August 8, 2006

Rita and Tony Sullins Don Sul Inc. 187 North L Street Livermore, CA 94550

Re: Transmittal Letter Site Location: Arrow Rentals 187 North L Street, Livermore, CA 94550

Dear Mr. Wickham:

On behalf of Rita and Tony Sullins, Don Sul Inc., Geological Technics Inc. (GTI) prepared the Semiannual Groundwater Monitoring, July 2006 that was sent to your office via electronic delivery per Alameda County's guidelines on August 9, 2006.

I declare under penalty of law that the information and/or recommendations contained in the above referenced document or report is true and correct to the best of my knowledge.

Respectfully submitted,

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Rita Sullins Property Owner Don Sul Inc. 187 North L Street Livermore, CA 94550

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### REPORT

Semiannual Groundwater Monitoring July 2006

> Arrow Rentals Service 187 North L St. Livermore, CA 94550

> > Project No. 1262.2 August 8, 2006

Prepared for: Tony & Rita Sullins Arrow Rentals Service 187 North L St. Livermore, CA 94550

<u>Prepared by:</u> Geological Technics Inc. 1101 7<sup>th</sup> Street Modesto, California 95354 (209) 522-4119

Geological Technics Inc.\_

1101 7<sup>th</sup> Street Modesto, California 95354 (209) 522-4119/Fax (209) 522-4227

August 8, 2006

Project No.: 1262.2 Project Name: Sullins (L St.)

Tony & Rita Sullins Arrow Rentals Service 187 North L Street Livermore, CA 94550

RE: Report: Semiannual Groundwater Monitoring, July 2006 Location: 187 North L Street, Livermore, CA 94550. (ACEH Fuel Leak Case No. RO0000394)

Dear Mr. & Ms. Sullins:

Geological Technics Inc. has prepared the following Report for the 2<sup>nd</sup> Quarter 2006 groundwater monitoring event performed on July 7, 2006, at the 187 North L Street property in Livermore. The groundwater data for the event indicate that the plume continues to display a trend of declining concentrations. However, an elevated core of gasoline contamination persists in the location of the former USTs/piping.

Five additional monitoring well sets have been approved for installation and this will allow a clearer understanding of the subsurface lithology. The borings will be installed pending UST Cleanup Fund Program cost pre-approval. Based on the results of this field effort an updated Site Conceptual Model (SCM) report will be developed utilizing the data from the borings.

If you have any questions, please do not hesitate to call me at (209) 522-4119.

Respectfully submitted,

Raynold I. Kablanow II, Ph.D. Vice President

cc: Jerry Wickham - ACEH USTCUF Chris Davidson - City of Livermore

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Geological Technics Inc.

1101 7<sup>th</sup> Street Modesto, California 95354 (209) 522-4119/Fax (209) 522-4227

### REPORT

### Semiannual Groundwater Monitoring July 2006

Arrow Rentals Services 187 North L St. Livermore, CA

> Project No. 1262.2 August 8, 2006

### **EXECUTIVE SUMMARY**

This report summarizes the results of the  $2^{nd}$  Quarter 2006 groundwater monitoring and sampling event that took place on July 7, 2006. The average groundwater elevation at the site was 448.37 feet above mean sea level (msl) and the groundwater flow was N76°W at 0.019 ft/ft for this event.

The analytical results of groundwater samples show that detectable concentrations of gasoline range hydrocarbons were present in all four of the site's groundwater monitoring wells for this event. The contamination in the wells continues to display a declining trend with a persistent core remaining in the vicinity of well W-1s (23,000 ug/l TPH-G). The fuel oxygenate compound MTBE was detected in off site down gradient well W-Es, but at an insignificant level (2.4 ug/l) when compared to the TPH-G plume located on site.

Geological Technics Inc. (GTI) submitted our May 26, 2006 "Additional Site Characterization" work plan addendum for five new multi-chambered tubing well sets. The ACEH issued approval of the work plan in their June 9, 2006 letter. The completion of this work will assist in completing the site conceptual model for the site. GTI recommends that the task be scheduled and implemented as soon as cost pre-approval is received from the UST Cleanup Fund.

### **1.0 GROUNDWATER MONITORING**

### 1.1 Hydrogeology of Site

The average groundwater elevation was 448.37 feet above mean sea level (msl) on July 7, 2006. This corresponds to approximately 29 feet below grade surface (bgs). In order to calculate a groundwater gradient for this event GTI utilized the well casing elevations presented in Environmental Sampling Services May 27, 2004 "Semiannual Groundwater Monitoring Event, April 2004" report for the subject site. These elevations were referenced to a City of Livermore datum. The groundwater gradient calculated for this monitoring event was 0.019 ft/ft flowing N76°W.

The gradient direction for the July 2006 monitoring event is shown in Figure 2: Groundwater Gradient Map Water Table Wells. The groundwater elevation data are summarized in Table 1, Appendix A.

### **1.2 Groundwater Sampling Procedure**

On July 7, 2006, Geological Technics Inc. (GTI) staff mobilized to the site to conduct groundwater monitoring of four of the site's monitoring wells. Before sampling was attempted, the wells were sounded for depth to water and then a clear disposable bailer was used to determine if floating product was present. No free product was noted for this event. The wells were purged of at least three well volumes of stagnant water using a dedicated Waterra check-ball assembly and ½ inch tubing or centrifugal pump. Purging continued until the temperature, conductivity, and pH of the groundwater stabilized (<10% variation in three consecutive readings), indicating that formation water representative of aquifer conditions was entering the wells. The multifunction monitoring equipment malfunctioned after the first well (W-Es) was purged and the remaining three wells (W-3s, W-Bs and W-1s) were subsequently purged of three well volumes without field measurements for pH, temperature or conductivity.

Once purging was complete, a water sample was collected from the Waterra tube. Care was taken to minimize sample agitation. Once the sample container was filled and capped, the bottle was inverted, tapped and checked for headspace bubbles. The sample container was identified and labeled with a unique designation, inserted into a foam holder and placed into an ice chest cooled to 4°C for transport to the laboratory. Disposable gloves were used by the technician to collect all samples and were changed with each sample collection.

A chain of custody document, listing all samples collected, accompanied the samples from field to laboratory, thereby providing a means to track the movement of and insure the integrity of the samples.

All well purge water was placed in a 55 gallon DOT approved container. These drums were properly labeled and will be stored on site until their proper disposition can be arranged.

Groundwater monitoring field logs are included in Appendix C.

### 1.3 Laboratory Analyses

The groundwater samples collected on July 7, 2006, were delivered to Entech Analytical Labs, Inc. of Santa Clara, California (Certification No. 2346) for analysis.

The groundwater samples were analyzed for:

- Benzene, Toluene, Ethyl Benzene and Xylene (BTEX) by EPA method 8260B
- Total Petroleum Hydrocarbons as Gasoline (TPH-G) by GC/MS
- Total Petroleum Hydrocarbons as Diesel (TPH-D) by EPA method 8015B
- Oxygenated Fuel Compounds (MTBE, DIPE, ETBE, TAME & TBA) by EPA method 8260B
- EDB and 1,2 DCA by EPA method 8260B

The results and detection limits for the above analyses are listed in Table 2 of Appendix A while the lab analytical results are presented in Appendix B.

As required under AB2886, the depth to groundwater and laboratory data were submitted electronically to GeoTracker on August 8, 2006 - confirmation numbers 5156036198 & 6181100308.

### 2.0 FINDINGS AND DISCUSSION

The results of the groundwater sample analyses indicate the following:

- Well W-1s contains significant levels of BTEX and TPH-G contamination.
- Well W-3s contains low levels of BTEX and TPH-G contamination.
- Well W-Bs contains elevated levels of BTEX and TPH-G contamination.
- Well W-Es did not contain BTEX and TPH-G contamination above the laboratory reporting limits. However, it did contain 2.4 ug/l MTBE.
- Figure 3 illustrates TPH-G concentration versus time in well W-1s (located in the vicinity of the core of the contaminant plume). With the exception of events in 1997 and 2001 the contaminant concentrations display a declining trend. The two peaks evident in Figure 3 suggest that significant contaminant mass is present although decades have past since the original USTs were removed.
- Figure 4 illustrates TPH-G concentration versus time in well W-3s (located down/cross gradient of the core of the plume). The contaminant concentrations show a declining trend.

- The direction of groundwater flow was westerly during the last two monitoring events conducted for the investigation in 2004 and now this 2006 event.
- Oxidation-Reduction Potential (ORP) and Dissolved Oxygen (DO) were measured (Table 3, Appendix B) and the results suggest that all four wells are within the halo of reaction depleted water caused by biodegradation of the contaminants.
- Figure 6 is a contour map indicating GTI's interpretation of the TPH-G plume on July 7, 2006. The groundwater plume is localized in the vicinity of the former USTs/piping trenches.

### 3.0 CONCLUSIONS AND RECOMMENDATIONS

### **Conclusions**

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- 1. Elevated concentrations of BTEX and TPH-G are present in a laterally limited (probably less then 300 foot radius) groundwater plume that is centered on well W-1s.
- 2. The 2.4 ug/l MTBE detected in down gradient well W-Es is insignificant in comparison to the BTEX and TPH-G plumes and may not actually be related to this plume.
- 3. The lateral extent of the TPH-G plume is defined to the west by well W-Es.
- 4. The center of the plume has not migrated beyond the source area providing evidence that the plume is degrading as it migrates laterally by advective flow.
- 5. The data shows that the core of the plume is fairly stable, with concentrations decreasing very slowly by either natural biodegradation causes or by dilution effects.

