

This report ("SLIC Case No. RO0002892, Chevron Sunol Pipeline, 2793 Calaveras Rd, Sunol, CA **Second Quarter 2006 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 second quarter 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:

A handwritten signature in black ink, appearing to be "George Muehleck", written over a horizontal line.

George Muehleck, P.G.



Global Gas

Jeff Cosgray
Sr. Site Remediation
Specialist

**Health, Environmental &
Safety**
Chevron Pipe Line Company
4800 Fournace, E320C
Bellaire, Texas 77401-2324
Tel 713 432 3335
Fax 866 653 0301
JCOS@Chevron.com

August 3, 2006

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 - Second Quarter 2006 Groundwater Monitoring Report**" are true and correct to the best of my knowledge at the present time.

Submitted by:

A handwritten signature in black ink that reads "Jeff Cosgray". The signature is stylized and cursive.

Jeff Cosgray
Chevron Pipe Line Company



August 14, 2006

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

Subject: SLIC Case No. RO0002892, Chevron Sunol Pipeline, 2793 Calaveras Rd, Sunol, CA
Second Quarter 2006 Groundwater Monitoring Report

Dear Mr. Wickham:

In the December 30, 2005 letter provided by the Alameda County Environmental Health Staff (ACEH), you requested the initiation of a Quartering Groundwater Monitoring Program that incorporated ethanol and methanol analysis into the sampling program. In response to your request, URS, on behalf of Chevron Pipe Line Company (Chevron), has prepared this groundwater monitoring report detailing measured groundwater levels, sampling methodologies, and groundwater analytical results for the Chevron Sunol Pipeline site (Site) for the second quarter of 2006. (A site vicinity map is included as Figure 1.) This groundwater monitoring report addresses concerns raised by the ACEH regarding further monitoring of groundwater contamination and its extent.

On June 7 and 8, 2006, URS conducted field activities to assess the groundwater conditions at the Site. As part of this field effort, URS measured the depth to groundwater and collected analytical samples at the seven (7) groundwater monitoring wells (MW-1 through MW-7). URS also collected a surface water sample for analysis from the unnamed creek, located northwest and downslope of the release location, at the Site (Figure 2).

SITE HYDROGEOLOGY

Prior to collecting groundwater samples, the depth to groundwater was measured at each well from the top of casing using an electronic oil/water interface meter. Free product was not detected at any of the wells (MW-1 through MW-7). The measured depths to groundwater are displayed in Table 1 and the calculated groundwater elevations are displayed in Table 2.

The groundwater elevations for the unconfined water-bearing zone wells (MW-1 through MW-4), located in the nursery, ranges from 293 to 295 ft above mean sea level (msl). Based

on these groundwater elevations, the inferred groundwater flow direction in the unconfined water-bearing zone is to the east with a calculated hydraulic gradient of 0.018 ft/ft (Figure 3).

The potentiometric surface elevations for the confined sandstone water-bearing zone wells (MW-5 through MW-7), located along the eastern shoulder of Calaveras Road, range from 315 to 325 ft above msl, with the highest groundwater elevation measured from MW-5, the middle well. The groundwater flow direction and hydraulic gradient have not been calculated for the confined sandstone water-bearing zone because these wells are installed in essentially a straight line along Calaveras Road for monitoring purposes. The relative groundwater elevations for these wells are similar with the first quarter groundwater levels and will continue to be monitored during future quarterly groundwater sampling events. The groundwater elevations for these wells are displayed on Figure 4.

SAMPLING METHODOLOGY

After measuring the groundwater level at each well, URS began groundwater sampling. As discussed in URS' First Quarter 2006 Groundwater Monitoring Report, prior to sampling, MW-1 through MW-5 were purged using low-flow methods and MW-6 and MW-7 were purged dry.

Both purging methods were conducted using disposable low-density polyethylene (LDPE) tubing and a stainless steel electronic submersible continuous discharge pump.

A surface water sample, labeled SW-Creek, was also collected from the unnamed creek northwest and downslope of the release location.

MW-1 through MW-5

After re-measuring the groundwater levels at MW-1 through MW-5, the pump intake was slowly lowered into position in either the center of each well screen if the water level was higher than the top of the screen or the center of the water column if the water level was lower than the top of the screen.

Low-flow purging rates were between 250 to 1000 milliliters per minute (mL/min) depending on the rate of recharge at each well. During low-flow purging, the water level in each well was measured periodically to monitor draw down. In all of the unconfined water-bearing zone wells (MW-1 through MW-4) a stabilized draw down of less than 0.1 feet was achieved. Although the drawdown at MW-5 was greater than 0.33 feet, the water level stabilized at 0.7 feet below the static water level after an initial drop when purging began. Low-flow purging will be continued at MW-5 during future quarterly sampling activities. The static and final groundwater levels before and after sampling are provided on the low-flow groundwater sampling forms for monitoring wells MW-1 through MW-5, 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 2-5 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) (Attachment A).

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.

MW-6 and MW-7

Because of slow recharge rates at MW-6 and MW-7, low-flow purging methods could not be used. Instead, the monitoring wells were purged dry. At MW-6 and MW-7, approximately 30 and 35 gallons were removed from each well, respectively. After the wells were purged dry, the recharging water levels were monitored until sufficient water was present to collect the groundwater samples. 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 at MW-6 and MW-7 was approximately 300 to 500 mL/min.

ANALYTICAL PROGRAM

The groundwater samples from each well were collected in laboratory provided containers and placed on ice in a cooler immediately after collection. Each 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' May 2006 Additional Subsurface Investigation Report, groundwater samples collected during quarterly groundwater sampling activities are analyzed for the following parameters:

Gasoline Compounds

- Benzene, toluene, ethylbenzene, xylenes (BTEX) by USEPA Method 8260B
- Ethanol and methanol by USEPA Method 8015B

- Total petroleum hydrocarbons – gasoline range organics (TPH-GRO) by N. CA LUFT GRO

Geochemical Indicator Parameters

- Nitrate and sulfate by USEPA Method 300.0
- Total manganese and dissolved iron by USEPA Method 6010B
- Ferrous iron by SM20 Method 3500-FE B Modified
- Methane by USEPA Method 8015B Modified
- Alkalinity including breakdown by USEPA Method 310.1
- Total dissolved solids (TDS) by USEPA Method 160.1

The surface water sample was analyzed for BTEX, ethanol, methanol, and TPH-GRO.

GROUNDWATER ANALYTICAL RESULTS

A summary of the analytical results for the gasoline compounds is presented in Table 3 along with the San Francisco Regional Water Quality Control Board Environmental Screening Levels for groundwater as a potential source of drinking water (ESLs). A summary of the analytical results for the geochemical indicator parameters is presented in Table 4. The complete laboratory analytical results and chain of custodies are included as Attachment B.

Gasoline Compounds

Concentrations of gasoline compounds in the groundwater samples collected from the unconfined water-bearing zone (MW-1 through MW-4) remained below their respective laboratory reporting limits in the second quarter of 2006 except for MW-1. For MW-1, the concentrations for TPH-GRO and BTEX have decreased substantially since the first quarter of 2006. TPH-GRO decreased from 57,000 to 37,000 micrograms per liter ($\mu\text{g/L}$), benzene decreased from 38 to 10 $\mu\text{g/L}$, toluene decreased from 2,700 to 330 $\mu\text{g/L}$, ethylbenzene decreased from 3,000 to 120 $\mu\text{g/L}$, and xylenes decreased from 8,700 to 8,200 $\mu\text{g/L}$. Ethanol and methanol concentrations remained below their respective laboratory reporting limits for MW-1.

Concentrations of gasoline compounds in the groundwater samples collected from the confined sandstone water-bearing zone (MW-5 through MW-7) were below their respective laboratory reporting limits with the exception of MW-7. Trace amounts of toluene and xylenes (0.6 $\mu\text{g/L}$ for toluene and 1.0 $\mu\text{g/L}$ for xylenes) were detected in MW-5 in the first quarter of 2006; however, the concentrations dropped and no gasoline compounds were detected above their respective laboratory reporting limits in the second quarter of 2006. Concentrations of gasoline compounds in MW-6 remained below their respective laboratory reporting limits in the second quarter of 2006. For MW-7, TPH-GRO, methanol, and ethanol concentrations remained below the laboratory reporting limits. Trace amounts of BTEX remained in MW-7



with the exception of toluene, which was below its reporting limit. The concentrations of all gasoline compounds for MW-7 remained below the most stringent ESLs.

No gasoline compounds were reported in the surface water sample collected from the unnamed creek.

Geochemical Indicator Parameters

DO concentration quantifies the amount of oxygen available for aerobic respiration. When DO is available, it is the primary electron acceptor used by in-situ microbes to biodegrade organic carbon. Where DO concentrations are decreased relative to upgradient concentrations within a dissolved plume, aerobic respiration is indicated. Once DO is depleted, nitrate, manganese (Mn IV), ferric iron (Fe III), and sulfate are used as electron acceptors. This sequence of biodegradation represents the ideal. Historical field data from various sites indicate that contaminant plume biodegradation can be affected by such variables as hydrogeologic setting, water temperature, pH, total organic carbon, alkalinity, and contaminant concentrations. Interaction between contaminants and electron acceptors is not static and changes both temporally and spatially (Wiedemeier et al. 1999).

Geochemical indicator parameters were collected for MW-1 through MW-5 in the second quarter of 2006. More data are required to establish a meaningful enhanced bioremediation and/or natural attenuation review. URS recommends continued monitoring of the geochemical indicator parameters at the Site during future quarterly groundwater sampling activities.

CONCLUSIONS

- No free product was observed in any groundwater monitoring wells in the second quarter of 2006.
- No gasoline compounds were detected in wells MW-2 through MW-6 and the unnamed creek.
- Concentrations of gasoline compounds in MW-1 have decreased substantially: 35 percent decrease for TPH-GRO, 74 percent decrease for benzene, 88 percent decrease for toluene, 96 percent for ethylbenzene, and 6 percent for xylenes.
- Trace amount of gasoline compounds were observed in MW-7, but the concentrations remained below the most stringent ESLs.

RECOMMENDATIONS

- Continue gauging groundwater elevations and collecting analytical samples from the unconfined water-bearing zone groundwater monitoring wells (MW-1 through MW-4).
- Incorporate the two additional proposed unconfined water-bearing zone groundwater monitoring wells (URS' July 2006 Work Plan for Groundwater Monitoring Well Installation and SVE System Expansion and Operation) into future quarterly groundwater monitoring activities.
- Continue gauging groundwater elevations and collecting analytical samples from the confined sandstone water-bearing zone groundwater monitoring wells (MW-5 through MW-7). No additional investigation is planned for the confined sandstone water-bearing zone because only trace amounts of hydrocarbons have been detected during quarterly groundwater sampling at MW-5 and MW-7. All detections have been below the most stringent ESLs.
- Continue low-flow groundwater sampling techniques at MW-5.
- Continue analyzing future quarterly groundwater samples for geochemical indicator parameters.

If you have any questions on this Groundwater Monitoring Report, please call Joe Morgan at 510-874-3201.

Sincerely,

URS CORPORATION



Joe Morgan III
Senior Project Manager

TABLE 1
Monitoring Well Groundwater Levels
Second Quarter 2006
Chevron Sunol Pipeline

Well ID	Screen Intervals (feet)	Depth to Groundwater (feet)	
		2/21/2006	6/7/2006
MW-1	29.4-39.5	36.34	34.28
MW-2	23.8-38.8	32.19	30.23
MW-3	22.2-37.2	31.97	30.91
MW-4	30.7-40.7	36.72	35.76
MW-5	39.5-49.5	11.48	10.61
MW-6	34.7-49.7	18.02	16.83
MW-7	34.7-49.7	15.43	16.68

Notes:

Groundwater levels and screened intervals measured from top of casing - north.

TABLE 2
Monitoring Well Groundwater Elevations
Second Quarter 2006
Chevron Sunol Pipeline

Well ID	Date Completed	Ground Surface Elevation (ft msl)	Top of Casing Elevation (ft msl)	Groundwater Elevations (feet msl)	
				2/21/2006	6/7/2006
MW-1	10/20/2005	328.49	328.04	291.70	293.76
MW-2	10/21/2005	324.85	324.15	291.96	293.92
MW-3	10/21/2005	326.05	325.65	293.68	294.74
MW-4	1/31/2006	329.97	329.67	292.95	293.91
MW-5	1/27/2006	335.14	334.81	323.33	324.20
MW-6	1/27/2006	332.61	332.38	314.36	315.55
MW-7	1/27/2006	336.46	336.22	320.79	319.54

Notes:

All elevations displayed in feet above average mean sea level (msl).

Groundwater elevations calculated from depth to groundwater 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.

