Chevron

Global Gas

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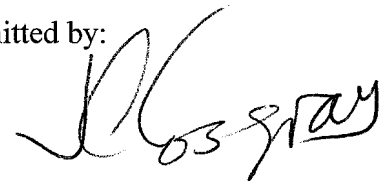
May 19, 2008

Mr. Jerry Wickham
Department of Environmental Health
Alameda County Health Agency
1131 Harbor Bay Parkway
Alameda, California 94502

Dear Mr. Wickham:

I declare, under penalty of perjury, that the information and/or recommendations contained in URS' report titled "**SLIC Case No. RO0002892, Chevron Sunol Pipeline, 2793 Calaveras Road, Sunol, CA – First Quarter 2008 Groundwater Monitoring Report**" are true and correct to the best of my knowledge at the present time.

Submitted by:



Jeffrey Cosgray
Chevron Pipe Line Company

REPORT

FIRST QUARTER 2008 GROUNDWATER MONITORING REPORT

SLIC CASE #RO0002892
CHEVRON PIPELINE COMPANY
SUNOL SPILL
2793 CALAVERAS RD.
SUNOL, CA

Prepared for
Alameda County Health Agency
1131 Harbor Bay Parkway
Alameda, CA 94502

May, 2008

URS Corporation
1333 Broadway, Suite 800
Oakland, CA 94612

26815217

URS

May 19, 2008

Mr. Jerry Wickham
Department of Environmental Health
Alameda County Health Agency
1131 Harbor Bay Parkway
Alameda, California 94502

Subject: SLIC Case No. RO0002892, Chevron Pipeline Company, Sunol Spill, 2793 Calaveras Rd, Sunol, CA, First Quarter 2008 Groundwater Monitoring Report

Dear Mr. Wickham:

A December 30, 2005 letter provided by the Alameda County Environmental Health staff (ACEH) requested the initiation of a Quarterly Groundwater Monitoring Program. In response to this request, URS, on behalf of Chevron Pipe Line Company (CPL), has prepared this groundwater monitoring report for the CPL Sunol site (Site) for the first quarter of 2008. A Site vicinity map is included as Figure 1.

Section 1 of this report discusses the groundwater monitoring program and details measured groundwater levels, sampling methodologies, and groundwater analytical results. Section 2 provides the findings and Section 3 presents the recommendations for the groundwater monitoring program and the status of the SVE system. Section 4 describes the limitations applicable to this report.

If you have any questions on this report please call Mr. Joe Morgan of URS at 510-874-3201.

Sincerely yours,

URS Corporation

Jacob Henry
Senior Geologist

Joe Morgan III
Senior Project Manager

cc: Mr. Jeff Cosgray, Chevron Pipeline Company
Ms. Amber Koster, URS Oakland
Mr. Greg White, URS Chicago

URS

This letter report ("**First Quarter 2008 Groundwater Monitoring Report**") was prepared under my direct supervision. The information presented in this report is based on our review of available data obtained during our quarterly sampling activities and our previous subsurface investigation efforts. To the best of our knowledge, we have incorporated into our recommendations all relevant data pertaining to the Chevron Pipeline Release site in Sunol, California.

The first quarter 2008 groundwater monitoring report discussed herein was developed in accordance with the standard of care used to develop this type of report. The assumptions that were made and the recommendations for continued field activities were based on our professional experience and protocols reported in the literature for similar investigations.

URS Corporation
Approved by:

Joe Morgan III

Robert Horwath, P.G.

On March 19 and 20, 2008, URS conducted field activities to assess the groundwater conditions at the Site. URS measured the fluid levels and attempted to collect analytical samples from groundwater monitoring wells MW-1 through MW-4 and MW-9 through MW-11. URS received approval from ACEH on November 29, 2007 to discontinue groundwater monitoring activities from monitoring wells MW-5 through MW-7. URS also made the decision not to gauge or sample MW-8 during first quarter 2008 field activities due to extreme overhead safety hazards posed by the dead trees located on the hillside above the well location. URS collected a surface water sample for analysis from the very small stream, located northwest of the release location, at the Site. The monitoring wells and surface water sampling location are provided on Figure 2.

1.1 SITE HYDROGEOLOGY

Prior to collecting groundwater samples, the water levels were measured at MW-1 through MW-4 and MW-9 through MW-11 from the top of casing using an electronic oil/water interface meter. Free product was measured in MW-9 with a thickness of 0.01 feet. Product or sheen was not detected in the other six wells during quarterly gauging activities. The measured groundwater levels are displayed in Table 1 and the calculated groundwater and product elevations are displayed in Table 2.

Unconfined Water Bearing Zone

Due to seasonal precipitation, the water table elevation increased since the last sampling event in December 2007, hydraulically reconnecting all wells screened within the unconfined water-bearing zone. The groundwater elevations for the MW-1 through MW-4 and MW-9 through MW-11, located in the nursery, ranged from a high of 294.01 feet above average mean sea level (msl) at MW-3 to a low of 291.31 feet msl at MW-9. As mentioned above, MW-8, which screens an apparent recharge source for the nursery unconfined water-bearing zone, was not gauged due to overhead hazards.

Based on data from MW-1 through MW-4 and MW-9 through MW-11, the local groundwater flow direction within the nursery unconfined water-bearing zone is in a northeasterly direction with a calculated hydraulic gradient of 0.041 feet/feet. The groundwater recharge from the hillside appears to flow into the unconfined nursery water-bearing zone in a northwesterly direction with a steep hydraulic gradient. Figure 3 provides groundwater contours for the unconfined water-bearing zone as well as bedrock surface contours for the gravel-siltstone contact for comparison.

Confined Water Bearing Zone

As stated before (MW-5 through MW-7), are no longer a part of the groundwater monitoring program. After four quarters of non-detect analytical results, ACEH agreed that further groundwater monitoring of the confined sandstone water-bearing zone was unnecessary and that the wells could be abandoned according to Alameda County Zone 7 Water Agency (Zone 7) standards.

2.1 QUARTERLY MONITORING ACTIVITIES

After measuring the fluid levels at each well, URS conducted groundwater sampling. The rationale for each sampling method is described below:

- MW-1 was pumped with a Megatyphoon pump (6 well volumes) without using low-flow methods due to the presence of product sheen in discharge water.
- MW-2 through MW-4 and MW-10 were sampled using low-flow methods.
- MW-5 through MW-7 were not sampled because ACEH has allowed discontinuation of monitoring activities.
- MW-8 was not sampled due to the presence of overhead safety hazards.
- MW-9 was not sampled due to the presence of measurable free-product (0.01 ft).
- MW-11 was pumped dry using a Megatyphoon pump and then sampled because stabilized drawdown could not be achieved using low-flow methods.

A surface water sample was also collected from the very small stream northwest of the release location (Figure 2) on March 20, 2008.

2.1.1 MW-1 and MW-9 Sorbent Booms

URS has installed and replaced, as needed, sorbent booms (booms) in MW-1 and MW-9 as an interim remedial measure. The booms have been successful in passively collecting and facilitating degradation of hydrocarbon product within the wells and allow for future quarterly groundwater samples to be collected when measurable product is not present. MW-1 and MW-9 were gauged several times after the booms were installed and product was not measured. During low-flow purging at MW-1, product sheen was noticed on the purge water. To ensure that the low-flow equipment and multi-parameter device were not damaged, the low-flow assembly was removed and MW-1 was purged, using a Megatyphoon pump, of 6 well volumes prior to collecting a groundwater sample. Product returned to the groundwater surface at MW-9 shortly after the boom was removed and was therefore not sampled. The booms were reinstalled at each of the two wells after completing groundwater monitoring activities.

2.1.2 MW-2 through MW-4 and MW-10

After re-measuring the groundwater levels at MW-2 through MW-4 and MW-10, the pump intake was slowly lowered into position in the center of the water column because the water levels were lower than the top of the screened intervals.

Low-flow purging rates were between 200 to 400 milliliters per minute (mL/min) depending on the rate of recharge at each well. During low-flow purging, the water level in each of these wells was measured periodically to monitor draw down. In each of these wells a stabilized draw down of less than 0.33 feet was achieved. The low-flow groundwater sampling forms are included in Attachment A.

In addition to monitoring the water level at each well during low-flow sampling, parameters such as temperature, pH, conductivity, oxygen reduction potential (ORP), dissolved oxygen (DO) and

turbidity of the groundwater were monitored using an in-line flow-through cell and multi-parameter device. The multi-parameter device was calibrated both days prior to sampling. During purging, the parameter readings described above were recorded every 3 minutes until the parameters stabilized.

In all of the wells where low-flow purging was conducted, the parameters were considered to be stable when three consecutive readings were within the following guidelines: pH +/- 0.2 pH units, conductivity +/- 3% of reading, ORP +/- 20 millivolts (mV), DO +/- 0.2 milligrams per liter (mg/L), turbidity +/- 1.0 nephelometric turbidity units (NTU).

After monitoring the field parameters, the flow through cell was detached from the pump and tubing assembly. Groundwater samples were collected directly from the pump tubing.

2.1.3 MW-11 Sampling

Because of slow recharge rates at MW-11, low-flow purging methods could not be used. Instead, the monitoring well was purged dry. Approximately 9 gallons were removed prior to sampling. After the well was purged dry, the recharging water level was monitored until sufficient water was present to collect the groundwater sample. Once a sufficient water column was present, the pump was restarted and operated for approximately one minute to flush out any stagnant water remaining in the pump and tubing assembly. The flow-rate during sample collection was approximately 200 mL/min.

2.1.4 Surface Water Sample

The sampling location along the very small stream is located at the base of the alluvial terrace within the Alameda Creek floodplain and is shown on Figure 2. The former sampling point (SW-Creek, sampled prior to the first quarter of 2007) is also provided on Figure 2 for reference. To the west, beyond the sampling location, the very small stream fans out into the floodplain and surface flow terminates within floodplain grasses.

3.1 ANALYTICAL PROGRAM

The groundwater samples from each well were collected in clean laboratory provided containers, labeled with unique project specific identification, packed to prevent breakage, and placed on ice in a cooler immediately after collection. The sample cooler included a trip blank and was submitted to Lancaster Analytical Laboratory in Lancaster, Pennsylvania, a California Certified Laboratory, under URS chain-of-custody procedures. The samples were analyzed on a standard turn around time.

As discussed in URS' *February 2006 Groundwater Monitoring Report*, groundwater and surface water samples collected during quarterly sampling activities are analyzed for the following parameters:

- Benzene, toluene, ethylbenzene, xylenes (BTEX) by U.S. Environmental Protection Agency (USEPA) Method 8260B
- Total petroleum hydrocarbons – gasoline range organics (TPH-GRO) by N. CA LUFT GRO

3.2 GROUNDWATER ANALYTICAL RESULTS

A summary of the analytical results for the gasoline compounds and associated environmental screening levels (ESLs) developed by RWQCB (2007) are presented in Table 3 and the complete laboratory analytical results and chain of custodies are included as Attachment B.