### Recommendations

- Maintain the current semiannual monitoring schedule.
- GTI submitted our May 26, 2006 "Additional Site Characterization" work plan addendum for five new multi-chambered tubing well sets. The ACEH issued approval of the work plan in their June 9, 2006 letter. GTI recommends that the task be implemented as soon as cost pre-approval is received from the UST Cleanup Fund.
- GTI submitted our June 28, 2006 "Dual Phase Extraction and Air Sparging Pilot Test" feasibility study work plan for ACEH approval. The work plan includes provisions for performing dual phase extraction and air sparging testing to determine the effectiveness of these remedial methods at the site. Upon regulatory approval of the work plan GTI recommends that the task be implemented as soon as cost pre-approval is received from the UST Cleanup Fund.

### 4.0 LIMITATIONS

This report was prepared in accordance with the generally accepted standard of care and practice in effect at the time Services were rendered. It should be recognized that definition and evaluation of environmental conditions is an inexact science and that the state or practice

Geological Technics Inc. Semiannual Groundwater Monitoring Report Project No. 1262.2 August 8, 2006

of environmental geology/hydrology is changing and evolving and that standards existing at the present time may change as knowledge increases and the state of the practice continues to improve. Further, that differing subsurface soil characteristics can be experienced within a small distance and therefore cannot be known in an absolute sense. All conclusions and recommendations are based on the available data and information.

The tasks proposed and completed during this project were reviewed and approved by the local regulatory agency for compliance with the law. No warranty, expressed or implied, is made.

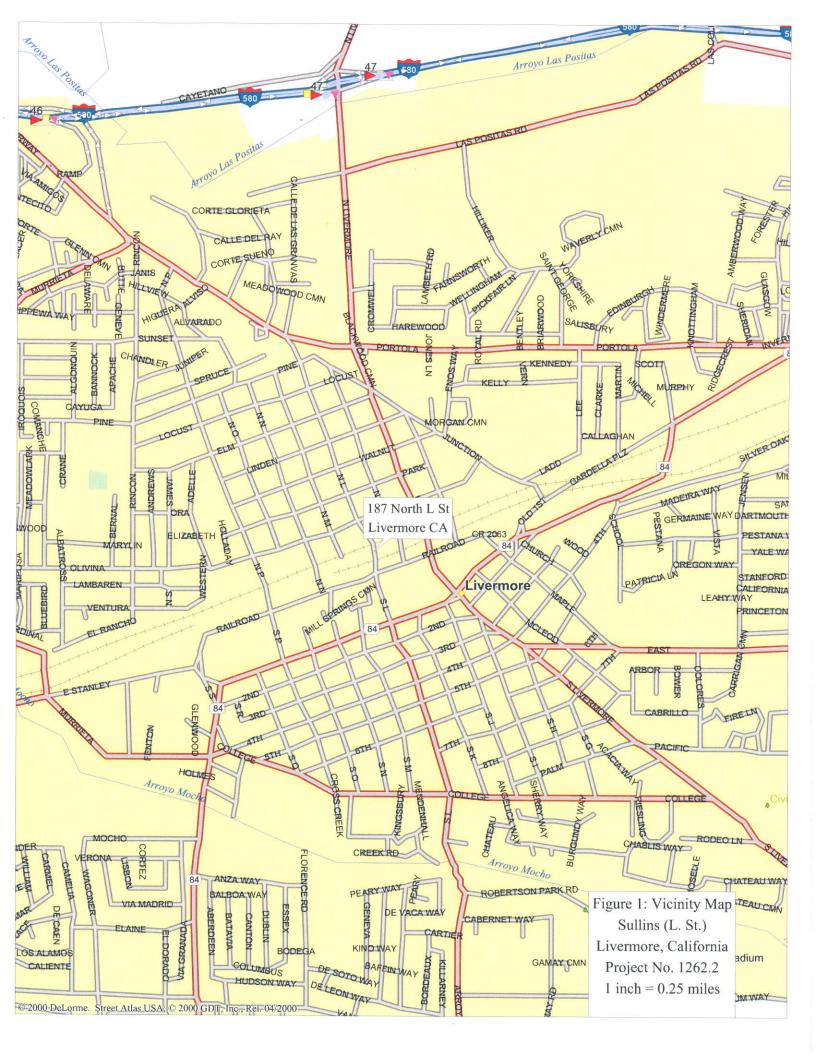
### 5.0 SIGNATURES & CERTIFICATION

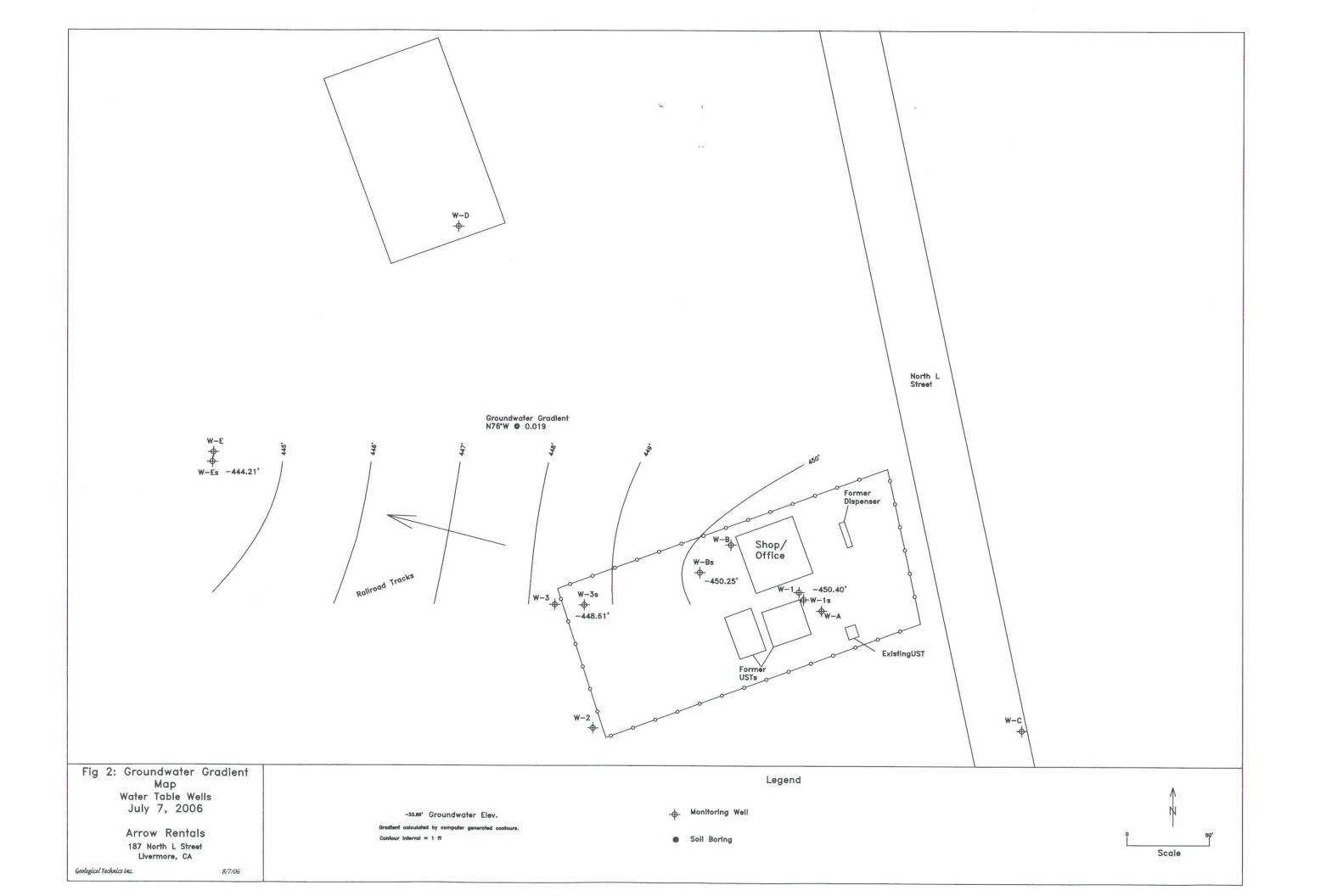
This report was prepared by:

Joseph D. Angulo Geologist

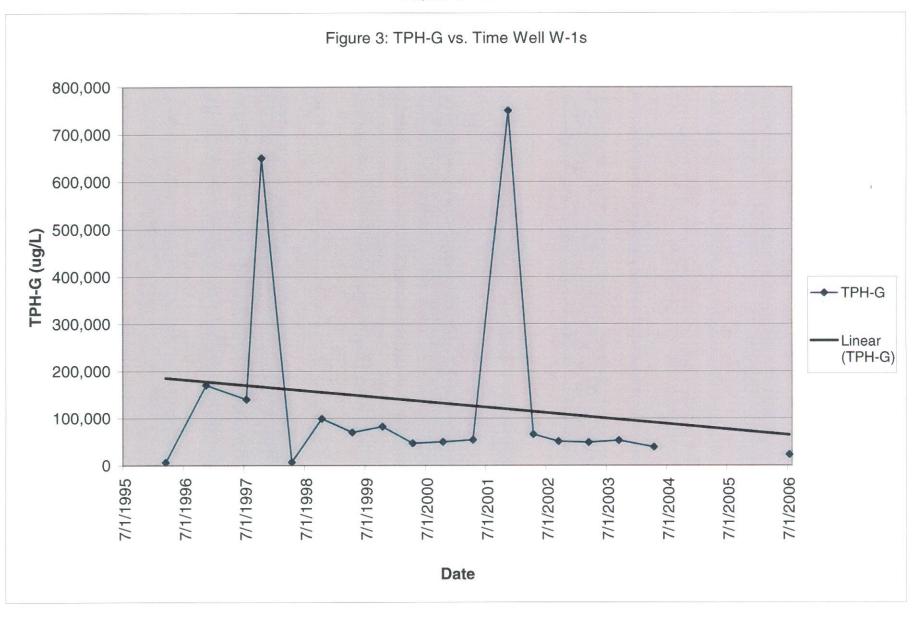


Raynold Kablanow II, Ph.D. California Professional Geologist #5234 Certified Hydrogeologist #42