TABLE 3
Summary of Groundwater Analytical Results
Gasoline Compounds
Second Quarter 2006
Chevron Sunol Pipeline

Well ID	Date	Gasoline Compounds						
		TPH-GRO (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	Ethanol (µg/L)	Methanol (µg/L)
ESL ¹⁾		100	1	40	30	20	50,000	NL
MW-1	2/22/2006	57,000	38	2,700	3,000	8,700	<1,000	<200
	6/8/2006	37,000	10	330	120	8,200	<250	<200
MW-2	2/21/2006 ²⁾	<50 / <50	<0.5 / <0.5	<0.5 / <0.5	<0.5 / <0.5	<0.5 / <0.5	<50 / <50	<200 / <200
	6/7/2006	<50	<0.5	<0.5	<0.5	<0.5	<50	<200
MW-3	2/21/2006	<50	<0.5	<0.5	<0.5	<0.5	<50	<200
	6/7/2006	<50	<0.5	<0.5	<0.5	<0.5	<50	<200
MW-4	2/21/2006	<50	<0.5	<0.5	<0.5	<0.5	<50	<200
	6/7/2006	<50	<0.5	<0.5	<0.5	<0.5	<50	<200
MW-5	2/22/2006	<50	<0.5	0.6	<0.5	1	<50	<200
	6/8/2006	<50	<0.5	<0.5	<0.5	<0.5	<50	<200
MW-6	2/22/2006	<50	<0.5	<0.5	<0.5	<0.5	<50	<200
	6/7/2006	<50	<0.5	<0.5	<0.5	<0.5	<50	<200
MW-7	2/22/2006	<50	0.7	2	0.9	5	<50	<200
	6/8/2006	<50	0.7	<0.5	1	4	<50	<200
SW-Creek	6/7/2006	<50	<0.5	<0.5	<0.5	<0.5	<50	<200

Notes:

Values in bold indicate concentrations exceed ESL.

NL - ESL not listed for this compound.

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, February 2005.

2) Both sample and duplicate concentrations from well location are displayed.

TABLE 4
 Summary of Groundwater Analytical Results
 Geochemical Indicators and Other Parameters
 Second Quarter 2006
 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
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
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
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
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
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
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

Notes:

DO = Dissolved oxygen

ORP = Oxygen reduction potential

TDS = Total dissolved solids

CaCO₃ = Calcium Carbonate

NM = Not measured

NR = Not Reported

1) DO, ORP, and pH values were obtained in the field using a flow-through cell and a multi-parameter meter.

2) Field data was not collected for DO, ORP, and pH for MW-6 and MW-7 during the second quarter 2006 sampling activities because the groundwater was removed without using the in-line flow-through cell.

3) DO meter did not appear to be functioning correctly at MW-2 during the second quarter 2006 sampling activities.

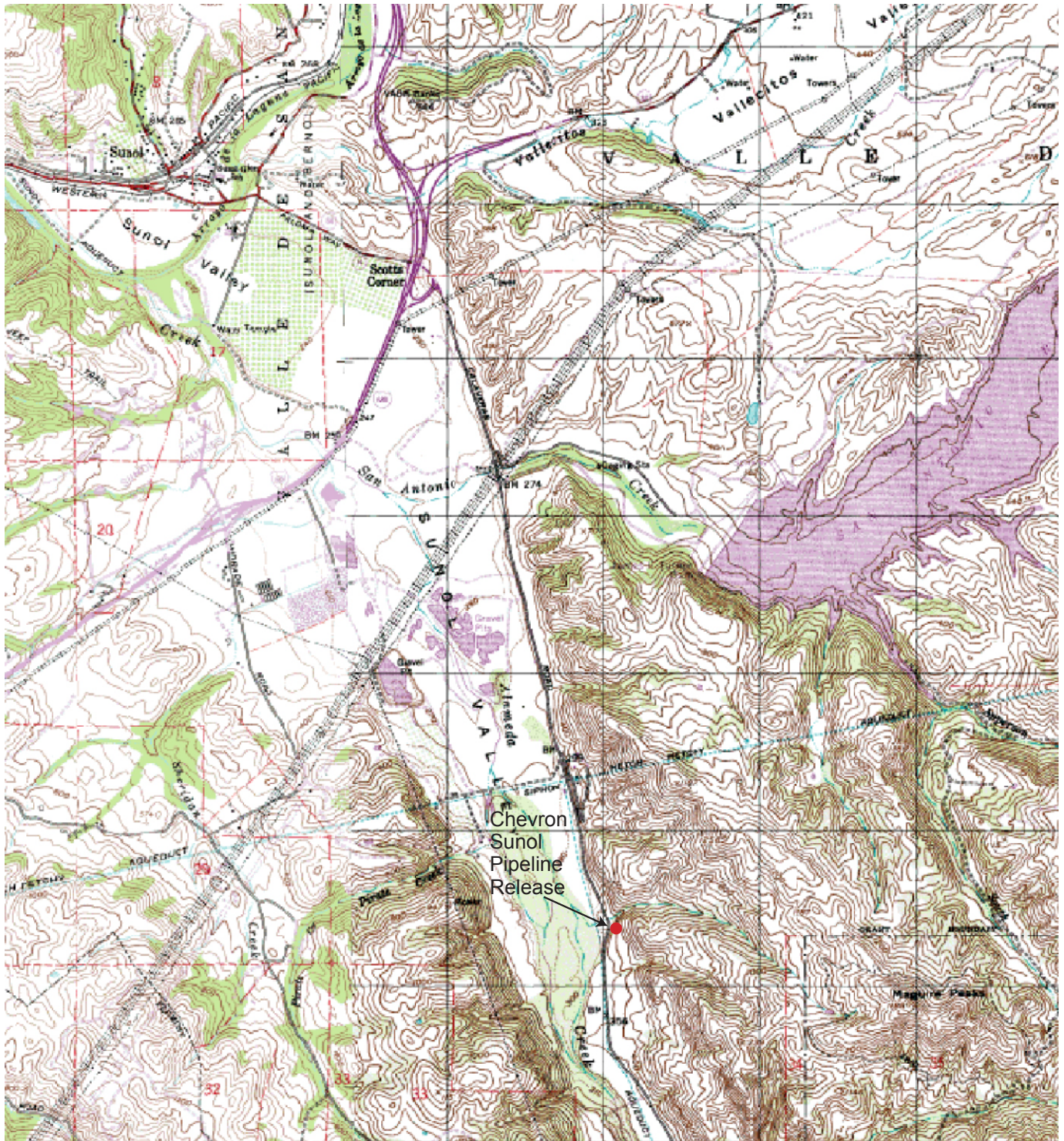
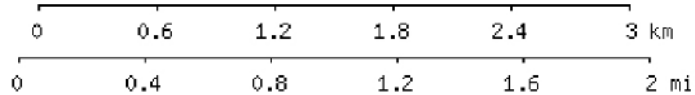


Image obtained from topozone.com



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






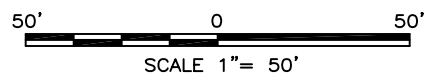
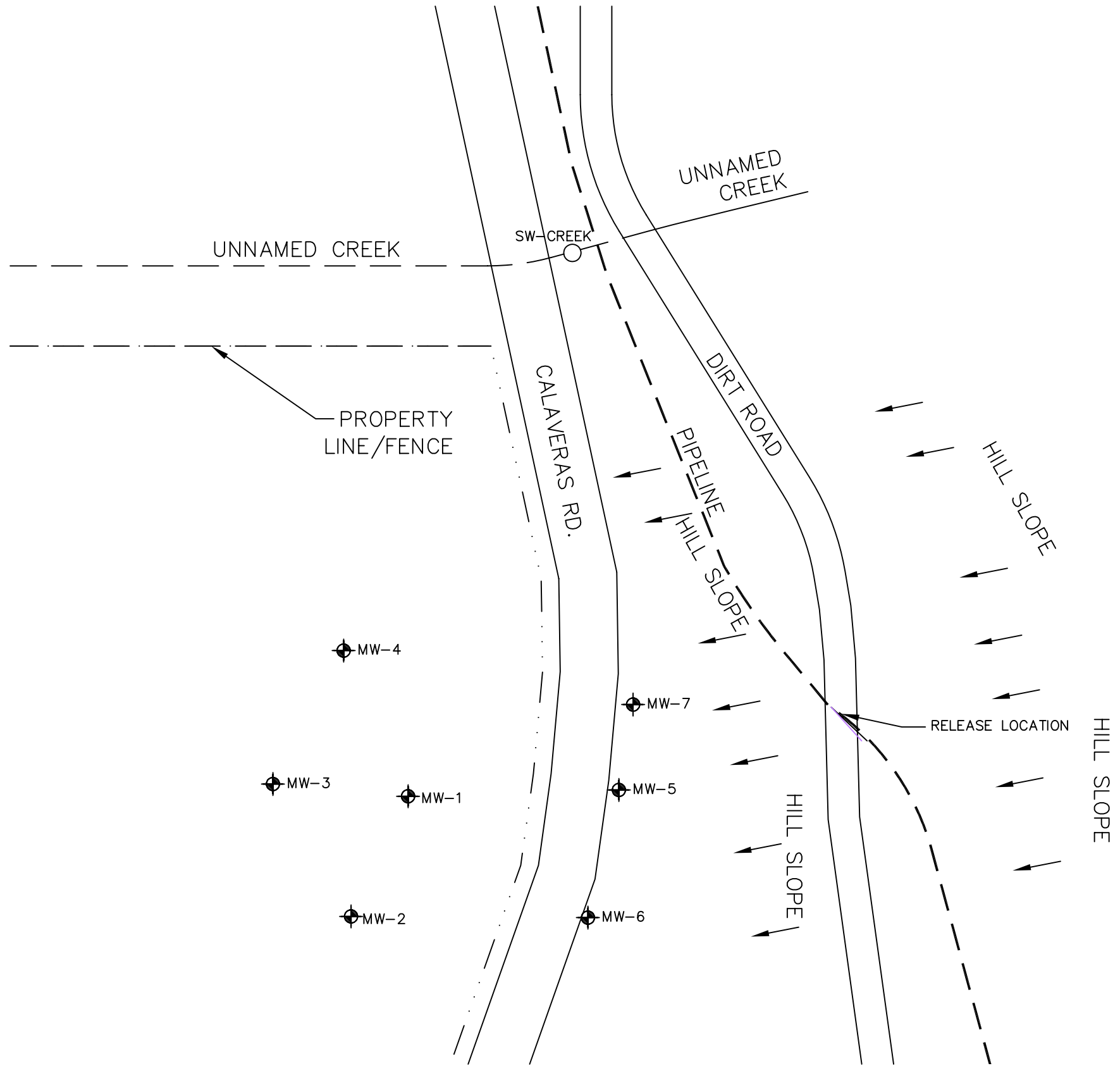
Chevron Pipeline Company
 Project No. 26815217