3.2.1 Unconfined Water-Bearing Zone Wells

The unconfined water bearing zone wells include nursery unconfined water-bearing zone wells (MW-1 through MW-4 and MW-9 through MW-11) and the Calaveras Road shallow unconfined water-bearing zone well (MW-8), the apparent hillside groundwater recharge source for the nursery. The first quarter groundwater sample results are as follows:

- The MW-1 sample contained TPH-GRO at 12,000 micrograms per liter (µg/L), benzene at 0.8 µg/L, toluene at 1 µg/L, ethylbenzene at 1 µg/L, and total xylenes at 320 µg/L.
- MW-2, MW-3, and MW-4 samples were below the laboratory reporting limits for TPH-GRO (<50 µg/L), benzene (<0.5 µg/L), toluene (<0.5 µg/L), ethylbenzene (<0.5 µg/L), and total xylenes (<0.5 µg/L).
- MW-8 was not sampled due to the presence of overhead safety hazards.
- MW-9 was not sampled due to the presence of measurable free product (0.01 ft).
- The MW-10 sample contained benzene at 0.9 µg/L, and was below laboratory reporting limits for TPH-GRO, toluene, ethylbenzene, and total xylenes.
- The MW-11 sample and duplicate were below laboratory reporting limits for all constituents.

3.2.2 Confined Water-Bearing Zone Wells

The confined water-bearing zone wells include MW-5 through MW-7 located along Calaveras Road. MW-5 through MW-7 have been removed from the groundwater monitoring program and

were not sampled. These wells will be closed in accordance with Zone 7 once the removal of the dead trees takes place.

3.2.3 Surface Water Sample

The surface water sampling location is shown on Figure 2. The surface water sample was below laboratory reporting limits for all constituents.

3.2.4 Analytical Results

The groundwater samples collected from MW-2 through MW-4, and MW-10 and MW-11 were below the most stringent ESLs for all constituents. The surface water sample collected from the very small stream continues to be below laboratory limits for all constituents.

3.3 SUMMARY OF QA/QC REVIEW PARAMETERS

The certified analytical reports from the analytical laboratory were subjected to a quality assurance/quality control (QA/QC) review and data validation by URS. Laboratory and field QC sample results were evaluated to assess the quality of the individual sample results and overall method performance. The data evaluation performed included review of:

- Blanks (laboratory method blanks and trip blanks)
- Spikes (laboratory control spikes, matrix control spikes and surrogate spikes)
- Duplicates (laboratory control spike duplicates, matrix control spike duplicates and field duplicates)
- Sample integrity (chain-of-custody documentation, sample preservation, and holding time compliance)

All reported results for the laboratory method blanks were non-detect (less than the laboratory reporting limit), indicating no evidence of contamination from laboratory instrumentation. All reported results for the trip blank were non-detect (less than the laboratory reporting limit), indicating no evidence of contamination during shipping of the laboratory samples. One field duplicate sample, MW-X (MW-11-DUP), was collected during this sampling event. All reported results for samples MW-X and MW-11 were non-detect (less than the laboratory reporting limit), so the heterogeneity of the matrices could not be evaluated.

All reported laboratory control spike (LCS) sample recoveries, matrix control spike (MS) sample recoveries, and surrogate spike recoveries were within laboratory QC limits.

Chain-of-custody documentation was complete and consistent. Samples were preserved as required per method specifications. All samples were analyzed within the method-specified holding times.

The data quality evaluation indicated that 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.

The field activities conducted on March 19 and 20, 2008, included assessing the groundwater conditions at the Site and measuring the fluid levels and collecting analytical samples from groundwater monitoring wells MW-1 through MW-4 and MW-9 through MW-11. The findings are as follows:

- Due to seasonal precipitation, the water table elevation increased, hydraulically reconnecting all wells screened within the unconfined water-bearing zone.
- Measurable free product was observed in MW-9 (0.01 ft). No product or sheen was observed in monitoring wells MW-1 through MW-4 or MW-10 and MW-11 during gauging. Sheen was observed in MW-1 after purging the well for groundwater sampling.
- MW-8 was not gauged or sampled during first quarter 2008 field activities due to extreme overhead safety hazards posed by the dead trees located on the hillside above the well location.
- The groundwater samples collected from MW-2 through MW-4, and MW-10 and MW-11 were below the most stringent ESLs for all constituents.
- The surface water sample collected from the very small stream continues to be below laboratory reporting limits for all constituents.
- The contamination present in MW-1 and MW-9 is bounded both vertically and laterally by monitoring wells MW-2 through MW-4, MW-10, and MW-11 and the hydrogeologic barriers of the Calaveras Fault (trending northwest to southeast beneath Calaveras Road) and the siltstone bedrock lower confining unit.

Based on the March 19 and 20, 2008 field observations and analytical results URS make the following recommendations:

- Continue quarterly groundwater monitoring to further assess the effect of seasonal groundwater fluctuations on groundwater behavior and contaminant transport within the unconfined water-bearing zone.
- Sorbent booms will continue to be used as an interim remediation measure in wells containing hydrocarbon sheen or measurable product. Currently sorbent booms are installed in MW-1 and MW-9. A new boom was installed in MW-9 on March 20, 2008.
- MW-5 through MW-7 will be properly abandoned according to Zone 7 requirements. The monitoring wells will be abandoned once tree removal has taken place.
- Because the surface water samples (collected at both the "SW-Creek" and "Stream" locations) have remained below laboratory reporting limits for TPH-GRO and BTEX constituents during all quarterly sampling events, URS proposes to collect surface water samples on an annual, rather than quarterly basis.
- URS and Chevron continue to move forward on reinstalling a SVE system at the site. Chevron has contracted with Davey Tree Company, the proposed tree removal contractor. Chevron is reviewing the safety plans for the tree removal. The trees are expected to be removed during the last week of May. URS has scheduled PG&E to install an electrical feed to the site in late May. Once the electrical feed is installed, Stratus Environmental will re-mobilize a trailer-mounted SVE system and work with URS to bring the current nine SVE wells configuration back on-line.

No evaluation is thorough enough to preclude the possibility that materials that are currently considered hazardous or materials that may be considered hazardous in the future may be present at a site. Because regulatory evaluation criteria are constantly changing, concentrations of contaminants presently considered nonhazardous may, in the future, fall under different regulatory standards and require remediation. Opinions and judgments expressed herein, which are based on understanding and interpretation of current regulatory standards, should not be construed as legal opinions. This document and the information contained herein have been prepared solely for CPL's use, and reliance on this report by third parties will be at such party's sole risk.

TABLE 1
Monitoring Well Groundwater Levels
First Quarter 2008 Groundwater Monitoring Report
Chevron Sunol Pipeline

Well ID	Screen Interval (feet bgs)	Date	Depth to Groundwater (feet TOC-N)	Depth to Product (feet TOC-N)	Product Thickness (feet)
MW-1	29.3-39.3	2/21/2006	36.34	--	--
		6/7/2006	34.28	--	--
		8/22/2006	37.11	37.08	0.03
		11/14/2006	37.05	--	--
		2/20/2007	36.14	--	--
		6/5/2007	37.21	--	--
		9/12/2007	37.67	37.55	0.12
		12/11/2007	37.49	37.46	0.03
		3/19/2008	35.94	--	--
MW-2	23.3-38.3	2/21/2006	32.19	--	--
		6/7/2006	30.23	--	--
		8/22/2006	33.11	--	--
		11/14/2006	33.01	--	--
		2/20/2007	31.93	--	--
		6/5/2007	33.23	--	--
		9/12/2007	33.62	--	--
		12/5/2007	33.52	--	--
		3/19/2008	31.76	--	--
MW-3	21.3-36.3	2/21/2006	31.97	--	--
		6/7/2006	30.91	--	--
		8/22/2006	34.66	--	--
		11/14/2006	34.71	--	--
		2/20/2007	31.66	--	--
		6/5/2007	34.63	--	--
		9/12/2007	34.71	--	--
		12/11/2007	34.77	--	--
		3/19/2008	31.64	--	--
MW-4	30.7-40.7	2/21/2006	36.72	--	--
		6/7/2006	35.76	--	--
		8/22/2006	38.79	--	--
		11/14/2006	38.84	--	--
		2/20/2007	36.54	--	--
		6/5/2007	38.77	--	--
		9/12/2007	38.93	--	--
		12/11/2008	39.00	--	--
		3/19/2008	36.29	--	--
MW-5	39.5-49.5	2/21/2006	11.48	--	--
		6/7/2006	10.61	--	--
		8/22/2006	11.93	--	--
		11/14/2006	11.37	--	--
		2/20/2007	11.41	--	--
		6/5/2007	13.59	--	--
		9/12/2007	15.65	--	--
		12/11/2008	NM	--	--
		Q1 2008	NM	--	--

TABLE 1
Monitoring Well Groundwater Levels
First Quarter 2008 Groundwater Monitoring Report
Chevron Sunol Pipeline

Well ID	Screen Interval (feet bgs)	Date	Depth to Groundwater (feet TOC-N)	Depth to Product (feet TOC-N)	Product Thickness (feet)
MW-6	34.7-49.7	2/21/2006	18.02	--	--
		6/7/2006	16.83	--	--
		8/22/2006	18.66	--	--
		11/14/2006	17.37	--	--
		2/20/2007	17.51	--	--
		6/5/2007	19.44	--	--
		9/12/2007	23.46	--	--
		12/11/2008	NM	--	--
		Q1 2008	NM	--	--
MW-7	34.7-49.7	2/21/2006	15.43	--	--
		6/7/2006	16.68	--	--
		8/22/2006	16.77	--	--
		11/14/2006	16.99	--	--
		2/20/2007	18.34	--	--
		6/5/2007	19.88	--	--
		9/12/2007	21.76	--	--
		12/11/2008	NM	--	--
		Q1 2008	NM	--	--
MW-8	14.5-24.5	8/22/2006	18.71	--	--
		11/14/2006	18.73	--	--
		2/20/2007	19.23	--	--
		6/5/2007	20.48	--	--
		9/12/2007	21.47	--	--
		12/11/2008	19.58	--	--
		Q1 2008	NM	--	--
MW-9	36.0-46.0	8/22/2006	42.59	42.55	0.04
		11/14/2006	42.62	42.54	0.08
		2/20/2007	41.91	41.86	0.05
		6/5/2007	42.71	42.69	0.02
		9/12/2007	43.09	43.01	0.08
		12/11/2008	42.91	--	--
		3/20/2008	41.76	41.75	0.01
MW-10	40.3-55.3	9/5/2007	54.86	--	--
		12/12/2007	46.84	--	--
		3/20/2008	44.41	--	--
MW-11	37.0-47.0	9/6/2007	Dry	--	--
		12/12/2007	42.73	--	--
		3/20/2008	37.29	--	--

Notes:
NM - Not measured
Groundwater and product levels measured from top of casing - north (TOC-N).
Screen intervals measured from feet below ground surface (feet bgs)

TABLE 2
Monitoring Well Groundwater Elevations
First Quarter 2008 Groundwater Monitoring Report
Chevron Sunol Pipeline

