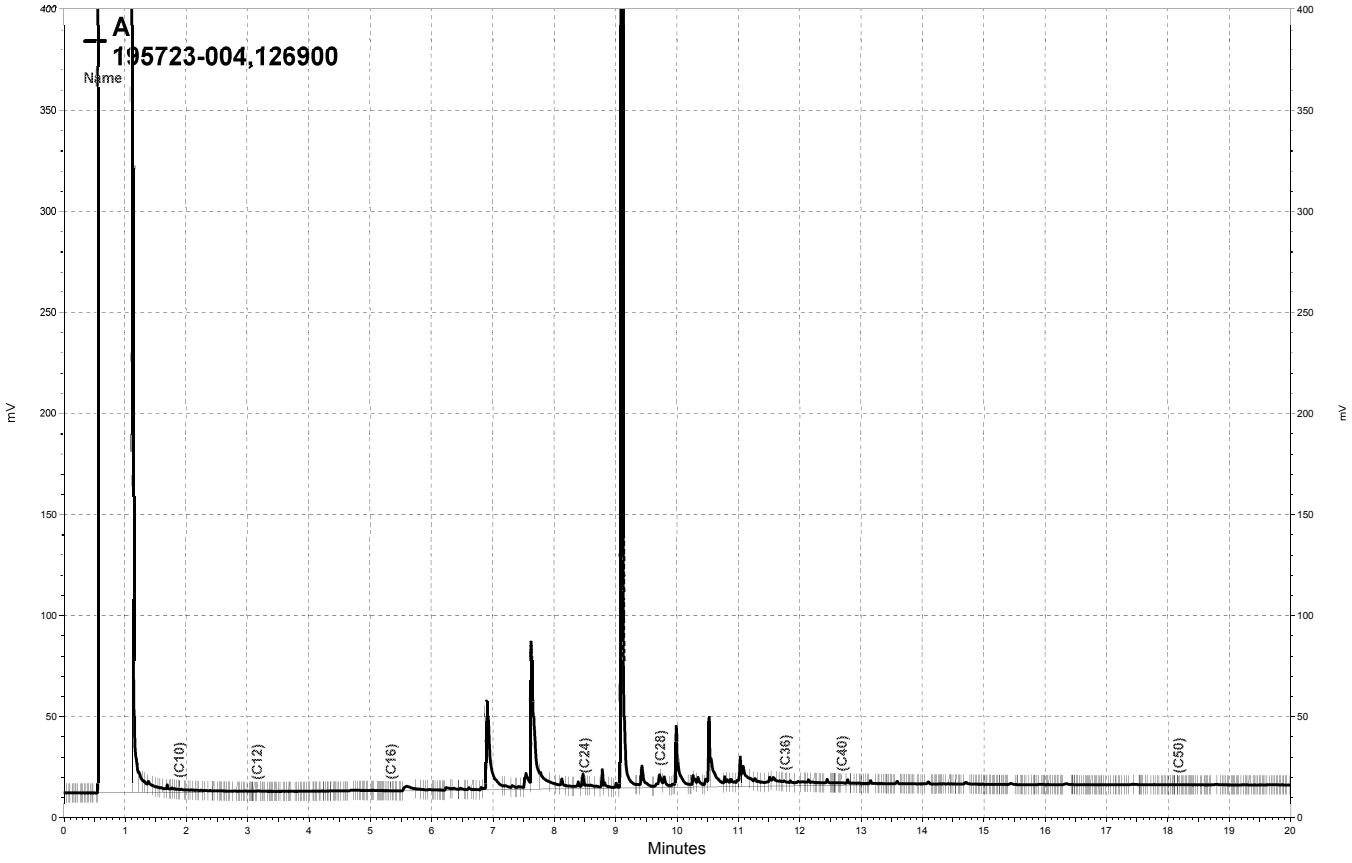

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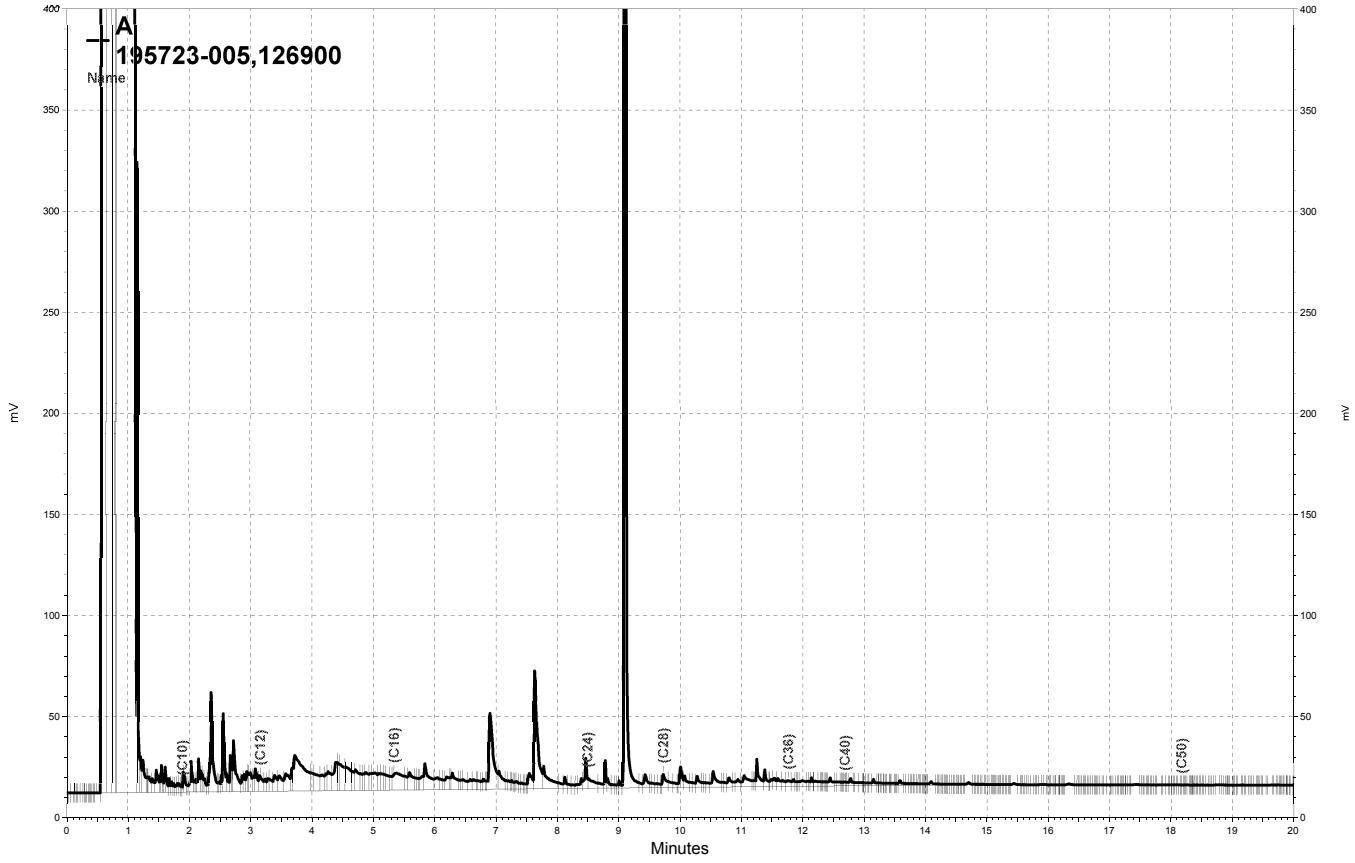

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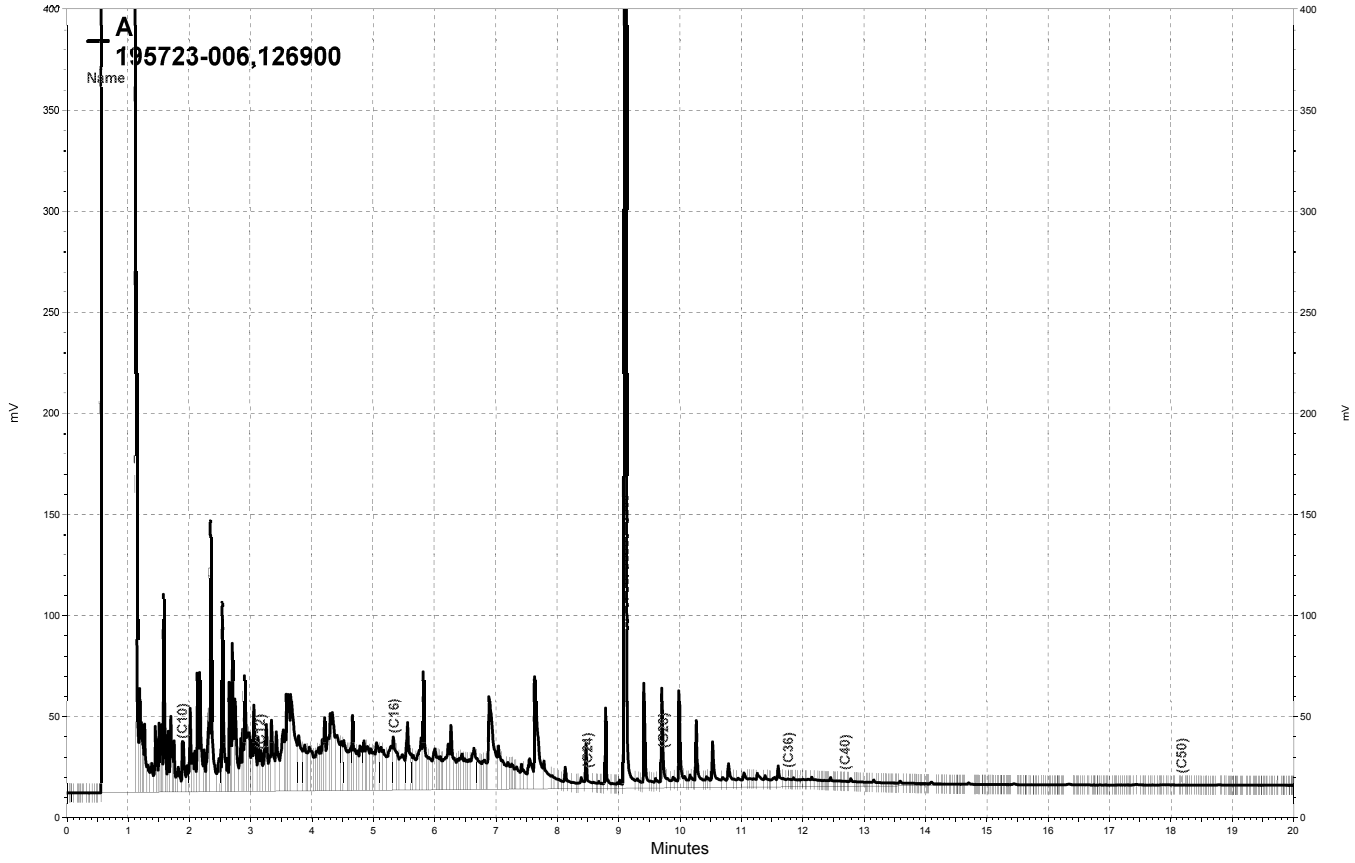

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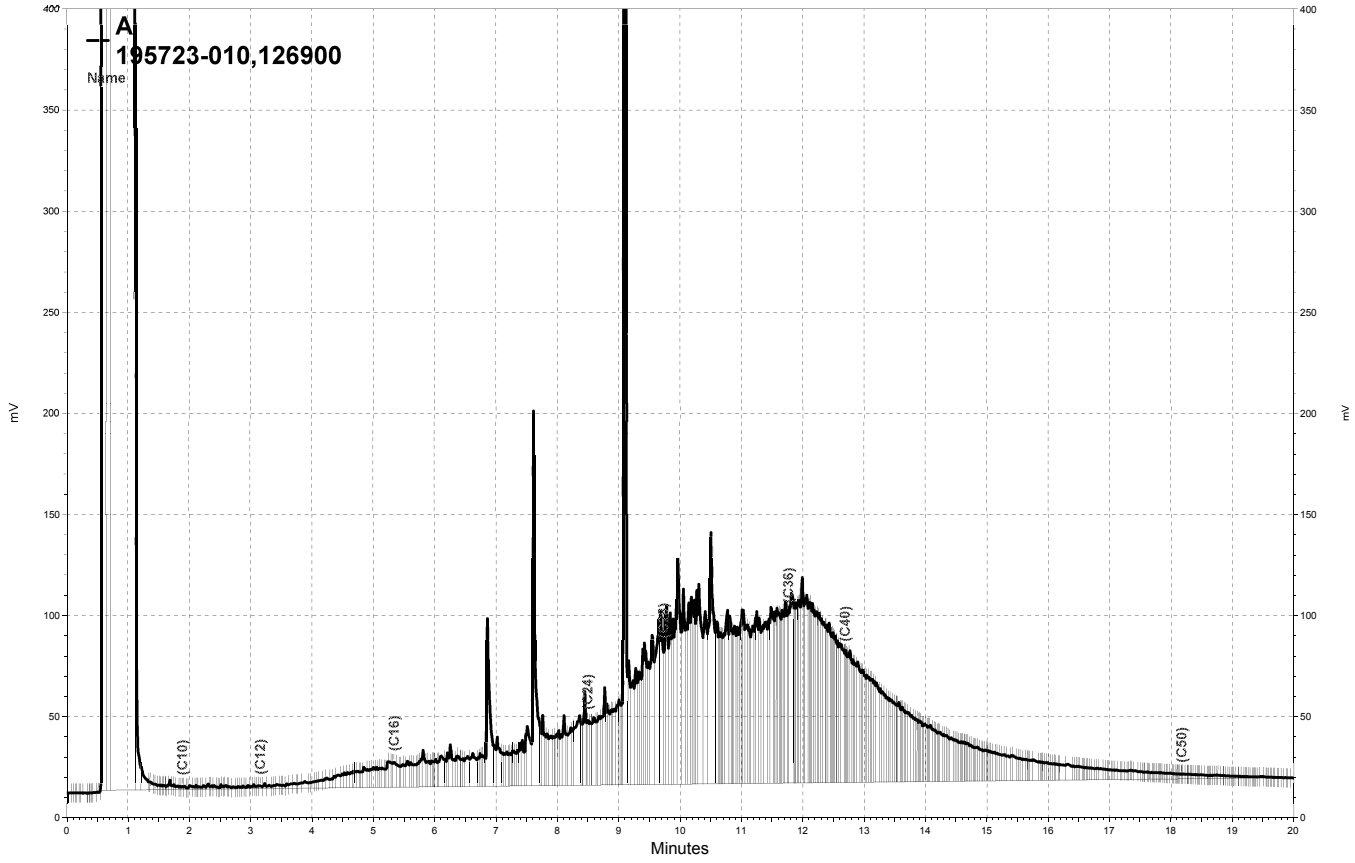

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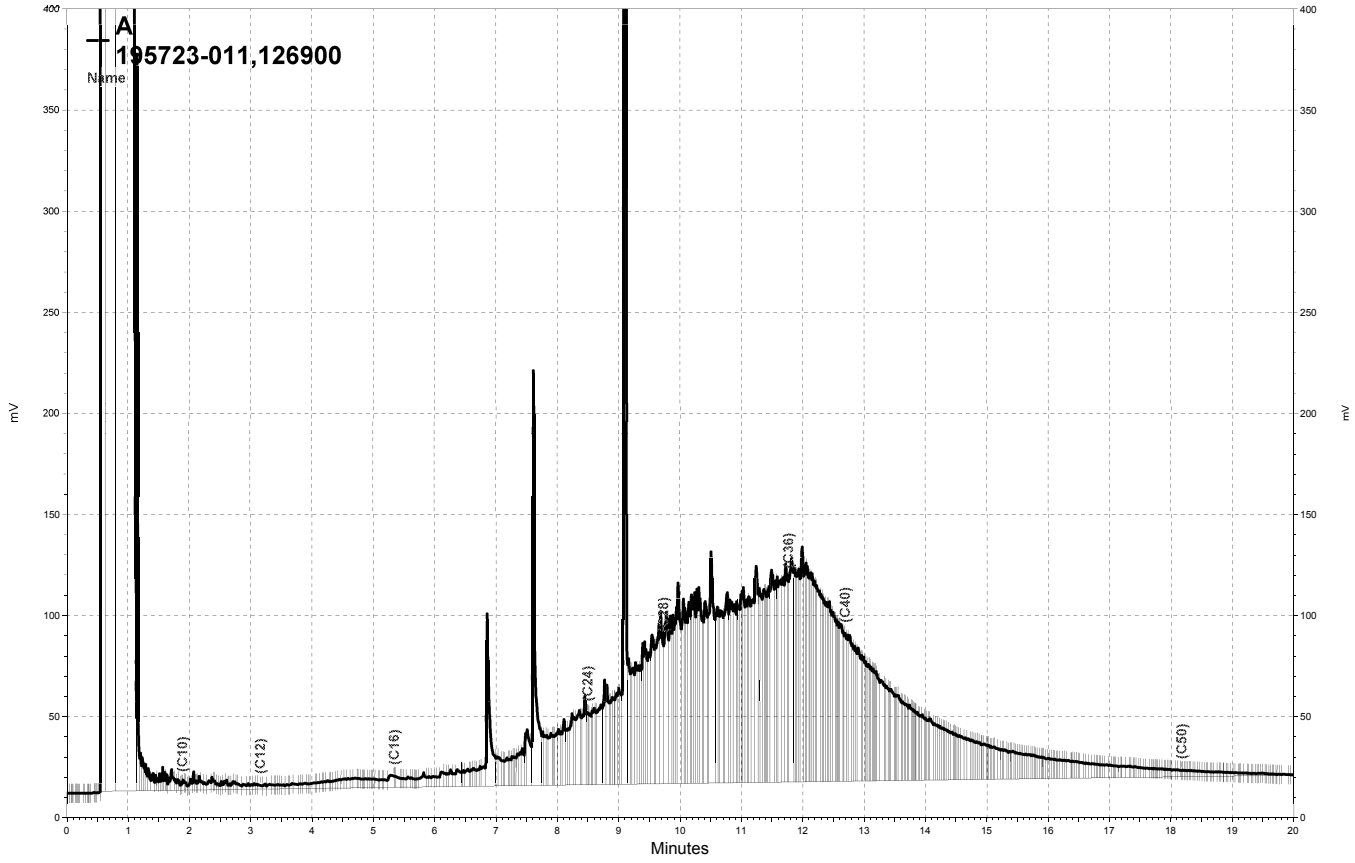

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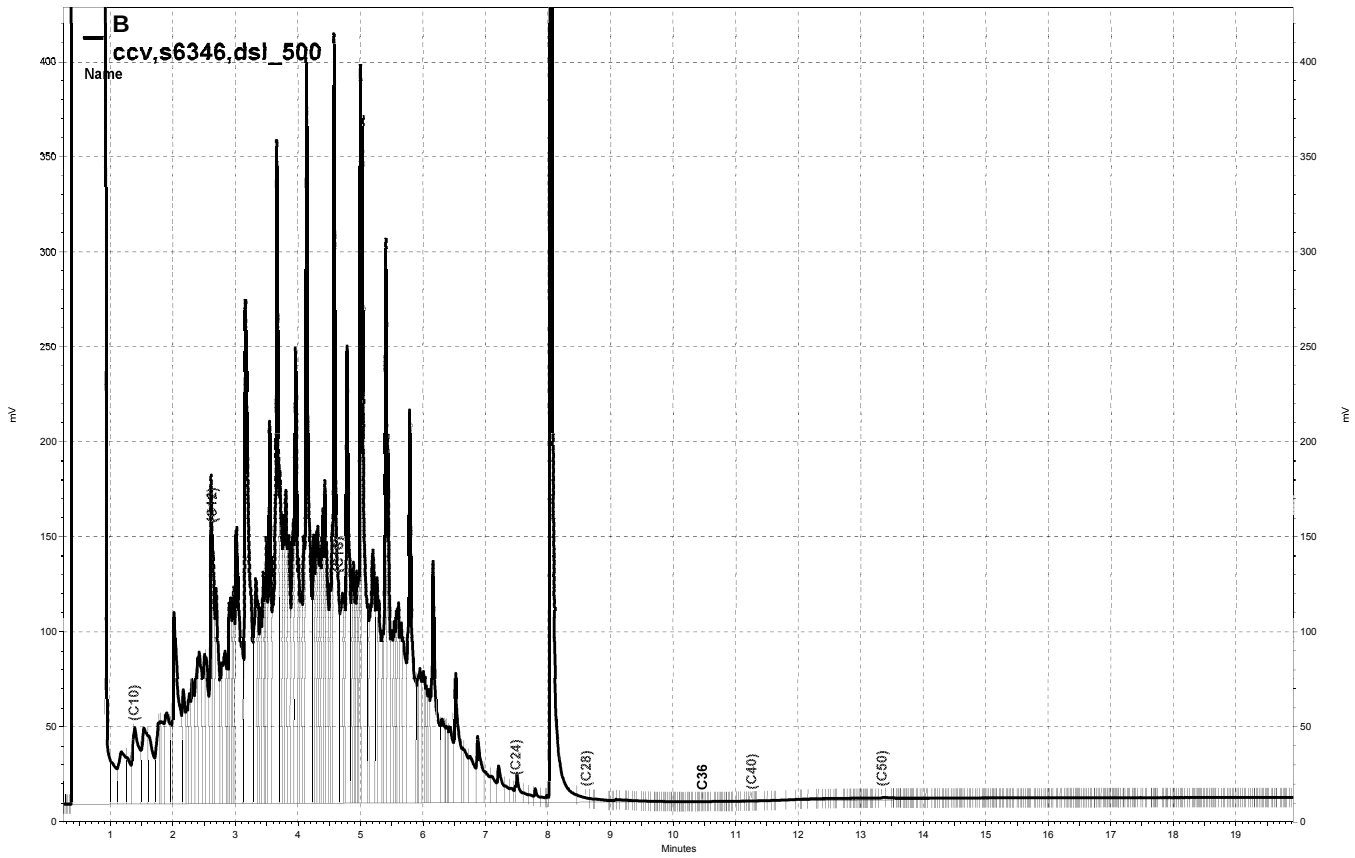

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Curtis & Tompkins, Ltd.