SITE VICINITY MAP
 CHEVRON SUNOL PIPELINE
 SUNOL, CALIFORNIA

Figure
 1

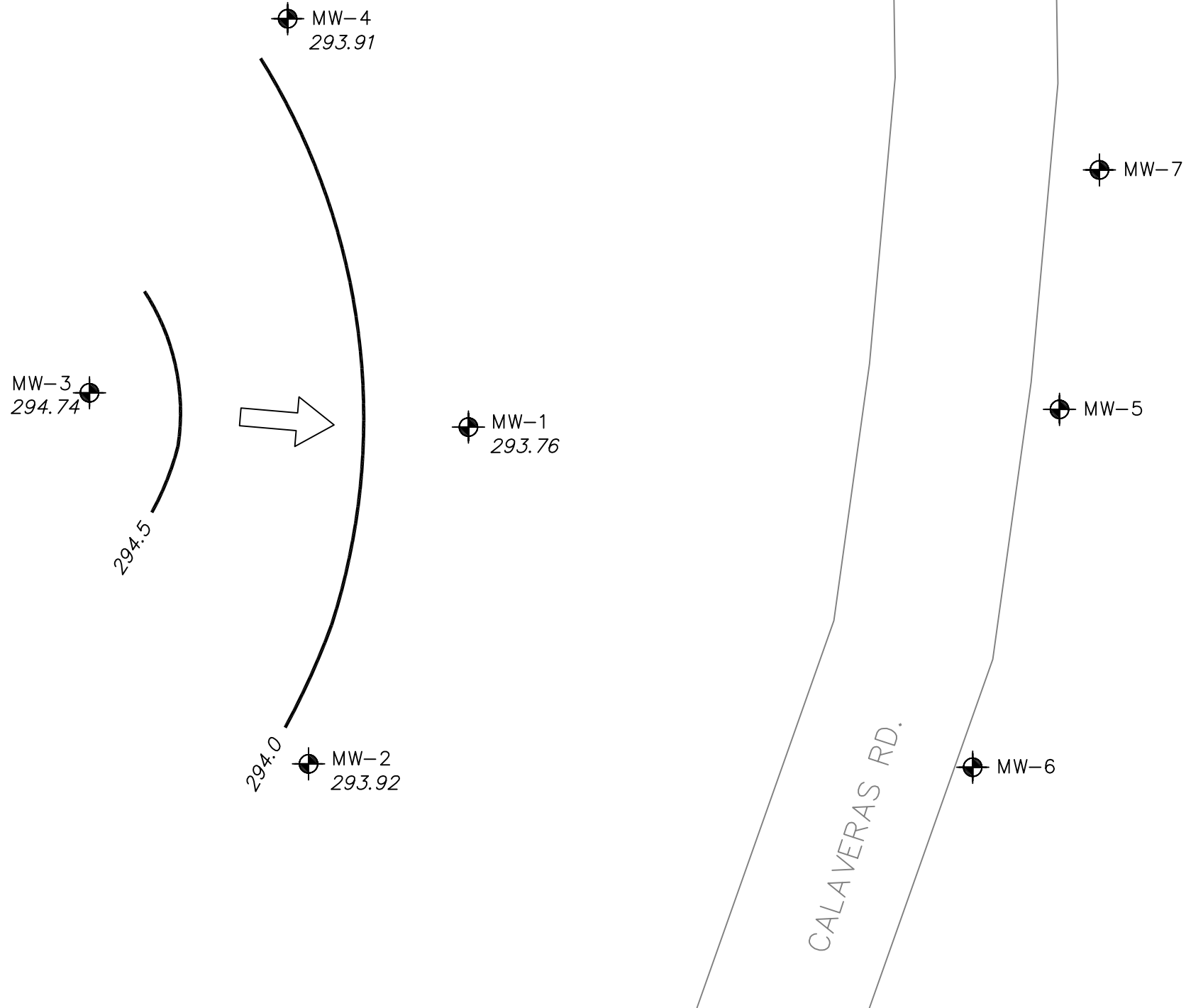
LEGEND:

-  MONITORING WELLS
-  SURFACE WATER SAMPLE
-  PIPELINE



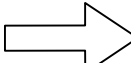


URS	CHEVRON PIPELINE COMPANY	MONITORING WELL LOCATIONS CHEVRON SUNOL PIPELINE	Figure 2
	Project No. 26815217		

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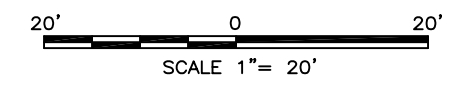


LEGEND:

-  MW-3 294.74 MONITORING WELL WITH GROUNDWATER ELEVATION
-  294.5 GROUNDWATER CONTOURS
-  INFERRED GROUNDWATER FLOW DIRECTION UNCONFINED ZONE

NOTES:

- 1.) ELEVATIONS IN FEET ABOVE AVERAGE MEAN SEA LEVEL (msl).
- 2.) GROUNDWATER ELEVATIONS FOR MW-1 THROUGH MW-4 AS MEASURED ON JUNE 7, 2006.
- 3.) CALCULATED GROUNDWATER GRADIENT $dh/dl = 0.018$ ft./ft.



URS	CHEVRON PIPELINE COMPANY	GROUNDWATER SURFACE CONTOURS UNCONFINED WATER-BEARING ZONE CHEVRON SUNOL PIPELINE	Figure 3
	Project No. 26815217		

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MW-4

MW-3

MW-1

MW-2


CALAVERAS RD.

MW-7
319.54

MW-5
324.20

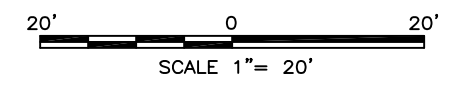
MW-6
315.55 +


LEGEND:

 MW-5
324.20 MONITORING WELL WITH GROUNDWATER ELEVATION

NOTES:

1.) ELEVATIONS IN FEET ABOVE AVERAGE MEAN SEA LEVEL (msl).
2.) GROUNDWATER ELEVATIONS FOR MW-5 THROUGH MW-7 AS MEASURED ON JUNE 7, 2006.



	CHEVRON PIPELINE COMPANY	POTENTIOMETRIC SURFACE ELEVATIONS CONFINED SANDSTONE WATER-BEARING ZONE CHEVRON SUNOL PIPELINE	Figure 4
	Project No. 26815217		

Attachment A
Low Flow Sampling Forms



Troll 9000
06/08/06

Low-Flow System
ISI Low-Flow Log

Project Information:

Operator Name Greg White
Company Name URS
Project Name Chevron Sunol Pipeline
Site Name Calaveras Rd Sunol, CA

Pump Information:

Pump Model/Type Mega Typhoon
Tubing Type LDPE
Tubing Diameter 0.38 [in]
Tubing Length 40 [ft]
Pump placement from TOC 36 [ft]

Well Information:

Well Id MW-1
Well diameter 4 [in]
Well total depth 40 [ft bgs]
Depth to top of screen 29.3 [ft bgs]
Screen length 10 [ft]
Depth to Water 34.91 [ft bgs]

Pumping information:

Final pumping rate 850 [mL/min]
Flowcell volume 1009.07 [mL]
Calculated Sample Rate 243 [sec]
Sample rate 120 [sec]
Stabilized drawdown 0.06 [ft]

Low-Flow Sampling Stabilization Summary

	Time	Temp [C]	pH [pH]	Cond [uS/cm]	Turb [NTU]	DO [mg/L]	ORP [mV]
Stabilization Settings			+/-0.2	+/-1 +/-3 %	+/-1	+/-0.2	+/-20
Last 5 Readings	5.52E-02	17.74	6.61	740.86	5.03	0.31	94.70
	5.66E-02	16.94	6.61	722.99	6.02	0.30	93.06
	5.80E-02	16.87	6.61	718.54	7.46	0.29	91.44
	5.94E-02	16.67	6.61	713.49	9.05	0.28	89.99
	6.08E-02	16.68	6.62	712.51	11.40	0.28	88.15
Variance in last 3 readings	5.80E-02	-0.07	0.00	-4.45	1.44	-0.01	-1.62
	5.94E-02	-0.21	0.00	-5.05	1.59	-0.01	-1.45
	6.08E-02	0.01	0.01	-0.98	2.35	0.00	-1.84

Notes: Initial water level: 34.46 ft TOC-N
Final water level: 34.52 ft TOC-N
Initial pumping rate: 400 mL/min
Final pumping rate: 850 mL/min
Total volume removed: 5 gal



Troll 9000
06/07/06

Low-Flow System
ISI Low-Flow Log

Project Information:

Operator Name Greg White
Company Name URS
Project Name Chevron Sunol Pipeline
Site Name Calaveras Rd, Sunol, CA

Pump Information:

Pump Model/Type Mega Typhoon
Tubing Type LDPE
Tubing Diameter 0.38 [in]
Tubing Length 40 [ft]
Pump placement from TOC 34 [ft]

Well Information:

Well Id MW-2
Well diameter 4 [in]
Well total depth 38.75 [ft bgs]
Depth to top of screen 23.75 [ft bgs]
Screen length 15 [ft]
Depth to Water 30.95 [ft bgs]

Pumping information:

Final pumping rate 350 [mL/min]
Flowcell volume 1009.07 [mL]
Calculated Sample Rate 243 [sec]
Sample rate 120 [sec]
Stabilized drawdown 0.01 [ft]

Low-Flow Sampling Stabilization Summary

	Time	Temp [F]	pH [pH]	Cond [uS/cm]	Turb [NTU]	DO [mg/L]	ORP [mV]
Stabilization Settings			+/-0.2	+/-1 +/-3 %	+/-1	+/-0.2	+/-20
Last 5 Readings	5.71E-02	63.20	6.60	702.17	12.16	2.54	38.47
	5.85E-02	61.97	6.58	690.31	13.74	2.73	38.17
	6.00E-02	62.93	6.57	698.75	13.62	2.52	37.66
	6.14E-02	62.59	6.56	695.57	13.88	2.55	37.24
	6.28E-02	63.14	6.56	700.19	14.44	2.39	36.43
Variance in last 3 readings	6.00E-02	0.96	-0.01	8.44	-0.12	-0.21	-0.51
	6.14E-02	-0.34	-0.01	-3.18	0.26	0.03	-0.42
	6.28E-02	0.55	0.00	4.62	0.56	-0.16	-0.81

Notes: Initial water level: 30.29 ft
Final water level: 30.28 ft
Initial pumping rate: 1000 mL/min
Final pumping rate: 350 mL/min
Total volume removed: 14 gal

DO meter did not appear to be functioning correctly during low-flow activities. Re-calibrated muliparameter meter prior to setting up for low-flow sampling at next well location.



Troll 9000
06/07/06

Low-Flow System
ISI Low-Flow Log

Project Information:

Operator Name Greg White
Company Name URS
Project Name Chevron Sunol Pipeline
Site Name Calaveras Rd, Sunol, CA

Pump Information:

Pump Model/Type Mega Typhoon
Tubing Type LDPE
Tubing Diameter 0.38 [in]
Tubing Length 40 [ft]
Pump placement from TOC 34 [ft]

Well Information:

Well Id MW-3
Well diameter 4 [in]
Well total depth 37.24 [ft bgs]
Depth to top of screen 22.24 [ft bgs]
Screen length 15 [ft]
Depth to Water 31.54 [ft bgs]

Pumping information:

Final pumping rate 600 [mL/min]
Flowcell volume 1009.07 [mL]
Calculated Sample Rate 243 [sec]
Sample rate 120 [sec]
Stabilized drawdown 0.01 [ft]

Low-Flow Sampling Stabilization Summary

	Time	Temp [F]	pH [pH]	Cond [uS/cm]	Turb [NTU]	DO [mg/L]	ORP [mV]
Stabilization Settings			+/-0.2	+/-1 +/-3 %	+/-1	+/-0.2	+/-20
Last 5 Readings	23:18:33	59.59	6.54	644.41	-0.05	0.38	38.60
	23:20:34	59.75	6.55	646.00	0.40	0.37	36.36
	23:22:38	59.77	6.56	645.84	-0.28	0.37	34.04
	23:24:39	59.92	6.56	647.43	-0.02	0.37	32.57
	23:26:42	60.00	6.56	647.26	-0.15	0.37	31.23
Variance in last 3 readings	23:22:38	0.02	0.01	-0.17	-0.67	0.00	-2.32
	23:24:39	0.15	0.00	1.59	0.26	0.00	-1.47
	23:26:42	0.08	0.00	-0.17	-0.13	0.00	-1.34

Notes: Initial water level: 30.94 ft
Final water level: 30.95 ft
Initial pumping rate: 700 mL/min
Final pumping rate: 600 mL/min
Total volume removed: 5 gal



Troll 9000
06/07/06

Low-Flow System
ISI Low-Flow Log

Project Information:

Operator Name Greg White
Company Name URS
Project Name Chevron Sunol Pipeline
Site Name Calaveras Rd, Sunol, CA

Pump Information:

Pump Model/Type Mega Typhoon
Tubing Type LDPE
Tubing Diameter 0.38 [in]
Tubing Length 45 [ft]
Pump placement from TOC 38 [ft]

Well Information:

Well Id MW-4
Well diameter 4 [in]
Well total depth 40.7 [ft bgs]
Depth to top of screen 30.7 [ft bgs]
Screen length 10 [ft]
Depth to Water 36.09 [ft bgs]

Pumping information:

Final pumping rate 950 [mL/min]
Flowcell volume 1094.34 [mL]
Calculated Sample Rate 263 [sec]
Sample rate 263 [sec]
Stabilized drawdown 0.02 [ft]

Low-Flow Sampling Stabilization Summary

	Time	Temp [F]	pH [pH]	Cond [uS/cm]	Turb [NTU]	DO [mg/L]	ORP [mV]
Stabilization Settings			+/-0.2	+/-1 +/-3 %	+/-1	+/-0.2	+/-20
Last 5 Readings	21:47:13	60.92	6.58	645.70	2.60	1.00	38.73
	21:51:42	60.37	6.61	640.64	7.67	3.87	36.59
	21:56:09	59.82	6.63	635.91	5.52	0.31	33.60
	22:00:37	59.63	6.64	633.70	10.10	0.27	31.38
	22:05:06	59.78	6.65	634.89	15.41	0.28	29.57
Variance in last 3 readings	21:56:09	-0.55	0.01	-4.73	-2.15	-3.56	-2.99
	22:00:37	-0.19	0.01	-2.21	4.58	-0.04	-2.22
	22:05:06	0.14	0.01	1.20	5.31	0.01	-1.81