Well ID	Date Completed	Ground Surface Elevation (feet msl)	Top of Casing Elevation (feet msl)	Date Measured	Groundwater Elevation (feet msl)	Product Elevation (feet msl)	Product Thickness (feet)
MW-1	10/20/2005	328.49	328.04	2/21/2006	291.70	--	--
				6/7/2006	293.76	--	--
				8/22/2006	290.93	290.96	0.03
				11/14/2006	290.99	--	--
				2/20/2007	291.90	--	--
				6/5/2007	290.83	--	--
				9/12/2007	290.37	--	--
				12/11/2007	290.55	290.58	0.03
				3/19/2008	292.10	--	--
MW-2	10/21/2005	324.85	324.15	2/21/2006	291.96	--	--
				6/7/2006	293.92	--	--
				8/22/2006	291.04	--	--
				11/14/2006	291.14	--	--
				2/20/2007	292.22	--	--
				6/5/2007	290.92	--	--
				9/12/2007	290.53	--	--
				12/5/2007	290.63	--	--
				3/19/2008	292.39	--	--
MW-3	10/21/2005	326.05	325.65	2/21/2006	293.68	--	--
				6/7/2006	294.74	--	--
				8/22/2006	290.99	--	--
				11/14/2006	290.94	--	--
				2/20/2007	293.99	--	--
				6/5/2007	291.02	--	--
				9/12/2007	290.94	--	--
				12/11/2007	290.88	--	--
				3/19/2008	294.01	--	--
MW-4	1/31/2006	329.97	329.67	2/21/2006	292.95	--	--
				6/7/2006	293.91	--	--
				8/22/2006	290.88	--	--
				11/14/2006	290.83	--	--
				2/20/2007	293.13	--	--
				6/5/2007	290.90	--	--
				9/12/2007	290.74	--	--
				12/11/2007	290.67	--	--
				3/19/2008	293.38	--	--
MW-5	1/27/2006	335.14	334.81	2/21/2006	323.33	--	--
				6/7/2006	324.20	--	--
				8/22/2006	322.88	--	--
				11/14/2006	323.44	--	--
				2/20/2007	323.40	--	--
				6/5/2007	321.22	--	--
				9/12/2007	319.16	--	--
				12/11/2007	NM	--	--
				Q1 2008	NM	--	--

TABLE 2
Monitoring Well Groundwater Elevations
First Quarter 2008 Groundwater Monitoring Report
Chevron Sunol Pipeline

Well ID	Date Completed	Ground Surface Elevation (feet msl)	Top of Casing Elevation (feet msl)	Date Measured	Groundwater Elevation (feet msl)	Product Elevation (feet msl)	Product Thickness (feet)
MW-6	1/27/2006	332.61	332.38	2/21/2006	314.36	--	--
				6/7/2006	315.55	--	--
				8/22/2006	313.72	--	--
				11/14/2006	315.01	--	--
				2/20/2007	314.87	--	--
				6/5/2007	312.94	--	--
				9/12/2007	308.92	--	--
				12/11/2007	NM	--	--
				Q1 2008	NM	--	--
MW-7	1/27/2006	336.46	336.22	2/21/2006	320.79	--	--
				6/7/2006	319.54	--	--
				8/22/2006	319.45	--	--
				11/14/2006	319.23	--	--
				2/20/2007	317.88	--	--
				6/5/2007	316.34	--	--
				9/12/2007	314.46	--	--
				12/11/2007	NM	--	--
				Q1 2008	NM	--	--
MW-8	8/15/2006	335.23	333.93	8/22/2006	315.22	--	--
				11/14/2006	315.20	--	--
				2/20/2007	314.70	--	--
				6/5/2007	313.45	--	--
				9/12/2007	312.46	--	--
				12/11/2007	314.35	--	--
				Q1 2008	NM	--	--
MW-9	8/16/2006	333.49	333.07	8/22/2006	290.48	290.52	0.04
				11/14/2006	290.45	290.53	0.08
				2/20/2007	291.16	291.21	0.05
				6/5/2007	290.36	290.38	0.02
				9/12/2007	289.98	290.06	0.08
				12/11/2007	290.16	--	--
				3/20/2008	291.31	291.32	0.01
MW-10	9/5/2007	336.55	335.89	9/12/2007	281.03	--	--
				12/12/2007	289.05	--	--
				3/20/2008	291.48	--	--
MW-11	9/6/2007	330.29	329.89	9/12/2007	Dry	--	--
				12/12/2007	287.16	--	--
				3/20/2008	292.60	--	--

Notes:
NM - Not measured
All elevations displayed in feet above average mean sea level (msl).
Groundwater and product elevations calculated from depths as measured from top of casing - north.
MW-1 through MW-3 surveyed on October 31, 2005.
MW-4 through MW-7 surveyed on February 14, 2006.
MW-8 and MW-9 surveyed on November 10, 2006.
MW-10 and MW-11 surveyed on September 13, 2007.

TABLE 3
Summary of Groundwater Analytical Results
Gasoline Compounds
First Quarter 2008 Groundwater Monitoring Report
Chevron Sunol Pipeline

Well ID	Date	Gasoline Compounds				
		TPH-GRO	Benzene	Toluene	Ethylbenzene	Xylenes
		(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
ESL[1)]		100	1	40	30	20
MW-1	2/22/2006	**57,000**	**38**	**2,700**	**3,000**	**8,700**
	6/8/2006	**37,000**	**10**	**330**	**120**	**8,200**
	Q3 2006[3)]	**NS**	**NS**	**NS**	**NS**	**NS**
	11/15/2006	**38,000**	**14**	**110**	**38**	**5,900**
	2/21/2007	**18,000**	**4**	**7**	**8**	**1,600**
	6/5/2007	**17,000**	**3**	**7**	**4**	**1,100**
	Q3 2007[3)]	**NS**	**NS**	**NS**	**NS**	**NS**
	Q4 2007[3)]	**NS**	**NS**	**NS**	**NS**	**NS**
	3/19/2008	**12,000**	**0.8**	**1**	**1**	**320**
MW-2	2/21/2006[2)]	<50 / <50	<0.5 / <0.5	<0.5 / <0.5	<0.5 / <0.5	<0.5 / <0.5
	6/7/2006	<50	<0.5	<0.5	<0.5	<0.5
	8/23/2006	<50	0.5	<0.5	<0.5	<0.5
	11/14/2006	<50	**0.7**	<0.5	<0.5	<0.5
	2/21/2007	<50	<0.5	<0.5	<0.5	<0.5
	6/5/2007	<50	<0.5	<0.5	<0.5	<0.5
	Q3 2007[4)]	NS	NS	NS	NS	NS
	Q4 2007[4)]	NS	NS	NS	NS	NS
	3/19/2008	<50	<0.5	<0.5	<0.5	<0.5
MW-3	2/21/2006	<50	<0.5	<0.5	<0.5	<0.5
	6/7/2006	<50	<0.5	<0.5	<0.5	<0.5
	8/23/2006	**170**	<0.5	<0.5	<0.5	<0.5
	11/14/2006	**86**	<0.5	**1**	<0.5	<0.5
	2/21/2007	<50	<0.5	<0.5	<0.5	<0.5
	Q2 2007[4)]	NS	NS	NS	NS	NS
	Q3 2007[4)]	NS	NS	NS	NS	NS
	Q4 2007[4)]	NS	NS	NS	NS	NS
	3/19/2008	<50	<0.5	<0.5	<0.5	<0.5
MW-4	2/21/2006	<50	<0.5	<0.5	<0.5	<0.5
	6/7/2006	<50	<0.5	<0.5	<0.5	<0.5
	8/23/2006	**70**	**0.6**	<0.5	<0.5	**1**
	11/15/2006	<50	<0.5	<0.5	<0.5	0.5
	2/21/2007	<50	<0.5	<0.5	<0.5	<0.5
	Q2 2007[4)]	NS	NS	NS	NS	NS
	Q3 2007[4)]	NS	NS	NS	NS	NS
	Q4 2007[4)]	NS	NS	NS	NS	NS
	3/19/2008	<50	<0.5	<0.5	<0.5	<0.5
MW-5	2/22/2006	<50	<0.5	**0.6**	<0.5	**1**
	6/8/2006	<50	<0.5	<0.5	<0.5	<0.5
	8/24/2006	<50	<0.5	<0.5	<0.5	<0.5
	11/16/2006	<50	<0.5	**2**	<0.5	<0.5
	2/20/2007	<50	<0.5	<0.5	<0.5	<0.5
	6/6/2007	<50	<0.5	<0.5	<0.5	<0.5
	9/12/2007	<50	<0.5	<0.5	<0.5	<0.5
	Q4 2007[5)]	NS	NS	NS	NS	NS
	Q1 2008[5)]	NS	NS	NS	NS	NS

TABLE 3
Summary of Groundwater Analytical Results
Gasoline Compounds
First Quarter 2008 Groundwater Monitoring Report
Chevron Sunol Pipeline

Well ID	Date	Gasoline Compounds				
		TPH-GRO	Benzene	Toluene	Ethylbenzene	Xylenes
		(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
ESL[1)]		100	1	40	30	20
MW-6	2/22/2006	<50	<0.5	<0.5	<0.5	<0.5
	6/7/2006	<50	<0.5	<0.5	<0.5	<0.5
	8/22/2006	<50	<0.5	<0.5	<0.5	<0.5
	11/16/2006	<50	<0.5	<0.5	<0.5	<0.5
	2/20/2007	<50	<0.5	<0.5	<0.5	<0.5
	6/6/2007	<50	<0.5	<0.5	<0.5	<0.5
	9/12/2007	<50	<0.5	<0.5	<0.5	<0.5
	Q4 2007[5)]	NS	NS	NS	NS	NS
	Q1 2008[5)]	NS	NS	NS	NS	NS
MW-7	2/22/2006	<50	**0.7**	**2**	**0.9**	**5**
	6/8/2006	<50	**0.7**	<0.5	**1**	**4**
	8/22/2006[2)]	<50 / <50	**2 / 2**	<0.5 / <0.5	**1 / 0.6 J**	**3 / 2 J**
	11/16/2006	<50	**0.7**	**2**	**0.6**	**2**
	2/20/2007[2)]	<50 / <50	**0.7 / 0.6**	**1 / 0.9**	**0.9 / 0.6 J**	**3 / 2 J**
	6/6/2007	<50	**0.7**	**0.8**	**0.8**	**2**
	9/12/2007[2)]	<50 / <50	<0.5 / <0.5	<0.5 / <0.5	<0.5 / <0.5	<0.5 / <0.5
	Q4 2007[5)]	NS	NS	NS	NS	NS
	Q1 2008[5)]	NS	NS	NS	NS	NS
MW-8	8/24/2006	**18,000**	**190**	**2,600**	**590**	**2,800**
	11/16/2006	**990**	**76**	**80**	**69**	**190**
	2/20/2007	**2,000**	**180**	**57**	**170**	**74**
	6/6/2007	**3,600**	**340**	**92**	**370**	**210**
	9/12/2007	**4,200**	**470**	**230**	**630**	**320**
	12/11/2007	**4,900**	**350**	**300**	**490**	**650**
	Q1 2008[6)]	**NS**	**NS**	**NS**	**NS**	**NS**
MW-9	Q3 2006[3)]	**NS**	**NS**	**NS**	**NS**	**NS**
	11/15/2006	**74,000**	**480**	**12,000**	**2,200**	**17,000**
	Q1 2007[3)]	**NS**	**NS**	**NS**	**NS**	**NS**
	Q2 2007[3)]	**NS**	**NS**	**NS**	**NS**	**NS**
	Q3 2007[3)]	**NS**	**NS**	**NS**	**NS**	**NS**
	12/11/2007	**48,000**	**62**	**5,400**	**1,700**	**12,000**
	Q1 2008[3)]	**NS**	**NS**	**NS**	**NS**	**NS**
MW-10	Q3 2007[4)]	NS	NS	NS	NS	NS
	12/14/2007	<50	<0.5	<0.5	<0.5	<0.5
	3/20/2008	<50	**0.9**	<0.5	<0.5	<0.5
MW-11	Q3 2007[4)]	NS	NS	NS	NS	NS
	12/14/2007	<50	<0.5	<0.5	<0.5	<0.5
	3/20/2008[2)]	<50 / <50	<0.5 / <0.5	<0.5 / <0.5	<0.5 / <0.5	<0.5 / <0.5
SW-Creek	6/7/2006	<50	<0.5	<0.5	<0.5	<0.5
	8/22/2006	<50	<0.5	<0.5	<0.5	<0.5
	11/15/2006	<50	<0.5	<0.5	<0.5	<0.5
Stream	2/21/2007	<50	<0.5	<0.5	<0.5	<0.5
	6/5/2007	<50	<0.5	<0.5	<0.5	<0.5
	9/12/2007	<50	<0.5	<0.5	<0.5	<0.5
	1/25/2008	<50	<0.5	<0.5	<0.5	<0.5
	3/20/2008	<50	<0.5	<0.5	<0.5	<0.5