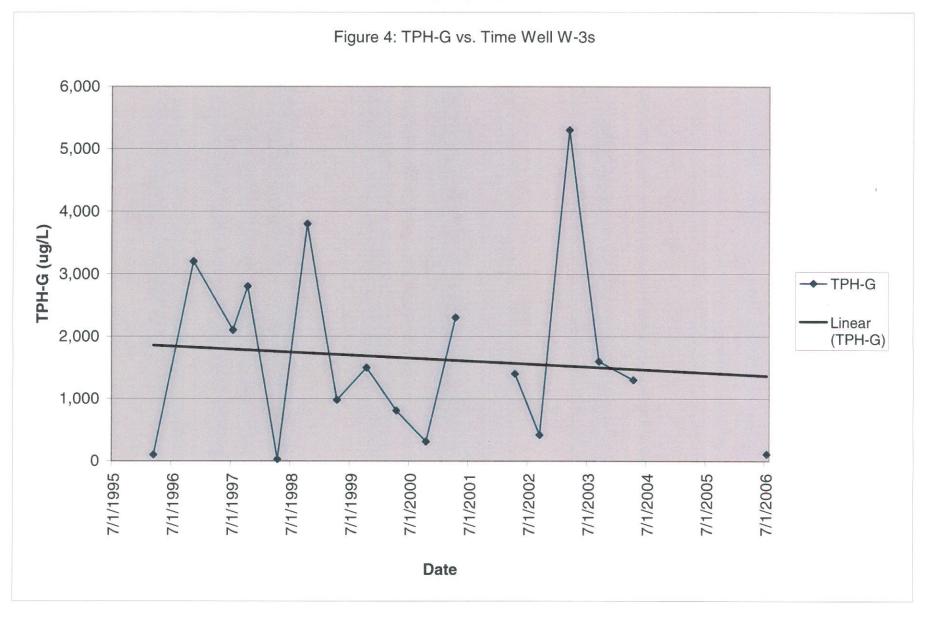


#### Arrow Rentals 187 North L Street Livermore, CA Project No. 1262.2



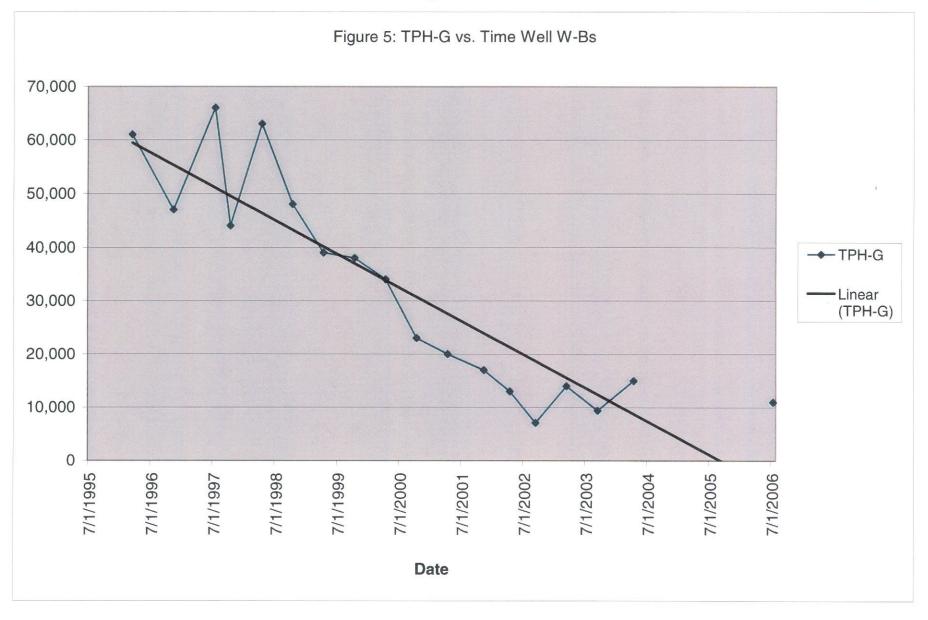
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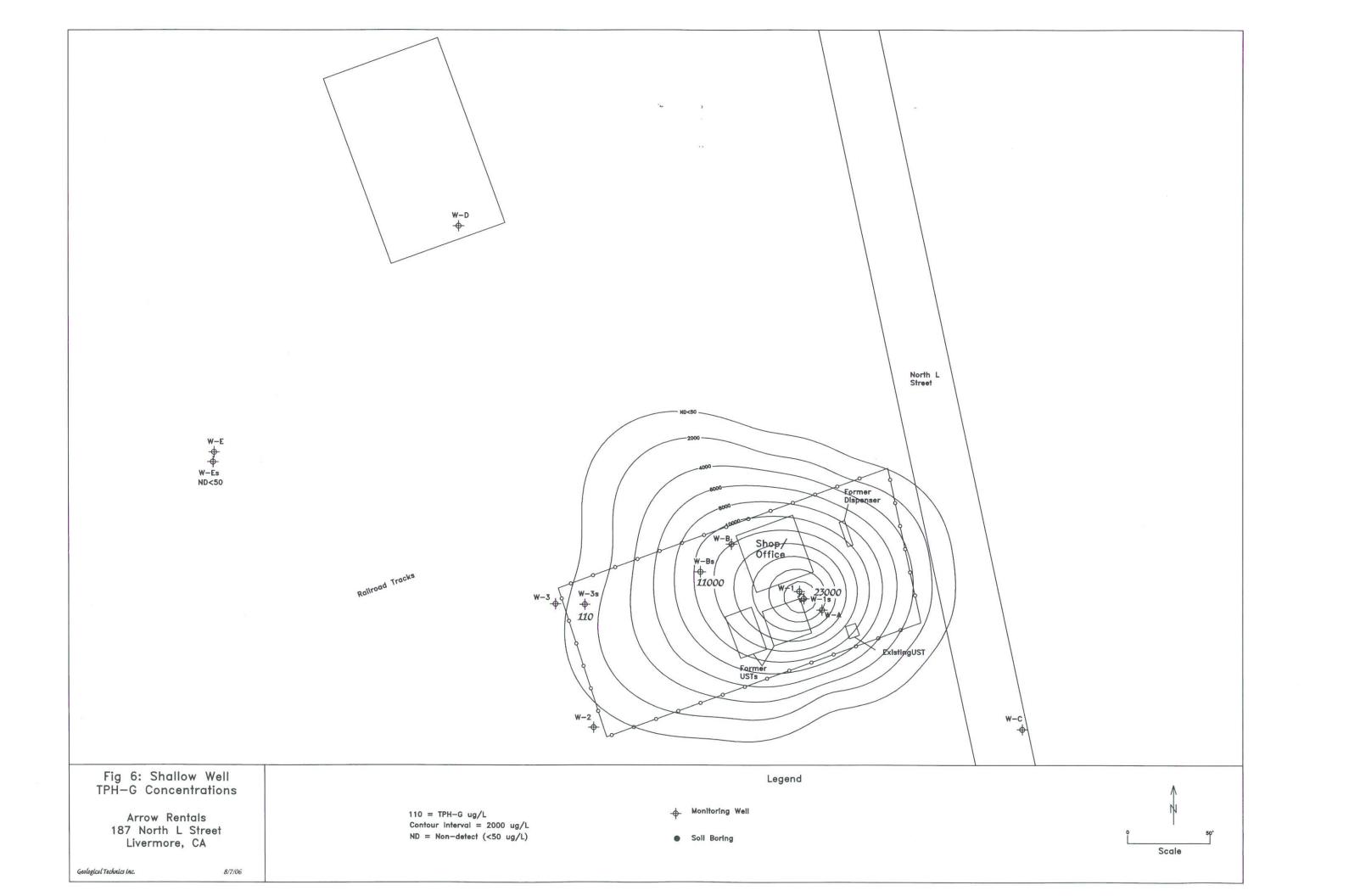
### Arrow Rentals 187 North L Street Livermore, CA Project No. 1262.2



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### Arrow Rentals 187 North L Street Livermore, CA Project No. 1262.2





### Appendix A

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**Summary Tables** 

#### Table 1: Summary of Groundwater Elevation and Gradient - Shallow Wells

Arrow Rentals 187 North L Street Livermore CA Project No. 1262.2

Date			Elevation of	Groundwater*		Avg. Elv.	Avg. DTW	Gradient	Bearing
		W-1s	W-3s	W-Bş	W-Es	(feet)	(feet)	(ft/ft)	
	top of casing	479.09	476.98	478.82	474.66				
4/29/2004		448.99	447.39	448.83	443.43	447.16	30.23	0.019	West
7/7/2006		450.40	448.61	450.25	444.21	448.37	29.02	0.019	N76°W
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Well casing elevation from Environmental Sampling Services 5/27/04 Groundwater Monitoring Report