Notes:
Initial water level: 35.85 ft
Final water level: 35.83 ft
Initial pumping rate: 400mL/min
Final pumping rate: 950 mL/min
Total volume removed: 15 gal



Troll 9000
06/08/06

Low-Flow System
ISI Low-Flow Log

Project Information:

Operator Name Greg White
Company Name URS
Project Name Chevron Sunol Pipeline
Site Name Calaveras Rd, Sunol, CA

Pump Information:

Pump Model/Type Mega Typhoon
Tubing Type LDPE
Tubing Diameter 0.38 [in]
Tubing Length 40 [ft]
Pump placement from TOC 44 [ft]

Well Information:

Well Id MW-5
Well diameter 4 [in]
Well total depth 49.5 [ft bgs]
Depth to top of screen 39.5 [ft bgs]
Screen length 10 [ft]
Depth to Water 10.91 [ft bgs]

Pumping information:

Final pumping rate 250 [mL/min]
Flowcell volume 1009.07 [mL]
Calculated Sample Rate 243 [sec]
Sample rate 180 [sec]
Stabilized drawdown 0.70 [ft]

Low-Flow Sampling Stabilization Summary

	Time	Temp [C]	pH [pH]	Cond [uS/cm]	Turb [NTU]	DO [mg/L]	ORP [mV]
Stabilization Settings			+/-0.2	+/-1 +/-3 %	+/-1	+/-0.2	+/-20
Last 5 Readings	21:04:03	17.75	7.24	715.09	4.29	0.21	34.56
	21:07:05	17.68	7.23	714.00	4.22	0.61	29.35
	21:10:09	17.72	7.23	714.65	4.06	0.20	23.02
	21:13:13	17.81	7.24	716.06	4.43	0.20	17.61
	21:16:17	17.84	7.24	716.57	4.01	0.19	12.05
Variance in last 3 readings	21:10:09	0.04	0.00	0.65	-0.16	-0.41	-6.32
	21:13:13	0.09	0.00	1.41	0.37	0.00	-5.41
	21:16:17	0.03	0.00	0.52	-0.42	-0.01	-5.56

Notes:
Initial water level: 10.97 ft
Final water level: 11.67 ft
Initial pumping rate: 350 mL/min
Final pumping rate: 250 mL/min
Total volume removed: 3.5 gal

Attachment B
Laboratory Analytical Results

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 17605-2425SAMPLE GROUP

The sample group for this submittal is 992722. Samples arrived at the laboratory on Thursday, June 08, 2006. The PO# for this group is 0015010091 and the release number is COSGRAY.

Client DescriptionLancaster Labs Number

Trip Blank-6/7/06 Water Sample	4789106
Un-Named Creek-6/7/06 Grab Water Sample	4789107
MW-2-GW-6/7/06 Grab Water Sample	4789108
MW-2-GW-6/7/06 Filtered Grab Water Sample	4789109
MW-6-GW-6/7/06 Grab Water Sample	4789110
MW-6-GW-6/7/06 Filtered Grab Water Sample	4789111
MW-4-GW-6/7/06 Grab Water Sample	4789112
MW-4-GW-6/7/06 Filtered Grab Water Sample	4789113
MW-3-GW-6/7/06 Grab Water Sample	4789114
MW-3-GW-6/7/06 Filtered Grab Water Sample	4789115
Trip Blank-6/7/06 Water Sample	4789116

ELECTRONIC URS

Attn: Angela Liang

COPY TO

ELECTRONIC URS

Attn: Joe Morgan

COPY TO

ELECTRONIC URS

Attn: April Giangerelli

COPY TO

ELECTRONIC URS

Attn: Greg White

COPY TO

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

Respectfully Submitted,



Max E. Snavelly
Senior Specialist

Lancaster Laboratories Sample No. WW 4789106

Trip Blank-6/7/06 Water Sample

Sunol, CA

Collected: 06/07/2006

Account Number: 11875

Submitted: 06/08/2006 09:10

Reported: 06/20/2006 at 12:26

Discard: 07/21/2006

Chevron Pipeline Co.

4800 Fournace Place - E320 D

Bellaire TX 77401

TB677

CAT No.	Analysis Name	CAS Number	As Received Result	As Received		Units	Dilution Factor
				Method	Detection Limit		
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	Analysis		Analyst	Dilution Factor
			Trial#	Date and Time		
06053	BTEX by 8260B	SW-846 8260B	1	06/18/2006 06:59	Marc S Neal	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	06/18/2006 06:59	Marc S Neal	1

Lancaster Laboratories Sample No. WW 4789107
Un-Named Creek-6/7/06 Grab Water Sample
Sunol, CA

Collected: 06/07/2006 13:20 by GW

Account Number: 11875

 Submitted: 06/08/2006 09:10
 Reported: 06/20/2006 at 12:26
 Discard: 07/21/2006

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

UNNAC

CAT No.	Analysis Name	CAS Number	As Received Result	As Received		Units	Dilution Factor
				Method	Detection Limit		
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.						
01412	Methanol and Ethanol						
01414	Methanol (by Direct Injection)	67-56-1	N.D.		200.	ug/l	1
01594	BTEX+5 Oxygenates+EDC+EDB+ETOH						
01587	Ethanol	64-17-5	N.D.		50.	ug/l	1
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	Analysis		Analyst	Dilution Factor
			Trial#	Date and Time		
01728	TPH-GRO - Waters	N. CA LUFT GRO	1	06/13/2006 06:22	Martha L Seidel	1
01412	Methanol and Ethanol	SW-846 8015B	1	06/13/2006 02:05	Hai D Nguyen	1
01594	BTEX+5 Oxygenates+EDC+EDB+ETOH	SW-846 8260B	1	06/18/2006 05:59	Marc S Neal	1
01146	GC VOA Water Prep	SW-846 5030B	1	06/13/2006 06:22	Martha L Seidel	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	06/18/2006 05:59	Marc S Neal	1



Analysis Report

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Page 1 of 2

Lancaster Laboratories Sample No. WW 4789108

MW-2-GW-6/7/06 Grab Water Sample

Sunol, CA

Collected: 06/07/2006 13:40 by GW

Account Number: 11875

Submitted: 06/08/2006 09:10
 Reported: 06/20/2006 at 12:26
 Discard: 07/21/2006

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

2GW67

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
01728	TPH-GRO - Waters 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.	n.a.	N.D.	50.	ug/l	1
07058	Manganese	7439-96-5	2.5	0.36	ug/l	1
00201	Alkalinity to pH 8.3	n.a.	N.D.	460.	ug/l as CaCO3	1
00202	Alkalinity to pH 4.5	n.a.	286,000.	460.	ug/l as CaCO3	1
00212	Total Dissolved Solids	n.a.	465,000.	9,700.	ug/l	1
00228	Sulfate	14808-79-8	47,500.	1,500.	ug/l	5
00368	Nitrate Nitrogen	14797-55-8	11,900.	250.	ug/l	5
08344	Ferrous Iron	n.a.	N.D.	8.0	ug/l	1
01412	Methanol and Ethanol					
01414	Methanol (by Direct Injection)	67-56-1	N.D.	200.	ug/l	1
07105	Volatile Headspace Hydrocarbon					
07106	Methane	74-82-8	N.D.	2.0	ug/l	1
01594	BTEX+5 Oxygenates+EDC+EDB+ETOH					
01587	Ethanol	64-17-5	N.D.	50.	ug/l	1
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	Analysis Trial#	Date and Time	Analyst	Dilution Factor
01728	TPH-GRO - Waters	N. CA LUFT GRO	1	06/13/2006 06:41	Martha L Seidel	1

Lancaster Laboratories Sample No. WW 4789108

MW-2-GW-6/7/06 Grab Water Sample

Sunol, CA

Collected: 06/07/2006 13:40 by GW

Account Number: 11875

Submitted: 06/08/2006 09:10

Reported: 06/20/2006 at 12:26

Discard: 07/21/2006

Chevron Pipeline Co.

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Bellaire TX 77401

2GW67

07058	Manganese	SW-846 6010B	1	06/13/2006 19:32	Choon Y Tian	1
00201	Alkalinity to pH 8.3	EPA 310.1	1	06/13/2006 11:45	Michelle L Lalli	1
00202	Alkalinity to pH 4.5	EPA 310.1	1	06/13/2006 11:45	Michelle L Lalli	1
00212	Total Dissolved Solids	EPA 160.1	1	06/10/2006 07:08	Yolunder Y Bunch	1
00228	Sulfate	EPA 300.0	1	06/09/2006 08:17	William L Hamaker Jr	5
00368	Nitrate Nitrogen	EPA 300.0	1	06/09/2006 08:17	William L Hamaker Jr	5
08344	Ferrous Iron	SM20 3500-Fe B modified	1	06/08/2006 22:40	Daniel S Smith	1
01412	Methanol and Ethanol	SW-846 8015B	1	06/13/2006 02:22	Hai D Nguyen	1
07105	Volatile Headspace Hydrocarbon	SW-846 8015B modified	1	06/19/2006 15:30	Robert I Pusch	1
01594	BTEX+5 Oxygenates+EDC+EDB+ETOH	SW-846 8260B	1	06/18/2006 06:23	Marc S Neal	1
01146	GC VOA Water Prep	SW-846 5030B	1	06/13/2006 06:41	Martha L Seidel	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	06/18/2006 06:23	Marc S Neal	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	06/12/2006 19:40	James L Mertz	1



Analysis Report

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Lancaster Laboratories Sample No. WW 4789109

MW-2-GW-6/7/06 Filtered Grab Water Sample

Sunol, CA

Collected: 06/07/2006 13:40 by GW

Account Number: 11875

Submitted: 06/08/2006 09:10

Chevron Pipeline Co.

Reported: 06/20/2006 at 12:26

4800 Fournace Place - E320 D

Discard: 07/21/2006

Bellaire TX 77401

2GWDM

CAT No.	Analysis Name	CAS Number	As Received Result	As Received		Units	Dilution Factor
				Method	Detection Limit		
01754	Iron	7439-89-6	N.D.	52.2		ug/l	1

State of California Lab Certification No. 2116
This sample was filtered in the lab for dissolved metals.

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	Analysis			Dilution Factor
			Trial#	Date and Time	Analyst	
01754	Iron	SW-846 6010B	1	06/13/2006 06:36	Eric L Eby	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	06/12/2006 19:40	James L Mertz	1



Analysis Report

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Lancaster Laboratories Sample No. WW 4789110

MW-6-GW-6/7/06 Grab Water Sample

Sunol, CA

Collected: 06/07/2006 15:55 by GW

Account Number: 11875

Submitted: 06/08/2006 09:10
 Reported: 06/20/2006 at 12:26
 Discard: 07/21/2006

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

6GW67

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.					
07058	Manganese	7439-96-5	599.	0.36	ug/l	1
00201	Alkalinity to pH 8.3	n.a.	3,700.	460.	ug/l as CaCO3	1
00202	Alkalinity to pH 4.5	n.a.	364,000.	460.	ug/l as CaCO3	1
00212	Total Dissolved Solids	n.a.	531,000.	9,700.	ug/l	1
00228	Sulfate	14808-79-8	41,600.	1,500.	ug/l	5
00368	Nitrate Nitrogen	14797-55-8	N.D.	250.	ug/l	5
08344	Ferrous Iron	n.a.	12,600.	200.	ug/l	25
01412	Methanol and Ethanol					
01414	Methanol (by Direct Injection)	67-56-1	N.D.	200.	ug/l	1
07105	Volatile Headspace Hydrocarbon					
07106	Methane	74-82-8	N.D.	2.0	ug/l	1
01594	BTEX+5 Oxygenates+EDC+EDB+ETOH					
01587	Ethanol	64-17-5	N.D.	50.	ug/l	1
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	Analysis Trial#	Date and Time	Analyst	Dilution Factor
01728	TPH-GRO - Waters	N. CA LUFT GRO	1	06/13/2006 07:00	Martha L Seidel	1

Lancaster Laboratories Sample No. WW 4789110

MW-6-GW-6/7/06 Grab Water Sample

Sunol, CA

Collected: 06/07/2006 15:55 by GW

Account Number: 11875

Submitted: 06/08/2006 09:10

Reported: 06/20/2006 at 12:26

Discard: 07/21/2006

Chevron Pipeline Co.