Notes:
Bold values exceed laboratory reporting limits.
J qualifier - The reported value is the approximate concentration of the analyte in the sample due to sample heterogeneity.
µg/L - micrograms per liter
NS - Not Sampled
TPH-GRO - Total Petroleum Hydrocarbons as Gasoline Range Organics

1) Environmental Screening Levels (ESLs) for groundwater as a current or potential source of drinking water were obtained from the San Francisco Regional Water Quality Control Board (RWQCB) Interim Final: Table A, November 2007.
2) Both sample and duplicate concentrations from well location are displayed.
3) Sample not collected during quarterly monitoring due to the presence of measurable free product.
4) Sample not collected during quarterly monitoring because well is not hydraulically connected to unconfined water-bearing zone.
5) Sample not collected, ACEH approved well abandonement.
6) Sample not collected due to extreme overhead hazards posed by dead trees on the 80-90% grade directly uphill from the sampling location.

TABLE 4
Summary of Groundwater Analytical Results
Geochemical Indicators and Other Parameters
Fourth Quarter 2006 Groundwater Monitoring Report
Chevron Sunol Pipeline

Well ID	Date	Geochemical Indicators and Other Parameters											
		DO[1] (mg/L)	ORP[1] (mV)	Nitrate (mg/L)	Manganese (mg/L)	Ferrous Iron (mg/L)	Dissolved Iron (mg/L)	Sulfate (mg/L)	Methane (mg/L)	pH[1]	TDS (mg/L)	Alkalinity to pH 4.5 (mg/L) as $CaCO_3$	Alkalinity to pH 8.3 (mg/L) as $CaCO_3$
MW-1	6/8/2006	0.28	88.15	2.60	0.116	<0.008	<0.052	48.30	<0.002	6.62	494.00	317.00	<0.46
	Q3 2006	NM[4]	NM[4]	NM[4]	NM[4]	NM[4]	NM[4]	NM[4]	NM[4]	NM[4]	NM[4]	NM[4]	NM[4]
	11/15/2006	4.87[6]	25.00	0.37 J	1.000	0.220	0.079	108.00	<0.002	6.67	882.00	597.00	<0.46
MW-2	6/7/2006	NR[3]	36.43	11.90	0.003	<0.008	<0.052	47.50	<0.002	6.56	465.00	286.00	<0.46
	8/23/2006	0.32	25.69	7.00	0.024	0.015	<0.052	121.00	0.005	6.63	811.00	470.00	<0.46
	11/14/2006	0.20	220.84	4.00	0.021	0.021	<0.052 UJ	126.00 J	0.004	6.72	867.00	530.00	<0.46
MW-3	6/7/2006	0.37	31.23	10.90	0.005	<0.008	<0.052	45.10	<0.002	6.56	446.00	274.00	<0.46
	8/23/2006	0.30	-1.80	<0.25	0.368	0.240	<0.052	26.30	1.500	6.60	711.00	421.00	<0.46
	11/14/2006	0.12	-17.57	NM[5]	NM[5]	NM[5]	NM[5]	NM[5]	0.42	6.95	NM[5]	NM[5]	NM[5]
MW-4	6/7/2006	0.28	29.57	9.20	0.020	0.059	<0.052	60.20	<0.002	6.65	423.00	282.00	<0.46
	8/23/2006	NR[3]	-22.49	<0.25	0.226	0.700	<0.052	78.40	0.003	6.62	590.00	396.00	<0.46
	11/15/2006	3.46[6]	106.00	0.34 J	0.137	0.470	<0.052	90.30	0.003	6.74	672.00	490.00	<0.46
MW-5	6/8/2006	0.19	12.05	<0.25	0.029	0.120	<0.052	71.30	0.004	7.24	502.00	313.00	2.60
	8/24/2006	NR[3]	-151.92	<0.25	0.021	0.280	<0.052	72.20	0.0054 J	7.32	506.00	320.00	<0.46
	11/16/2006	0.08	-48.11	<0.25	0.020 J	0.280	<0.052	73.80 J	0.005	7.45	513.00	320.00	<0.46
MW-6	6/7/2006	NM[2]	NM[2]	<0.25	0.599	12.600	<0.052	41.60	<0.002	NM[2]	531.00	364.00	3.70
	8/22/2006	NM[2]	NM[2]	<0.25	0.600	5.500	<0.052	36.90	5.800	NM[2]	553.00	375.00	<0.46
	11/16/2006	0.04	-71.00	<0.25	0.203 J	0.700	<0.052	38.30 J	5.700	7.92	541.00	366.00	<0.46
MW-7	6/8/2006	NM[2]	NM[2]	<0.25	0.706	13.400	<0.052	70.40	0.022	NM[2]	542.00	310.00	5.90
	8/22/2006	NM[2]	NM[2]	<0.25	0.160	0.910	<0.052	75.70	0.094	NM[2]	534.00	335.00	<0.46
	11/16/2006	0.06	-24.00	<0.25	0.376	5.800	<0.052	77.60 J	0.061	7.42	533.00	358.00	<0.46
MW-8	8/24/2006	NM[2]	NM[2]	<0.25	0.171	0.140	<0.052	90.20	<0.002 UJ	NM[2]	563.00	362.00	<0.46
	11/16/2006	0.05	-74.00	<0.25	0.123	0.800	<0.052	78.60 J	0.002	7.22	564.00	350.00	<0.46
MW-9	Q3 2006	NM[4]	NM[4]	NM[4]	NM[4]	NM[4]	NM[4]	NM[4]	NM[4]	NM[4]	NM[4]	NM[4]	NM[4]
	11/15/2006	3.01[6]	4.00	<0.25 UJ	4.410	1.200	0.496	29.50	0.009	6.92	836.00	657.00	<0.46

Notes:
DO = Dissolved oxygen
ORP = Oxygen reduction potential
TDS = Total dissolved solids
$CaCO_3$ = Calcium Carbonate
NM = Not measured
NR = Not Reported
J = Estimated result
UJ = Estimated result

1) DO, ORP, and pH values were obtained in the field using a flow-through cell and a multi-parameter meter unless otherwise noted.
2) Field data was not collected for DO, ORP, and pH because groundwater was removed from the well without using the in-line flow-through cell due to insufficient recharge.
3) DO meter did not appear to be functioning correctly.
4) The well was not sampled and parameters were not measured due to the presence of free product at this loaction.
5) The well was purged dry and recharge was insufficient to collect groundwater for geochemical analysis.
6) DO readings were artificially high because purge water was poured into the multi-paramter meter from a bailer.

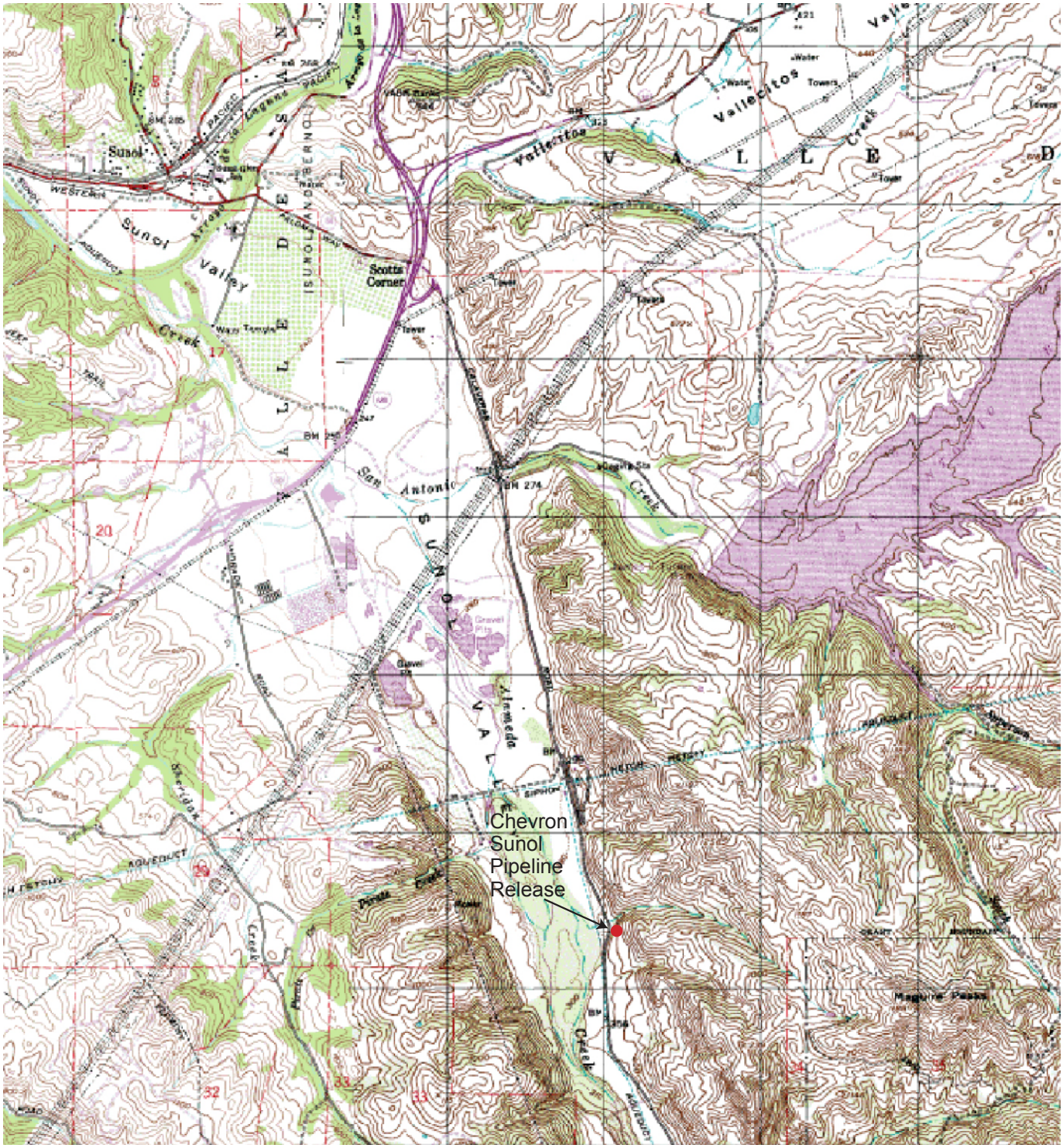


Image obtained from topozone.com

N

MAP REFERENCE:

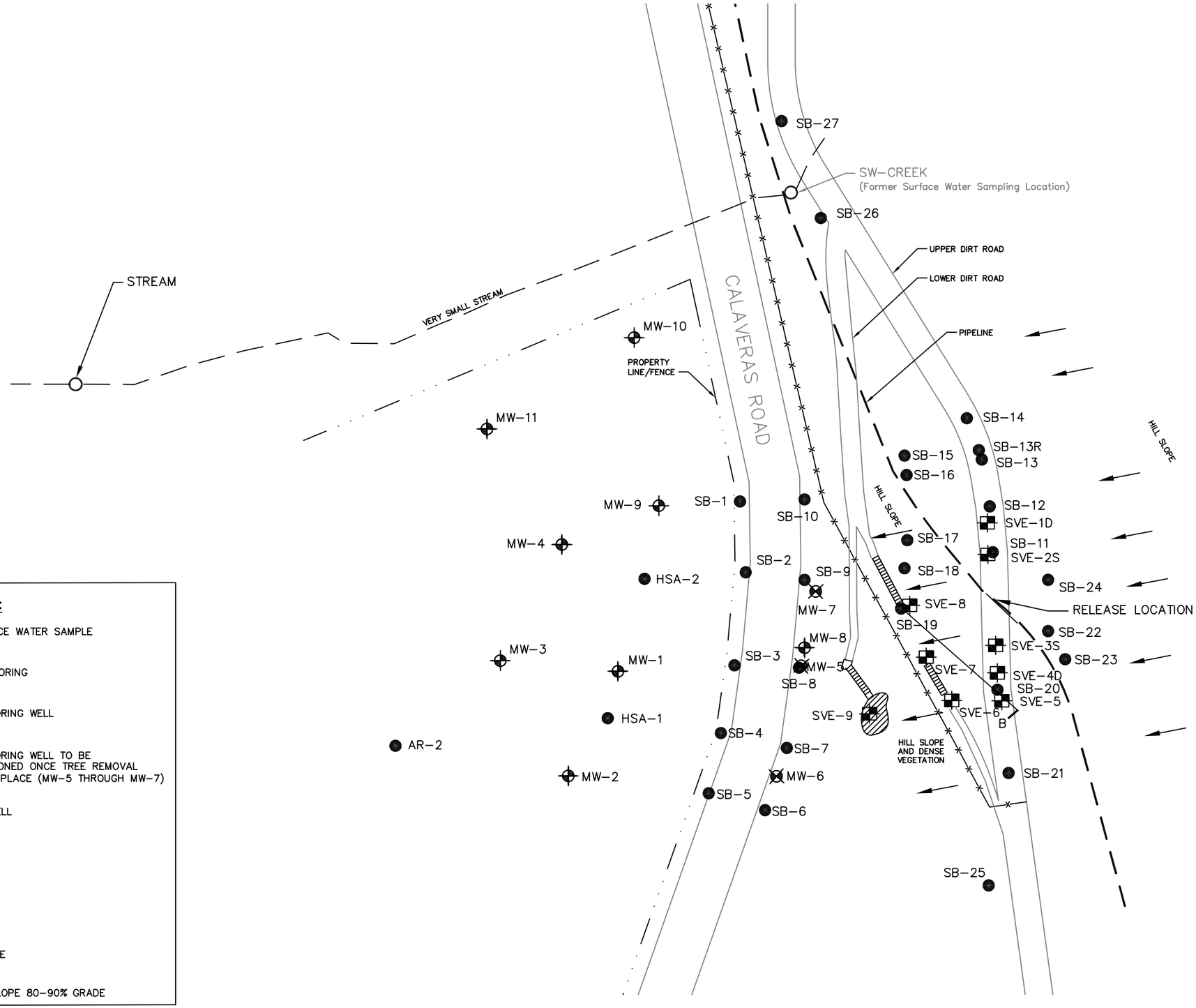
PORTION OF U.S.G.S. QUANDRANGLE MAP
7 1/2 MINUTE SERIES (TOPOGRAPHIC)
LA COSTA VALLEY QUADRANGLE

URS	Chevron Pipeline Company Project No. 26815217	SITE VICINITY MAP CHEVRON SUNOL PIPELINE SUNOL, CALIFORNIA	Figure 1

NORTH

0 50 100

SCALE IN FEET

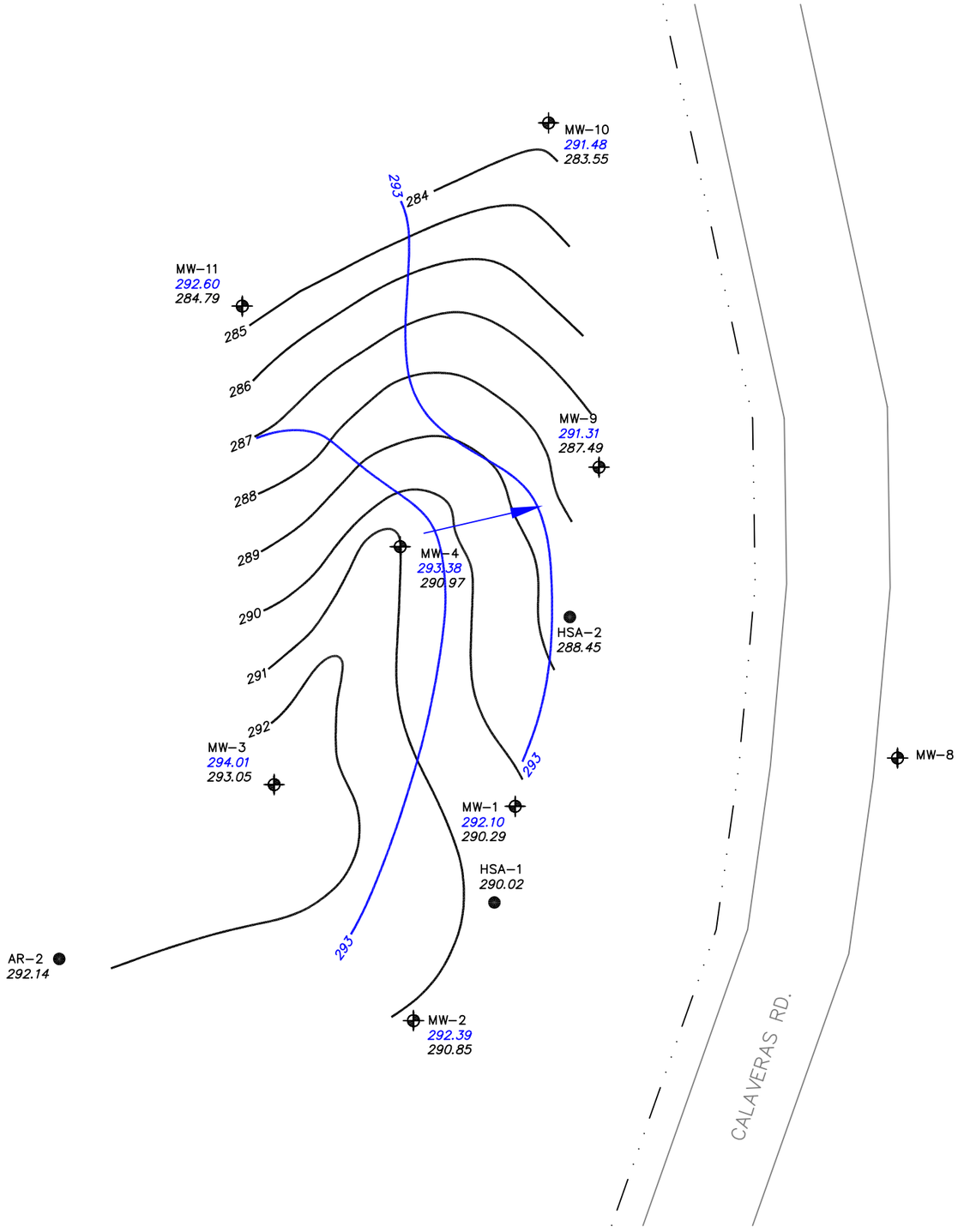


LEGEND:

- SURFACE WATER SAMPLE
- SOIL BORING
- MONITORING WELL
- MONITORING WELL TO BE ABONDONED ONCE TREE REMOVAL TAKES PLACE (MW–5 THROUGH MW–7)
- SVE WELL
- SHELF
- FENCE
- PIPELINE
- HILL SLOPE 80–90% GRADE

URS	CHEVRON PIPELINE COMPANY Project No. 26815217	SVE AND GROUNDWATER MONITORING WELL LOCATIONS CHEVRON SUNOL PIPELINE	Figure 2

Apr 23, 2008 – 3:02pm
I:\Greg White\Chevron Figures\Chevron Q1 2008 GMR\SVE–GW Locations_012108.dwg



LEGEND:

MW-3	MONITORING WELL
290.88	GROUNDWATER ELEVATION
293.05	BEDROCK CONTACT ELEVATION
HSA-2	SOIL BORING
288.45	BEDROCK CONTACT ELEVATION
292	CALCULATED SILTSTONE BEDROCK ELEVATION CONTOUR
292	CALCULATED GROUNDWATER ELEVATION CONTOUR
	INFERRED GROUND FLOW DIRECTION

NOTES:

1. ELEVATIONS IN FEET ABOVE AVERAGE MEAN SEA LEVEL (msl).
2. GROUNDWATER ELEVATION FOR MW-1 THROUGH MW-4 AND MW-9 THROUGH MW-11 AS MEASURED ON MARCH 19th AND 20th, 2008.
3. BEDROCK ELEVATION DATA OBTAINED FROM THE BORING LOGS OF MW-1 THROUGH MW-4, MW-9 THROUGH MW-11, HSA-1, HSA-2, AND AR-2.
4. THE BEDROCK CONTOURS SHOWN REPRESENT THE OVERBURDEN CONTACT WITH THE WEATHERED SILTSTONE/CLAYSTONE BEDROCK UNIT (POSSIBLY CRETACEOUS-AGE CLAY SHALE OF THE PANOCHE FORMATION).
5. CALCULATED HYDRAULIC GRADIENT NORTHEASTERLY FLOW DIRECT: DH/DL=0.041 ft/ft.

