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11:47 am, Nov 08, 2010

Alameda County Environmental Health **Eric Frohnapple**, **P.E.** Project Manager Marketing Business Unit Chevron Environmental Management Company 6111 Bollinger Canyon Road San Ramon, CA 94583 Tel (925) 543-5336 Fax (925) 543-2324 ericf@chevron.com

Alameda County Health Care Services 1131 Harbor Bay Parkway, Suite 250 Alameda, CA 94502-6577

Re: Former Chevron Service Station No. 21-1253 930 Springtown Road Livermore, California

l accept the **Third Quarter 2010 Groundwater Monitoring and Sampling Report and Annual Update** dated November 5, 2010.

I agree with the conclusions and recommendations presented in this document. The information included is accurate to the best of my knowledge, and appears to meet local agency and Regional Board guidelines. This **Third Quarter 2010 Groundwater Monitoring and Sampling Report and Annual Update** was prepared by Conestoga Rovers & Associates, upon whose assistance and advice I have relied.

This letter is submitted pursuant to the requirements of California Water Code Section 13267(b)(1) and the regulating implementation entitled Appendix A pertaining thereto.

I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge.

Sincerely,

Eric Indruggle

Eric Frohnapple, P.E. Project Manager

Attachment: Third Quarter 2010 Groundwater Monitoring and Sampling Report and Annual Update



5900 Hollis Street, Suite A Emeryville, California 94608 Telephone: (510) 420-0700 http://www.craworld.com

Fax: (510) 420-9170

November 5, 2010

Reference No. 060058

Mr. Jerry Wickham Alameda County Environmental Health Services (ACEH) 1131 Harbor Bay Parkway, Suite 250 Alameda, CA 94502

Re: Third Quarter 2010 Groundwater Monitoring and Sampling Report and Annual Update Former Texaco station 21-1253 930 Springtown Boulevard Livermore, California

Dear Mr. Jerry Wickham:

Conestoga-Rovers & Associates (CRA) is submitting this *Third Quarter 2010 Groundwater Monitoring and Sampling Report and Annual Update* on behalf of Chevron Environmental Management Company (Chevron) for the site referenced above (Figures 1 and 2). Groundwater monitoring and sampling was performed by Gettler-Ryan, Inc. (G-R) of Dublin, California. G-R's September 2, 2010 Groundwater Monitoring and Sampling Data Package is presented as Attachment A. G-R's first and second quarter 2010 groundwater monitoring reports were previously submitted to ACEH and uploaded to Geotracker. Current groundwater monitoring and sampling data are presented in Table 1. Lancaster Laboratories' September 3, 2010 *Analytical Results* is presented as Attachment B. Historical groundwater monitoring and sampling data are presented as Attachment C.

RESULTS OF 2010 MONITORING AND SAMPLING EVENTS

On February 22, 2010, May 24, 2010, and August 24, 2010, G-R monitored and sampled the site wells per the established schedule. Monitoring wells are divided into three different zones based on the screen intervals: shallow zone (wells MW-9, MW-11 and MW-14), intermediate zone (wells MW-10, MW-12, MW-13 and MW-16) and deep zone (well MW-15).

Results of the August 24, 2010 monitoring events indicate the following:

Groundwater Flow Direction

• Hydraulic Gradient

West-northwest 0.011 10.36 to 13.80 feet below grade

• Depth to Water

Equal Employment Opportunity Employer



November 5, 2010

	TABLE	A: 2010 H	YDROCAF	RBON CON	NCENTRATION	NS		
Location	Sample Date	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes		
		concentrations in micrograms per liter (µg/L)						
Groundz	vater ESLs ¹	100	1	40	30	20		
	2/22/2010	<50	< 0.5	< 0.5	<0.5	< 0.5		
MW-9	5/24/2010	6,200	9	5	470	110		
	8/24/2010	3,500	6	8	180	79		
	2/22/2010	3,600	9	2	61	10		
MW-10	5/24/2010	3,000	12	3	110	22		
	8/24/2010	1,300	< 0.5	<0.5	2	<0.5		
	2/22/2010	1,400	2	< 0.5	5	0.9		
MW-11	5/24/2010	1,700	1	<0.5	10	0.6		
	8/24/2010	2,000	6	2	9	5		
	2/22/2010	14,000	190	590	310	1,400		
<i>MW-12</i>	5/24/2010	17,000	150	530	320	1,400		
	8/24/2010	18,000	210	650	330	1,900		
	2/22/2010	13,000	630	600	22	960		
<i>MW-13</i>	5/24/2010	15,000	950	670	130	790		
	8/24/2010	13,000	810	710	76	660		
	2/22/2010	48,000	3,600	7,900	2,100	9,400		
MW-14	5/24/2010			0.31 foc	ot of LNAPL			
	8/24/2010			0.29 foc	ot of LNAPL			
	2/22/2010	66	< 0.5	3	1	6		
MW-15	5/24/2010	70	1	8	1	8		
	8/24/2010	<50	< 0.5	<0.5	<0.5	<0.5		
	2/22/2010	<50	< 0.5	< 0.5	< 0.5	<0.5		
<i>MW-16</i>	5/24/2010	<50	< 0.5	<0.5	< 0.5	<0.5		
	8/24/2010	68	< 0.5	<0.5	< 0.5	<0.5		

- 2 -

Results of the 2010 sampling events are presented below in Table A:

¹ Regional Water Quality Control Board, San Francisco Bay Region (RWQCB), Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater, Interim Final, November 2007, revised May 2008. – Table F-1a where groundwater is a potential drinking water source



November 5, 2010

Reference No. 060058

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CONCLUSIONS AND RECOMMENDATIONS

The results of ongoing groundwater monitoring and sampling at the site indicate the following:

- Based on similar depth to groundwater data in shallow, intermediate and deep monitoring wells it appears the three groundwater zones are hydraulically connected.
- Light non-aqueous phase liquid (LNAPL) was detected in well MW-14 during the second and third quarters.
- The highest dissolved hydrocarbon concentrations are detected in intermediate wells MW-12 and MW-13.
- Well MW-16, located across Springtown Boulevard, defines dissolved hydrocarbons to the northwest, and deep well MW-15 defines the vertical extent.
- Dissolved hydrocarbon concentrations in wells MW-10 through MW-13, MW-15, and MW-16 are stable or decreasing, and are fluctuating in well MW-9.

CRA recommends continuing semi-annual monitoring and sampling to establish hydraulic and hydrocarbon concentration trends. CRA also recommends performing surfactant-enhanced recovery treatment (SERT) on well MW-14 to remove LNAPL from beneath the site.

ANTICIPATED FUTURE ACTIVITIES

Groundwater Monitoring

G-R will monitor and sample site wells per the established schedule. CRA will submit a groundwater monitoring and sampling report.

Additional Activity

In a letter dated August 30, 2010, ACEH responded to CRA's July 22, 2010 *Pilot Test Work Plan* and requested a Draft Corrective Action Plan (CAP) be submitted. On October 7, 2010, CRA submitted a response letter stating that pilot testing surfactant is the most expeditious and efficient remedial course to extract recoverable LNAPL, and by eliminating LNAPL it will allow us to evaluate additional remedial options that could not be evaluated if LNAPL is present, such as in situ chemical oxidization. CRA will commence work upon receipt of regulatory approval of the work plan. After the pilot test is complete, CRA will evaluate additional remedial alternatives as a part of the requested Draft CAP, including the results of the pilot test.



November 5, 2010

Reference No. 060058

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Please contact Ms. Kiersten Hoey at (510) 420-3347 if you have any questions or require additional information.