BTXE & Oxygenates

Lab #:	195723	Location:	Celis-Emeryville
Client:	URS Corporation	Prep:	EPA 5030B
Project#:	26814847.06000	Analysis:	EPA 8260B
Field ID:	URS-MW-3-10.0	Diln Fac:	0.9259
Lab ID:	195723-002	Batch#:	126982
Matrix:	Soil	Sampled:	06/29/07
Units:	ug/Kg	Received:	06/29/07
Basis:	as received	Analyzed:	07/06/07

Analyte	Result	RL
tert-Butyl Alcohol (TBA)	ND	93
MTBE	ND	4.6
Isopropyl Ether (DIPE)	ND	4.6
Ethyl tert-Butyl Ether (ETBE)	ND	4.6
1,2-Dichloroethane	ND	4.6
Benzene	ND	4.6
Methyl tert-Amyl Ether (TAME)	ND	4.6
Toluene	ND	4.6
1,2-Dibromoethane	ND	4.6
Ethylbenzene	ND	4.6
m,p-Xylenes	ND	4.6
o-Xylene	ND	4.6

Surrogate	%REC	Limits
Dibromofluoromethane	109	78-126
1,2-Dichloroethane-d4	118	76-135
Toluene-d8	101	80-120
Bromofluorobenzene	108	80-126

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

BTXE & Oxygenates

Lab #:	195723	Location:	Celis-Emeryville
Client:	URS Corporation	Prep:	EPA 5030B
Project#:	26814847.06000	Analysis:	EPA 8260B
Field ID:	URS-MW-3-15.0	Diln Fac:	0.8929
Lab ID:	195723-003	Batch#:	126982
Matrix:	Soil	Sampled:	06/29/07
Units:	ug/Kg	Received:	06/29/07
Basis:	as received	Analyzed:	07/06/07

Analyte	Result	RL
tert-Butyl Alcohol (TBA)	ND	89
MTBE	ND	4.5
Isopropyl Ether (DIPE)	ND	4.5
Ethyl tert-Butyl Ether (ETBE)	ND	4.5
1,2-Dichloroethane	ND	4.5
Benzene	ND	4.5
Methyl tert-Amyl Ether (TAME)	ND	4.5
Toluene	ND	4.5
1,2-Dibromoethane	ND	4.5
Ethylbenzene	ND	4.5
m,p-Xylenes	ND	4.5
o-Xylene	ND	4.5

Surrogate	%REC	Limits
Dibromofluoromethane	111	78-126
1,2-Dichloroethane-d4	118	76-135
Toluene-d8	101	80-120
Bromofluorobenzene	107	80-126

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

BTXE & Oxygenates

Lab #:	195723	Location:	Celis-Emeryville
Client:	URS Corporation	Prep:	EPA 5030B
Project#:	26814847.06000	Analysis:	EPA 8260B
Field ID:	URS-MW-3-20.0	Diln Fac:	0.9804
Lab ID:	195723-004	Batch#:	126982
Matrix:	Soil	Sampled:	06/29/07
Units:	ug/Kg	Received:	06/29/07
Basis:	as received	Analyzed:	07/06/07

Analyte	Result	RL
tert-Butyl Alcohol (TBA)	ND	98
MTBE	ND	4.9
Isopropyl Ether (DIPE)	ND	4.9
Ethyl tert-Butyl Ether (ETBE)	ND	4.9
1,2-Dichloroethane	ND	4.9
Benzene	ND	4.9
Methyl tert-Amyl Ether (TAME)	ND	4.9
Toluene	ND	4.9
1,2-Dibromoethane	ND	4.9
Ethylbenzene	ND	4.9
m,p-Xylenes	ND	4.9
o-Xylene	ND	4.9

Surrogate	%REC	Limits
Dibromofluoromethane	110	78-126
1,2-Dichloroethane-d4	117	76-135
Toluene-d8	101	80-120
Bromofluorobenzene	109	80-126

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

BTXE & Oxygenates

Lab #:	195723	Location:	Celis-Emeryville
Client:	URS Corporation	Prep:	EPA 5030B
Project#:	26814847.06000	Analysis:	EPA 8260B
Field ID:	URS-MW-5-6.5	Diln Fac:	0.9434
Lab ID:	195723-005	Batch#:	126982
Matrix:	Soil	Sampled:	06/29/07
Units:	ug/Kg	Received:	06/29/07
Basis:	as received	Analyzed:	07/06/07

Analyte	Result	RL
tert-Butyl Alcohol (TBA)	ND	94
MTBE	ND	4.7
Isopropyl Ether (DIPE)	ND	4.7
Ethyl tert-Butyl Ether (ETBE)	ND	4.7
1,2-Dichloroethane	ND	4.7
Benzene	ND	4.7
Methyl tert-Amyl Ether (TAME)	ND	4.7
Toluene	ND	4.7
1,2-Dibromoethane	ND	4.7
Ethylbenzene	ND	4.7
m,p-Xylenes	ND	4.7
o-Xylene	ND	4.7

Surrogate	%REC	Limits
Dibromofluoromethane	110	78-126
1,2-Dichloroethane-d4	118	76-135
Toluene-d8	104	80-120
Bromofluorobenzene	104	80-126

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

BTXE & Oxygenates

Lab #:	195723	Location:	Celis-Emeryville
Client:	URS Corporation	Prep:	EPA 5030B
Project#:	26814847.06000	Analysis:	EPA 8260B
Field ID:	URS-MW-5-10.0	Diln Fac:	33.33
Lab ID:	195723-006	Batch#:	126952
Matrix:	Soil	Sampled:	06/29/07
Units:	ug/Kg	Received:	06/29/07
Basis:	as received	Analyzed:	07/05/07

Analyte	Result	RL
tert-Butyl Alcohol (TBA)	ND	3,300
MTBE	ND	170
Isopropyl Ether (DIPE)	ND	170
Ethyl tert-Butyl Ether (ETBE)	ND	170
1,2-Dichloroethane	ND	170
Benzene	ND	170
Methyl tert-Amyl Ether (TAME)	ND	170
Toluene	ND	170
1,2-Dibromoethane	ND	170
Ethylbenzene	2,300	170
m,p-Xylenes	ND	170
o-Xylene	ND	170

Surrogate	%REC	Limits
Dibromofluoromethane	103	78-126
1,2-Dichloroethane-d4	118	76-135
Toluene-d8	104	80-120
Bromofluorobenzene	99	80-126
Trifluorotoluene (MeOH)	97	58-142

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

BTXE & Oxygenates

Lab #:	195723	Location:	Celis-Emeryville
Client:	URS Corporation	Prep:	EPA 5030B
Project#:	26814847.06000	Analysis:	EPA 8260B
Field ID:	URS-MW-5-15.0	Diln Fac:	0.9259
Lab ID:	195723-007	Batch#:	126982
Matrix:	Soil	Sampled:	06/29/07
Units:	ug/Kg	Received:	06/29/07
Basis:	as received	Analyzed:	07/06/07

Analyte	Result	RL
tert-Butyl Alcohol (TBA)	ND	93
MTBE	ND	4.6
Isopropyl Ether (DIPE)	ND	4.6
Ethyl tert-Butyl Ether (ETBE)	ND	4.6
1,2-Dichloroethane	ND	4.6
Benzene	ND	4.6
Methyl tert-Amyl Ether (TAME)	ND	4.6
Toluene	ND	4.6
1,2-Dibromoethane	ND	4.6
Ethylbenzene	ND	4.6
m,p-Xylenes	ND	4.6
o-Xylene	ND	4.6

Surrogate	%REC	Limits
Dibromofluoromethane	104	78-126
1,2-Dichloroethane-d4	108	76-135
Toluene-d8	101	80-120
Bromofluorobenzene	103	80-126

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

BTXE & Oxygenates

Lab #:	195723	Location:	Celis-Emeryville
Client:	URS Corporation	Prep:	EPA 5030B
Project#:	26814847.06000	Analysis:	EPA 8260B
Field ID:	URS-MW-4-9.0	Diln Fac:	0.9091
Lab ID:	195723-010	Batch#:	126982
Matrix:	Soil	Sampled:	06/29/07
Units:	ug/Kg	Received:	06/29/07
Basis:	as received	Analyzed:	07/06/07

Analyte	Result	RL
tert-Butyl Alcohol (TBA)	ND	91
MTBE	ND	4.5
Isopropyl Ether (DIPE)	ND	4.5
Ethyl tert-Butyl Ether (ETBE)	ND	4.5
1,2-Dichloroethane	ND	4.5
Benzene	ND	4.5
Methyl tert-Amyl Ether (TAME)	ND	4.5
Toluene	ND	4.5
1,2-Dibromoethane	ND	4.5
Ethylbenzene	ND	4.5
m,p-Xylenes	ND	4.5
o-Xylene	ND	4.5

Surrogate	%REC	Limits
Dibromofluoromethane	103	78-126
1,2-Dichloroethane-d4	108	76-135
Toluene-d8	100	80-120
Bromofluorobenzene	102	80-126

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

BTXE & Oxygenates

Lab #:	195723	Location:	Celis-Emeryville
Client:	URS Corporation	Prep:	EPA 5030B
Project#:	26814847.06000	Analysis:	EPA 8260B
Field ID:	URS-MW-4-14.5	Diln Fac:	1.000
Lab ID:	195723-011	Batch#:	126982
Matrix:	Soil	Sampled:	06/29/07
Units:	ug/Kg	Received:	06/29/07
Basis:	as received	Analyzed:	07/06/07

Analyte	Result	RL
tert-Butyl Alcohol (TBA)	ND	100
MTBE	ND	5.0
Isopropyl Ether (DIPE)	ND	5.0
Ethyl tert-Butyl Ether (ETBE)	ND	5.0
1,2-Dichloroethane	ND	5.0
Benzene	ND	5.0
Methyl tert-Amyl Ether (TAME)	ND	5.0
Toluene	ND	5.0
1,2-Dibromoethane	ND	5.0
Ethylbenzene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0

Surrogate	%REC	Limits
Dibromofluoromethane	105	78-126
1,2-Dichloroethane-d4	110	76-135
Toluene-d8	101	80-120
Bromofluorobenzene	104	80-126

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

BTXE & Oxygenates

Lab #:	195723	Location:	Celis-Emeryville
Client:	URS Corporation	Prep:	EPA 5030B
Project#:	26814847.06000	Analysis:	EPA 8260B
Field ID:	URS-MW-4-20.0	Diln Fac:	0.9434
Lab ID:	195723-012	Batch#:	126982
Matrix:	Soil	Sampled:	06/29/07
Units:	ug/Kg	Received:	06/29/07
Basis:	as received	Analyzed:	07/06/07

Analyte	Result	RL
tert-Butyl Alcohol (TBA)	ND	94
MTBE	11	4.7
Isopropyl Ether (DIPE)	ND	4.7
Ethyl tert-Butyl Ether (ETBE)	ND	4.7
1,2-Dichloroethane	ND	4.7
Benzene	ND	4.7
Methyl tert-Amyl Ether (TAME)	ND	4.7
Toluene	ND	4.7
1,2-Dibromoethane	ND	4.7
Ethylbenzene	ND	4.7
m,p-Xylenes	ND	4.7
o-Xylene	ND	4.7

Surrogate	%REC	Limits
Dibromofluoromethane	107	78-126
1,2-Dichloroethane-d4	114	76-135
Toluene-d8	101	80-120
Bromofluorobenzene	108	80-126

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

BTXE & Oxygenates

Lab #:	195723	Location:	Celis-Emeryville
Client:	URS Corporation	Prep:	EPA 5030B
Project#:	26814847.06000	Analysis:	EPA 8260B
Type:	LCS	Basis:	as received
Lab ID:	QC394973	Diln Fac:	1.000
Matrix:	Soil	Batch#:	126952
Units:	ug/Kg	Analyzed:	07/05/07

Analyte	Spiked	Result	%REC	Limits
tert-Butyl Alcohol (TBA)	125.0	142.3	114	56-130
MTBE	25.00	26.06	104	66-120
Isopropyl Ether (DIPE)	25.00	25.07	100	57-120
Ethyl tert-Butyl Ether (ETBE)	25.00	24.57	98	68-120
1,2-Dichloroethane	25.00	25.69	103	73-120
Benzene	25.00	25.05	100	80-120
Methyl tert-Amyl Ether (TAME)	25.00	26.15	105	73-120
Toluene	25.00	25.38	102	80-120
1,2-Dibromoethane	25.00	24.67	99	80-120
Ethylbenzene	25.00	27.07	108	80-125
m,p-Xylenes	50.00	52.64	105	80-123
o-Xylene	25.00	25.44	102	80-122

Surrogate	%REC	Limits
Dibromofluoromethane	107	78-126
1,2-Dichloroethane-d4	110	76-135
Toluene-d8	102	80-120
Bromofluorobenzene	101	80-126

Curtis & Tompkins, Ltd.

Batch QC Report

BTXE & Oxygenates

Lab #:	195723	Location:	Celis-Emeryville
Client:	URS Corporation	Prep:	EPA 5030B
Project#:	26814847.06000	Analysis:	EPA 8260B
Type:	BLANK	Basis:	as received
Lab ID:	QC394974	Diln Fac:	1.000
Matrix:	Soil	Batch#:	126952
Units:	ug/Kg	Analyzed:	07/05/07

Analyte	Result	RL
tert-Butyl Alcohol (TBA)	ND	100
MTBE	ND	5.0
Isopropyl Ether (DIPE)	ND	5.0
Ethyl tert-Butyl Ether (ETBE)	ND	5.0
1,2-Dichloroethane	ND	5.0
Benzene	ND	5.0
Methyl tert-Amyl Ether (TAME)	ND	5.0
Toluene	ND	5.0
1,2-Dibromoethane	ND	5.0
Ethylbenzene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0

Surrogate	%REC	Limits
Dibromofluoromethane	101	78-126
1,2-Dichloroethane-d4	99	76-135
Toluene-d8	101	80-120
Bromofluorobenzene	102	80-126

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

BTXE & Oxygenates

Lab #:	195723	Location:	Celis-Emeryville
Client:	URS Corporation	Prep:	EPA 5030B
Project#:	26814847.06000	Analysis:	EPA 8260B
Field ID:	ZZZZZZZZZZ	Dil'n Fac:	0.9804
MSS Lab ID:	195772-003	Batch#:	126952
Matrix:	Soil	Sampled:	07/02/07
Units:	ug/Kg	Received:	07/03/07
Basis:	as received	Analyzed:	07/05/07

Type: MS Lab ID: QC395010

Analyte	MSS Result	Spiked	Result	%REC	Limits
tert-Butyl Alcohol (TBA)	<3.013	245.1	256.7	105	45-123
MTBE	<0.1879	49.02	49.67	101	55-120
Isopropyl Ether (DIPE)	<0.1696	49.02	47.47	97	50-120
Ethyl tert-Butyl Ether (ETBE)	<0.08887	49.02	46.85	96	58-120
1,2-Dichloroethane	<0.1943	49.02	43.81	89	56-120
Benzene	<0.1351	49.02	41.65	85	61-122
Methyl tert-Amyl Ether (TAME)	<0.1769	49.02	48.83	100	60-120
Toluene	<0.5418	49.02	43.02	88	57-124
1,2-Dibromoethane	<0.2179	49.02	40.56	83	57-120
Ethylbenzene	<0.5715	49.02	44.95	92	55-129
m,p-Xylenes	<1.282	98.04	86.65	88	53-127
o-Xylene	<0.5054	49.02	42.22	86	54-127

Surrogate	%REC	Limits
Dibromofluoromethane	112	78-126
1,2-Dichloroethane-d4	117	76-135
Toluene-d8	103	80-120
Bromofluorobenzene	102	80-126

Type: MSD Lab ID: QC395011

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
tert-Butyl Alcohol (TBA)	245.1	247.3	101	45-123	4	32
MTBE	49.02	46.76	95	55-120	6	20
Isopropyl Ether (DIPE)	49.02	46.08	94	50-120	3	20
Ethyl tert-Butyl Ether (ETBE)	49.02	45.14	92	58-120	4	20
1,2-Dichloroethane	49.02	42.40	86	56-120	3	20
Benzene	49.02	41.76	85	61-122	0	20
Methyl tert-Amyl Ether (TAME)	49.02	47.44	97	60-120	3	20
Toluene	49.02	43.00	88	57-124	0	21
1,2-Dibromoethane	49.02	39.63	81	57-120	2	20
Ethylbenzene	49.02	45.76	93	55-129	2	23
m,p-Xylenes	98.04	88.32	90	53-127	2	23
o-Xylene	49.02	42.79	87	54-127	1	22

Surrogate	%REC	Limits
Dibromofluoromethane	111	78-126
1,2-Dichloroethane-d4	116	76-135
Toluene-d8	103	80-120
Bromofluorobenzene	102	80-126

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

BTXE & Oxygenates

Lab #:	195723	Location:	Celis-Emeryville
Client:	URS Corporation	Prep:	EPA 5030B
Project#:	26814847.06000	Analysis:	EPA 8260B
Type:	LCS	Basis:	as received
Lab ID:	QC395086	Diln Fac:	1.000
Matrix:	Soil	Batch#:	126982
Units:	ug/Kg	Analyzed:	07/06/07

Analyte	Spiked	Result	%REC	Limits
tert-Butyl Alcohol (TBA)	125.0	145.8	117	56-130
MTBE	25.00	25.49	102	66-120
Isopropyl Ether (DIPE)	25.00	24.80	99	57-120
Ethyl tert-Butyl Ether (ETBE)	25.00	24.19	97	68-120
1,2-Dichloroethane	25.00	25.24	101	73-120
Benzene	25.00	24.07	96	80-120
Methyl tert-Amyl Ether (TAME)	25.00	25.52	102	73-120
Toluene	25.00	24.60	98	80-120
1,2-Dibromoethane	25.00	23.75	95	80-120
Ethylbenzene	25.00	25.89	104	80-125
m,p-Xylenes	50.00	50.07	100	80-123
o-Xylene	25.00	24.66	99	80-122

Surrogate	%REC	Limits
Dibromofluoromethane	106	78-126
1,2-Dichloroethane-d4	110	76-135
Toluene-d8	101	80-120
Bromofluorobenzene	103	80-126

Curtis & Tompkins, Ltd.

Batch QC Report

BTXE & Oxygenates

Lab #:	195723	Location:	Celis-Emeryville
Client:	URS Corporation	Prep:	EPA 5030B
Project#:	26814847.06000	Analysis:	EPA 8260B
Type:	BLANK	Basis:	as received
Lab ID:	QC395087	Diln Fac:	1.000
Matrix:	Soil	Batch#:	126982
Units:	ug/Kg	Analyzed:	07/06/07

Analyte	Result	RL
tert-Butyl Alcohol (TBA)	ND	100
MTBE	ND	5.0
Isopropyl Ether (DIPE)	ND	5.0
Ethyl tert-Butyl Ether (ETBE)	ND	5.0
1,2-Dichloroethane	ND	5.0
Benzene	ND	5.0
Methyl tert-Amyl Ether (TAME)	ND	5.0
Toluene	ND	5.0
1,2-Dibromoethane	ND	5.0
Ethylbenzene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0

Surrogate	%REC	Limits
Dibromofluoromethane	105	78-126
1,2-Dichloroethane-d4	113	76-135
Toluene-d8	101	80-120
Bromofluorobenzene	105	80-126

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

BTXE & Oxygenates

Lab #:	195723	Location:	Celis-Emeryville
Client:	URS Corporation	Prep:	EPA 5030B
Project#:	26814847.06000	Analysis:	EPA 8260B
Type:	BLANK	Basis:	as received
Lab ID:	QC395115	Diln Fac:	1.000
Matrix:	Soil	Batch#:	126982
Units:	ug/Kg	Analyzed:	07/06/07

Analyte	Result	RL
tert-Butyl Alcohol (TBA)	ND	100
MTBE	ND	5.0
Isopropyl Ether (DIPE)	ND	5.0
Ethyl tert-Butyl Ether (ETBE)	ND	5.0
1,2-Dichloroethane	ND	5.0
Benzene	ND	5.0
Methyl tert-Amyl Ether (TAME)	ND	5.0
Toluene	ND	5.0
1,2-Dibromoethane	ND	5.0
Ethylbenzene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0

Surrogate	%REC	Limits
Dibromofluoromethane	104	78-126
1,2-Dichloroethane-d4	110	76-135
Toluene-d8	101	80-120
Bromofluorobenzene	105	80-126

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

BTXE & Oxygenates

Lab #:	195723	Location:	Celis-Emeryville
Client:	URS Corporation	Prep:	EPA 5030B
Project#:	26814847.06000	Analysis:	EPA 8260B
Field ID:	ZZZZZZZZZZ	Dil'n Fac:	0.9259
MSS Lab ID:	195740-007	Batch#:	126982
Matrix:	Soil	Sampled:	06/29/07
Units:	ug/Kg	Received:	06/29/07
Basis:	as received	Analyzed:	07/06/07

Type: MS Lab ID: QC395116

Analyte	MSS Result	Spiked	Result	%REC	Limits
tert-Butyl Alcohol (TBA)	<2.846	231.5	284.2	123	45-123
MTBE	<0.1775	46.30	52.09	113	55-120
Isopropyl Ether (DIPE)	<0.1602	46.30	49.55	107	50-120
Ethyl tert-Butyl Ether (ETBE)	<0.08394	46.30	48.38	104	58-120
1,2-Dichloroethane	<0.1835	46.30	45.25	98	56-120
Benzene	<0.1276	46.30	43.02	93	61-122
Methyl tert-Amyl Ether (TAME)	<0.1670	46.30	50.37	109	60-120
Toluene	<0.5117	46.30	44.58	96	57-124
1,2-Dibromoethane	<0.2058	46.30	43.52	94	57-120
Ethylbenzene	<0.5398	46.30	47.68	103	55-129
m,p-Xylenes	<1.211	92.59	92.36	100	53-127
o-Xylene	<0.4774	46.30	44.89	97	54-127

Surrogate	%REC	Limits
Dibromofluoromethane	109	78-126
1,2-Dichloroethane-d4	114	76-135
Toluene-d8	102	80-120
Bromofluorobenzene	102	80-126

Type: MSD Lab ID: QC395117

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
tert-Butyl Alcohol (TBA)	231.5	271.3	117	45-123	5	32
MTBE	46.30	49.21	106	55-120	6	20
Isopropyl Ether (DIPE)	46.30	47.85	103	50-120	4	20
Ethyl tert-Butyl Ether (ETBE)	46.30	46.46	100	58-120	4	20
1,2-Dichloroethane	46.30	44.60	96	56-120	1	20
Benzene	46.30	43.06	93	61-122	0	20
Methyl tert-Amyl Ether (TAME)	46.30	49.64	107	60-120	1	20
Toluene	46.30	43.80	95	57-124	2	21
1,2-Dibromoethane	46.30	42.36	91	57-120	3	20
Ethylbenzene	46.30	46.57	101	55-129	2	23
m,p-Xylenes	92.59	89.72	97	53-127	3	23
o-Xylene	46.30	44.40	96	54-127	1	22