NORTH

30' 0 30'

SCALE: 1"= 30'

URS	CHEVRON PIPELINE COMPANY Project No. 26815217	UNCONFINED WATER-BEARING ZONE GROUNDWATER ELEVATIONS AND BEDROCK CONTOUR MAP CHEVRON SUNOL PIPLINE	Figure 3

Apr 23, 2008 - 2:03pm
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Appendix A
Groundwater Sampling Forms

URS

Troll 9000 | **Low-Flow System**
03/19/08 | **ISI Low-Flow Log**

Project Information:

Operator Name	Renee McFarlan
Company Name	URS
Project Name	Chevron Sunol Pipeline
Site Name	Sunol

Pump Information:

Pump Model/Type	Mega Typhoon
Tubing Type	LDPE
Tubing Diameter	0.38 [in]
Tubing Length	35 [ft]
Pump placement from TOC	35 [ft]

Well Information:

Well Id	MW-2
Well diameter	4 [in]
Well total depth	38.3 [ft]
Depth to top of screen	23.3 [ft]
Screen length	15 [ft]
Depth to Water	31.76 [ft]

Pumping information:

Final pumping rate	220 [mL/min]
Flowcell volume	1331.56 [mL]
Calculated Sample Rate	39947 [sec]
Sample rate	180 [sec]
Stabilized drawdown	0.08 [ft]

Low-Flow Sampling Stabilization Summary

	Time	Temp [F]	pH [pH]	Cond [µS/cm]	Turb [NTU]	RDO [mg/L]	ORP [mV]
Stabilization Settings			+/-0	+/-0	+/-0	+/-0	+/-0
Last 5 Readings	11:45:11	62.45	6.71	856.36	-0.03	2.72	69.05
	11:48:18	62.56	6.70	855.03	-0.14	2.73	68.98
	11:51:26	62.41	6.70	849.99	-0.19	2.77	68.66
	11:54:31	62.49	6.69	849.01	-0.19	2.80	69.11
	11:57:38	62.53	6.69	847.53	-0.20	2.83	69.46
Variance in last 3 readings	11:51:26	-0.15	-0.01	-5.04	-0.05	0.04	-0.32
	11:54:31	0.08	0.00	-0.98	0.00	0.03	0.45
	11:57:38	0.04	0.00	-1.48	-0.01	0.03	0.36

Notes: Initial Depth to Water = 31.76 feet
Pump rate = 220 mL/min
Total Volume Purged = 3.5 gallons

URS

Troll 9000 **Low-Flow System**
03/19/08 **ISI Low-Flow Log**

Project Information:		**Pump Information:**	
Operator Name	Renee McFarlan	Pump Model/Type	Mega Typhoon
Company Name	URS	Tubing Type	LDPE
Project Name	Chevron Sunol Pipeline	Tubing Diameter	0.38 [in]
Site Name	Sunol	Tubing Length	34.5 [ft]
		Pump placement from TOC	34.5 [ft]

Well Information:		**Pumping information:**	
Well Id	MW-3	Final pumping rate	390 [mL/min]
Well diameter	4 [in]	Flowcell volume	1320.41 [mL]
Well total depth	36.3 [ft]	Calculated Sample Rate	39613 [sec]
Depth to top of screen	21.3 [ft]	Sample rate	180 [sec]
Screen length	15 [ft]	Stabilized drawdown	0.01 [ft]
Depth to Water	31.64 [ft]		

Low-Flow Sampling Stabilization Summary

	Time	Temp [F]	pH [pH]	Cond [µS/cm]	Turb [NTU]	RDO [mg/L]	ORP [mV]
Stabilization Settings			+/-0	+/-0	+/-0	+/-0	+/-0
Last 5 Readings	10:34:39	57.30	6.74	774.73	2.42	2.48	76.10
	10:37:46	58.01	6.73	783.64	1.74	2.11	73.53
	10:40:52	57.92	6.73	782.36	0.83	2.03	70.58
	10:43:59	57.79	6.73	780.65	0.44	2.03	69.77
	10:47:05	57.61	6.73	778.96	-0.06	2.03	69.00
Variance in last 3 readings	10:40:52	-0.08	0.00	-1.28	-0.91	-0.08	-2.95
	10:43:59	-0.13	0.00	-1.70	-0.39	0.00	-0.81
	10:47:05	-0.18	0.00	-1.70	-0.50	0.00	-0.77

Notes: Initial Depth to Water = 31.64 feet
Pump rate = 390 mL/min
Total Volume Purged = 5 gallons

URS

Troll 9000 **Low-Flow System**
03/19/08 **ISI Low-Flow Log**

Project Information:

Operator Name	Renee McFarlan
Company Name	URS
Project Name	Chevron Sunol Pipeline
Site Name	Sunol

Pump Information:

Pump Model/Type	Mega Typhoon
Tubing Type	LFPE
Tubing Diameter	0.38 [in]
Tubing Length	39 [ft]
Pump placement from TOC	39 [ft]

Well Information:

Well Id	MW-4
Well diameter	4 [in]
Well total depth	40.7 [ft]
Depth to top of screen	30.7 [ft]
Screen length	10 [ft]
Depth to Water	36.29 [ft]

Pumping information:

Final pumping rate	400 [mL/min]
Flowcell volume	1398.03 [mL]
Calculated Sample Rate	41941 [sec]
Sample rate	180 [sec]
Stabilized drawdown	0.24 [in]

Low-Flow Sampling Stabilization Summary

	Time	Temp [F]	pH [pH]	Cond [µS/cm]	Turb [NTU]	RDO [mg/L]	ORP [mV]
Stabilization Settings			+/-0	+/-0	+/-0	+/-0	+/-0
Last 5 Readings	9:44:48	60.31	6.70	802.30	3.75	0.80	48.60
	9:47:53	60.23	6.70	801.85	3.81	0.91	51.93
	9:51:01	60.15	6.70	801.70	3.91	0.99	54.93
	9:54:07	60.19	7.05	1.29	-0.34	6.05	14.42
	9:55:18	60.55	7.05	1.29	-0.35	7.40	15.66
Variance in last 3 readings	9:51:01	-0.08	0.00	-0.15	0.11	0.08	3.00
	9:54:07	0.04	0.36	-800.41	-4.25	5.06	-40.51
	9:55:18	0.36	0.00	0.00	-0.01	1.35	1.24

Notes: Initial Depth to Water = 36.29 feet
Pump rate = 400 mL/min
Total Volume Purged = 9.5 gallons

URS

Troll 9000 **Low-Flow System**
03/20/08 **ISI Low-Flow Log**

Project Information:		**Pump Information:**	
Operator Name	Renee McFarlan	Pump Model/Type	Mega Typhoon
Company Name	URS	Tubing Type	LDPE
Project Name	Chevron Sunol Pipeline	Tubing Diameter	0.38 [in]
Site Name	Sunol	Tubing Length	52 [ft]
		Pump placement from TOC	52 [ft]

Well Information:		**Pumping information:**	
Well Id	MW-10	Final pumping rate	390 [mL/min]
Well diameter	2 [in]	Flowcell volume	1710.69 [mL]
Well total depth	55.3 [ft]	Calculated Sample Rate	--
Depth to top of screen	40.3 [ft]	Sample rate	180 [sec]
Screen length	15 [ft]	Stabilized drawdown	NM
Depth to Water	44.41 [ft]		

Low-Flow Sampling Stabilization Summary

	Time	Temp [F]	pH [pH]	Cond [µS/cm]	Turb [NTU]	RDO [mg/L]	ORP [mV]
Stabilization Settings			+/-0	+/-0	+/-0	+/-0	+/-0
Last 5 Readings	10:30:29	61.99	6.84	1874.49	141.88	0.27	-110.69
	10:33:35	62.26	6.83	1880.43	136.84	0.21	-115.07
	10:36:42	63.07	6.83	1895.57	127.09	0.19	-118.13
	10:39:48	63.32	6.82	1902.42	125.85	0.19	-120.30
	10:42:56	63.68	6.82	1904.19	126.44	0.16	-121.71
Variance in last 3 readings	10:36:42	0.81	-0.01	15.14	-9.75	-0.02	-3.06
	10:39:48	0.25	-0.01	6.85	-1.24	-0.01	-2.17
	10:42:56	0.36	0.00	1.77	0.59	-0.03	-1.40

Notes: Initial Depth to Water = 44.41 feet
Pump rate = 390 mL/min
Total Volume Purged = 2 gallons

URS

Troll 9000 | **Low-Flow System**
03/20/08 | **ISI Low-Flow Log**

Project Information:		**Pump Information:**	
Operator Name	Renee McFarlan	Pump Model/Type	Mega Typhoon
Company Name	URS	Tubing Type	LDPE
Project Name	Chevron Sunol Pipeline	Tubing Diameter	0.38 [in]
Site Name	Sunol	Tubing Length	44 [ft]
		Pump placement from TOC	44 [ft]

Well Information:		**Pumping information:**	
Well Id	MW-11	Final pumping rate	200 [mL/min]
Well diameter	2 [in]	Flowcell volume	1532.28 [mL]
Well total depth	47 [ft]	Calculated Sample Rate	45969 [sec]
Depth to top of screen	37 [ft]	Sample rate	180 [sec]
Screen length	10 [ft]	Stabilized drawdown	NM
Depth to Water	37.29 [ft]		

Low-Flow Sampling Stabilization Summary

	Time	Temp [F]	pH [pH]	Cond [µS/cm]	Turb [NTU]	RDO [mg/L]	ORP [mV]
Stabilization Settings			+/-0	+/-0	+/-0	+/-0	+/-0
Last 5 Readings	9:19:54	60.86	6.81	1680.45	219.06	0.76	-48.18
	9:23:00	60.89	6.81	1577.40	229.82	0.54	-49.97
	9:26:07	61.60	6.81	1504.51	267.46	0.35	-57.57
	9:29:13	60.79	6.81	1440.49	294.03	0.34	-62.01
	9:32:20	63.48	6.78	1496.85	432.49	0.15	-70.51
Variance in last 3 readings	9:26:07	0.71	0.00	-72.89	37.64	-0.19	-7.61
	9:29:13	-0.81	0.00	-64.02	26.57	-0.01	-4.44
	9:32:20	2.69	-0.03	56.36	138.45	-0.19	-8.50

Notes: Initial Depth to Water = 37.29 feet
Pump rate = 200 mL/min
Total Volume Purged = 9 gallons

Appendix B
Laboratory Analytical Results

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Analysis Report

ANALYTICAL RESULTS

Prepared for:

Chevron Pipeline Co.
4800 Fournace Place - E320 D
Bellaire TX 77401

713-432-3335

Prepared by:

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

SAMPLE GROUP

The sample group for this submittal is 1082728. Samples arrived at the laboratory on Friday, March 21, 2008. The PO# for this group is 0015010091 and the release number is COSGRAY.