Sincerely,

CONESTOGA-ROVERS & ASSOCIATES

Clist. Olk

Christine Orlowski

Branch Atville

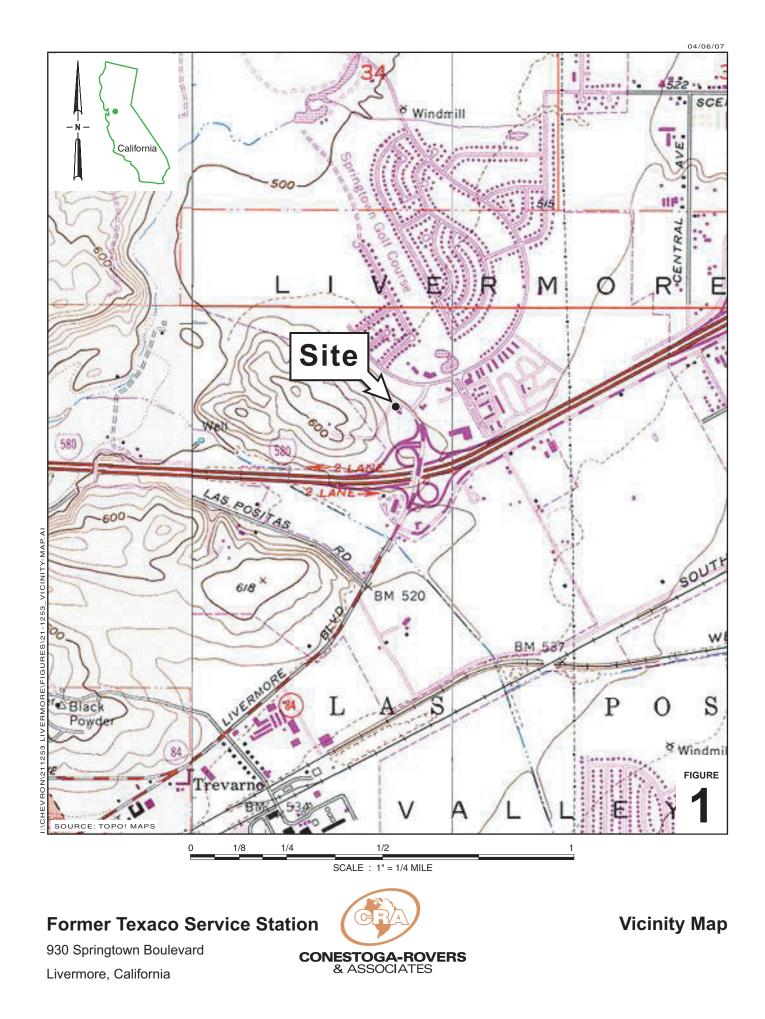


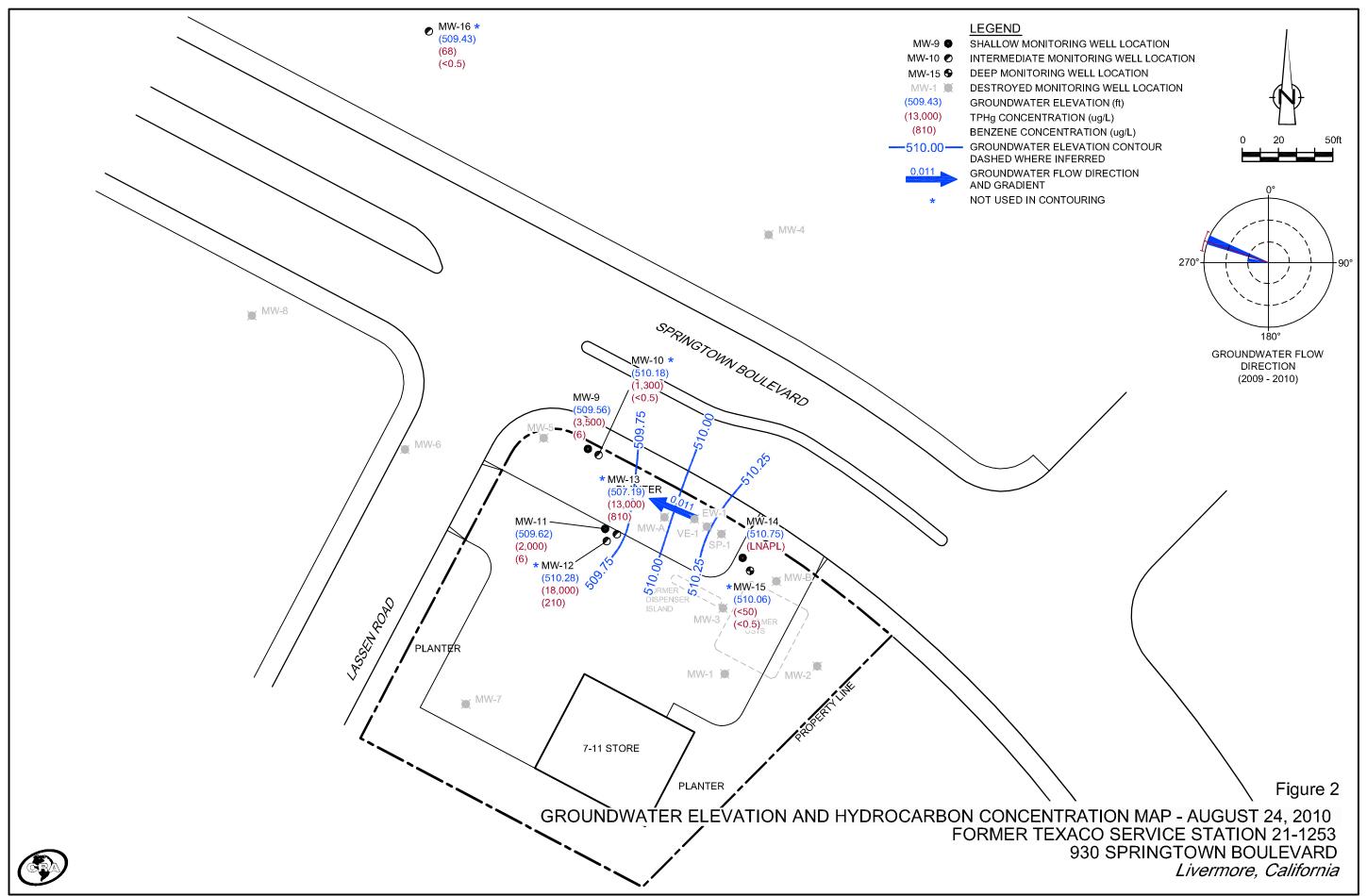
Brandon S. Wilken, PG 7564

CO/doh/9 Encl.

Figure 1	Vicinity Map
Figure 2	Groundwater Elevation and Hydrocarbon Concentrations Map
Table 1	Groundwater Monitoring and Sampling Data
Attachment A	Monitoring and Sampling Data Package
Attachment B	Laboratory Analytical Report
Attachment C	Historical Groundwater Monitoring and Sampling Data

cc: Mr. Eric Frohnapple, Chevron Mr. Joe Zadik FIGURES





60058-95(010)GN-WA001 OCT 29/2010

TABLE

TABLE 1 GROUNDWATER MONITORING AND SAMPLING DATA FORMER CHEVRON SERVICE STATION 21-1253 930 SPRINGTOWN BLVD, LIVERMORE, CALIFORNIA

							HYDROCARBONS	I	PRIMA	RY VO	CS
Location	Date	тос	DTW	GWE	LNAPLT	LNAPL REMOVED	TPH-GRO	В	Т	Ε	X
	Units	ft	ft	ft-amsl	ft	ft	µg∕L	µg∕L	µg∕L	µg∕L	µg∕L
MW-9	08/24/2010	523.14	13.58	509.56	-	-	3,500	6	8	180	79
MW-10	08/24/2010	523.25	13.07	510.18	-	-	1,300	<0.5	<0.5	2	<0.5
MW-11	08/24/2010	523.42	13.80	509.62	-	-	2,000	6	2	9	5
MW-12	08/24/2010	523.12	12.84	510.28	-	-	18,000	210	650	330	1,900
MW-13	08/24/2010	520.88	13.69	507.19	-	-	13,000	810	710	76	660
MW-14	08/24/2010 ^{1**}	520.88	10.36	510.75	0.29	-	-	-	-	-	-
MW-15	08/24/2010	520.87	10.81	510.06	-	-	<50	<0.5	<0.5	<0.5	<0.5
MW-16	08/24/2010	520.50	11.07	509.43	-	-	68	<0.5	<0.5	<0.5	<0.5
QA	08/24/2010	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5

Abbreviations and Notes:

TOC = Top of Casing

DTW = Depth to Water

GWE = Groundwater elevation

(ft-amsl) = Feet Above Mean sea level

ft = Feet

 $\mu g/L = Micrograms per Liter$

TPH-GRO = Total Petroleum Hydrocarbons - Gasoline Range Organics

- B = Benzene
- T = Toluene
- E = Ethylbenzene
- X = Xylene
- -- = Not available / not applicable
- <x = Not detected above laboratory method detection limit</pre>

TOC elevations were surveyed on July 22, 2009, by Morrow Surveying. Vertical datum is NAVD 88 from GPS

- * Observations.
- ** GWE was corrected for the presence of LNAPL; correction factor: [(TOC DTW) + (LNAPLT x 0.80)].
- 1 Not sampled due to the presence of LNAPL.