Surrogate	%REC	Limits
Dibromofluoromethane	110	78-126
1,2-Dichloroethane-d4	115	76-135
Toluene-d8	102	80-120
Bromofluorobenzene	102	80-126

RPD= Relative Percent Difference

URS

Facsimile

To: Tracy Babjar
Firm: Curtis & Tompkins
Facsimile: (510) 486-0532
From: Leonard Niles
Date: 7/3/07
Page 1 of : 3

Subject: Revised COCs - minus ethanol
Log In #s 195723 & 195741
Message: Celis - Emeryville 26814847.06000

cc:

URS Corporation
1333 Broadway, Suite 800
Oakland, CA 94612
Tel: 510-893-3600
Fax: 510-874-3268
www.urscorp.com

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 #: 195723

Sampler: Leonard Niles/Cliff Pearson
Project No.: 26814847.06000
Report To: Leonard Niles
Project Name: Celis-Emeryville
Company: URS Corporation
Project P.O.: ~~for~~
Telephone: (510) 874-1720
Turnaround Time: Standard (7day)
Fax: (510) 874-1720
e-mail: Leonard_Niles@URSCorp.com

Lab No.	Sample ID.	Sampling Date Time	Matrix: Soil	Water	Waste	# of Containers	Preservative: HCl	H_2SO_4	HNO_3	ICE	None	Analysis: TVH-g/ms 8015M	TEH-d/mo 8015M	BTEX/oxygenates/EDB (8260)	7 oil & grease	OTOH
-1	URS-MW-3-5.5	6/29/07, 7:57	X			1										X
-2	URS-MW-3-10.0	6/29, 8:02	X			1						X	X	X		
-3	URS-MW-3-15.0	6/29, 8:07	X			1						X	X	X		
-4	URS-MW-3-20.0	6/29, 8:12	X			1						X	X	X		
-5	URS-MW-5-6.5	6/29, 10:10	X			1						X	X	X		
-6	URS-MW-5-10.0	6/29, 10:17	X			1						X	X	X		
-7	URS-MW-5-15.0	6/29, 10:20	X			1						X	X	X		
-8	URS-MW-5-20.0	6/29, 10:25	X			1										X
-9	URS-MW-4-5.5	6/29, 12:12	X			1										X
-10	URS-MW-4-9.0	6/29, 12:20	X			1						X	X	X		
-11	URS-MW-4-14.5	6/29, 12:23	X			1						X	X	X		
-12	URS-MW-4-20.0	6/29, 12:28	X			1						X	X	X		

Notes:
*Client wants diesel, no motor oil Leo
Temp = 16.2°

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

RELINQUISHED BY:
Leonard Niles 6/29/07, 17:23 DATE / TIME
DATE / TIME
DATE / TIME

RECEIVED BY:
MRS 6/29/07 17:23 DATE / TIME
DATE / TIME
DATE / TIME

SIGNATURE

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

Laboratory Job Number 195741

URS Corporation
1333 Broadway
Oakland, CA 94612

Project : 26814847.06000
Location : Celis-Emeryville
Level : II

Sample ID	Lab ID
URS-MW-1-6.5	195741-001
URS-MW-1-11.0	195741-002
URS-MW-1-16.0	195741-003
URS-MW-1-20.0	195741-004
URS-MW-2-5.5	195741-005
URS-MW-2-11.0	195741-006
URS-MW-2-16.0	195741-007
URS-MW-2-19.5	195741-008
DRUM-1	195741-009
DRUM-2	195741-010
DRUM-3	195741-011
DRUM-4	195741-012
DRUM-1 - DRUM-4 COMPOSITE	195741-013
DRUM-5	195741-014
DRUM-6	195741-015
DRUM-7	195741-016
DRUM-8	195741-017
DRUM-6	195741-018

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signatures. The results contained in this report meet all requirements of NELAC and pertain only to those samples which were submitted for analysis.

Signature: _____ Date: 07/14/2007
Project Manager

Signature: _____ Date: 07/16/2007
Quality Assurance Director

Curtis & Tompkins, Ltd.

CASE NARRATIVE

Laboratory number:	**195741**
Client:	**URS Corporation**
Project:	**26814847.06000**
Location:	**Celis-Emeryville**
Request Date:	**07/02/07**
Samples Received:	**07/02/07**

This hardcopy data package contains sample and QC results for six soil samples and two four-point soil composites, requested for the above referenced project on 07/02/07. The samples were received on ice 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):
No analytical problems were encountered.

Metals (EPA 6010B):
No analytical problems were encountered.

Curtis & Tompkins, Ltd.

Total Volatile Hydrocarbons

Lab #:	195741	Location:	Celis-Emeryville
Client:	URS Corporation	Prep:	EPA 5030B
Project#:	26814847.06000	Analysis:	EPA 8015B
Matrix:	Soil	Batch#:	126929
Units:	mg/Kg	Sampled:	07/02/07
Basis:	as received	Received:	07/02/07
Diln Fac:	1.000		

Field ID: URS-MW-1-6.5 Lab ID: 195741-001
Type: SAMPLE Analyzed: 07/03/07

Analyte	Result	RL
Gasoline C7-C12	ND	0.97
Mineral Spirits C7-C12	ND	0.97

Surrogate	%REC	Limits
Trifluorotoluene (FID)	99	70-132
Bromofluorobenzene (FID)	104	66-138

Field ID: URS-MW-1-11.0 Lab ID: 195741-002
Type: SAMPLE Analyzed: 07/03/07

Analyte	Result	RL
Gasoline C7-C12	ND	1.0
Mineral Spirits C7-C12	ND	1.0

Surrogate	%REC	Limits
Trifluorotoluene (FID)	100	70-132
Bromofluorobenzene (FID)	103	66-138

Field ID: URS-MW-1-16.0 Lab ID: 195741-003
Type: SAMPLE Analyzed: 07/03/07

Analyte	Result	RL
Gasoline C7-C12	ND	0.95
Mineral Spirits C7-C12	ND	0.95

Surrogate	%REC	Limits
Trifluorotoluene (FID)	100	70-132
Bromofluorobenzene (FID)	109	66-138

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Total Volatile Hydrocarbons

Lab #:	195741	Location:	Celis-Emeryville
Client:	URS Corporation	Prep:	EPA 5030B
Project#:	26814847.06000	Analysis:	EPA 8015B
Matrix:	Soil	Batch#:	126929
Units:	mg/Kg	Sampled:	07/02/07
Basis:	as received	Received:	07/02/07
Diln Fac:	1.000		

Field ID: URS-MW-2-5.5 Lab ID: 195741-005
Type: SAMPLE Analyzed: 07/03/07

Analyte	Result	RL
Gasoline C7-C12	ND	0.98
Mineral Spirits C7-C12	ND	0.98

Surrogate	%REC	Limits
Trifluorotoluene (FID)	105	70-132
Bromofluorobenzene (FID)	106	66-138

Field ID: URS-MW-2-11.0 Lab ID: 195741-006
Type: SAMPLE Analyzed: 07/03/07

Analyte	Result	RL
Gasoline C7-C12	ND	1.0
Mineral Spirits C7-C12	ND	1.0

Surrogate	%REC	Limits
Trifluorotoluene (FID)	103	70-132
Bromofluorobenzene (FID)	105	66-138

Field ID: URS-MW-2-16.0 Lab ID: 195741-007
Type: SAMPLE Analyzed: 07/03/07

Analyte	Result	RL
Gasoline C7-C12	ND	1.0
Mineral Spirits C7-C12	ND	1.0

Surrogate	%REC	Limits
Trifluorotoluene (FID)	106	70-132
Bromofluorobenzene (FID)	109	66-138

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Total Volatile Hydrocarbons

Lab #:	195741	Location:	Celis-Emeryville
Client:	URS Corporation	Prep:	EPA 5030B
Project#:	26814847.06000	Analysis:	EPA 8015B
Matrix:	Soil	Batch#:	126929
Units:	mg/Kg	Sampled:	07/02/07
Basis:	as received	Received:	07/02/07
Diln Fac:	1.000		

Field ID: DRUM-1 - DRUM-4 COMPOSITE Lab ID: 195741-013
Type: SAMPLE Analyzed: 07/04/07

Analyte	Result	RL
Gasoline C7-C12	ND	1.0
Mineral Spirits C7-C12	ND	1.0

Surrogate	%REC	Limits
Trifluorotoluene (FID)	100	70-132
Bromofluorobenzene (FID)	99	66-138

Field ID: DRUM-5-DRUM-8 COMPOSITE Lab ID: 195741-018
Type: SAMPLE Analyzed: 07/04/07

Analyte	Result	RL
Gasoline C7-C12	ND	1.0
Mineral Spirits C7-C12	ND	1.0

Surrogate	%REC	Limits
Trifluorotoluene (FID)	97	70-132
Bromofluorobenzene (FID)	102	66-138

Type: BLANK Analyzed: 07/03/07
Lab ID: QC394880

Analyte	Result	RL
Gasoline C7-C12	ND	1.0
Mineral Spirits C7-C12	ND	1.0

Surrogate	%REC	Limits
Trifluorotoluene (FID)	100	70-132
Bromofluorobenzene (FID)	99	66-138

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Total Volatile Hydrocarbons

Lab #:	195741	Location:	Celis-Emeryville
Client:	URS Corporation	Prep:	EPA 5030B
Project#:	26814847.06000	Analysis:	EPA 8015B
Type:	LCS	Basis:	as received
Lab ID:	QC394881	Diln Fac:	1.000
Matrix:	Soil	Batch#:	126929
Units:	mg/Kg	Analyzed:	07/03/07

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	10.00	9.306	93	80-120

Surrogate	%REC	Limits
Trifluorotoluene (FID)	105	70-132
Bromofluorobenzene (FID)	97	66-138

Curtis & Tompkins, Ltd.

Batch QC Report

Total Volatile Hydrocarbons

Lab #:	195741	Location:	Celis-Emeryville
Client:	URS Corporation	Prep:	EPA 5030B
Project#:	26814847.06000	Analysis:	EPA 8015B
Field ID:	URS-MW-1-6.5	Diln Fac:	1.000
MSS Lab ID:	195741-001	Batch#:	126929
Matrix:	Soil	Sampled:	07/02/07
Units:	mg/Kg	Received:	07/02/07
Basis:	as received		

Type: MS Analyzed: 07/05/07
Lab ID: QC394882

Analyte	MSS Result	Spiked	Result	%REC	Limits
Gasoline C7-C12	0.1134	9.804	10.51	106	36-120

Surrogate	%REC	Limits
Trifluorotoluene (FID)	112	70-132
Bromofluorobenzene (FID)	108	66-138

Type: MSD Analyzed: 07/03/07
Lab ID: QC394883

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	10.42	11.39	108	36-120	2	29

Surrogate	%REC	Limits
Trifluorotoluene (FID)	115	70-132
Bromofluorobenzene (FID)	103	66-138

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Total Extractable Hydrocarbons

Lab #:	195741	Location:	Celis-Emeryville
Client:	URS Corporation	Prep:	SHAKER TABLE
Project#:	26814847.06000	Analysis:	EPA 8015B
Matrix:	Soil	Sampled:	07/02/07
Units:	mg/Kg	Received:	07/02/07
Basis:	as received	Prepared:	07/06/07
Batch#:	127008		

Field ID: URS-MW-1-6.5 Diln Fac: 1.000
Type: SAMPLE Analyzed: 07/09/07
Lab ID: 195741-001

Analyte	Result	RL
Diesel C10-C24	1.9 H Y	1.0

Surrogate	%REC	Limits
Hexacosane	70	40-127

Field ID: URS-MW-1-11.0 Diln Fac: 1.000
Type: SAMPLE Analyzed: 07/08/07
Lab ID: 195741-002

Analyte	Result	RL
Diesel C10-C24	ND	0.99

Surrogate	%REC	Limits
Hexacosane	92	40-127

Field ID: URS-MW-1-16.0 Diln Fac: 1.000
Type: SAMPLE Analyzed: 07/09/07
Lab ID: 195741-003

Analyte	Result	RL
Diesel C10-C24	11 H Y	1.0

Surrogate	%REC	Limits
Hexacosane	78	40-127

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

Curtis & Tompkins, Ltd.

Total Extractable Hydrocarbons

Lab #:	195741	Location:	Celis-Emeryville
Client:	URS Corporation	Prep:	SHAKER TABLE
Project#:	26814847.06000	Analysis:	EPA 8015B
Matrix:	Soil	Sampled:	07/02/07
Units:	mg/Kg	Received:	07/02/07
Basis:	as received	Prepared:	07/06/07
Batch#:	127008		

Field ID: URS-MW-2-5.5 Diln Fac: 1.000
Type: SAMPLE Analyzed: 07/09/07
Lab ID: 195741-005

Analyte	Result	RL
Diesel C10-C24	1.3 H Y	1.0

Surrogate	%REC	Limits
Hexacosane	95	40-127

Field ID: URS-MW-2-11.0 Diln Fac: 1.000
Type: SAMPLE Analyzed: 07/09/07
Lab ID: 195741-006

Analyte	Result	RL
Diesel C10-C24	1.4 H Y	1.0

Surrogate	%REC	Limits
Hexacosane	88	40-127

Field ID: URS-MW-2-16.0 Diln Fac: 1.000
Type: SAMPLE Analyzed: 07/08/07
Lab ID: 195741-007

Analyte	Result	RL
Diesel C10-C24	ND	0.99

Surrogate	%REC	Limits
Hexacosane	91	40-127

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

Curtis & Tompkins, Ltd.

Total Extractable Hydrocarbons

Lab #:	195741	Location:	Celis-Emeryville
Client:	URS Corporation	Prep:	SHAKER TABLE
Project#:	26814847.06000	Analysis:	EPA 8015B
Matrix:	Soil	Sampled:	07/02/07
Units:	mg/Kg	Received:	07/02/07
Basis:	as received	Prepared:	07/06/07
Batch#:	127008		

Field ID: DRUM-1 - DRUM-4 COMPOSITE
Type: SAMPLE
Lab ID: 195741-013
Diln Fac: 1.000
Analyzed: 07/09/07

Analyte	Result	RL
Diesel C10-C24	9.9 H Y	0.99

Surrogate	%REC	Limits
Hexacosane	91	40-127

Field ID: DRUM-5-DRUM-8 COMPOSITE
Type: SAMPLE
Lab ID: 195741-018
Diln Fac: 10.00
Analyzed: 07/09/07

Analyte	Result	RL
Diesel C10-C24	68 H Y	9.9

Surrogate	%REC	Limits
Hexacosane	DO	40-127

Type: BLANK
Lab ID: QC395177
Diln Fac: 1.000
Analyzed: 07/09/07

Analyte	Result	RL
Diesel C10-C24	ND	0.99

Surrogate	%REC	Limits
Hexacosane	84	40-127

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

Curtis & Tompkins, Ltd.

Batch QC Report

Total Extractable Hydrocarbons

Lab #:	195741	Location:	Celis-Emeryville
Client:	URS Corporation	Prep:	SHAKER TABLE
Project#:	26814847.06000	Analysis:	EPA 8015B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC395178	Batch#:	127008
Matrix:	Soil	Prepared:	07/06/07
Units:	mg/Kg	Analyzed:	07/08/07
Basis:	as received		

Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24	49.96	51.04	102	58-127

Surrogate	%REC	Limits
Hexacosane	107	40-127

Curtis & Tompkins, Ltd.

Batch QC Report

Total Extractable Hydrocarbons

Lab #:	195741	Location:	Celis-Emeryville
Client:	URS Corporation	Prep:	SHAKER TABLE
Project#:	26814847.06000	Analysis:	EPA 8015B
Field ID:	URS-MW-1-6.5	Batch#:	127008
MSS Lab ID:	195741-001	Sampled:	07/02/07
Matrix:	Soil	Received:	07/02/07
Units:	mg/Kg	Prepared:	07/06/07
Basis:	as received	Analyzed:	07/09/07
Diln Fac:	1.000		

Type: MS Lab ID: QC395179

Analyte	MSS Result	Spiked	Result	%REC	Limits
Diesel C10-C24	1.915	49.87	38.50	73	29-147

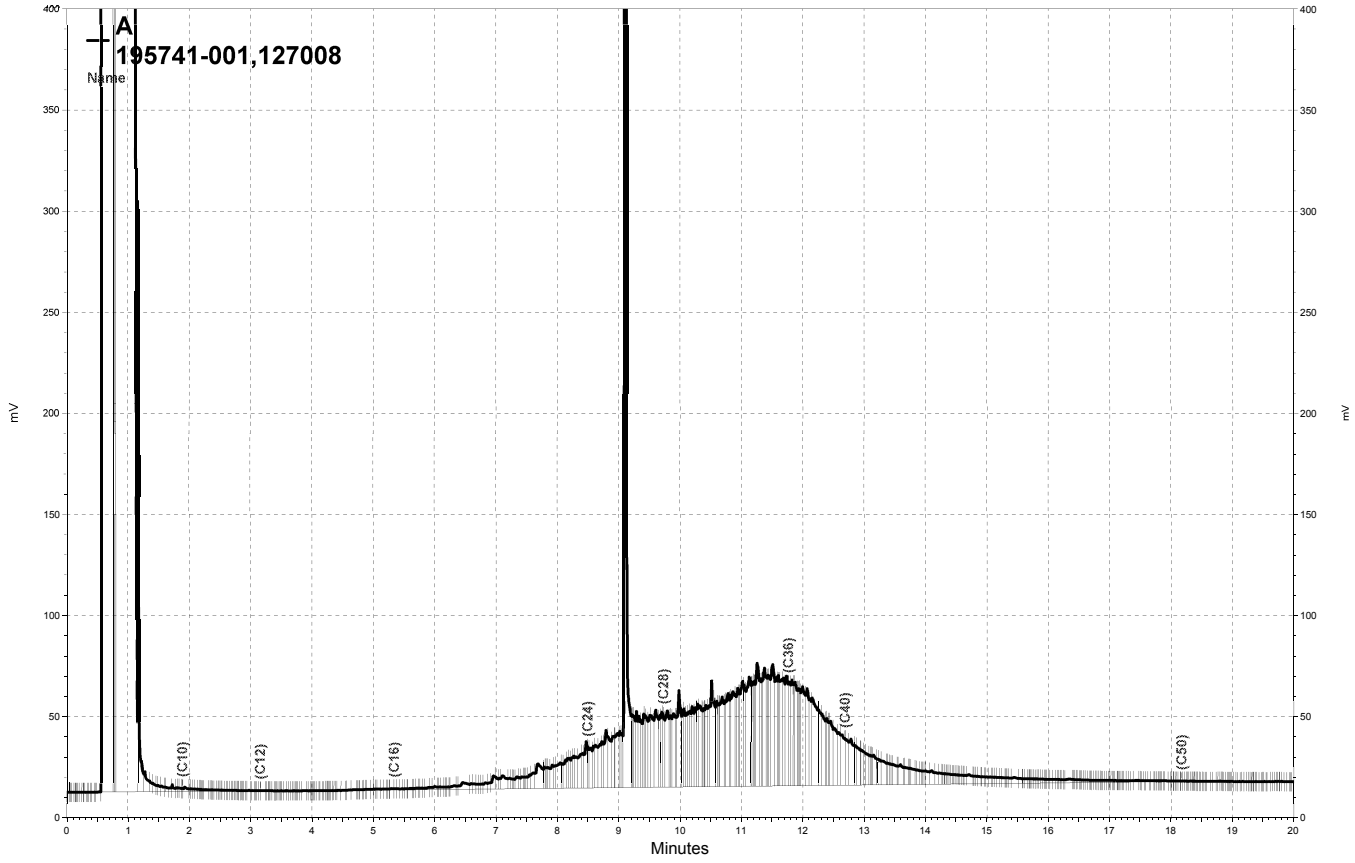
Surrogate	%REC	Limits
Hexacosane	44	40-127

Type: MSD Lab ID: QC395180

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Diesel C10-C24	49.69	44.35	85	29-147	14	46

Surrogate	%REC	Limits
Hexacosane	75	40-127

RPD= Relative Percent Difference



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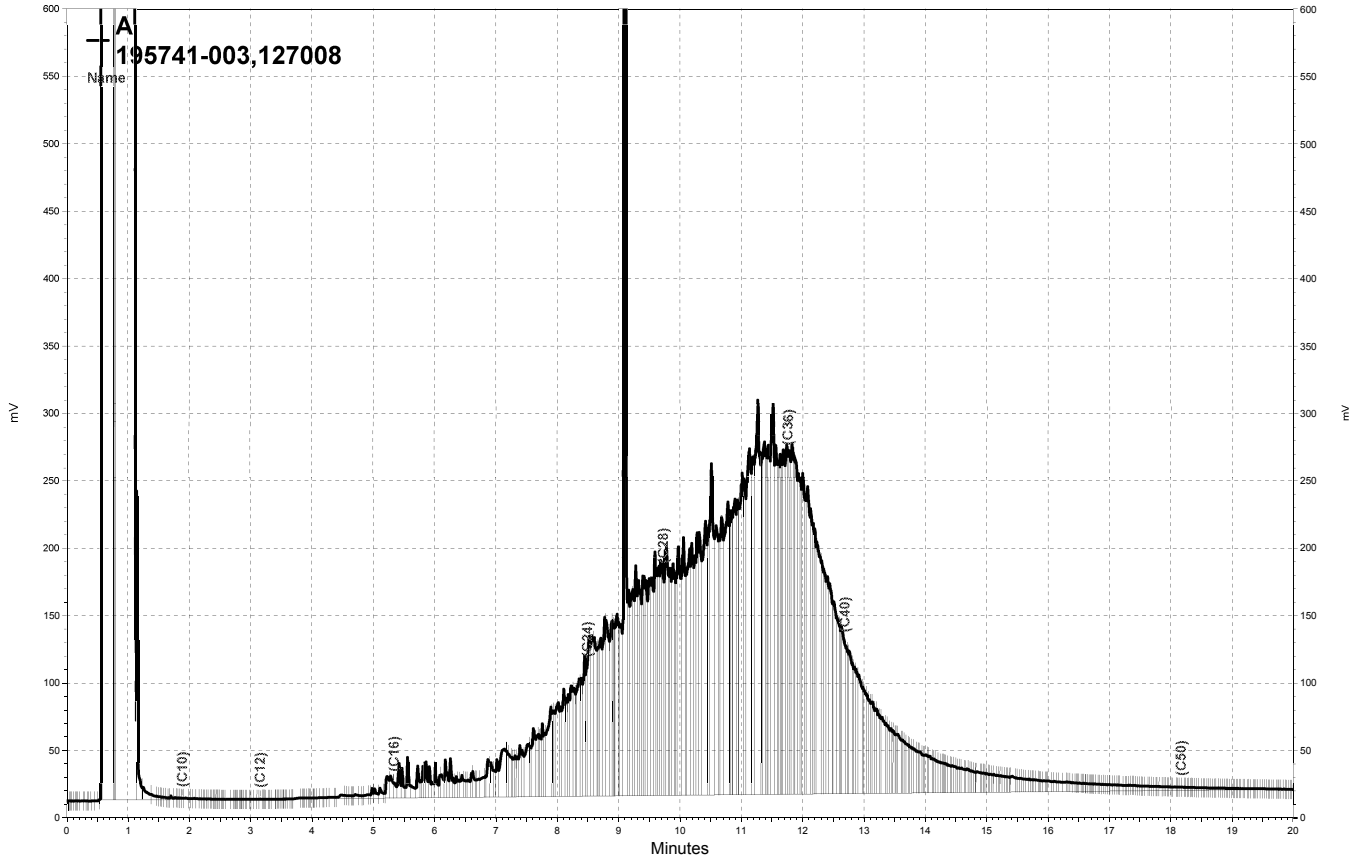