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#### Table 2: Summary of Groundwater Analytical Data

#### Arrow Rentals 187 North L Street Livermore CA Project No. 1262.2

Weils	Date	ТРН	ТРН	Benzene	Toluene	Ethyl	Total	ΜΤΒΕ	ETBE	DIPE	TAME	ТВА	1,2 DCA	EDB
		Gasoline	Diesel	ug/L	ug/L	Benzene	Xylenes	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
		ug/L	ug/L			ug/L	ug/L							
114 4	0/00/4000							500						
W-1s	3/22/1996	6,400	-	580	470	85	1,100	<500	-	-	-	-	-	-
	11/22/1996	170,000	-	13,000	18,000	3,500	18,000	<10000	-	-	•	-	-	-
	7/15/1997	140,000	38,000	12,000	12,000	2,600	16,000	<800	-	-	-	-	-	-
	10/29/1997	650,000	180,000	14,000	19,000	7,800	35,000	<3000	-	-	-	-	-	-
	4/27/1998	6,700	2,200	410	250	77	870	<30		•	-		-	-
	10/23/1998	99,000	18,000	9,800	9,400	1,800	11,000	<600	-	-	-	-		-
	4/9/1999	70,000	24,000	6,500	7,000	1,800	8,900	360	-	-		-	•	-
	10/5/1999	82,000	60,000	5,500	4,500	2,500	14,000	<300	-	-	-		-	-
	4/5/2000	47,000	15,000	4,300	2,300	1,500	6,100	170	-	-	-	-	-	-
	10/26/2000	50,000	1,200	3,800	1,800	1,700	7,600	<50	-	-		-	-	-
	4/18/2001	54,000	6,800	5,200	1,800	1,500	7,000	<330	-	-	-	-	-	-
	11/13/2001	750,000	-	9,500	7,800	7,200	33,000	<2000	-	-	-		-	-
	4/30/2002	66,000	8,200	6,000	2,700	2,300	11,000	<1200		-	-	-	-	-
	9/30/2002	51,000	1,200	5,600	1,500	2,000	9,400	<1000	-	-	-	-	-	•
	3/19/2003	49,000	9,800	3,400	880	1,300	7,300	<500	-	-	-	-	-	-
	9/16/2003	53,000	24,000	4,100	1,200	1,400	6,600	<1000	-	-	-	-	-	-
	4/29/2004	39,000	5,900	3,700	1,200	810	4,700	<2500	-	-	-	-	-	•
	7/7/2006	23,000	<500	4,000	710	1,200	2,900	<100	<500	<500	<500	<1000	<50	<50
W-3s	3/22/1996	100	-	13	6.9	5.3	14	<5	-		-		-	-
	11/22/1996	3,200	-	270	29	63	100	<100	-	-	-	-	-	-
	7/15/1997	2,100	340	230	7	33	51	<20		-	-	-	-	-
	10/29/1997	2,800	750	630	31	71	69	<30	-	-	-	-	-	-
	4/27/1998	<50	<50	<0.5	<0.5	<0.5	<0.5	<3	-	-	-	-	-	-
	10/23/1998	3,800	1,000	500	28	90	37	35	-	-	-	-	-	-
	4/9/1999	980	430	240	4	37	3	<12	-	-	-	-	-	-
	10/5/1999	1,500	1,000	290	9.5	53	9.8	<6	-			-	-	•
	4/5/2000	810	320	150	3	9	5.7	<5	-	-		-	-	-
	10/26/2000	310	120	83	3.5	6.4	1.2	<5	-	-	-	-	-	-
	4/18/2001	2,300	1,600	320	8	16	7	<20	-	-	-	-	-	
	11/13/2001	-	-	-	-	-	-	-	-	-	-	-	-	-
	4/30/2002	1,400	490	320	5.5	24	5	<25	-		-	-	-	-
	9/30/2002	420	390	68	1.4	3.1	1.1	<5	-	-	-	-	-	-
	3/19/2003	5,300	1,500	920	24	140	27	<25	-	-	-	-		-
	9/16/2003	1,600	1,400	270	1.7	5.2	<0.5	5	-	-	-	•	-	-
	4/29/2004	1,300	400	210	5.1	23	4.5	<25	-	-	-	-	-	-
	7/7/2006	110	<500	44	0.77	<0.5	<0.5	<1	<5	<5	<5	<10	< 0.5	<0.5

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Wells	Date	TPH	TPH	Benzene	Toluene	Ethyl	Total	MTBE	ETBE	DIPE	TAME	TBA	1,2 DCA	EDB
		Gasoline	Diesel	ug/L	ug/L	Benzene	Xylenes	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
		ug/L	ug/L			ug/L	ug/L							
W-Bs	3/22/1996	61,000	-	9,800	8,000	2,200	11,000	<5000	-	-	-	-	-	-
	11/22/1996	47,000	-	5,100	3,100	1,400	7,800	<2500	-	-	-	-	-	-
	7/15/1997	66,000	17,000	7,800	4,900	1,900	10,000	<600	-	-	-	-	-	-
	10/29/1997	44,000	27,000	6,000	500	1,500	6,400	380	-	-	-	-	-	-
	4/27/1998	63,000	17,000	6,100	5,400	1,900	9,100	<600	-	-	-	-	-	-
	10/23/1998	48,000	9,600	6,700	1,200	1,500	6,200	<300	-	-	-	-	-	-
	4/9/1999	39,000	12,000	4,100	1,900	1,400	5,600	<300	-	-	-	-	-	-
	10/5/1999	38,000	7,300	3,800	390	1,600	5,900	<60	-	-	-	-	-	-
	4/5/2000	34,000	9,600	3,500	1,200	1,400	4,700	<150	-	-	•	-	-	-
	10/26/2000	23,000	650	2,500	210	1,100	2,600	150	-	-	-	-	-	•
	4/18/2001	20,000	2,500	2,400	180	880	1,800	<20	-	-	-	-	•	-
	11/13/2001	17,000	3,600	2,000	130	1,100	1,700	<150	-	-	-	-	-	-
	4/30/2002	13,000	2,300	1,000	38	660	360	<170	-	-	-	-	-	-
	9/30/2002	7,100	1,500	940	28	260	93	<250	-	-	-	-		-
	3/19/2003	14,000	3,900	1,200	π	820	900	<120	-	-	-	-	-	-
	9/16/2003	9,400	1,900	1,300	36	580	160	<150	-	-	-	-	-	-
	4/29/2004	15,000	3,300	2,400	170	1,300	950	<200	-	-	-	-	-	-
	7/7/2006	11,000	<50	1,900	160	820	440	<40	<200	<200	<200	<400	<20	<20
W-Es	3/22/1996	<50		<0.5	<0.5	<0.5	<0.5	<5	-	-	-	-	-	-
	11/22/1996	280	-	24	0.6	1.8	2.2	<5		-	-	-		-
	7/15/1997	-	-	-	•	-	•	-	-	-	-	•	- 1	-
	10/29/1997	-	-	- 1	-	-	-	-	-	-	-	-	-	-
	4/27/1998	-	-	-	-	-	-	-	-	-	-	-	-	-
_	10/23/1998	82	69	<0.5	0.8	<0.5	0.8	4	-	-	-	-	-	-
	4/9/1999	-	-	-	-	-	-	-	-	-	-	-	-	-
	10/5/1999	68	88	<0.5	<0.5	<0.5	<1.0	4	-		-	-	-	
	4/5/2000	-	-	-	-	-		-	-	-	-	-	-	-
	10/26/2000	110	<50	0.7	<0.5	<0.5	<1.0	<5	-	-	-	-	-	-
	4/18/2001	-	-	-	•	-	-	-	-	-	-	-	·	-
	11/13/2001	-		-	-	-	-	-	-	-	-	-	-	-
	4/30/2002	-	-	-	-	-	-	-	-	-	-	-	-	-
	9/30/2002	-	-	-	-	-	-	-	-	-	-	-	-	-
	3/19/2003	86	61	<0.5	<0.5	<0.5	<0.5	<5	-	-	-	-	-	-
	9/16/2003	-		-	-	-	-	-	-	-	-	-	-	-
	4/29/2004	55	87	0.62	<0.5	<0.5	<0.5	<5	-	-	-		- 1	-
	7/7/2006	<25	<50	<0.5	<0.5	<0.5	<0.5	2.4	<5	<5	<5	<10	<0.5	<0.5
				1										

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pre- 2006 data adapted from *Environmental Sampling Services* 5/27/04 Groundwater Monitoring Report "-" = not sampled

Table 3: Summary of O.R.P. Data

#### <u>Arrow Rentals</u> 187 North L Street Livermore, California Project No. 1262.2

Monitoring Well			W-1s			W-3s				W-Bs				W-Es						
	pН	E.C.	Temp	ORP	DO	рН	E.C.	Temp	ORP	ĐÔ	рΗ	E.C.	Temp	ORP	DO	ρН	E.C.	Temp	ORP	DO
Date			°C				_	ů					°C					°C		
7/7/06	-	-	-	-128.5	0.13	r	-	-	-	0.07	-	-	-	-107.3	0.09	7.05	339	20.9	32.9	0.06

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### Appendix B

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Laboratory Analytical Data Sheets

# COPY

J

### **Jenny Weese**

From:	Erin (Entech Labs) [ecunniffe@entechlabs.com]
Sent:	Monday, July 24, 2006 6:00 PM
To:	GTI
Subject:	Emailing: 50329.pdf, 50329_EDF.zip (1262.2/ Sullins L Street)
То:	GTI

Attachments:

50329.pdf; 50329\_EDF.zip



50329.pdf (210 KB) 50329\_EDF.zip (4

KB) Attached is your Certificate of Analysis and EDF file. No hardcopy will be mailed unless you specifically request it.