ATTACHMENT A

MONITORING AND SAMPLING DATA PACKAGE



TRANSMITTAL

September 2, 2010 G-R #385867

TO: Ms. Kiersten Hoey Conestoga-Rovers & Associates 5900 Hollis Street, Suite A Emeryville, CA 94608

FROM: Deanna L. Harding Project Coordinator Gettler-Ryan Inc. 6747 Sierra Court, Suite J Dublin, California 94568 RE: Former Texaco Service Station 930 Springtown Blvd. Livermore, California (Site #211253)

WE HAVE ENCLOSED THE FOLLOWING:

	COPIES	DATED	DESCRIPTION
N. C. N.	VIA PDF		Groundwater Monitoring and Sampling Data Package Third Quarter Event of August 24, 2010

COMMENTS:

Pursuant to your request, we are providing you with copies of the above referenced data for your use.

Please provide us the updated historical data prior to the next monitoring and sampling event for our field use.

Please feel free to contact me if you have any comments/questions.

Trans/211253

WELL CONDITION STATUS SHEET

· · ·		1 #211253 ngtown B	lvd.				Job # Event Date:	385867 K	24/10		
City:	Livermo	re, CA					Sampler:		KE		
WELL ID	Vault Frame Condition	Gasket/ O-Ring (M)missing	BOLTS (M) Missing (R) Replaced	Bolt Flanges B= Broken S= Stripped R=Retap	APRON Condition C=Cracked B=Broken G=Gone	Grout Seal (Deficient) inches from TOC	Casing (Condition prevents tight cap seal)	REPLACE LOCK Y / N	REPLACE CAP Y / N	WELL VAULT Manufacture/Size/ # of Bolts	Pictures Taken Yes / No
mu-q	OK-						~~~~>	n	n	Emcoliz	
ma-10	ok-						\rightarrow				
mu-11	OK-						~~~>				
mu-12	ok-						~~>				
mar 13	ok-						>				
ma-14					>	33Ft Deficient	OK				
nu-15	ox-						>				
ma-16	OX-						~~>	1	\checkmark	V V	
							- 1				

Comments _____

STANDARD OPERATING PROCEDURE -GROUNDWATER SAMPLING

Gettler-Ryan Inc. (GR) field personnel adhere to the following procedures for the collection and handling of groundwater samples prior to analysis by the analytical laboratory. All work is performed in accordance with the GR Health & Safety Plan and all client-specific programs. The scope of work and type of analysis to be performed is determined prior to commencing field work.

Prior to sampling, the presence or absence of free-phase hydrocarbons is determined using an interface probe. Product thickness, if present, is measured to the nearest 0.01 foot and is noted in the field notes. In addition, all depth to water level measurements are collected with a static water level indicator and are also recorded in the field notes, prior to purging and sampling any wells.

After water levels are collected and prior to sampling, if purging is to occur, each well is purged a minimum of three well casing volumes of water using pre-cleaned pumps (stack, peristaltic or Grundfos), or disposable bailers. Temperature, pH and electrical conductivity are measured a minimum of three times during the purging (additional parameters such as dissolved oxygen, oxidation reduction potential, turbidity may also be measured, depending on specific scope of work.). Purging continues until these parameters stabilize.

Groundwater samples are collected using disposable bailers. The water samples are transferred from the bailer into appropriate containers. Pre-preserved containers, supplied by analytical laboratories, are used. When pre-preserved containers are not available, the laboratory is instructed to preserve the sample as appropriate. Duplicate samples are collected for the laboratory to use in maintaining quality assurance/quality control standards, as directed by the scope of work. The samples are labeled to include the job number, sample identification, collection date and time, analysis, preservation (if any), and the sample collector's initials. The water samples are placed in a cooler, maintained at 4°C for transport to the laboratory. Once collected in the field, all samples are maintained under chain of custody until delivered to the laboratory.

The chain of custody document includes the job number, type of preservation, if any, analysis requested, sample identification, date and time collected, and the sample collector's name. The chain of custody is signed and dated (including time of transfer) by each person who receives or surrenders the samples, beginning with the field personnel and ending with the laboratory personnel.

A laboratory supplied trip blank accompanies each sampling set. The trip blank is analyzed for some or all of the same compounds as the groundwater samples.

As requested by Chevron Environmental Management Company, the purge water and decontamination water generated during sampling activities is transported by IWM to Chemical Waste Management located in Kettleman Hills, California.

N;\California\forms\chevron-SOP-Sept. 2009



Client/Facility#: Site Address: City:	Chevron #211253 930 Springtown Blvd. Livermore, CA	Job Number: Event Date: Sampler:	385867 8124(10 KE	(inclusive)
Well ID Well Diameter Total Depth Depth to Water Depth to Water w Purge Equipment: Disposable Bailer Stainless Steel Bailer Stack Pump Suction Pump Grundfos Peristaltic Pump QED Bladder Pump Other:	xVFe = v/ 80% Recharge ((Height of Water Colu Sampling E Disposable	mn x 0.20) + DTW]: <u>13,83</u> Equipment: Bailer <u></u> ailer ump er Pump	5"= 1.02 6"= 1.50 12"= 5.0 ft. Estimated Purge Volume: Z.3	30gal. (2400 hrs) (2400 hrs) ft ft ft ft ft ft ft gal gal
Start Time (purge Sample Time/Dat Approx. Flow Rat Did well de-water Time (2400 hr.) / OL &	re: <u>1045 / 8124</u> 10 Wa e:gpm. Sec ? <u>es</u> If yes, Time: <u>103</u>	diment Description:	Sunay Odor: (P) N Marches I.grt pal. DTW @ Sampling: D.O. ORP (mg/L) (mV)	act e 3.82

	LABORATORY INFORMATION									
SAMPLE ID	(#) CO	NTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES				
MW- G	6	x voa vial	YES	HCL	LANCASTER	TPH-GRO(8015)/BTEX(8260)				

COMMENTS:



Client/Facility#: Site Address: City:	Chevron #211 930 Springtov Livermore, C	wn Blvd.	Job Numbe Event Date: Sampler:	(5)		(inclusive)
Well ID Well Diameter Total Depth Depth to Water Depth to Water		Check if water VF <u>(((ج ج گ</u> (Height of Water Column)		0.02 1"= 0.04 2"= 0.66 5"= 1.02 6"= 0.50 ft. e = Estimated Purge Vol	0.17 3"= 0.38 1.50 12"= 5.80 ume: 26.4	
Purge Equipment: Disposable Bailer Stainless Steel Baile Stack Pump Suction Pump Grundfos Peristaltic Pump QED Bladder Pump Other:		Sampling Equij Disposable Baile Pressure Bailer Discrete Bailer Peristaltic Pump QED Bladder Pu Other:	er	Depth to Wate Hydrocarbon T Visual Confirm Skimmer / Abs Amt Removed Amt Removed Water Remove	ed: ict: hickness: ation/Description orbant Sock (circl from Skimmer: from Well:	ft ft : le orie) gal gal
Start Time (purge Sample Time/Da Approx. Flow Ra Did well de-wate Time (2400 hr.) 0955 1000	te: <u>7015 18</u> te: <u>2</u> g	<u>کبار</u> ی Water pm. Sedime		Sung 7 Odor: () N <u>Cleav</u> gal. DTW @ San D.O. (mg/L)	<u>S(-skt</u> npling: <u>1</u> ORP (mV)	3,88

LABORATORY INFORMATION									
(#) COI	NTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES				
6	x voa vial	YES	HCL	LANCASTER	TPH-GRO(8015)/BTEX(8260)				
									
	(#) COI	(#) CONTAINER	(#) CONTAINER REFRIG.	(#) CONTAINER REFRIG. PRESERV. TYPE					

COMMENTS:



Client/Facility#: Site Address: City:	Chevron #211253 930 Springtown Blvd Livermore, CA	•	Job Number: Event Date: Sampler:	385867 8124(10 KE	(inclusive)
Well ID Well Diameter Total Depth Depth to Water Depth to Water Purge Equipment: Disposable Bailer Stainless Steel Baile Stack Pump Suction Pump Grundfos Peristaltic Pump QED Bladder Pump Other:	2.85 xVF(c w/ 80% Recharge [(Height of W Di pr pr Di Pr Di Di Pr Qi Qi Qi	Volume Factor (heck if water column	VF) 4"= 0.66 a is less then 0.50 x3 case volume = E	5"= 1.02 6"= 1.5 ft. Estimated Purge Volume Time Started: Time Completed: Depth to Product: Depth to Water: Hydrocarbon Thicl Visual Confirmatio Skimmer / Absorb Amt Removed from Water Removed:	e: <u>5.6</u> gal. (2400 hrs) (2400 hrs) ft ft kness; ft
Start Time (purge Sample Time/Da Approx. Flow Ra Did well de-wate Time (2400 hr.)	te:gpm.	Weather Conv Water Color: Sediment Des 1058 Volum Conductivity (µmhos/cm µs) 1217	Claudy scription:	light -	- <u>odevate</u> ling: <u>14,03</u> ORP (mV)