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Bellaire TX 77401

6GW67

07058	Manganese	SW-846 6010B	1	06/13/2006 19:24	Choon Y Tian	1
00201	Alkalinity to pH 8.3	EPA 310.1	1	06/14/2006 08:00	Michelle L Lalli	1
00202	Alkalinity to pH 4.5	EPA 310.1	1	06/14/2006 08:00	Michelle L Lalli	1
00212	Total Dissolved Solids	EPA 160.1	1	06/10/2006 07:08	Yolunder Y Bunch	1
00228	Sulfate	EPA 300.0	1	06/09/2006 08:47	William L Hamaker Jr	5
00368	Nitrate Nitrogen	EPA 300.0	1	06/09/2006 08:47	William L Hamaker Jr	5
08344	Ferrous Iron	SM20 3500-Fe B modified	1	06/08/2006 22:40	Daniel S Smith	25
01412	Methanol and Ethanol	SW-846 8015B	1	06/13/2006 02:39	Hai D Nguyen	1
07105	Volatile Headspace Hydrocarbon	SW-846 8015B modified	1	06/19/2006 15:43	Robert I Pusch	1
01594	BTEX+5 Oxygenates+EDC+EDB+ETOH	SW-846 8260B	1	06/18/2006 06:46	Marc S Neal	1
01146	GC VOA Water Prep	SW-846 5030B	1	06/13/2006 07:00	Martha L Seidel	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	06/18/2006 06:46	Marc S Neal	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	06/12/2006 19:53	James L Mertz	1



Analysis Report

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Lancaster Laboratories Sample No. WW 4789111

MW-6-GW-6/7/06 Filtered Grab Water Sample

Sunol, CA

Collected: 06/07/2006 15:55 by GW

Account Number: 11875

Submitted: 06/08/2006 09:10

Chevron Pipeline Co.

Reported: 06/20/2006 at 12:26

4800 Fournace Place - E320 D

Discard: 07/21/2006

Bellaire TX 77401

6GWDM

CAT No.	Analysis Name	CAS Number	As Received Result	As Received		Units	Dilution Factor
				Method	Detection Limit		
01754	Iron	7439-89-6	N.D.	52.2		ug/l	1

State of California Lab Certification No. 2116
This sample was filtered in the lab for dissolved metals.

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	Analysis			Dilution Factor
			Trial#	Date and Time	Analyst	
01754	Iron	SW-846 6010B	1	06/13/2006 19:27	Choon Y Tian	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	06/12/2006 19:53	James L Mertz	1



Analysis Report

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Page 1 of 2

Lancaster Laboratories Sample No. WW 4789112

MW-4-GW-6/7/06 Grab Water Sample

Sunol, CA

Collected: 06/07/2006 10:15 by GW

Account Number: 11875

Submitted: 06/08/2006 09:10
 Reported: 06/20/2006 at 12:27
 Discard: 07/21/2006

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

4GW67

CAT No.	Analysis Name	CAS Number	As Received Result	As Received		Units	Dilution Factor
				Method	Detection Limit		
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.						
07058	Manganese	7439-96-5	19.9		0.36	ug/l	1
00201	Alkalinity to pH 8.3	n.a.	N.D.		460.	ug/l as CaCO3	1
00202	Alkalinity to pH 4.5	n.a.	282,000.		460.	ug/l as CaCO3	1
00212	Total Dissolved Solids	n.a.	423,000.		9,700.	ug/l	1
00228	Sulfate	14808-79-8	60,200.		1,500.	ug/l	5
00368	Nitrate Nitrogen	14797-55-8	9,200.		250.	ug/l	5
08344	Ferrous Iron	n.a.	59.		8.0	ug/l	1
01412	Methanol and Ethanol						
01414	Methanol (by Direct Injection)	67-56-1	N.D.		200.	ug/l	1
07105	Volatile Headspace Hydrocarbon						
07106	Methane	74-82-8	N.D.		2.0	ug/l	1
01594	BTEX+5 Oxygenates+EDC+EDB+ETOH						
01587	Ethanol	64-17-5	N.D.		50.	ug/l	1
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	Analysis		Analyst	Dilution Factor
			Trial#	Date and Time		
01728	TPH-GRO - Waters	N. CA LUFT GRO	1	06/13/2006 07:19	Martha L Seidel	1

Lancaster Laboratories Sample No. WW 4789112

MW-4-GW-6/7/06 Grab Water Sample

Sunol, CA

Collected: 06/07/2006 10:15 by GW

Account Number: 11875

Submitted: 06/08/2006 09:10

Chevron Pipeline Co.

Reported: 06/20/2006 at 12:27

4800 Fournace Place - E320 D

Discard: 07/21/2006

Bellaire TX 77401

4GW67

07058	Manganese	SW-846 6010B	1	06/13/2006 19:38	Choon Y Tian	1
00201	Alkalinity to pH 8.3	EPA 310.1	1	06/14/2006 08:00	Michelle L Lalli	1
00202	Alkalinity to pH 4.5	EPA 310.1	1	06/14/2006 08:00	Michelle L Lalli	1
00212	Total Dissolved Solids	EPA 160.1	1	06/10/2006 07:08	Yolunder Y Bunch	1
00228	Sulfate	EPA 300.0	1	06/09/2006 08:03	William L Hamaker Jr	5
00368	Nitrate Nitrogen	EPA 300.0	1	06/09/2006 08:03	William L Hamaker Jr	5
08344	Ferrous Iron	SM20 3500-Fe B modified	1	06/08/2006 22:40	Daniel S Smith	1
01412	Methanol and Ethanol	SW-846 8015B	1	06/13/2006 02:56	Hai D Nguyen	1
07105	Volatile Headspace Hydrocarbon	SW-846 8015B modified	1	06/19/2006 15:56	Robert I Pusch	1
01594	BTEX+5 Oxygenates+EDC+EDB+ETOH	SW-846 8260B	1	06/18/2006 07:09	Marc S Neal	1
01146	GC VOA Water Prep	SW-846 5030B	1	06/13/2006 07:19	Martha L Seidel	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	06/18/2006 07:09	Marc S Neal	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	06/12/2006 19:53	James L Mertz	1



Analysis Report

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Lancaster Laboratories Sample No. WW 4789113

MW-4-GW-6/7/06 Filtered Grab Water Sample

Sunol, CA

Collected: 06/07/2006 10:15 by GW

Account Number: 11875

Submitted: 06/08/2006 09:10
Reported: 06/20/2006 at 12:27
Discard: 07/21/2006

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

4GWDM

CAT No.	Analysis Name	CAS Number	As Received Result	As Received		Units	Dilution Factor
				Method	Detection Limit		
01754	Iron	7439-89-6	N.D.	52.2		ug/l	1

State of California Lab Certification No. 2116
This sample was filtered in the lab for dissolved metals.

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	Analysis			Dilution Factor
			Trial#	Date and Time	Analyst	
01754	Iron	SW-846 6010B	1	06/13/2006 19:42	Choon Y Tian	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	06/12/2006 19:53	James L Mertz	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Lancaster Laboratories Sample No. WW 4789114

MW-3-GW-6/7/06 Grab Water Sample

Sunol, CA

Collected: 06/07/2006 11:30 by GW

Account Number: 11875

Submitted: 06/08/2006 09:10
 Reported: 06/20/2006 at 12:27
 Discard: 07/21/2006

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

3GW67

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.					
07058	Manganese	7439-96-5	4.6	0.36	ug/l	1
00201	Alkalinity to pH 8.3	n.a.	N.D.	460.	ug/l as CaCO3	1
00202	Alkalinity to pH 4.5	n.a.	274,000.	460.	ug/l as CaCO3	1
00212	Total Dissolved Solids	n.a.	446,000.	9,700.	ug/l	1
00228	Sulfate	14808-79-8	45,100.	1,500.	ug/l	5
00368	Nitrate Nitrogen	14797-55-8	10,900.	250.	ug/l	5
08344	Ferrous Iron	n.a.	N.D.	8.0	ug/l	1
01412	Methanol and Ethanol					
01414	Methanol (by Direct Injection)	67-56-1	N.D.	200.	ug/l	1
07105	Volatile Headspace Hydrocarbon					
07106	Methane	74-82-8	N.D.	2.0	ug/l	1
01594	BTEX+5 Oxygenates+EDC+EDB+ETOH					
01587	Ethanol	64-17-5	N.D.	50.	ug/l	1
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	Analysis Trial#	Date and Time	Analyst	Dilution Factor
01728	TPH-GRO - Waters	N. CA LUFT GRO	1	06/13/2006 07:39	Martha L Seidel	1

Lancaster Laboratories Sample No. WW 4789114

MW-3-GW-6/7/06 Grab Water Sample

Sunol, CA

Collected: 06/07/2006 11:30 by GW

Account Number: 11875

Submitted: 06/08/2006 09:10

Chevron Pipeline Co.

Reported: 06/20/2006 at 12:27

4800 Fournace Place - E320 D

Discard: 07/21/2006

Bellaire TX 77401

3GW67

07058	Manganese	SW-846 6010B	1	06/13/2006 19:46	Choon Y Tian	1
00201	Alkalinity to pH 8.3	EPA 310.1	1	06/14/2006 08:00	Michelle L Lalli	1
00202	Alkalinity to pH 4.5	EPA 310.1	1	06/14/2006 08:00	Michelle L Lalli	1
00212	Total Dissolved Solids	EPA 160.1	1	06/10/2006 07:08	Yolunder Y Bunch	1
00228	Sulfate	EPA 300.0	1	06/09/2006 08:32	William L Hamaker Jr	5
00368	Nitrate Nitrogen	EPA 300.0	1	06/09/2006 08:32	William L Hamaker Jr	5
08344	Ferrous Iron	SM20 3500-Fe B modified	1	06/08/2006 22:40	Daniel S Smith	1
01412	Methanol and Ethanol	SW-846 8015B	1	06/13/2006 03:13	Hai D Nguyen	1
07105	Volatile Headspace Hydrocarbon	SW-846 8015B modified	1	06/19/2006 16:23	Robert I Pusch	1
01594	BTEX+5 Oxygenates+EDC+EDB+ETOH	SW-846 8260B	1	06/18/2006 07:32	Marc S Neal	1
01146	GC VOA Water Prep	SW-846 5030B	1	06/13/2006 07:39	Martha L Seidel	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	06/18/2006 07:32	Marc S Neal	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	06/12/2006 19:53	James L Mertz	1



Analysis Report

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Lancaster Laboratories Sample No. WW 4789115

MW-3-GW-6/7/06 Filtered Grab Water Sample

Sunol, CA

Collected: 06/07/2006 11:30 by GW

Account Number: 11875

Submitted: 06/08/2006 09:10

Chevron Pipeline Co.

Reported: 06/20/2006 at 12:27

4800 Fournace Place - E320 D

Discard: 07/21/2006

Bellaire TX 77401

5GWDM

CAT No.	Analysis Name	CAS Number	As Received Result	As Received		Units	Dilution Factor
				Method	Detection Limit		
01754	Iron	7439-89-6	N.D.	52.2		ug/l	1

State of California Lab Certification No. 2116
This sample was filtered in the lab for dissolved metals.

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	Analysis			Dilution Factor
			Trial#	Date and Time	Analyst	
01754	Iron	SW-846 6010B	1	06/13/2006 19:49	Choon Y Tian	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	06/12/2006 19:53	James L Mertz	1

Lancaster Laboratories Sample No. WW 4789116

Trip Blank-6/7/06 Water Sample

Sunol, CA

Collected: 06/07/2006

Account Number: 11875

Submitted: 06/08/2006 09:10

Reported: 06/20/2006 at 12:27

Discard: 07/21/2006

Chevron Pipeline Co.