If you have any questions, please feel free to contact me.

Thanks,

Erin

Erin Cunniffe Entech Analytical Labs, Inc. phone #408.588.0200 Ext 238

The message is ready to be sent with the following file or link attachments:

50329.pdf 50329\_EDF.zip

Note: To protect against computer viruses, e-mail programs may prevent sending or receiving certain types of file attachments. Check your e-mail security settings to determine how attachments are handled.

3334 Victor Court , Santa Clara, CA 95054

Phone: (408) 588-0200

Fax: (408) 588-0201

Joe Angulo Geological Technics, Inc. 1101 7th Street Modesto, CA 95354

Project Name: 1262.2 Project Location: 187 N. L Street Lab Certificate Number: 50329 Issued: 07/24/2006

Global ID: T0600100116

### Certificate of Analysis - Final Report

On July 10, 2006, samples were received under chain of custody for analysis. Entech analyzes samples "as received" unless otherwise noted. The following results are included:

 Matrix
 Test

 Liquid
 Electronic Deliverables for Geotracker

 TPH-Extractable:
 EPA 3510C / EPA 8015B

 VOCs:
 EPA 5030C / EPA 8260B

 TPH-Purgeable:
 GC/MS

Entech Analytical Labs, Inc. is certified for environmental analyses by the State of California (#2346). If you have any questions regarding this report, please call us at 408-588-0200 ext. 225.

Sincerely,

Ci

Erin Cunniffe Operations Manager

**Comments** 

3334 Victor Court, Santa Clara, CA 95054

Phone: (408) 588-0200

Fax: (408) 588-0201

Geological Technics, Inc. 1101 7th Street Modesto, CA 95354 Attn: Joe Angulo

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### **Certificate of Analysis - Data Report**

### GlobalID: T0600100116 Samples Received: 07/10/2006 Sample Collected by: Client

Project Name: 1262.2

Project Location: 187 N. L Street

Lab # : 50329-001 8	Sample ID: W-ES				Matrix: Liqu	<u> </u>	Date: 7/7/2006	10:40 AM
VOCs: EPA 5030C / EPA 820 Parameter	60B Result Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Benzene	ND	1.0	0.50	μg/L	N/A	N/A	7/18/2006	WM1060717
Toluene	ND	1.0	0.50	μg/L	N/A	N/A	7/18/2006	WM1060717
Ethyl Benzene	ND	0.1	0.50	μg/L	N/A	N/A	7/18/2006	WM1060711
Xylenes, Total	ND	1.0	0.50	μg/L	N/A	N/A	7/18/2006	WM106071
Methyl-t-butyl Ether	2.4	1.0	1.0	μg/L	N/A	N/A	7/18/2006	WM106071
tert-Butyl Ethyl Ether	ND	1.0	5.0	μg/L	N/A	N/A	7/18/2006	WM1060717
tert-Butanol (TBA)	ND	1.0	10	μg/L	N/A	N/A	7/18/2006	WM1060717
Diisopropyl Ether	ND	1.0	5,0	μg/L	N/A	N/A	7/18/2006	WM106071
tert-Amyl Methyl Ether	ND	1.0	5.0	μg/L	N/A	N/A	7/18/2006	WM106071
1,2-Dichloroethane	ND	1.0	0.50	μg/L	N/A	N/A	7/18/2006	WM106071
1,2-Dibromoethane (EDB)	ND	1.0	0.50	μg/L	N/A	N/A	7/18/2006	WM106071
Surrogate	Surrogate Recovery	Control	Limits (%)				Analyzed by: XBian	
4-Bromofluorobenzene	96.2	60 -	- 130				Reviewed by: MaiC	hiTu
Dibromofluoromethane	95.3	60 -	- 130					
Toluene-d8	102	60 ·	- 130					
TPH-Purgeable: GC/MS								
Parameter	Result Qual	D/P-F	<b>Detection</b> Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
TPH as Gasoline	ND	1.0	25	µg/L	N/A	N/A	7/18/2006	WM106071
Surrogate	Surrogate Recovery	Control	Limits (%)				Analyzed by: XBian	L
4-Bromofluorobenzene	93.4	60 ·	- 130				Reviewed by: MaiC	hiTu
Dibromofluoromethane	103	60 ·	- 130					
Toluene-d8	97.2	60	- 130					
TPH-Extractable: EPA 3510	C / EPA 8015B							
Parameter	Result Qual	D/P-F	<b>Detection Limit</b>	Units	Prep Date	Prep Batch	Analysis Date	QC Batch

					· · ·			<u> </u>
TPH as Diesel	ND	1.0	50	μg/L	7/14/2006	WD060714A	7/16/2006	WD060714A
Surrogate	Surrogate Recovery	Control Lim	its (%)	Analyzed by: JHsiang				ang
o-Terphenyl	112	22 -	133				Reviewed by: dba	

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### **Certificate of Analysis - Data Report**

Project Name: 1262.2 Project Location: 187 N. L Street GlobalID: T0600100116

Samples Received: 07/10/2006 Sample Collected by: Client

Lab #: 50329-002	Sample ID: W-3S			]	Matrix: Liq	uid Sample I	Date: 7/7/2006	12:20 PM
VOCs: EPA 5030C / EPA Parameter	8260B Result Qua	l D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Benzene	44	1.0	0.50	μg/L	N/A	N/A	7/18/2006	WM1060717
Toluene	0.77	1.0	0.50	μg/L	N/A	N/A	7/18/2006	WM1060717
Ethyl Benzene	ND	1.0	0.50	μg/L	N/A	N/A	7/18/2006	WM1060717
Xylenes, Total	ND	1.0	0.50	μg/L	N/A	N/A	7/18/2006	WM1060717
Methyl-t-butyl Ether	ND	1.0	1.0	μg/L	N/A	N/A	7/18/2006	WM1060717
tert-Butyl Ethyl Ether	ND	1.0	5.0	μ <b>g</b> /L	N/A	N/A	7/18/2006	WM1060717
tert-Butanol (TBA)	ND	1.0	10	μg/L	N/A	N/A	7/18/2006	WM1060717
Diisopropyl Ether	ND	1.0	5.0	μg/L	N/A	N/A	7/18/2006	WM1060717
tert-Amyl Methyl Ether	ND	1.0	5.0	μg/L	N/A	N/A	7/18/2006	WM1060717
1,2-Dichloroethane	ND	1.0	0.50	μg/L	N/A	N/A	7/18/2006	WM1060717
1,2-Dibromoethane (EDB)	ND	1.0	0.50	μg/L	N/A	N/A	7/18/2006	WM1060717
Surrogate	Surrogate Recovery	Control Limits (%)					Analyzed by: XBian	1
4-Bromofluorobenzene	92.3	60	- 130				Reviewed by: MaiC	ЪiTu
Dibromofluoromethane	98.2	60	- 130				-	
Toluene-d8	106	60	- 130					
TPH-Purgeable: GC/MS								
Parameter	Result Qua	l D/P-F	<b>Detection</b> Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
TPH as Gasoline	110	1.0	25	μg/L	N/A	N/A	7/18/2006	WM1060717
Surrogate	Surrogate Recovery	Control	Limits (%)				Analyzed by: XBia	1
4-Bromofluorobenzene	89.7	60	- 130				Reviewed by: MaiC	'hiTu
Dibromofluoromethane	106	60	- 130				-	
Toluene-d8	101	60	- 130					
TPH-Extractable: EPA 35	10C / EPA 8015B							
Parameter	Result Qua	1 D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
					7/15/2006	WD060715A	7/21/2006	WD060715A
TPH as Diesel	ND	10	500	μg/L	1/15/2000	WD000/IJA	//21/2008	WD000715A
	ND No diesel pattern present.	10	500	µg/L	//13/2008	WD000713A	772172006	WD000713A
			500 Limits (%)	րքյու 		wD000713A	Analyzed by: JHsia	

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Attn: Joe Angulo

Phone: (408) 588-0200

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Project Name: 1262.2 Project Location: 187 N. L Street GlobalID: T0600100116