	LABORATORY INFORMATION										
	SAMPLE	ID	(#) COI	NTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES			
	MW-	h	6	x voa vial	YES	HCL	LANCASTER	TPH-GRO(8015)/BTEX(8260)			
L											
\vdash						·					
\vdash											
-											
\vdash											
L			L								

COMMENTS:

Add/Replaced Bolt:



Client/Facility#:	Chevron #211253	Job Number:	385867	
Site Address:	930 Springtown Blvd.	Event Date:	8124/10	– (inclusive)
City:	Livermore, CA	Sampler:	KE	
Well ID Well Diameter Total Depth Depth to Water Depth to Water Disposable Bailer Stainless Steel Baile Stack Pump Suction Pump Grundfos Peristaltic Pump QED Bladder Pump Other:	12.84 ft. Check if water colum 13.17 xVF Check if water colum w/ 80% Recharge [(Height of Water Column x 0.20) Sampling Equipment Disposable Bailer	or (VF) 4"= 0.66 mn is less then 0.50 _ x3 case volume = 1) + DTW]: <u>15.55</u>	5 5"= 1.02 6"= 1.50 12"= 5.80 ft. Estimated Purge Volume: <u>こっ</u> こ	gal. (2400 hrs) (2400 hrs) ft ft ft ft ft ft ft
Start Time (purge Sample Time/Da Approx. Flow Ra Did well de-water (2400 hr.))22 1225 (229	te: 1245 / 8/24/10 Water Colo te: 2 gpm. Sediment D	r: <u>() eav</u> escription:	Sunny Odor: VN Strow gal. DTW @ Sampling: D.O. ORP (mg/L) (mV)	<u>19</u> 3,11

SAMPLE ID	(#) CON	TAINED	DEEDIO	ABORATORY IN		
		ITAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW- (Z	6	x voa vial	YES	HCL	LANCASTER	TPH-GRO(8015)/BTEX(8260)
MMENTS:						5.

COMMENTS:



Client/Facility#: Site Address: City: Well ID Well Diameter Total Depth	MW- (3) 4 36,66,65,610	Job Number: Event Date: Sampler: Date Monitored: Volume 3/4"= 0.0 Factor (VF) 4"= 0.0	824/10 KE 824/10 02 1"=0.04 2"=0.17 3	(inclusive)
	13.69 ft. Cher 22.97 xVFC() // 80% Recharge [(Height of Wate		= Estimated Purge Volume:	<u>5, 4</u> gal. (2400 hrs)
Purge Equipment: Disposable Bailer Stainless Steel Bailer Stack Pump Suction Pump Grundfos Peristaltic Pump QED Bladder Pump Other:	Dispo Press Discro Perist QED Other	biling Equipment: psable Bailer sure Bailer ete Bailer kaltic Pump Bladder Pump	Time Completed: Depth to Product: Depth to Water: Hydrocarbon Thickness: Visual Confirmation/Desc Skimmer / Absorbant Soc Amt Removed from Skim Amt Removed from Skim Water Removed: Product Transferred to:	(2400 hrs) ft
Start Time (purge) Sample Time/Dat Approx. Flow Rat Did well de-water	e: <u>200/8/241</u> 00 e: <u>2</u> gpm.	Weather Conditions: Water Color: <u>Cleav</u> Sediment Description: Volume:	Sunry Odor: ()/ N <u>Str</u> Clear gal. DTW @ Sampling:	13,82
Time (2400 hr.) //28 //36 	Volume (gal.) pH (µ <u>/6</u> 7-83 <u>32</u> 7.73 <u>-46</u> 7.66	$\begin{array}{c} \text{Conductivity} \\ \text{mhos/cm} - \underline{(5)} \\ 1238 \\ 1251 \\ 1255 \\ 21.4 \\ \end{array}$	D.O. ORF (mg/L) (mV	

		l	ABORATORY IN	FORMATION	
SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW- /	💪 x voa vial	YES	HCL	LANCASTER	TPH-GRO(8015)/BTEX(8260)
		·			

COMMENTS:

2



Client/Facility#:	Chevron #211	1253	Job Number:	385867	
Site Address:	930 Springtov		Event Date:	8/24/10	(inclusive)
City:	Livermore, C	Α	Sampler:	KE	
Well ID	MW-@@/	14	Date Monitored:	8/24/10	
Well Diameter	4 in.		Volume 3/4"= 0.0		0.17 3"= 0.38
Total Depth	14,44 ft.		Factor (VF) 4"= 0.6		
Depth to Water	10.36 ft.	Check if wate	r column is less then 0.5	0 ft.	·
·			x3 case volume =		me: gal
Depth to Water v			x 0.20) + DTW]:		
·	-	Δ		Time Started:	(2400 hrs)
Purge Equipment:		Sampling Equi	ipment:	Time Complete	d:(2400 hrs)
Disposable Bailer		Disposable Bail	er		ct:_ <u>/0.07ft</u>
Stainless Steel Bailer	r	Pressure Bailer			: <u>/0,36</u> ft hickness: 0,29 ft
Stack Pump		Discrete Bailer		Visual Confirma	ation/Description:
Suction Pump		Peristaltic Pump	0	davk	Yellow
Grundfos		QED Bladder P	omb	Amt Removed	orbant Sock (circle one) rom Skimmer: gal
Peristaltic Pump		Other:	<u> </u>	Amt Removed 1	rom Well: gal
QED Bladder Pump				Water Removed	d:
Other:	<u> </u>		\backslash	Floduce mansie	ineu io
Approx. Flow Ra	te: /	gpm. Sedim	her Conditions: r Color: nent Description:	_Odor: Y / N	apling:
Start Time (purge Sample Time/Da Approx. Flow Ra Did well de-water (2400 hr.)	te: /	Water	r Color: nent Description: _ Volume: vity Temperature	_Odor: Y / N gal. DTW @ San D.O. (mg/L)	orpling: ORP (mV)
Sample Time/Da Approx. Flow Ra Did well de-water (2400 hr.)	te: / te:	gpm. Sedim yes, Time: pH Conductiv (µmhos/cm	r Color: nent Description: _ Volume: vity Temperature - μS) (C / F) DRY INFORMATION	.gal. DTW @ San	ORP
Sample Time/Da Approx. Flow Ra Did well de-water (2400 hr.)	te: // te: // // // ////////////////////////////	Water gpm. Sedim yes, Time: pH Conductiv (µmhos/cm	r Color: nent Description: Vity Temperature - μS) (C / F) DRY INFORMATION	gal. DTW @ San	ORP (mV)
Sample Time/Da Approx. Flow Ra Did well de-water (2400 hr.)	te:/ te:	gpm. Sedim yes, Time: pH Conductiv (µmhos/cm	r Color: nent Description: Volume: vity Temperature - μS) (C / F) DRY INFORMATION	gal. DTW @ San	ORP (mV)
Sample Time/Da Approx. Flow Ra Did well de-water (2400 hr.)	te: // te: // // // ////////////////////////////	Water gpm. Sedim yes, Time: pH Conductiv (µmhos/cm	r Color: nent Description: Vity Temperature - μS) (C / F)	gal. DTW @ San D.O. (mg/L)	ORP (mV)
Sample Time/Da Approx. Flow Ra Did well de-water (2400 hr.)	te: // te: // // // ////////////////////////////	Water gpm. Sedim yes, Time: pH Conductiv (µmhos/cm	r Color: nent Description: Vity Temperature - μS) (C / F)	gal. DTW @ San D.O. (mg/L)	ORP (mV)
Sample Time/Da Approx. Flow Ra Did well de-water (2400 hr.)	te: // te: // // // ////////////////////////////	Water gpm. Sedim yes, Time: pH Conductiv (µmhos/cm	r Color: nent Description: Vity Temperature - μS) (C / F)	gal. DTW @ San D.O. (mg/L)	ORP (mV)
Sample Time/Da Approx. Flow Ra Did well de-water (2400 hr.)	te: // te: // // // ////////////////////////////	Water gpm. Sedim yes, Time: pH Conductiv (µmhos/cm	r Color: nent Description: Vity Temperature - μS) (C / F)	gal. DTW @ San D.O. (mg/L)	ORP (mV)
Sample Time/Da Approx. Flow Ra Did well de-water (2400 hr.)	te: // te: // // // ////////////////////////////	Water gpm. Sedim yes, Time: pH Conductiv (µmhos/cm	r Color: nent Description: Vity Temperature - μS) (C / F)	gal. DTW @ San D.O. (mg/L)	ORP (mV)
Sample Time/Da Approx. Flow Ra Did well de-water (2400 hr.)	te: // te: // // // ////////////////////////////	Water gpm. Sedim yes, Time: pH Conductiv (µmhos/cm	r Color: nent Description: Vity Temperature - μS) (C / F)	gal. DTW @ San D.O. (mg/L)	ORP (mV)
Sample Time/Da Approx. Flow Ra Did well de-water (2400 hr.)	te: // te: // // // ////////////////////////////	Water gpm. Sedim yes, Time: pH Conductiv (µmhos/cm	r Color: nent Description: Vity Temperature - μS) (C / F)	gal. DTW @ San D.O. (mg/L)	ORP (mV)
Sample Time/Da Approx. Flow Ra Did well de-water (2400 hr.)	te: // te: // // // ////////////////////////////	Water gpm. Sedim yes, Time: pH Conductiv (µmhos/cm	r Color: nent Description: Vity Temperature - μS) (C / F)	gal. DTW @ San D.O. (mg/L)	ORP (mV)