4800 Fournace Place - E320 D

Bellaire TX 77401

TB286

CAT No.	Analysis Name	CAS Number	As Received Result	As Received		Units	Dilution Factor
				Method	Detection Limit		
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	Analysis		Analyst	Dilution Factor
			Trial#	Date and Time		
06053	BTEX by 8260B	SW-846 8260B	1	06/18/2006 07:23	Marc S Neal	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	06/18/2006 07:23	Marc S Neal	1

Quality Control Summary

 Client Name: Chevron Pipeline Co.
 Reported: 06/20/06 at 12:27 PM

Group Number: 992722

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

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: 06159130102A	Sample number(s): 4789108,4789112,4789114							
Sulfate	N.D.	0.30	mg/l	99		89-110		
Nitrate Nitrogen	N.D.	0.050	mg/l	98		90-110		
Batch number: 06159130102B	Sample number(s): 4789110							
Sulfate	N.D.	0.30	mg/l	99		89-110		
Nitrate Nitrogen	N.D.	0.050	mg/l	98		90-110		
Batch number: 06159834401A	Sample number(s): 4789108,4789110,4789112,4789114							
Ferrous Iron	N.D.	0.0080	mg/l	98		95-105		
Batch number: 06161021201A	Sample number(s): 4789108,4789110,4789112,4789114							
Total Dissolved Solids	N.D.	9.7	mg/l	95		80-120		
Batch number: 061630030A	Sample number(s): 4789107-4789108,4789110,4789112,4789114							
Methanol (by Direct Injection)	N.D.	200.	ug/l	81		80-120		
Batch number: 061631848004	Sample number(s): 4789108-4789109							
Iron	N.D.	0.0522	mg/l	98		90-112		
Manganese	N.D.	0.00036	mg/l	98		90-110		
Batch number: 061631848006	Sample number(s): 4789110-4789115							
Iron	N.D.	0.0522	mg/l	95		90-112		
Manganese	N.D.	0.00036	mg/l	99		90-110		
Batch number: 06164020202A	Sample number(s): 4789108							
Alkalinity to pH 4.5				101		98-103		
Batch number: 06164A54A	Sample number(s): 4789107-4789108,4789110,4789112,4789114							
TPH-GRO - Waters	N.D.	50.	ug/l	114	106	70-130	7	30
Batch number: 06165020201A	Sample number(s): 4789110,4789112,4789114							
Alkalinity to pH 4.5				102		98-103		
Batch number: 061670015A	Sample number(s): 4789108,4789110,4789112,4789114							
Methane	N.D.	2.0	ug/l	95		80-120		
Batch number: D061681AA	Sample number(s): 4789107-4789108,4789110,4789112,4789114							
Ethanol	N.D.	50.	ug/l	115		35-168		
Benzene	N.D.	0.5	ug/l	107		85-117		
Toluene	N.D.	0.5	ug/l	105		85-115		
Ethylbenzene	N.D.	0.5	ug/l	105		82-119		
Xylene (Total)	N.D.	0.5	ug/l	104		83-113		
Batch number: Z061682AA	Sample number(s): 4789106,4789116							
Benzene	N.D.	0.5	ug/l	92		85-117		
Toluene	N.D.	0.5	ug/l	104		85-115		

*- Outside of specification

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

Quality Control Summary

 Client Name: Chevron Pipeline Co.
 Reported: 06/20/06 at 12:27 PM

Group Number: 992722

Laboratory Compliance Quality Control

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Ethylbenzene	N.D.	0.5	ug/l	98		82-119		
Xylene (Total)	N.D.	0.5	ug/l	103		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

<u>Analysis Name</u>	<u>MS %REC</u>	<u>MSD %REC</u>	<u>MS/MSD Limits</u>	<u>RPD</u>	<u>RPD MAX</u>	<u>BKG Conc</u>	<u>DUP Conc</u>	<u>DUP RPD</u>	<u>Dup RPD Max</u>
Batch number: 06159130102A	Sample number(s): 4789108,4789112,4789114 UNSPK: P788674 BKG: P788674								
Sulfate	112*		90-110			41.4	41.3	0	3
Nitrate Nitrogen	107		90-110			N.D.	N.D.	0 (1)	2
Batch number: 06159130102B	Sample number(s): 4789110 UNSPK: 4789110 BKG: 4789110								
Sulfate	112*		90-110			41.6	40.1	4*	3
Nitrate Nitrogen	111*		90-110			N.D.	N.D.	0 (1)	2
Batch number: 06159834401A	Sample number(s): 4789108,4789110,4789112,4789114 UNSPK: P789424 BKG: P789424								
Ferrous Iron	95	99	86-110	2	4	7.3	7.4	1 (1)	8
Batch number: 06161021201A	Sample number(s): 4789108,4789110,4789112,4789114 UNSPK: P788750 BKG: P788750								
Total Dissolved Solids	103	105	60-140	1	5	10,600.	10,700.	0	5
Batch number: 061630030A	Sample number(s): 4789107-4789108,4789110,4789112,4789114 UNSPK: P785102								
Methanol (by Direct Injection)	88	88	81-117	0	20				
Batch number: 061631848004	Sample number(s): 4789108-4789109 UNSPK: P787731 BKG: P787731								
Iron	100	100	75-125	0	20	0.137	0.139	1 (1)	20
Manganese	98	99	75-125	1	20	0.0040	0.0042	4 (1)	20
Batch number: 061631848006	Sample number(s): 4789110-4789115 UNSPK: P788656 BKG: P788656								
Iron	103	98	75-125	2	20	1.75	1.74	1	20
Manganese	101	98	75-125	2	20	0.555	0.551	1	20
Batch number: 06164020202A	Sample number(s): 4789108 UNSPK: P789061 BKG: P789061								
Alkalinity to pH 8.3						N.D.	N.D.	0 (1)	4
Alkalinity to pH 4.5	91	115	64-130	9*	2	325.	333.	3	4
Batch number: 06164A54A	Sample number(s): 4789107-4789108,4789110,4789112,4789114 UNSPK: P789964								
TPH-GRO - Waters	123	118	63-154	4	30				
Batch number: 06165020201A	Sample number(s): 4789110,4789112,4789114 UNSPK: P789419 BKG: P789419								
Alkalinity to pH 8.3						N.D.	N.D.	0 (1)	4
Alkalinity to pH 4.5	102	97	64-130	3*	2	115.	123.	7*	4
Batch number: 061670015A	Sample number(s): 4789108,4789110,4789112,4789114 UNSPK: P787305								
Methane	100	108	63-124	8	20				
Batch number: D061681AA	Sample number(s): 4789107-4789108,4789110,4789112,4789114 UNSPK: P789013								
Ethanol	85	70	34-161	20	30				
Benzene	107	107	83-128	0	30				
Toluene	103	104	83-127	1	30				

*- Outside of specification

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

Quality Control Summary

 Client Name: Chevron Pipeline Co.
 Reported: 06/20/06 at 12:27 PM

Group Number: 992722

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

<u>Analysis Name</u>	<u>MS</u> <u>%REC</u>	<u>MSD</u> <u>%REC</u>	<u>MS/MSD</u> <u>Limits</u>	<u>RPD</u> <u>RPD</u>	<u>RPD</u> <u>MAX</u>	<u>BKG</u> <u>Conc</u>	<u>DUP</u> <u>Conc</u>	<u>DUP</u> <u>RPD</u>	<u>Dup RPD</u> <u>Max</u>
Ethylbenzene	105	104	82-129	0	30				
Xylene (Total)	104	105	82-130	1	30				
Batch number: Z061682AA Sample number(s): 4789106,4789116 UNSPK: P793275									
Benzene	99	95	83-128	4	30				
Toluene	107	102	83-127	5	30				
Ethylbenzene	103	100	82-129	3	30				
Xylene (Total)	109	104	82-130	5	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.

 Analysis Name: Methanol and Ethanol
 Batch number: 061630030A
 Acetone

4789107	96
4789108	99
4789110	95
4789112	96
4789114	97
Blank	96
LCS	95
MS	100
MSD	99

Limits: 67-131

 Analysis Name: TPH-GRO - Waters
 Batch number: 06164A54A
 Trifluorotoluene-F

4789107	91
4789108	92
4789110	90
4789112	96
4789114	89
Blank	90
LCS	104
LCSD	95
MS	96
MSD	101

Limits: 63-135

 Analysis Name: Volatile Headspace Hydrocarbon
 Batch number: 061670015A
 Propene

*- Outside of specification

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

Quality Control Summary

 Client Name: Chevron Pipeline Co.
 Reported: 06/20/06 at 12:27 PM

Group Number: 992722

Surrogate Quality Control

4789108	80
4789110	85
4789112	79
4789114	78
Blank	77
LCS	79
MS	59
MSD	60

Limits: 48-132

Analysis Name: BTEX+5 Oxygenates+EDC+EDB+ETOH

Batch number: D061681AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
4789107	107	95	99	101
4789108	105	94	99	100
4789110	105	96	99	101
4789112	106	96	100	101
4789114	105	97	98	99
Blank	107	95	102	102
LCS	105	98	99	101
MS	106	99	103	112
MSD	105	97	103	111

Limits: 80-116 77-113 80-113 78-113

Analysis Name: BTEX by 8260B

Batch number: Z061682AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
4789106	89	87	93	85
4789116	90	88	93	84
Blank	88	86	95	86
LCS	88	88	96	90
MS	87	87	94	89
MSD	88	87	94	90

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 background result was more than four times the spike added.

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 <u>limit of quantitation</u> , 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 quantitated 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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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 17605-2425SAMPLE GROUP

The sample group for this submittal is 992890. Samples arrived at the laboratory on Friday, June 09, 2006. The PO# for this group is 0015010091 and the release number is COSGRAY.

Client DescriptionLancaster Labs Number

Trip Blank-6/8/06 Water Sample	4790061
MW-5-GW-6/8/06 Grab Water Sample	4790062
MW-5-GW-6/8/06 Filtered Grab Water Sample	4790063
MW-7-GW-6/8/06 Grab Water Sample	4790064
MW-7-GW-6/8/06 Filtered Grab Water Sample	4790065
Trip Blank-6/8/06 Water Sample	4790066
MW-1-GW-6/8/06 Grab Water Sample	4790067
MW-1-GW-6/8/06 Filtered Grab Water Sample	4790068

ELECTRONIC URS

Attn: Angela Liang

COPY TO

ELECTRONIC URS

Attn: Joe Morgan

COPY TO

ELECTRONIC URS

Attn: April Giangerelli

COPY TO

ELECTRONIC URS

Attn: Greg White

COPY TO

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

Respectfully Submitted,



Max E. Snavelly
Senior Specialist

Lancaster Laboratories Sample No. WW 4790061

Trip Blank-6/8/06 Water Sample

Sunol, CA

Collected: 06/08/2006

Account Number: 11875

Submitted: 06/09/2006 09:10

Reported: 06/22/2006 at 16:28

Discard: 07/23/2006

Chevron Pipeline Co.

4800 Fournace Place - E320 D

Bellaire TX 77401

TBCSP

CAT No.	Analysis Name	CAS Number	As Received Result	As Received		Units	Dilution Factor
				Method	Detection Limit		
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	Analysis		Analyst	Dilution Factor
			Trial#	Date and Time		
06053	BTEX by 8260B	SW-846 8260B	1	06/16/2006 11:03	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	06/16/2006 11:03	Anita M Dale	1



Analysis Report

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Page 1 of 2

Lancaster Laboratories Sample No. WW 4790062

MW-5-GW-6/8/06 Grab Water Sample

Sunol, CA

Collected: 06/08/2006 09:30 by GW

Account Number: 11875

Submitted: 06/09/2006 09:10
 Reported: 06/22/2006 at 16:28
 Discard: 07/23/2006

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

5GWSP

CAT No.	Analysis Name	CAS Number	As Received Result	As Received		Dilution Factor
				Method	Detection Limit	
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.					
07058	Manganese	7439-96-5	28.6	0.36	ug/l	1
00201	Alkalinity to pH 8.3	n.a.	2,600.	460.	ug/l as CaCO3	1
00202	Alkalinity to pH 4.5	n.a.	313,000.	460.	ug/l as CaCO3	1
00212	Total Dissolved Solids	n.a.	502,000.	9,700.	ug/l	1
00228	Sulfate	14808-79-8	71,300.	1,500.	ug/l	5
00368	Nitrate Nitrogen	14797-55-8	N.D.	250.	ug/l	5
08344	Ferrous Iron	n.a.	120.	8.0	ug/l	1
01412	Methanol and Ethanol					
01414	Methanol (by Direct Injection)	67-56-1	N.D.	200.	ug/l	1
07105	Volatile Headspace Hydrocarbon					
07106	Methane	74-82-8	4.0	2.0	ug/l	1
01594	BTEX+5 Oxygenates+EDC+EDB+ETOH					
01587	Ethanol	64-17-5	N.D.	50.	ug/l	1
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	Analysis		Analyst	Dilution Factor
			Trial#	Date and Time		
01728	TPH-GRO - Waters	N. CA LUFT GRO	1	06/16/2006 11:04	Steven A Skiles	1

Lancaster Laboratories Sample No. WW 4790062

MW-5-GW-6/8/06 Grab Water Sample

Sunol, CA

Collected: 06/08/2006 09:30 by GW

Account Number: 11875

Submitted: 06/09/2006 09:10

Reported: 06/22/2006 at 16:28

Discard: 07/23/2006

Chevron Pipeline Co.