Samples Received: 07/10/2006 Sample Collected by: Client

Lab #: 50329-003	Sample ID: W-BS			]	Matrix: Liqu	uid Sample D	Date: 7/7/2006	1:50 PM
VOCs: EPA 5030C / EPA 8			<b></b>	<b>TT P</b>	B D.4.	Dura Datah	4 - alaraia Dada	OC Batch
Parameter	Result Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	
Benzene	1900	40	20	μg/L	N/A	N/A	7/18/2006	WM1060717
Toluene	160	40	20	μg/L	N/A	N/A	7/18/2006	WM1060717
Ethyl Benzene	820	40	20	μg/L	N/A	N/A	7/18/2006	WM1060717
Xylenes, Total	440	40	20	μg/L	N/A	N/A	7/18/2006	WM1060717
Methyl-t-butyl Ether	ND	40	40	μg/L	N/A	N/A	7/18/2006	WM1060717
tert-Butyl Ethyl Ether	ND	40	200	μg/L	N/A	N/A	7/18/2006	WM1060717
tert-Butanol (TBA)	ND	40	400	μg/L	N/A	N/A	7/18/2006	WM1060717
Diisopropyl Ether	ND	40	200	µg/L	N/A	N/A	7/18/2006	WM1060717
tert-Amyl Methyl Ether	ND	40	200	μg/L	N/A	N/A	7/18/2006	WM1060717
1,2-Dichloroethane	ND	40	20	μg/L	N/A	N/A	7/18/2006	WM1060717
1,2-Dibromoethane (EDB)	ND	40	20	μg/L	N/A	N/A	7/18/2006	WM1060717
Surrogate	Surrogate Recovery	Control	Limits (%)				Analyzed by: XBiar	1
4-Bromofluorobenzene	93.7	60	- 130				Reviewed by: MaiC	hiTu
Dibromofluoromethane	94.5	60	- 130					
Tolucne-d8	97.6	60	- 130					
TPH-Purgeable: GC/MS								
Parameter	Result Qua	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
TPH as Gasoline	11000	40	1000	µg/L	N/A	N/A	7/18/2006	WM1060717
Surrogate	Surrogate Recovery	Control	Limits (%)				Analyzed by: XBia	1
4-Bromofluorobenzene	91.0	60	- 130				Reviewed by: MaiC	biTu
Dibromofluoromethane	102	60	- 130					
Toluene-d8	93.2	60	- 130					
TPH-Extractable: EPA 351	IOC / EPA 8015B							
Parameter	Result Qua	1 D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
TPH as Diesel	ND	1.0	50	μg/L	7/15/2006	WD060715A	7/19/2006	WD060715A
1700 ppb Higher Boil	ing Gasoline Compounds (C8	-C18). No	Diesel pattern preser	nt.				
Surrogate	Surrogate Recovery	Control	Limits (%)				Analyzed by: JHsia	ng
o-Terphenyl	48.1	22	- 133				Reviewed by: ECu	miffe

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Geological Technics, Inc. 1101 7th Street Modesto, CA 95354 Attn: Joe Angulo

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### **Certificate of Analysis - Data Report**

### Lab #: 50329-004 Sample ID: W-1S

VOCs: EPA 5030C / EPA 826		ual D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	OC Batch
Parameter							·	~~
Benzene	4000	100	50	µg/L	N/A	N/A	7/19/2006	WM1060718
Toluene	710	100	50	μg/L	N/A	N/A	7/19/2006	WM1060718
Ethyl Benzene	1200	100	50	μg/L	N/A	N/A	7/19/2006	WM1060718
Xylenes, Total	2900	100	50	μg/L	N/A	N/A	7/19/2006	WM1060718
Methyl-t-butyl Ether	ND	100	100	μg/L	N/A	N/A	7/19/2006	WM1060718
tert-Butyl Ethyl Ether	ND	100	500	μg/L	N/A	N/A	7/19/2006	WM1060718
tert-Butanol (TBA)	ND	100	1000	μg/L	N/A	N/A	7/19/2006	WM1060718
Diisopropyl Ether	ND	100	500	μg/L	N/A	N/A	7/19/2006	WM1060718
tert-Amyl Methyl Ether	ND	100	500	μg/L	N/A	N/A	7/19/2006	WM1060718
1,2-Dichloroethane	ND	100	50	μg/L	N/A	N/A	7/19/2006	WM1060718
1,2-Dibromoethane (EDB)	ND	100	50	μg/L	N/A	N/A	7/19/2006	WM1060718
Surrogate	Surrogate Recovery	Control	Limits (%)				Analyzed by: XBia	n
4-Bromofluorobenzene	105	60	- 130				Reviewed by: Mai	ChiTu
Dibromofluoromethane	100	60	- 130					
Toluene-d8	93.5	60	- 130					

#### TPH-Purgeable: GC/MS

Result (	Qual D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
23000	100	2500	µg/L	N/A	N/A	7/19/2006	WM1060718
Surrogate Recovery	Contro	l Limits (%)				Analyzed by: XBiar	n
90.9	60	- 130				Reviewed by: MaiC	ThiTu
108	60	- 130					
100	60	- 130					
	<b>23000</b> Surrogate Recovery 90.9 108	23000         100           Surrogate Recovery         Contro           90.9         60           108         60	23000         100         2500           Surrogate Recovery         Control Limits (%)           90.9         60         -         130           108         60         -         130	23000         100         2500         μg/L           Surrogate Recovery         Control Limits (%)           90.9         60         -         130           108         60         -         130	23000         100         2500         μg/L         N/A           Surrogate Recovery         Control Limits (%)         60         -         130           108         60         -         130         -         -         -	23000         100         2500         μg/L         N/A         N/A           Surrogate Recovery         Control Limits (%)         60         -         130           108         60         -         130         -	23000         100         2500         μg/L         N/A         N/A         7/19/2006           Surrogate Recovery         Control Limits (%)         Analyzed by: XBia         90.9         60         -         130         Reviewed by: Maid           108         60         -         130         -<

#### TPH-Extractable: EPA 3510C / EPA 8015B

Parameter	Result Q	Qual D/P-F	Detection Limit	t Units	Prep Date	Prep Batch	Analysis Date	QC Batch
TPH as Diesel	ND	10	500	μg/L	7/15/2006	WD060715A	7/21/2006	WD060715A
8300 ppb Higher	r Boiling Gasoline Compounds	(C8-C18). No	Diesel pattern pres	ent.				
Surrogate	Surrogate Recovery	Control	Limits (%)				Analyzed by: JHsia	ng
o-Terphenyl	65.3	22	- 133				Reviewed by: ECu	nniffe

#### Fax: (408) 588-0201

3:20 PM

Project Name: 1262.2 Project Location: 187 N. L Street GlobalID: T0600100116

Phone: (408) 588-0200

Samples Received: 07/10/2006 Sample Collected by: Client

Matrix: Liquid Sample Date: 7/7/2006

3334 Victor Court , Santa Clara, CA 95054

54 Phone: (408) 588-0200 Fax: (408) 588-0201

### Method Blank - Liquid - VOCs: EPA 5030C / EPA 8260B

#### QC Batch ID: WM1060717

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#### QC Batch Analysis Date: 7/17/2006

Parameter	Result	DF	PQLR	Units
1,2-Dibromoethane (EDB)	ND	1	0.50	µg/L
1,2-Dichloroethane	ND	1	0.50	μg/L
Benzene	ND	1	0.50	µg/L
Diisopropyl Ether	ND	1	5.0	µg/L
Ethyl Benzene	ND	1	0.50	μg/L
Methyl-t-butyl Ether	ND	1	1.0	µg/L
tert-Amyl Methyl Ether	ND	1	5.0	µg/L
tert-Butanol (TBA)	ND	1	10	μg/L
tert-Butyl Ethyl Ether	ND	1	5.0	µg/L
Toluene	ND	1	0.50	μg/L
Xylenes, Total	ND	1	0.50	µg/L

Surrogate for Blank	% Recovery	Cont	rol	Limits
4-Bromofluorobenzene	95.5	60	-	130
Dibromofluoromethane	81.9	60	-	130
Toluene-d8	95.5	60	•	130

### Method Blank - Liquid - TPH-Purgeable: GC/MS QC Batch ID: WM1060717

#### QC Batch Analysis Date: 7/17/2006

Parameter TPH as Gasoline			Result ND	<b>DF</b> 1	<b>PQLR</b> 25	Units µg/L
Surrogate for Blank	% Recovery	<b>Control Limits</b>				
4-Bromofluorobenzene	92.8	60 - 130				
Dibromofluoromethane	88.5	60 - 130				
Toluene-d8	91.2	60 - 130				

Validated by: MaiChiTu - 07/18/06

Validated by: MaiChiTu - 07/18/06

3334 Victor Co	urt , Santa	Clara, CA 9	950 <b>5</b> 4 F	Phone	(408) 588	-020	0 Fax: (	(408) 588-0201
LCS / LCSD - Liq QC Batch ID: WM QC Batch ID Analy	1060717		/ EPA 8260	В			Reviewed by	y: MaiChiTu - 07/18/0
<b>LCS</b> Parameter Benzene Methyl-t-butyl Ether Toluene	Method Bl <0.50 <1.0 <0.50	iank Spike Amt 20 20 20	<b>SpikeResult</b> 20.8 16.2 19.8	<b>Units</b> μg/L μg/L μg/L	% Recovery 104 81.0 99.0			<b>Recovery Limits</b> 70 - 130 70 - 130 70 - 130
Surrogate 4-Bromofluorobenzene Dibromofluoromethane Toluene-d8	% Recovery 99.3 89.6 98.5	Control Limits           60         -         130           60         -         130           60         -         130						
LCSD Parameter Benzene Methyl-t-butyl Ether Toluene	Method B <0.50 <1.0 <0.50	lank Spike Amt 20 20 20	<b>SpikeResult</b> 20.3 15.6 18.9	<b>Units</b> µg/L µg/L µg/L	% Recovery 102 78.0 94.5	RPD 2.4 3.8 4.7	<b>RPD Limits</b> 25.0 25.0 25.0	<b>Recovery Limits</b> 70 - 130 70 - 130 70 - 130 70 - 130
Surrogate 4-Bromofluorobenzene Dibromofluoromethane Toluene-d8	% Recovery 97.5 88.2 97.4	Control Limits           60         -         130           60         -         130           60         -         130						
LCS / LCSD - Liq QC Batch ID: WM QC Batch ID Analy	1060717		C/MS				Reviewed b	y: MaiChi⊤u - 07/18/0
LCS Parameter TPH as Gasoline	-	lank Spike Amt 120	SpikeResult 112	<b>Units</b> μg/L	% Recovery 89.4			Recovery Limits 65 - 135
Surrogate 4-Bromofluorobenzene Dibromofluoromethane Toluene-d8	% Recovery 92.3 87.0 90.4	Control Limits           60         -         130           60         -         130           60         -         130						
LCSD Parameter TPH as Gasoline	Method B <25	llank Spike Amt 120	SpikeResult 127	<b>Units</b> µg/L	<b>% Recoveгy</b> 102	RPD 13	RPD Limits 25.0	Recovery Limits 65 - 135
Surrogate 4-Bromofluorobenzene Dibromofluoromethane Toluene-d8	% Recovery 94.6 94.1 94.5	Control Limits 60 - 130 60 - 130 60 - 130						