Client/Facility#:	Chevron #21125	3	Job Number:	385867	
Site Address:	930 Springtown	Blvd.	Event Date:	8/24/10	(inclusive)
City:	Livermore, CA		Sampler:	KE	
Well ID	MW-15		Date Monitored:	8/24/10	
Well Diameter	<u>4</u> in. <u>45.95</u> ft.	Volur			= 0.38
Total Depth Depth to Water	<u>45,75 ft.</u> 10,81 ft.	Check if water colun	r (VF) 4"= 0.66		'= 5.80
Deptil to Water		106 = 23.1	x3 case volume = I	π. Estimated Purge Volume:	2. Sal
Depth to Water	w/ 80% Recharge [(Heig				
Purge Equipment: Disposable Bailer Stainless Steel Bailer Stack Pump Suction Pump Grundfos Peristaltic Pump QED Bladder Pump Other:	r	Sampling Equipment: Disposable Bailer Pressure Bailer Discrete Bailer Peristaltic Pump QED Bladder Pump Other:		Time Started: Time Completed: Depth to Product: Depth to Water: Hydrocarbon Thickness: Visual Confirmation/Desc Skimmer / Absorbant Soc Amt Removed from Skimn Amt Removed from Well: Water Removed: Product Transferred to:	ription: k (circle one) mer: gal
Start Time (purge		Weather Co		Sunny	
Sample Time/Da Approx. Flow Rat	te: 0935 18/24			Odor: Y / 🚱	
Did well de-water		Sediment De		Clecev jal. DTW @ Sampling:	12.92
Time (2400 hr.) 0900 0970 0925	Volume (gal.) pH	$\begin{array}{c} \text{Conductivity}\\ (\mu\text{mhos/cm} \mu\text{s})\\ 1441\\ \hline 1435\\ \hline 7 1425\\ \hline \end{array}$	Temperature (O' F) 21.5 20.7 20.1	D.O. ORP (mg/L) (mV))

	LABORATORY INFORMATION									
SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES					
MW- 15	💪 x voa vial	YES	HCL	LANCASTER	TPH-GRO(8015)/BTEX(8260)					
					W					
					4					

COMMENTS:

Add/Replaced Bolt: _____



Client/Facility#:	Chevron #211253	Job Number:	385867	
Site Address:	930 Springtown Blvd.	Event Date:	8/24/10	— (inclusive)
City:	Livermore, CA	Sampler:	KE	
Well ID	MW-16	Date Monitored:	8/24/10	
Well Diameter Total Depth	$-\frac{4}{29,12}$ in.	Volume 3/4"= 0.02 Factor (VF) 4"= 0.66	1"= 0.04 2"= 0.17 3"=-0.34 5"= 1.02 6"= 1.50 12"= 5.80	
Depth to Water	11.07 ft. Check if water	column is less then 0.50 f	t.	J
Depth to Water	<u>18,05</u> xVF <u>- (66</u> = <u>11</u> v/ 80% Recharge [(Height of Water Column x		stimated Purge Volume: 35.7	gal.
Purge Equipment: Disposable Bailer Stainless Steel Bailer Stack Pump Suction Pump Grundfos Peristaltic Pump QED Bladder Pump Other:	Discrete Bailer Peristaltic Pump QED Bladder Pum Other:	np	Time Started: Time Completed: Depth to Product: Depth to Water: Hydrocarbon Thickness: Visual Confirmation/Description Skimmer / Absorbant Sock (circ Amt Removed from Skimmer: Amt Removed from Well: Water Removed: Product Transferred to:	ftftftftftftftftftftftftgalgalgalgalgal
Start Time (purge Sample Time/Dat Approx. Flow Rat Did well de-water	te: 0830 / 8 2410 Water 0 e: 2 gpm. Sedime	nt Description:	Swny Ddor: Y M ()eav al. DTW @ Sampling:	2.اله
Time (2400 hr.) 0 & 0 (c 0 & 12, 0 & 18	Volume (gal.) pH Conductivity $(\mu mhos/cm d)$ 12 7,00 1146 24 6.95 1153 36 6.88 1162		D.O. ORP (mg/L) (mV)	- - -

_					L	ABORATORY IN	FORMATION	
	SAMPLE	ID	(#) CO!	NTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
	MW-	16	6	x voa vial	YES	HCL	LANCASTER	TPH-GRO(8015)/BTEX(8260)
\vdash								
\vdash								
L								

COMMENTS:

Chevron California Region Analysis Request/Chain of Custody

Lancaster Laboratories		2			Ace	ct. #:_				Sam	ple #	ŧ				ies us			018	619
Facility #: SS#211253-OML G-R#38586 930 SPRINGTOWN BLVD., LN Site Address: IR Chevron PM: G-R, Inc., 6747 Sierra Could Consultant/Office: Deanna L. Harding (de Consultant Prj. Mgr.: 925-551-7555 Consultant Phone #: 925-551-7555 Sampler: Yal c fublu Sample Identification Mu-10 Mu-10 Mu-12 Mu-12 Mu-15 Mu-15 Mu-16	/ERMORE, C/ CR Consultant: rt, Sulte J; Du anna@grinc.c Fax #: P25-55 rn C Date Collected S & U 1 10 Date Collected S & U 1 10 Date Collected S & U 1 10 Date Collected Date Collected Date Collected Date Collected Date Collected Date Collected Date Collected Date Collected Date Collected Date Collected Date Collected D	AHK Ho	Composite		Vater Potable	Containers	××××××××××××××××××××××××××××××××××××××		TPH 8015 MOD DRO CI Silica Gel Cleanup									N = HNO ₃ S = H ₂ SO ₄ J value report Must meet low possible for 8 8021 MTBE Cor Confirm highe Confirm all hit Runoxy Runoxy Comments / F	T = Thio B = NaC O = Othe ing neede vest detect 260 composition st hit by 8 s by 8260 's on high 's on all his temarks	sulfate H er d tion limits punds 260 est hit ts
Turnaround Time Requested (TAT) (please cir 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 need WIP (RWQCB)	DF/EDD	Relinquished Relinquished Relinquished Relinquished UPS	d by: d by: d by:	L.	nercial	Carrie		a	X	Date 241 Date Date	Tir ///	me 43 me	Re		d by:	-R!	PAN Co) FRIDGE OU	Date - 24-1.p / Date 24/10 Date Date	Time 1437 Time 1115 Time
QC Summary Type I - Full Type VI (Raw Data) Coelt Deliverable not need		Relinquished	d by C Fe	dEx						Date	Tir	me C°	Red	Ceiveo	d by:	Intact?	2	Yes No		

ATTACHMENT B

LABORATORY ANALYTICAL REPORT





ANALYTICAL RESULTS

Prepared by:

Lancaster Laboratories 2425 New Holland Pike Lancaster, PA 17605-2425 Prepared for: Chevron

6001 Bollinger Canyon Rd L4310 San Ramon CA 94583

September 03, 2010

Project: 211253

Submittal Date: 08/27/2010 Group Number: 1209394 PO Number: 0015060774 Release Number: ROBB State of Sample Origin: CA