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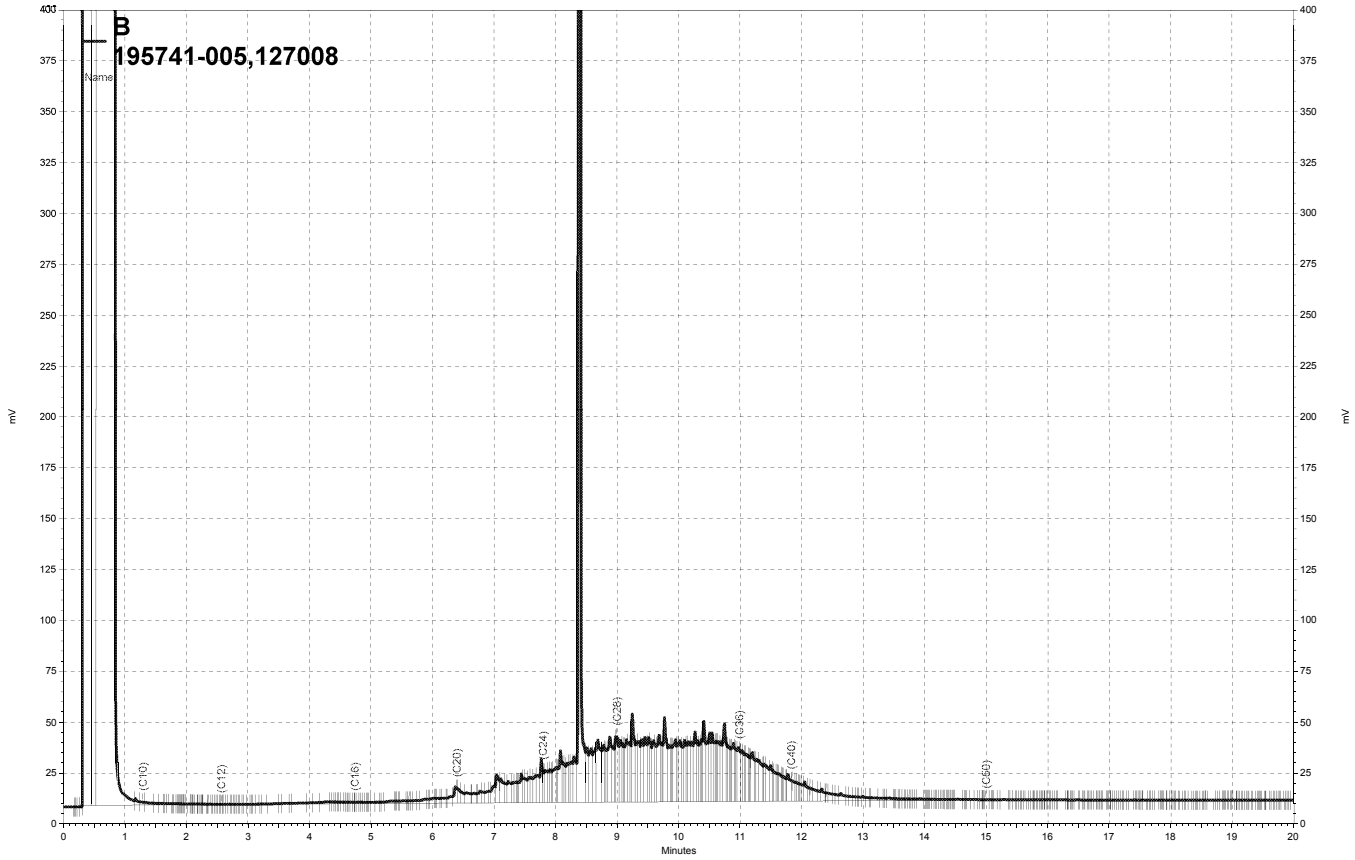

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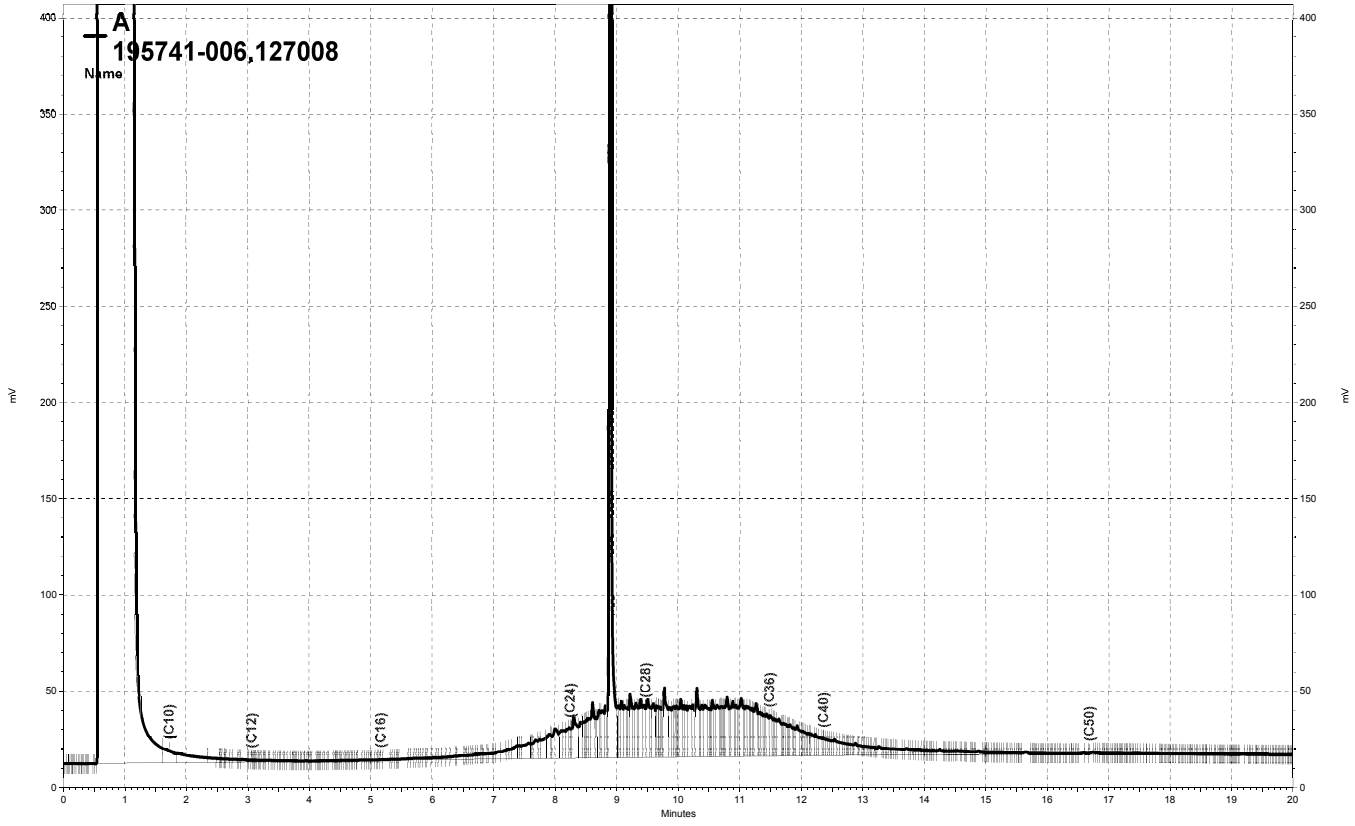

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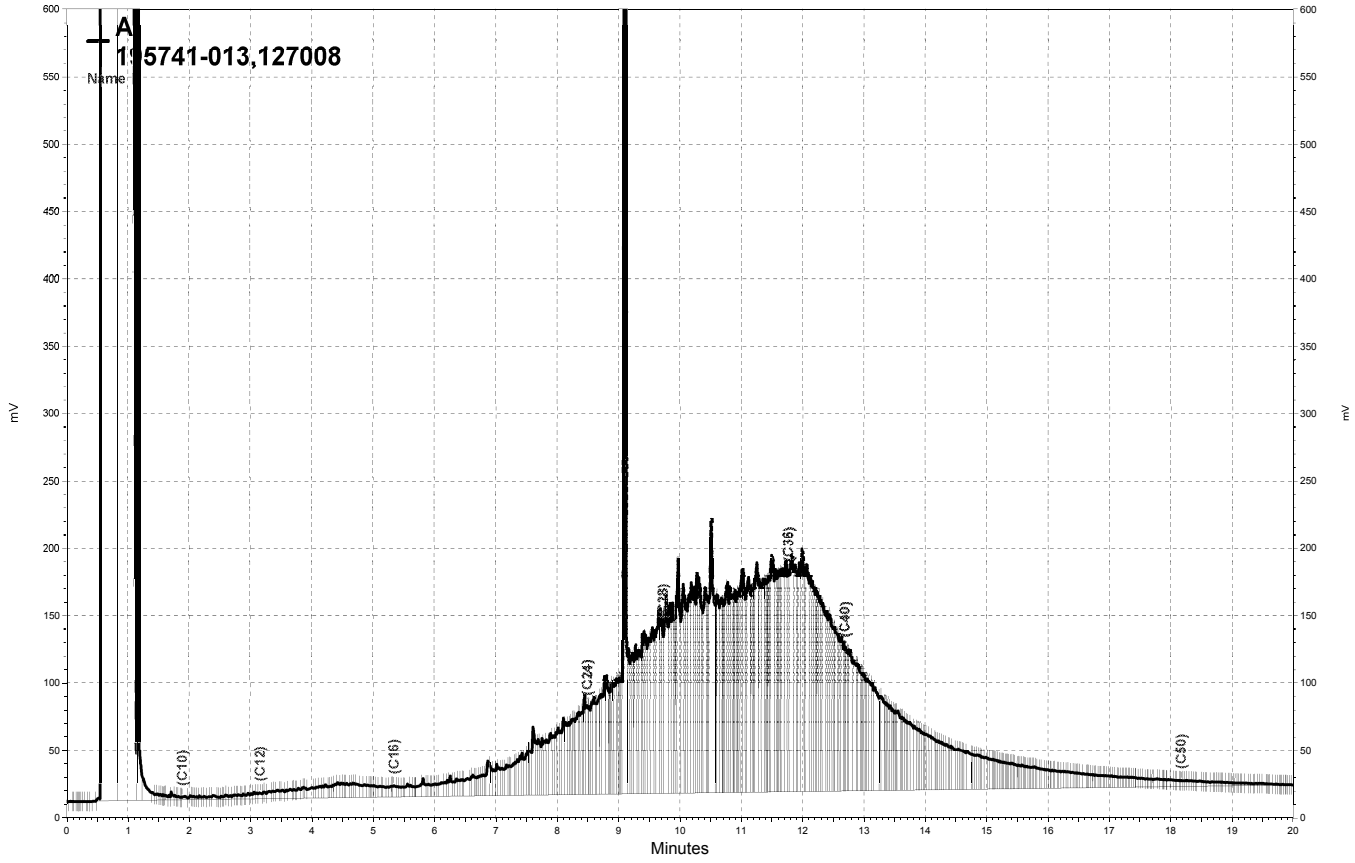

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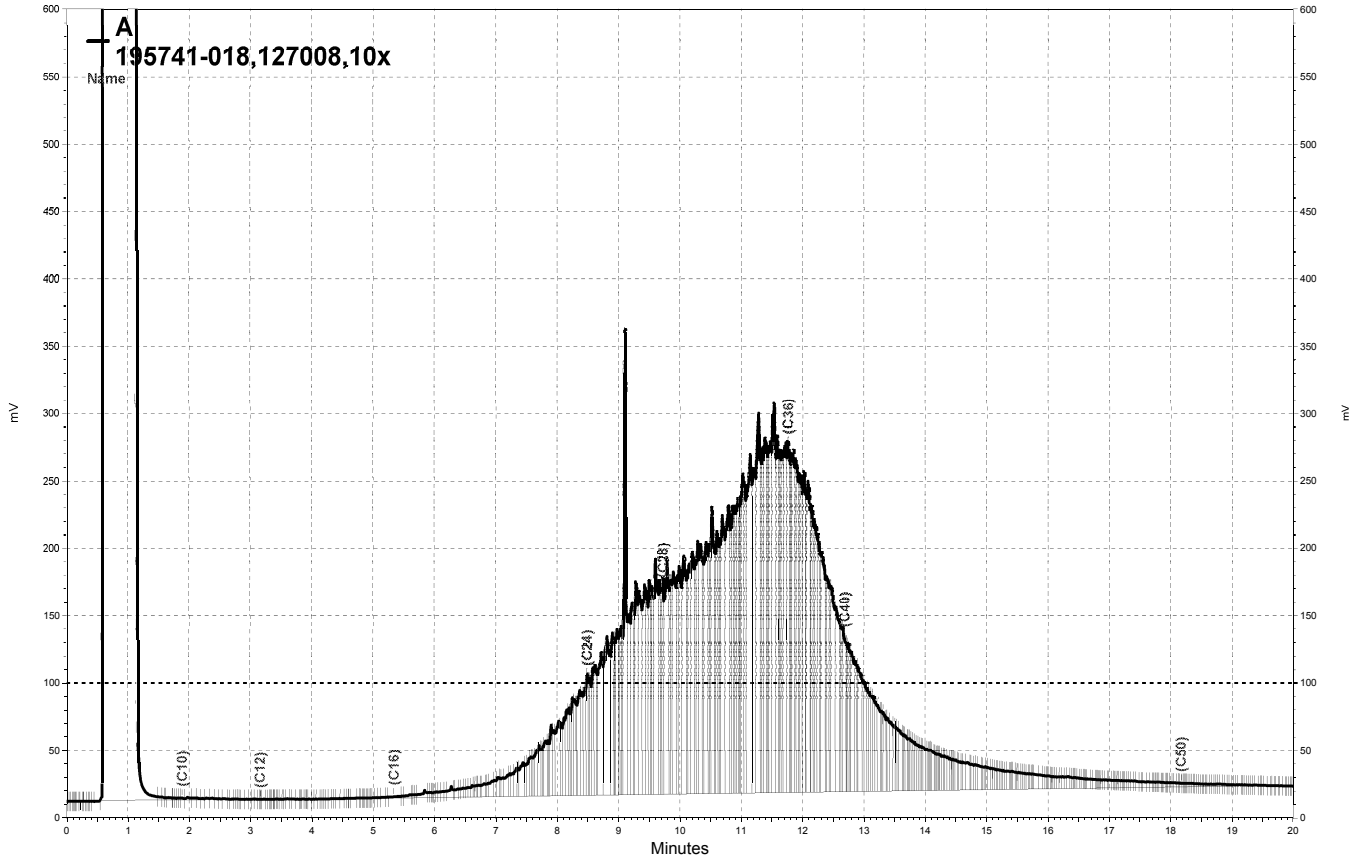

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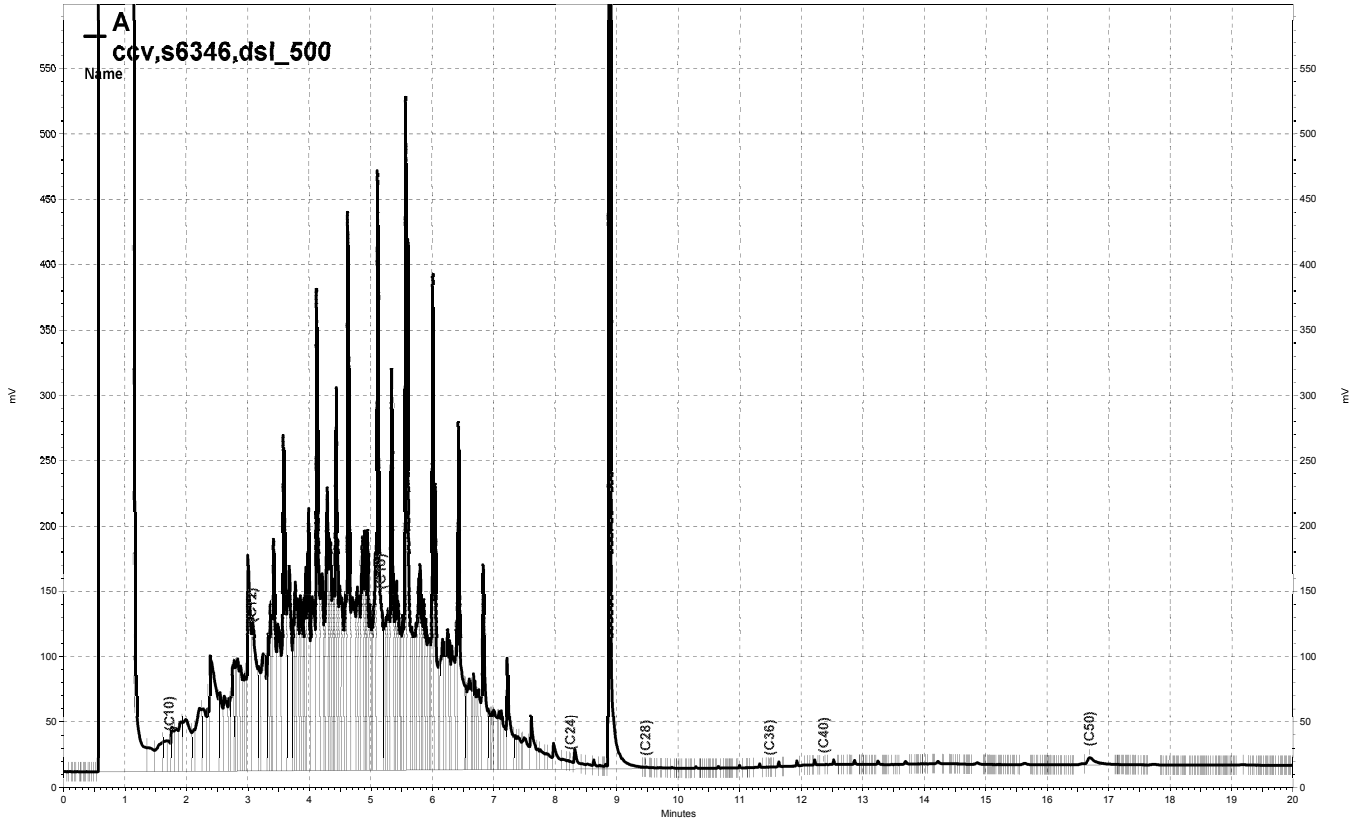

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Curtis & Tompkins, Ltd.