#### Analytical Laba Ina 1 ~ •

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Phone: (408) 588-0200 Fax: (408) 588-0201

Validated by: MaiChiTu - 07/19/06

### Method Blank - Liquid - VOCs: EPA 5030C / EPA 8260B

### QC Batch ID: WM1060718

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QC Batch Analysi	s Date: 7/18/2006
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Parameter			Result	DF	PQLR	Units
1,2-Dibromoethane (ED	DB)		ND	1	0.50	µg/L
1,2-Dichloroethane			NÐ	1	0.50	µg/L
Benzene			ND	1	0.50	µg/L
Diisopropyl Ether			ND	1	5.0	µg/L
Ethyl Benzene			ND	1	0.50	µg/L
Methyl-t-butyl Ether			ND	1	1.0	µg/Լ
tert-Amyl Methyl Ether			ND	1	5.0	μg/L
tert-Butanol (TBA)			ND	1	10	μg/L
tert-Butyl Ethyl Ether			ND	1	5.0	µg/L
Toluene			ND	1	0.50	µg/L
Xylenes, Total			ND	1	0.50	µg/L
Surrogate for Blank	% Recovery	<b>Control Limits</b>				
4-Bromofluorobenzene	99.8	60 - 130				
Dibromofluoromethane	88.3	60 - 130				

Method Blank - Liquid -	TPH-Purgeable: GC/MS
QC Batch ID: WM1060718	

96.4

60 - 130

#### QC Batch Analysis Date: 7/18/2006

Toluene-d8

<b>Parameter</b> TPH as Gasoline			Result ND	DF 1	<b>PQLR</b> 25	Units µg/L
Surrogate for Blank	% Recovery	<b>Control Limits</b>				
4-Bromofluorobenzene	96.9	60 - 130				
Dibromofluoromethane	95.4	60 - 130				
Toluene-d8	92.1	60 - 130				

Validated by: MaiChiTu - 07/19/06

3334 Victor Co	urt , Santa	Clara, CA S	95054 I	Phone	: (408) 588	-020	0 Fax:	(408) 588-0201
LCS/LCSD - Liqu	uid - VOCs	s: EPA 5030C	/ EPA 8260	В				
QC Batch ID: WM	1060718						Reviewed by	y: MaiChiTu - 07/19/0
QC Batch ID Analy	sis Date: 7/	18/2006						
LCS								
Parameter	Method Bl	ank Spike Amt	SpikeResult	Units	% Recovery			Recovery Limits
Benzene	<0.50	20	20.4	µg/L	102			70 - 130
Methyl-t-butyl Ether	<1.0	20	15.7	µg/L	78.5			70 - 130
Toluene	<0.50	20	19.0	µg/L	95.0			70 - 130
Surrogate	% Recovery	<b>Control Limits</b>						
4-Bromofluorobenzene	97.0	60 - 130						
Dibromofluoromethane	90.9	60 - 130						
Toluene-d8	94.4	60 - 130						
LCSD Parameter	Method B	lank Spike Amt	SpikeResult	Units	% Recovery	RPD	RPD Limits	Recovery Limits
Benzene	<0.50	20	20.7	µg/L	104	1.5	25.0	70 - 130
Methyl-t-butyl Ether	<1.0	20	16.9	µg/L	84.5	7.4	25.0	70 - 130
Toluene	<0.50	20	19.1	µg/L	95.5	0.52	25.0	70 - 130
Surrogate	% Recovery	<b>Control</b> Limits						
4-Bromofiuorobenzene	102.0	60 - 130						
Dibromofluoromethane	91.3	60 - 130						
Toluene-d8	96.1	60 - 130						
LCS/LCSD - Liq	uid - TPH-	Purgeable: G	C/MS					
QC Batch ID: WM							Reviewed b	y: MaiChiTu - 07/19/
QC Batch ID Analy		18/2006						
	sis Date. n	10/2000						
LCS	an dia di D	tania Calles Ares	Culles Baard	linita				Recovery Limits
Parameter		iank Spike Amt 120	126	Units µg/L	% Recovery 101			65 - 135
TPH as Gasoline	<25		120	µy/r	101			00 100
Surrogate	% Recovery	Control Limits						
4-Bromofluorobenzene	94.6	60 - 130						
Dibromofluoromethanc	93.5	60 - 130						
Toluene-d8	94.3	60 - 130						
								<b>.</b>
LCSD								
LCSD Parameter		Blank Spike Am			% Recovery			Recovery Limits
LCSD	<25	Blank Spike Amt 120	SpikeResult 122	<b>Units</b> µg/L	% Recovery 97.4	RPD 3.2	25.0	65 - 135
LCSD Parameter TPH as Gasoline Surrogate	<25 % Recovery	120 Control Limits	122		•			-
LCSD Parameter TPH as Gasoline Surregate 4-Bromofluorobenzene	<25 % Recovery 95.8	120 Control Limits 60 - 130	122		•			•
LCSD Parameter TPH as Gasoline Surrogate	<25 % Recovery	120 Control Limits	122		•			•

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3334 Victor C	ourt , Santa Clara	, CA 95054	Phone:	(408) 588	-020	0 Fax: (	(408) 588-0201
Method Blank - QC/Prep Batch II QC/Prep Date: 7		actable: EPA 3510	C / EPA I	3015B			Validated by: dba - 07/17/0
Parameter TPH as Diesei		Result ND	<b>DF</b> 1	<b>PQ</b> i 50		Units µg/L	
Surrogate for Blank	% Recovery Control Li 51.8 22 - 1						
LCS / LCSD - Li QC Batch ID: W QC/Prep Date: 7		table: EPA 3510C	/ EPA 80	15B		Revie	wed by: dba - 07/17/06
LCS Parameter TPH as Diesel TPH as Motor Oil	<50	ike Amt SpikeResult 1000 574 1000 729	<b>Units</b> µg/L µg/L	% Recovery 57.4 72.9			<b>Recovery Limits</b> 40 - 138 40 - 138
Surrogate o-Terphenyl		l Limits • 133					
LCSD Parameter TPH as Diesel TPH as Motor Oil	<50	<b>ike Amt SpikeResult</b> 1000 716 1000 761	Units μg/L μg/L	% Recovery 71.6 76.1	RPD 22 4.2	<b>RPD Limits</b> 25.0 25.0	<b>Recovery Limits</b> 40 - 138 40 - 138
Surrogate o-Terphenyl		l Limits - 133					

3334 VICTOR C	ourt , Santa	95054 I	Phone	: (408) 588	5-020	) Fax: (408) 588-0201		
Method Blank - QC/Prep Batch II QC/Prep Date: 7	D: WD060715/		e: EPA 3510	C / EPA	8015B			Validated by: dba - 07/
<b>Parameter</b> TPH as Diesel		I	Result ND	DI 1			Units µg/L	
<b>Surrogate for Blank</b> o-Terphenyl	•	ontrol Limits 22 - 133						
	auid TDU	Extractable:	EPA 3510C /	/ EPA 8	015B			
LCS / LCSD - Li QC Batch ID: W QC/Prep Date: 7 LCS	D060715A						Revie	wed by: dba - 07/17/06
QC Batch ID: W QC/Prep Date: 7	D060715A 7/15/2006	ank Spike Amt		Units	% Recovery		Revie	wed by: dba - 07/17/06 Recovery Limits
QC Batch ID: W QC/Prep Date: 7 LCS	D060715A //15/2006 Method Bl <50	ank Spike Amt 1000	SpikeResult 536		53.6		Revie	Recovery Limits 40 - 138
QC Batch ID:W QC/Prep Date: 7 LCS <sup>Parameter</sup>	D060715A //15/2006 Method Bi	ank Spike Amt	SpikeResult	Units	-		Revie	Recovery Limits
QC Batch ID: W QC/Prep Date: 7 LCS Parameter TPH as Diesel	D060715A //15/2006 Method Bl <50	ank Spike Amt 1000	SpikeResult 536	<b>Units</b> μg/L	53.6		Revie	Recovery Limits 40 - 138
QC Batch ID: W QC/Prep Date: 7 LCS Parameter TPH as Diesel TPH as Motor Oil Surrogate	D060715A /15/2006 Method Bl: <50 <200 % Recovery 75.0	ank Spike Amt 1000 1000 Control Limits	SpikeResult 536 677	<b>Units</b> μg/L	53.6	RPD		Recovery Limits 40 - 138
QC Batch ID: W QC/Prep Date: 7 LCS Parameter TPH as Diesel TPH as Motor Oil Surrogate o-Terphenyl LCSD	D060715A /15/2006 Method Bl: <50 <200 % Recovery 75.0	ank Spike Amt 1000 1000 Control Limits 22 - 133	SpikeResult 536 677	<b>Units</b> μg/L μg/L	53.6 67.7	RPD 0.56		<b>Recovery Limits</b> 40 - 138 40 - 138
QC Batch ID: W QC/Prep Date: 7 LCS Parameter TPH as Diesel TPH as Motor Oil Surrogate o-Terphenyl LCSD Parameter	D060715A /15/2006 Method Bl <50 <200 % Recovery 75.0 Method Bl	ank Spike Amt 1000 1000 Control Limits 22 - 133 ank Spike Amt	SpikeResult 536 677 SpikeResult	Units μg/L μg/L Units	53.6 67.7 % Recovery		RPD Limits	Recovery Limits 40 - 138 40 - 138 Recovery Limits
QC Batch ID: W QC/Prep Date: 7 LCS Parameter TPH as Diesel TPH as Motor Oil Surrogate o-Terphenyl LCSD Parameter TPH as Diesel	D060715A //15/2006 Method Bl: <50 <200 % Recovery 75.0 Method Bl: <50	ank Spike Amt 1000 1000 Control Limits 22 - 133 ank Spike Amt 1000	SpikeResult 536 677 SpikeResult 533	Units μg/L μg/L Units μg/L	53.6 67.7 % Recovery 53.3	0.56	<b>RPD Limits</b> 25.0	Recovery Limits 40 - 138 40 - 138 Recovery Limits 40 - 138