Client Sample Description QA-T-100824 NA Water MW-9-W-100824 Grab Water MW-10-W-100824 Grab Water MW-11-W-100824 Grab Water MW-12-W-100824 Grab Water MW-13-W-100824 Grab Water MW-15-W-100824 Grab Water MW-16-W-100824 Grab Water

Lancaster Labs (LLI)

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC
COPY TOCRA c/o Gettler-RyanAttn: Rachelle MunozELECTRONIC
COPY TOChevron c/o CRAAttn: Report ContactELECTRONIC
COPY TOCRAAttn: Kiersten Hoey





Questions? Contact your Client Services Representative Jill M Parker at (717) 656-2300 Ext. 1241

Respectfully Submitted,

Saial Sarah M. Snyder Senior Specialist





Page 1 of 1

Sample Description: QA-T-100824 NA Water Facility# 211253 Job# 385867 GRD 930 Springtown-Livermore T0600101353 QA

LLI Sample # WW 6071140 LLI Group # 1209394 Account # 10904

Project Name: 211253

Collected: 08/24/2010

Submitted: 08/27/2010 09:00 Reported: 09/03/2010 12:56 Discard: 10/04/2010 Chevron 6001 Bollinger Canyon Rd L4310 San Ramon CA 94583

SLQA-

CAT No.	Analysis Name		CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846	8260B	ug/l	ug/l	
10943	Benzene		71-43-2	N.D.	0.5	1
10943	Ethylbenzene		100-41-4	N.D.	0.5	1
10943	Toluene		108-88-3	N.D.	0.5	1
10943	Xylene (Total)		1330-20-7	N.D.	0.5	1
GC Vol	latiles	SW-846	8015B	ug/l	ug/l	
01728	TPH-GRO N. CA water	C6-C12	n.a.	N.D.	50	1

General Sample Comments

State of California Lab Certification No. 2501

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

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX 8260B Water	SW-846 8260B	1	D102431AA	08/31/2010 12:42	Ginelle L Feister	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D102431AA	08/31/2010 12:42	Ginelle L Feister	1
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	10242B20A	08/30/2010 15:53	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	10242B20A	08/30/2010 15:53	Marie D John	1





Page 1 of 1

Sample Description: MW-9-W-100824 Grab Water Facility# 211253 Job# 385867 GRD 930 Springtown-Livermore T0600101353 MW-9

LLI Sample # WW 6071141 LLI Group # 1209394 Account # 10904

Project Name: 211253

Collected: 08/24/2010 10:45 by H	JOITECLEU:	00/24/		10:45	DV	ΓĿ
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Submitted: 08/27/2010 09:00 Reported: 09/03/2010 12:56 Discard: 10/04/2010

Chevron 6001 Bollinger Canyon Rd L4310 San Ramon CA 94583

SLMW9

CAT No.	Analysis Name		CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846	8260B	ug/l	ug/l	
10943	Benzene		71-43-2	6	0.5	1
10943	Ethylbenzene		100-41-4	180	5	10
10943	Toluene		108-88-3	8	0.5	1
10943	Xylene (Total)		1330-20-7	79	0.5	1
GC Vol	latiles	SW-846	8015B	ug/l	ug/l	
				•	•	_
01728	TPH-GRO N. CA water	C6-C12	n.a.	3,500	250	5

General Sample Comments

State of California Lab Certification No. 2501

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

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX 8260B Water	SW-846 8260B	1	F102442AA	09/01/2010 15:21	Anita M Dale	1
10943	BTEX 8260B Water	SW-846 8260B	1	F102444AA	09/02/2010 01:32	Kelly E Keller	10
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F102442AA	09/01/2010 15:21	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	2	F102444AA	09/02/2010 01:32	Kelly E Keller	10
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	10242B20A	08/31/2010 01:01	Tyler O Griffin	5
01146	GC VOA Water Prep	SW-846 5030B	1	10242B20A	08/31/2010 01:01	Tyler O Griffin	5





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Sample Description: MW-10-W-100824 Grab Water Facility# 211253 Job# 385867 GRD 930 Springtown-Livermore T0600101353 MW-10

LLI Sample # WW 6071142 LLI Group # 1209394 Account # 10904

Project Name: 211253

	Collected:	08/2	4/2010	10:15	by	KE
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Submitted: 08/27/2010 09:00 Reported: 09/03/2010 12:56 Discard: 10/04/2010

Chevron 6001 Bollinger Canyon Rd L4310 San Ramon CA 94583

SLM10

CAT No.	Analysis Name		CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846	8260B	ug/l	ug/l	
10943	Benzene		71-43-2	N.D.	0.5	1
10943	Ethylbenzene		100-41-4	2	0.5	1
10943	Toluene		108-88-3	N.D.	0.5	1
10943	Xylene (Total)		1330-20-7	N.D.	0.5	1
67 1 1		GN3 046	00155	ug/l	ug/l	
GC VOI	latiles	SW-846	8015B	ug/1	ug/1	
01728	TPH-GRO N. CA water	C6-C12	n.a.	1,300	50	1

General Sample Comments

State of California Lab Certification No. 2501

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

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX 8260B Water	SW-846 8260B	1	F102442AA	09/01/2010 15:43	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F102442AA	09/01/2010 15:43	Anita M Dale	1
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	10242B20A	08/30/2010 21:00	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	10242B20A	08/30/2010 21:00	Marie D John	1





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Sample Description: MW-11-W-100824 Grab Water Facility# 211253 Job# 385867 GRD 930 Springtown-Livermore T0600101353 MW-11

LLI Sample # WW 6071143 LLI Group # 1209394 Account # 10904

Project Name: 211253

Collected:	08/24/2010	11:10	by KE
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Submitted: 08/27/2010 09:00 Reported: 09/03/2010 12:56 Discard: 10/04/2010

Chevron 6001 Bollinger Canyon Rd L4310 San Ramon CA 94583

SLM11

CAT No.	Analysis Name		CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846	8260B	ug/l	ug/l	
10943	Benzene		71-43-2	6	0.5	1
10943	Ethylbenzene		100-41-4	9	0.5	1
10943	Toluene		108-88-3	2	0.5	1
10943	Xylene (Total)		1330-20-7	5	0.5	1
GC Vol	latiles	SW-846	8015B	ug/l	ug/l	
01728	TPH-GRO N. CA water	C6-C12	n.a.	2,000	50	1

General Sample Comments

State of California Lab Certification No. 2501

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

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX 8260B Water	SW-846 8260B	1	F102442AA	09/01/2010 08:33	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F102442AA	09/01/2010 08:33	Anita M Dale	1
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	10242B20A	08/30/2010 21:21	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	10242B20A	08/30/2010 21:21	Marie D John	1





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Sample Description: MW-12-W-100824 Grab Water Facility# 211253 Job# 385867 GRD 930 Springtown-Livermore T0600101353 MW-12

LLI Sample # WW 6071144 LLI Group # 1209394 Account # 10904

Project Name: 211253

	Collected:	08/	24/	/2010	12:45	by	KE
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Submitted: 08/27/2010 09:00 Reported: 09/03/2010 12:56 Discard: 10/04/2010

6001 Bollinger Canyon Rd L4310 San Ramon CA 94583

SLM12

CAT No.	Analysis Name		CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846	8260B	ug/l	ug/l	
10943	Benzene		71-43-2	210	5	10
10943	Ethylbenzene		100-41-4	330	5	10
10943	Toluene		108-88-3	650	5	10
10943	Xylene (Total)		1330-20-7	1,900	5	10
GC Vol	latiles	SW-846	8015B	ug/l	ug/l	
01728	TPH-GRO N. CA water	C6-C12	n.a.	18,000	250	5

Chevron

General Sample Comments

State of California Lab Certification No. 2501

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

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX 8260B Water	SW-846 8260B	1	F102442AA	09/01/2010 09:16	Anita M Dale	10
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F102442AA	09/01/2010 09:16	Anita M Dale	10
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	10242B20A	08/30/2010 22:28	Tyler O Griffin	5
01146	GC VOA Water Prep	SW-846 5030B	1	10242B20A	08/30/2010 22:28	Tyler O Griffin	5





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Sample Description: MW-13-W-100824 Grab Water Facility# 211253 Job# 385867 GRD 930 Springtown-Livermore T0600101353 MW-13

LLI Sample # WW 6071145 LLI Group # 1209394 Account # 10904

Project Name: 211253

Collected:	08,	/24	/2010	12:00	by KE
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Submitted: 08/27/2010 09:00 Reported: 09/03/2010 12:56 Discard: 10/04/2010