4800 Fournace Place - E320 D

Bellaire TX 77401

5GWSP

07058	Manganese	SW-846 6010B	1	06/14/2006 13:28	Joanne M Gates	1
00201	Alkalinity to pH 8.3	EPA 310.1	1	06/15/2006 09:00	Michelle L Lalli	1
00202	Alkalinity to pH 4.5	EPA 310.1	1	06/15/2006 09:00	Michelle L Lalli	1
00212	Total Dissolved Solids	EPA 160.1	1	06/13/2006 08:28	Yolunder Y Bunch	1
00228	Sulfate	EPA 300.0	1	06/10/2006 10:51	William L Hamaker Jr	5
00368	Nitrate Nitrogen	EPA 300.0	1	06/10/2006 10:51	William L Hamaker Jr	5
08344	Ferrous Iron	SM20 3500-Fe B modified	1	06/09/2006 18:15	Daniel S Smith	1
01412	Methanol and Ethanol	SW-846 8015B	1	06/13/2006 03:30	Hai D Nguyen	1
07105	Volatile Headspace Hydrocarbon	SW-846 8015B modified	1	06/19/2006 21:53	Hai D Nguyen	1
01594	BTEX+5 Oxygenates+EDC+EDB+ETOH	SW-846 8260B	1	06/18/2006 06:12	Marc S Neal	1
01146	GC VOA Water Prep	SW-846 5030B	1	06/16/2006 11:04	Steven A Skiles	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	06/18/2006 06:12	Marc S Neal	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	06/14/2006 00:30	Helen L Schaeffer	1



Analysis Report

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Lancaster Laboratories Sample No. WW 4790063

MW-5-GW-6/8/06 Filtered Grab Water Sample

Sunol, CA

Collected: 06/08/2006 09:30 by GW

Account Number: 11875

Submitted: 06/09/2006 09:10

Chevron Pipeline Co.

Reported: 06/22/2006 at 16:28

4800 Fournace Place - E320 D

Discard: 07/23/2006

Bellaire TX 77401

CAT No.	Analysis Name	CAS Number	As Received Result	As Received		Units	Dilution Factor
				Method	Detection Limit		
01754	Iron	7439-89-6	N.D.	52.2		ug/l	1

State of California Lab Certification No. 2116
This sample was filtered in the lab for dissolved metals.

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	Analysis		Analyst	Dilution Factor
			Trial#	Date and Time		
01754	Iron	SW-846 6010B	1	06/14/2006 13:33	Joanne M Gates	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	06/14/2006 00:30	Helen L Schaeffer	1



Analysis Report

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Lancaster Laboratories Sample No. WW 4790064

MW-7-GW-6/8/06 Grab Water Sample

Sunol, CA

Collected: 06/08/2006 11:00 by GW

Account Number: 11875

Submitted: 06/09/2006 09:10
 Reported: 06/22/2006 at 16:28
 Discard: 07/23/2006

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

7GWSP

CAT No.	Analysis Name	CAS Number	As Received Result	As Received		Dilution Factor
				Method	Detection Limit	
01728	TPH-GRO - Waters	n.a.	N.D.		50.	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.					
07058	Manganese	7439-96-5	706.		0.36	1
00201	Alkalinity to pH 8.3	n.a.	5,900.		460.	1
00202	Alkalinity to pH 4.5	n.a.	310,000.		460.	1
00212	Total Dissolved Solids	n.a.	542,000.		9,700.	1
00228	Sulfate	14808-79-8	70,400.		1,500.	5
00368	Nitrate Nitrogen	14797-55-8	N.D.		250.	5
08344	Ferrous Iron	n.a.	13,400.		400.	50
01412	Methanol and Ethanol					
01414	Methanol (by Direct Injection)	67-56-1	N.D.		200.	1
07105	Volatile Headspace Hydrocarbon					
07106	Methane	74-82-8	22.		2.0	1
01594	BTEX+5 Oxygenates+EDC+EDB+ETOH					
01587	Ethanol	64-17-5	N.D.		50.	1
05401	Benzene	71-43-2	0.7		0.5	1
05407	Toluene	108-88-3	N.D.		0.5	1
05415	Ethylbenzene	100-41-4	1.		0.5	1
06310	Xylene (Total)	1330-20-7	4.		0.5	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	Analysis		Analyst	Dilution Factor
			Trial#	Date and Time		
01728	TPH-GRO - Waters	N. CA LUFT GRO	1	06/16/2006 11:33	Steven A Skiles	1

Lancaster Laboratories Sample No. WW 4790064

MW-7-GW-6/8/06 Grab Water Sample

Sunol, CA

Collected: 06/08/2006 11:00 by GW

Account Number: 11875

Submitted: 06/09/2006 09:10

Reported: 06/22/2006 at 16:28

Discard: 07/23/2006

Chevron Pipeline Co.

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Bellaire TX 77401

7GWSP

07058	Manganese	SW-846 6010B	1	06/14/2006 13:18	Amanda S Bitner	1
00201	Alkalinity to pH 8.3	EPA 310.1	1	06/15/2006 09:00	Michelle L Lalli	1
00202	Alkalinity to pH 4.5	EPA 310.1	1	06/15/2006 09:00	Michelle L Lalli	1
00212	Total Dissolved Solids	EPA 160.1	1	06/13/2006 08:28	Yolunder Y Bunch	1
00228	Sulfate	EPA 300.0	1	06/10/2006 10:36	William L Hamaker Jr	5
00368	Nitrate Nitrogen	EPA 300.0	1	06/10/2006 10:36	William L Hamaker Jr	5
08344	Ferrous Iron	SM20 3500-Fe B modified	1	06/09/2006 18:15	Daniel S Smith	50
01412	Methanol and Ethanol	SW-846 8015B	1	06/13/2006 03:47	Hai D Nguyen	1
07105	Volatile Headspace Hydrocarbon	SW-846 8015B modified	1	06/19/2006 22:08	Hai D Nguyen	1
01594	BTEX+5 Oxygenates+EDC+EDB+ETOH	SW-846 8260B	1	06/18/2006 06:35	Marc S Neal	1
01146	GC VOA Water Prep	SW-846 5030B	1	06/16/2006 11:33	Steven A Skiles	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	06/18/2006 06:35	Marc S Neal	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	06/14/2006 01:00	Helen L Schaeffer	1



Analysis Report

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Lancaster Laboratories Sample No. WW 4790065

MW-7-GW-6/8/06 Filtered Grab Water Sample

Sunol, CA

Collected: 06/08/2006 11:00 by GW

Account Number: 11875

Submitted: 06/09/2006 09:10

Chevron Pipeline Co.

Reported: 06/22/2006 at 16:28

4800 Fournace Place - E320 D

Discard: 07/23/2006

Bellaire TX 77401

CAT No.	Analysis Name	CAS Number	As Received Result	As Received		Units	Dilution Factor
				Method	Detection Limit		
01754	Iron	7439-89-6	N.D.	52.2		ug/l	1

State of California Lab Certification No. 2116
This sample was filtered in the lab for dissolved metals.

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	Analysis			Dilution Factor
			Trial#	Date and Time	Analyst	
01754	Iron	SW-846 6010B	1	06/14/2006 13:22	Amanda S Bitner	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	06/14/2006 01:00	Helen L Schaeffer	1



Analysis Report

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Lancaster Laboratories Sample No. WW 4790066

Trip Blank-6/8/06 Water Sample

Sunol, CA

Collected: 06/08/2006

Account Number: 11875

Submitted: 06/09/2006 09:10

Chevron Pipeline Co.

Reported: 06/22/2006 at 16:28

4800 Fournace Place - E320 D

Discard: 07/23/2006

Bellaire TX 77401

TBSUP

CAT No.	Analysis Name	CAS Number	As Received Result	As Received		Units	Dilution Factor
				Method	Detection Limit		
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	Analysis		Analyst	Dilution Factor
			Trial#	Date and Time		
06053	BTEX by 8260B	SW-846 8260B	1	06/16/2006 11:30	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	06/16/2006 11:30	Anita M Dale	1



Analysis Report

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Lancaster Laboratories Sample No. WW 4790067

MW-1-GW-6/8/06 Grab Water Sample

Sunol, CA

Collected: 06/08/2006 13:40 by GW

Account Number: 11875

Submitted: 06/09/2006 09:10
 Reported: 06/22/2006 at 16:28
 Discard: 07/23/2006

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

W1GWP

CAT No.	Analysis Name	CAS Number	As Received Result	As Received		Units	Dilution Factor
				Method	Detection Limit		
01728	TPH-GRO - Waters	n.a.	37,000.		500.	ug/l	10
	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.						
07058	Manganese	7439-96-5	116.		0.36	ug/l	1
00201	Alkalinity to pH 8.3	n.a.	N.D.		460.	ug/l as CaCO3	1
00202	Alkalinity to pH 4.5	n.a.	317,000.		460.	ug/l as CaCO3	1
00212	Total Dissolved Solids	n.a.	494,000.		9,700.	ug/l	1
00228	Sulfate	14808-79-8	48,300.		1,500.	ug/l	5
00368	Nitrate Nitrogen	14797-55-8	2,600.		250.	ug/l	5
08344	Ferrous Iron	n.a.	N.D.		8.0	ug/l	1
01412	Methanol and Ethanol						
01414	Methanol (by Direct Injection)	67-56-1	N.D.		200.	ug/l	1
07105	Volatile Headspace Hydrocarbon						
07106	Methane	74-82-8	N.D.		2.0	ug/l	1
01594	BTEX+5 Oxygenates+EDC+EDB+ETOH						
01587	Ethanol	64-17-5	N.D.		250.	ug/l	5
05401	Benzene	71-43-2	10.		3.	ug/l	5
05407	Toluene	108-88-3	330.		3.	ug/l	5
05415	Ethylbenzene	100-41-4	120.		3.	ug/l	5
06310	Xylene (Total)	1330-20-7	8,200.		25.	ug/l	50

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	Analysis		Analyst	Dilution Factor
			Trial#	Date and Time		
01728	TPH-GRO - Waters	N. CA LUFT GRO	1	06/16/2006 12:03	Steven A Skiles	10

Lancaster Laboratories Sample No. WW 4790067

MW-1-GW-6/8/06 Grab Water Sample

Sunol, CA

Collected: 06/08/2006 13:40 by GW

Account Number: 11875

Submitted: 06/09/2006 09:10

Reported: 06/22/2006 at 16:28

Discard: 07/23/2006

Chevron Pipeline Co.

4800 Fournace Place - E320 D

Bellaire TX 77401

W1GWP

07058	Manganese	SW-846 6010B	1	06/14/2006 13:25	Amanda S Bitner	1
00201	Alkalinity to pH 8.3	EPA 310.1	1	06/15/2006 09:00	Michelle L Lalli	1
00202	Alkalinity to pH 4.5	EPA 310.1	1	06/15/2006 09:00	Michelle L Lalli	1
00212	Total Dissolved Solids	EPA 160.1	1	06/13/2006 08:28	Yolunder Y Bunch	1
00228	Sulfate	EPA 300.0	1	06/10/2006 02:24	William L Hamaker Jr	5
00368	Nitrate Nitrogen	EPA 300.0	1	06/10/2006 02:24	William L Hamaker Jr	5
08344	Ferrous Iron	SM20 3500-Fe B modified	1	06/09/2006 18:15	Daniel S Smith	1
01412	Methanol and Ethanol	SW-846 8015B	1	06/13/2006 04:04	Hai D Nguyen	1
07105	Volatile Headspace Hydrocarbon	SW-846 8015B modified	1	06/19/2006 22:24	Hai D Nguyen	1
01594	BTEX+5	SW-846 8260B	1	06/18/2006 06:57	Marc S Neal	5
01594	Oxygenates+EDC+EDB+ETOH BTEX+5	SW-846 8260B	1	06/18/2006 07:20	Marc S Neal	50
01146	GC VOA Water Prep	SW-846 5030B	1	06/16/2006 12:03	Steven A Skiles	10
01163	GC/MS VOA Water Prep	SW-846 5030B	1	06/18/2006 06:57	Marc S Neal	5
01163	GC/MS VOA Water Prep	SW-846 5030B	2	06/18/2006 07:20	Marc S Neal	50
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	06/14/2006 01:00	Helen L Schaeffer	1



Analysis Report

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Lancaster Laboratories Sample No. WW 4790068

MW-1-GW-6/8/06 Filtered Grab Water Sample

Sunol, CA

Collected: 06/08/2006 13:40 by GW

Account Number: 11875

Submitted: 06/09/2006 09:10

Chevron Pipeline Co.

Reported: 06/22/2006 at 16:28

4800 Fournace Place - E320 D

Discard: 07/23/2006

Bellaire TX 77401

CAT No.	Analysis Name	CAS Number	As Received Result	As Received		Units	Dilution Factor
				Method	Detection Limit		
01754	Iron	7439-89-6	N.D.	52.2		ug/l	1

State of California Lab Certification No. 2116
This sample was filtered in the lab for dissolved metals.