Client Description	Lancaster Labs Number
MW-4 Grab Water	5310130
MW-3 Grab Water	5310131
MW-2 Grab Water	5310132
MW-1 Grab Water	5310133
MW-11 Grab Water	5310134
MW-X Grab Water	5310135
MW-10 Grab Water	5310136
Creek Grab Water	5310137
Trip Blank NA Water	5310138

ELECTRONIC COPY TO	URS	Attn: Joe Morgan
ELECTRONIC COPY TO	URS	Attn: April Giangerelli
ELECTRONIC COPY TO	URS	Attn: Jacob Henry
ELECTRONIC COPY TO	URS	Attn: Amber Koster
ELECTRONIC COPY TO	URS Corporation	Attn: Greg White

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Analysis Report

Questions? Contact your Client Services Representative
Megan A Moeller at (717) 656-2300

Respectfully Submitted,

Christine Dulaney
Senior Specialist

Lancaster Laboratories

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Analysis Report

Lancaster Laboratories Sample No. WW5310130 Group No. 1082728

MW-4 Grab Water
NA URSO
Sunol Pipeline SL0600100443 MW-4
Collected:03/19/2008 10:45 by RM

Account Number: 11875

Submitted: 03/21/2008 09:20
Reported: 04/04/2008 at 18:43
Discard: 05/05/2008

Chevron Pipeline Co.
4800 Fournace Place - E320 D
Bellaire TX 77401

SUNO4

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
01728	TPH-GRO - Waters	n.a.	N.D.	50.	ug/l	1
	The reported concentration of TPH-GRO does not include MTBE or other gasoline constituents eluting prior to the C6 (n-hexane) TPH-GRO range start time.					
06053	BTEX by 8260B					
05401	Benzene	71-43-2	N.D.	0.5	ug/l	1
05407	Toluene	108-88-3	N.D.	0.5	ug/l	1
05415	Ethylbenzene	100-41-4	N.D.	0.5	ug/l	1
06310	Xylene (Total)	1330-20-7	N.D.	0.5	ug/l	1

State of California Lab Certification No. 2116

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
01728	TPH-GRO - Waters	SW-846 8015B modified	1	03/27/2008 08:46	Carrie E Youtzy	1
06053	BTEX by 8260B	SW-846 8260B	1	03/31/2008 02:44	Kelly E Brickley	1
01146	GC VOA Water Prep	SW-846 5030B	1	03/27/2008 08:46	Carrie E Youtzy	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	03/31/2008 02:44	Kelly E Brickley	1

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Analysis Report

Lancaster Laboratories Sample No. WW5310131 Group No. 1082728

MW-3 Grab Water
NA URSO
Sunol Pipeline SL0600100443 MW-3
Collected:03/19/2008 11:45 by RM

Account Number: 11875

Submitted: 03/21/2008 09:20
Reported: 04/04/2008 at 18:44
Discard: 05/05/2008

Chevron Pipeline Co.
4800 Fournace Place - E320 D
Bellaire TX 77401

SUNO3

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
01728	TPH-GRO - Waters	n.a.	N.D.	50.	ug/l	1
	The reported concentration of TPH-GRO does not include MTBE or other gasoline constituents eluting prior to the C6 (n-hexane) TPH-GRO range start time.					
06053	BTEX by 8260B					
05401	Benzene	71-43-2	N.D.	0.5	ug/l	1
05407	Toluene	108-88-3	N.D.	0.5	ug/l	1
05415	Ethylbenzene	100-41-4	N.D.	0.5	ug/l	1
06310	Xylene (Total)	1330-20-7	N.D.	0.5	ug/l	1

State of California Lab Certification No. 2116

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
01728	TPH-GRO - Waters	SW-846 8015B modified	1	03/27/2008 09:16	Carrie E Youtzy	1
06053	BTEX by 8260B	SW-846 8260B	1	03/31/2008 03:07	Kelly E Brickley	1
01146	GC VOA Water Prep	SW-846 5030B	1	03/27/2008 09:16	Carrie E Youtzy	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	03/31/2008 03:07	Kelly E Brickley	1

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Analysis Report

Lancaster Laboratories Sample No. WW5310132 Group No. 1082728

MW-2 Grab Water
NA URSO
Sunol Pipeline SL0600100443 MW-2
Collected:03/19/2008 12:55 by RM

Account Number: 11875

Submitted: 03/21/2008 09:20
Reported: 04/04/2008 at 18:44
Discard: 05/05/2008

Chevron Pipeline Co.
4800 Fournace Place - E320 D
Bellaire TX 77401

SUNO2

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
01728	TPH-GRO - Waters	n.a.	N.D.	50.	ug/l	1
	The reported concentration of TPH-GRO does not include MTBE or other gasoline constituents eluting prior to the C6 (n-hexane) TPH-GRO range start time.					
06053	BTEX by 8260B					
05401	Benzene	71-43-2	N.D.	0.5	ug/l	1
05407	Toluene	108-88-3	N.D.	0.5	ug/l	1
05415	Ethylbenzene	100-41-4	N.D.	0.5	ug/l	1
06310	Xylene (Total)	1330-20-7	N.D.	0.5	ug/l	1

State of California Lab Certification No. 2116

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
01728	TPH-GRO - Waters	SW-846 8015B modified	1	03/27/2008 09:45	Carrie E Youtzy	1
06053	BTEX by 8260B	SW-846 8260B	1	03/31/2008 03:29	Kelly E Brickley	1
01146	GC VOA Water Prep	SW-846 5030B	1	03/27/2008 09:45	Carrie E Youtzy	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	03/31/2008 03:29	Kelly E Brickley	1

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Analysis Report

Lancaster Laboratories Sample No. WW5310133 Group No. 1082728

MW-1 Grab Water
NA URSO
Sunol Pipeline SL0600100443 MW-1
Collected:03/19/2008 13:45 by RM

Account Number: 11875

Submitted: 03/21/2008 09:20
Reported: 04/04/2008 at 18:44
Discard: 05/05/2008

Chevron Pipeline Co.
4800 Fournace Place - E320 D
Bellaire TX 77401

SUNO1

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
01728	TPH-GRO - Waters	n.a.	12,000.	250.	ug/l	5
	The reported concentration of TPH-GRO does not include MTBE or other gasoline constituents eluting prior to the C6 (n-hexane) TPH-GRO range start time.					
06053	BTEX by 8260B					
05401	Benzene	71-43-2	0.8	0.5	ug/l	1
05407	Toluene	108-88-3	1.	0.5	ug/l	1
05415	Ethylbenzene	100-41-4	1.	0.5	ug/l	1
06310	Xylene (Total)	1330-20-7	320.	0.5	ug/l	1

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All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
01728	TPH-GRO - Waters	SW-846 8015B modified	1	03/27/2008 10:15	Carrie E Youtzy	5
06053	BTEX by 8260B	SW-846 8260B	1	03/31/2008 03:52	Kelly E Brickley	1
01146	GC VOA Water Prep	SW-846 5030B	1	03/27/2008 10:15	Carrie E Youtzy	5
01163	GC/MS VOA Water Prep	SW-846 5030B	1	03/31/2008 03:52	Kelly E Brickley	1

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Analysis Report

Lancaster Laboratories Sample No. WW5310134 **Group No. 1082728**

MW-11 Grab Water
NA URSO
Sunol Pipeline SL0600100443 MW-11
Collected:03/20/2008 09:50 by RM

Account Number: 11875

Submitted: 03/21/2008 09:20
Reported: 04/04/2008 at 18:44
Discard: 05/05/2008

Chevron Pipeline Co.
4800 Fournace Place - E320 D
Bellaire TX 77401

SUN11

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
01728	TPH-GRO - Waters	n.a.	N.D.	50.	ug/l	1
	The reported concentration of TPH-GRO does not include MTBE or other gasoline constituents eluting prior to the C6 (n-hexane) TPH-GRO range start time.					
06053	BTEX by 8260B					
05401	Benzene	71-43-2	N.D.	0.5	ug/l	1
05407	Toluene	108-88-3	N.D.	0.5	ug/l	1
05415	Ethylbenzene	100-41-4	N.D.	0.5	ug/l	1
06310	Xylene (Total)	1330-20-7	N.D.	0.5	ug/l	1

State of California Lab Certification No. 2116

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
01728	TPH-GRO - Waters	SW-846 8015B modified	1	03/27/2008 10:44	Carrie E Youtzy	1
06053	BTEX by 8260B	SW-846 8260B	1	03/31/2008 20:04	Michael A Ziegler	1
01146	GC VOA Water Prep	SW-846 5030B	1	03/27/2008 10:44	Carrie E Youtzy	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	03/31/2008 20:04	Michael A Ziegler	1

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Analysis Report

Lancaster Laboratories Sample No. WW5310135 Group No. 1082728

MW-X Grab Water
NA URSO
Sunol Pipeline SL0600100443 MW-X
Collected:03/20/2008 09:55 by RM

Account Number: 11875

Submitted: 03/21/2008 09:20
Reported: 04/04/2008 at 18:44
Discard: 05/05/2008

Chevron Pipeline Co.
4800 Fournace Place - E320 D
Bellaire TX 77401

SUNOX

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
01728	TPH-GRO - Waters	n.a.	N.D.	50.	ug/l	1
	The reported concentration of TPH-GRO does not include MTBE or other gasoline constituents eluting prior to the C6 (n-hexane) TPH-GRO range start time.					
06053	BTEX by 8260B					
05401	Benzene	71-43-2	N.D.	0.5	ug/l	1
05407	Toluene	108-88-3	N.D.	0.5	ug/l	1
05415	Ethylbenzene	100-41-4	N.D.	0.5	ug/l	1
06310	Xylene (Total)	1330-20-7	N.D.	0.5	ug/l	1

State of California Lab Certification No. 2116

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
01728	TPH-GRO - Waters	SW-846 8015B modified	1	03/27/2008 11:14	Carrie E Youtzy	1
06053	BTEX by 8260B	SW-846 8260B	1	03/31/2008 20:27	Michael A Ziegler	1
01146	GC VOA Water Prep	SW-846 5030B	1	03/27/2008 11:14	Carrie E Youtzy	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	03/31/2008 20:27	Michael A Ziegler	1

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Analysis Report

Lancaster Laboratories Sample No. WW5310136 Group No. 1082728

MW-10 Grab Water
NA URSO
Sunol Pipeline SL0600100443 MW-10
Collected:03/20/2008 10:45 by RM