Chevron 6001 Bollinger Canyon Rd L4310 San Ramon CA 94583

SLM13

CAT No.	Analysis Name		CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846	8260B	ug/l	ug/l	
10943	Benzene		71-43-2	810	5	10
10943	Ethylbenzene		100-41-4	76	5	10
10943	Toluene		108-88-3	710	5	10
10943	Xylene (Total)		1330-20-7	660	5	10
GC Vo	atiles	SW-846	8015B	ug/l	ug/l	
01728	TPH-GRO N. CA water	C6-C12	n.a.	13,000	250	5

General Sample Comments

State of California Lab Certification No. 2501

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

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX 8260B Water	SW-846 8260B	1	F102442AA	09/01/2010 09:59	Anita M Dale	10
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F102442AA	09/01/2010 09:59	Anita M Dale	10
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	10242B20A	08/30/2010 22:50	Tyler O Griffin	5
01146	GC VOA Water Prep	SW-846 5030B	1	10242B20A	08/30/2010 22:50	Tyler O Griffin	5





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Sample Description: MW-15-W-100824 Grab Water Facility# 211253 Job# 385867 GRD 930 Springtown-Livermore T0600101353 MW-15

LLI Sample # WW 6071146 LLI Group # 1209394 Account # 10904

Project Name: 211253

Collected:	08	/24/	/2010	09:35	bv	KE

Submitted: 08/27/2010 09:00 Reported: 09/03/2010 12:56 Discard: 10/04/2010

Chevron 6001 Bollinger Canyon Rd L4310 San Ramon CA 94583

SLM15

CAT No. Analysis Name		CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	SW-846	8260B	ug/l	ug/l	
10943 Benzene		71-43-2	N.D.	0.5	1
10943 Ethylbenzene		100-41-4	N.D.	0.5	1
10943 Toluene		108-88-3	N.D.	0.5	1
10943 Xylene (Total)		1330-20-7	N.D.	0.5	1
GC Volatiles	SW-846	8015B	ug/l	ug/l	
01728 TPH-GRO N. CA water	C6-C12	n.a.	N.D.	50	1

General Sample Comments

State of California Lab Certification No. 2501

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

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX 8260B Water	SW-846 8260B	1	F102442AA	09/01/2010 07:29	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F102442AA	09/01/2010 07:29	Anita M Dale	1
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	10242B20A	08/30/2010 21:43	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	10242B20A	08/30/2010 21:43	Marie D John	1





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Sample Description: MW-16-W-100824 Grab Water Facility# 211253 Job# 385867 GRD 930 Springtown-Livermore T0600101353 MW-16

LLI Sample # WW 6071147 LLI Group # 1209394 Account # 10904

Project Name: 211253

Collected:	08/	/24/	/2010	08:30	bv	KE

Submitted: 08/27/2010 09:00 Reported: 09/03/2010 12:56 Discard: 10/04/2010

Chevron 6001 Bollinger Canyon Rd L4310 San Ramon CA 94583

SLM16

CAT No.	Analysis Name		CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846	8260B	ug/l	ug/l	
10943	Benzene		71-43-2	N.D.	0.5	1
10943	Ethylbenzene		100-41-4	N.D.	0.5	1
10943	Toluene		108-88-3	N.D.	0.5	1
10943	Xylene (Total)		1330-20-7	N.D.	0.5	1
GC Vol	atiles	SW-846	8015B	ug/l	ug/l	
01728	TPH-GRO N. CA water	C6-C12	n.a.	68	50	1

General Sample Comments

State of California Lab Certification No. 2501

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

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX 8260B Water	SW-846 8260B	1	F102442AA	09/01/2010 07:08	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F102442AA	09/01/2010 07:08	Anita M Dale	1
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	10242B20A	08/30/2010 22:06	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	10242B20A	08/30/2010 22:06	Marie D John	1



Analysis Report

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

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Quality Control Summary

Client Name: Chevron Reported: 09/03/10 at 12:56 PM Group Number: 1209394

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

Laboratory Compliance Quality Control

Analysis Name	Blank <u>Result</u>	Blank <u>MDL</u>	Report <u>Units</u>	LCS <u>%REC</u>	LCSD <u>%REC</u>	LCS/LCSD <u>Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: D102431AA	Sample numb	er(s): 607	71140					
Benzene	N.D.	0.5	ug/l	102		79-120		
Ethylbenzene	N.D.	0.5	ug/l	106		79-120		
Toluene	N.D.	0.5	ug/l	105		79-120		
Xylene (Total)	N.D.	0.5	ug/l	109		80-120		
Batch number: F102442AA Benzene Ethylbenzene Toluene Xylene (Total)	Sample numb N.D. N.D. N.D. N.D. N.D.	er(s): 60 ⁷ 0.5 0.5 0.5 0.5 0.5	71141-6071 ug/l ug/l ug/l ug/l	147 89 89 88 88 86		79-120 79-120 79-120 80-120		
Batch number: F102444AA Ethylbenzene	Sample numb N.D.	er(s): 607 0.5	71141 ug/l	83		79-120		
Batch number: 10242B20A TPH-GRO N. CA water C6-C12	Sample numb N.D.	er(s): 605 50.	71140-6071 ug/l	147 100	100	75-135	0	30

Sample Matrix Quality Control

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

Analysis Name	MS <u>%REC</u>	MSD <u>%REC</u>	MS/MSD <u>Limits</u>	<u>RPD</u>	RPD <u>MAX</u>	BKG <u>Conc</u>	DUP <u>Conc</u>	DUP <u>RPD</u>	Dup RPD <u>Max</u>
Batch number: D102431AA	Sample	number(s)	: 6071140	UNSPK:	P07113	39			
Benzene	109	100	80-126	9	30				
Ethylbenzene	120	109	71-134	8	30				
Toluene	111	102	80-125	9	30				
Xylene (Total)	117	108	79-125	9	30				
Batch number: F102442AA Benzene Ethylbenzene Toluene Xylene (Total)	Sample 93 92 92 90	number(s) 96 95 95 92	80-126 71-134	-607114 3 3 3 2	7 UNSPF 30 30 30 30 30	ζ: 6071146			
Batch number: F102444AA	Sample	number(s)	: 6071141	UNSPK:	P07121	L3			
Ethylbenzene	98	97	71-134	1	30				
Batch number: 10242B20A TPH-GRO N. CA water C6-C12	Sample 124	number(s)	: 6071140 63-154	-607114	7 UNSPH	K: P069486			

*- Outside of specification

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.



Analysis Report

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

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Quality Control Summary

Client Name: Chevron Reported: 09/03/10 at 12:56 PM Group Number: 1209394

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.

	Name: UST VOCs by mber: D102431AA	7 8260B - Water		
Baten nu	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
6071140	98	98	98	100
Blank	99	97	99	100
LCS	99	99	99	102
MS	98	100	100	103
MSD	97	97	100	102
Limits:	80-116	77-113	80-113	78-113
	Name: UST VOCs by mber: F102442AA	7 8260B - Water		
Daten na	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
6071141	101	100	103	101
6071142	99	101	101	98
6071143	100	99	101	98
6071144	100	98	102	98
6071145	100	99	100	94
6071146	102	101	99	91
6071147	99	97	99	94
Blank	102	101	99	93
LCS	101	99	99	97
MS	102	101	98	96
MSD	99	100	99	96
Limits:	80-116	77-113	80-113	78-113
	Name: UST VOCs by	7 8260B - Water		
Batch nu	mber: F102444AA		T 1 10	
	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
Blank	99	99	99	93
LCS	100	100	100	97
MS	101	103	101	97
MSD	100	101	99	98
Limits:	80-116	77-113	80-113	78-113
	Name: TPH-GRO N. mber: 10242B20A Trifluorotoluene-F	CA water C6-C12		
6071140	91			

6071140 91 6071141 103 6071142 125 6071143 159* 6071144 155* 6071145 133

*- Outside of specification

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.