Geological Techn	Lale¥ ics inc	50	<u>3</u> 2	$\mathcal{L}^{<}$	<u>}</u>							Pa	age of			
1101 7th Street Modesto, CA												Chain o	f Custo	dy		1
(209) 522-4119 Fax 522 E-mail: gti@geologicaltecl					Г		A	naly	sis Rec	ļues	ted	 Laborator	y Name and	Addre	SS:	٦
roject #: Client/Project Name: <u>267.2</u> <u>SULINS</u> ( te Address: <u>187</u> <i>N</i> , <u>L</u> STAFE lobal ID No.: TOGOOTOOT	L STREET F, LIVENNON		No. of Containers	is an	$\sim$	x (5261)	0x4+ (8260)	5	9			Purchase EDF Repo	ort: <b>CI-Yes</b> nd Time: S =	356 DN	0	
Date Time Field I.D.	Sep # D. AV61 Sample I.D.		No. of		ĮĘ	K K K		17	HOL			1 day, 2 d		narks	i	-
17 06 1040 W-ES 1220 W-35 1350 W-BS 1520 W-15 1520 W-15	W-Eg -001 W-35 -00 W-B5 -00 W-15 -00	$\frac{\nu}{3}$										RL RL	0.5	-1 0	MTEX XY's, Xens	
elinguished by: (signature)>	Date: 7/10_0	1	ime:			FTP	A NUC	ed by:	(signaty			A .	7/10/	106	Time: 1140	
elinguished by: (signature)	Date	2/e	"ime:			Re	ceive	d by:	(signatu	ue)	<u></u>		Date:		Time:	1
elinquished by: (signature)	Date:		ime:			Re	ceive	d by:	(signatu	ire)		 	Date:		Time:	1

Please return cooler/ice chest to Geological Technics Inc.

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# Appendix C

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**Groundwater Monitoring Field Notes** 

Project Name: Sullins

Project No.: 1262.2

Project Location: 187 North L Street, Livermore CA

Well Condition: Good and Secure

Weather Conditions Sunny, 1 mph wind, 89 degrees

### **Ground Water Monitoring Field Log**

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Well I.D.: W-3s

Date: 7/7/2006

Samples sent to: Entech

	Cumulative Volume	Temp.	E.C.		O.R.P.	Dissolved Oxygen	
Time	Purged (gal)	C°	(µmhos/cm)	рН	(millivolts)	(mg/L)	Remarks
11:21	0	25	-	-	-8.3		Dark brown, odor, sediments
11:42	10	25	-	-	-15.3		Dark brown, odor, sediments
11:51	20	25	-	-	-42.9		Cloudy, odor, sediments
12:00	30	25	-		-		Cloudy, odor, few sediments
12:20						0.07	Collected Samples
Purge Method: I Dedicated Waterra							ing 🖸 Other
	Pumping Rate:	0.77	gal/min				
C	asing diameter:	4	5	Sample Co	ntainers used:	4	# VOAs _ <u>HCL</u> preserved non-preserved
	Total depth:	43.13				1	# amber liters preserved X_ non-preserved
	Initial DTW:	28.37					# polys size preserved non-preserved
Water	column height:	14.76					# polys size preserved non-preserved
One	casing volume:	9.59			Notes:	Sheen is visi	ibble; Ph meter is not working correctly

Sampled By: R. Rodriguez

Sample Method: Waterra

29.11

DTW at sampling:

# of drums full of water on site

Project Name: Sullins

Project No.: 1262.2

Project Location: 187 North L Street, Livermore CA

Well Condition: Good and Secure

Weather Conditions Sunny, 1 mph wind, 92 degrees

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Well I.D.: MW-Bs

Date: 7/7/2006

Samples sent to: Entech

Time	Cumulative Volume Purged (gal)	Temp. C°	E.C. (μmhos/cm)	рН	O.R.P. (millivolts)	Dissolved Oxygen (mg/L)	Remarks
12:39	0		-	-	-141.2		Clear, odor, few sediments
13:00	24	-	-	-	-130.7		Clear, odor, few sediments
13:17	48	-	-	-	-110.9		Clear, odor, few sediments
13:41	72	-	-	-	-107.3		Clear, odor, few sediments
13:50						0.09	Collected Samples
	Purge Method: Pumping Rate:			Centrifug	al pump with d	edicated tub	ing Other
с	asing diameter:	6	S	Sample Co	ntainers used:	4	# VOAs
	Total depth:			·			# amber liters preserved _X non-preserved
	Initial DTW:						# polys size preserved non-preserved
Water	column height:	15.99					# polys size preserved non-preserved
	casing volume:				Notes:		ibble; Ph meter is not working correctly
	W at sampling:						
					Sampled By:	R. Rodrigu	ez
S	ample Method:	Waterra				# of drun	ns full of water on site

Project Name: Sullins

Project No.: 1262.2

Project Location: 187 North L Street, Livermore CA

Well Condition: Good and Secure

Weather Conditions Sunny, 3 mph wind, 92 degrees

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Well I.D.: W-1s

Date: 7/7/2006

Samples sent to: Entech

Time	Cumulative Volume Purged (gai)	Temp. C°	E.C. (µmhos/cm)	рН	O.R.P. (millivolts)	Dissolved Oxygen (mg/L)	Remarks
14:00	0	-	-	-	-119.1		Black, strong odor, no sediments
14:22	24	-	-	-	-135.2		Black, strong odor, no sediments
14:41	48	-	-	-	-133.3		Light grey, light odor, no sediments
15:14	72	-	-	-	-128.5		Light grey, light odor, no sediments
15:20						0.13	Collected Samples
	Purge Method:	IX Dedicate	d Waterra		al pump with c	ledicated tub	ing Dother
	Pumping Rate:	0.97	gal/min				
С	asing diameter:	6		Sample Co	ntainers used:	4	# VOAs <u>HCL</u> preserved non-preserved

Casing diameter.	0	Sample Containers used.	4	_# VOAS			_ preservea	_ non-preserved
Total depth:	44.61		1	# amber lite	ers		preserved <u>X</u>	non-preserved
Initial DTW:	28.69			_# polys	size		preserved	_ non-preserved
Water column height:	15.92			# polys	size		preserved	_ non-preserved
One casing volume:	23.56	Notes:	PH Meter is	not working	properly.			
DTW at sampling:	28.69							
		Sampled By:	R. Rodrigu	Jez		_		_
Sample Method:	Waterra		# of dru	ms full of wat	er on site	5		-

Project Name: Sullins

Project No.: 1262.2

Project Location: 187 North L Street, Livermore CA

Well Condition: Good and Secure

Weather Conditions Sunny, 2 mph wind, 90 degrees

### **Ground Water Monitoring Field Log**

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Well I.D.: MW-Es

Date: 7/7/2006

Samples sent to: Entech

Time	Cumulative Volume Purged (gal)	Temp. C°	E.C. (µmhos/cm)	рН	O.R.P. (millivolts)	Dissolved Oxygen (mg/L)	Remarks
10:19	0	21.4	401	7.22	-8.7		Grey cloudy, light odor, sediments
10:22	2.5	21.0	357	7.11	8.3		Grey cloudy, light odor, sediments
10:25	5.0	20.5	346	7.08	17.1		Grey cloudy, light odor, sediments
10:28	7.5	20.9	339	7.05	32.9		Grey cloudy, light odor, sediments
10:40						0.06	Collected Samples
:							
	Purge Method:	Dedicated	d Waterra	Centrifuq	al pump with de	edicated tubi	ng 🛛 Other
	Pumping Rate:			Ũ			~
-							
C	asing diameter:			sample Co	ntainers used:		# VOAs _ <u>HCL</u> preservednon-preserved
	Total depth:						# amber liters preserved <u>X</u> non-preserved
	Initial DTW:	30.45					# polys size preserved non-preserved
Water	column height:	13.71					# polys size preserved non-preserved
One	casing volume:	2.19			Notes:		
DT	W at sampling:	30.47					
					Sampled By:	R. Rodrigu	ez

Sample Method: Waterra

# of drums full of water on site