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	Analysis		Analyst	Dilution Factor
			Trial#	Date and Time		
01754	Iron	SW-846 6010B	1	06/14/2006 13:29	Amanda S Bitner	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	06/14/2006 01:00	Helen L Schaeffer	1

Quality Control Summary

 Client Name: Chevron Pipeline Co.
 Reported: 06/22/06 at 04:28 PM

Group Number: 992890

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

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: 06160834401A Ferrous Iron	N.D.	0.0080	mg/l	100		95-105		
Batch number: 06160865101A Sulfate	N.D.	0.30	mg/l	101		89-110		
Nitrate Nitrogen	N.D.	0.050	mg/l	96		90-110		
Batch number: 06160865101B Sulfate	N.D.	0.30	mg/l	101		89-110		
Nitrate Nitrogen	N.D.	0.050	mg/l	96		90-110		
Batch number: 061630030A Methanol (by Direct Injection)	N.D.	200.	ug/l	81		80-120		
Batch number: 06164021201A Total Dissolved Solids	N.D.	9.7	mg/l	94		80-120		
Batch number: 061651848001 Iron	N.D.	0.0522	mg/l	100		90-112		
Manganese	N.D.	0.00036	mg/l	98		90-110		
Batch number: 061651848002 Iron	N.D.	0.0522	mg/l	106		90-112		
Manganese	N.D.	0.00036	mg/l	104		90-110		
Batch number: 06166020201A Alkalinity to pH 4.5				102		98-103		
Batch number: 06167A08A TPH-GRO - Waters	N.D.	50.	ug/l	101	103	70-130	2	30
Batch number: 061690000A Methane	N.D.	2.0	ug/l	93		80-120		
Batch number: D061682AA Ethanol	N.D.	50.	ug/l	117		35-168		
Benzene	N.D.	0.5	ug/l	107		85-117		
Toluene	N.D.	0.5	ug/l	107		85-115		
Ethylbenzene	N.D.	0.5	ug/l	106		82-119		
Xylene (Total)	N.D.	0.5	ug/l	105		83-113		
Batch number: P061672AA Benzene	N.D.	0.5	ug/l	95		85-117		
Toluene	N.D.	0.5	ug/l	95		85-115		
Ethylbenzene	N.D.	0.5	ug/l	92		82-119		
Xylene (Total)	N.D.	0.5	ug/l	94		83-113		

*- Outside of specification

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

Quality Control Summary

 Client Name: Chevron Pipeline Co.
 Reported: 06/22/06 at 04:28 PM

Group Number: 992890

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

<u>Analysis Name</u>	<u>MS</u> <u>%REC</u>	<u>MSD</u> <u>%REC</u>	<u>MS/MSD</u> <u>Limits</u>	<u>RPD</u> <u>RPD</u>	<u>RPD</u> <u>MAX</u>	<u>BKG</u> <u>Conc</u>	<u>DUP</u> <u>Conc</u>	<u>DUP</u> <u>RPD</u>	<u>Dup RPD</u> <u>Max</u>
Batch number: 06160834401A Ferrous Iron	97	97	86-110	0	4	13.4	13.4	0 (1)	8
Batch number: 06160865101A Sulfate	98		90-110			164.	161.	2	3
Nitrate Nitrogen	106		90-110			N.D.	N.D.	200* (1)	2
Batch number: 06160865101B Sulfate	103		90-110			186.	182.	2	3
Nitrate Nitrogen	108		90-110			N.D.	N.D.	200* (1)	2
Batch number: 061630030A Methanol (by Direct Injection)	88	88	81-117	0	20				
Batch number: 06164021201A Total Dissolved Solids	177*	184*	60-140	3	5	4,500.	11,000.	84* (1)	5
Batch number: 061651848001 Iron	97	96	75-125	1	20	N.D.	N.D.	-5 (1)	20
Manganese	103	99	75-125	2	20	0.567	0.565	0	20
Batch number: 061651848002 Iron	149*	108	75-125	31*	20	0.0668	0.0788	16 (1)	20
Manganese	145*	106	75-125	29*	20	0.0442	0.0540	20	20
Batch number: 06166020201A Alkalinity to pH 8.3						N.D.	N.D.	0 (1)	4
Alkalinity to pH 4.5	85	46*	64-130	26*	2	152.	140.	9*	4
Batch number: 06167A08A TPH-GRO - Waters	120		63-154						
Batch number: 061690000A Methane	88	88	63-124	0	20				
Batch number: D061682AA Ethanol	85	100	34-161	16	30				
Benzene	107	107	83-128	0	30				
Toluene	106	105	83-127	1	30				
Ethylbenzene	107	105	82-129	0	30				
Xylene (Total)	109	105	82-130	1	30				
Batch number: P061672AA Benzene	103	103	83-128	1	30				
Toluene	103	104	83-127	0	30				
Ethylbenzene	101	101	82-129	0	30				
Xylene (Total)	100	99	82-130	1	30				

*- Outside of specification

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

Quality Control Summary

 Client Name: Chevron Pipeline Co.
 Reported: 06/22/06 at 04:28 PM

Group Number: 992890

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.

 Analysis Name: Methanol and Ethanol
 Batch number: 061630030A
 Acetone

4790062	94
4790064	98
4790067	96
Blank	96
LCS	95
MS	100
MSD	99

Limits: 67-131

 Analysis Name: TPH-GRO - Waters
 Batch number: 06167A08A
 Trifluorotoluene-F

4790062	86
4790064	94
4790067	95
Blank	90
LCS	101
LCSD	99
MS	100

Limits: 63-135

 Analysis Name: Volatile Headspace Hydrocarbon
 Batch number: 061690000A
 Propene

4790062	74
4790064	77
4790067	88
Blank	78
LCS	92
MS	70
MSD	75

Limits: 48-132

 Analysis Name: BTEX+5 Oxygenates+EDC+EDB+ETOH
 Batch number: D061682AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
4790062	106	100	98	101
4790064	106	100	99	102
4790067	108	100	102	106
Blank	106	101	102	103
LCS	106	101	101	104
MS	103	101	99	101
MSD	105	99	100	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 background result was more than four times the spike added.

Quality Control Summary

Client Name: Chevron Pipeline Co.
Reported: 06/22/06 at 04:28 PM

Group Number: 992890

Surrogate Quality Control

Analysis Name: BTEX by 8260B
Batch number: P061672AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
4790061	98	98	100	91
4790066	97	96	99	90
Blank	97	97	100	92
LCS	96	97	99	96
MS	97	97	99	95
MSD	96	96	99	95
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 background result was more than four times the spike added.

Chevron California Region Analysis Request/Chain of Custody



GIP # 992890
 For Lancaster Laboratories use only
 242088
 Acct. #: 11875 Sample #: 4790061-68 SCR#:

Facility #: Chevron Sunol Pipeline
 Site Address: Milepost 2.7 Calaveras Rd Sunol CA
 Chevron PM: _____ Lead Consultant: URS
 Consultant/Office: URS - Oakland
 Consultant Prj. Mgr.: Joe Morgan
 Consultant Phone #: 510-874-3201 Fax #: 510-874-3268
 Sampler: Greg White + Renee McFarlin
 Service Order #: _____ Non SAR: _____

Analyses Requested											
Preservation Codes											
<input checked="" type="checkbox"/> BTEX	<input checked="" type="checkbox"/> MTBE	<input checked="" type="checkbox"/> 8260	<input checked="" type="checkbox"/> 8021	<input type="checkbox"/> Only	<input type="checkbox"/> TPH 8015 MOD	<input type="checkbox"/> GRO	<input type="checkbox"/> TPH 8015 MOD DRO	<input type="checkbox"/> Silica Gel Cleanup	<input type="checkbox"/> Nitrate	<input checked="" type="checkbox"/> Ferrous Iron	<input checked="" type="checkbox"/> Manganese
						<input type="checkbox"/> Sulfate/Alkalinity (with breakpoint)	<input type="checkbox"/> Dissolved Iron → Lab Filter	<input type="checkbox"/> TDS	<input type="checkbox"/> Methane	<input type="checkbox"/> Ethanol + Methanol	

Preservative Codes
 H = HCl T = Thiosulfate
 N = HNO₃ B = NaOH
 S = H₂SO₄ 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
<u>Trap Blank - 6/8/06</u>	<u>W</u>								<u>1</u>
<u>MW-5-GW-6/8/06</u>	<u>W</u>			<u>6/8/06</u>	<u>09:30</u>		<input checked="" type="checkbox"/>		<u>13</u>
<u>MW-7-GW-6/8/06</u>	<u>W</u>			<u>6/8/06</u>	<u>11:00</u>		<input checked="" type="checkbox"/>		<u>13</u>

Comments / Remarks
 Please Email Results to
 Joe Morgan,
 Angela Long,
 Greg White
 or
 URS
Lab Filter Dissolved Iron

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: <u>[Signature]</u>	Date: <u>6/8/06</u>	Time: <u>12:00</u>	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by Commercial Carrier:	UPS	<u>FedEx</u>	Other:	Received by: <u>Kathly Binkley</u>	Date: <u>6-9-06</u> Time: <u>0910</u>
Temperature Upon Receipt: <u>8.144° C</u>	Custody Seals Intact? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		<u>(N/A)</u>		

Chevron California Region Analysis Request/Chain of Custody



Acct. # 11875 For Lancaster Laboratories use only Sample #: 4790061-68 SCR#: 242089
Grp # 992890

Facility #: <u>Chevron Sunol Pipeline</u> Site Address: <u>Milpitas 2.7 Calaveras Rd Sunol, CA</u> Chevron PM: _____ Lead Consultant: <u>URS</u> Consultant/Office: <u>URS - Oakland</u> Consultant Prj. Mgr.: <u>Joe Morgan</u> Consultant Phone #: <u>510-874-3201</u> Fax #: <u>510-874-3268</u> Sampler: <u>Greg White & Renee McFarlan</u> Service Order #: _____ <input type="checkbox"/> Non SAR: _____							Analyses Requested										Preservative Codes																
							Preservation Codes										H = HCl T = Thiosulfate N = HNO ₃ B = NaOH S = H ₂ SO ₄ O = Other																
							Total Number of Containers: _____ Grab: _____ Composite: _____ BTEX: <input checked="" type="checkbox"/> MTBE: <input checked="" type="checkbox"/> 8260: <input checked="" type="checkbox"/> 8021: <input type="checkbox"/> BTEX Only TPH 8015 MOD: GRO _____ TPH 8015 MOD DRO: <input type="checkbox"/> Silica Gel Cleanup: _____ Nitrate: _____ Ferric Iron: _____ Ferrous Iron: _____ Manganese: _____ Sulfate/Alkalinity (with barium): _____ Dissolved Iron → Lab Filter: _____ TDS: _____ Methane: _____ Ethanol & Methanol: _____										<input type="checkbox"/> J value reporting needed <input type="checkbox"/> Must meet lowest detection limits possible for 8260 compounds 8021 MTBE Confirmation <input type="checkbox"/> Confirm highest hit by 8260 <input type="checkbox"/> Confirm all hits by 8260 <input type="checkbox"/> Run ___ oxy's on highest hit <input type="checkbox"/> Run ___ oxy's on all hits																
																	Comments / Remarks Please Email Results to Joe Morgan, Anyak Liang, Greg White of URS <u>Lab Filter Dissolved Iron</u>																
Field Point Name	Matrix	Repeat Sample	Top Depth	Year Month Day	Time Collected	New Field Pt.	Grab	Composite	Total Number of Containers	BTEX	MTBE	8260	8021	BTEX Only	TPH 8015 MOD	GRO	TPH 8015 MOD DRO	Silica Gel Cleanup	Nitrate	Ferric Iron	Ferrous Iron	Manganese	Sulfate/Alkalinity (with barium)	Dissolved Iron → Lab Filter	TDS	Methane	Ethanol & Methanol						
<u>Trip Blank - 6/8/06</u>	<u>W</u>									<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>																			
MW-1-GW-6/8/06																																	
<u>MW-1-GW-6/8/06</u>	<u>W</u>			<u>6/8/06</u>	<u>13:40</u>		<u>X</u>		<u>13</u>	<u>X</u>	<u>X</u>								<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>				
Turnaround Time Requested (TAT) (please circle) (STD. TAT) 24 hour 72 hour 48 hour 4 day 5 day							Relinquished by: <u>[Signature]</u> Date: <u>6/8/06</u> Time: <u>14:00</u>			Received by: _____ Date: _____ Time: _____																							
Data Package Options (please circle if required) QC Summary Type I - Full Type VI (Raw Data) <input type="checkbox"/> Coelt Deliverable not needed WIP (RWQCB) Disk							Relinquished by: _____ Date: _____ Time: _____			Received by: _____ Date: _____ Time: _____																							
Relinquished by Commercial Carrier: UPS <u>FedEx</u> Other: _____							Received by: <u>Kathy Binkley</u> Date: <u>6-9-06</u> Time: <u>9:10</u>			Temperature Upon Receipt: <u>8.1° + 4.0° C</u>			Custody Seals Intact? Yes No <u>(N/A)</u>																				

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 <u>limit of quantitation</u> , 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 quantitated 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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