BTXE & Oxygenates

Lab #:	195741	Location:	Celis-Emeryville
Client:	URS Corporation	Prep:	EPA 5030B
Project#:	26814847.06000	Analysis:	EPA 8260B
Field ID:	URS-MW-1-6.5	Diln Fac:	0.9804
Lab ID:	195741-001	Batch#:	126905
Matrix:	Soil	Sampled:	07/02/07
Units:	ug/Kg	Received:	07/02/07
Basis:	as received	Analyzed:	07/03/07

Analyte	Result	RL
tert-Butyl Alcohol (TBA)	ND	98
MTBE	ND	4.9
Isopropyl Ether (DIPE)	ND	4.9
Ethyl tert-Butyl Ether (ETBE)	ND	4.9
1,2-Dichloroethane	ND	4.9
Benzene	ND	4.9
Methyl tert-Amyl Ether (TAME)	ND	4.9
Toluene	ND	4.9
1,2-Dibromoethane	ND	4.9
Ethylbenzene	ND	4.9
m,p-Xylenes	ND	4.9
o-Xylene	ND	4.9

Surrogate	%REC	Limits
Dibromofluoromethane	105	78-126
1,2-Dichloroethane-d4	109	76-135
Toluene-d8	101	80-120
Bromofluorobenzene	104	80-126

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

BTXE & Oxygenates

Lab #:	195741	Location:	Celis-Emeryville
Client:	URS Corporation	Prep:	EPA 5030B
Project#:	26814847.06000	Analysis:	EPA 8260B
Field ID:	URS-MW-1-11.0	Diln Fac:	1.000
Lab ID:	195741-002	Batch#:	126905
Matrix:	Soil	Sampled:	07/02/07
Units:	ug/Kg	Received:	07/02/07
Basis:	as received	Analyzed:	07/03/07

Analyte	Result	RL
tert-Butyl Alcohol (TBA)	ND	100
MTBE	ND	5.0
Isopropyl Ether (DIPE)	ND	5.0
Ethyl tert-Butyl Ether (ETBE)	ND	5.0
1,2-Dichloroethane	ND	5.0
Benzene	ND	5.0
Methyl tert-Amyl Ether (TAME)	ND	5.0
Toluene	ND	5.0
1,2-Dibromoethane	ND	5.0
Ethylbenzene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0

Surrogate	%REC	Limits
Dibromofluoromethane	104	78-126
1,2-Dichloroethane-d4	109	76-135
Toluene-d8	99	80-120
Bromofluorobenzene	102	80-126

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

BTXE & Oxygenates

Lab #:	195741	Location:	Celis-Emeryville
Client:	URS Corporation	Prep:	EPA 5030B
Project#:	26814847.06000	Analysis:	EPA 8260B
Field ID:	URS-MW-1-16.0	Diln Fac:	0.9804
Lab ID:	195741-003	Batch#:	126905
Matrix:	Soil	Sampled:	07/02/07
Units:	ug/Kg	Received:	07/02/07
Basis:	as received	Analyzed:	07/03/07

Analyte	Result	RL
tert-Butyl Alcohol (TBA)	ND	98
MTBE	ND	4.9
Isopropyl Ether (DIPE)	ND	4.9
Ethyl tert-Butyl Ether (ETBE)	ND	4.9
1,2-Dichloroethane	ND	4.9
Benzene	ND	4.9
Methyl tert-Amyl Ether (TAME)	ND	4.9
Toluene	ND	4.9
1,2-Dibromoethane	ND	4.9
Ethylbenzene	ND	4.9
m,p-Xylenes	ND	4.9
o-Xylene	ND	4.9

Surrogate	%REC	Limits
Dibromofluoromethane	106	78-126
1,2-Dichloroethane-d4	112	76-135
Toluene-d8	100	80-120
Bromofluorobenzene	108	80-126

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

BTXE & Oxygenates

Lab #:	195741	Location:	Celis-Emeryville
Client:	URS Corporation	Prep:	EPA 5030B
Project#:	26814847.06000	Analysis:	EPA 8260B
Field ID:	URS-MW-2-5.5	Diln Fac:	0.9091
Lab ID:	195741-005	Batch#:	126905
Matrix:	Soil	Sampled:	07/02/07
Units:	ug/Kg	Received:	07/02/07
Basis:	as received	Analyzed:	07/03/07

Analyte	Result	RL
tert-Butyl Alcohol (TBA)	ND	91
MTBE	ND	4.5
Isopropyl Ether (DIPE)	ND	4.5
Ethyl tert-Butyl Ether (ETBE)	ND	4.5
1,2-Dichloroethane	ND	4.5
Benzene	ND	4.5
Methyl tert-Amyl Ether (TAME)	ND	4.5
Toluene	ND	4.5
1,2-Dibromoethane	ND	4.5
Ethylbenzene	ND	4.5
m,p-Xylenes	ND	4.5
o-Xylene	ND	4.5

Surrogate	%REC	Limits
Dibromofluoromethane	107	78-126
1,2-Dichloroethane-d4	113	76-135
Toluene-d8	100	80-120
Bromofluorobenzene	104	80-126

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

BTXE & Oxygenates

Lab #:	195741	Location:	Celis-Emeryville
Client:	URS Corporation	Prep:	EPA 5030B
Project#:	26814847.06000	Analysis:	EPA 8260B
Field ID:	URS-MW-2-11.0	Diln Fac:	0.9259
Lab ID:	195741-006	Batch#:	126905
Matrix:	Soil	Sampled:	07/02/07
Units:	ug/Kg	Received:	07/02/07
Basis:	as received	Analyzed:	07/03/07

Analyte	Result	RL
tert-Butyl Alcohol (TBA)	ND	93
MTBE	ND	4.6
Isopropyl Ether (DIPE)	ND	4.6
Ethyl tert-Butyl Ether (ETBE)	ND	4.6
1,2-Dichloroethane	ND	4.6
Benzene	ND	4.6
Methyl tert-Amyl Ether (TAME)	ND	4.6
Toluene	ND	4.6
1,2-Dibromoethane	ND	4.6
Ethylbenzene	ND	4.6
m,p-Xylenes	ND	4.6
o-Xylene	ND	4.6

Surrogate	%REC	Limits
Dibromofluoromethane	106	78-126
1,2-Dichloroethane-d4	112	76-135
Toluene-d8	101	80-120
Bromofluorobenzene	105	80-126

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

BTXE & Oxygenates

Lab #:	195741	Location:	Celis-Emeryville
Client:	URS Corporation	Prep:	EPA 5030B
Project#:	26814847.06000	Analysis:	EPA 8260B
Field ID:	URS-MW-2-16.0	Diln Fac:	0.9091
Lab ID:	195741-007	Batch#:	126905
Matrix:	Soil	Sampled:	07/02/07
Units:	ug/Kg	Received:	07/02/07
Basis:	as received	Analyzed:	07/03/07

Analyte	Result	RL
tert-Butyl Alcohol (TBA)	ND	91
MTBE	16	4.5
Isopropyl Ether (DIPE)	ND	4.5
Ethyl tert-Butyl Ether (ETBE)	ND	4.5
1,2-Dichloroethane	ND	4.5
Benzene	ND	4.5
Methyl tert-Amyl Ether (TAME)	ND	4.5
Toluene	ND	4.5
1,2-Dibromoethane	ND	4.5
Ethylbenzene	ND	4.5
m,p-Xylenes	ND	4.5
o-Xylene	ND	4.5

Surrogate	%REC	Limits
Dibromofluoromethane	107	78-126
1,2-Dichloroethane-d4	112	76-135
Toluene-d8	100	80-120
Bromofluorobenzene	106	80-126

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

BTXE & Oxygenates

Lab #:	195741	Location:	Celis-Emeryville
Client:	URS Corporation	Prep:	EPA 5030B
Project#:	26814847.06000	Analysis:	EPA 8260B
Field ID:	DRUM-1 - DRUM-4 COMPOSITE	Diln Fac:	0.9434
Lab ID:	195741-013	Batch#:	126905
Matrix:	Soil	Sampled:	07/02/07
Units:	ug/Kg	Received:	07/02/07
Basis:	as received	Analyzed:	07/03/07

Analyte	Result	RL
tert-Butyl Alcohol (TBA)	ND	94
MTBE	ND	4.7
Isopropyl Ether (DIPE)	ND	4.7
Ethyl tert-Butyl Ether (ETBE)	ND	4.7
1,2-Dichloroethane	ND	4.7
Benzene	ND	4.7
Methyl tert-Amyl Ether (TAME)	ND	4.7
Toluene	ND	4.7
1,2-Dibromoethane	ND	4.7
Ethylbenzene	ND	4.7
m,p-Xylenes	ND	4.7
o-Xylene	ND	4.7

Surrogate	%REC	Limits
Dibromofluoromethane	107	78-126
1,2-Dichloroethane-d4	115	76-135
Toluene-d8	101	80-120
Bromofluorobenzene	97	80-126

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

BTXE & Oxygenates

Lab #:	195741	Location:	Celis-Emeryville
Client:	URS Corporation	Prep:	EPA 5030B
Project#:	26814847.06000	Analysis:	EPA 8260B
Field ID:	DRUM-5-DRUM-8 COMPOSITE	Diln Fac:	1.000
Lab ID:	195741-018	Batch#:	126905
Matrix:	Soil	Sampled:	07/02/07
Units:	ug/Kg	Received:	07/02/07
Basis:	as received	Analyzed:	07/03/07

Analyte	Result	RL
tert-Butyl Alcohol (TBA)	ND	100
MTBE	ND	5.0
Isopropyl Ether (DIPE)	ND	5.0
Ethyl tert-Butyl Ether (ETBE)	ND	5.0
1,2-Dichloroethane	ND	5.0
Benzene	ND	5.0
Methyl tert-Amyl Ether (TAME)	ND	5.0
Toluene	ND	5.0
1,2-Dibromoethane	ND	5.0
Ethylbenzene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0

Surrogate	%REC	Limits
Dibromofluoromethane	96	78-126
1,2-Dichloroethane-d4	115	76-135
Toluene-d8	101	80-120
Bromofluorobenzene	107	80-126

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

BTXE & Oxygenates

Lab #:	195741	Location:	Celis-Emeryville
Client:	URS Corporation	Prep:	EPA 5030B
Project#:	26814847.06000	Analysis:	EPA 8260B
Type:	LCS	Basis:	as received
Lab ID:	QC394758	Diln Fac:	1.000
Matrix:	Soil	Batch#:	126905
Units:	ug/Kg	Analyzed:	07/03/07

Analyte	Spiked	Result	%REC	Limits
tert-Butyl Alcohol (TBA)	125.0	135.3	108	56-130
MTBE	25.00	22.66	91	66-120
Isopropyl Ether (DIPE)	25.00	22.06	88	57-120
Ethyl tert-Butyl Ether (ETBE)	25.00	21.29	85	68-120
1,2-Dichloroethane	25.00	22.03	88	73-120
Benzene	25.00	23.67	95	80-120
Methyl tert-Amyl Ether (TAME)	25.00	24.09	96	73-120
Toluene	25.00	23.79	95	80-120
1,2-Dibromoethane	25.00	23.22	93	80-120
Ethylbenzene	25.00	25.16	101	80-125
m,p-Xylenes	50.00	49.16	98	80-123
o-Xylene	25.00	24.36	97	80-122

Surrogate	%REC	Limits
Dibromofluoromethane	96	78-126
1,2-Dichloroethane-d4	97	76-135
Toluene-d8	98	80-120
Bromofluorobenzene	101	80-126

Curtis & Tompkins, Ltd.

Batch QC Report

BTXE & Oxygenates

Lab #:	195741	Location:	Celis-Emeryville
Client:	URS Corporation	Prep:	EPA 5030B
Project#:	26814847.06000	Analysis:	EPA 8260B
Type:	BLANK	Basis:	as received
Lab ID:	QC394759	Diln Fac:	1.000
Matrix:	Soil	Batch#:	126905
Units:	ug/Kg	Analyzed:	07/03/07

Analyte	Result	RL
tert-Butyl Alcohol (TBA)	ND	100
MTBE	ND	5.0
Isopropyl Ether (DIPE)	ND	5.0
Ethyl tert-Butyl Ether (ETBE)	ND	5.0
1,2-Dichloroethane	ND	5.0
Benzene	ND	5.0
Methyl tert-Amyl Ether (TAME)	ND	5.0
Toluene	ND	5.0
1,2-Dibromoethane	ND	5.0
Ethylbenzene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0

Surrogate	%REC	Limits
Dibromofluoromethane	94	78-126
1,2-Dichloroethane-d4	99	76-135
Toluene-d8	99	80-120
Bromofluorobenzene	102	80-126

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

BTXE & Oxygenates

Lab #:	195741	Location:	Celis-Emeryville
Client:	URS Corporation	Prep:	EPA 5030B
Project#:	26814847.06000	Analysis:	EPA 8260B
Field ID:	URS-MW-1-6.5	Dil'n Fac:	0.9804
MSS Lab ID:	195741-001	Batch#:	126905
Matrix:	Soil	Sampled:	07/02/07
Units:	ug/Kg	Received:	07/02/07
Basis:	as received	Analyzed:	07/03/07

Type: MS Lab ID: QC394785

Analyte	MSS Result	Spiked	Result	%REC	Limits
tert-Butyl Alcohol (TBA)	<3.013	245.1	257.5	105	45-123
MTBE	<0.1879	49.02	49.02	100	55-120
Isopropyl Ether (DIPE)	<0.1696	49.02	47.18	96	50-120
Ethyl tert-Butyl Ether (ETBE)	<0.08887	49.02	46.49	95	58-120
1,2-Dichloroethane	<0.1943	49.02	42.72	87	56-120
Benzene	<0.1351	49.02	42.85	87	61-122
Methyl tert-Amyl Ether (TAME)	<0.1769	49.02	48.60	99	60-120
Toluene	<0.5418	49.02	43.49	89	57-124
1,2-Dibromoethane	<0.2179	49.02	39.87	81	57-120
Ethylbenzene	<0.5715	49.02	45.50	93	55-129
m,p-Xylenes	<1.282	98.04	87.84	90	53-127
o-Xylene	<0.5054	49.02	42.69	87	54-127

Surrogate	%REC	Limits
Dibromofluoromethane	109	78-126
1,2-Dichloroethane-d4	114	76-135
Toluene-d8	102	80-120
Bromofluorobenzene	100	80-126

Type: MSD Lab ID: QC394786

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
tert-Butyl Alcohol (TBA)	245.1	226.9	93	45-123	13	32
MTBE	49.02	45.81	93	55-120	7	20
Isopropyl Ether (DIPE)	49.02	45.08	92	50-120	5	20
Ethyl tert-Butyl Ether (ETBE)	49.02	44.44	91	58-120	4	20
1,2-Dichloroethane	49.02	41.40	84	56-120	3	20
Benzene	49.02	43.07	88	61-122	1	20
Methyl tert-Amyl Ether (TAME)	49.02	46.19	94	60-120	5	20
Toluene	49.02	44.26	90	57-124	2	21
1,2-Dibromoethane	49.02	40.03	82	57-120	0	20
Ethylbenzene	49.02	45.46	93	55-129	0	23
m,p-Xylenes	98.04	86.79	89	53-127	1	23
o-Xylene	49.02	42.64	87	54-127	0	22

Surrogate	%REC	Limits
Dibromofluoromethane	109	78-126
1,2-Dichloroethane-d4	110	76-135
Toluene-d8	101	80-120
Bromofluorobenzene	101	80-126

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Lead

Lab #:	195741	Location:	Celis-Emeryville
Client:	URS Corporation	Prep:	EPA 3050B
Project#:	26814847.06000	Analysis:	EPA 6010B
Analyte:	Lead	Batch#:	127020
Matrix:	Soil	Sampled:	07/02/07
Units:	mg/Kg	Received:	07/02/07
Basis:	as received	Prepared:	07/06/07
Diln Fac:	1.000	Analyzed:	07/09/07

Field ID	Type	Lab ID	Result	RL
DRUM-1 - DRUM-4 COMPOSITE	SAMPLE	195741-013	4.6	0.15
DRUM-5-DRUM-8 COMPOSITE	SAMPLE	195741-018	6.7	0.15
	BLANK	QC395259	ND	0.15

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Lead

Lab #:	195741	Location:	Celis-Emeryville
Client:	URS Corporation	Prep:	EPA 3050B
Project#:	26814847.06000	Analysis:	EPA 6010B
Analyte:	Lead	Diln Fac:	1.000
Field ID:	ZZZZZZZZZZ	Batch#:	127020
MSS Lab ID:	195738-005	Sampled:	07/02/07
Matrix:	Soil	Received:	07/02/07
Units:	mg/Kg	Prepared:	07/06/07
Basis:	as received	Analyzed:	07/09/07

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim
BS	QC395260		100.0	96.13	96	80-120		
BSD	QC395261		100.0	96.21	96	80-120	0	20
MS	QC395262	31.99	96.15	133.8	106	55-122		
MSD	QC395263		97.09	128.6	99	55-122	5	26

RPD= Relative Percent Difference

URS

Facsimile

To: Tracy Babjar
Firm: Curtis & Tompkins
Facsimile: (510) 486-0532
From: Leonard Niles
Date: 7/3/07
Page 1 of : 3

Subject: Revised COCs - minus ethanol
Log In #s 195723 & 195741
Message: Celis - Emeryville 26814847.06000

cc:

URS Corporation
1333 Broadway, Suite 800
Oakland, CA 94612
Tel: 510-893-3600
Fax: 510-874-3268
www.urscorp.com

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 #: 85741

Sampler: Leonard Niles/Cliff Pearson
Project No.: 26814847.06000 — Report To: Leonard Niles
Project Name: Celis-Emeryville — Company: URS Corporation
Project P.O.: — Telephone: (510)874-1720
Turnaround Time: Standard (7day) — Fax: (510)874-3268
e-mail: Leonard.Niles@urscorp.com

Lab No.	Sample ID.	Sampling Date Time	Matrix: Soil	Water	Waste	# of Containers	Preservative: HCL	H_2SO_4	HNO_3	ICE	Analysis: TVH-g/TVH-ms-E8015M	BTEX/oxygenates/ethanol-E8260B	TEH-d-E8015M 24 7/3/07	Total Lead-E6010B	Composite samples to one							
-1	URS-MW-1-6.5	7/2/07, 8:51	X			1				X	X	X	X									
-2	URS-MW-1-11.0	7/2/07, 9:00	X			1				X	X	X	X									
-3	URS-MW-1-16.0	7/2/07, 9:07	X			1				X	X	X	X									
-4	URS-MW-1-20.0	7/2/07, 9:13	X			1				X												
-5	URS-MW-2-5.5	7/2/07, 11:01	X			1				X	X	X	X									
-6	URS-MW-2-11.0	7/2/07, 11:05	X			1				X	X	X	X									
-7	URS-MW-2-16.0	7/2/07, 11:17	X			1				X	X	X	X									
-8	URS-MW-2-19.5	7/2/07, 11:18	X			1				X												
-9	DRUM-1, DRUM-2, DRUM-3 & DRUM-4 COMPOSITE	7/2/07, 13:31, 13:38, 13:46, 13:53	X			4				X	X	X	X	X	X	} -13						
-10	DRUM-5, DRUM-6, DRUM-7 & DRUM-8 COMPOSITE	7/2/07, 13:58, 13:40, 14:00, 14:14	X			4				X	X	X	X	X	X	} -14						

Notes:

SAMPLE RECEIPT: [X] Intact [ ] Cold [X] On Ice [ ] Ambient
Preservative Correct? [ ] Yes [ ] No [ ] N/A

RELINQUISHED BY: Leonard Niles — July 2, 2007 16:11 — DATE / TIME
DATE / TIME
DATE / TIME

RECEIVED BY: — 7-2-07 1611 — DATE / TIME
DATE / TIME
DATE / TIME

SIGNATURE

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 #: 95741

Sampler: Leonard Niles/Cliff Pearson
Report To: Leonard Niles
Company: URS Corporation
Telephone: (510)874-1720
Fax: (510)874-3268
e-mail: Leonard_Niles@urscorp.com

Project No.: 26814847.06000
Project Name: Celis-Emeryville
Project P.O.:
Turnaround Time: Standard (7day)

Lab No.	Sample ID.	Sampling Date Time	Matrix: Soil	Water	Waste		# of Containers	Preservative: HCL	H_2SO_4	HNO_3	ICE	Analysis: TVH-g/TVH-ms-E8015M	BTEX/oxygenates/ethanol-E8260B	TEH-d-E8015M	Total Lead-E6010B	Composite samples to one							
-1	URS-MW-1-6.5	7/2/07, 8:57	X				1				X	X	X	X								
-2	URS-MW-1-11.0	7/2/07, 9:00	X				1				X	X	X	X								
-3	URS-MW-1-16.0	7/2/07, 9:07	X				1				X	X	X	X								
-4	URS-MW-1-20.0	7/2/07, 9:13	X				1				X											
-5	URS-MW-2-5.5	7/2/07, 11:01	X				1				X	X	X	X								
-6	URS-MW-2-11.0	7/2/07, 11:05	X				1				X	X	X	X								
-7	URS-MW-2-16.0	7/2/07, 11:17	X				1				X	X	X	X								
-8	URS-MW-2-19.5	7/2/07, 11:18	X				1				X											
-9	DRUM-1, DRUM-2, DRUM-3 & DRUM-4-COMPOSITE	7/2/07, 13:30, 13:38, 13:46, 13:53	X				4				X	X	X	X	X	X						
-10	DRUM-5, DRUM-6, DRUM-7 & DRUM-8-COMPOSITE	7/2/07, 13:58, 13:40, 14:00, 14:04	X				4				X	X	X	X	X	X						

Notes:

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

RELINQUISHED BY:
Leonard Niles July 2, 2007 16:11 DATE / TIME
DATE / TIME
DATE / TIME

RECEIVED BY:
7-2-07 1611 DATE / TIME
DATE / TIME
DATE / TIME

SIGNATURE

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

Laboratory Job Number 195859

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

Sample ID	Lab ID
URS-MW-1	195859-001
URS-MW-2	195859-002
URS-MW-3	195859-003
URS-MW-4	195859-004
URS-MW-5	195859-005
LFMW-LF-4	195859-006

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signatures. The results contained in this report meet all requirements of NELAC and pertain only to those samples which were submitted for analysis.

Signature: _____ Date: 07/16/2007
Project Manager

Signature: _____ Date: 07/16/2007
Quality Assurance Director

Curtis & Tompkins, Ltd.

CASE NARRATIVE

Laboratory number:	**195859**
Client:	**URS Corporation**
Project:	**26814847.06000**
Location:	**Celis-Emeryville**
Request Date:	**07/10/07**
Samples Received:	**07/10/07**

This hardcopy data package contains sample and QC results for six water samples, requested for the above referenced project on 07/10/07. 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):
Low recovery was observed for ethyl tert-butyl ether (ETBE) in the BSD for batch 127123; the associated RPD was within limits, and the low recovery was not associated with any reported results. No other analytical problems were encountered.

Curtis & Tompkins, Ltd.

Total Volatile Hydrocarbons

Lab #:	195859	Location:	Celis-Emeryville
Client:	URS Corporation	Prep:	EPA 5030B
Project#:	26814847.06000	Analysis:	EPA 8015B
Matrix:	Water	Batch#:	127104
Units:	ug/L	Sampled:	07/10/07
Diln Fac:	1.000	Received:	07/10/07

Field ID: URS-MW-1 Lab ID: 195859-001
Type: SAMPLE Analyzed: 07/11/07

Analyte	Result	RL
Gasoline C7-C12	960 H Y	50
Mineral Spirits C7-C12	550	50

Surrogate	%REC	Limits
Trifluorotoluene (FID)	108	72-136
Bromofluorobenzene (FID)	129	78-131

Field ID: URS-MW-2 Lab ID: 195859-002
Type: SAMPLE Analyzed: 07/11/07

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

Surrogate	%REC	Limits
Trifluorotoluene (FID)	101	72-136
Bromofluorobenzene (FID)	105	78-131

Field ID: URS-MW-3 Lab ID: 195859-003
Type: SAMPLE Analyzed: 07/11/07

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

Surrogate	%REC	Limits
Trifluorotoluene (FID)	96	72-136
Bromofluorobenzene (FID)	107	78-131

Field ID: URS-MW-4 Lab ID: 195859-004
Type: SAMPLE Analyzed: 07/11/07

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

Surrogate	%REC	Limits
Trifluorotoluene (FID)	103	72-136
Bromofluorobenzene (FID)	109	78-131

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

Curtis & Tompkins, Ltd.

Total Volatile Hydrocarbons

Lab #:	195859	Location:	Celis-Emeryville
Client:	URS Corporation	Prep:	EPA 5030B
Project#:	26814847.06000	Analysis:	EPA 8015B
Matrix:	Water	Batch#:	127104
Units:	ug/L	Sampled:	07/10/07
Diln Fac:	1.000	Received:	07/10/07

Field ID: URS-MW-5 Lab ID: 195859-005
Type: SAMPLE Analyzed: 07/11/07

Analyte	Result	RL
Gasoline C7-C12	270	50
Mineral Spirits C7-C12	160 Y	50

Surrogate	%REC	Limits
Trifluorotoluene (FID)	104	72-136
Bromofluorobenzene (FID)	104	78-131

Field ID: LFMW-LF-4 Lab ID: 195859-006
Type: SAMPLE Analyzed: 07/11/07

Analyte	Result	RL
Gasoline C7-C12	450	50
Mineral Spirits C7-C12	260 Y	50

Surrogate	%REC	Limits
Trifluorotoluene (FID)	112	72-136
Bromofluorobenzene (FID)	109	78-131

Type: BLANK Analyzed: 07/11/07
Lab ID: QC395637

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

Surrogate	%REC	Limits
Trifluorotoluene (FID)	104	72-136
Bromofluorobenzene (FID)	103	78-131

Type: BLANK Analyzed: 07/10/07
Lab ID: QC395812

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

Surrogate	%REC	Limits
Trifluorotoluene (FID)	101	72-136
Bromofluorobenzene (FID)	102	78-131

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

Curtis & Tompkins, Ltd.