Account Number: 11875

Submitted: 03/21/2008 09:20
Reported: 04/04/2008 at 18:44
Discard: 05/05/2008

Chevron Pipeline Co.
4800 Fournace Place - E320 D
Bellaire TX 77401

SUN10

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
01728	TPH-GRO - Waters	n.a.	N.D.	50.	ug/l	1
	The reported concentration of TPH-GRO does not include MTBE or other gasoline constituents eluting prior to the C6 (n-hexane) TPH-GRO range start time.					
06053	BTEX by 8260B					
05401	Benzene	71-43-2	0.9	0.5	ug/l	1
05407	Toluene	108-88-3	N.D.	0.5	ug/l	1
05415	Ethylbenzene	100-41-4	N.D.	0.5	ug/l	1
06310	Xylene (Total)	1330-20-7	N.D.	0.5	ug/l	1

State of California Lab Certification No. 2116

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
01728	TPH-GRO - Waters	SW-846 8015B modified	1	03/27/2008 11:43	Carrie E Youtzy	1
06053	BTEX by 8260B	SW-846 8260B	1	03/31/2008 22:04	Michael A Ziegler	1
01146	GC VOA Water Prep	SW-846 5030B	1	03/27/2008 11:43	Carrie E Youtzy	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	03/31/2008 22:04	Michael A Ziegler	1

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Analysis Report

Lancaster Laboratories Sample No. WW5310137 Group No. 1082728

Creek Grab Water
NA URSO
Sunol Pipeline SL0600100443 Creek
Collected:03/20/2008 11:25 by RM

Account Number: 11875

Submitted: 03/21/2008 09:20
Reported: 04/04/2008 at 18:44
Discard: 05/05/2008

Chevron Pipeline Co.
4800 Fournace Place - E320 D
Bellaire TX 77401

SUNCR

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
01728	TPH-GRO - Waters	n.a.	N.D.	50.	ug/l	1
	The reported concentration of TPH-GRO does not include MTBE or other gasoline constituents eluting prior to the C6 (n-hexane) TPH-GRO range start time.					
06053	BTEX by 8260B					
05401	Benzene	71-43-2	N.D.	0.5	ug/l	1
05407	Toluene	108-88-3	N.D.	0.5	ug/l	1
05415	Ethylbenzene	100-41-4	N.D.	0.5	ug/l	1
06310	Xylene (Total)	1330-20-7	N.D.	0.5	ug/l	1

State of California Lab Certification No. 2116

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
01728	TPH-GRO - Waters	SW-846 8015B modified	1	03/27/2008 14:15	Carrie E Youtzy	1
06053	BTEX by 8260B	SW-846 8260B	1	03/31/2008 22:29	Michael A Ziegler	1
01146	GC VOA Water Prep	SW-846 5030B	1	03/27/2008 14:15	Carrie E Youtzy	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	03/31/2008 22:29	Michael A Ziegler	1

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Analysis Report

Lancaster Laboratories Sample No. WW5310138 **Group No. 1082728**

Trip Blank NA Water
NA URSO
Sunol Pipeline SL0600100443 Trip Blank
Collected:03/19/2008

Account Number: 11875

Submitted: 03/21/2008 09:20
Reported: 04/04/2008 at 18:44
Discard: 05/05/2008

Chevron Pipeline Co.
4800 Fournace Place - E320 D
Bellaire TX 77401

SUNTB

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
06053	BTEX by 8260B					
05401	Benzene	71-43-2	N.D.	0.5	ug/l	1
05407	Toluene	108-88-3	N.D.	0.5	ug/l	1
05415	Ethylbenzene	100-41-4	N.D.	0.5	ug/l	1
06310	Xylene (Total)	1330-20-7	N.D.	0.5	ug/l	1

State of California Lab Certification No. 2116

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
06053	BTEX by 8260B	SW-846 8260B	1	03/31/2008 04:37	Kelly E Brickley	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	03/31/2008 04:37	Kelly E Brickley	1

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Analysis Report

Quality Control Summary

Client Name: Chevron Pipeline Co. Group Number: 1082728
Reported: 04/04/08 at 06:44 PM

Matrix QC may not be reported if site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

Laboratory Compliance Quality Control

Analysis Name	Blank Result	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 08085A08A	Sample number(s): 5310130-5310137							
TPH-GRO - Waters	N.D.	50.	ug/l	118	118	75-135	0	30
Batch number: D080902AA	Sample number(s): 5310130-5310133,5310138							
Benzene	N.D.	0.5	ug/l	95		78-119		
Toluene	N.D.	0.5	ug/l	94		85-115		
Ethylbenzene	N.D.	0.5	ug/l	92		82-119		
Xylene (Total)	N.D.	0.5	ug/l	92		83-113		
Batch number: Z080914AA	Sample number(s): 5310134-5310137							
Benzene	N.D.	0.5	ug/l	101		78-119		
Toluene	N.D.	0.5	ug/l	110		85-115		
Ethylbenzene	N.D.	0.5	ug/l	106		82-119		
Xylene (Total)	N.D.	0.5	ug/l	104		83-113		

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 08085A08A	Sample number(s): 5310130-5310137 UNSPK: P310015								
TPH-GRO - Waters	117		63-154						
Batch number: D080902AA	Sample number(s): 5310130-5310133,5310138 UNSPK: P311037								
Benzene	104	105	83-128	0	30				
Toluene	104	104	83-127	0	30				
Ethylbenzene	101	101	82-129	0	30				
Xylene (Total)	100	100	82-130	1	30				
Batch number: Z080914AA	Sample number(s): 5310134-5310137 UNSPK: 5310135								
Benzene	104	105	83-128	1	30				
Toluene	113	115	83-127	2	30				
Ethylbenzene	107	109	82-129	2	30				
Xylene (Total)	104	106	82-130	2	30				

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: Chevron Pipeline Co. Group Number: 1082728
Reported: 04/04/08 at 06:44 PM

Surrogate Quality Control

Analysis Name: TPH-GRO - Waters
Batch number: 08085A08A

	Trifluorotoluene-F
5310130	83
5310131	80
5310132	78
5310133	86
5310134	82
5310135	79
5310136	80
5310137	79
Blank	83
LCS	85
LCSD	86
MS	87
Limits:	63-135

Analysis Name: BTEX by 8260B
Batch number: D080902AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
5310130	88	95	88	88
5310131	86	94	87	87
5310132	86	94	88	88
5310133	84	92	90	94
5310138	88	95	90	91
Blank	88	96	86	89
LCS	88	95	86	92
MS	89	99	89	94
MSD	87	95	85	92
Limits:	80-116	77-113	80-113	78-113

Analysis Name: BTEX by 8260B
Batch number: Z080914AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
5310134	96	107	113	98
5310135	98	108	111	97
5310136	101	110	109	100
5310137	102	110	110	100
Blank	98	109	112	99
LCS	100	111	111	105
MS	97	108	111	102
MSD	98	110	112	103
Limits:	80-116	77-113	80-113	78-113

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Chevron California Region Analysis Request/Chain of Custody

Lancaster Laboratories
Where quality is a science.

For Lancaster Laboratories use only
Acct. #: 11875 Sample #: 531013O-38 SCR#: 242038

1082728

Facility #:
Site Address: Sunol, CA
Chevron PM: Jeff Cosgray Lead Consultant: URS
Consultant/Office: URS/Oakland
Consultant Prj. Mgr.: Joe Morgan
Consultant Phone #: 510-893-3600 Fax #: 510-874-3268
Sampler: RM, KM
Service Order #: ☐ Non SAR:

Analyses Requested

Preservation Codes

Preservative Codes
H = HCl T = Thiosulfate
N = HNO_3 B = NaOH
S = H_2SO_4 O = Other

☐ J value reporting needed
☐ Must meet lowest detection limits possible for 8260 compounds

8021 MTBE Confirmation
☐ Confirm highest hit by 8260
☐ Confirm all hits by 8260
☐ Run ____ oxy's on highest hit
☐ Run ____ oxy's on all hits

Field Point Name	Matrix	Repeat Sample	Top Depth	Year Month Day	Time Collected	New Field Pt.	Grab	Composite	Total Number of Containers	BTEX 8260 ☒ MTBE 8021 ☐	TPH 8015 MOD GRO	TPH 8015 MOD DRO ☐ Silica Gel Cleanup	8260 full scan	Oxygenates ____	Lead 7420 ☐ 7421 ☐						
MW-4	W			08 03 19	1045		X		6	X	X										
MW-3	W			08 03 19	1145		X		6	X	X										
MW-2	W			08 03 19	1255		X		6	X	X										
MW-1	W			08 03 19	1345		X		6	X	X										
MW-11	W			08 03 20	950		X		6	X	X										
MW-X	W			08 03 20	955		X		6	X	X										
MW-10	W			08 03 20	1045		X		6	X	X										
Creek	W			08 03 20	1125		X		6	X	X										

Comments / Remarks
report to Joe Morgan, Jake Henry, Amber Rooker

Turnaround Time Requested (TAT) (please circle)
STD. TAT 72 hour 48 hour
24 hour 4 day 5 day

Data Package Options (please circle if required)
QC Summary Type I – Full
Type VI (Raw Data) ☐ Coelt Deliverable not needed
WIP (RWQCB)
Disk

Relinquished by:	Date	Time	Received by:	Date	Time
Renee McFarlan	3/20/08	1300			
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by Commercial Carrier: UPS FedEx Other			Received by:	3/21/08	920
Temperature Upon Receipt 0 °C			Custody Seals Intact? Yes No		

Lancaster Laboratories
Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

N.D.	none detected	**BMQL**	Below Minimum Quantitation Level
TNTC	Too Numerous To Count	**MPN**	Most Probable Number
IU	International Units	**CP Units**	cobalt-chloroplatinate units
umhos/cm	micromhos/cm	**NTU**	nephelometric turbidity units
C	degrees Celsius	**F**	degrees Fahrenheit
Cal	(diet) calories	**lb.**	pound(s)
meq	milliequivalents	**kg**	kilogram(s)
g	gram(s)	**mg**	milligram(s)
ug	microgram(s)	**l**	liter(s)
ml	milliliter(s)	**ul**	microliter(s)
m3	cubic meter(s)	**fib >5 um/ml**	fibers greater than 5 microns in length per ml

< less than – The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

ppm parts per million – One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture.

U.S. EPA data qualifiers:

Organic Qualifiers

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
C	Pesticide result confirmed by GC/MS
D	Compound quatitated on a diluted sample
E	Concentration exceeds the calibration range of the instrument
J	Estimated value
N	Presumptive evidence of a compound (TICs only)
P	Concentration difference between primary and confirmation columns >25%
U	Compound was not detected
X,Y,Z	Defined in case narrative

Inorganic Qualifiers

B	Value is <CRDL, but ≥IDL
E	Estimated due to interference
M	Duplicate injection precision not met
N	Spike amount not within control limits
S	Method of standard additions (MSA) used for calculation
U	Compound was not detected
W	Post digestion spike out of control limits
*****	Duplicate analysis not within control limits
+	Correlation coefficient for MSA <0.995

Analytical test results for methods listed on the laboratories' accreditation scope meet all requirements of NELAC unless otherwise noted under the individual analysis.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

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