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Quality Control Summary

Client Name: Chevron Reported: 09/03/10 at 12:56 PM Group Number: 1209394

Surrogate Quality Control

6071146 6071147 Dlemb	91 93
Blank LCS LCSD	90 114 112
MS	130

Limits: 63-135

*- Outside of specification

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

Chevron Cal	fornia Reg	ion Analysis Request/	Chain of Custody
Lancaster Laboratories 082610-03	Acct. #:_)	For Lancaster Laboratories use	Group #: 018619
		Analyses Requested	Grp#1209394
Facility #: SS#211253-OML G-R#385867 Global ID# Site Address: 930 SPRINGTOWN BLVD., LIVERMORE, CA Chevron PM: IR Lead Consultant: CRAHK Hd Consultant/Office: Deanna L. Harding (deanna@grinc.com) Consultant Prj. Mgr.: Consultant Prj. Mgr.: Deanna L. Harding (deanna@grinc.com) Consultant Prj. Mgr.: Deanna L. Harding (deanna@grinc.com) Consultant Prj. Mgr.: Consultant Prine #925-551-7555 Fax #:925-551-7899 Sampler: Y/e E & Lan C Sample Identification Date Time Collected Collected Collected mu-10 /015 Y Mu-10 /015 Y mu-12 /1245 X Mu-15 X mu-13 1200 X X X X mu-16 0830 X 0830 X X X	 ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○	××	Preservative Codes H = HCl T = Thiosulfate N = HNO3 B = NaOH S = H ₂ SO4 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 Comments / Remarks Please forward the lab results directly to the Lead Consultant and cc: G-R.
Type VI (Raw Data) Coelt Deliverable not needed UPS	d by:	hin	Date Time 25/10 //15 Date Time Date Time 8/17/10 29:00

Lancaster Laboratories, Inc., 2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 (717) 656-2300 Copies: White and yellow should accompany samples to Lancaster Laboratories. The pink copy should be retained by the client. Explanation of Symbols and Abbreviations

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

RL	Reporting Limit	BMQL	Below Minimum Quantitation Level
N.D.	none detected	MPN	Most Probable Number
TNTC	Too Numerous To Count	CP Units	cobalt-chloroplatinate units
IU	International Units	NTU	nephelometric turbidity units
umhos/cm	micromhos/cm	ng	nanogram(s)
C	degrees Celsius	F	degrees Fahrenheit
meq	milliequivalents	Ib.	pound(s)
g	gram(s)	kg	kilogram(s)
ug	microgram(s)	mg	milligram(s)
ml	milliliter(s)	l	liter(s)
m3	cubic meter(s)	ul	microliter(s)

- < 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
- J estimated value The result is \geq the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).
- **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
basisResults 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. All other results are reported
on an as-received basis.

U.S. EPA CLP 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
- **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 \ge IDL
- E Estimated due to interference
- **M** Duplicate injection precision not met
- N Spike sample 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 meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

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.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL LANCASTER LABORATORIES BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF LANCASTER LABORATORIES AND (B) WHETHER LANCASTER LABORATORIES HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Lancaster Laboratories which includes any conditions that vary from the Standard Terms and Conditions, and Lancaster hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

ATTACHMENT C

HISTORICAL GROUNDWATER MONITORING AND SAMPLING DATA

Table 1						
Groundwater Monitoring Data and Analytical Results						
Former Texaco Service Station #211253						

930 Springtown Boulevard

Livermore, California										
WELL ID/ DATE	TOC* (ft.)	DTW (ft.)	GWE (msl)	SPHT S (ft.)	SPH REMOVED (gallons)	TPH-GRO (µg/L)	В (µg/L)	Т (µg/L)	E (µg/L)	Χ (μg/L)
MW-9										
07/23/091	523.14	13.00	510.14	0.00	0.00	5,200	4	5	310	100
11/09/09	523.14	12.70	510.44	0.00	0.00	240	4	4	2	5
02/22/10	523.14	11.93	511.21	0.00	0.00	<50	<0.5	<0.5	< 0.5	<0.5
05/24/10	523.14	12.22	510.92	0.00	0.00	6,200	9	5	470	110
MW-10										
$07/23/09^1$	522.76	12.59	510.17	0.00	0.00	16,000	220	440	440	660
11/09/09	522.76	12.30	510.46	0.00	0.00	2,800	1	2^{3}	30	30
02/22/10	522.76	11.52	511.24	0.00	0.00	3,600	9	2	61	10
05/24/10	522.76	11.82	510.94	0.00	0.00	3,000	12	3	110	22
MW-11										
07/23/091	523.25	13.05	510.20	0.00	0.00	5,400	25	28	62	66
11/09/09	523.25	12.73	510.52	0.00	0.00	1,100	3	0.6^{3}	2	2
02/22/10	523.25	11.96	511.29	0.00	0.00	1,400	2	<0.5	5	0.9
05/24/10	523.25	12.27	510.98	0.00	0.00	1,700	1	<0.5	10	0.6
MW-12										
$07/23/09^{1}$	523.42	13.03	510.41**	0.02	5.01 ²	48,000	340	3,100	1,300	7,600
11/09/09	523.42	12.78	510.64	0.00	0.00	18,000	290	560	22	3,100
02/22/10	523.42	12.13	511.29	0.00	0.00	14,000	190	590	310	1,400
05/24/10	523.42	12.38	511.04	0.00	0.00	17,000	150	530	320	1,400
MW-13										
07/23/091	523.12	12.75	510.37	0.00	0.00	52,000	760	6,200	980	13,000
11/09/09	523.12	12.51	510.61	0.00	0.00	12,000	340	1,300	16	1,700
02/22/10	523.12	11.87	511.25	0.00	0.00	13,000	630	600	22	960
05/24/10	523.12	12.10	511.02	0.00	0.00	15,000	950	670	130	790

Table 1						
Groundwater Monitoring Data and Analytical Results						
Former Texaco Service Station #211253						

930 Springtown Boulevard										
Livermore, California										
WELL ID/	TOC*	DTW	GWE	SPHT	SPH REMOVE	D TPH-GRO	В	Т	E	X
DATE	(ft.)	(ft.)	(msl)	(ft.)	(gallons)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
MW-14										
07/23/09 ¹	520.88	10.40	510.48	0.00	0.00	8,400	230	460	180	670
11/09/09	520.88	10.11	510.77	0.00	0.00	23,000	1,800	1,900	750	2,600
02/22/10	520.88	9.37	511.51	0.00	0.00	48,000	3,600	7,900	2,100	9,400
05/24/10	520.88	9.88	511.25**	0.31	0.00	NOT SAMPLEI	DUE TO THE	PRESENCE OF S	SPH	
MW-15										
$07/23/09^{1}$	520.87	10.33	510.54	0.00	0.00	2,500	6	17	16	320
11/09/09	520.87	10.18	510.69	0.00	0.00	20,000	110	590	370	4,900
02/22/10	520.87	9.48	511.39	0.00	0.00	66	<0.5	3	1	6
05/24/10	520.87	9.83	511.04	0.00	0.00	70	1	8	1	8
MW-16										
07/23/09 ¹	520.50	10.63	509.87	0.00	0.00	430	0.6	<0.5	<0.5	<0.5
11/09/09	520.50	10.31	510.19	0.00	0.00	180	<0.5	<0.5	<0.5	<0.5
02/22/10	520.50	9.63	510.87	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5
05/24/10	520.50	9.88	510.62	0.00	0.00	<50	<0.5	<0.5	< 0.5	<0.5
00/21/20			010002	0.000			1012	1012	1012	
QA										
07/23/09						<50	< 0.5	<0.5	<0.5	<0.5
11/09/09						<50	< 0.5	1^{4}	<0.5	<0.5
02/22/10						<50	< 0.5	<0.5	<0.5	<0.5
05/24/10						<50	<0.5	<0.5	<0.5	<0.5

EXPLANATIONS:

TOC = Top of Casing (ft.) = Feet DTW = Depth to Water GWE = Groundwater Elevation SPHT = Separate Phase Hydrocarbon Thickness (msl) = Mean Sea Level TPH = Total Petroleum Hydrocarbons GRO = Gasoline Range Organics B = Benzene T = Toluene E = Ethylbenzene X = Xylenes -- = Not Measured/Not Analyzed QA = Quality Assurance/Trip Blank (μg/L) = Micrograms per liter

* TOC elevations were surveyed on July 22, 2009, by Morrow Surveying. Vertical datum is NAVD 88 from GPS Observations.

** GWE has been corrected due to the presence of SPH; correction factor: [(TOC - DTW) + (SPHT x 0.80)].

ANALYTICAL METHODS:

TPH-GRO analyzed by EPA Method 8015 BTEX analyzed by EPA Method 8260

- ¹ Well development preformed.
- ² Product + water removed.

³ The Laboratory report indicates the result reported for toluene in this sample may be attributed to trace amounts of toluene recently found in HCl preserved vials from the manufacturer. The trip blank associated with this sample had a trace toluene detection of 1 ug/l. Please refer to the letter accompanying the lab report for further explanation.

⁴ The Laboratory report indicates the result reported for toluene in this trip blank may be attributed to trace amounts of toluene recently found in HCl preserved vials from the manufacturer. Please refer to the letter accompanying the lab report for further explanation.