Batch QC Report

Total Volatile Hydrocarbons

Lab #:	195859	Location:	Celis-Emeryville
Client:	URS Corporation	Prep:	EPA 5030B
Project#:	26814847.06000	Analysis:	EPA 8015B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC395638	Batch#:	127104
Matrix:	Water	Analyzed:	07/10/07
Units:	ug/L		

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	2,000	2,093	105	80-120

Surrogate	%REC	Limits
Trifluorotoluene (FID)	111	72-136
Bromofluorobenzene (FID)	102	78-131

Curtis & Tompkins, Ltd.

Batch QC Report

Total Volatile Hydrocarbons

Lab #:	195859	Location:	Celis-Emeryville
Client:	URS Corporation	Prep:	EPA 5030B
Project#:	26814847.06000	Analysis:	EPA 8015B
Field ID:	ZZZZZZZZZZ	Batch#:	127104
MSS Lab ID:	195846-007	Sampled:	07/09/07
Matrix:	Water	Received:	07/10/07
Units:	ug/L	Analyzed:	07/10/07
Diln Fac:	1.000		

Type: MS Lab ID: QC395639

Analyte	MSS Result	Spiked	Result	%REC	Limits
Gasoline C7-C12	50.26	2,000	1,985	97	79-120

Surrogate	%REC	Limits
Trifluorotoluene (FID)	107	72-136
Bromofluorobenzene (FID)	104	78-131

Type: MSD Lab ID: QC395640

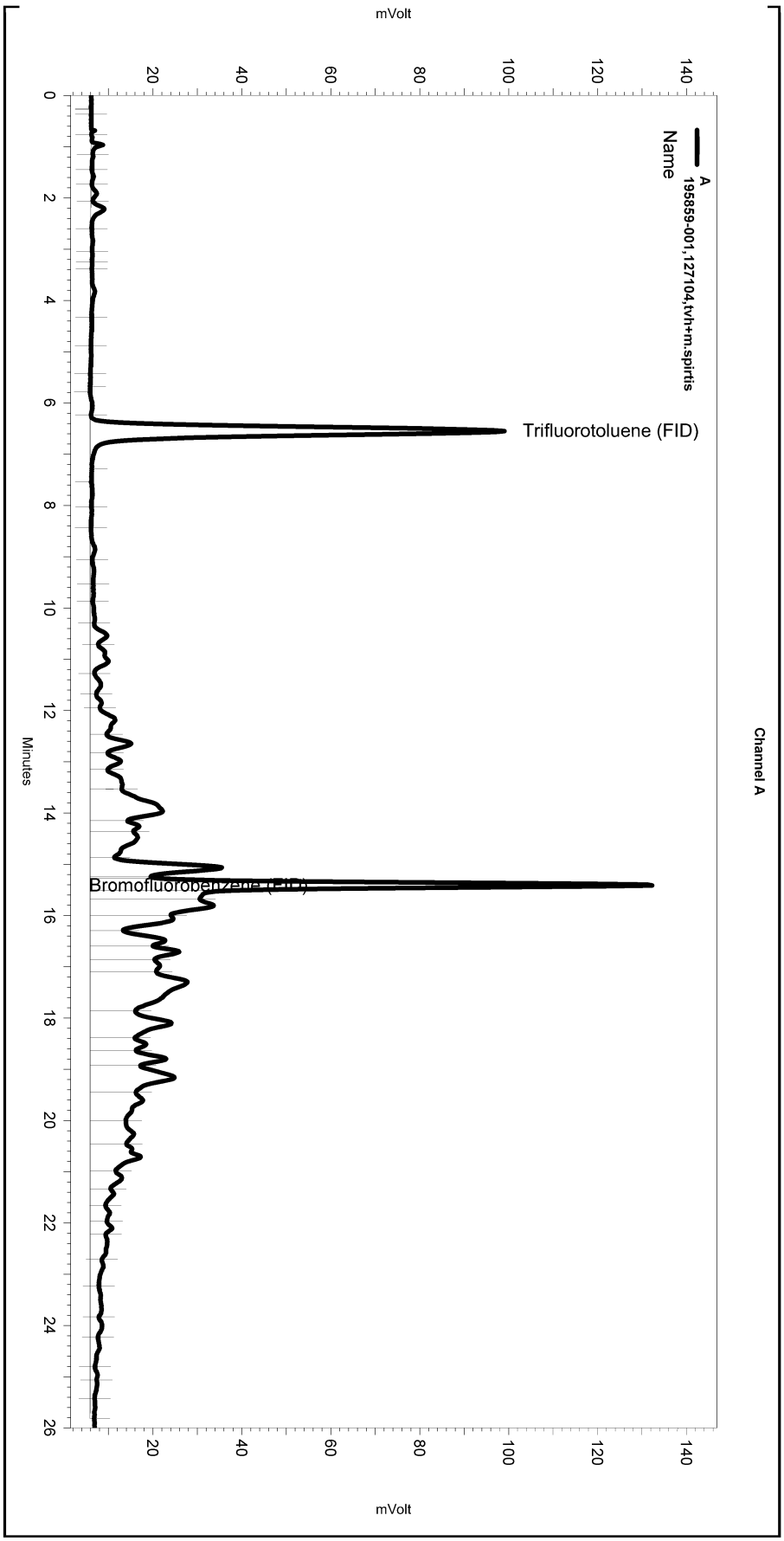
Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	2,000	2,063	101	79-120	4	20

Surrogate	%REC	Limits
Trifluorotoluene (FID)	110	72-136
Bromofluorobenzene (FID)	109	78-131

RPD= Relative Percent Difference

Sequence File: **\\Lims\gdrive\ezchrom\Projects\GC07\Sequence\191.seq**
Sample Name: **195859-001,127104,tvh+m.spirtis**
Data File: **\\Lims\gdrive\ezchrom\Projects\GC07\Data\191_023**
Instrument: GC07 (Offline) Vial: N/A Operator: Tvh 2. Analyst (lims2k3\tvh2)
Method Name: \\Lims\gdrive\ezchrom\Projects\GC07\Method\tvhbtxe121.met

Software Version 3.1.7
Run Date: 7/11/2007 2:31:30 AM
Analysis Date: 7/11/2007 12:49:32 PM
Sample Amount: 5 Multiplier: 5
Vial & pH or Core ID: B1.3



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Integration Events

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Yes	Threshold	0	0	50

Manual Integration Fixes

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Yes	Horizontal Baseline	5.881	25.828	0
Yes	Split Peak	15.279	0	0
Yes	Split Peak	15.523	0	0

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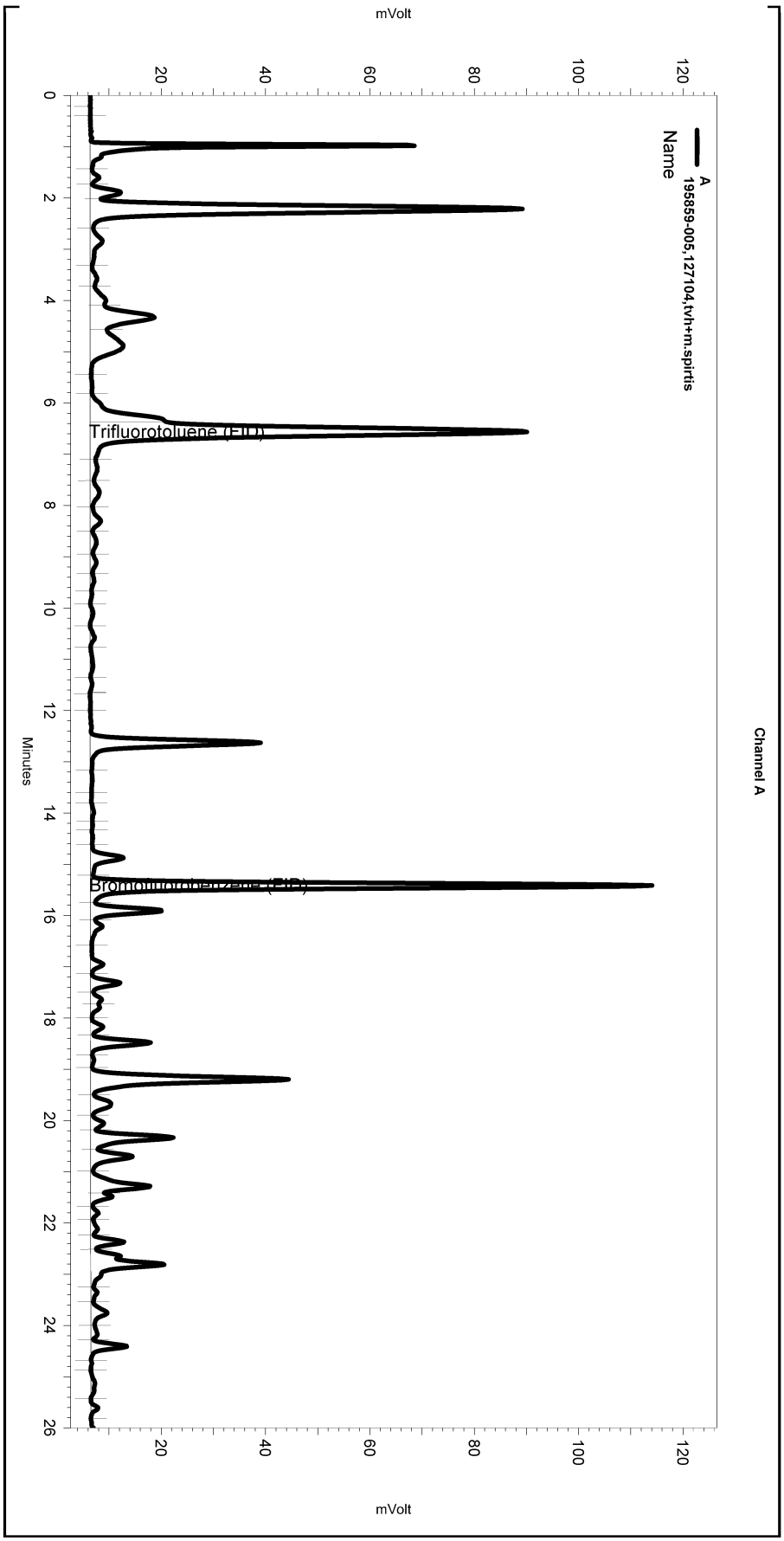
Sample Name: **195859-005,127104,tvh+m.spirtis**
Data File: **\\Lims\gdrive\ezchrom\Projects\GC07\Data\191_027**
Instrument: GC07 (Offline) Vial: N/A Operator: Tvh 2. Analyst (lims2k3\tvh2)
Method Name: \\Lims\gdrive\ezchrom\Projects\GC07\Method\tvhbtxe121.met

Software Version 3.1.7
Run Date: 7/11/2007 4:56:25 AM
Analysis Date: 7/11/2007 12:49:46 PM
Sample Amount: 5 Multiplier: 5
Vial & pH or Core ID: B1.3



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Integration Events

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

Manual Integration Fixes

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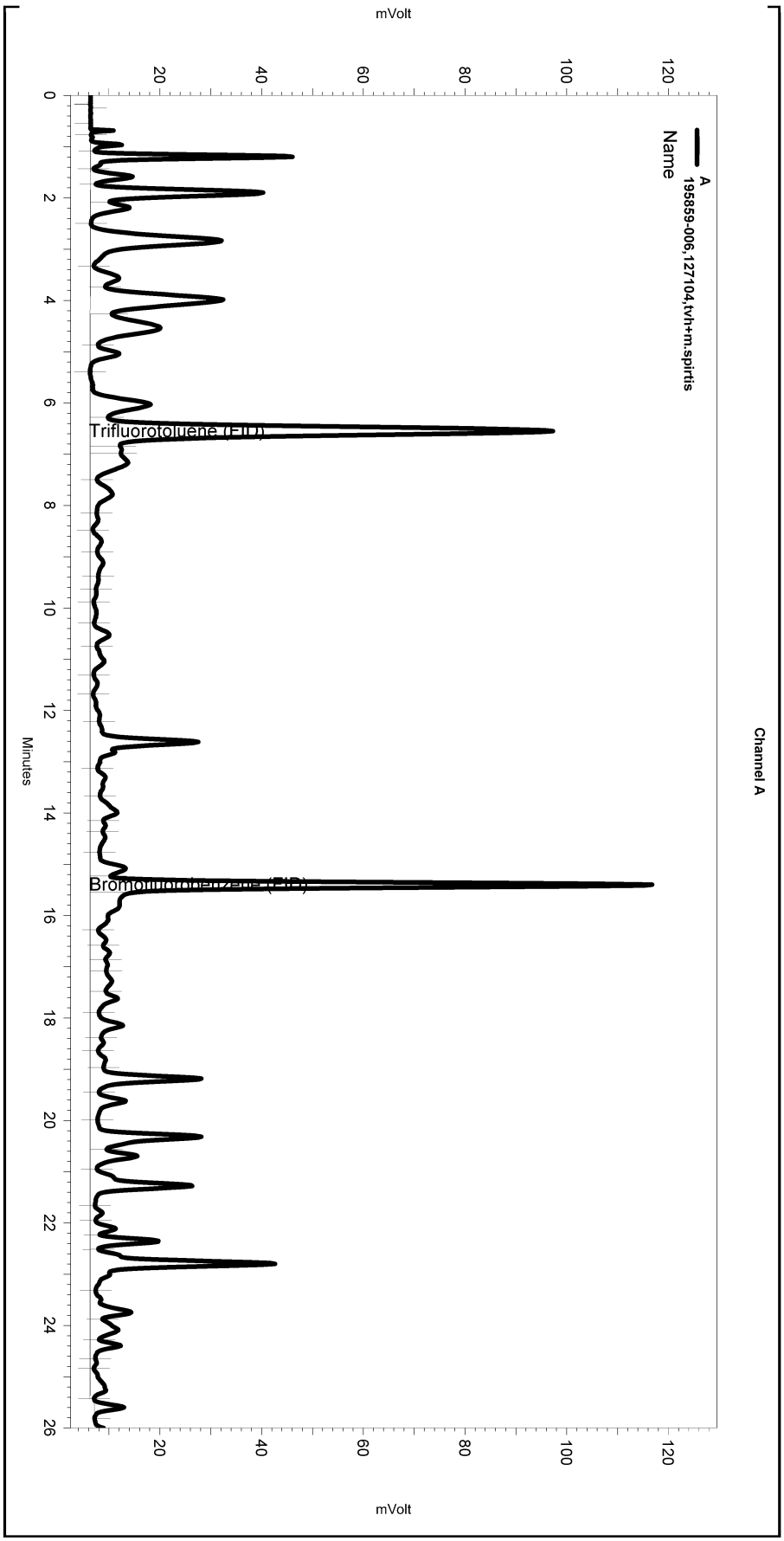
Enabled	Event Type	Start (Minutes)	Stop (Minutes)	Value
Yes	Split Peak	6.369	0	0

Sequence File: **\\Lims\gdrive\ezchrom\Projects\GC07\Sequence\191.seq**
Sample Name: **195859-006,127104,tvh+m.spirtis**
Data File: **\\Lims\gdrive\ezchrom\Projects\GC07\Data\191_028**
Instrument: GC07 (Offline) Vial: N/A Operator: Tvh 2. Analyst (lims2k3\tvh2)
Method Name: \\Lims\gdrive\ezchrom\Projects\GC07\Method\tvhbtxe121.met

Software Version 3.1.7
Run Date: 7/11/2007 5:32:34 AM
Analysis Date: 7/11/2007 12:49:50 PM
Sample Amount: 5 Multiplier: 5
Vial & pH or Core ID: B1.3



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Integration Events

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

Manual Integration Fixes

Data File: \\Lims\gdrive\ezchrom\Projects\GC07\Data\191_028

Enabled	Event Type	Start (Minutes)	Stop (Minutes)	Value
Yes	Horizontal Baseline	5.781	25.482	0
Yes	Split Peak	15.555	0	0

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Sample Name: **ccv,mineralspirits,s6087,5/5000**
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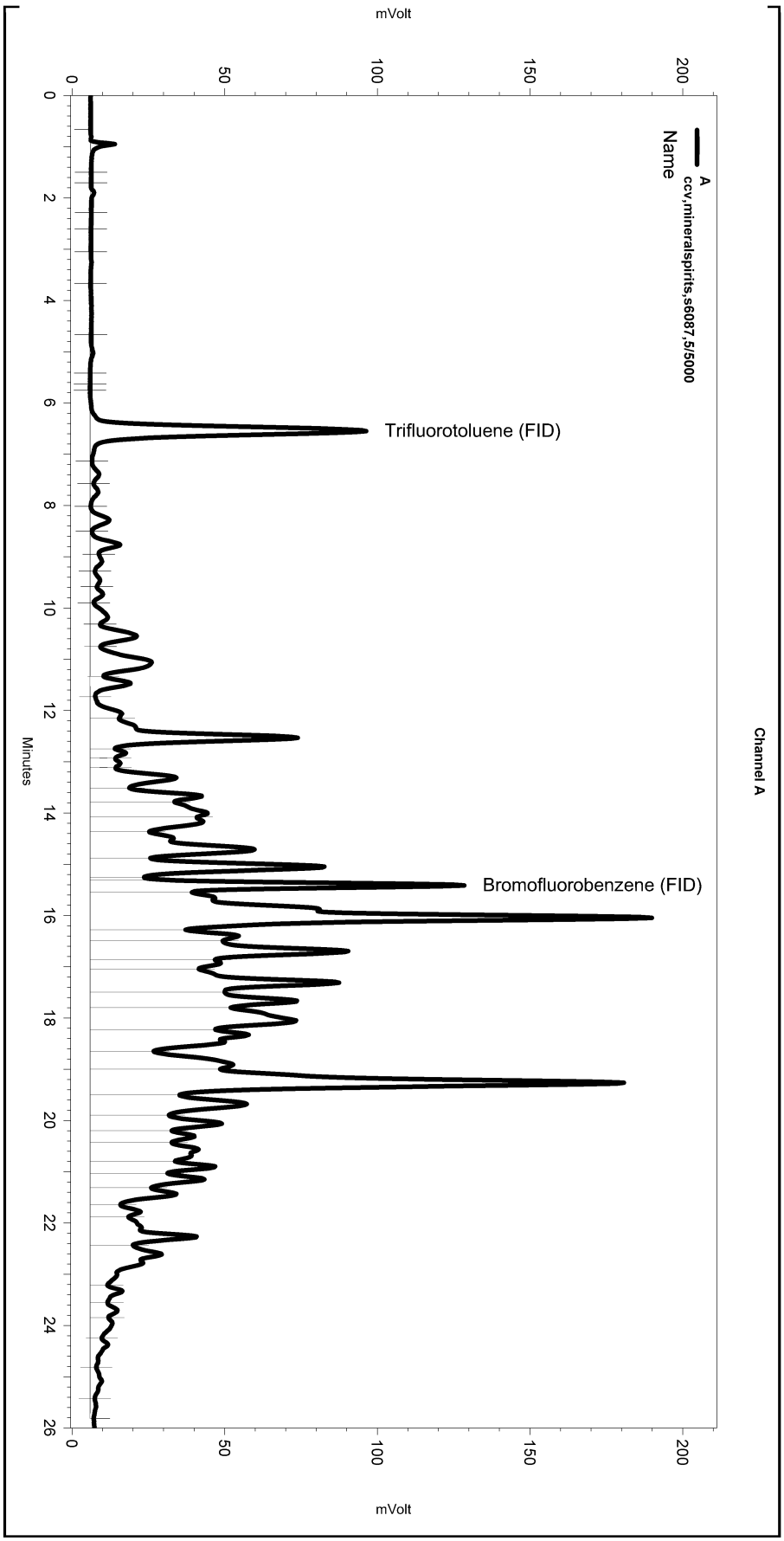
Instrument: GC07 (Offline) Vial: N/A Operator: Tvh 2. Analyst (lims2k3\tvh2)
Method Name: \\Lims\gdrive\ezchrom\Projects\GC07\Method\tvhbtxe121.met

Software Version 3.1.7
Run Date: 7/10/2007 10:18:52 PM
Analysis Date: 7/11/2007 12:49:03 PM
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

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Enabled	Event Type	Start (Minutes)	Stop (Minutes)	Value
Yes	Horizontal Baseline	5.829	25.869	0
Yes	Split Peak	15.315	0	0

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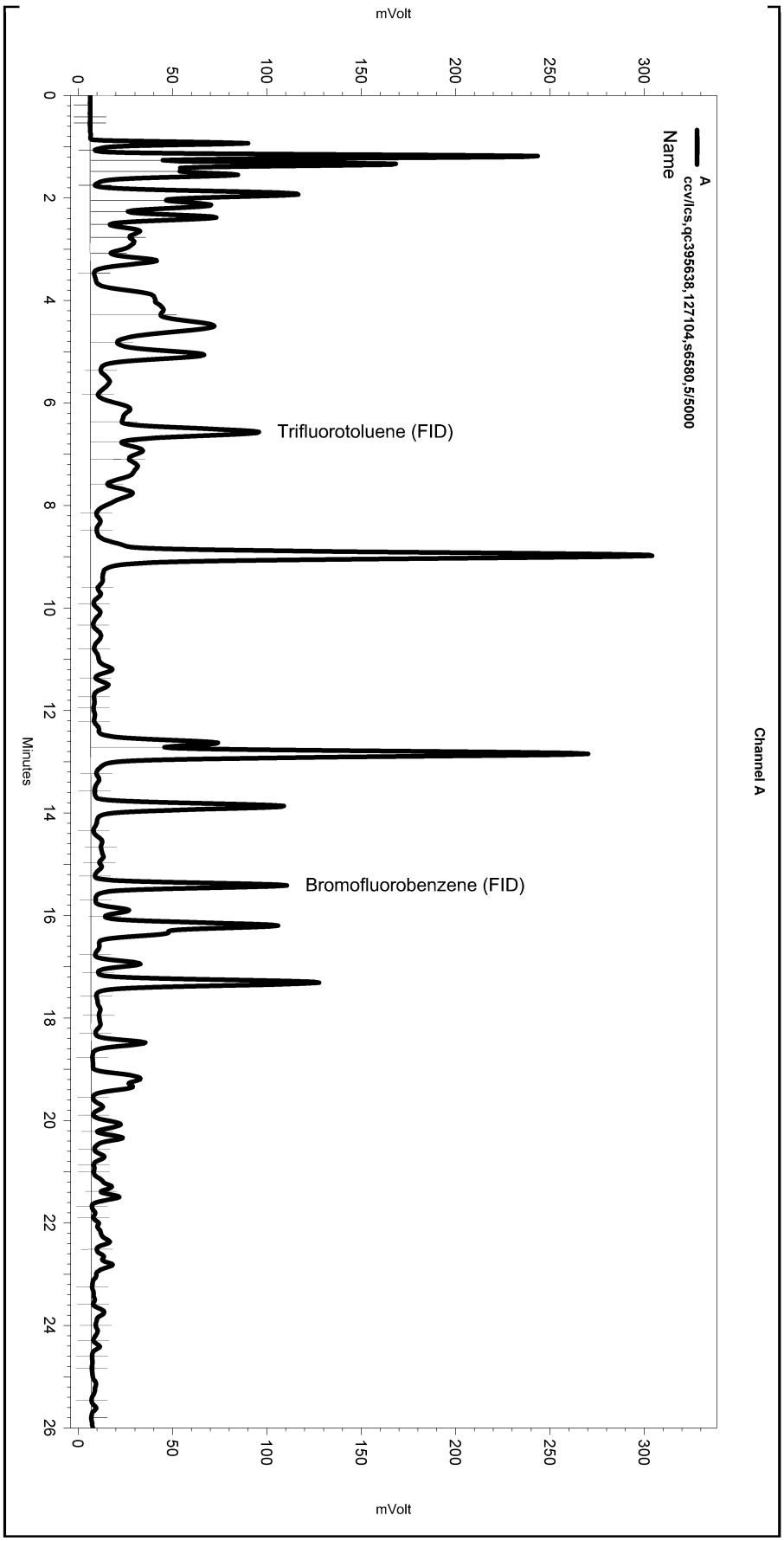
Sample Name: **ccv/lcs,qc395638,127104,s6580,5/5000**
Data File: **\\Lims\gdrive\ezchrom\Projects\GC07\Data\191_002**
Instrument: GC07 (Offline) Vial: N/A Operator: Tvh 2. Analyst (lims2k3\tvh2)
Method Name: \\Lims\gdrive\ezchrom\Projects\GC07\Method\tvhbtxe121.met

Software Version 3.1.7
Run Date: 7/10/2007 10:56:33 AM
Analysis Date: 7/11/2007 12:48:06 PM
Sample Amount: 5 Multiplier: 5
Vial & pH or Core ID: {Data Description}



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Integration Events

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

Manual Integration Fixes

Data File: \\Lims\gdrive\ezchrom\Projects\GC07\Data\191_002

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

Curtis & Tompkins, Ltd.

Total Extractable Hydrocarbons

Lab #:	195859	Location:	Celis-Emeryville
Client:	URS Corporation	Prep:	EPA 3520C
Project#:	26814847.06000	Analysis:	EPA 8015B
Matrix:	Water	Sampled:	07/10/07
Units:	ug/L	Received:	07/10/07
Diln Fac:	1.000	Prepared:	07/11/07
Batch#:	127150	Analyzed:	07/13/07

Field ID: URS-MW-1 Lab ID: 195859-001
Type: SAMPLE

Analyte	Result	RL
Diesel C10-C24	580 H L Y	50

Surrogate	%REC	Limits
Hexacosane	93	61-134

Field ID: URS-MW-2 Lab ID: 195859-002
Type: SAMPLE

Analyte	Result	RL
Diesel C10-C24	240 H Y	50

Surrogate	%REC	Limits
Hexacosane	90	61-134

Field ID: URS-MW-3 Lab ID: 195859-003
Type: SAMPLE

Analyte	Result	RL
Diesel C10-C24	ND	50

Surrogate	%REC	Limits
Hexacosane	90	61-134

Field ID: URS-MW-4 Lab ID: 195859-004
Type: SAMPLE

Analyte	Result	RL
Diesel C10-C24	110 Y	50

Surrogate	%REC	Limits
Hexacosane	97	61-134

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

Curtis & Tompkins, Ltd.

Total Extractable Hydrocarbons

Lab #:	195859	Location:	Celis-Emeryville
Client:	URS Corporation	Prep:	EPA 3520C
Project#:	26814847.06000	Analysis:	EPA 8015B
Matrix:	Water	Sampled:	07/10/07
Units:	ug/L	Received:	07/10/07
Diln Fac:	1.000	Prepared:	07/11/07
Batch#:	127150	Analyzed:	07/13/07

Field ID: URS-MW-5 Lab ID: 195859-005
Type: SAMPLE

Analyte	Result	RL
Diesel C10-C24	820 H Y	50

Surrogate	%REC	Limits
Hexacosane	99	61-134

Field ID: LFMW-LF-4 Lab ID: 195859-006
Type: SAMPLE

Analyte	Result	RL
Diesel C10-C24	620 L Y	50

Surrogate	%REC	Limits
Hexacosane	95	61-134

Type: BLANK Lab ID: QC395827

Analyte	Result	RL
Diesel C10-C24	ND	50

Surrogate	%REC	Limits
Hexacosane	106	61-134

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

Curtis & Tompkins, Ltd.

Batch QC Report

Total Extractable Hydrocarbons

Lab #:	195859	Location:	Celis-Emeryville
Client:	URS Corporation	Prep:	EPA 3520C
Project#:	26814847.06000	Analysis:	EPA 8015B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC395828	Batch#:	127150
Matrix:	Water	Prepared:	07/11/07
Units:	ug/L	Analyzed:	07/13/07

Cleanup Method: EPA 3630C

Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24	2,500	2,380	95	58-130

Surrogate	%REC	Limits
Hexacosane	109	61-134

Curtis & Tompkins, Ltd.

Batch QC Report

Total Extractable Hydrocarbons

Lab #:	195859	Location:	Celis-Emeryville
Client:	URS Corporation	Prep:	EPA 3520C
Project#:	26814847.06000	Analysis:	EPA 8015B
Field ID:	ZZZZZZZZZZ	Batch#:	127150
MSS Lab ID:	195846-007	Sampled:	07/09/07
Matrix:	Water	Received:	07/10/07
Units:	ug/L	Prepared:	07/11/07
Diln Fac:	1.000	Analyzed:	07/13/07

Type: MS Lab ID: QC395829

Analyte	MSS Result	Spiked	Result	%REC	Limits
Diesel C10-C24	47.80	2,500	2,867	113	57-134

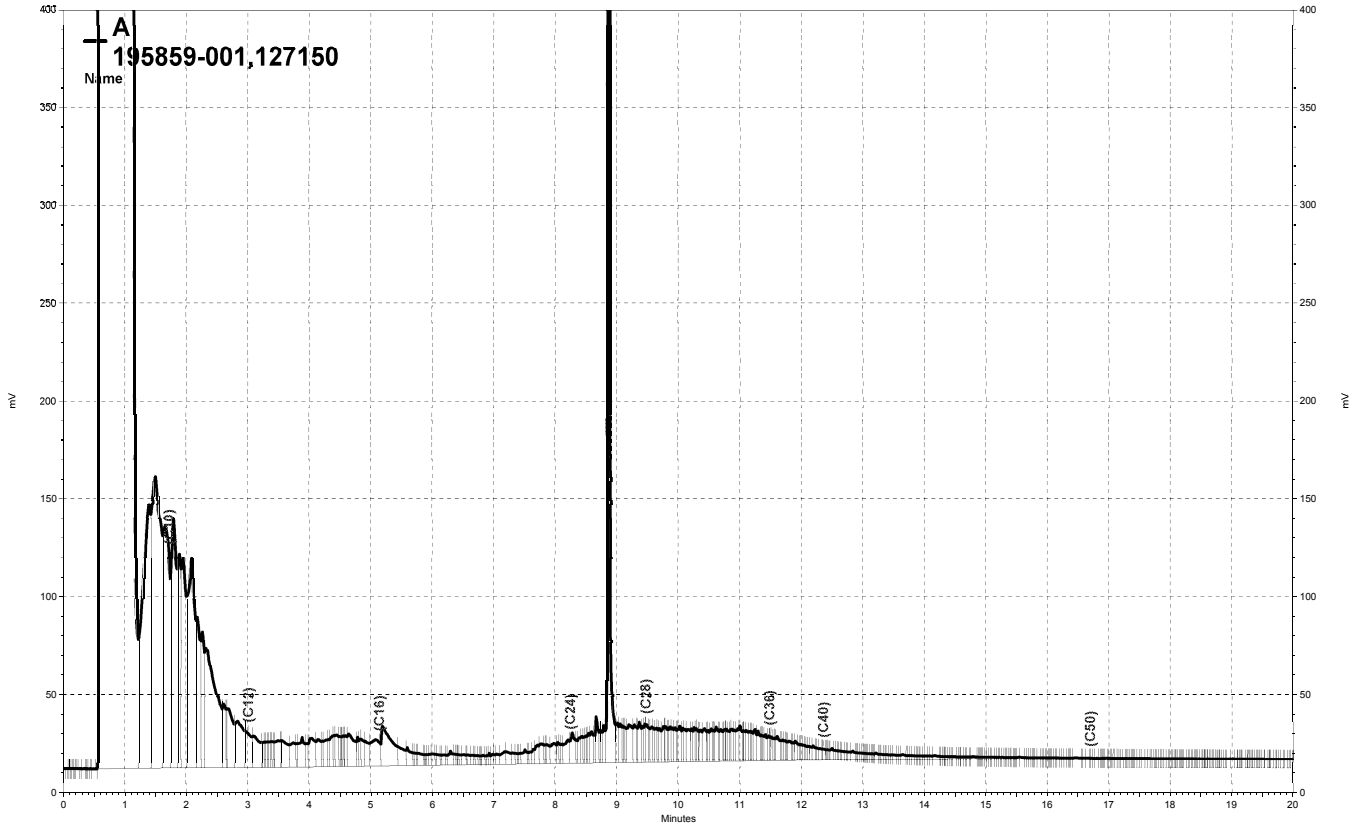
Surrogate	%REC	Limits
Hexacosane	114	61-134

Type: MSD Lab ID: QC395830

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Diesel C10-C24	2,500	2,674	105	57-134	7	32

Surrogate	%REC	Limits
Hexacosane	104	61-134

RPD= Relative Percent Difference



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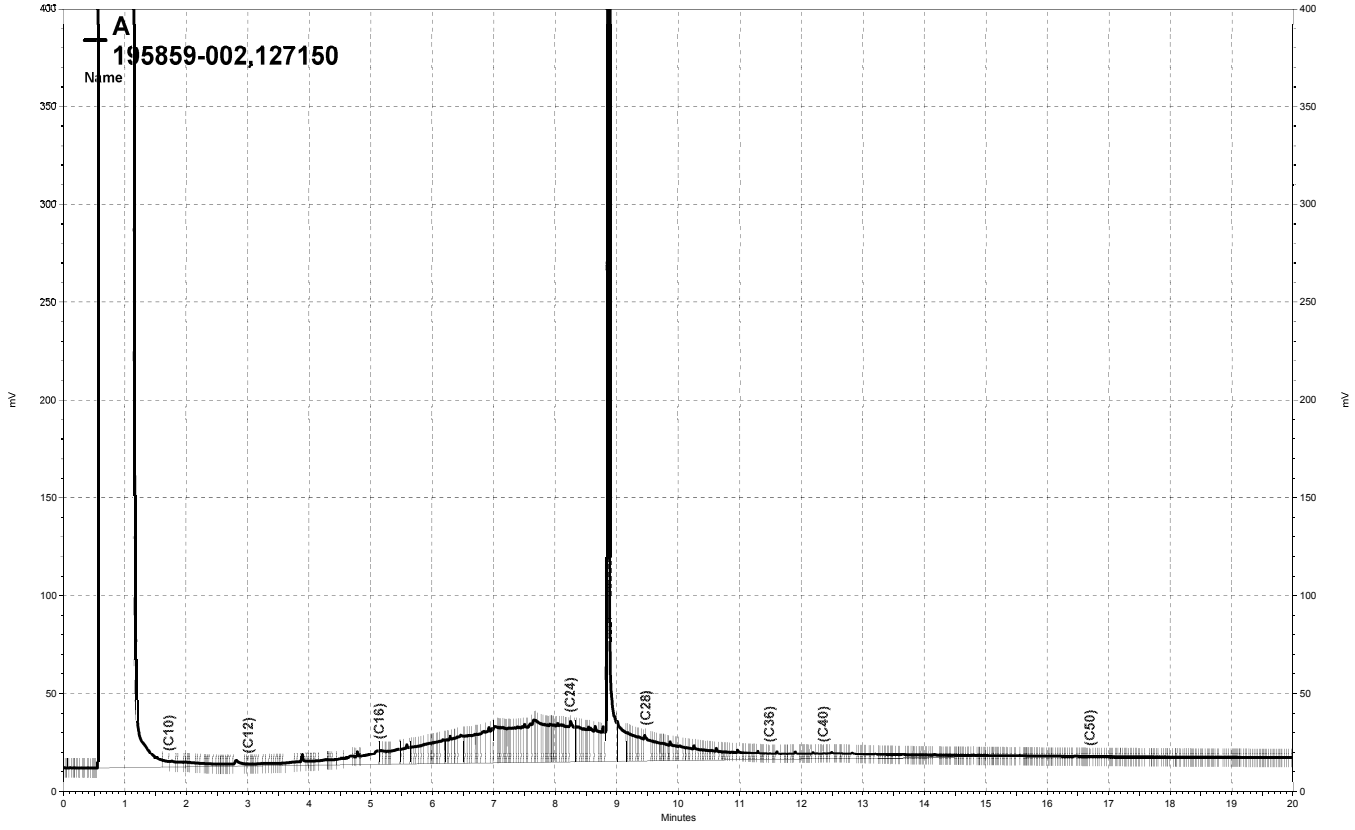

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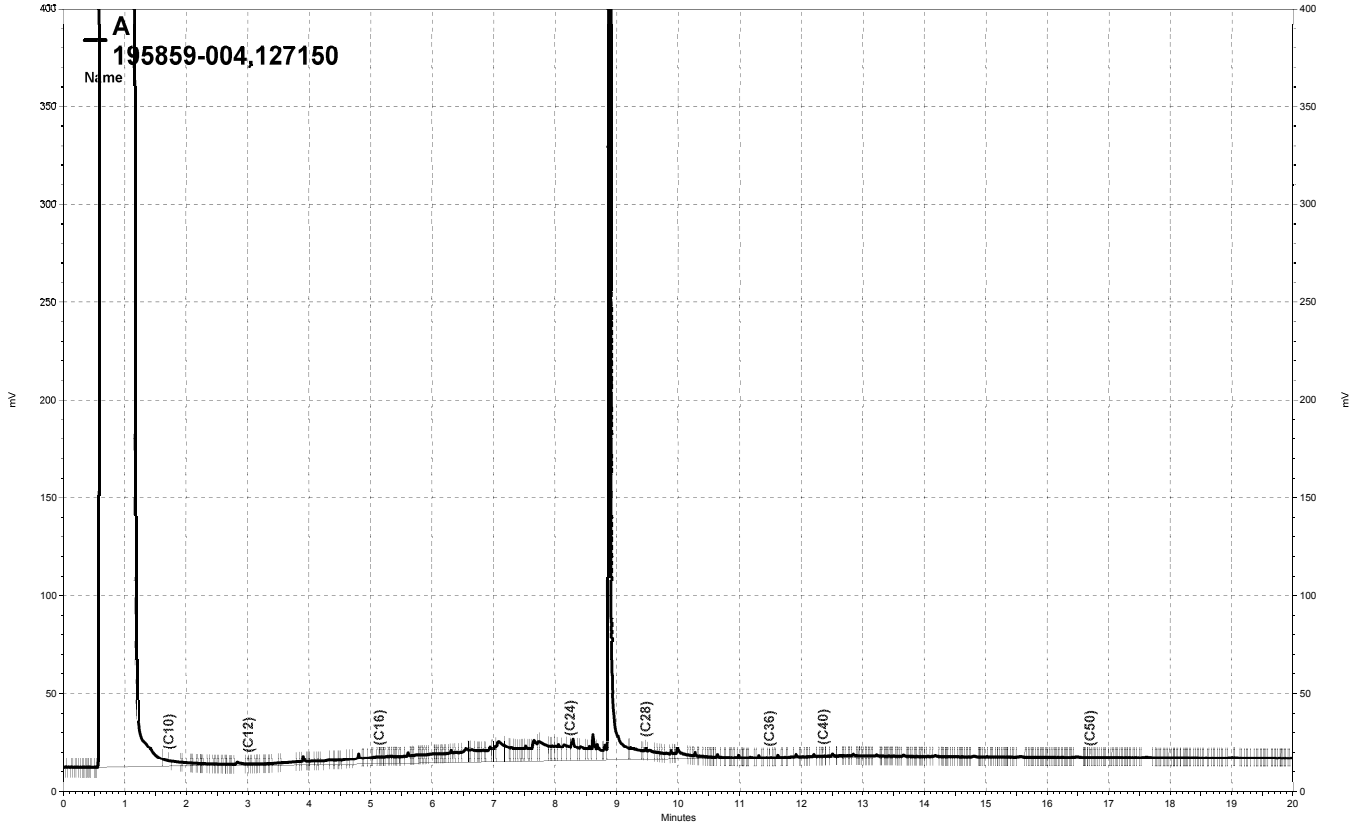

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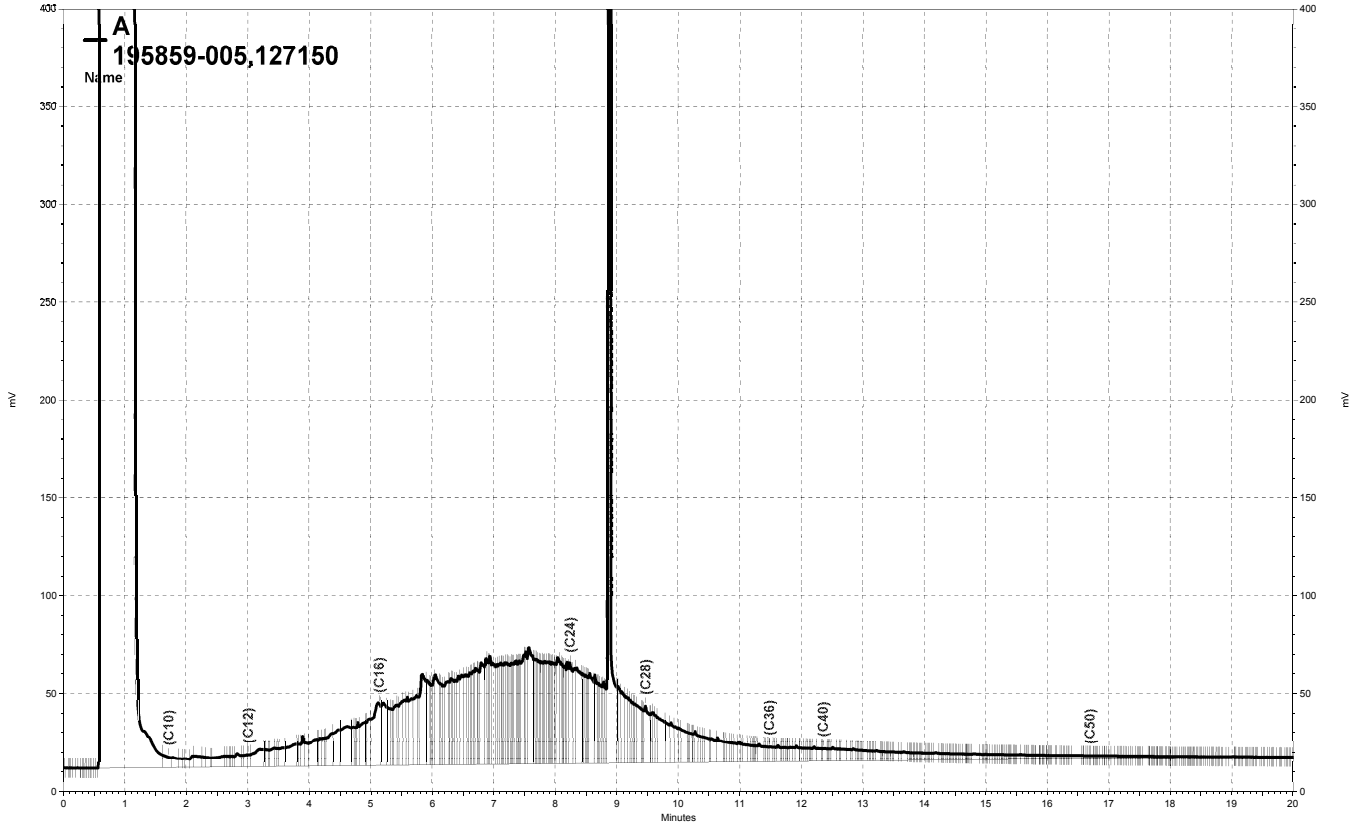

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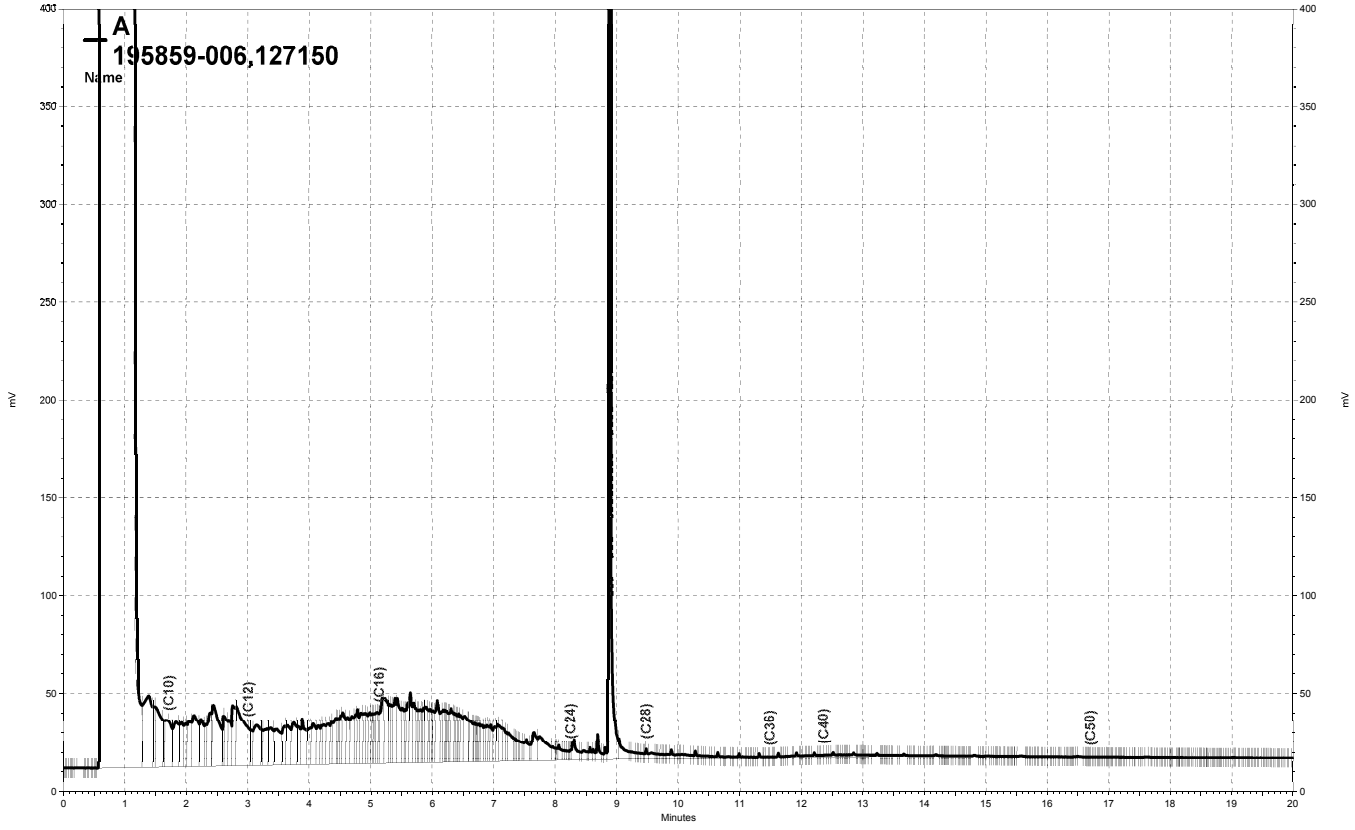

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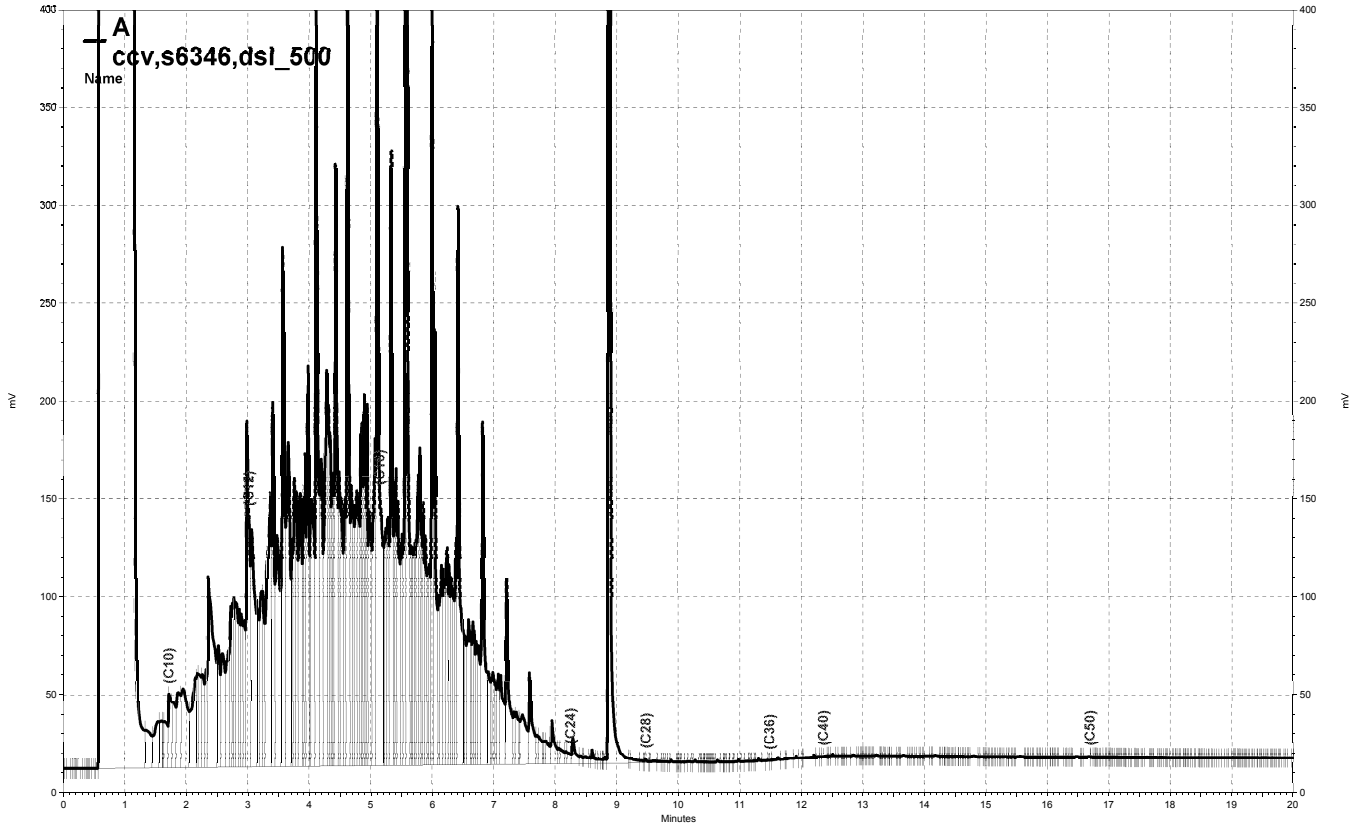

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Curtis & Tompkins, Ltd.

BTXE & Oxygenates

Lab #:	195859	Location:	Celis-Emeryville
Client:	URS Corporation	Prep:	EPA 5030B
Project#:	26814847.06000	Analysis:	EPA 8260B
Field ID:	URS-MW-1	Batch#:	127093
Lab ID:	195859-001	Sampled:	07/10/07
Matrix:	Water	Received:	07/10/07
Units:	ug/L	Analyzed:	07/10/07
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	96	80-123
1,2-Dichloroethane-d4	98	79-134
Toluene-d8	100	80-120
Bromofluorobenzene	99	80-122

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

BTXE & Oxygenates

Lab #:	195859	Location:	Celis-Emeryville
Client:	URS Corporation	Prep:	EPA 5030B
Project#:	26814847.06000	Analysis:	EPA 8260B
Field ID:	URS-MW-2	Units:	ug/L
Lab ID:	195859-002	Sampled:	07/10/07
Matrix:	Water	Received:	07/10/07

Analyte	Result	RL	Diln Fac	Batch#	Analyzed
tert-Butyl Alcohol (TBA)	18	10	1.000	127093	07/10/07
MTBE	140	1.3	2.500	127123	07/11/07
Isopropyl Ether (DIPE)	ND	0.5	1.000	127093	07/10/07
Ethyl tert-Butyl Ether (ETBE)	ND	0.5	1.000	127093	07/10/07
1,2-Dichloroethane	ND	0.5	1.000	127093	07/10/07
Benzene	ND	0.5	1.000	127093	07/10/07
Methyl tert-Amyl Ether (TAME)	ND	0.5	1.000	127093	07/10/07
Toluene	ND	0.5	1.000	127093	07/10/07
1,2-Dibromoethane	ND	0.5	1.000	127093	07/10/07
Ethylbenzene	ND	0.5	1.000	127093	07/10/07
m,p-Xylenes	ND	0.5	1.000	127093	07/10/07
o-Xylene	ND	0.5	1.000	127093	07/10/07

Surrogate	%REC	Limits	Diln Fac	Batch#	Analyzed
Dibromofluoromethane	99	80-123	1.000	127093	07/10/07
1,2-Dichloroethane-d4	97	79-134	1.000	127093	07/10/07
Toluene-d8	99	80-120	1.000	127093	07/10/07
Bromofluorobenzene	102	80-122	1.000	127093	07/10/07

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

BTXE & Oxygenates

Lab #:	195859	Location:	Celis-Emeryville
Client:	URS Corporation	Prep:	EPA 5030B
Project#:	26814847.06000	Analysis:	EPA 8260B
Field ID:	URS-MW-3	Diln Fac:	1.000
Lab ID:	195859-003	Sampled:	07/10/07
Matrix:	Water	Received:	07/10/07
Units:	ug/L		

Analyte	Result	RL	Batch#	Analyzed
tert-Butyl Alcohol (TBA)	ND	10	127093	07/10/07
MTBE	1.3	0.5	127123	07/11/07
Isopropyl Ether (DIPE)	ND	0.5	127093	07/10/07
Ethyl tert-Butyl Ether (ETBE)	ND	0.5	127093	07/10/07
1,2-Dichloroethane	ND	0.5	127093	07/10/07
Benzene	ND	0.5	127093	07/10/07
Methyl tert-Amyl Ether (TAME)	ND	0.5	127093	07/10/07
Toluene	ND	0.5	127093	07/10/07
1,2-Dibromoethane	ND	0.5	127093	07/10/07
Ethylbenzene	ND	0.5	127093	07/10/07
m,p-Xylenes	ND	0.5	127093	07/10/07
o-Xylene	ND	0.5	127093	07/10/07

Surrogate	%REC	Limits	Batch#	Analyzed
Dibromofluoromethane	99	80-123	127093	07/10/07
1,2-Dichloroethane-d4	99	79-134	127093	07/10/07
Toluene-d8	101	80-120	127093	07/10/07
Bromofluorobenzene	103	80-122	127093	07/10/07

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

BTXE & Oxygenates

Lab #:	195859	Location:	Celis-Emeryville
Client:	URS Corporation	Prep:	EPA 5030B
Project#:	26814847.06000	Analysis:	EPA 8260B
Field ID:	URS-MW-4	Batch#:	127093
Lab ID:	195859-004	Sampled:	07/10/07
Matrix:	Water	Received:	07/10/07
Units:	ug/L	Analyzed:	07/10/07
Diln Fac:	1.000		

Analyte	Result	RL
tert-Butyl Alcohol (TBA)	ND	10
MTBE	82	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	80-123
1,2-Dichloroethane-d4	98	79-134
Toluene-d8	99	80-120
Bromofluorobenzene	103	80-122

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

BTXE & Oxygenates

Lab #:	195859	Location:	Celis-Emeryville
Client:	URS Corporation	Prep:	EPA 5030B
Project#:	26814847.06000	Analysis:	EPA 8260B
Field ID:	URS-MW-5	Batch#:	127093
Lab ID:	195859-005	Sampled:	07/10/07
Matrix:	Water	Received:	07/10/07
Units:	ug/L	Analyzed:	07/10/07
Diln Fac:	1.000		

Analyte	Result	RL
tert-Butyl Alcohol (TBA)	11	10
MTBE	99	0.5
Isopropyl Ether (DIPE)	ND	0.5
Ethyl tert-Butyl Ether (ETBE)	ND	0.5
1,2-Dichloroethane	ND	0.5
Benzene	0.6	0.5
Methyl tert-Amyl Ether (TAME)	ND	0.5
Toluene	ND	0.5
1,2-Dibromoethane	ND	0.5
Ethylbenzene	22	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	98	80-123
1,2-Dichloroethane-d4	98	79-134
Toluene-d8	99	80-120
Bromofluorobenzene	99	80-122

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

BTXE & Oxygenates

Lab #:	195859	Location:	Celis-Emeryville
Client:	URS Corporation	Prep:	EPA 5030B
Project#:	26814847.06000	Analysis:	EPA 8260B
Field ID:	LFMW-LF-4	Batch#:	127093
Lab ID:	195859-006	Sampled:	07/10/07
Matrix:	Water	Received:	07/10/07
Units:	ug/L	Analyzed:	07/10/07
Diln Fac:	1.000		

Analyte	Result	RL
tert-Butyl Alcohol (TBA)	ND	10
MTBE	6.2	0.5
Isopropyl Ether (DIPE)	ND	0.5
Ethyl tert-Butyl Ether (ETBE)	ND	0.5
1,2-Dichloroethane	ND	0.5
Benzene	3.5	0.5
Methyl tert-Amyl Ether (TAME)	ND	0.5
Toluene	ND	0.5
1,2-Dibromoethane	ND	0.5
Ethylbenzene	11	0.5
m,p-Xylenes	1.8	0.5
o-Xylene	ND	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	98	80-123
1,2-Dichloroethane-d4	96	79-134
Toluene-d8	100	80-120
Bromofluorobenzene	96	80-122

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

BTXE & Oxygenates

Lab #:	195859	Location:	Celis-Emeryville
Client:	URS Corporation	Prep:	EPA 5030B
Project#:	26814847.06000	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC395568	Batch#:	127093
Matrix:	Water	Analyzed:	07/10/07
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	97	80-123
1,2-Dichloroethane-d4	95	79-134
Toluene-d8	98	80-120
Bromofluorobenzene	99	80-122

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

BTXE & Oxygenates

Lab #:	195859	Location:	Celis-Emeryville
Client:	URS Corporation	Prep:	EPA 5030B
Project#:	26814847.06000	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	127093
Units:	ug/L	Analyzed:	07/10/07
Diln Fac:	1.000		

Type: BS Lab ID: QC395569

Analyte	Spiked	Result	%REC	Limits
tert-Butyl Alcohol (TBA)	125.0	139.5	112	68-132
MTBE	25.00	26.42	106	71-120
Isopropyl Ether (DIPE)	25.00	25.40	102	65-120
Ethyl tert-Butyl Ether (ETBE)	25.00	28.69	115	75-124
1,2-Dichloroethane	25.00	24.78	99	79-121
Benzene	25.00	27.37	109	80-120
Methyl tert-Amyl Ether (TAME)	25.00	29.34	117	77-120
Toluene	25.00	27.74	111	80-120
1,2-Dibromoethane	25.00	25.49	102	80-120
Ethylbenzene	25.00	28.56	114	80-124
m,p-Xylenes	50.00	59.40	119	80-127
o-Xylene	25.00	27.75	111	80-124

Surrogate	%REC	Limits
Dibromofluoromethane	99	80-123
1,2-Dichloroethane-d4	98	79-134
Toluene-d8	97	80-120
Bromofluorobenzene	99	80-122

Type: BSD Lab ID: QC395570

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
tert-Butyl Alcohol (TBA)	125.0	129.5	104	68-132	7	20
MTBE	25.00	23.99	96	71-120	10	20
Isopropyl Ether (DIPE)	25.00	23.11	92	65-120	9	20
Ethyl tert-Butyl Ether (ETBE)	25.00	25.54	102	75-124	12	20
1,2-Dichloroethane	25.00	23.24	93	79-121	6	20
Benzene	25.00	25.27	101	80-120	8	20
Methyl tert-Amyl Ether (TAME)	25.00	27.63	111	77-120	6	20
Toluene	25.00	26.55	106	80-120	4	20
1,2-Dibromoethane	25.00	24.17	97	80-120	5	20
Ethylbenzene	25.00	26.52	106	80-124	7	20
m,p-Xylenes	50.00	55.92	112	80-127	6	20
o-Xylene	25.00	26.38	106	80-124	5	20

Surrogate	%REC	Limits
Dibromofluoromethane	96	80-123
1,2-Dichloroethane-d4	95	79-134
Toluene-d8	98	80-120
Bromofluorobenzene	96	80-122

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

BTXE & Oxygenates

Lab #:	195859	Location:	Celis-Emeryville
Client:	URS Corporation	Prep:	EPA 5030B
Project#:	26814847.06000	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	127123
Units:	ug/L	Analyzed:	07/11/07
Diln Fac:	1.000		

Type: BS Lab ID: QC395705

Analyte	Spiked	Result	%REC	Limits
tert-Butyl Alcohol (TBA)	125.0	108.1	86	68-132
MTBE	25.00	21.32	85	71-120
Isopropyl Ether (DIPE)	25.00	19.88	80	65-120
Ethyl tert-Butyl Ether (ETBE)	25.00	19.81	79	75-124
1,2-Dichloroethane	25.00	23.78	95	79-121
Benzene	25.00	25.74	103	80-120
Methyl tert-Amyl Ether (TAME)	25.00	25.32	101	77-120
Toluene	25.00	27.55	110	80-120
1,2-Dibromoethane	25.00	24.89	100	80-120
Ethylbenzene	25.00	27.35	109	80-124
m,p-Xylenes	50.00	58.67	117	80-127
o-Xylene	25.00	28.43	114	80-124

Surrogate	%REC	Limits
Dibromofluoromethane	91	80-123
1,2-Dichloroethane-d4	96	79-134
Toluene-d8	98	80-120
Bromofluorobenzene	92	80-122

Type: BSD Lab ID: QC395706

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
tert-Butyl Alcohol (TBA)	125.0	101.5	81	68-132	6	20
MTBE	25.00	20.43	82	71-120	4	20
Isopropyl Ether (DIPE)	25.00	18.79	75	65-120	6	20
Ethyl tert-Butyl Ether (ETBE)	25.00	18.52	74 *	75-124	7	20
1,2-Dichloroethane	25.00	22.51	90	79-121	5	20
Benzene	25.00	23.63	95	80-120	9	20
Methyl tert-Amyl Ether (TAME)	25.00	24.13	97	77-120	5	20
Toluene	25.00	25.14	101	80-120	9	20
1,2-Dibromoethane	25.00	23.64	95	80-120	5	20
Ethylbenzene	25.00	25.48	102	80-124	7	20
m,p-Xylenes	50.00	53.85	108	80-127	9	20
o-Xylene	25.00	26.58	106	80-124	7	20

Surrogate	%REC	Limits
Dibromofluoromethane	88	80-123
1,2-Dichloroethane-d4	96	79-134
Toluene-d8	98	80-120
Bromofluorobenzene	93	80-122

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

Curtis & Tompkins, Ltd.

Batch QC Report

BTXE & Oxygenates

Lab #:	195859	Location:	Celis-Emeryville
Client:	URS Corporation	Prep:	EPA 5030B
Project#:	26814847.06000	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC395707	Batch#:	127123
Matrix:	Water	Analyzed:	07/11/07
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	88	80-123
1,2-Dichloroethane-d4	93	79-134
Toluene-d8	94	80-120
Bromofluorobenzene	103	80-122

ND= Not Detected
RL= Reporting Limit

195859

BLAINE
TECH SERVICES, INC.

1680 ROGERS AVENUE
SAN JOSE, CALIFORNIA 95112-1105
FAX (408) 573-7771
PHONE (408) 573-0555

CHAIN OF CUSTODY BTS #

CLIENT: URS Corporation

SITE: 4000 San Pablo Ave.
Emeryville, CA

CONDUCT ANALYSIS TO DETECT

LAB: Curtis & Tompkins DHS #

ALL ANALYSES MUST MEET SPECIFICATIONS AND DETECTION LIMITS SET BY CALIFORNIA DHS AND
☐ EPA ☐ RWQCB REGION
☐ LIA
☐ OTHER

SPECIAL INSTRUCTIONS

Invoice and Report to : URS Corp.
Attn: ~~Leonard Niles~~ GEORGE MUEHLECK
Project # 26814847.06000

SAMPLE I.D.	DATE	TIME	MATRIX S= SOIL W=H_2O	CONTAINERS TOTAL		C = COMPOSITE ALL CONTAINERS	TVH-g (GRO) (8260)	TVH-ms (MSRO) (8260)	BTEX + 5 Oxys (8260)	THE-d (DRO) (8015M)				ADD'L INFORMATION	STATUS	CONDITION	LAB SAMPLE #
-1 URS-MW-1	7/10/07	1120	SW	7	6 HCl VOAs 1 1L NP Amber		X	X	X	X							
-2 URS-MW-2		0940	SW	7			X	X	X	X							
-3 URS-MW-3		1302	SW	7			X	X	X	X							
-4 URS-MW-4		1330	SW	7			X	X	X	X							
-5 URS-MW-5		1030	SW	7			X	X	X	X							
-6 LFMW-LF-4		1215	SW	7			X	X	X	X							

SAMPLING COMPLETED: DATE 7/10/07 TIME 1330
SAMPLING PERFORMED BY: Tony Vega

RESULTS NEEDED NO LATER THAN: Standard TAT

RELEASED BY	DATE	TIME	RECEIVED BY	DATE	TIME
Tony Vega	7/10/07	14:55	[signature]	7-10-07	14:55
RELEASED BY	DATE	TIME	RECEIVED BY	DATE	TIME
RELEASED BY	DATE	TIME	RECEIVED BY	DATE	TIME

SHIPPED VIA	DATE SENT	TIME SENT	COOLER #	

Curtis & Tompkins, Ltd.

COOLER RECEIPT CHECKLIST

Login#: 95859 Date Received: 7/10/07 Number of Coolers: 1
Client: URS Project: Emeryville

A. Preliminary Examination Phase
Date Opened: 7/10/07 By (print): S. Montecalvo (sign)

1. Did cooler come with a shipping slip (airbill, etc.)? ..... YES (NO)
   If YES, enter carrier name and airbill number: _____
2. Were custody seals on outside of cooler? ..... YES (NO)
   How many and where? _____ Seal date: _____ Seal name: _____
3. Were custody seals unbroken and intact at the date and time of arrival? ..... YES NO n/a
4. Were custody papers dry and intact when received? ..... (YES) NO
5. Were custody papers filled out properly (ink, signed, etc.)? ..... (YES) NO
6. Did you sign the custody papers in the appropriate place? ..... (YES) NO
7. Was project identifiable from custody papers? ..... (YES) NO
   If YES, enter project name at the top of this form.
8. If required, was sufficient ice used? Samples should be <=6 degrees C. ..... YES NO
   Type of ice: wet Temperature: no temp blank, samples cold

B. Login Phase
Date Logged In: 7/10/07 By (print): S. Montecalvo (sign)

1. Describe type of packing in cooler: Ziplock bags
2. Did all bottles arrive unbroken? ..... (YES) NO
3. Were labels in good condition and complete (ID, date, time, signature, etc.)? ..... (YES) NO
4. Did bottle labels agree with custody papers? ..... (YES) NO
5. Were appropriate containers used for the tests indicated? ..... (YES) NO
6. Were correct preservatives added to samples? ..... (YES) NO
7. Was sufficient amount of sample sent for tests indicated? ..... (YES) NO
8. Were bubbles absent in VOA samples? If NO, list sample Ids below ..... (YES) NO
9. Was the client contacted concerning this sample delivery? ..... YES NO
   If YES, give details below.
   Who was called? _____ By whom? _____ Date: _____

Additional Comments: