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June 15, 2011

Jerry Wickham, CEG
Senior Hazardous Materials Specialist
Alameda County Environmental Health
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

**Subject: Sunol Tree Gas
3004 Andrade Road, Sunol
Fuel Leak Case No. RO0002448**

Dear Mr. Wickham:

Enclosed is the *Quarterly Groundwater Monitoring Report – First Quarter 2011* for the subject LUFT site. In compliance with state and local regulations, electronic submittals of this report have been uploaded to the Geotracker database and the Alameda County ftp website.

I declare under penalty of perjury that the information and/or recommendations contained in the attached report are true and correct to the best of my knowledge.

Please call Tim Cook at Cook Environmental Services at (925) 478-8390 if you have questions or comments in regards to the technical content of this report.

Very truly yours,

Khan Petroleum, Inc.



Obaid Abdullah
President

cc: Jennifer Rice, Esq
Tim Cook, Cook Environmental Services, Inc.
Jeffery Lawson, Esq..
Cheri McCaulou, RWQCB Region 2



Quarterly Groundwater Monitoring Report
First Quarter 2011

PROJECT SITE:

Sunol Tree Gas Station
3004 Andrade Rd.
Sunol, California 94586-9453
Fuel Leak Case No. RO0002448

PREPARED FOR:

Khan Petroleum Inc.
3004 Andrade Road
Sunol, California 94586-9453

SUBMITTED TO:

Alameda County Department of Environmental Health
Environmental Health Services,
Environmental Protection
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

PREPARED BY:

Cook Environmental Services, Inc.
1485 Treat Blvd, Suite 203A
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Project No. 1024

June 15, 2011

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PROFESSIONAL CERTIFICATION

Quarterly Groundwater Monitoring Report First Quarter 2011

**Sunol Tree Gas Station
3004 Andrade Rd.
Sunol, California 94586-9453
Fuel Leak Case No. RO0002448**

By: Cook Environmental Services, Inc.

**Project No. 1024
June 15, 2011**

Cook Environmental Services, Inc. prepared this document under the professional supervision of the person whose seal and signature appears hereon. No warranty, either expressed or implied, is made as to the professional advice presented herein. The analysis, conclusions and recommendations contained in this document are based upon site conditions at the time of the investigation, which are subject to change.

The conclusions presented in this document are professional opinions based solely upon visual observations of the site and vicinity, and interpretation of available information as described in this report. The limited scope of services performed in execution of this investigation may not be appropriate to satisfy the needs, or requirements of other regulatory agencies, or of other users. Any use or reuse of this document or its findings, conclusions or recommendations presented herein is at the sole risk of said user.

Tim Cook, P.E.
Principle Engineer

INTRODUCTION

This report is part of an ongoing environmental investigation related to the release of hydrocarbons at the Sunol Tree Gas Station (Site) located at 3004 Andrade Road in Sunol, California. The owner, Kahn Petroleum, Inc., authorized Cook Environmental Services, Inc. (CES) to conduct this investigation. Alameda County Environmental Health (ACEH) is the local oversight program (LOP) agency for this investigation.

Purpose

The Site background related to the hydrocarbon release is provided in **Appendix A**. This description is summarized from *Status of Active Fuel Leak Investigation*, dated May 6, 2009 (Weber Hayes & Associates). The Site location is shown on **Figure 1**. An annotated aerial photo of the Site is shown on **Figure 2**. A detailed site map, including the downgradient T Bear Ranch, is shown on **Figure 3**.

In a letter to the owner dated July 28, 2009, ACEH reduced the groundwater monitoring requirements to quarterly sampling of the wellhead carbon treatment system at the T Bear Water Supply Well.

CES conducted the last sampling event at the Site on April 19, 2010 and submitted the results in the Quarter Groundwater Monitoring Report, Second Quarter 2010, dated May 19, 2010. In that report CES proposed reducing the groundwater monitoring schedule to semi-annual sampling of wells CMT-1, CMT-3, CMT-6, CMT-10 and PZ-2 and annual sampling of wells CMT-2, CMT-4, CMT-5 and CMT-12. In a letter to the owner dated July 15, 2010, ACEH concurred with this reduced sampling schedule for the October 2010 only and requested the submittal of a Draft Corrective Action Plan (CAP) meeting the requirements of section 2725 of the UST regulations. The Draft CAP was submitted to ACEH on December 15, 2010. The ACEH responded with comments to the Draft CAP in a letter to the owner dated January 26, 2011.

In response, CES prepared an Interim Remedial Action Plan (IRAP) dated March 15, 2011 proposing a pilot test to evaluate the effectiveness of ozone sparging. Ozone will be injected into the intermediate water-bearing zone using two new sparge wells. Two multi-chamber groundwater monitoring wells are to be installed downgradient of the sparge wells to monitor the progress of the pilot test. On March 30, 2011 ACEH conditionally approved the IRAP provided that monitoring of the two new wells include potential toxic daughter products (e.g., hexavalent chromium and bromate) due to ozone sparging.

SCOPE OF WORK

The scope of work performed this quarter included the following:

- Measured static water levels and total depths in 3 PZ wells;
- Sampled wells CMT-1, CMT-3, CMT-6, CMT-7, CMT-10, PZ-2a, and PZ-2b;
- Sampled the Sunol Tree domestic well;
- Analyzed groundwater samples for total petroleum hydrocarbons as gasoline (TPH-g), benzene, toluene, ethylbenzene and xylenes (BTEX) and 9 fuel oxygenates;
- Compiled data tables and iso-concentration maps;
- Prepared this groundwater monitoring report; and
- Updated the California State Water Resources Control Board (SWRCB) GeoTracker database and the Alameda County ftp website.

FIELD PROCEDURES

The following discussion describes field methods used to prepare for sampling and sampling techniques used to collect groundwater samples.

Each CMT well is a multiple completion well, consisting of three 0.375-inch diameter wells, denoted generally as CMT-X-1 (shallow), CMT-X-2 (medium) and CMT-X-3 (deep). The purpose of the CMT well cluster is to sample the aquifer at three discrete depths. Each PZ well is a multiple completion well, consisting of two 0.75-inch diameter wells, denoted generally as PZ-X-a (shallow) and PZ-X-b (deep). The purpose of the PZ well cluster is to sample the aquifer at two discrete depths.

The depth to water was measured and the total volume of each well was calculated to determine the appropriate purge volume for each well. Well sampling field procedures are described in **Appendix B**.

CES collected 18 water samples from wells CMT-1, CMT-3, CMT-6, CMT-7, CMT-10, PZ-2a, PZ-2b, and the Sunol Tree domestic well on March 30, 2011. A peristaltic pump with clean silicone tubing for each well was used for purging and sample collection of the monitoring wells. The domestic well was sampled by turning on the water at a hose bib located on the side of the building and allowing the water to run for approximately 5 minutes prior to collecting a sample.

Depth to water and top of casing elevations from the three PZ wells were used to triangulate the shallow and deep groundwater flow direction and gradient. The shallow groundwater flow direction and gradient was N57⁰E at 0.014. The deeper groundwater flow direction and gradient was N57⁰W at 0.0005. The shallow groundwater gradient is depicted on **Figure 4A** and the deeper groundwater gradient is depicted on **Figure 4B**. Groundwater elevation data is summarized in **Table 1**. Depths to water measurements were recorded on field logs included in **Appendix C**.

GROUNDWATER SAMPLE RESULTS

Groundwater samples were analyzed for TPH-g by EPA method 8015 modified and for BTEX and nine fuel oxygenates by EPA method 8260B. Results were compared with environmental screening levels (ESLs) for groundwater established by the San Francisco Bay Regional Water Quality Control Board. Groundwater analytical results are summarized in **Table 2**. Laboratory analytical reports are included in **Appendix D**.

Twelve groundwater samples were collected from the multi-chamber (CMT) wells located along Transect A-A'. This transect is located approximately 150 feet downgradient (east) of the former USTs. Groundwater samples were also collected from piezometers PZ-2a and PZ-2b, which are located in close proximity to the T Bear ranch water supply well.

Methyl tert-butyl ether (MtBE) and tert butyl alcohol (tBA) were the only hydrocarbon constituents detected in these wells.

MtBE was detected above the ESL (5 ug/L) in the shallow water-bearing zone in CMT-6-1, CMT-7-1 and PZ-2a at 79, 8.9 and 7.5 ug/L, respectively. MtBE was not detected at sampling points CMT-1-1 and CMT-3-1. MtBE concentrations in the shallow water-bearing zone are shown on **Figure 5a**. tBA was not detected above the ESL (12ug/l) in the shallow zone, however it was detected at 2.9 ug/l in PZ-2a.

MtBE was detected in the intermediate water-bearing zone above its ESL in CMT-1-2, CMT-3-2, CMT-6-2 and CMT-7-2 at 12, 18, 24 and 140 ug/L, respectively. MtBE was most widespread in the intermediate water-bearing zone and likely represents the preferred pathway for MtBE contamination. tBA was not detected in any of the intermediate water-bearing zone sampling points. tBA was not detected in CMT-7-2, however, the detection limit was 20 ug/L, which is higher than the ESL. MtBE concentrations in the intermediate water-bearing zone are shown on **Figure 5b**.

MtBE was detected in the deep water-bearing zone above its ESL in CMT-6-3 at 16 ug/L. MtBE was not detected in CMT-1-3, CMT-3-3, CMT-7-3 and the Sunol Tree domestic well. ACEH requested sampling of the Sunol Tree in a meeting dated March 9, 2011. Neither hydrocarbons nor MtBE were detected in this well. tBA was not detected in any of the deep water-bearing zone sampling points. MtBE concentrations in the deep water-bearing zone are shown on **Figure 5c**.

Well PZ-2a is important because it is located approximately 43 feet upgradient (west) of the T Bear Ranch water supply well and is considered to be a sentinel well for the water supply well. MtBE was not detected (the detection level was 0.5 ug/L) in the influent to the treatment system

on the T-Bear Ranch water supply well on April 25, 2011, the last sampling event for which we have data (Weber, Hayes & Associates, June 2011).

The location of Transect A-A' which contains a line of sampling points downgradient of the source area is shown on **Figure 6**. The vertical cross-section of MtBE concentrations across Transect A-A' this quarter is shown on **Figure 7**.

CONCLUSIONS

There is a fairly well defined plume of dissolved MtBE migrating from the Site that remains at low concentrations. MtBE concentrations are lower since the last time these wells were sampled on October 16 2010. MtBE and tBA are the only constituents of concern at the Site as they are the only hydrocarbon constituents that exceed ESLs. The highest MtBE concentration this quarter was 140 ug/l in CMT-7-2. This sampling point has consistently yielded the highest MtBE concentration.

ACEH requested sampling of the Sunol Tree domestic well. Hydrocarbons and MtBE were not detected in this well.

MtBE concentrations decreased at all sampling points compared to previous results. MtBE was below detection limits at five sampling points. The decrease in MtBE concentrations at sampling points CMT-1-2, CMT-3-2, CMT-6-1, CMT-6-2, CMT6-3, CMT-7-1, and CMT-7-2 suggests that that the peak of the MtBE plume has already passed Transect A-A' at these points.

tBA concentrations decreased to below detection limits in the six sampling points where it was previously detected. The only sampling point where tBA was detected was PZ-2a, where the concentration decreased from 3.0 ug/l last quarter to 2.9 ug/l this sampling event. tBA is produced by the degradation of MtBE by native microbes. Previously tBA concentrations increased concurrently with MtBE concentration decreases and was attributed to natural attenuation.

The MtBE plume is delineated on the north by CMT-8. The plume is not delineated to the south since MtBE was detected in the intermediate water-bearing zone of the most southerly well, CMT-1, at 12 ug/L. The plume is delineated on the west by wells CMT-11 and CMT-12. The plume is not delineated to the east since MtBE was detected in the most easterly well, PZ-2a (shallow water-bearing zone) at 7.5 ug/L. When compared to previous sampling results the MtBE concentration dropped from 18 to 7.5 ug/L, however the tBA concentration decreased slightly from 3.0 to 2.9 ug/L. Previously tBA had increased concurrently with MtBE decrease and was attributed to natural attenuation in the proximity of this well. This well is located approximately 43 feet upgradient of the T Bear water supply well.

RECOMMENDATIONS

MtBE concentrations in groundwater decreased at the ten sampling points at which it was detected when compared to the previous sampling results. tBA concentrations decreased at all seven sampling points in which it was previously detected.

We recommend that the pilot test to evaluate the effectiveness of ozone sparging as per the approved IRAP go forward without any modifications. As stated to ACEH by CES in a letter dated April 25, 2011, CES is preparing to implement the pilot test and will present a report of findings to the ACEH by September 28, 2011. CES will continue with quarter groundwater monitoring of the monitoring well network and the T-Bear Ranch wellhead treatment system, as required.

TABLES

**Table 1 Groundwater Elevations
Sunol Tree Gas Station
3004 Andrade Road, Sunol, California**

Well ID	PZ-1a		PZ-1b		PZ-2a		PZ-2b		PZ-3a		PZ-3b	
TOC Elev	274.50		274.62		267.94		267.94		271.40		271.16	
Date	DTW	Elev	DTW	Elev	DTW	Elev	DTW	Elev	DTW	Elev	DTW	Elev
07/25/04	10.22	264.28	14.84	259.78	6.10	261.84	8.25	259.69	6.57	264.83	11.02	260.14
08/02/04	10.41	264.09	14.56	260.06	6.05	261.89	7.82	260.12	7.69	263.71	10.99	260.17
08/05/04	10.65	263.85	14.68	259.94	6.21	261.73	7.95	259.99	8.00	263.40	11.18	259.98
08/13/04	10.95	263.55	14.79	259.83	6.53	261.41	7.95	259.99	8.64	262.76	11.31	259.85
09/08/04	11.93	262.57	15.69	258.93	7.58	260.36	8.95	258.99	9.64	261.76	12.25	258.91
12/03/04	10.41	264.09	14.31	260.31	6.65	261.29	7.79	260.15	9.04	262.36	11.09	260.07
01/18/05	4.96	269.54	10.37	264.25	2.91	265.03	3.52	264.42	5.94	265.46	6.87	264.29
03/21/05	3.69	270.81	9.26	265.36	1.88	266.06	2.38	265.56	3.11	268.29	5.74	265.42
07/12/05	6.28	268.22	11.71	262.91	0.94	267.00	5.53	262.41	4.27	267.13	8.14	263.02
08/15/06	6.59	267.91	12.47	262.15	0.49	267.45	5.52	262.42	4.75	266.65	8.81	262.35
10/27/06	8.72	265.78	13.68	260.94	5.07	262.87	6.96	260.98	6.66	264.74	10.32	260.84
04/23/10	4.86	269.64	9.50	265.12	0.98	266.96	2.94	265.00	6.38	265.02	6.38	264.78
03/29/11	2.54	271.96	7.76	266.86	1.16	266.78	0.97	266.97	3.08	268.32	4.31	266.85
Δ		2.32		1.74		-0.18		1.97		3.30		2.07
Maximum	11.93	271.96	15.69	266.86	7.58	267.45	8.95	266.97	9.64	268.32	12.25	266.85
Minimum	2.54	262.57	7.76	258.93	0.49	260.36	0.97	258.99	3.08	261.76	4.31	258.91

Notes: All measurements are in feet.

DTW = Depth to water below TOC Elevations are based on NAVD 88 datum

NM = Not measured this quarter

Δ = The change in water level for the current quarter

TOC = Top of casing

Elev = Elevation above mean sea level

**Table 2. Groundwater Results - Multi-Level Wells
Sunol Tree Gas Station
3004 Andrade Road, Sunol, CA**

Well- ID	Date	Depth (feet, bgs)	TPH-g	benzene	toluene	ethyl-benzene	xylenes	MtBE	TBA	ETBE	DIPE	TAME	Ethanol	Comments	
CMT-1-1	12/29/04	21	< 25	< 0.5	< 0.5	< 0.5	< 0.5	15/14	< 10	< 5.0	< 5.0	< 5.0	< 100	Shallow	
	07/13/05		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
	08/15/06		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
	10/26/06		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
	04/19/10		<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2.0	<0.5	<0.5	<0.5		<50
	10/16/10		<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2.0	<0.5	<0.5	<0.5		<50
03/30/11	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2.0	<0.5	<0.5	<0.5	<50			
CMT-1-2	12/29/04	41	< 25	< 0.5	< 0.5	< 0.5	< 0.5	1.2	< 10	< 5.0	< 5.0	< 5.0	< 100	Intermediate	
	07/13/05		ND	ND	ND	ND	ND	2.7	ND	ND	ND	ND	ND		
	08/15/06		ND	ND	ND	ND	ND	6.5	ND	ND	ND	ND	ND		
	10/26/06		ND	ND	ND	ND	ND	7.9	ND	ND	ND	ND	ND		
	04/19/10		<50	<0.5	<0.5	<0.5	<0.5	12	<2.0	<0.5	<0.5	<0.5	<50		
	10/16/10		<50	<0.5	<0.5	<0.5	<0.5	14	<2.0	<0.5	<0.5	<0.5	<50		
03/30/11	<50	<0.5	<0.5	<0.5	<0.5	12	<2.0	<0.5	<0.5	<0.5	<50				
CMT-1-3	12/29/04	51	< 25	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0	< 10	< 5.0	< 5.0	< 5.0	< 100	Deep	
	07/13/05		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
	08/15/06		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
	10/26/06		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
	04/19/10		<50	<0.5	<0.5	<0.5	<0.5	<0.5	<2.0	<0.5	<0.5	<0.5	<50		
	10/16/10		<50	<0.5	<0.5	<0.5	<0.5	<0.5	<2.0	<0.5	<0.5	<0.5	<50		
03/30/11	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<2.0	<0.5	<0.5	<0.5	<50				
CMT-2-1	12/29/04	22	< 25	< 0.5	0.58 /<0.5	< 0.5	< 0.5	13/14	< 10	< 5.0	< 5.0	< 5.0	< 100	Shallow	
	07/13/05		ND	ND	ND	ND	ND	13	ND	ND	ND	ND	ND		
	08/15/06		ND	ND	ND	ND	ND	2.3	ND	ND	ND	ND	ND		
	10/26/06		ND	ND	ND	ND	ND	2.7	ND	ND	ND	ND	ND		
	04/19/10		<50	<0.5	<0.5	<0.5	<0.5	0.61	<2.0	<0.5	<0.5	<0.5	<50		
	10/16/10		NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM		
03/30/11	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM				
CMT-2-2	12/29/04	42	< 25	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0	< 10	< 5.0	< 5.0	< 5.0	< 100	Intermediate	
	07/13/05		ND	ND	ND	ND	ND	4.6	ND	ND	ND	ND	ND		
	08/15/06		ND	ND	ND	ND	ND	14	ND	ND	ND	ND	ND		
	10/26/06		56	ND	0.70	ND	1.1	14	ND	ND	ND	ND	ND		
	04/19/10		<50	<0.5	<0.5	<0.5	<0.5	19	<2.0	<0.5	<0.5	<0.5	<50		
	10/16/10		NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM		
03/30/11	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM				
CMT-2-3	12/29/04	52	< 25	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0	< 10	< 5.0	< 5.0	< 5.0	< 100	Deep	
	07/13/05		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
	08/15/06		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
	10/26/06		39	ND	0.52	ND	0.96	ND	ND	ND	ND	ND	ND		
	04/19/10		<50	<0.5	<0.5	<0.5	<0.5	<0.5	<2.0	<0.5	<0.5	<0.5	<50		
	10/16/10		NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM		
03/30/11	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM				
Environmental Screening Levels (ESLs)			100	1.0	40	30	20	5.0	12	NE	NE	NE	NE		

**Table 2. Groundwater Results - Multi-Level Wells
Sunol Tree Gas Station
3004 Andrade Road, Sunol, CA**

Well- ID	Date	Depth (feet, bgs)	TPH-g	benzene	toluene	ethyl-benzene	xylenes	MtBE	TBA	ETBE	DIPE	TAME	Ethanol	Comments	
CMT-3-1	01/18/05	22	< 25	< 0.5	< 0.5	< 0.5	< 0.5	15	< 10	< 5.0	< 5.0	< 5.0	< 100	Shallow	
	07/13/05		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
	08/16/06		ND	ND	ND	ND	ND	ND	1.2	ND	ND	ND	ND		ND
	10/27/06		37	ND	1.2	0.53	2.9	1.5	ND	ND	ND	ND	ND		ND
	04/19/10		<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2.0	<0.5	<0.5	<0.5		<50
	10/16/10		<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	3.10	<0.5	<0.5	<0.5		<50
	03/30/11		<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.52	ND	<0.5	<0.5	<0.5		<50
CMT-3-2	01/18/05	42	190	< 2.5	< 2.5	< 2.5	< 2.5	190	< 50	< 25	< 25	< 25	< 500	Intermediate	
	07/13/05		55	ND	ND	ND	ND	69	ND	ND	ND	ND	ND		
	08/16/06		36	ND	ND	ND	ND	27	ND	ND	ND	ND	ND		
	10/27/06		39	ND	0.90	ND	2.4	28	ND	ND	ND	ND	ND		
	04/19/10		<50	<0.5	<0.5	<0.5	<0.5	<0.5	19	<2.0	<0.5	<0.5	<0.5		<50
	10/16/10		<50	<0.5	<0.5	<0.5	<0.5	<0.5	23	2.80	<0.5	<0.5	<0.5		<50
	03/30/11		<50	<0.5	<0.5	<0.5	<0.5	<0.5	18	ND	<0.5	<0.5	<0.5		<50
CMT-3-3	01/18/05	52	< 25	< 0.5	< 0.5	< 0.5	< 0.5	4.9	< 10	< 5.0	< 5.0	< 5.0	< 100	Deep	
	07/13/05		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
	08/16/06		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
	10/27/06		ND	ND	ND	ND	1.8	ND	ND	ND	ND	ND	ND		
	04/19/10		<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2.0	<0.5	<0.5	<0.5		<50
	10/16/10		<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2.0	<0.5	<0.5	<0.5		<50
	03/30/11		<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2.0	<0.5	<0.5	<0.5		<50
CMT-4-1	01/11/05	13.5	< 25	< 0.5	< 0.5	< 0.5	< 0.5	15	< 10	< 5.0	< 5.0	< 5.0	< 100	Shallow	
	07/12/05		ND	ND	ND	ND	ND	5.3	ND	ND	ND	ND	ND		
	08/16/06		ND	ND	ND	ND	ND	2.0	ND	ND	ND	ND	ND		
	10/27/06		ND	ND	ND	ND	0.76	2.1	ND	ND	ND	ND	ND		
	04/19/10		<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.54	<2.0	<0.5	<0.5	<0.5		<50
	10/16/10		NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM		NM
	03/30/11		NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM		NM
CMT-4-2	01/11/05	42	35	< 0.5	< 0.5	< 0.5	< 0.5	29	< 10	< 5.0	< 5.0	< 5.0	< 100	Intermediate	
	07/12/05		60	ND	ND	ND	ND	66	ND	ND	ND	ND	ND		
	08/16/06		110	ND	ND	ND	ND	110	ND	ND	ND	ND	ND		
	10/27/06		140	< 1.0	< 1.0	< 1.0	< 1.0	140	< 20	< 10	< 10	< 10	< 200		
	04/19/10		<50	<5.0	<5.0	<5.0	<5.0	180	<20	<5.0	<5.0	<5.0	<500		
	10/16/10		NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM		NM
	03/30/11		NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM		NM
CMT-4-3	01/11/05	52	29	< 0.5	< 0.5	< 0.5	< 0.5	27	< 10	< 5.0	< 5.0	< 5.0	< 100	Deep	
	07/12/05		ND	ND	ND	ND	ND	11	ND	ND	ND	ND	ND		
	08/16/06		ND	ND	ND	ND	ND	11	ND	ND	ND	ND	ND		
	10/27/06		ND	ND	ND	ND	0.53	16	ND	ND	ND	ND	ND		
	04/19/10		<50	<1.0	<1.0	<1.0	<1.0	40	<4.0	<1.0	<1.0	<1.0	<100		
	10/16/10		NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM		NM
	03/30/11		NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM		NM
Environmental Screening Levels (ESLs)			100	1.0	40	30	20	5.0	12	NE	NE	NE	NE		

**Table 2. Groundwater Results - Multi-Level Wells
Sunol Tree Gas Station
3004 Andrade Road, Sunol, CA**

Well- ID	Date	Depth (feet, bgs)	TPH-g	benzene	toluene	ethyl-benzene	xylenes	MtBE	TBA	ETBE	DIPE	TAME	Ethanol	Comments	
CMT-5-1	12/29/04	21	< 25	< 0.5	0.7	< 0.5	< 0.5	19	< 10	< 5.0	< 5.0	< 5.0	< 100	Shallow	
	07/12/05		ND	ND	ND	ND	ND	12	ND	ND	ND	ND	ND		
	08/16/06		ND	ND	ND	ND	ND	4.7	ND	ND	ND	ND	ND		
	10/27/06		46	ND	ND	ND	0.87	3.6	ND	ND	ND	ND	ND		
	04/19/10		<50	<0.5	<0.5	<0.5	<0.5	<0.5	11	<2.0	<0.5	<0.5	<0.5		<50
	10/16/10		NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM		NM
	03/30/11		NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM		NM
CMT-5-2	12/29/04	42	< 25	< 0.5	0.54	< 0.5	< 0.5	3.5	< 10	< 5.0	< 5.0	< 5.0	< 100	Intermediate	
	07/12/05		31	ND	ND	ND	ND	37	ND	ND	ND	ND	ND		
	08/16/06		88	ND	ND	ND	ND	89	ND	ND	ND	ND	ND		
	10/27/06		130	< 1.0	< 1.0	< 1.0	< 1.0	92	< 20	< 10	< 10	< 10	< 200		
	04/19/10		<50	<5.0	<5.0	<5.0	<5.0	140	<20	<5.0	<5.0	<5.0	<500		
	10/16/10		NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM		NM
	03/30/11		NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM		NM
CMT-5-3	12/29/04	52	< 25	< 0.5	0.52	< 0.5	< 0.5	< 1.0	< 10	< 5.0	< 5.0	< 5.0	< 100	Deep	
	07/12/05		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
	08/16/06		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
	10/27/06		ND	ND	ND	ND	0.67	ND	ND	ND	ND	ND	ND		
	04/19/10		<50	<0.5	<0.5	<0.5	<0.5	0.57	<2.0	<0.5	<0.5	<0.5	<50		
	10/16/10		NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM		NM
	03/30/11		NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM		NM
CMT-6-1	01/11/05	22	40	< 0.5	< 0.5	< 0.5	< 0.5	41	< 10	< 5.0	< 5.0	< 5.0	< 100	Shallow	
	07/12/05		64	ND	ND	ND	ND	79	ND	ND	ND	ND	ND		
	08/16/06		71	ND	ND	ND	ND	71	ND	ND	ND	ND	ND		
	10/27/06		110	< 1.0	< 1.0	< 1.0	1.3	84	< 20	< 10	< 10	< 10	< 200		
	04/19/10		<50	<2.5	<2.5	<2.5	<2.5	88	<10	<2.5	<2.5	<2.5	<250		
	10/16/10		<50	<0.5	<0.5	<0.5	<0.5	95	16	<1.7	<1.7	<1.7	<170		
	03/30/11		<50	<0.5	<0.5	<0.5	<0.5	79	<6.7	<1.7	<1.7	<1.7	<170		
CMT-6-2	01/11/05	43	< 25	< 0.5	< 0.5	< 0.5	< 0.5	8.7	< 10	< 5.0	< 5.0	< 5.0	< 100	Intermediate	
	07/12/05		ND	ND	ND	ND	ND	15	ND	ND	ND	ND	ND		
	08/16/06		ND	ND	ND	ND	ND	12	ND	ND	ND	ND	ND		
	10/27/06		40	ND	ND	ND	0.76	19	ND	ND	ND	ND	ND		
	04/19/10		<50	<0.5	<0.5	<0.5	<0.5	18	<2.0	<0.5	<0.5	<0.5	<50		
	10/16/10		<50	<0.5	<0.5	<0.5	<0.5	28	2.30	<0.5	<0.5	<0.5	<50		
	03/30/11		<50	<0.5	<0.5	<0.5	<0.5	24	ND	<0.5	<0.5	<0.5	<50		
CMT-6-3	01/11/05	57	< 25	< 0.5	< 0.5	< 0.5	< 0.5	4.5	< 10	< 5.0	< 5.0	< 5.0	< 100	Deep	
	07/12/05		ND	ND	ND	ND	ND	4.7	ND	ND	ND	ND	ND		
	08/16/06		25	ND	0.77	ND	ND	5.5	ND	ND	ND	ND	ND		
	10/27/06		38	ND	ND	ND	0.68	7.7	ND	ND	ND	ND	ND		
	04/19/10		<50	<0.5	<0.5	<0.5	<0.5	25	<2.0	<0.5	<0.5	<0.5	<50		
	10/16/10		<50	<0.5	<0.5	<0.5	<0.5	20	<2.0	<0.5	<0.5	<0.5	<50		
	03/30/11		<50	<0.5	<0.5	<0.5	<0.5	16	<2.0	<0.5	<0.5	<0.5	<50		
Environmental Screening Levels (ESLs)			100	1.0	40	30	20	5.0	12	NE	NE	NE	NE		

**Table 2. Groundwater Results - Multi-Level Wells
Sunol Tree Gas Station
3004 Andrade Road, Sunol, CA**

Well- ID	Date	Depth (feet, bgs)	TPH-g	benzene	toluene	ethyl-benzene	xylenes	MtBE	TBA	ETBE	DIPE	TAME	Ethanol	Comments	
CMT-7-1	01/11/05	13.5	< 25	< 0.5	0.52	< 0.5	< 0.5	2.5	< 10	< 5.0	< 5.0	< 5.0	< 100	Shallow	
	07/13/05		ND	ND	ND	ND	ND	3.7	ND	ND	ND	ND	ND		
	08/16/06		42	ND	ND	ND	ND	27	ND	ND	ND	ND	ND		
	10/27/06		50	ND	2.2	ND	2.7	37	ND	ND	ND	ND	ND		
	04/19/10		<50	<0.5	<0.5	<0.5	<0.5	<0.5	13	<2.0	<0.5	<0.5	<0.5		<50
	10/16/10		<50	<0.5	<0.5	<0.5	<0.5	<0.5	11	2.6	<0.5	<0.5	<0.5		<50
	03/30/11		<50	<0.5	<0.5	<0.5	<0.5	<0.5	8.9	ND	<0.5	<0.5	<0.5		<50
CMT-7-2	01/10/05	43	< 25	< 0.5	< 0.5	< 0.5	< 0.5	7.4	< 10	< 5.0	< 5.0	< 5.0	< 100	Intermediate	
	07/13/05		230	< 2.5	< 2.5	< 2.5	< 2.5	320	< 50	< 25	< 25	< 25	< 500		
	08/16/06		400	< 2.5	< 2.5	< 2.5	< 2.5	390	< 50	< 25	< 25	< 25	< 500		
	10/27/06		490	< 5.0	< 5.0	< 5.0	< 5.0	400	< 100	< 50	< 50	< 50	< 1,000		
	04/19/10		<50	<2.5	<2.5	<2.5	<2.5	170	<10	<2.5	<2.5	<2.5	<250		
	10/16/10		<50	<0.5	<0.5	<0.5	<0.5	180	<20	<5.0	<5.0	<5.0	<500		
	03/30/11		<50	<0.5	<0.5	<0.5	<0.5	140	<20	<5.0	<5.0	<5.0	<500		
CMT-7-3	01/10/05	57	< 25	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0	< 10	< 5.0	< 5.0	< 5.0	< 100	Deep	
	07/13/05		ND	ND	ND	ND	ND	1.1	ND	ND	ND	ND	ND		
	08/16/06		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
	10/27/06		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
	04/19/10		<50	<0.5	<0.5	<0.5	<0.5	<0.5	<2.0	<0.5	<0.5	<0.5	<50		
	10/16/10		<50	<0.5	<0.5	<0.5	<0.5	<0.5	<2.0	<0.5	<0.5	<0.5	<50		
	03/30/11		<50	<0.5	<0.5	<0.5	<0.5	<0.5	<2.0	<0.5	<0.5	<0.5	<50		
CMT-8-1	01/14/05	22	< 25	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0	< 10	< 5.0	< 5.0	< 5.0	< 100	Shallow	
	08/16/06		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
	10/26/06		26	ND	0.78	ND	1.4	ND	ND	ND	ND	ND	ND		
	04/19/10		<50	<0.5	<0.5	<0.5	<0.5	<0.5	<2.0	<0.5	<0.5	<0.5	<50		
	10/16/10		NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM		
	03/30/11		NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM		
CMT-8-2	01/14/05	43.5	< 25	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0	< 10	< 5.0	< 5.0	< 5.0	< 100	Intermediate	
	08/16/06		ND	ND	ND	ND	ND	ND	80	ND	ND	ND	ND		
	10/26/06		ND	ND	0.81	ND	1.2	ND	80	ND	ND	ND	ND		
	04/19/10		<50	<0.5	<0.5	<0.5	<0.5	<0.5	<2.0	<0.5	<0.5	<0.5	<50		
	10/16/10		NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM		
	03/30/11		NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM		
CMT-8-3	01/14/05	52	< 25	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0	< 10	< 5.0	< 5.0	< 5.0	< 100	Deep	
	08/16/06		ND	ND	ND	ND	ND	< 1.0	80	ND	ND	ND	ND		
	10/26/06		ND	ND	0.70	ND	1.1	ND	80	ND	ND	ND	ND		
	04/19/10		<50	<0.5	<0.5	<0.5	<0.5	<0.5	<2.0	<0.5	<0.5	<0.5	<50		
	10/16/10		NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM		
	03/30/11		NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM		
Environmental Screening Levels (ESLs)			100	1.0	40	30	20	5.0	12	NE	NE	NE	NE		

**Table 2. Groundwater Results - Multi-Level Wells
Sunol Tree Gas Station
3004 Andrade Road, Sunol, CA**

Well- ID	Date	Depth (feet, bgs)	TPH-g	benzene	toluene	ethyl-benzene	xylenes	MtBE	TBA	ETBE	DIPE	TAME	Ethanol	Comments
CMT-9-1	01/14/05	22	< 25	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0	< 10	< 5.0	< 5.0	< 5.0	< 100	Shallow
	08/16/06		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
	10/26/06		ND	ND	0.72	ND	1.0	ND	ND	ND	ND	ND	ND	
	04/19/10		<50	<0.5	<0.5	<0.5	<0.5	<0.5	<2.0	<0.5	<0.5	<0.5	<50	
	10/16/10		NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	
	03/30/11		NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	
CMT-9-2	01/14/05	43.5	< 25	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0	< 10	< 5.0	< 5.0	< 5.0	< 100	Intermediate
	08/16/06		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
	10/26/06		ND	ND	0.77	ND	1.2	ND	ND	ND	ND	ND	ND	
	04/19/10		<50	<0.5	<0.5	<0.5	<0.5	<0.5	<2.0	<0.5	<0.5	<0.5	<50	
	10/16/10		NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	
	03/30/11		NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	
CMT-9-3	01/14/05	52	< 25	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0	< 10	< 5.0	< 5.0	< 5.0	< 100	Deep
	08/16/06		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
	10/26/06		ND	ND	0.57	ND	0.94	ND	ND	ND	ND	ND	ND	
	04/19/10		<50	<0.5	<0.5	<0.5	<0.5	<0.5	<2.0	<0.5	<0.5	<0.5	<50	
	10/16/10		NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	
	03/30/11		NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	
CMT-10-1	01/14/05	22	< 25	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0	< 10	< 5.0	< 5.0	< 5.0	< 100	Shallow
	07/13/05		ND	ND	ND	ND	ND	3.8	ND	ND	ND	ND	ND	
	08/15/06		ND	ND	ND	ND	ND	1.6	ND	ND	ND	ND	ND	
	10/26/06		ND	ND	0.8	ND	1.5	2.4	ND	ND	ND	ND	ND	
	04/19/10		NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	
	10/16/10		NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	
	03/30/11		< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 2.0	< 0.5	< 0.5	< 0.5	< 50	
CMT-10-2	01/14/05	42	< 25	< 0.5	< 0.5	< 0.5	< 0.5	2.6	< 10	< 5.0	< 5.0	< 5.0	< 100	Intermediate
	07/13/05		ND	ND	ND	ND	ND	4.8	ND	ND	ND	ND	ND	
	08/15/06		ND	ND	ND	ND	ND	1.6	ND	ND	ND	ND	ND	
	10/26/06		35	ND	1.2	ND	2.3	4.9	ND	ND	ND	ND	ND	
	04/19/10		NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	
	10/16/10		NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	
	03/30/11		< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	1.1	< 2.0	< 0.5	< 0.5	< 0.5	
CMT-10-3	01/14/05	52	< 25	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0	< 10	< 5.0	< 5.0	< 5.0	< 100	Deep
	07/13/05		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
	08/15/06		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
	10/26/06		ND	ND	0.9	ND	1.6	ND	ND	ND	ND	ND	ND	
	04/19/10		NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	
	10/16/10		NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	
	03/30/11		< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.86	< 2.0	< 0.5	< 0.5	< 0.5	
Environmental Screening Levels (ESLs)			100	1.0	40	30	20	5.0	12	NE	NE	NE	NE	

**Table 2. Groundwater Results - Multi-Level Wells
Sunol Tree Gas Station
3004 Andrade Road, Sunol, CA**

Well- ID	Date	Depth (feet, bgs)	TPH-g	benzene	toluene	ethyl-benzene	xylenes	MtBE	TBA	ETBE	DIPE	TAME	Ethanol	Comments
CMT-11-1	01/10/05	22.5	< 25	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0	< 10	< 5.0	< 5.0	< 5.0	< 100	Shallow
	08/15/06		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
	10/26/06		25	ND	1.2	ND	1.8	ND	ND	ND	ND	ND	ND	
	04/19/10		<50	<0.5	<0.5	<0.5	<0.5	<0.5	<2.0	<0.5	<0.5	<0.5	<0.5	
	10/16/10		NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	
	03/30/11		NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	
CMT-11-2	01/10/05	32	< 25	< 0.5	< 0.5	< 0.5	< 0.5	1.3	< 10	< 5.0	< 5.0	< 5.0	< 100	Intermediate
	08/15/06		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
	10/26/06		31	ND	0.83	ND	1.6	ND	ND	ND	ND	ND	ND	
	04/19/10		<50	<0.5	<0.5	<0.5	<0.5	<0.5	<2.0	<0.5	<0.5	<0.5	<0.5	
	10/16/10		NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	
	03/30/11		NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	
CMT-11-3	01/10/05	53	< 25	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0	< 10	< 5.0	< 5.0	< 5.0	< 100	Deep
	08/15/06		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
	10/26/06		26	ND	0.64	ND	1.2	ND	ND	ND	ND	ND	ND	
	04/19/10		<50	<0.5	<0.5	<0.5	<0.5	<0.5	<2.0	<0.5	<0.5	<0.5	<0.5	
	10/16/10		NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	
	03/30/11		NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	
CMT-12-1	01/10/05	22.75	< 25	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0	< 10	< 5.0	< 5.0	< 5.0	< 100	Shallow
	08/15/06		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
	10/26/06		ND	ND	0.56	ND	0.93	ND	ND	ND	ND	ND	ND	
	04/19/10		<50	<0.5	<0.5	<0.5	<0.5	<0.5	<2.0	<0.5	<0.5	<0.5	<0.5	
	10/16/10		NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	
	03/30/11		NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	
CMT-12-2	01/10/05	38.25	< 25	< 0.5	< 0.5	< 0.5	< 0.5	1.4	< 10	< 5.0	< 5.0	< 5.0	< 100	Intermediate
	08/15/06		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
	10/26/06		ND	ND	1.0	ND	1.9	ND	ND	ND	ND	ND	ND	
	04/19/10		<50	<0.5	<0.5	<0.5	<0.5	23	<2.0	<0.5	<0.5	<0.5	<0.5	
	10/16/10		NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	
	03/30/11		NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	
CMT-12-3	01/10/05	57.25	< 25	< 0.5	< 0.5	< 0.5	< 0.5	1.7	< 10	< 5.0	< 5.0	< 5.0	< 100	Deep
	08/15/06		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
	10/26/06		NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	04/19/10		<50	<0.5	<0.5	<0.5	<0.5	<0.5	<2.0	<0.5	<0.5	<0.5	<0.5	
	10/16/10		NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	
	03/30/11		NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	
Environmental Screening Levels (ESLs)			100	1.0	40	30	20	5.0	12	NE	NE	NE	NE	

Table 2. Groundwater Results - Multi-Level Wells
Sunol Tree Gas Station
3004 Andrade Road, Sunol, CA

Well- ID	Date	Depth (feet, bgs)	TPH-g	benzene	toluene	ethyl-benzene	xylenes	MtBE	TBA	ETBE	DIPE	TAME	Ethanol	Comments
PZ-1a	12/03/04	17	180	< 1.0	< 1.0	< 1.0	< 2	190	< 20	< 10	< 10	< 10	< 200	Shallow
	08/16/06		440	ND	ND	ND	ND	57	ND	ND	ND	ND	ND	
	10/27/06		130	ND	ND	ND	ND	52	ND	ND	ND	ND	ND	
	04/19/10		<50	<0.5	<0.5	<0.5	<0.5	23	<2.0	<0.5	<0.5	<0.5	<50	
	10/16/10		NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	
	03/30/11		NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	
PZ-1b	12/03/04	46.5	38	< 0.5	< 0.5	< 0.5	< 1	28	< 10	< 5.0	< 5.0	< 5.0	< 100	Deep
	08/16/06		51	ND	ND	ND	ND	38	ND	ND	ND	ND	ND	
	10/27/06		58	ND	ND	ND	0.79	50	ND	ND	ND	ND	ND	
	04/19/10		<50	<2.5	<2.5	<2.5	<2.5	63	<10	<2.5	<2.5	<2.5	<250	
	10/16/10		NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	
	03/30/11		NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	
PZ-2a	12/03/04	29	270	< 2.5	< 2.5	< 2.5	< 5	280	< 50	< 25	< 25	< 25	< 500	Shallow
	07/12/05		120	< 1.0	< 1.0	< 1.0	< 1.0	110	< 20	< 10	< 10	< 10	< 200	
	08/15/06		100	ND	ND	ND	ND	92	ND	ND	ND	ND	ND	
	10/26/06		68	ND	ND	ND	ND	56	ND	ND	ND	ND	ND	
	04/19/10		<50	<0.5	<0.5	<0.5	<0.5	22	<2.0	<0.5	<0.5	<0.5	<50	
	10/16/10		<50	<0.5	<0.5	<0.5	<0.5	18	3.00	<0.5	<0.5	<0.5	<50	
03/30/11	<50	<0.5	<0.5	<0.5	<0.5	7.5	2.9	<0.5	<0.5	<0.5	<50			
PZ-2b	12/03/04	49	160	< 1.0	< 1.0	< 1.0	< 2	150	< 20	< 10	< 10	< 10	< 200	Deep
	07/12/05		ND	ND	ND	< 1.0	ND	15	ND	ND	ND	ND	ND	
	08/15/06		ND	ND	ND	ND	ND	17	ND	ND	ND	ND	ND	
	10/26/06		43	ND	ND	ND	ND	17	ND	ND	ND	ND	ND	
	04/19/10		<50	<0.5	<0.5	<0.5	<0.5	<0.5	<2.0	<0.5	<0.5	<0.5	<50	
	10/16/10		NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	
03/30/11	<50	<0.5	<0.5	<0.5	<0.5	<0.5	3.0	<2.0	<0.5	<0.5	<0.5	<50		
PZ-3a	12/03/04	21	29	< 0.5	< 0.5	< 0.5	< 1.0	< 1.0	< 10	< 5.0	< 5.0	< 5.0	< 100	Shallow
	08/16/06		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
	10/26/06		27	< 0.5	1.8	< 0.5	2.9	ND	ND	ND	ND	ND	ND	
	04/19/10		<50	<0.5	<0.5	<0.5	<0.5	<0.5	<2.0	<0.5	<0.5	<0.5	<50	
	10/16/10		NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	
	03/30/11		NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	
PZ-3b	12/03/04	49	< 25	< 0.5	< 0.5	< 0.5	< 1.0	< 1.0	< 10	< 5.0	< 5.0	< 5.0	< 100	Deep
	08/16/06		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
	10/26/06		ND	ND	0.54	ND	0.88	ND	ND	ND	ND	ND	ND	
	04/19/10		<50	<0.5	<0.5	<0.5	<0.5	<0.5	<2.0	<0.5	<0.5	<0.5	<50	
	10/16/10		NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	
	03/30/11		NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	
Sunol Tree Domestic Well	03/30/11	153?	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	Deep
Environmental Screening Levels (ESLs)			100	1.0	40	30	20	5.0	12	NE	NE	NE	NE	

BOLD = Bold Print indicates concentrations are above ESLs.

< # = Detection limit elevated due to sample dilution.

ND = Not detected at or above the lab's practical quantitation limit.

NS= Not sampled

MtBE detections are confirmed by EPA Method #8260.

MTBE = Methyl-tert-Butyl ether

TAME = Tert-amyl methyl ether

ETBE = Ethyl tert-butyl ether

DIPE = Di-isopropyl ether

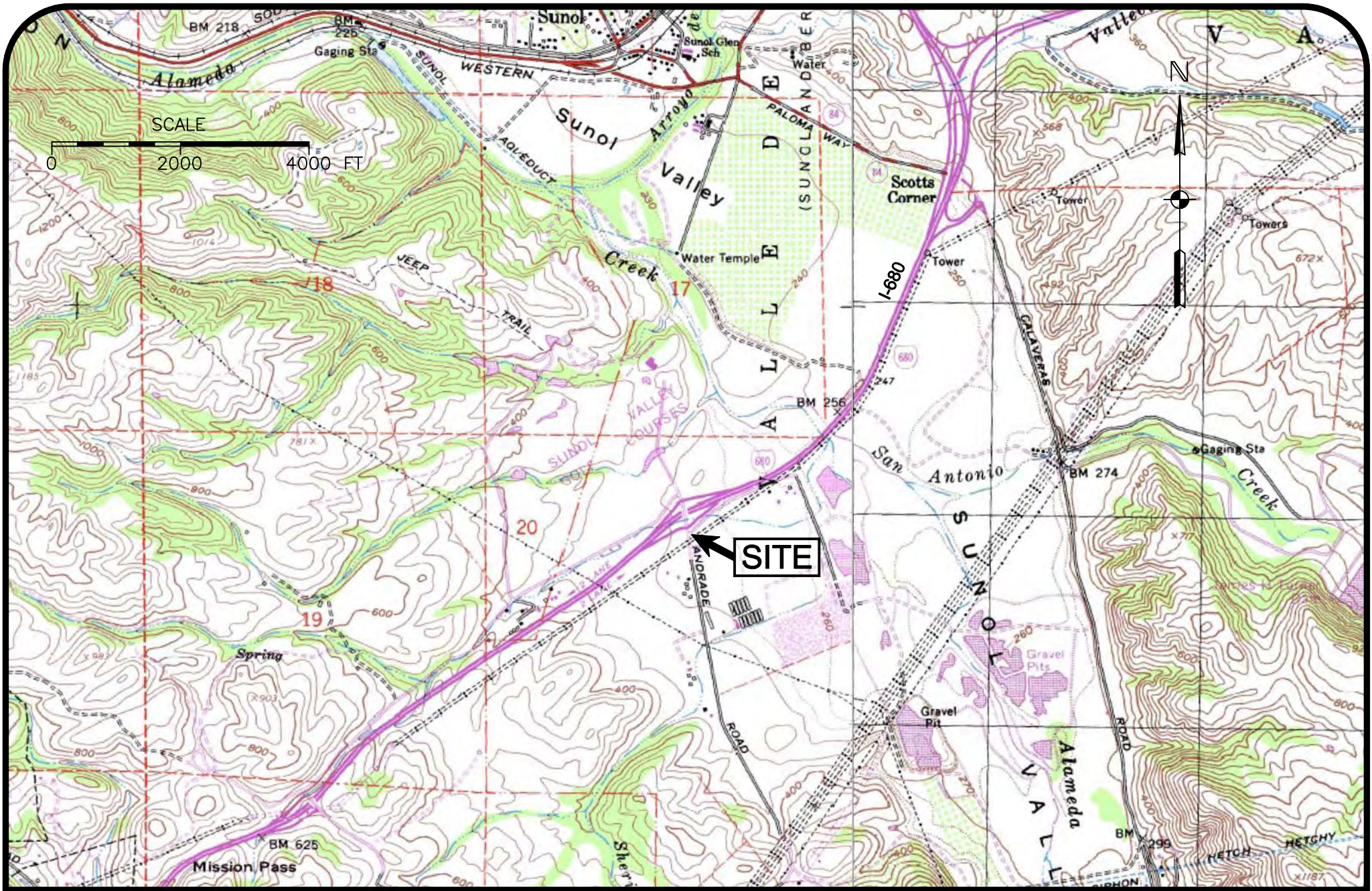
tBA = tert butyl alcohol

TPH-g - total petroleum hydrocarbons as gasoline concentrations are micrograms per liter (ug/L)

ESLs are from San Francisco Bay RWQCB where groundwater is a drinking water resource.

13/14 = duplicate sample results

FIGURES



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**Sunol Tree Gas Station
 Site Location Map
 3004 Andrade Road
 Sunol, CA 94586**

Project: 1024	Figure:
Date: 6/13/11	1
Scale: 1" = 2000'	



SCALE
0 50 100 FT

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**Sunol Tree Gas Station
Site Aerial Photograph**
3400 Andrade Road
Sunol, CA 94586

Project 1024

Date: 6/13/11

Scale: 1" = 50'

Figure:

2



Residential Well # G1

Sunol Tree Water Well

Sunol Tree Gas Station

Golf Driving Range
3220 Andrade Road

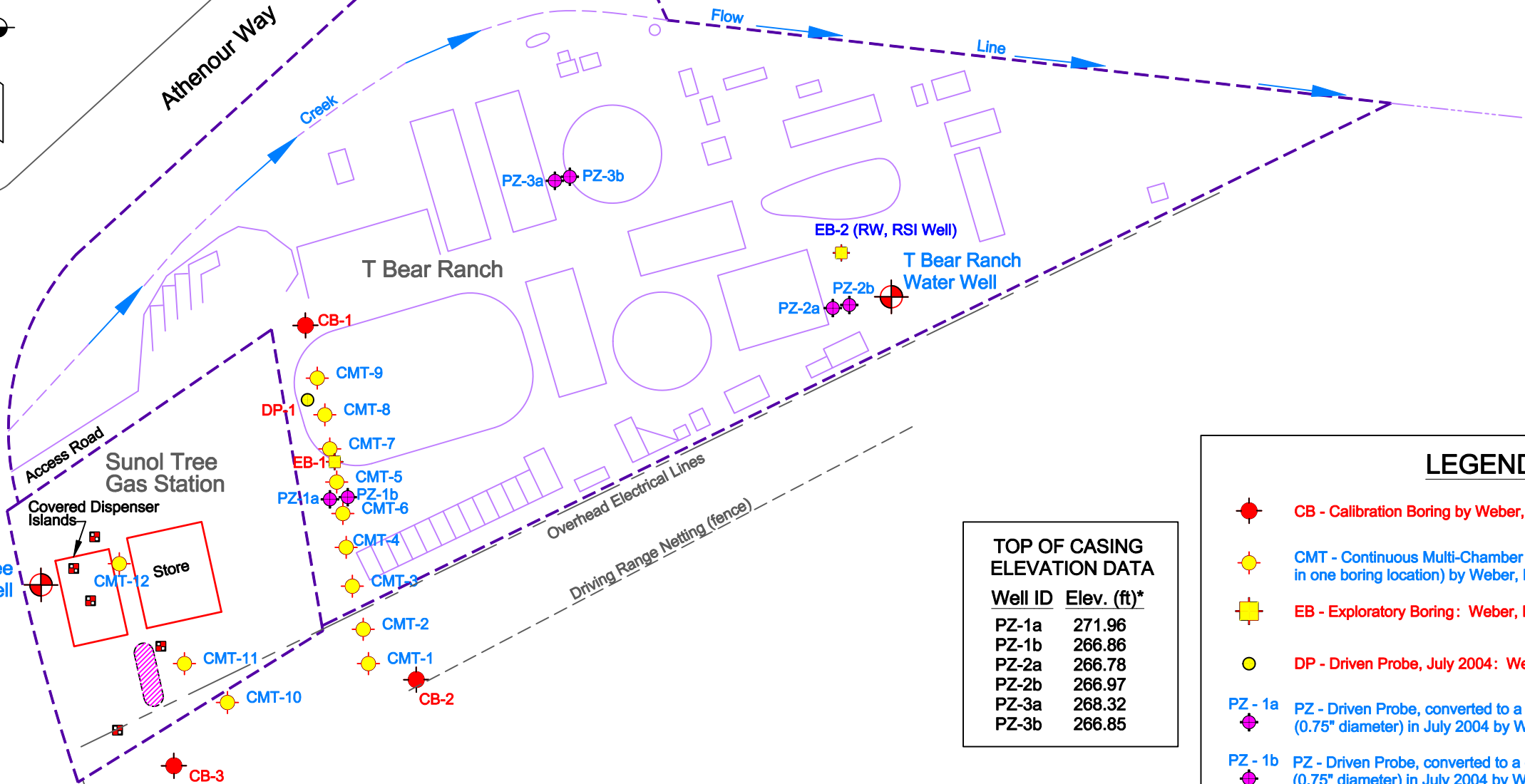
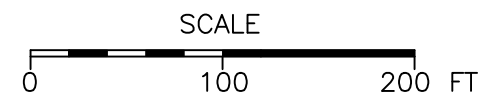
Sunset Riding Academy
7587 Athenour Way

T Bear Ranch

Well # A1

Athenour Way

Andrade Road



TOP OF CASING ELEVATION DATA

Well ID	Elev. (ft)*
PZ-1a	271.96
PZ-1b	266.86
PZ-2a	266.78
PZ-2b	266.97
PZ-3a	268.32
PZ-3b	266.85

LEGEND

- CB - Calibration Boring by Weber, Hayes & Associates
- CMT - Continuous Multi-Chamber Tubing Well (3 - 0.375" wells in one boring location) by Weber, Hayes & Associates
- EB - Exploratory Boring: Weber, Hayes & Associates
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- PZ - 1a PZ - Driven Probe, converted to a shallow Piezometer Well (0.75" diameter) in July 2004 by Weber, Hayes & Associates
- PZ - 1b PZ - Driven Probe, converted to a deep Piezometer Well (0.75" diameter) in July 2004 by Weber, Hayes & Associates
- Approximate location of water supply well
- Underground Fuel Storage Tank - source of release
- Previous Boring: Clearwater Consultants, 2002
- 22 MtBE Concentration (ug/L)

*NOTE:
Adapted from Weber, Hayes & Associates figures in their June 30, 2008 "Carbon System Test Results" report.

*NOTE:
All well head elevations were surveyed by Robert McGregor (Lic. #5946); PZ wells on July 26, 2004 and CMT wells on January 21, 2005.

Project 1024 Figure: **3**

Date: 6/13/11

Scale: 1" = 100'

**Sunol Tree Gas Station
Monitoring Well and Soil Boring
Locations**

3004 Andrade Road
Sunol, CA 94586

Cook Environmental Services, Inc.
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 (925) 787-6869 cell
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Sunset Riding Academy
7587 Athenour Way

Well # A1



Athenour Way

Creek

Flow

Line

PZ-3a
268.32

PZ-3b

EB-2 (RW, RSI Well)

T Bear Ranch
Water Well

PZ-2a
266.78

PZ-2b

T Bear Ranch

N57 E @ 0.014

CB-1

CMT-9

CMT-8

CMT-7

CMT-5

CMT-6

CMT-4

CMT-3

CMT-2

CMT-1

DP-1

EB-1

PZ-1a
271.96

PZ-1b

Sunol Tree
Gas Station

Covered
Dispenser
Islands

Store

Sunol Tree
Water Well

CMT-12

CMT-11

CMT-10

CB-3

Overhead Electrical Lines

Driving Range Netting (fence)

Golf Driving Range
3220 Andrade Road










Andrade Road

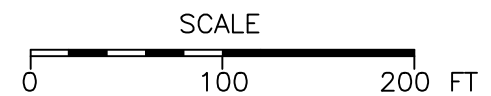
Residential Well # G1

TOP OF CASING ELEVATION DATA

Well ID	Elev. (ft)*
PZ-1a	271.96
PZ-1b	266.86
PZ-2a	266.78
PZ-2b	266.97
PZ-3a	268.32
PZ-3b	266.85

LEGEND

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-  PZ - 1a PZ - Driven Probe, converted to a shallow Piezometer Well (0.75" diameter) in July 2004 by Weber, Hayes & Associates
-  PZ - 1b PZ - Driven Probe, converted to a deep Piezometer Well (0.75" diameter) in July 2004 by Weber, Hayes & Associates
-  Approximate location of water supply well
-  Underground Fuel Storage Tank - source of release
-  Previous Boring: Clearwater Consultants, 2002
- 22 MtBE Concentration (ug/L)



*NOTE:
Adapted from Weber, Hayes & Associates figures in their June 30, 2008
"Carbon System Test Results" report.

*NOTE:
All well head elevations were surveyed by Robert McGregor (Lic. #5946);
PZ wells on July 26, 2004 and CMT wells on January 21, 2005.

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Sunol Tree Gas Station
Shallow Groundwater Gradient Map
3004 Andrade Road
Sunol, CA 94586

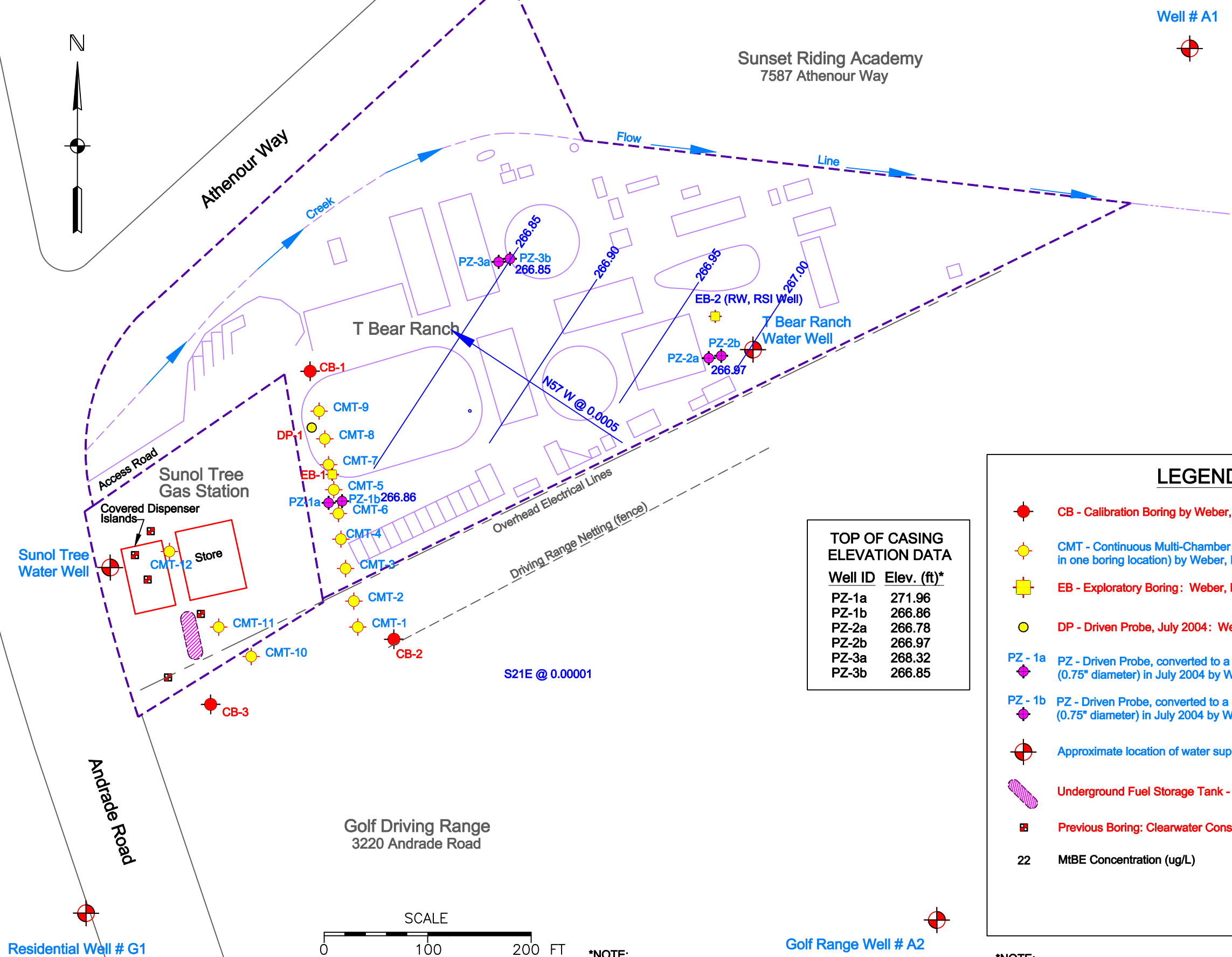
Project 1024

Date: 6/13/11

Scale: 1" = 100'

Figure:

4A



TOP OF CASING ELEVATION DATA

Well ID	Elev. (ft)*
PZ-1a	271.96
PZ-1b	266.86
PZ-2a	266.78
PZ-2b	266.97
PZ-3a	268.32
PZ-3b	266.85

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- Approximate location of water supply well
- Underground Fuel Storage Tank - source of release
- Previous Boring: Clearwater Consultants, 2002
- 22 MtBE Concentration (ug/L)

***NOTE:**
Adapted from Weber, Hayes & Associates figures in their June 30, 2008 "Carbon System Test Results" report.

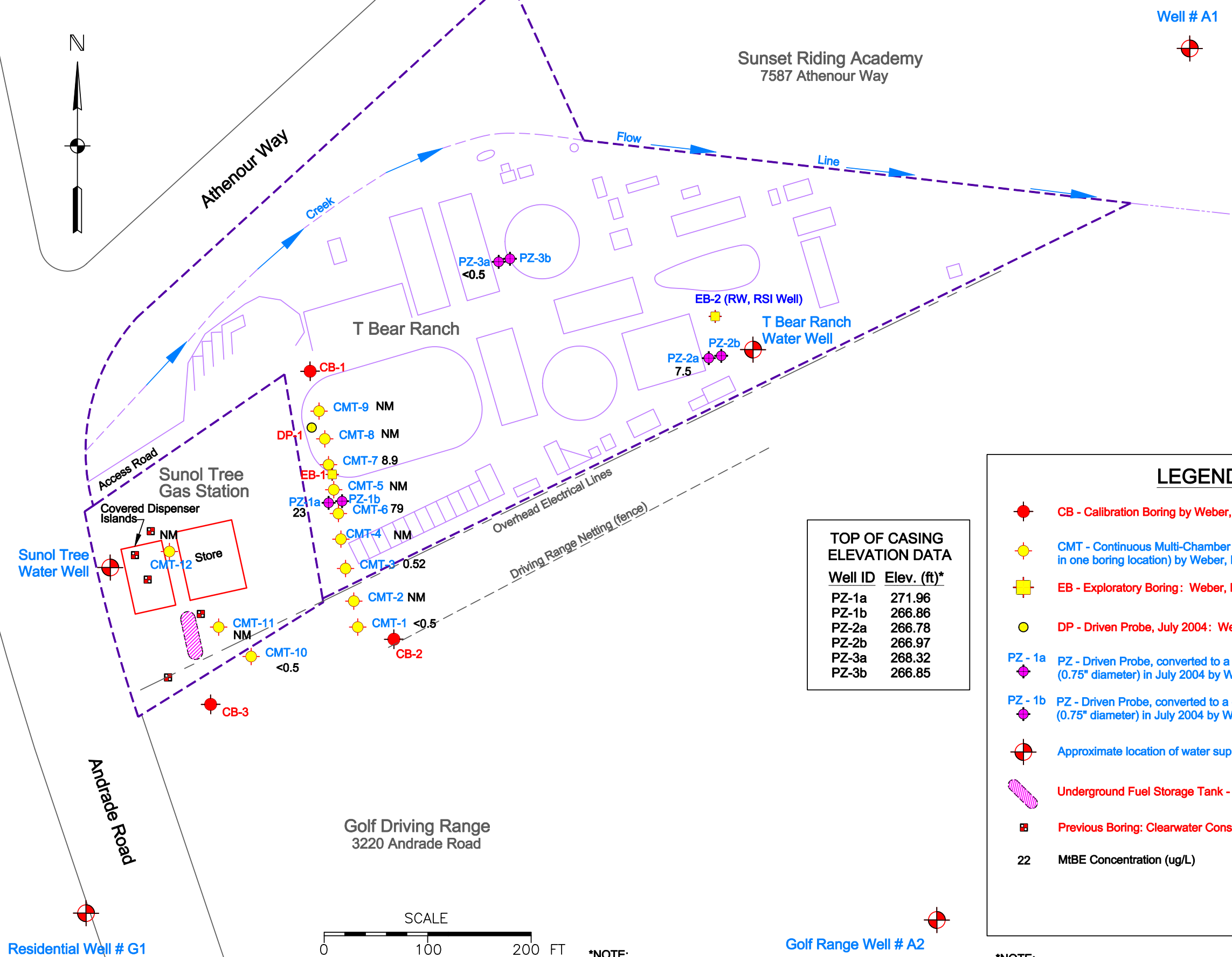
***NOTE:**
All well head elevations were surveyed by Robert McGregor (Lic. #5946); PZ wells on July 26, 2004 and CMT wells on January 21, 2005.

Project 1024
Date: 6/13/11
Scale: 1" = 100'

Figure:
4B

**Sunol Tree Gas Station
Intermediate/Deep Groundwater
Gradient Map**
3004 Andrade Road
Sunol, CA 94586

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TOP OF CASING ELEVATION DATA

Well ID	Elev. (ft)*
PZ-1a	271.96
PZ-1b	266.86
PZ-2a	266.78
PZ-2b	266.97
PZ-3a	268.32
PZ-3b	266.85

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- PZ - 1b PZ - Driven Probe, converted to a deep Piezometer Well (0.75" diameter) in July 2004 by Weber, Hayes & Associates
- Approximate location of water supply well
- Underground Fuel Storage Tank - source of release
- Previous Boring: Clearwater Consultants, 2002
- 22 MtBE Concentration (ug/L)

***NOTE:**
Adapted from Weber, Hayes & Associates figures in their June 30, 2008 "Carbon System Test Results" report.

***NOTE:**
All well head elevations were surveyed by Robert McGregor (Lic. #5946); PZ wells on July 26, 2004 and CMT wells on January 21, 2005.

Project 1024
Date: 6/13/11
Scale: 1" = 100'

Figure:
5A

**Sunol Tree Gas Station
MtBE Concentrations
Shallow Water-Bearing Zone**
3004 Andrade Road
Sunol, CA 94586

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Residential Well # G1

Sunol Tree Water Well

Sunol Tree Gas Station

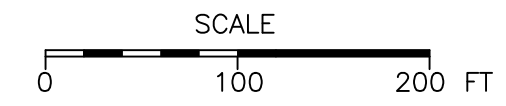
Golf Driving Range
3220 Andrade Road

Sunset Riding Academy
7587 Athenour Way

T Bear Ranch

Andrade Road

Athenour Way



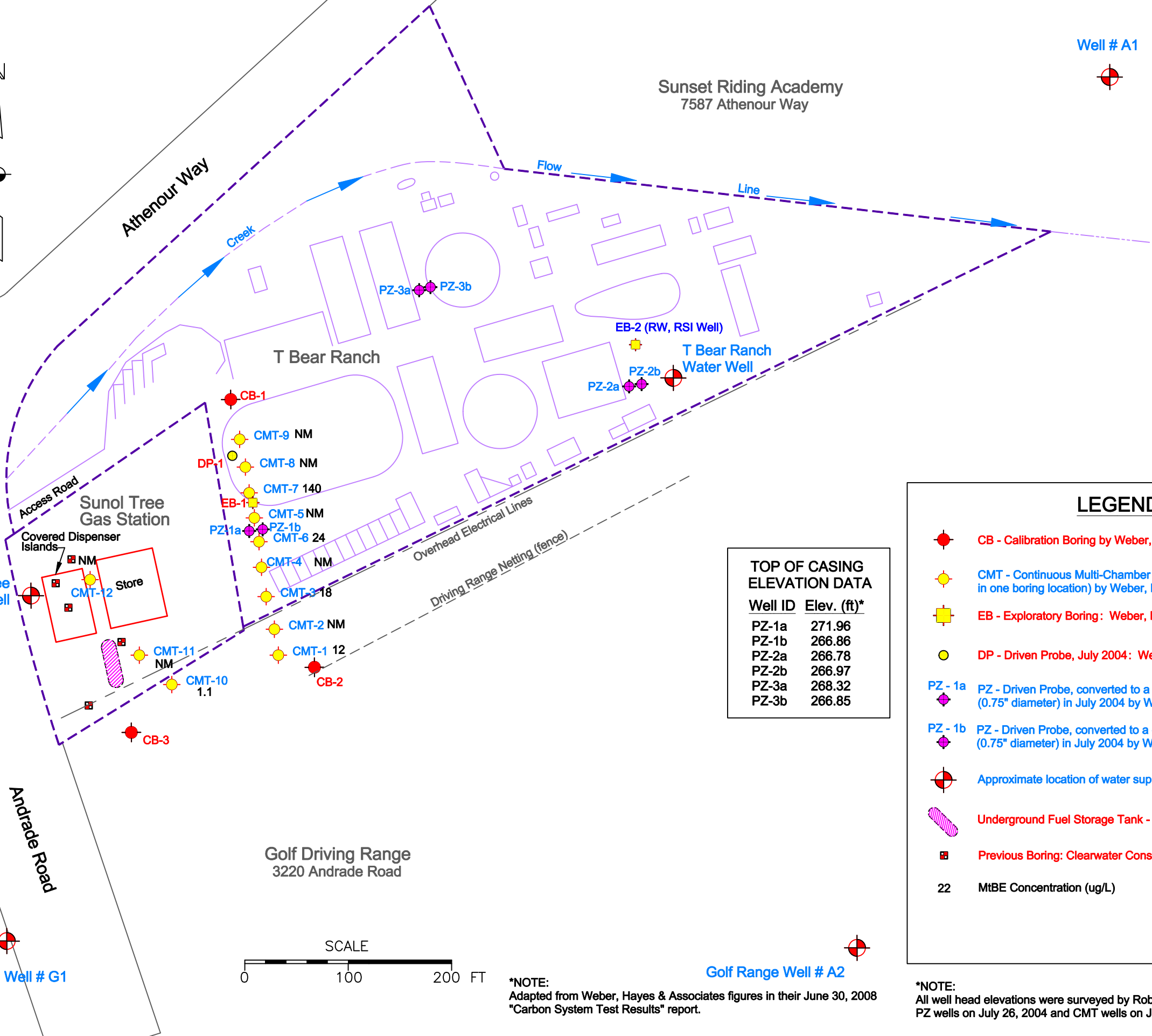
*NOTE:
Adapted from Weber, Hayes & Associates figures in their June 30, 2008
"Carbon System Test Results" report.

Golf Range Well # A2











*NOTE:
All well head elevations were surveyed by Robert McGregor (Lic. #5946);
PZ wells on July 26, 2004 and CMT wells on January 21, 2005.

Well ID	Elev. (ft)*
PZ-1a	271.96
PZ-1b	266.86
PZ-2a	266.78
PZ-2b	266.97
PZ-3a	268.32
PZ-3b	266.85

Well # A1



LEGEND

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-  PZ - 1a PZ - Driven Probe, converted to a shallow Piezometer Well (0.75" diameter) in July 2004 by Weber, Hayes & Associates
-  PZ - 1b PZ - Driven Probe, converted to a deep Piezometer Well (0.75" diameter) in July 2004 by Weber, Hayes & Associates
-  Approximate location of water supply well
-  Underground Fuel Storage Tank - source of release
-  Previous Boring: Clearwater Consultants, 2002
-  22 MtBE Concentration (ug/L)

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Sunol Tree Gas Station
MtBE Concentrations
Intermediate Water-Bearing Zone
3004 Andrade Road
Sunol, CA 94586

Project 1024
Date: 6/13/11

Figure:
5B

Scale: 1" = 100'



Residential Well # G1

Sunol Tree Water Well

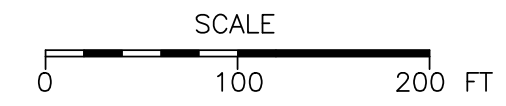
Sunol Tree Gas Station

Golf Driving Range
3220 Andrade Road

Sunset Riding Academy
7587 Athenour Way

Athenour Way

Andrade Road



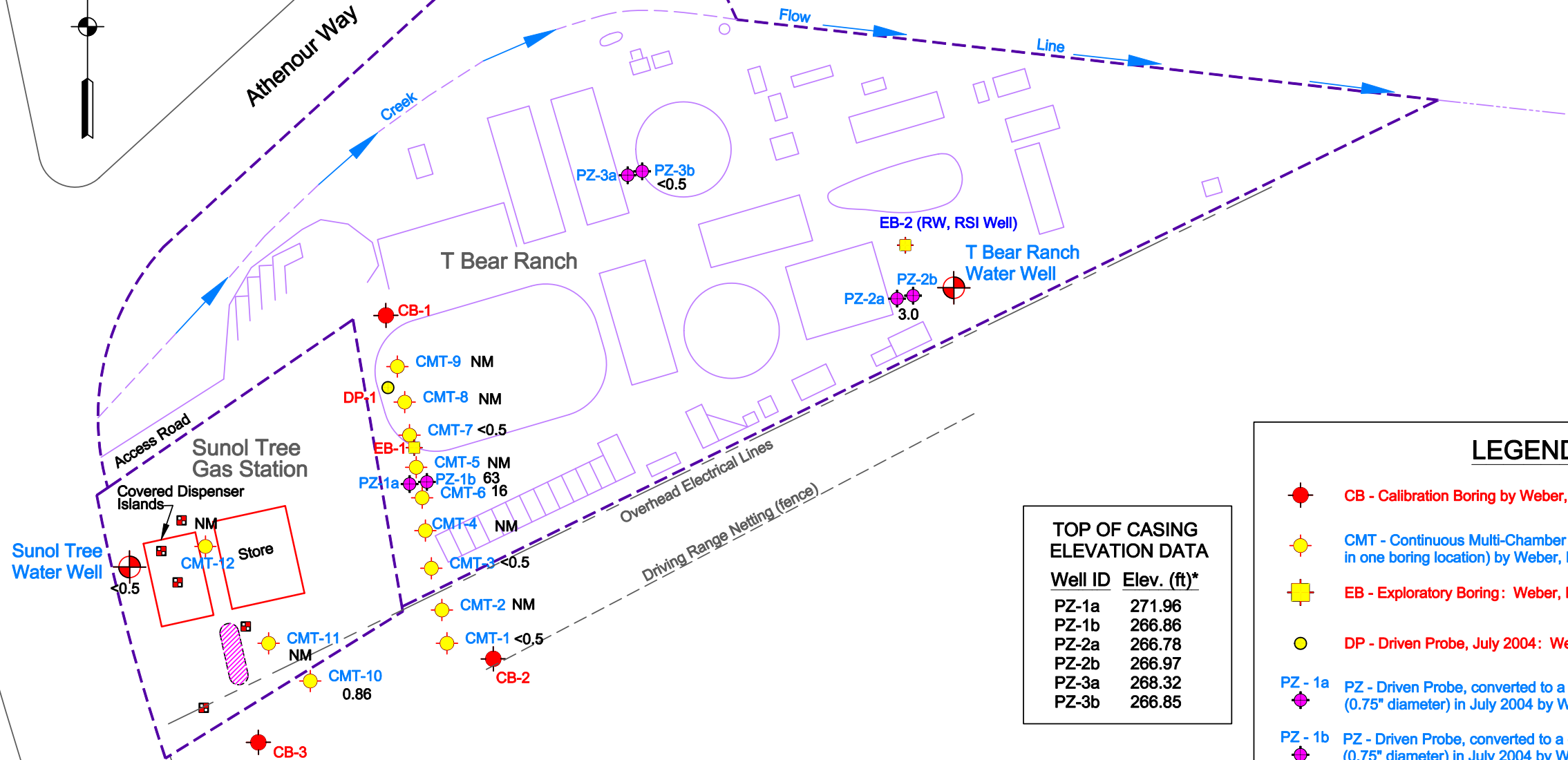
*NOTE:
Adapted from Weber, Hayes & Associates figures in their June 30, 2008
"Carbon System Test Results" report.

Golf Range Well # A2

*NOTE:
All well head elevations were surveyed by Robert McGregor (Lic. #5946);
PZ wells on July 26, 2004 and CMT wells on January 21, 2005.

Well ID	Elev. (ft)*
PZ-1a	271.96
PZ-1b	266.86
PZ-2a	266.78
PZ-2b	266.97
PZ-3a	268.32
PZ-3b	266.85

Well # A1



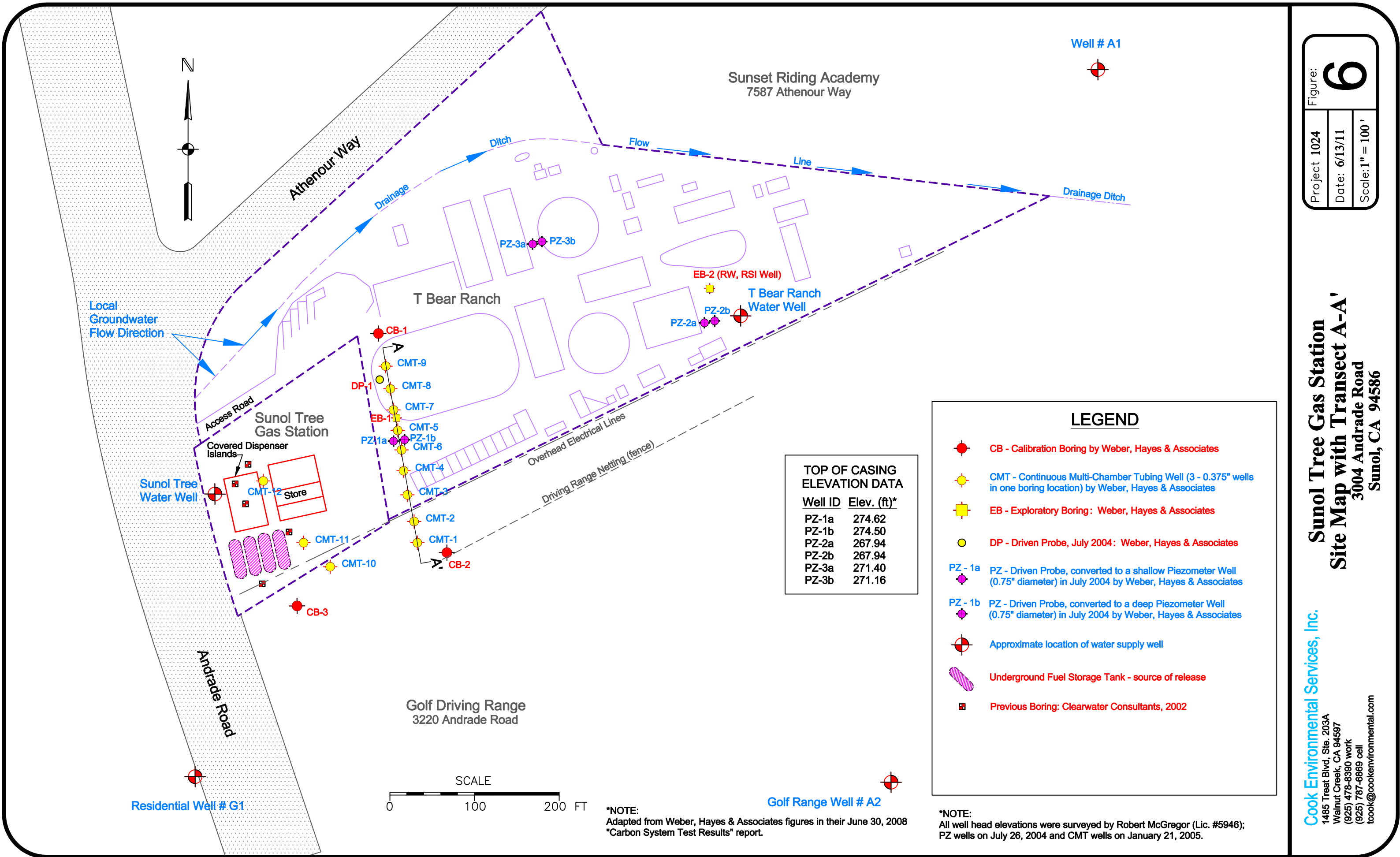
LEGEND

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- PZ - 1a PZ - Driven Probe, converted to a shallow Piezometer Well (0.75" diameter) in July 2004 by Weber, Hayes & Associates
- PZ - 1b PZ - Driven Probe, converted to a deep Piezometer Well (0.75" diameter) in July 2004 by Weber, Hayes & Associates
- Approximate location of water supply well
- Underground Fuel Storage Tank - source of release
- Previous Boring: Clearwater Consultants, 2002
- 22 MtBE Concentration (ug/L)

**Sunol Tree Gas Station
MtBE Concentrations
Deep Water-Bearing Zone**
3004 Andrade Road
Sunol, CA 94586

Cook Environmental Services, Inc.
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Project 1024	Figure:	5C
Date: 6/13/11		
Scale: 1" = 100'		



**Sunol Tree Gas Station
 Site Map with Transect A-A'**
 3004 Andrade Road
 Sunol, CA 94586

Cook Environmental Services, Inc.
 1485 Treat Blvd, Ste. 203A
 Walnut Creek, CA 94597
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 tcook@cookenvironmental.com

Well # A1

Sunset Riding Academy
 7587 Athenour Way

Golf Driving Range
 3220 Andrade Road

Residential Well # G1

Golf Range Well # A2

TOP OF CASING ELEVATION DATA

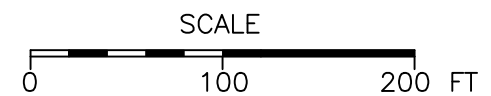
Well ID	Elev. (ft)*
PZ-1a	274.62
PZ-1b	274.50
PZ-2a	267.94
PZ-2b	267.94
PZ-3a	271.40
PZ-3b	271.16

LEGEND

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- CMT - Continuous Multi-Chamber Tubing Well (3 - 0.375" wells in one boring location) by Weber, Hayes & Associates
- EB - Exploratory Boring: Weber, Hayes & Associates
- DP - Driven Probe, July 2004: Weber, Hayes & Associates
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- Approximate location of water supply well
- Underground Fuel Storage Tank - source of release
- Previous Boring: Clearwater Consultants, 2002

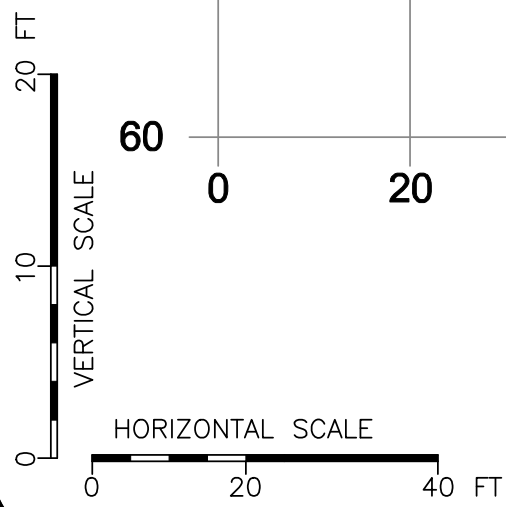
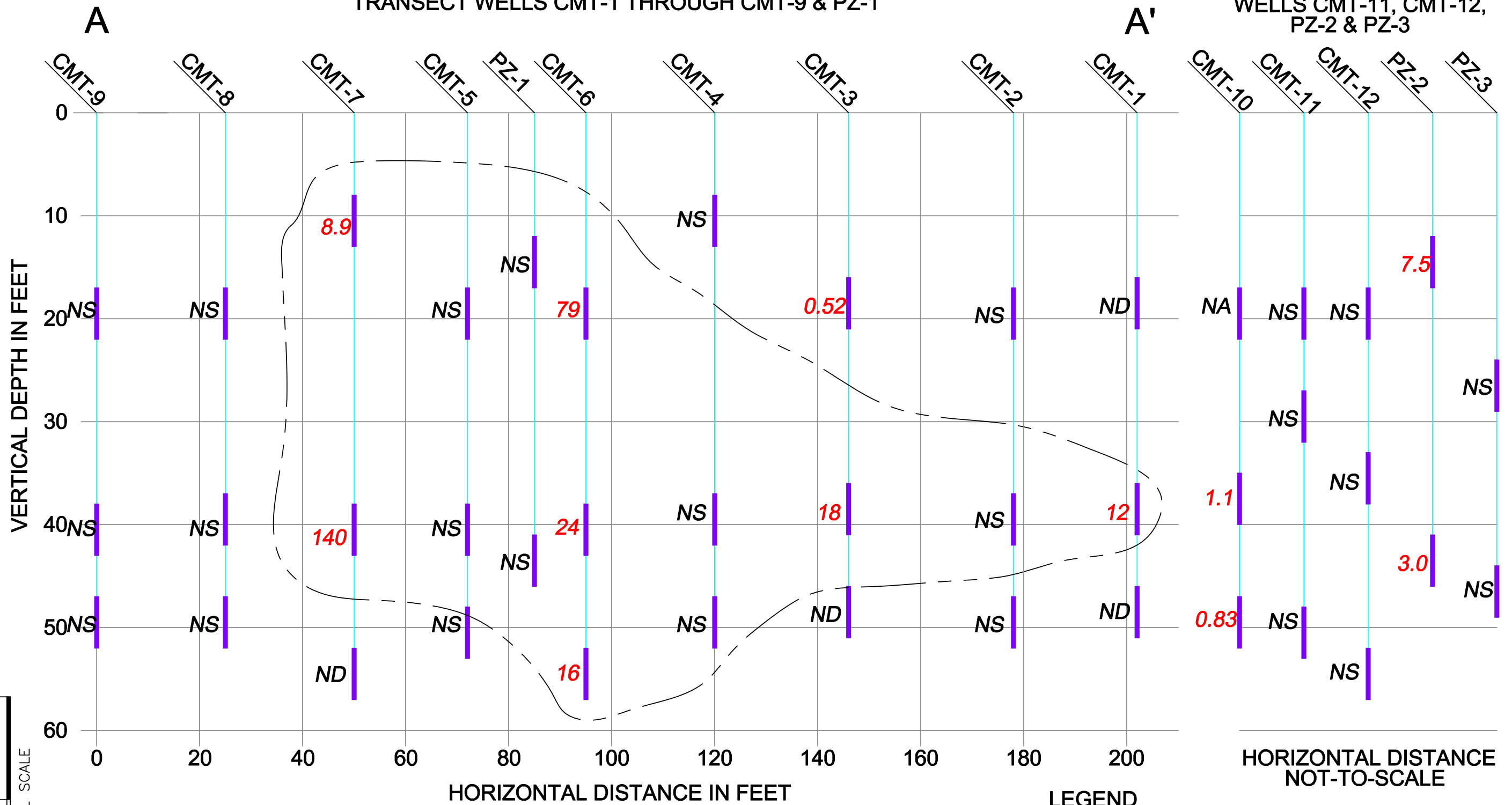
*NOTE:
 Adapted from Weber, Hayes & Associates figures in their June 30, 2008 "Carbon System Test Results" report.

*NOTE:
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TRANSECT WELLS CMT-1 THROUGH CMT-9 & PZ-1

NON-TRANSECT WELLS CMT-11, CMT-12, PZ-2 & PZ-3



63 MtBE in parts per billion, ug/L
ND Non-detectable
NA Not found
NS Not sampled

Project 1024
 Date: 6/13/11
 Scale: as shown

Sunol Tree Gas Station
MtBE Concentrations on Transect A-A'
 3004 Andrade Road
 Sunol, CA 94586

Cook Environmental Services, Inc.
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 Walnut Creek, CA 94597
 (925) 478-8390 work
 (925) 787-6869 cell
 tcook@cookenvironmental.com

APPENDIX A
Site Background

Regional Setting: The subject site is situated in the southwestern portion of the Sunol groundwater Basin (in a “subbasin” identified as the Sunol subbasin, see <http://aceh.intranets.com/~docs/GroupDocuments/FIGURES/2-Topograph-3D.pdf?id=28390&ord=040200> Figure 1)). The Sunol Valley is a structural trough surrounded by Diablo Range hills. Unconsolidated surface soils at the subject site have previously been mapped as water-bearing, alluvium deposits (Qal). Underlying the shallow alluvial deposits is the Livermore Formation (Tlo), significant water-bearing strata for the region. Non-water bearing, marine shale and sandstone deposits (JK) underlie the Livermore Formation. The Livermore and Sunol region is offset by a number of faults including the nearby Sinbad fault, which is buried beneath Alameda Creek-deposited alluvium, approximately 2,000 feet northwest of the site.

The general direction of regional groundwater movement is from the upland areas toward Alameda Creek and then westward toward the outlet of the basin (see Figure 1). The main surface water drainage in the Sunol subbasin is the northwest-flowing Alameda Creek located approximately 2,000 feet north of the subject site. Locally, groundwater is reported to be both confined and unconfined and generally flows to the northwest. Recharge occurs by infiltration of the surface water along Alameda Creek. The northwest trending Sinbad fault is likely to act as a barrier to the lateral movement of groundwater. Regional geologic cross-sections indicate the subject site is on the up-gradient side of the Sinbad fault where groundwater levels reportedly stand higher

The Sunol Valley contains two water-bearing geologic formations that are documented to yield adequate to large quantities of groundwater from production wells. They include Plio-Pleistocene sediments of the Livermore Formation (Tlo) and more recent Quaternary alluvium (Qal). These aquifer sediments are composed largely of sand and gravel with discontinuous layers of clay, and are underlain at a shallow depth by nonwater-bearing rocks that are exposed in the bordering highlands. Specifically, the total thickness of these water-bearing sediments is reported to be less than 200 feet in the vicinity of the site. Drillers logs completed during the drilling of two nearby water production wells indicate non-water bearing shale was logged at a depth of approximately 140’ although, given soil descriptions of other borings in the area suggest it is likely to be blue clay.

Logs of local water wells installed in the vicinity of the fuel leak site suggests some continuity in the shallow aquifer containing upwards of 50 feet of sand and gravel with limited clay. The stratigraphy underlying the shallow aquifer is less consistent due to the logged description of shale in two well logs but discontinuous sand and gravel lenses appearing at varying depths could indicate aquifer connectivity by river channel deposition.

- Drinking Water Well Testing: Testing was completed on the Sunol Tree Gas Station well and the 5 downgradient/sidegradient water wells in May 2003 following the discovery of MTBE in the T-Bear Ranch well. Off-site water production wells were located between approximately 550-1,700 feet downgradient from the former underground fuel storage tanks (USTs). Additional sampling was also completed on two upgradient water production wells (July 2004). The results indicate the T Bear Ranch was the only well that was significantly impacted (130 ppb MTBE).

- **Drinking Water Well Testing:** Testing was completed on the Sunol Tree Gas Station well and the 5 downgradient/sidegradient water wells in May 2003 following the discovery of MTBE in the T-Bear Ranch well. Off-site water production wells were located between approximately 550-1,700 feet downgradient from the former underground fuel storage tanks (USTs). Additional sampling was also completed on two upgradient water production wells (July 2004). The results indicate: The T-Bear Ranch was the only well that was significantly impacted (130 ppb MTBE). No driller's log is available for this well although a video log is scheduled for June 29, 2004.

Preferential Pathways

Active/Abandoned Wells: A water well survey appears to have been completed based on DWR drilling logs and maps provided by Zone 7 Water District but it is unclear whether a detailed site reconnaissance was completed. A follow-up testing program included collection of water samples from a number of local wells but accurate mapping and sampling protocols have not been documented.

On-Site Water Well: The Sunol Tree Gas Station has a production well on the premises and the well construction is unclear, as no log exists. A video log was completed which has cryptic information on the well screen. Specifically, first screens appear at 60 feet, and "water movement was noted at 62', 67', 101', & 103') At this point we assume the well is perforated from 60' to 153' below ground surface.

T Bear Well: The MTBE-impacted T Bear Ranch well was fully characterized using video logging, geophysical & discrete testing. However, recent communication from a local driller indicates the PVC casing may be an insert to a deeper cable tool drilled well (metal cased), so unusual preferential flow paths may exist.

Utility Survey: No utility survey has yet been completed in the immediate vicinity of the fuel release site (i.e., utility trenches with gas, sewer, water, storm drain, telephone, and electric lines).

Site Setting: The fuel release occurred at Sunol Tree Gas Station, an operating facility selling gasoline and diesel. The site located at 3004 Andrade Road, in Sunol, California, near the northbound exit ramp of Highway 680. The relatively flat-lying site contains 6 USTs.

The fuel release was discovered on April 12, 2002, during the removal of five, 15,000-gallon underground fuel tanks (USTs) and piping at the Sunol Tree Gas Station. The USTs were reported to be in good condition having no observable holes or corrosion. The consultant on-site noted hydrocarbon odor and soil staining in excavated soils. Ten sidewall samples and a water sample were obtained from the tank pit. Trace to non-detectable levels of TPH(gas-diesel)+BTEX-MTBE were found in the sidewall samples (ND-to-0.25 mg/kg MTBE). The pit water sample contained 84 ug/L MTBE. Sampling beneath the dispensers (12 samples) and piping trenches (3 samples) revealed generally low concentrations of gas and BTEX. A single elevated diesel hit was detected beneath dispenser #7 (1,300 mg/kg) and trace to elevated MTBE concentrations were detected in nine of the 14 samples (0.0058 to 5.9 mg/kg).

Approximately 3-500-4,000 cubic yards of soil was excavated, stockpiled on-site, and covered with plastic sheeting. Stockpile screening (four composite samples) revealed only trace

concentrations of diesel/motor oil and no detections of gas-BTEX-MTBE. In addition, 160,000 gallons of contaminated water were pumped out during installation of replacement tanks. The containerized water samples had MTBE detections ranging from 73 to 190 ug/L.

- **Source Area:** TPH and MTBE were detected in soil sidewalls during the UST closure operations in May 2002 when five, 15,000-gallon USTs were replaced. Pit sidewall and dispenser samples generally contained low concentrations of fuel contaminants (gas/diesel) and volatile constituent compounds. Specifically, soil concentrations ranged from non-detect to 150 ppm for gasoline, nondetect to 5.9 ppm for MTBE, trace TBA, and no DIPE, ETBE or TAME.

Groundwater samples were subsequently obtained from driven probe borings cored at 5 locations targeting the dispensers and USTs. Groundwater samples contained up to 17,000 ppb gasoline and 43 ppb MTBE (Nov-2002).

- **Dissolved plume:** The dissolved plume appears to be fully characterized. During the May 2002 UST Closure Operations, collected pit water contained no detectable gasoline concentrations but did contain 84 ppb MTBE. Disposal acceptance testing of 160,000 gallons of fuel-impacted groundwater pumped from the open pit containerized in storage tanks contained up to 170 ppb gasoline and 190 ppb MTBE.

Chronology of the Sunol Tree Gas Station Fuel Release + Impact to the T-Bear Ranch Well

2002

- April 12, 2002: Contamination discovered during removal of 5 underground fuel tanks at the Sunol Tree Gas Station
 - 4,000 cubic yards of contaminated removed and stockpiled on-site.
 - 160,000 gallons of contaminated water were pumped out during installation of new tanks
- June 27, 2002: AC-HCSA directive requiring workplan.
- Aug-20, 2002: Clearwater Consultants sampled water from a faucet on the Kelso property- results came back clean.
- Aug-23, 2002: *PRELIMINARY SITE ASSESSMENT (PSA) WORKPLAN* submitted by Clearwater Consultants. PSA work tasks were completed in Aug-Dec, including:
 - Nov-27, 2002: Five borings were drilled on-site. Groundwater encountered at depths between 16-19' (approx). Relatively low soil contamination but elevated groundwater contamination.
 - Dec-12, 2002: Video log of Kelso well showed total depth to be 153 feet and "Mils Knife" perforations located at 60', 62', 67', 101', & 103'. The well pump was located at a depth 100'. Depth to water was at 20 feet. Apparently no discrete samples were obtained from within the well.
 - Mar-14, 2003: Summary Report concluded more delineation was necessary including placement of wells.
 - Aug-27, 2002: AC-HCSA approval of workplan.

2003

- Feb-12, 2003: T-Bear property refinance rejected by Washington Mutual Bank due to perceived financial liability associated with the Kelsoe gasoline contamination. Washington termed the T-Bear Ranch "Unacceptable Collateral at the present time". The bank's environmental appraisal statement included the following rationale for rejection of the bank financing:

"The subject parcel (T-Bear Ranch) adjoins a chevron gas station. The underground tanks at the station have been identified as leaking per the EPA (really - AC-HCSA). The tanks and a significant amount of adjoining earth and soil have been removed.The subject parcel (T-Bear Ranch) derives it's water from two wells - obvious concerns regarding this.....This could cost multiple thousands of dollars and dictate that the Owner of the parcel (i.e.. Hayes, Tovani, lender) clean and dispose of any contaminated soil. Phase II report might lead to a Phase III report if sufficient contaminants are found to be present....."

- Feb-13, 2003: T-Bear Ranch well water sampled and tested by RJ Lee Group, Inc (Pennsylvania). MTBE detected at a concentration of 73 parts per billion (ppb).
- Feb-27, 2003: T-Bear Ranch well water sampled from "Kitchen Sink" and tested by Cerco Analytical (Pleasanton). MTBE detected at a concentration of 87.3 ppb
- Mar-3, 2003: T-Bear Ranch well water re-sampled and tested by Zone 7 Water District. MTBE detected at a concentration of 130 ppb.
- Mar-14, 2003: Clearwater Consultants submitted *PRELIMINARY SITE ASSESSMENT (PSA) SUMMARY REPORT* to AC-HCSA. As noted above, the report summarized field work completed in Aug-Dec, 2002, and concluded that more delineation was necessary including placement of wells.
- Mar-20, 2003: AC-HCSA 1) response to the *PSA Summary Report*, and 2) directive requiring further expedited work. AC-HCSA directed Mr. Kelso to submit a *Soil and Water Investigation (SWI) Workplan* by April 4, 2002 for completing an intensive subsurface investigation, which included the following tasks:
 - Collecting and testing water from domestic/commercial water wells in the vicinity of the Kelose gas station.
 - Removal of the 4,000 cubic yard stockpile at the Kelose gas station
 - Developing a full understanding of site conditions ("site conceptual model") by completing investigative work tasks including: on-site soil logging to at least 60 feet, installation of wells to characterize the full, 3-dimensional extent of contamination, survey of utilities and wells in the vicinity, video logging of the T-Bear well, and reporting.
- Apr-4, 2003: Request for extension of *SWI Workplan* submittal due date.
- Apr-7, 2003: AC-HCSA granted extension for the submittal of the of *SWI Workplan* to April 25th.
- Apr-11, 2003: T-Bear Ranch well water re-sampled by Clearwater Consultants. MTBE detected at a concentration of 120 ppb.
- May-6, 2003: *WELL SAMPLING REPORT* submitted by Clearwater Consultants. The report documents the sampling of 5 production wells located downgradient of the station, including the T-Bear Ranch well. Two of the wells had detections of MTBE including T-Bear Ranch well (120 ppb) and the adjacent golf driving range well (at the detection limit of 0.5 ppb, tested by Zone 7

on 3-4-02). The adjacent golf range well was resampled on April 11, 2003 by Clearwater Consultants and no MTBE was detected by their lab.

- May-8, 2003: *WORK PLAN FOR SOIL AND WATER INVESTIGATION (SWI)* submitted by Clearwater Consultants.
- May-12, 2003: State Underground Storage Tank Fund (State FUND) rejected Murray Kelsoe's application for acceptance on the grounds that he failed to comply with permit requirements. If accepted to the State FUND, Mr. Kelsoe would have been eligible for up to \$1.5 million dollars toward characterization and cleanup of the fuel release.
- Jun-13, 2003: AC-HCSA 1) rejection of the May-8 *SWI Workplan* (above) due to "substantial deficiencies" and required immediate re-submittal of an amended workplan.
 - AC-HCSA rejected the proposal to provide water to the T-Bear Ranch via the Kelsoe well, located at the gas station due to concerns of pulling the fuel release downward to the well screens.
 - Deficiencies noted by AC-HCSA included:
 - inadequate presentation of site-specific subsurface conditions (i.e.. "Site Conceptual Model") which is the rationale for initial installation of piezometers and subsequent installation of monitoring wells.
 - nested wells construction problems;
 - removal of the stockpile.
- Jul-3, 2003: Mr. Kelsoe's attorney submitted a letter appealing the State FUND's rejection.
- Aug-2003: State FUND rejected the appeal.
- Nov-6, 2003: A non-standard, carbon filtration system was installed to remove MTBE from groundwater pumped at the T Bear Ranch well.
 - initial breakthrough of first set of carbon vessels occurred after 89 days (Jan-27th) = 0.63 ppb MTBE.
 - initial breakthrough of second set of carbon vessels occurred after 202 days (May-5th) @ 1.6 ppb.
 - Carbon Change-out of all vessels occurred after 221 days (May-25th).
- 2003 to present: Ongoing Carbon System Monitoring (trace MTBE influent into the system does not require significant carbon change outs – see table for details).

APPENDIX B
Field Procedures

APPENDIX B

FIELD SAMPLING METHODOLOGY AND ELECTRONIC DATA DELIVERY

Cook Environmental Services, Inc. (CES) groundwater sampling methodology is based on procedures specified in the California State Water Resource Control Board *LUFT Field Manual*. Monitoring wells are exposed to atmospheric conditions for approximately 30 minutes prior to measurements to equalize barometric pressure in the well. If the well appears to be pressurized, or the groundwater level is fluctuating, measurements are collected until the level stabilizes.

CES uses an electronic well sounder to measure the static water levels in piezometer wells (e.g. PZ-1, PZ-2, PZ-3) to the nearest hundredth (0.01) of a foot. Depth-to-water measurements are subtracted from the top of casing elevations to obtain static water elevations.

Dedicated plastic tubing is stored in each sampling point is used to purge and sample each sampling point. During purging, physical parameters such as temperature, conductivity, pH and dissolved oxygen (DO) are monitored with field instruments to ensure that these parameters have stabilized to within a variation of fifteen percent prior to sampling. Field instruments are calibrated at the beginning of each sampling event. Purging is complete when field parameters have stabilized or after three well volumes are removed, whichever is greater.

A groundwater sample is collected from each well using the dedicated plastic tubing attached to a short length of clean silicone tubing. The silicone tubing is run through a peristaltic pump. The samples are collected from the effluent end of the silicone tubing after it passes through the peristaltic pump. Samples are collected directly into 40 milliliter volatile organic analysis (VOA) vials preserved with concentrated hydrochloric acid such that the pH of the sample drops to below 2.0. Samples are immediately placed in a cooler and chilled to 4 degrees Celsius until delivered to the laboratory. The samples are typically delivered to the lab the same day they are collected. Observations of groundwater conditions during purging, such as odor, volume of water purged, temperature, pH, specific conductivity, DO, and turbidity are recorded in the sampling logs. Groundwater samples are labeled with the project number, sample ID, and date collected. The same information is recorded on a chain-of-custody form. The samples are placed in an ice chest pending delivery to the ELAP certified laboratory.

Chemical analysis data are submitted electronically to the SWRCB Geographical Environmental Information Management System (GeoTracker) database, as required by AB2886 (Water Code Sections 13195-13198). The Alameda County Environmental Cleanup Oversight Programs (LOP and SLIC) also require submission of reports in electronic form to the Alameda County FTP site. Electronic analytical reports (EDF files) are prepared and formatted by the laboratory and submitted to GeoTracker by CES. Along with the analytical results, well latitudes, longitudes (GEO_XY files), and elevations (GEO_Z files) are submitted to the database, as necessary. Submittal of a well status and usage report (GEO_WELL file) is required for each monitoring event. Current maps (GEO_MAP files) are also submitted when Site features are added or changed. Each report is submitted in pdf format (GEO_REPORT file) as they are completed.

APPENDIX C
Well Sampling Logs



**Environmental
Sampling Services, LLC**

**Depth to Water Measurements on March 29, 2011
Sunol Tree Gas Station, Sunol, California**

Well ID	Depth to Water (feet below TOC)
PZ-1a	2.54
PZ-1b	7.76
PZ-2a	1.16
PZ-2b	0.97
PZ-3a	3.08
PZ-3b	4.31



**Environmental
Sampling Services, LLC**

WATER QUALITY SAMPLE LOG SHEET	WELL IDENTIFICATION: <u>CMT-1-C1</u> DATE: <u>3/30/2011</u>
Project Name: <u>Sunol Tree Gas Station</u> Job #: <u>1024</u>	Client: <u>Cook Environmental Services, Inc.</u>
Laboratory: <u>McC Campbell Analytical, Inc.</u>	Weather Conditions: <u>Mostly Sunny & Warm</u>
Well Diameter: <u>0.375"</u> 0.75" 1" 2" Other: _____	Well Type: <u>PVC</u> / Stainless Steel / Other: _____
Is Well Secured? <u>Yes</u> / No Bolt Size: <u>9/16"</u>	Type of lock / Lock number: <u>No lock</u>
Screen Interval (Ft., BGS): <u>NA</u>	Set pump intake @ _____ (Ft., BTOC)
Purge Method: NA Disp. PE Bailer Centrifugal Pump <u>Peristaltic Pump</u> Bladder Pump SS Submersible Pump	
Pump Lines: NA / <u>PE</u> Teflon / Other - New / Cleaned / <u>Dedicated</u> Bailer Line: <u>NA</u> New / Cleaned / Dedicated	
Method of Cleaning Pump: <u>NA</u> / Liqui-nox / Tap Water / DI Rinse / Other: _____	
Sampling Method: Disp. PE Bailer <u>Peristaltic Pump</u> Bladder Pump SS Submersible Pump PDBs	
Multi-Parameter Meter / Probe Serial No.: 556 MPS - 09C100611 / <u>556 MPS - 09C100612</u>	
Equipment Calibration: <u>See Daily Equipment Calibration Sheet</u> OVM 580B P.I.D. Reading: <u>NA</u> ppm	
Water Level Meter Serial No.: OW 9371-1 / 25083 / 25742 / 49914 / 56500 / Other: <u>NA</u>	
Beginning Water Level (DTW): <u>NA</u> Ending Water Level: <u>NA</u>	
TD = <u>21.15</u> - _____ (DTW) = _____ (Ft. of water) x "K" = _____ (Gals./CV) x <u>3</u> (No. of CV) = _____ (Gals.)	
<u>"K" = 0.49 oz/ft (0.375" well)</u> "K" = 2.7 oz/ft (0.75" well) "K" = 0.04 (1" well) "K" = .163 (2" well)	

FIELD WATER QUALITY PARAMETERS

Date	Time	Discharge (Gallons)	Temp (°C)	Specific Conductivity (µS/cm ^o) ± 10%	pH (SU) ± 0.1 SU	DO (mg/L) ± 10%	Water Level (BTOC)	Color	Comments
<u>3/30/2011</u>	<u>10:39</u>	<u>Initial</u>	<u>16.33</u>	<u>1307</u>	<u>7.09</u>	<u>1.55</u>	<u>—</u>	<u>Lt Brown</u>	
	<u>10:40</u>	<u>0.063</u>	<u>16.54</u>	<u>1310</u>	<u>7.06</u>	<u>1.36</u>	<u>—</u>	<u>"</u>	<u>8oz</u>
	<u>10:41</u>	<u>0.13</u>	<u>16.60</u>	<u>1314</u>	<u>7.01</u>	<u>1.29</u>	<u>—</u>	<u>"</u>	<u>16oz</u>
	<u>10:42</u>	<u>0.19</u>	<u>16.77</u>	<u>1313</u>	<u>6.96</u>	<u>1.26</u>	<u>—</u>	<u>"</u>	<u>24oz</u>
	<u>10:43</u>	<u>0.25</u>	<u>16.94</u>	<u>1311</u>	<u>6.93</u>	<u>1.28</u>	<u>—</u>	<u>"</u>	<u>32oz</u>
	<u>10:44</u>	<u>0.313</u>	<u>16.99</u>	<u>1312</u>	<u>6.85</u>	<u>1.28</u>	<u>—</u>	<u>"</u>	<u>40oz</u>
	<u>10:45</u>	<u>0.38</u>	<u>17.00</u>	<u>1314</u>	<u>6.85</u>	<u>1.29</u>	<u>—</u>	<u>"</u>	<u>48oz</u>
	<u>10:46</u>	<u>0.44</u>	<u>16.98</u>	<u>1315</u>	<u>6.85</u>	<u>1.30</u>	<u>—</u>	<u>"</u>	<u>56oz</u>

Total Discharge: 0.44 Gallons NA CV Removed Disposal of discharged water: To Ground
 Date / Time Sampled: 3/30/2011 @ 10:48 Analysis: TPH-G & MBTEX (8015/8020); VOCs - 9 Oxygenates (8260B).

Notes: _____

QA/QC: _____ @ _____ as a Duplicate Equipment Blank Field Blank MS/MSD
 Recorded by: Stephen Penman / Jacqueline Lee Signature: [Signature]



**Environmental
Sampling Services, LLC**

WATER QUALITY SAMPLE LOG SHEET	WELL IDENTIFICATION: CMT-1-C2 DATE: 3/30/2011
Project Name: <u>Sunol Tree Gas Station</u> Job #: <u>1024</u>	Client: <u>Cook Environmental Services, Inc.</u>
Laboratory: <u>McC Campbell Analytical, Inc.</u>	Weather Conditions: <u>Mostly Sunny & warm</u>
Well Diameter: <u>0.375"</u> 0.75" 1" 2" Other: _____	Well Type: <u>PVC</u> / Stainless Steel / Other: _____
Is Well Secured? <u>Yes</u> No Bolt Size: <u>9/16"</u>	Type of lock / Lock number: <u>No lock</u>
Screen Interval (Ft., BGS): <u>NA</u>	Set pump intake @ _____ (Ft., BTOC)
Purge Method: NA Disp. PE Bailer Centrifugal Pump <u>Peristaltic Pump</u> Bladder Pump SS Submersible Pump	
Pump Lines: NA <u>PE</u> / Teflon / Other - New / Cleaned <u>Dedicated</u> Bailer Line: <u>NA</u> New / Cleaned / Dedicated	
Method of Cleaning Pump: <u>NA</u> / Liqui-nox / Tap Water / DI Rinse / Other: _____	
Sampling Method: Disp. PE Bailer <u>Peristaltic Pump</u> Bladder Pump SS Submersible Pump PDBs	
Multi-Parameter Meter / Probe Serial No.: 556 MPS - 09C100611 <u>556 MPS - 09C100612</u>	
Equipment Calibration: <u>See Daily Equipment Calibration Sheet</u> OVM 580B P.I.D. Reading: <u>NA</u> ppm	
Water Level Meter Serial No.: OW 9371-1 / 25083 / 25742 / 49914 / 56500 / Other: <u>NA</u>	
Beginning Water Level (DTW): <u>NA</u> Ending Water Level: <u>NA</u>	
TD = <u>41.27</u> - _____ (DTW) = _____ (Ft. of water) x "K" = _____ (Gals./CV) x <u>3</u> (No. of CV) = _____ (Gals.)	
"K" = 0.49 oz/ft (0.375" well) "K" = 2.7 oz/ft (0.75" well) "K" = 0.04 (1" well) "K" = .163 (2" well)	

FIELD WATER QUALITY PARAMETERS

Date	Time	Discharge (Gallons)	Temp (°C)	Specific Conductivity (µS/cm ^c) ± 10%	pH (SU) ± 0.1 SU	DO (mg/L) ± 10%	Water Level (BTOC)	Color	Comments
3/30/11	10:57	Initial	16.89	1212	7.29	1.94	—	clear	
	10:58	0.063	17.08	1208	7.21	0.56	—	"	80z
	10:59	0.13	17.13	1208	7.18	0.52	—	"	16oz
	11:00	0.19	17.18	1206	7.11	0.49	—	"	24oz
	11:01	0.25	17.22	1205	7.08	0.40	—	"	32oz
	11:02	0.313	17.26	1204	7.03	0.39	—	"	40oz
	11:03	0.38	17.25	1192	6.97	0.40	—	"	48oz
	11:04	0.44	17.33	1191	6.95	0.39	—	"	56oz

Total Discharge: 0.44 Gallons NA CV Removed Disposal of discharged water: To Ground
 Date / Time Sampled: 3/30/11 @ 11:06 Analysis: TPH-G & MBTEX (8015/8020); VOCs - 9 Oxygenates (8260B).

Notes: _____

QA/QC: _____ @ _____ as a Duplicate Equipment Blank Field Blank MS/MSD
 Recorded by: Stephen Penman / Jacqueline Lee Signature: [Signature]



**Environmental
Sampling Services, LLC**

WATER QUALITY SAMPLE LOG SHEET	WELL IDENTIFICATION: CMT-1-C3 DATE: 3/20/2011
Project Name: <u>Sunol Tree Gas Station</u> Job #: <u>1024</u>	Client: <u>Cook Environmental Services, Inc.</u>
Laboratory: <u>McC Campbell Analytical, Inc.</u>	Weather Conditions: <u>Mostly Sunny & warm</u>
Well Diameter: <u>0.375"</u> 0.75" 1" 2" Other: _____	Well Type: <u>PVC</u> Stainless Steel / Other: _____
Is Well Secured? <u>Yes</u> / No Bolt Size: <u>9/16"</u>	Type of lock / Lock number: <u>No lock</u>
Screen Interval (Ft., BGS): <u>NA</u>	Set pump intake @ _____ (Ft., BTOC)
Purge Method: NA Disp. PE Bailer Centrifugal Pump <u>Peristaltic Pump</u> Bladder Pump SS Submersible Pump	
Pump Lines: NA <u>PE</u> Teflon / Other - New / Cleaned / <u>Dedicated</u> Bailer Line: <u>NA</u> New / Cleaned / Dedicated	
Method of Cleaning Pump: <u>NA</u> Liqui-nox / Tap Water / DI Rinse / Other: _____	
Sampling Method: Disp. PE Bailer <u>Peristaltic Pump</u> Bladder Pump SS Submersible Pump PDBs	
Multi-Parameter Meter / Probe Serial No.: 556 MPS - 09C100611 / <u>556 MPS - 09C100612</u>	
Equipment Calibration: <u>See Daily Equipment Calibration Sheet</u> OVM 580B P.I.D. Reading: <u>NA</u> ppm	
Water Level Meter Serial No.: OW 9371-1 / 25083 / 25742 / 49914 / 56500 / Other: <u>NA</u>	
Beginning Water Level (DTW): <u>NA</u> Ending Water Level: <u>NA</u>	
TD = <u>51.37</u> - _____ (DTW) = _____ (Ft. of water) x "K" = _____ (Gals./CV) x <u>3</u> (No. of CV) = _____ (Gals.)	
"K" = 0.49 oz/ft (0.375" well) "K" = 2.7 oz/ft (0.75" well) "K" = 0.04 (1" well) "K" = .163 (2" well)	

FIELD WATER QUALITY PARAMETERS

Date	Time	Discharge (Gallons)	Temp (°C)	Specific Conductivity (µS/cm ^o) ± 10%	pH (SU) ± 0.1 SU	DO (mg/L) ± 10%	Water Level (BTOC)	Color	Comments
3/20/11	11:14	Initial	17.26	975	7.26	1.07	—	clear	
	11:15	0.063	17.33	1033	7.18	0.70	—	"	80z
	11:16	0.13	17.46	1100	7.04	0.40	—	"	160z
	11:17	0.19	17.44	1149	7.02	0.39	—	"	240z
	11:18	0.25	17.52	1177	7.00	0.34	—	"	320z
	11:19	0.31	17.53	1185	6.99	0.34	—	"	400z
	11:20	0.38	17.53	1198	6.99	0.30	—	"	480z
	11:21	0.44	17.54	1205	6.99	0.32	—	"	560z
	11:22	0.50	17.60	1209	6.98	0.30	—	"	640z

Total Discharge: 0.50 Gallons NA CV Removed Disposal of discharged water: To Ground
 Date / Time Sampled: 3/30/11 @ 11:24 Analysis: TPH-G & MBTEX (8015/8020); VOCs - 9 Oxygenates (8260B).

Notes: _____

QA/QC: _____ @ _____ as a Duplicate Equipment Blank Field Blank MS/MSD

Recorded by: Stephen Penman / Jacqueline Lee Signature: [Signature]



**Environmental
Sampling Services, LLC**

WATER QUALITY SAMPLE LOG SHEET	WELL IDENTIFICATION: CMT-3-C1 DATE: <u>3/30/2011</u>
Project Name: <u>Sunol Tree Gas Station</u> Job #: <u>1024</u>	Client: <u>Cook Environmental Services, Inc.</u>
Laboratory: <u>McC Campbell Analytical, Inc.</u>	Weather Conditions: <u>Mostly Sunny & cool</u>
Well Diameter: <u>0.375"</u> 0.75" 1" 2" Other: _____	Well Type: <u>PVC</u> / Stainless Steel / Other: _____
Is Well Secured? <u>Yes</u> / No Bolt Size: <u>9/16"</u>	Type of lock / Lock number: <u>No lock</u>
Screen Interval (Ft., BGS): <u>NA</u>	Set pump intake @ _____ (Ft., BTOC)
Purge Method: NA Disp. PE Bailer Centrifugal Pump <u>Peristaltic Pump</u> Bladder Pump SS Submersible Pump	
Pump Lines: NA <u>PE</u> / Teflon / Other - New / Cleaned <u>Dedicated</u> Bailer Line: <u>NA</u> New / Cleaned / Dedicated	
Method of Cleaning Pump: NA / Liqui-nox / Tap Water / DI Rinse / Other: _____	
Sampling Method: Disp. PE Bailer <u>Peristaltic Pump</u> Bladder Pump SS Submersible Pump PDBs	
Multi-Parameter Meter / Probe Serial No.: 556 MPS - 09C100611 / <u>556 MPS - 09C100612</u>	
Equipment Calibration: <u>See Daily Equipment Calibration Sheet</u> OVM 580B P.I.D. Reading: <u>NA</u> ppm	
Water Level Meter Serial No.: OW 9371-1 / 25083 / 25742 / 49914 / 56500 / Other: <u>NA</u>	
Beginning Water Level (DTW): <u>NA</u> Ending Water Level: <u>NA</u>	
TD = <u>20.92</u> - _____ (DTW) = _____ (Ft. of water) x "K" = _____ (Gals./CV) x <u>3</u> (No. of CV) = _____ (Gals.)	
<u>"K" = 0.49 oz/ft (0.375" well)</u> "K" = 2.7 oz/ft (0.75" well) "K" = 0.04 (1" well) "K" = .163 (2" well)	

FIELD WATER QUALITY PARAMETERS

Date	Time	Discharge (Gallons)	Temp (°C)	Specific Conductivity (µS/cm ^o) ± 10%	pH (SU) ± 0.1 SU	DO (mg/L) ± 10%	Water Level (BTOC)	Color	Comments
<u>3/30/11</u>	<u>9:20</u>	<u>In. Trial</u>	<u>16.83</u>	<u>1269</u>	<u>6.62</u>	<u>1.98</u>	<u>—</u>	<u>Clear</u>	
	<u>9:21</u>	<u>0.0625</u>	<u>17.10</u>	<u>1297</u>	<u>6.67</u>	<u>1.14</u>	<u>—</u>	<u>"</u>	<u>8 OZ</u>
	<u>9:23</u>	<u>0.125</u>	<u>17.19</u>	<u>1325</u>	<u>6.68</u>	<u>0.69</u>	<u>—</u>	<u>"</u>	<u>16 OZ</u>
	<u>9:24</u>	<u>0.1875</u>	<u>17.00</u>	<u>1337</u>	<u>6.70</u>	<u>0.61</u>	<u>—</u>	<u>"</u>	<u>24 OZ</u>
	<u>9:25</u>	<u>0.25</u>	<u>17.05</u>	<u>1340</u>	<u>6.69</u>	<u>0.64</u>	<u>—</u>	<u>"</u>	<u>32 OZ</u>
	<u>9:26</u>	<u>0.3125</u>	<u>17.09</u>	<u>1344</u>	<u>6.69</u>	<u>0.62</u>	<u>—</u>	<u>"</u>	<u>40 OZ</u>

Total Discharge: 0.313 Gallons NA CV Removed Disposal of discharged water: To Ground
 Date / Time Sampled: 3/30/11 @ 9:28 Analysis: TPH-G & MBTEX (8015/8020); VOCs - 9 Oxygenates (8260B).

Notes: _____

QA/QC: _____ @ _____ as a Duplicate Equipment Blank Field Blank MS/MSD
 Recorded by: Stephen Penman / Jacqueline Lee Signature: [Signature]



**Environmental
Sampling Services, LLC**

WATER QUALITY SAMPLE LOG SHEET	WELL IDENTIFICATION: CMT-3-C2 DATE: 3/30/2011
Project Name: <u>Sunol Tree Gas Station</u> Job #: <u>1024</u>	Client: <u>Cook Environmental Services, Inc.</u>
Laboratory: <u>McC Campbell Analytical, Inc.</u>	Weather Conditions: <u>Mostly Sunny & cool</u>
Well Diameter: <u>0.375"</u> 0.75" 1" 2" Other: _____	Well Type: <u>PVC</u> / Stainless Steel / Other: _____
Is Well Secured? <u>Yes</u> / No Bolt Size: <u>9/16"</u>	Type of lock / Lock number: <u>No lock</u>
Screen Interval (Ft., BGS): <u>NA</u>	Set pump intake @ _____ (Ft., BTOC)
Purge Method: NA Disp. PE Bailer Centrifugal Pump <u>Peristaltic Pump</u> Bladder Pump SS Submersible Pump	
Pump Lines: NA <u>PE</u> Teflon / Other - New / Cleaned / <u>Dedicated</u> Bailer Line: <u>NA</u> New / Cleaned / Dedicated	
Method of Cleaning Pump: <u>NA</u> / Liqui-nox / Tap Water / DI Rinse / Other: _____	
Sampling Method: Disp. PE Bailer <u>Peristaltic Pump</u> Bladder Pump SS Submersible Pump PDBs	
Multi-Parameter Meter / Probe Serial No.: 556 MPS - 09C100611 / <u>556 MPS - 09C100612</u>	
Equipment Calibration: <u>See Daily Equipment Calibration Sheet</u> OVM 580B P.I.D. Reading: <u>NA</u> ppm	
Water Level Meter Serial No.: OW 9371-1 / 25083 / 25742 / 49914 / 56500 / Other: <u>NA</u>	
Beginning Water Level (DTW): <u>NA</u> Ending Water Level: <u>NA</u>	
TD = <u>40.91</u> - _____ (DTW) = _____ (Ft. of water) x "K" = _____ (Gals./CV) x <u>3</u> (No. of CV) = _____ (Gals.)	
<u>"K" = 0.49 oz/ft (0.375" well)</u> "K" = 2.7 oz/ft (0.75" well) "K" = 0.04 (1" well) "K" = .163 (2" well)	

FIELD WATER QUALITY PARAMETERS									
Date	Time	Discharge (Gallons)	Temp (°C)	Specific Conductivity (µS/cm ^c) ± 10%	pH (SU) ± 0.1 SU	DO (mg/L) ± 10%	Water Level (BTOC)	Color	Comments
3/30/11	9:47	Initial	17.18	1235	6.93	1.66	—	Clear	
	9:48	0.063	17.30	1241	6.89	0.98	—	"	802
	9:49	0.13	17.45	1250	6.84	0.75	—	"	1602
	9:50	0.19	17.53	1256	6.81	0.73	—	"	2402
	9:51	0.25	17.58	1260	6.79	0.73	—	"	3202
	9:52	0.313	17.65	1262	6.78	0.67	—	"	4002
	9:53	0.38	17.68	1263	6.77	0.65	—	"	4802
	9:54	0.44	17.66	1267	6.77	0.65	—	"	5602

Total Discharge: 0.44 Gallons NA CV Removed Disposal of discharged water: To Ground
 Date / Time Sampled: 3/30/11 @ 9:55 Analysis: TPH-G & MBTEX (8015/8020); VOCs - 9 Oxygenates (8260B)

Notes: _____

QA/QC: _____ @ _____ as a Duplicate Equipment Blank Field Blank MS/MSD
 Recorded by: Stephen Penman / Jacqueline Lee Signature: [Signature]



**Environmental
Sampling Services, LLC**

WATER QUALITY SAMPLE LOG SHEET	WELL IDENTIFICATION: CMT-3-C3 DATE: 3/30/2011
Project Name: <u>Sunol Tree Gas Station</u> Job #: <u>1024</u>	Client: <u>Cook Environmental Services, Inc.</u>
Laboratory: <u>McC Campbell Analytical, Inc.</u>	Weather Conditions: <u>Mostly Sunny & warm</u>
Well Diameter: <u>0.375"</u> 0.75" 1" 2" Other: _____	Well Type: <u>PVC</u> / Stainless Steel / Other: _____
Is Well Secured? <u>Yes</u> / No Bolt Size: <u>9/16"</u>	Type of lock / Lock number: <u>No lock</u>
Screen Interval (Ft., BGS): <u>NA</u>	Set pump intake @ _____ (Ft., BTOC)
Purge Method: NA Disp. PE Bailer Centrifugal Pump <u>Peristaltic Pump</u> Bladder Pump SS Submersible Pump	
Pump Lines: NA <u>PE</u> / Teflon / Other - New / Cleaned <u>Dedicated</u> Bailer Line: <u>NA</u> New / Cleaned / Dedicated	
Method of Cleaning Pump: <u>NA</u> / Liqui-nox / Tap Water / DI Rinse / Other: _____	
Sampling Method: Disp. PE Bailer <u>Peristaltic Pump</u> Bladder Pump SS Submersible Pump PDBs	
Multi-Parameter Meter / Probe Serial No.: 556 MPS - 09C100611 / <u>556 MPS - 09C100612</u>	
Equipment Calibration: <u>See Daily Equipment Calibration Sheet</u> OVM 580B P.I.D. Reading: <u>NA</u> ppm	
Water Level Meter Serial No.: OW 9371-1 / 25083 / 25742 / 49914 / 56500 / Other: <u>NA</u>	
Beginning Water Level (DTW): <u>NA</u> Ending Water Level: <u>NA</u>	
TD = <u>50.93</u> - _____ (DTW) = _____ (Ft. of water) x "K" = _____ (Gals./CV) x <u>3</u> (No. of CV) = _____ (Gals.)	
"K" = 0.49 oz/ft (0.375" well) "K" = 2.7 oz/ft (0.75" well) "K" = 0.04 (1" well) "K" = .163 (2" well)	

FIELD WATER QUALITY PARAMETERS

Date	Time	Discharge (Gallons)	Temp (°C)	Specific Conductivity (µS/cm ^o) ± 10%	pH (SU) ± 0.1 SU	DO (mg/L) ± 10%	Water Level (BTOC)	Color	Comments
3/30/11	10:01	Initial	17.54	1357	6.83	1.47	—	Clear	
	10:02	0.063	17.59	1356	6.86	0.99	—	"	80z
	10:03	0.13	17.72	1354	6.88	0.65	—	"	160z
	10:04	0.19	17.80	1353	6.90	0.51	—	"	240z
	10:05	0.25	17.93	1351	6.91	0.41	—	"	320z
	10:06	0.313	17.97	1351	6.92	0.40	—	"	400z
	10:07	0.38	17.94	1353	6.92	0.38	—	"	480z
	10:08	0.44	17.90	1354	6.92	0.33	—	"	560z
	10:09	0.50	17.99	1352	6.93	0.33	—	"	640z
	10:10	0.563	17.96	1352	6.92	0.33	—	"	720z

Total Discharge: 0.563 Gallons NA CV Removed Disposal of discharged water: To Ground
 Date / Time Sampled: 3/30/11 @ 10:12 Analysis: TPH-G & MBTEX (8015/8020); VOCs - 9 Oxygenates (8260B).

Notes: _____

QA/QC: _____ @ _____ as a Duplicate Equipment Blank Field Blank MS/MSD
 Recorded by: Stephen Penman / Jacqueline Lee Signature: [Signature]



**Environmental
Sampling Services, LLC**

WATER QUALITY SAMPLE LOG SHEET	WELL IDENTIFICATION: CMT-6-C1 DATE: 3/30/11
Project Name: <u>Sunol Tree Gas Station</u> Job #: <u>1024</u>	Client: <u>Cook Environmental Services, Inc.</u>
Laboratory: <u>McC Campbell Analytical, Inc.</u>	Weather Conditions: <u>Sunny</u>
Well Diameter: <u>0.375"</u> 0.75" 1" 2" Other: _____	Well Type: <u>PVC</u> / Stainless Steel / Other: _____
Is Well Secured? <u>Yes</u> / No Bolt Size: <u>9/16" (3)</u>	Type of lock / Lock number: <u>NONE</u>
Screen Interval (Ft., BGS): <u>NA</u>	Set pump intake @ <u>+20.85</u> (Ft., BTOC)
Purge Method: NA Disp. PE Bailer Centrifugal Pump <u>Peristaltic Pump</u> Bladder Pump SS Submersible Pump	
Pump Lines: NA / <u>PE</u> Teflon / Other - New / Cleaned / <u>Dedicated</u> Bailer Line: <u>NA</u> New / Cleaned / Dedicated	
Method of Cleaning Pump: NA / Liqui-nox / Tap Water / DI Rinse / Other: _____	
Sampling Method: Disp. PE Bailer <u>Peristaltic Pump</u> Bladder Pump SS Submersible Pump PDBs	
Multi-Parameter Meter / Probe Serial No.: <u>556 MPS - 09C100611</u> / 556 MPS - 09C100612	
Equipment Calibration: <u>See Daily Equipment Calibration Sheet</u> OVM 580B P.I.D. Reading: <u>NA</u> ppm	
Water Level Meter Serial No.: OW 9371-1 / 25083 / 25742 / 49914 / 56500 / Other: <u>None</u>	
Beginning Water Level (DTW): <u>NA</u> Ending Water Level: <u>NA</u>	
TD = <u>21.66</u> - <u>NA</u> (DTW) = <u>NA</u> (Ft. of water) x "K" = <u>NA</u> (Gals./CV) x 3 (No. of CV) = <u>NA</u> (Gals.)	
$K = 0.49 \text{ oz/ft (0.375" well)}$ $K = 2.7 \text{ oz/ft (0.75" well)}$ $K = 0.04 \text{ (1" well)}$ $K = .163 \text{ (2" well)}$	

FIELD WATER QUALITY PARAMETERS

Date	Time	Discharge (Gallons) oz.	Temp (°C)	Specific Conductivity (µS/cm ^o) ± 10%	pH (SU) ± 0.1 SU	DO (mg/L) ± 10%	Water Level (BTOC)	Color	Comments
<u>3/30/11</u>	<u>9:24</u>	<u>Initial 0.4oz</u>	<u>16.01</u>	<u>1224</u>	<u>7.63</u>	<u>2.77</u>	<u>NA</u>	<u>clear</u>	
	<u>9:28</u>	<u>4oz.</u>	<u>15.88</u>	<u>1224</u>	<u>7.79</u>	<u>2.45</u>	<u>"</u>	<u>"</u>	<u>showing signs of going dry</u>
	<u>9:30</u>	<u>8oz.</u>	<u>15.97</u>	<u>1232</u>	<u>7.67</u>	<u>2.50</u>	<u>"</u>	<u>"</u>	
	<u>9:34</u>	<u>12oz.</u>	<u>15.97</u>	<u>1235</u>	<u>7.63</u>	<u>3.02</u>	<u>"</u>	<u>"</u>	
	<u>9:36</u>	<u>16oz.</u>	<u>16.03</u>	<u>1238</u>	<u>7.65</u>	<u>3.31</u>	<u>"</u>	<u>"</u>	<u>went dry</u>

Total Discharge: 16oz. Gallons NA CV Removed Disposal of discharged water: To Ground
 Date / Time Sampled: 3/30/11 @ 10:30 Analysis: TPH-G & MBTEX (8015/8020); VOCs - 9 Oxygenates (8260B)

Notes: set @ slowest pump speed aft. initial chamber volume (500ml) removed.

QA/QC: None @ _____ as a Duplicate Equipment Blank Field Blank MS/MSD
 Recorded by: Stephen Penman / jacqueline Lee Signature:



WATER QUALITY SAMPLE LOG SHEET WELL IDENTIFICATION: CMT-6-C2 DATE: 3/30/11

Project Name: Sunol Tree Gas Station Job #: 1024 Client: Cook Environmental Services, Inc.
 Laboratory: McC Campbell Analytical, Inc. Weather Conditions: Sunny
 Well Diameter: 0.375" 0.75" 1" 2" Other: _____ Well Type: (PVC) / Stainless Steel / Other: _____
 Is Well Secured? (Yes) / No Bolt Size: 9/16" (3) Type of lock / Lock number: NONE
 Screen Interval (Ft., BGS): NA Set pump intake @ 41.68 (Ft., BTOC)
 Purge Method: NA Disp. PE Bailer Centrifugal Pump (Peristaltic Pump) Bladder Pump SS Submersible Pump
 Pump Lines: NA (PE) Teflon / Other - New / Cleaned / (Dedicated) Bailer Line: (NA) New / Cleaned / Dedicated
 Method of Cleaning Pump: (NA) Liqui-nox / Tap Water / DI Rinse / Other: _____
 Sampling Method: Disp. PE Bailer (Peristaltic Pump) Bladder Pump SS Submersible Pump PDBs
 Multi-Parameter Meter / Probe Serial No.: 556 MPS - 09C100611 / 556 MPS - 09C100612
 Equipment Calibration: See Daily Equipment Calibration Sheet OVM 580B P.I.D. Reading: NA ppm
 Water Level Meter Serial No.: OW 9371-1 / 25083 / 25742 / 49914 / 56500 / Other: NA
 Beginning Water Level (DTW): NA Ending Water Level: _____
 TD = 42.68 - NA (DTW) = _____ (Ft. of water) x "K" = NA (Gals./CV) x 3 (No. of CV) = NA (Gals.)
 "K" = 0.49 oz/ft (0.375" well) "K" = 2.7 oz/ft (0.75" well) "K" = 0.04 (1" well) "K" = .163 (2" well)

FIELD WATER QUALITY PARAMETERS

Date	Time	Discharge (Gallons) OZ.	Temp (°C)	Specific Conductivity (µS/cm ^c) ± 10%	pH (SU) ± 0.1 SU	DO (mg/L) ± 10%	Water Level (BTOC)	Color	Comments
3/30/11	9:46	Initial	16.67	1060	7.33	3.53	NA	clear	
	9:47	4.0	16.75	1060	7.37	2.27	"	"	
	9:48	8.0	16.81	1061	7.34	1.73	"	"	
	9:49	12.0	16.87	1061	7.36	1.47	"	"	
	9:50	16.0	16.94	1061	7.37	1.35	"	"	
	9:50	20.0	17.04	1061	7.37	1.25	"	"	
	9:51	24.0	17.10	1061	7.39	1.16	"	"	
	9:51	28.0	17.18	1061	7.39	1.02	"	"	
	9:52	32.0	17.29	1061	7.46	0.97	"	"	
	9:53	36.0	17.39	1059	7.40	0.94	"	"	
			17.39	1060	7.41	0.94	"	"	

Total Discharge: 36 OZ Gallons - NA CV Removed Disposal of discharged water: To Ground
 Date / Time Sampled: 3/30/11 @ 9:54 Analysis: TPH-G & MBTEX (8015/8020) ; VOCs - 9 Oxygenates (8260B)

Notes: _____

QA/QC: NONE @ _____ as a Duplicate Equipment Blank Field Blank MS/MSD
 Recorded by: Stephen Penman / Jacqueline Lee Signature:



**Environmental
Sampling Services, LLC**

WATER QUALITY SAMPLE LOG SHEET	WELL IDENTIFICATION: CMT-6-C3 DATE: 3/30/11
Project Name: <u>Sunol Tree Gas Station</u> Job #: <u>1024</u>	Client: <u>Cook Environmental Services, Inc.</u>
Laboratory: <u>McCampbell Analytical, Inc.</u>	Weather Conditions: <u>Sunny, cirrus clouds.</u>
Well Diameter: <u>0.375"</u> 0.75" 1" 2" Other: _____	Well Type: <u>PVC</u> / Stainless Steel / Other: _____
Is Well Secured? <u>(Yes)</u> / No Bolt Size: <u>9/16(3)</u>	Type of lock / Lock number: <u>None</u>
Screen Interval (Ft., BGS): <u>NA</u>	Set pump intake @ <u>55.67</u> (Ft., BTOC)
Purge Method: NA Disp. PE Bailer Centrifugal Pump <u>Peristaltic Pump</u> Bladder Pump SS Submersible Pump	
Pump Lines: NA / <u>PE</u> Teflon / Other - New / Cleaned / <u>Dedicated</u> Bailer Line: <u>NA</u> New / Cleaned / Dedicated	
Method of Cleaning Pump: <u>NA</u> / Liqui-nox / Tap Water / DI Rinse / Other: _____	
Sampling Method: Disp. PE Bailer <u>Peristaltic Pump</u> Bladder Pump SS Submersible Pump PDBs	
Multi-Parameter Meter / Probe Serial No.: <u>556 MPS - 09C100611</u> / 556 MPS - 09C100612	
Equipment Calibration: <u>See Daily Equipment Calibration Sheet</u> OVM 580B P.I.D. Reading: <u>NA</u> ppm	
Water Level Meter Serial No.: OW 9371-1 / 25083 / 25742 / 49914 / 56500 / Other: <u>NA</u>	
Beginning Water Level (DTW): <u>NA</u> Ending Water Level: <u>NA</u>	
TD = <u>56.67</u> - <u>NA</u> (DTW) = <u>NA</u> (Ft. of water) x "K" = <u>NA</u> (Gals./CV) x <u>3</u> (No. of CV) = <u>NA</u> (Gals.)	
<u>"K" = 0.49 oz/ft (0.375" well)</u> "K" = 2.7 oz/ft (0.75" well) "K" = 0.04 (1" well) "K" = .163 (2" well)	

FIELD WATER QUALITY PARAMETERS

Date	Time	Discharge (Gallons) <i>02.</i>	Temp (°C)	Specific Conductivity (µS/cm ^c) ± 10%	pH (SU) ± 0.1 SU	DO (mg/L) ± 10%	Water Level (BTOC)	Color	Comments
3/30/11	10:03	<u>Initial</u> 8.0	17.25	1065	7.30	2.59	NA	clear	
	10:04	8.0	17.34	1066	7.31	1.39	NA	"	
	10:06	16	17.42	1070	7.33	1.10	"	"	
	10:08	32	17.50	1079	7.35	0.92	"	"	
	10:10	48	17.57	1088	7.38	0.92	"	"	
	10:12	64	17.62	1094	7.39	0.93	"	"	
	10:14	80	17.66	1100	7.40	0.96	"	"	
	10:16	96	17.67	1103	7.41	0.93	"	"	

Total Discharge: 96 Gallons NA CV Removed Disposal of discharged water: To Ground
 Date / Time Sampled: 3/30/11 @ 10:17 Analysis: TPH-G & MBTEX (8015/8020); VOCs - 9 Oxygenates (8260B).

Notes: _____

QA/QC: None @ _____ as a Duplicate Equipment Blank Field Blank MS/MSD
 Recorded by: Stephen Penman / Jacqueline Lee Signature:



**Environmental
Sampling Services, LLC**

WATER QUALITY SAMPLE LOG SHEET	WELL IDENTIFICATION: CMT-7-C1 DATE: 3/30/11
Project Name: Sunol Tree Gas Station Job #: 1024	Client: Cook Environmental Services, Inc.
Laboratory: McCampbell Analytical, Inc.	Weather Conditions: <u>Partly Sunny</u>
Well Diameter: <u>0.375"</u> 0.75" 1" 2" Other: _____	Well Type: <u>EVC</u> / Stainless Steel / Other: _____
Is Well Secured? <u>Yes</u> / No Bolt Size: <u>9/16" CS</u>	Type of lock / Lock number: <u>None</u>
Screen Interval (Ft., BGS): <u>NA</u>	Set pump intake @ <u>12.64</u> (Ft., BTOC)
Purge Method: NA Disp. PE Bailer Centrifugal Pump <u>Peristaltic Pump</u> Bladder Pump SS Submersible Pump	
Pump Lines: NA / <u>PE</u> Teflon / Other - New / Cleaned / <u>Dedicated</u> Bailer Line: <u>NA</u> New / Cleaned / Dedicated	
Method of Cleaning Pump: <u>NA</u> / Liqui-nox / Tap Water / DI Rinse / Other: _____	
Sampling Method: Disp. PE Bailer <u>Peristaltic Pump</u> Bladder Pump SS Submersible Pump PDBs	
Multi-Parameter Meter / Probe Serial No.: <u>556 MPS - 09C100611</u> / 556 MPS - 09C100612	
Equipment Calibration: See Daily Equipment Calibration Sheet OVM 580B P.I.D. Reading: <u>NA</u> ppm	
Water Level Meter Serial No.: OW 9371-1 / 25083 / 25742 / 49914 / 56500 / Other: <u>None</u>	
Beginning Water Level (DTW): <u>NA</u> Ending Water Level: <u>NA</u>	
TD = <u>13.14</u> - <u>NA</u> (DTW) = <u>NA</u> (Ft. of water) x "K" = <u>NA</u> (Gals./CV) x 3 (No. of CV) = <u>NA</u> (Gals.)	
<small>"K" = 0.49 oz/ft (0.375" well) "K" = 2.7 oz/ft (0.75" well) "K" = 0.04 (1" well) "K" = .163 (2" well)</small>	

FIELD WATER QUALITY PARAMETERS

Date	Time	Discharge (Gallons) OZ.	Temp (°C)	Specific Conductivity (µS/cm ²) ± 10%	pH (SU) ± 0.1 SU	DO (mg/L) ± 10%	Water Level (BTOC)	Color	Comments
3/30/11	10:46	Initial	16.56	1670	7.21	4.75	NA	clear	going dry after initial
	↓	4.0	16.72	1682	7.23	3.10	"	"	Dry @ 4.0 oz.

Total Discharge: 4.0 Gallons NA CV Removed Disposal of discharged water: To Ground
 Date / Time Sampled: 3/30/11 @ 11:33 Analysis: TPH-G & MBTEX (8015/8020); VOCs - 9 Oxygenates (8260B).

Notes: filled 3 1/2 voAs before going dry; waited for 4th voA.

QA/QC: None @ _____ as a Duplicate Equipment Blank Field Blank MS/MSD
 Recorded by: Stephen Penman / Jacqueline Lee Signature: [Signature]



**Environmental
Sampling Services, LLC**

WATER QUALITY SAMPLE LOG SHEET	WELL IDENTIFICATION: CMT-7-C2 DATE: <u>3/30/11</u>
Project Name: <u>Sunol Tree Gas Station</u> Job #: <u>1024</u>	Client: <u>Cook Environmental Services, Inc.</u>
Laboratory: <u>McC Campbell Analytical, Inc.</u>	Weather Conditions: <u>Warm, cirrus clouds</u>
Well Diameter: <u>0.375"</u> 0.75" 1" 2" Other: _____	Well Type: <u>PVC</u> / Stainless Steel / Other: _____
Is Well Secured? <u>Yes</u> No Bolt Size: <u>9/16" (3)</u>	Type of lock / Lock number: <u>None</u>
Screen Interval (Ft., BGS): <u>NA</u>	Set pump intake @ <u>4122</u> (Ft., BTOC)
Purge Method: NA Disp. PE Bailer <u>Centrifugal Pump</u> <u>Peristaltic Pump</u> Bladder Pump SS Submersible Pump	
Pump Lines: <u>NA</u> / <u>PE</u> Teflon / Other - New / Cleaned / <u>Dedicated</u> Bailer Line: <u>NA</u> New / Cleaned / Dedicated	
Method of Cleaning Pump: <u>NA</u> / Liqui-nox / Tap Water / DI Rinse / Other: _____	
Sampling Method: Disp. PE Bailer <u>Peristaltic Pump</u> Bladder Pump SS Submersible Pump PDBs	
Multi-Parameter Meter / Probe Serial No.: <u>556 MPS - 09C10061</u> / 556 MPS - 09C100612	
Equipment Calibration: <u>See Daily Equipment Calibration Sheet</u> OVM 580B P.I.D. Reading: <u>NA</u> ppm	
Water Level Meter Serial No.: OW 9371-1 / 25083 / 25742 / 49914 / 56500 / Other: <u>None</u>	
Beginning Water Level (DTW): <u>NA</u> Ending Water Level: <u>NA</u>	
TD = <u>42.72</u> - <u>NA</u> (DTW) = <u>NA</u> (Ft. of water) x "K" = <u>NA</u> (Gals./CV) x <u>3</u> (No. of CV) = <u>NA</u> (Gals.)	
<u>"K" = 0.49 oz/ft (0.375" well)</u> "K" = 2.7 oz/ft (0.75" well) "K" = 0.04 (1" well) "K" = .163 (2" well)	

FIELD WATER QUALITY PARAMETERS

Date	Time	Discharge (Gallons) OZ.	Temp (°C)	Specific Conductivity (µS/cm ^c) ± 10%	pH (SU) ± 0.1 SU	DO (mg/L) ± 10%	Water Level (BTOC)	Color	Comments
<u>3/30/11</u>	<u>10:56</u>	<u>Initial</u>	<u>17.51</u>	<u>1262</u>	<u>7.29</u>	<u>3.21</u>	<u>NA</u>	<u>clear</u>	
	<u>10:58</u>	<u>8.0</u>	<u>17.66</u>	<u>1258</u>	<u>7.28</u>	<u>1.89</u>	"	"	
	<u>10:59</u>	<u>16.0</u>	<u>17.78</u>	<u>1256</u>	<u>7.28</u>	<u>1.15</u>	"	"	
	<u>11:00</u>	<u>24.0</u>	<u>17.85</u>	<u>1254</u>	<u>7.30</u>	<u>0.95</u>	"	"	
	<u>11:01</u>	<u>32.0</u>	<u>17.90</u>	<u>1254</u>	<u>7.31</u>	<u>0.82</u>	"	"	
	<u>11:02</u>	<u>40.0</u>	<u>17.96</u>	<u>1252</u>	<u>7.31</u>	<u>0.77</u>	"	"	
	<u>11:03</u>	<u>48.0</u>	<u>18.01</u>	<u>1251</u>	<u>7.32</u>	<u>0.73</u>	"	"	
	<u>11:04</u>	<u>56.0</u>	<u>18.05</u>	<u>1250</u>	<u>7.32</u>	<u>0.68</u>	"	"	
	<u>11:05</u>	<u>64.0</u>	<u>18.07</u>	<u>1250</u>	<u>7.32</u>	<u>0.70</u>	"	"	

Total Discharge: 68 oz Gallons NA CV Removed Disposal of discharged water: To Ground
 Date / Time Sampled: 3/30/11 @ 11:06 Analysis: TPH-G & MBTEX (8015/8020); VOCs - 9 Oxygenates (8260B).

Notes: _____

QA/QC: None @ _____ as a Duplicate Equipment Blank Field Blank MS/MSD

Recorded by: Stephen Penman / Jacqueline Lee Signature:



**Environmental
Sampling Services, LLC**

WATER QUALITY SAMPLE LOG SHEET	WELL IDENTIFICATION: CMT-7-C3 DATE: 3/30/11
Project Name: <u>Sunol Tree Gas Station</u> Job #: <u>1024</u>	Client: <u>Cook Environmental Services, Inc.</u>
Laboratory: <u>McCampbell Analytical, Inc.</u>	Weather Conditions: <u>Partly w/ sunny / cirrus clouds</u>
Well Diameter: <u>0.375"</u> 0.75" 1" 2" Other: _____	Well Type: <u>PVC</u> / Stainless Steel / Other: _____
Is Well Secured? <u>Yes</u> No Bolt Size: <u>9/16" (3)</u>	Type of lock / Lock number: _____
Screen Interval (Ft., BGS): <u>NA</u>	Set pump intake @ <u>54.72</u> (Ft., BTOC)
Purge Method: NA Disp. PE Bailer Centrifugal Pump <u>Peristaltic Pump</u> Bladder Pump SS Submersible Pump	
Pump Lines: NA / <u>PE</u> / Teflon / Other - New / Cleaned / <u>Dedicated</u> Bailer Line: <u>NA</u> New / Cleaned / Dedicated	
Method of Cleaning Pump: <u>NA</u> / Liqui-nox / Tap Water / DI Rinse / Other: _____	
Sampling Method: Disp. PE Bailer <u>Peristaltic Pump</u> Bladder Pump SS Submersible Pump PDBs	
Multi-Parameter Meter / Probe Serial No.: <u>556 MPS - 09C100611</u> / 556 MPS - 09C100612	
Equipment Calibration: <u>See Daily Equipment Calibration Sheet</u> OVM 580B P.I.D. Reading: <u>NA</u> ppm	
Water Level Meter Serial No.: OW 9371-1 / 25083 / 25742 / 49914 / 56500 / Other: <u>None</u>	
Beginning Water Level (DTW): <u>NA</u> Ending Water Level: <u>NA</u>	
TD = <u>56.72</u> - <u>NA</u> (DTW) = <u>NA</u> (Ft. of water) x "K" = <u>NA</u> (Gals./CV) x 3 (No. of CV) = <u>NA</u> (Gals.)	
"K" = 0.49 oz/ft (0.375" well) "K" = 2.7 oz/ft (0.75" well) "K" = 0.04 (1" well) "K" = .163 (2" well)	

FIELD WATER QUALITY PARAMETERS

Date	Time	Discharge (Gallons) oz.	Temp (°C)	Specific Conductivity (µS/cm ^c) ± 10%	pH (SU) ± 0.1 SU	DO (mg/L) ± 10%	Water Level (BTOC)	Color	Comments
3/30/11	11:15	Initial	17.95	1367	7.28	4.10	NA	clear	
	11:16	8.0	18.03	1363	7.28	1.65	"	"	
	11:17	16.0	18.11	1355	7.27	0.82	"	"	
	11:19	24.0	18.11	1350	7.28	0.74	"	"	
	11:20	32.0	18.08	1347	7.31	0.71	"	"	
	11:21	40.0	18.11	1344	7.33	0.70	"	"	
	11:22	48.0	18.15	1340	7.33	0.67	"	"	
	11:23	56.0	18.14	1338	7.35	0.67	"	"	

Total Discharge: 60 ozGallons NA CV Removed Disposal of discharged water: To Ground
 Date / Time Sampled: 3/30/11 @ 11:24 Analysis: TPH-G & MBTEX (8015/8020); VOCs - 9 Oxygenates (8260B).

Notes: _____

QA/QC: None @ _____ as a Duplicate Equipment Blank Field Blank MS/MSD
 Recorded by: Stephen Penman / Jacqueline Lee Signature:



**Environmental
Sampling Services, LLC**

WATER QUALITY SAMPLE LOG SHEET	WELL IDENTIFICATION: CMT-10-C1 DATE: 3/30/2011
Project Name: <u>Sunol Tree Gas Station</u> Job #: <u>1024</u>	Client: <u>Cook Environmental Services, Inc.</u>
Laboratory: <u>McC Campbell Analytical, Inc.</u>	Weather Conditions: <u>Mostly Sunny, Warm & Moist</u>
Well Diameter: <u>0.375"</u> 0.75" 1" 2" Other: _____	Well Type: <u>PVC</u> / Stainless Steel / Other: _____
Is Well Secured? <u>Yes</u> / No Bolt Size: <u>9/16"</u>	Type of lock / Lock number: <u>No lock</u>
Screen Interval (Ft., BGS): <u>NA</u>	Set pump intake @ <u>NA</u> (Ft., BTOC)
Purge Method: NA Disp. PE Bailer Centrifugal Pump <u>Peristaltic Pump</u> Bladder Pump SS Submersible Pump	
Pump Lines: NA <u>PE</u> / Teflon / Other - New / Cleaned <u>Dedicated</u> Bailer Line: <u>NA</u> New / Cleaned / Dedicated	
Method of Cleaning Pump: <u>NA</u> / Liqui-nox / Tap Water / DI Rinse / Other: _____	
Sampling Method: Disp. PE Bailer <u>Peristaltic Pump</u> Bladder Pump SS Submersible Pump PDBs	
Multi-Parameter Meter / Probe Serial No.: 556 MPS - 09C100611 <u>556 MPS - 09C100612</u>	
Equipment Calibration: <u>See Daily Equipment Calibration Sheet</u> OVM 580B P.I.D. Reading: <u>NA</u> ppm	
Water Level Meter Serial No.: OW 9371-1 / 25083 / 25742 / 49914 / 56500 / Other: <u>NA</u>	
Beginning Water Level (DTW): <u>NA</u> Ending Water Level: <u>NA</u>	
TD = <u>21.72</u> - _____ (DTW) = _____ (Ft. of water) x "K" = _____ (Gals./CV) x <u>3</u> (No. of CV) = _____ (Gals.)	
"K" = 0.49 oz/ft (0.375" well) "K" = 2.7 oz/ft (0.75" well) "K" = 0.04 (1" well) "K" = .163 (2" well)	

FIELD WATER QUALITY PARAMETERS

Date	Time	Discharge (Gallons)	Temp (°C)	Specific Conductivity (µS/cm ^o) ± 10%	pH (SU) ± 0.1 SU	DO (mg/L) ± 10%	Water Level (BTOC)	Color	Comments
9/30/11	11:45	Initial	17.05	1060	7.32	1.90	—	Clear	
	11:46	0.063	17.02	1064	7.25	1.19	—	"	86oz
	11:47	0.13	16.95	1124	7.15	0.78	—	"	160z
	11:48	0.19	16.90	1137	7.06	0.74	—	"	240z
	11:49	0.25	16.84	1167	7.02	0.79	—	"	320z
	11:50	0.313	16.83	1187	6.96	1.15	—	"	400z
	11:51	0.38	16.82	1197	6.95	1.45	—	"	480z
	11:52	0.44	16.83	1209	6.94	1.63	—	"	560z
	11:53	0.50	16.91	1210	6.92	1.76	—	"	640z
	11:54	0.563	16.87	1210	6.93	1.77	—	"	720z
	11:55	0.63	16.91	1206	6.92	1.81	—	"	800z

Total Discharge: 0.63 Gallons NA CV Removed Disposal of discharged water: To Ground
 Date / Time Sampled: 9/30/11 @ 11:57 Analysis: TPH-G & MBTEX (8015/8020); VOCs - 9 Oxygenates (8260B)

Notes: 2ft new silicone tubing

QA/QC: _____ @ _____ as a Duplicate Equipment Blank Field Blank MS/MSD
 Recorded by: Stephen Penman Jacqueline Lee Signature: [Signature]



**Environmental
Sampling Services, LLC**

WATER QUALITY SAMPLE LOG SHEET	WELL IDENTIFICATION: CMT-10-C2 DATE: 3/30/2011
Project Name: <u>Sunol Tree Gas Station</u> Job #: <u>1024</u>	Client: <u>Cook Environmental Services, Inc.</u>
Laboratory: <u>McC Campbell Analytical, Inc.</u>	Weather Conditions: <u>Clear, muggy & warm</u>
Well Diameter: <u>0.375</u> 0.75" 1" 2" Other: _____	Well Type: <u>PVC</u> / Stainless Steel / Other: _____
Is Well Secured? <u>Yes</u> No Bolt Size: <u>9/16"</u>	Type of lock / Lock number: <u>No lock</u>
Screen Interval (Ft., BGS): <u>NA</u>	Set pump intake @ _____ (Ft., BTOC)
Purge Method: NA Disp. PE Bailer Centrifugal Pump <u>Peristaltic Pump</u> Bladder Pump SS Submersible Pump	
Pump Lines: NA / <u>PE</u> / Teflon / Other - New / Cleaned / <u>Dedicated</u> Bailer Line: <u>NA</u> New / Cleaned / Dedicated	
Method of Cleaning Pump: <u>NA</u> / Liqui-nox / Tap Water / DI Rinse / Other: _____	
Sampling Method: Disp. PE Bailer <u>Peristaltic Pump</u> Bladder Pump SS Submersible Pump PDBs	
Multi-Parameter Meter / Probe Serial No.: 556 MPS - 09C100611 / <u>556 MPS - 09C100612</u>	
Equipment Calibration: <u>See Daily Equipment Calibration Sheet</u> OVM 580B P.I.D. Reading: <u>NA</u> ppm	
Water Level Meter Serial No.: OW 9371-1 / 25083 / 25742 / 49914 / 56500 / Other: <u>NA</u>	
Beginning Water Level (DTW): <u>NA</u> Ending Water Level: <u>NA</u>	
TD = <u>41.72</u> - _____ (DTW) = _____ (Ft. of water) x "K" = _____ (Gals./CV) x <u>3</u> (No. of CV) = _____ (Gals.)	
<u>"K" = 0.49 oz/ft (0.375" well)</u> "K" = 2.7 oz/ft (0.75" well) "K" = 0.04 (1" well) "K" = .163 (2" well)	

FIELD WATER QUALITY PARAMETERS

Date	Time	Discharge (Gallons)	Temp (°C)	Specific Conductivity (µS/cm ^o) ± 10%	pH (SU) ± 0.1 SU	DO (mg/L) ± 10%	Water Level (BTOC)	Color	Comments
3/30/11	12:09	Initial	18.05	767	7.12	0.95	—	Clear	
	12:10	0.063	18.30	782	7.01	0.68	—	"	80Z
	12:11	0.13	18.22	833	6.91	0.57	—	"	160Z (Air bubbles in line)
	12:14	0.19	18.33	1036	6.86	0.96	—	"	240Z Lowered tubing to bottom of well
	12:16	0.25	18.07	1124	6.84	0.76	—	"	320Z ↓
	12:18	0.313	18.11	1157	6.83	0.50	(Dry)	"	400Z Purged dry

Total Discharge: 0.313 Gallons NA CV Removed Disposal of discharged water: To Ground
 Date / Time Sampled: 3/30/11 @ 12:50 Analysis: TPH-G & MBTEX (8015/8020); VOCs - 9 Oxygenates (8260B).

Notes: 2A: new silicone tubing

QA/QC: _____ @ _____ as a Duplicate Equipment Blank Field Blank MS/MSD
 Recorded by: Stephen Penman / Jacqueline Lee Signature: [Signature]



**Environmental
Sampling Services, LLC**

WATER QUALITY SAMPLE LOG SHEET	WELL IDENTIFICATION: <u>CMT-10-C3</u> DATE: <u>3/30/2011</u>
Project Name: <u>Sunol Tree Gas Station</u> Job #: <u>1024</u>	Client: <u>Cook Environmental Services, Inc.</u>
Laboratory: <u>McC Campbell Analytical, Inc.</u>	Weather Conditions: <u>Clear, breezy & warm</u>
Well Diameter: <u>0.375"</u> 0.75" 1" 2" Other: _____	Well Type: <u>PVC</u> Stainless Steel / Other: _____
Is Well Secured? <u>Yes</u> No Bolt Size: <u>9/16"</u>	Type of lock / Lock number: <u>No lock</u>
Screen Interval (Ft., BGS): <u>NA</u>	Set pump intake @ _____ (Ft., BTOC)
Purge Method: NA Disp. PE Bailer Centrifugal Pump <u>Peristaltic Pump</u> Bladder Pump SS Submersible Pump	
Pump Lines: NA / <u>PE</u> / Teflon / Other - New / Cleaned / <u>Dedicated</u> Bailer Line: <u>NA</u> New / Cleaned / Dedicated	
Method of Cleaning Pump: <u>NA</u> / Liqui-nox / Tap Water / DI Rinse / Other: _____	
Sampling Method: Disp. PE Bailer <u>Peristaltic Pump</u> Bladder Pump SS Submersible Pump PDBs	
Multi-Parameter Meter / Probe Serial No.: 556 MPS - 09C100611 / <u>556 MPS - 09C100612</u>	
Equipment Calibration: <u>See Daily Equipment Calibration Sheet</u> OVM 580B P.I.D. Reading: <u>NA</u> ppm	
Water Level Meter Serial No.: OW 9371-1 / 25083 / 25742 / 49914 / 56500 / Other: <u>NA</u>	
Beginning Water Level (DTW): <u>NA</u> Ending Water Level: <u>NA</u>	
TD = <u>51.74</u> - _____ (DTW) = _____ (Ft. of water) x "K" = _____ (Gals./CV) x <u>3</u> (No. of CV) = _____ (Gals.)	
"K" = 0.49 oz/ft (0.375" well) "K" = 2.7 oz/ft (0.75" well) "K" = 0.04 (1" well) "K" = .163 (2" well)	

FIELD WATER QUALITY PARAMETERS

Date	Time	Discharge (Gallons)	Temp (°C)	Specific Conductivity (µS/cm ²) ± 10%	pH (SU) ± 0.1 SU	DO (mg/L) ± 10%	Water Level (BTOC)	Color	Comments
<u>3/30/11</u>	<u>12:30</u>	<u>Initial</u>	<u>17.87</u>	<u>1229</u>	<u>6.97</u>	<u>2.08</u>	—	<u>Clear</u>	
	<u>12:31</u>	<u>0.063</u>	<u>17.79</u>	<u>1236</u>	<u>6.94</u>	<u>0.62</u>	—	"	<u>802</u> <u>H2S odor</u>
	<u>12:32</u>	<u>0.13</u>	<u>17.73</u>	<u>1242</u>	<u>6.90</u>	<u>0.39</u>	—	"	<u>1602</u>
	<u>12:33</u>	<u>0.19</u>	<u>17.73</u>	<u>1242</u>	<u>6.88</u>	<u>0.38</u>	—	"	<u>2402</u>
	<u>12:34</u>	<u>0.25</u>	<u>17.72</u>	<u>1243</u>	<u>6.87</u>	<u>0.37</u>	—	"	<u>3202</u>
	<u>12:35</u>	<u>0.313</u>	<u>17.76</u>	<u>1243</u>	<u>6.85</u>	<u>0.33</u>	—	"	<u>4002</u>
	<u>12:36</u>	<u>0.38</u>	<u>17.74</u>	<u>1242</u>	<u>6.83</u>	<u>0.35</u>	—	"	<u>4802</u>
	<u>12:37</u>	<u>0.44</u>	<u>17.72</u>	<u>1242</u>	<u>6.82</u>	<u>0.34</u>	—	"	<u>5602</u>
	<u>12:38</u>	<u>0.50</u>	<u>17.72</u>	<u>1241</u>	<u>6.81</u>	<u>0.35</u>	—	"	<u>6402</u>

Total Discharge: 0.50 Gallons NA CV Removed Disposal of discharged water: To Ground
 Date / Time Sampled: 3/30/11 @ 12:40 Analysis: TPH-G & MBTEX (8015/8020); VOCs - 9 Oxygenates (8260B).

Notes: 24 new silicone tubing

QA/QC: _____ @ _____ as a Duplicate Equipment Blank Field Blank MS/MSD
 Recorded by: (Stephen Penman) / Jacqueline Lee Signature: [Signature]



**Environmental
Sampling Services, LLC**

WATER QUALITY SAMPLE LOG SHEET	WELL IDENTIFICATION: PZ-2a DATE: 3/30/11
Project Name: <u>Sunol Tree Gas Station</u> Job #: <u>1024</u>	Client: <u>Cook Environmental Services, Inc.</u>
Laboratory: <u>McC Campbell Analytical, Inc.</u>	Weather Conditions: <u>Cirrus clouds, partly sunny, warm</u>
Well Diameter: 0.375" <u>0.75"</u> 1" 2" Other: _____	Well Type: <u>PVC</u> Stainless Steel / Other: _____
Is Well Secured? Yes / No Bolt Size: <u>None</u>	Type of lock / Lock number: <u>None</u>
Screen Interval (Ft., BGS): <u>NA</u>	Set pump intake @ <u>26.80</u> (Ft. BTOC) + <u>28.20'</u>
Purge Method: NA Disp. PE Bailer Centrifugal Pump Peristaltic Pump Bladder Pump SS Submersible Pump	
Pump Lines: NA <u>PE</u> Teflon / Other - <u>New</u> ^{Silicone} Cleaned / <u>Dedicated</u> Bailer Line: <u>NA</u> New / Cleaned / Dedicated	
Method of Cleaning Pump: <u>NA</u> / Liqui-nox / Tap Water / DI Rinse / Other: _____	
Sampling Method: Disp. PE Bailer <u>Peristaltic Pump</u> Bladder Pump SS Submersible Pump PDBs	
Multi-Parameter Meter / Probe Serial No.: <u>556 MPS - 09C100611</u> / 556 MPS - 09C100612	
Equipment Calibration: <u>See Daily Equipment Calibration Sheet</u> OVM 580B P.I.D. Reading: <u>NA</u> ppm	
Water Level Meter Serial No.: OW 9371-1 / 25083 / 25742 / 49914 / 56500 / Other: <u>Steel tape</u>	
Beginning Water Level (DTW): <u>0.88</u> Ending Water Level: <u>NA</u>	
TD = <u>29.00</u> - <u>0.88</u> (DTW) = <u>28.92</u> (Ft. of water) x "K" = <u>78.002</u> (Gals./CV) x 3 (No. of CV) = <u>234.25</u> (Gals.)	
"K" = 0.49 oz/ft (0.375" well) "K" = 2.7 oz/ft (0.75" well) "K" = 0.04 (1" well) "K" = .163 (2" well)	

FIELD WATER QUALITY PARAMETERS

Date	Time	Discharge (Gallons)	Temp (°C)	Specific Conductivity (µS/cm ²) ± 10%	pH (SU) ± 0.1 SU	DO (mg/L) ± 10%	Water Level (BTOC)	Color	Comments
3/30/11	12:21	Initial	16.75	1450	7.65	5.19	NA	clear	
	12:24	16	16.86	1444	7.60	1.29	"	"	
	12:26	32	17.04	1427	7.55	0.82	"	"	
	12:27	48	17.02	1424	7.41	0.77	"	"	
	12:29	64	17.15	1418	6.99	0.83	"	"	
	12:31	80	17.28	1412	6.34	1.03	"	"	
	12:35	96	17.57	1411	4.81	1.14	"	"	↓ pump speed; really bubbles.
	12:39	112	18.11	1414	4.95	1.08	"	"	
	12:43	128	18.51	1422	6.30	0.94	"	"	
	12:46	144	18.67	1433	6.46	0.87	"	"	
	12:53	160	19.38	1480	7.84	1.38	"	"	⊙ 152 - starting to go dry ↓ pump speed lowered to max of 28.20.20'
	12:58	176	18.77	1489	7.17	1.67	"	"	

Total Discharge: 184 Gallons 2.35 CV Removed Disposal of discharged water: To Ground
 Date / Time Sampled: 3/30/11 @ 13:35 Analysis: TPH-G & MBTEX (8015/8020); VOCs - 9 Oxygenates (8260B)

Drye 184 oz.

Notes: New Si tubing (1.5')
Barely got 1.5 VOLS during collection; went almost dry. Waited several times to get all 4 VOLS.
 QA/QC: None @ _____ as a Duplicate Equipment Blank Field Blank MS/MSD

Recorded by: Stephen Penman / Jacqueline Lee Signature:



**Environmental
Sampling Services, LLC**

WATER QUALITY SAMPLE LOG SHEET	WELL IDENTIFICATION: PZ-2b DATE: 3/30/11
Project Name: <u>Sunol Tree Gas Station</u> Job #: <u>1024</u>	Client: <u>Cook Environmental Services, Inc.</u>
Laboratory: <u>McC Campbell Analytical, Inc.</u>	Weather Conditions: <u>Clearing up, less cirrus, warm</u>
Well Diameter: 0.375" <u>(0.75)</u> 1" 2" Other: _____	Well Type: <u>PVC</u> / Stainless Steel / Other: _____
Is Well Secured? Yes / No Bolt Size: <u>None</u>	Type of lock / Lock number: <u>None</u>
Screen Interval (Ft., BGS): <u>NA</u>	Set pump intake @ <u>45.77</u> (Ft., BTOC)
Purge Method: NA Disp. PE Bailer <u>Centrifugal Pump</u> <u>Peristaltic Pump</u> Bladder Pump SS Submersible Pump	
Pump Lines: NA / <u>PE</u> / Teflon / Other - <u>(New)</u> / <u>Cleaned</u> / <u>Dedicated</u> Bailer Line: <u>NA</u> New / Cleaned / Dedicated	
Method of Cleaning Pump: <u>NA</u> / Liqui-nox / Tap Water / DI Rinse / Other: _____	
Sampling Method: Disp. PE Bailer <u>Peristaltic Pump</u> Bladder Pump SS Submersible Pump PDBs	
Multi-Parameter Meter / Probe Serial No.: <u>556 MPS - 09C100611</u> / 556 MPS - 09C100612	
Equipment Calibration: <u>See Daily Equipment Calibration Sheet</u> OVM 580B P.I.D. Reading: <u>NA</u> ppm	
Water Level Meter Serial No.: OW 9371-1 / 25083 / 25742 / 49914 / 56500 / Other: <u>None</u>	
Beginning Water Level (DTW): <u>NA</u> Ending Water Level: <u>NA</u>	
TD = <u>48.77</u> - <u>NA</u> (DTW) = <u>NA</u> (Ft. of water) x "K" = <u>NA</u> (Gals./CV) x 3 (No. of CV) = <u>NA</u> (Gals.)	
"K" = 0.49 oz/ft (0.375" well) "K" = 2.7 oz/ft (0.75" well) "K" = 0.04 (1" well) "K" = .163 (2" well)	

FIELD WATER QUALITY PARAMETERS

Date	Time	Discharge (Gallons) oz.	Temp (°C)	Specific Conductivity (µS/cm ^o) ± 10%	pH (SU) ± 0.1 SU	DO (mg/L) ± 10%	Water Level (BTOC)	Color	Comments
3/30/11	13:08	Initial	17.28	1550	7.80	3.49	NA	cloudy w/ tan	
	13:12	32	17.54	1572	7.31	0.62	"	"	increased pump speed
	13:13	48	17.63	1580	7.27	0.56	"	"	
	13:16	80	17.77	1582	7.22	0.53	"	clearing up w/ tan tint	
	13:19	112	17.47	1593	7.23	0.46	"	"	
	13:21	144	17.47	1592	7.24	0.52	"	clear w/ tan tint	
	13:24	176	17.37	1596	7.19	0.56	"	"	
	13:27	208	17.38	1598	7.19	0.60	"	-	
	13:30	240	17.60	1592	7.20	0.60	"	-	

Total Discharge: 240 oz Gallons NA CV Removed Disposal of discharged water: To Ground
 Date / Time Sampled: 3/30/11 @ 13:31 Analysis: TPH-G & MBTEX (8015/8020); VOCs - 9 Oxygenates (8260B).

Notes: w.l. near surface - showed up quickly when turned on pump. But couldn't see it.

QA/QC: None @ _____ as a Duplicate Equipment Blank Field Blank MS/MSD
 Recorded by: Stephen Penman / Jacqueline Lee Signature:



**Environmental
Sampling Services, LLC**

WATER QUALITY SAMPLE LOG SHEET	WELL IDENTIFICATION: Sunol Domestic Well DATE: <u>3/30/11</u>
Project Name: <u>Sunol Tree Gas Station</u> Job #: <u>1024</u>	Client: <u>Cook Environmental Services, Inc.</u>
Laboratory: <u>McC Campbell Analytical, Inc.</u>	Weather Conditions: <u>Clear Mild & warm</u>
Well Diameter: 0.375" 0.75" 1" 2" Other: <u>?</u>	Well Type: PVC / Stainless Steel / Other: _____
Is Well Secured? <u>Yes</u> / No Bolt Size: <u>NA</u>	Type of lock / Lock number: <u>No lock</u>
Screen Interval (Ft., BGS): <u>NA</u>	Set pump intake @ <u>NA</u> (Ft., BTOC)
Purge Method: NA Disp. PE Bailer Centrifugal Pump Peristaltic Pump Bladder Pump <u>SS Submersible Pump</u>	
Pump Lines: NA / PE / Teflon / Other - New / Cleaned / <u>Dedicated</u>	Bailer Line: <u>NA</u> New / Cleaned / Dedicated
Method of Cleaning Pump: <u>NA</u> / Liqui-nox / Tap Water / DI Rinse / Other: _____	
Sampling Method: Disp. PE Bailer Peristaltic Pump Bladder Pump <u>SS Submersible Pump</u> PDBs <u>Grab Sample from Spout</u>	
Multi-Parameter Meter / Probe Serial No.: 556 MPS - 09C100611 <u>556 MPS - 09C100612</u>	
Equipment Calibration: <u>See Daily Equipment Calibration Sheet</u>	OVM 580B P.I.D. Reading: <u>NA</u> ppm
Water Level Meter Serial No.: OW 9371-1 / 25083 / 25742 / 49914 / 56500 / Other: <u>NA</u>	
Beginning Water Level (DTW): <u>NA</u>	Ending Water Level: <u>NA</u>
TD = <u>153.0</u> - <u>—</u> (DTW) = <u>—</u> (Ft. of water) x "K" = <u>—</u> (Gals./CV) x <u>3</u> (No. of CV) = <u>—</u> (Gals.)	
"K" = 0.49 oz/ft (0.375" well) "K" = 2.7 oz/ft (0.75" well) "K" = 0.04 (1" well) "K" = .163 (2" well)	

FIELD WATER QUALITY PARAMETERS

Date	Time	Discharge (Gallons)	Temp (°C)	Specific Conductivity (µS/cm ^c) ± 10%	pH (SU) ± 0.1 SU	DO (mg/L) ± 10%	Water Level (BTOC)	Color	Comments
<u>3/30/11</u>	<u>13:16</u>	<u>60</u>	<u>19.88</u>	<u>2041</u>	<u>7.09</u>	<u>2.20</u>	<u>—</u>	<u>Clear</u>	
	<u>13:18</u>	<u>760</u>	<u>18.48</u>	<u>2042</u>	<u>7.10</u>	<u>4.63</u>	<u>—</u>	<u>"</u>	
	<u>13:20</u>	<u>760</u>	<u>18.31</u>	<u>2050</u>	<u>7.06</u>	<u>4.22</u>	<u>—</u>	<u>"</u>	

Total Discharge: 760 Gallons NA CV Removed Disposal of discharged water: To Ground
 Date / Time Sampled: 3/30/11 @ 13:25 Analysis: TPH-G & MBTEX (8015/8020); VOCs - 9 Oxygenates (8260B).

Notes: 30 sec / 5 gallons Started purging @ 13:10 - 13:16

QA/QC: — @ — as a Duplicate Equipment Blank Field Blank MS/MSD
 Recorded by: (Stephen Penman) Jacqueline Lee Signature: [Signature]

McCAMPBELL ANALYTICAL, INC.

1534 Willow Pass Rd.
Pittsburg, CA 94565

Website: www.mccampbell.com
Telephone: (877) 252-9262

Email: main@mccampbell.com
Fax: (925) 252-9269

CHAIN OF CUSTODY RECORD

TURN AROUND TIME

RUSH 24 HR 48 HR 72 HR 5 DAY

EDF Required? Coelt (Normal) Yes Write On (DW) No

Report To: **Tim Cook & Frank Stott** Bill To: **SAME**
Company: **Cook Environmental Services, Inc.**
1485 Treat Blvd, Suite 203A
Walnut Creek, CA 94597 E-Mail: tcCook@cookenvironmental.com
Tele: (925) 478-8390 Fax: (925) 478-8394
Project #: 1024 Project Name: **Sunol Tree Gas Station**
Project Location: **3004 Andrade Road, Sunol, CA**
Sampler Name & Signature: *Joe Patton / Jacki Lee*

Analysis Request										Other	Comments								
TPH-p, BTEX & 9 Olys by 8260	TPH as Diesel (8015) & TPHmo	EPA 8260 - Full Scan	8310 Plus 2-methyl naphthalene	EPA 601 / 8010 / 8021	BTEX ONLY (EPA 602 / 8020)	EPA 608 / 8081	EPA 608 / 8082 PCB's ONLY	EPA 8140 / 8141	EPA 8150 / 8151	EPA 8260 (9 olys only)	EPA 525 / 625 / 8270	PAH's / PNA's by EPA 625 / 8270 / 8310	CAM-17 Metals (6010 / 6020)	LUFT 5 Metals (6010 / 6020)	Lead (200.8 / 200.9 / 6010)	SPLC Leach	TTLIC Leach	Filter Samples for Metals analysis: Yes / No	
CMT-7-C1		3/30/11	11:33	4	VOA	X													
CMT-7-C2		3/30/11	11:06	4	VOA	X													
CMT-7-C3		3/30/11	11:24	4	VOA	X													
CMT-10-C1		3/30/11	11:57	4	VOA	X													
CMT-10-C2		3/30/11	12:50	4	VOA	X													
CMT-10-C3		3/30/11	12:40	4	VOA	X													
PZ-2A		3/30/11	13:35	4	VOA	X													
PZ-2B		3/30/11	13:31	4	VOA	X													
Sunol Tree Dom Well		3/30/11	13:25	4	VOA	X			X										

Relinquished By: <i>[Signature]</i>	Date: 3/30/11	Time: 15:28	Received By: <i>Envirotech DM</i>
Relinquished By:	Date:	Time:	Received By:
Relinquished By:	Date:	Time:	Received By:

ICE/* GOOD CONDITION
 HEAD SPACE ABSENT
 DECHLORINATED IN LAB
 APPROPRIATE CONTAINERS
 PRESERVED IN LAB

COMMENTS:

PRESERVATION VOAS | O&G | METALS | OTHER
 pH<2

APPENDIX D
Laboratory Analytical Reports



McC Campbell Analytical, Inc.

"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Web: www.mcccampbell.com E-mail: main@mcccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

Cook Environmental Services, Inc. 1485 Treat Blvd, Ste. 203A Walnut Creek, CA 94597	Client Project ID: #1024; Sunol Tree Gas Station	Date Sampled: 03/30/11
		Date Received: 03/30/11
	Client Contact: Tim Cook	Date Reported: 04/05/11
	Client P.O.:	Date Completed: 04/04/11

WorkOrder: 1113054

April 05, 2011

Dear Tim:

Enclosed within are:

- 1) The results of the **18** analyzed samples from your project: **#1024; Sunol Tree Gas Station**,
- 2) A QC report for the above samples,
- 3) A copy of the chain of custody, and
- 4) An invoice for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits.

If you have any questions or concerns, please feel free to give me a call. Thank you for choosing

McC Campbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius
Laboratory Manager
McC Campbell Analytical, Inc.

1113054

McCAMPBELL ANALYTICAL, INC.
1534 Willow Pass Rd.
Pittsburg, CA 94565

Website: www.mccampbell.com
Telephone: (877) 252-9262

Email: main@mccampbell.com
Fax: (925) 252-9269

CHAIN OF CUSTODY RECORD
TURN AROUND TIME

RUSH 24 HR 48 HR 72 HR 5 DAY
EDF Required? Coelt (Normal) Yes Write On (DW) No

Report To: Tim Cook & Frank Stott Bill To: SAME
Company: Cook Environmental Services, Inc.
1485 Treat Blvd, Suite 203A
Walnut Creek, CA 94597 E-Mail: tcook@cookenvironmental.com
Tele: (925) 478-8390 Fax: (925) 478-8394
Project #: 1024 Project Name: Sunol Tree Gas Station
Project Location: 3004 Andrade Road, Sunol, CA
Sampler Name & Signature: *Stephen Pommer & Justin Lee*

Analysis Request											Other	Comments						
TPH-g, BTEX & 9 Oxy's by 8260	TPH as Diesel (8015) & TPHmo	EPA 8260 - Full Scan	8310 Plus 2-methyl naphthalene	EPA 601 / 8010 / 8021	BTEX ONLY (EPA 602 / 8020)	EPA 608 / 8081	EPA 608 / 8082 PCB's ONLY	EPA 8140 / 8141	EPA 8150 / 8151	EPA 8260 (9 oxy's only)	EPA 525 / 625 / 8270	PAH's / PNA's by EPA 625 / 8270 / 8310	CAM-17 Metals (6010 / 6020)	LUFT 5 Metals (6010 / 6020)	Lead (200.8 / 200.9 / 6010)	SPLC Leach	TILC Leach	Filter Samples for Metals analysis: Yes / No

SAMPLE ID (Field Point Name)	LOCATION	SAMPLING		# Containers	Type Containers	MATRIX					METHOD PRESERVED							
		Date	Time			Water	Soil	Air	Sludge	Other	ICE	HCL	HNO ₃	Other				
CMT-1-C1		3/30/11	10:48	4	VOA	X						X						
CMT-1-C2		3/30/11	11:06	4	VOA	X						X						
CMT-1-C3		3/30/11	11:24	4	VOA	X						X						
CMT-3-C1		3/30/11	9:28	4	VOA	X						X						
CMT-3-C2		3/30/11	9:55	4	VOA	X						X						
CMT-3-C3		3/30/11	10:12	4	VOA	X						X						
CMT-6-C1		3/30/11	10:30	4	VOA	X						X						
CMT-6-C2		3/30/11	9:54	4	VOA	X						X						
CMT-6-C3		3/30/11	10:17	4	VOA	X						X						

Relinquished By: *[Signature]* Date: 3/30/11 Time: 15:28 Received By: *Envirotech DM*
Relinquished By: *Envirotech T.L.* Date: 3/30/11 Time: 17:20 Received By: *[Signature]*
Relinquished By: *[Signature]* Date: 3/30/11 Time: 18:00 Received By: *[Signature]*

ICE/r *6-2*
GOOD CONDITION
HEAD SPACE ABSENT
DECHLORINATED IN LAB
APPROPRIATE CONTAINERS
PRESERVED IN LAB
PRESERVATION VOAS O&G METALS OTHER
pH<2

McCAMPBELL ANALYTICAL, INC.

1534 Willow Pass Rd.
Pittsburg, CA 94565

Website: www.mccampbell.com
Telephone: (877) 252-9262

Email: main@mccampbell.com
Fax: (925) 252-9269

CHAIN OF CUSTODY RECORD

TURN AROUND TIME

RUSH 24 HR 48 HR 72 HR 5 DAY

EDF Required? Coelt (Normal) Yes Write On (DW) No

Report To: **Tim Cook & Frank Stott** Bill To: **SAME**

Company: **Cook Environmental Services, Inc.**
 1485 Treat Blvd, Suite 203A
 Walnut Creek, CA 94597 E-Mail: tcCook@cookenvironmental.com

Tele: (925) 478-8390 Fax: (925) 478-8394

Project #: **1024** Project Name: **Sunol Tree Gas Station**

Project Location: **3004 Andrade Road, Sunol, CA**

Sampler Name & Signature: *[Signature]*

Analysis Request

Other

Comments

SAMPLE ID (Field Point Name)	LOCATION	SAMPLING		# Containers	Type Containers	MATRIX					METHOD PRESERVED				TPH-g, BTEX & 9 Oxy's by 8260	TPH as Diesel (8015) & TPHmo	EPA 8260 - Full Scan	8310 Plus 2-methyl naphthalene	EPA 601 / 8010 / 8021	BTEX ONLY (EPA 602 / 8020)	EPA 608 / 8081	EPA 608 / 8082 PCB's ONLY	EPA 8140 / 8141	EPA 8150 / 8151	EPA 8260 (9 oxy's only)	EPA 825 / 625 / 8270	PAH's / PNA's by EPA 625 / 8270 / 8310	CAM-17 Metals (6010 / 6020)	LUFT 5 Metals (6010 / 6020)	Lead (200.8 / 200.9 / 6010)	SPLC Leach	TTLc Leach				
		Date	Time			Water	Soil	Air	Sludge	Other	ICE	HCL	HNO ₃	Other																						
CMT-7-C1		3/30/11	11:33	4	VOA	X						X																								
CMT-7-C2		3/30/11	11:06	4	VOA	X						X																								
CMT-7-C3		3/30/11	11:24	4	VOA	X						X																								
CMT-10-C1		3/30/11	11:57	4	VOA	X						X																								
CMT-10-C2		3/30/11	12:50	4	VOA	X						X																								
CMT-10-C3		3/30/11	12:40	4	VOA	X						X																								
PZ-2A		3/30/11	13:35	4	VOA	X						X																								
PZ-2B		3/30/11	13:31	4	VOA	X						X																								
Sunol Tree Dom Well		3/30/11	13:25	4	VOA	X						X		X																						

Filter Samples for Metals analysis: Yes / No

Relinquished By: <i>[Signature]</i>	Date: 3/30/11	Time: 15:28	Received By: <i>[Signature]</i>
Relinquished By: <i>[Signature]</i>	Date: 3/30/11	Time: 17:26	Received By: <i>[Signature]</i>
Relinquished By: <i>[Signature]</i>	Date: 3/30/11	Time: 18:00	Received By: <i>[Signature]</i>

ICE# *6-7*

GOOD CONDITION _____

HEAD SPACE ABSENT _____

DECHLORINATED IN LAB _____

APPROPRIATE CONTAINERS _____

PRESERVED IN LAB _____

VOAS	O&G	METALS	OTHER
PRESERVATION		pH<2	

COMMENTS:

McC Campbell Analytical, Inc.



1534 Willow Pass Rd
Pittsburg, CA 94565-1701
(925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 1113054

ClientCode: CESW

WaterTrax
 WriteOn
 EDF
 Excel
 Fax
 Email
 HardCopy
 ThirdParty
 J-flag

Report to:

Tim Cook
Cook Environmental Services, Inc.
1485 Treat Blvd, Ste. 203A
Walnut Creek, CA 94597
925-937-1759 FAX 925-937-1759

Email: tcook@cookenvironmental.com
cc:
PO:
ProjectNo: #1024; Sunol Tree Gas Station

Bill to:

Tim Cook
Cook Environmental Services, Inc.
1485 Treat Blvd, Ste. 203A
Walnut Creek, CA 94597

Requested TAT: 5 days

Date Received: 03/30/2011

Date Printed: 03/31/2011

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)												
					1	2	3	4	5	6	7	8	9	10	11	12	
1113054-001	CMT-1-C1	Water	3/30/2011 10:48	<input type="checkbox"/>	A	A											
1113054-002	CMT-1-C2	Water	3/30/2011 11:06	<input type="checkbox"/>	A												
1113054-003	CMT-1-C3	Water	3/30/2011 11:24	<input type="checkbox"/>	A												
1113054-004	CMT-3-C1	Water	3/30/2011 9:28	<input type="checkbox"/>	A												
1113054-005	CMT-3-C2	Water	3/30/2011 9:55	<input type="checkbox"/>	A												
1113054-006	CMT-3-C3	Water	3/30/2011 10:12	<input type="checkbox"/>	A												
1113054-007	CMT-6-C1	Water	3/30/2011 10:30	<input type="checkbox"/>	A												
1113054-008	CMT-6-C2	Water	3/30/2011 9:54	<input type="checkbox"/>	A												
1113054-009	CMT-6-C3	Water	3/30/2011 10:17	<input type="checkbox"/>	A												
1113054-010	CMT-7-C1	Water	3/30/2011 11:33	<input type="checkbox"/>	A												
1113054-011	CMT-7-C2	Water	3/30/2011 11:06	<input type="checkbox"/>	A												
1113054-012	CMT-7-C3	Water	3/30/2011 11:24	<input type="checkbox"/>	A												
1113054-013	CMT-10-C1	Water	3/30/2011 11:57	<input type="checkbox"/>	A												
1113054-014	CMT-10-C2	Water	3/30/2011 12:50	<input type="checkbox"/>	A												

Test Legend:

1	GAS8260_W	2	PREDF REPORT	3		4		5	
6		7		8		9		10	
11		12							

The following SampIDs: 001A, 002A, 003A, 004A, 005A, 006A, 007A, 008A, 009A, 010A, 011A, 012A, 013A, 014A, 015A, 016A, 017A, 018A contain testgroup.

Prepared by: Ana Venegas

Comments:

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).
Hazardous samples will be returned to client or disposed of at client expense.

McC Campbell Analytical, Inc.



1534 Willow Pass Rd
Pittsburg, CA 94565-1701
(925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 1113054

ClientCode: CESW

WaterTrax WriteOn EDF Excel Fax Email HardCopy ThirdParty J-flag

Report to:

Tim Cook
Cook Environmental Services, Inc.
1485 Treat Blvd, Ste. 203A
Walnut Creek, CA 94597
925-937-1759 FAX 925-937-1759

Email: tcook@cookenvironmental.com
cc:
PO:
ProjectNo: #1024; Sunol Tree Gas Station

Bill to:

Tim Cook
Cook Environmental Services, Inc.
1485 Treat Blvd, Ste. 203A
Walnut Creek, CA 94597

Requested TAT: 5 days

Date Received: 03/30/2011

Date Printed: 03/31/2011

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)												
					1	2	3	4	5	6	7	8	9	10	11	12	
1113054-015	CMT-10-C3	Water	3/30/2011 12:40	<input type="checkbox"/>	A												
1113054-016	PZ-2A	Water	3/30/2011 13:35	<input type="checkbox"/>	A												
1113054-017	PZ-2B	Water	3/30/2011 13:31	<input type="checkbox"/>	A												
1113054-018	Sunol Tree Dom Well	Water	3/30/2011 13:25	<input type="checkbox"/>	A												

Test Legend:

1	GAS8260_W	2	PREDF REPORT	3		4		5	
6		7		8		9		10	
11		12							

The following SampIDs: 001A, 002A, 003A, 004A, 005A, 006A, 007A, 008A, 009A, 010A, 011A, 012A, 013A, 014A, 015A, 016A, 017A, 018A contain testgroup.

Prepared by: Ana Venegas

Comments:

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).
Hazardous samples will be returned to client or disposed of at client expense.



Sample Receipt Checklist

Client Name: **Cook Environmental Services, Inc.**

Date and Time Received: **3/30/2011 8:33:59 PM**

Project Name: **#1024; Sunol Tree Gas Station**

Checklist completed and reviewed by: **Ana Venegas**

WorkOrder N°: **1113054** Matrix Water

Carrier: Derik Cartan (MAI Courier)

Chain of Custody (COC) Information

- Chain of custody present? Yes No
- Chain of custody signed when relinquished and received? Yes No
- Chain of custody agrees with sample labels? Yes No
- Sample IDs noted by Client on COC? Yes No
- Date and Time of collection noted by Client on COC? Yes No
- Sampler's name noted on COC? Yes No

Sample Receipt Information

- Custody seals intact on shipping container/cooler? Yes No NA
- Shipping container/cooler in good condition? Yes No
- Samples in proper containers/bottles? Yes No
- Sample containers intact? Yes No
- Sufficient sample volume for indicated test? Yes No

Sample Preservation and Hold Time (HT) Information

- All samples received within holding time? Yes No
 - Container/Temp Blank temperature Cooler Temp: 6.2°C NA
 - Water - VOA vials have zero headspace / no bubbles? Yes No No VOA vials submitted
 - Sample labels checked for correct preservation? Yes No
 - Metal - pH acceptable upon receipt (pH<2)? Yes No NA
 - Samples Received on Ice? Yes No
- (Ice Type: WET ICE)

* NOTE: If the "No" box is checked, see comments below.

=====

Client contacted:

Date contacted:

Contacted by:

Comments:



McC Campbell Analytical, Inc.

"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Web: www.mcccampbell.com E-mail: main@mcccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

Cook Environmental Services, Inc. 1485 Treat Blvd, Ste. 203A Walnut Creek, CA 94597	Client Project ID: #1024; Sunol Tree Gas Station	Date Sampled: 03/30/11
	Client Contact: Tim Cook	Date Received: 03/30/11
	Client P.O.:	Date Extracted: 04/01/11-04/02/11
		Date Analyzed 04/01/11-04/02/11

TPH(g) by Purge & Trap and GC/MS*

Extraction method SW5030B

Analytical methods SW8260B

Work Order: 1113054

Lab ID	Client ID	Matrix	TPH(g)	DF	% SS	Comments
001A	CMT-1-C1	W	ND	1	102	
002A	CMT-1-C2	W	ND	1	102	
003A	CMT-1-C3	W	ND	1	101	
004A	CMT-3-C1	W	ND	1	100	
005A	CMT-3-C2	W	ND	1	101	
006A	CMT-3-C3	W	ND	1	101	
007A	CMT-6-C1	W	ND	1	101	
008A	CMT-6-C2	W	ND	1	101	
009A	CMT-6-C3	W	ND	1	100	
010A	CMT-7-C1	W	ND	1	101	
011A	CMT-7-C2	W	ND	1	100	
012A	CMT-7-C3	W	ND	1	100	
013A	CMT-10-C1	W	ND	1	100	
014A	CMT-10-C2	W	ND	1	101	
015A	CMT-10-C3	W	ND	1	101	
016A	PZ-2A	W	ND	1	101	

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	50	µg/L
	S	NA	NA

* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in µg/wipe.

ND means not detected above the reporting limit/method detection limit; N/A means analyte not applicable to this analysis.

surrogate diluted out of range or coelutes with another peak; &) low surrogate due to matrix interference.

%SS = Percent Recovery of Surrogate Standard

DF = Dilution Factor



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Telephone: 877-252-9262 Fax: 925-252-9269

Cook Environmental Services, Inc. 1485 Treat Blvd, Ste. 203A Walnut Creek, CA 94597	Client Project ID: #1024; Sunol Tree Gas Station	Date Sampled: 03/30/11
	Client Contact: Tim Cook	Date Received: 03/30/11
	Client P.O.:	Date Extracted: 04/01/11-04/02/11
		Date Analyzed 04/01/11-04/02/11

TPH(g) by Purge & Trap and GC/MS*

Extraction method SW5030B

Analytical methods SW8260B

Work Order: 1113054

Lab ID	Client ID	Matrix	TPH(g)	DF	% SS	Comments
017A	PZ-2B	W	ND	1	101	
018A	Sunol Tree Dom Well	W	ND	1	101	

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	50	µg/L
	S	NA	NA

* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in µg/wipe.

ND means not detected above the reporting limit/method detection limit; N/A means analyte not applicable to this analysis.

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Cook Environmental Services, Inc. 1485 Treat Blvd, Ste. 203A Walnut Creek, CA 94597	Client Project ID: #1024; Sunol Tree Gas Station	Date Sampled: 03/30/11
	Client Contact: Tim Cook	Date Received: 03/30/11
	Client P.O.:	Date Extracted: 04/01/11-04/02/11
		Date Analyzed: 04/01/11-04/02/11

Oxygenates, MBTEX & Lead Scavengers by GC/MS*

Extraction Method: SW5030B

Analytical Method: SW8260B

Work Order: 1113054

Lab ID	1113054-001A	1113054-002A	1113054-003A	1113054-004A	Reporting Limit for DF = 1	
Client ID	CMT-1-C1	CMT-1-C2	CMT-1-C3	CMT-3-C1	S	W
Matrix	W	W	W	W		
DF	1	1	1	1		

Compound	Concentration				ug/kg	µg/L
tert-Amyl methyl ether (TAME)	ND	ND	ND	ND	NA	0.5
Benzene	ND	ND	ND	ND	NA	0.5
t-Butyl alcohol (TBA)	ND	ND	ND	ND	NA	2.0
1,2-Dibromoethane (EDB)	ND	ND	ND	ND	NA	0.5
1,2-Dichloroethane (1,2-DCA)	ND	ND	ND	ND	NA	0.5
Diisopropyl ether (DIPE)	ND	ND	ND	ND	NA	0.5
Ethanol	ND	ND	ND	ND	NA	50
Ethylbenzene	ND	ND	ND	ND	NA	0.5
Ethyl tert-butyl ether (ETBE)	ND	ND	ND	ND	NA	0.5
Methanol	ND	ND	ND	ND	NA	500
Methyl-t-butyl ether (MTBE)	ND	12	ND	0.52	NA	0.5
Toluene	ND	ND	ND	ND	NA	0.5
Xylenes	ND	ND	ND	ND	NA	0.5

Surrogate Recoveries (%)

%SS1:	100	99	98	100	
%SS2:	104	104	102	102	
%SS3:	87	85	87	85	

Comments

* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in µg/wipe.

ND means not detected above the reporting limit/method detection limit; N/A means analyte not applicable to this analysis.

surrogate diluted out of range or coelutes with another peak; &) low surrogate due to matrix interference.

%SS = Percent Recovery of Surrogate Standard
DF = Dilution Factor



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Cook Environmental Services, Inc. 1485 Treat Blvd, Ste. 203A Walnut Creek, CA 94597	Client Project ID: #1024; Sunol Tree Gas Station	Date Sampled: 03/30/11
	Client Contact: Tim Cook	Date Received: 03/30/11
	Client P.O.:	Date Extracted: 04/01/11-04/02/11
		Date Analyzed: 04/01/11-04/02/11

Oxygenates, MBTEX & Lead Scavengers by GC/MS*

Extraction Method: SW5030B

Analytical Method: SW8260B

Work Order: 1113054

Lab ID	1113054-005A	1113054-006A	1113054-007A	1113054-008A	Reporting Limit for DF = 1	
Client ID	CMT-3-C2	CMT-3-C3	CMT-6-C1	CMT-6-C2		
Matrix	W	W	W	W		
DF	1	1	3.3	1		

Compound	Concentration				ug/kg	µg/L
tert-Amyl methyl ether (TAME)	ND	ND	ND<1.7	ND	NA	0.5
Benzene	ND	ND	ND<1.7	ND	NA	0.5
t-Butyl alcohol (TBA)	ND	ND	ND<6.7	ND	NA	2.0
1,2-Dibromoethane (EDB)	ND	ND	ND<1.7	ND	NA	0.5
1,2-Dichloroethane (1,2-DCA)	ND	ND	ND<1.7	ND	NA	0.5
Diisopropyl ether (DIPE)	ND	ND	ND<1.7	ND	NA	0.5
Ethanol	ND	ND	ND<170	ND	NA	50
Ethylbenzene	ND	ND	ND<1.7	ND	NA	0.5
Ethyl tert-butyl ether (ETBE)	ND	ND	ND<1.7	ND	NA	0.5
Methanol	ND	ND	ND<1700	ND	NA	500
Methyl-t-butyl ether (MTBE)	18	ND	79	24	NA	0.5
Toluene	ND	ND	ND<1.7	ND	NA	0.5
Xylenes	ND	ND	ND<1.7	ND	NA	0.5

Surrogate Recoveries (%)

%SS1:	98	98	96	99
%SS2:	102	102	101	102
%SS3:	85	84	81	85

Comments

* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in µg/wipe.

ND means not detected above the reporting limit/method detection limit; N/A means analyte not applicable to this analysis.

surrogate diluted out of range or coelutes with another peak; &) low surrogate due to matrix interference.

%SS = Percent Recovery of Surrogate Standard
DF = Dilution Factor



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Cook Environmental Services, Inc. 1485 Treat Blvd, Ste. 203A Walnut Creek, CA 94597	Client Project ID: #1024; Sunol Tree Gas Station	Date Sampled: 03/30/11
	Client Contact: Tim Cook	Date Received: 03/30/11
	Client P.O.:	Date Extracted: 04/01/11-04/02/11
		Date Analyzed: 04/01/11-04/02/11

Oxygenates, MBTEX & Lead Scavengers by GC/MS*

Extraction Method: SW5030B

Analytical Method: SW8260B

Work Order: 1113054

Lab ID	1113054-009A	1113054-010A	1113054-011A	1113054-012A	Reporting Limit for DF = 1	
Client ID	CMT-6-C3	CMT-7-C1	CMT-7-C2	CMT-7-C3		
Matrix	W	W	W	W		
DF	1	1	10	1		

Compound	Concentration				ug/kg	µg/L
tert-Amyl methyl ether (TAME)	ND	ND	ND<5.0	ND	NA	0.5
Benzene	ND	ND	ND<5.0	ND	NA	0.5
t-Butyl alcohol (TBA)	ND	ND	ND<20	ND	NA	2.0
1,2-Dibromoethane (EDB)	ND	ND	ND<5.0	ND	NA	0.5
1,2-Dichloroethane (1,2-DCA)	ND	ND	ND<5.0	ND	NA	0.5
Diisopropyl ether (DIPE)	ND	ND	ND<5.0	ND	NA	0.5
Ethanol	ND	ND	ND<500	ND	NA	50
Ethylbenzene	ND	ND	ND<5.0	ND	NA	0.5
Ethyl tert-butyl ether (ETBE)	ND	ND	ND<5.0	ND	NA	0.5
Methanol	ND	ND	ND<5000	ND	NA	500
Methyl-t-butyl ether (MTBE)	16	8.9	140	ND	NA	0.5
Toluene	ND	ND	ND<5.0	ND	NA	0.5
Xylenes	ND	ND	ND<5.0	ND	NA	0.5

Surrogate Recoveries (%)

%SS1:	99	99	98	99
%SS2:	100	102	101	100
%SS3:	84	83	83	85

Comments

* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in µg/wipe.

ND means not detected above the reporting limit/method detection limit; N/A means analyte not applicable to this analysis.

surrogate diluted out of range or coelutes with another peak; &) low surrogate due to matrix interference.

%SS = Percent Recovery of Surrogate Standard
DF = Dilution Factor



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Cook Environmental Services, Inc. 1485 Treat Blvd, Ste. 203A Walnut Creek, CA 94597	Client Project ID: #1024; Sunol Tree Gas Station	Date Sampled: 03/30/11
	Client Contact: Tim Cook	Date Received: 03/30/11
	Client P.O.:	Date Extracted: 04/01/11-04/02/11
		Date Analyzed: 04/01/11-04/02/11

Oxygenates, MBTEX & Lead Scavengers by GC/MS*

Extraction Method: SW5030B

Analytical Method: SW8260B

Work Order: 1113054

Lab ID	1113054-013A	1113054-014A	1113054-015A	1113054-016A	Reporting Limit for DF = 1	
Client ID	CMT-10-C1	CMT-10-C2	CMT-10-C3	PZ-2A		
Matrix	W	W	W	W		
DF	1	1	1	1		

Compound	Concentration				ug/kg	ug/L
tert-Amyl methyl ether (TAME)	ND	ND	ND	ND	NA	0.5
Benzene	ND	ND	ND	ND	NA	0.5
t-Butyl alcohol (TBA)	ND	ND	ND	2.9	NA	2.0
1,2-Dibromoethane (EDB)	ND	ND	ND	ND	NA	0.5
1,2-Dichloroethane (1,2-DCA)	ND	ND	ND	ND	NA	0.5
Diisopropyl ether (DIPE)	ND	ND	ND	ND	NA	0.5
Ethanol	ND	ND	ND	ND	NA	50
Ethylbenzene	ND	ND	ND	ND	NA	0.5
Ethyl tert-butyl ether (ETBE)	ND	ND	ND	ND	NA	0.5
Methanol	ND	ND	ND	ND	NA	500
Methyl-t-butyl ether (MTBE)	ND	1.1	0.86	7.5	NA	0.5
Toluene	ND	ND	ND	ND	NA	0.5
Xylenes	ND	ND	ND	ND	NA	0.5

Surrogate Recoveries (%)

%SS1:	98	97	98	97	
%SS2:	100	101	101	101	
%SS3:	83	85	83	82	

Comments

* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in µg/wipe.

ND means not detected above the reporting limit/method detection limit; N/A means analyte not applicable to this analysis.

surrogate diluted out of range or coelutes with another peak; &) low surrogate due to matrix interference.

%SS = Percent Recovery of Surrogate Standard
DF = Dilution Factor



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Cook Environmental Services, Inc. 1485 Treat Blvd, Ste. 203A Walnut Creek, CA 94597	Client Project ID: #1024; Sunol Tree Gas Station	Date Sampled: 03/30/11
	Client Contact: Tim Cook	Date Received: 03/30/11
	Client P.O.:	Date Extracted: 04/01/11-04/02/11
		Date Analyzed: 04/01/11-04/02/11

Oxygenates, MBTEX & Lead Scavengers by GC/MS*

Extraction Method: SW5030B

Analytical Method: SW8260B

Work Order: 1113054

Lab ID	1113054-017A	1113054-018A			Reporting Limit for DF =1
Client ID	PZ-2B	Sunol Tree Dom Well			
Matrix	W	W			
DF	1	1			

Compound	Concentration		ug/kg	µg/L
tert-Amyl methyl ether (TAME)	ND	ND	NA	0.5
Benzene	ND	ND	NA	0.5
t-Butyl alcohol (TBA)	ND	ND	NA	2.0
1,2-Dibromoethane (EDB)	ND	ND	NA	0.5
1,2-Dichloroethane (1,2-DCA)	ND	ND	NA	0.5
Diisopropyl ether (DIPE)	ND	ND	NA	0.5
Ethanol	ND	ND	NA	50
Ethylbenzene	ND	ND	NA	0.5
Ethyl tert-butyl ether (ETBE)	ND	ND	NA	0.5
Methanol	ND	ND	NA	500
Methyl-t-butyl ether (MTBE)	3.0	ND	NA	0.5
Toluene	ND	ND	NA	0.5
Xylenes	ND	ND	NA	0.5

Surrogate Recoveries (%)

%SS1:	98	98		
%SS2:	100	101		
%SS3:	82	82		

Comments

* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in µg/wipe.

ND means not detected above the reporting limit/method detection limit; N/A means analyte not applicable to this analysis.

surrogate diluted out of range or coelutes with another peak; &) low surrogate due to matrix interference.

%SS = Percent Recovery of Surrogate Standard
DF = Dilution Factor



QC SUMMARY REPORT FOR SW8260B

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 57303

WorkOrder 1113054

Analyte	Extraction SW5030B		Spiked Sample ID: 1103997-009B									
	Sample µg/L	Spiked µg/L	MS % Rec.	MSD % Rec.	MS-MSD % RPD	LCS % Rec.	LCSD % Rec.	LCS-LCSD % RPD	Acceptance Criteria (%)			
tert-Amyl methyl ether (TAME)	ND	10	90.4	87.2	3.61	92.9	91.7	1.31	70 - 130	30	70 - 130	30
Benzene	ND	10	99.8	96.9	2.99	108	105	3.38	70 - 130	30	70 - 130	30
t-Butyl alcohol (TBA)	ND	50	94.6	90.4	4.47	96.4	96.5	0.0990	70 - 130	30	70 - 130	30
1,2-Dibromoethane (EDB)	ND	10	104	99.5	4.69	105	101	3.53	70 - 130	30	70 - 130	30
1,2-Dichloroethane (1,2-DCA)	ND	10	113	110	2.88	119	118	0.821	70 - 130	30	70 - 130	30
Diisopropyl ether (DIPE)	ND	10	116	114	2.33	125	123	1.53	70 - 130	30	70 - 130	30
Ethyl tert-butyl ether (ETBE)	ND	10	109	105	3.06	115	113	2.11	70 - 130	30	70 - 130	30
Methyl-t-butyl ether (MTBE)	ND	10	108	104	3.24	111	110	0.336	70 - 130	30	70 - 130	30
Toluene	ND	10	96.6	93.5	3.31	104	99.9	4.40	70 - 130	30	70 - 130	30
%SS1:	97	25	99	98	0.261	98	98	0	70 - 130	30	70 - 130	30
%SS2:	99	25	100	100	0	99	99	0	70 - 130	30	70 - 130	30
%SS3:	92	2.5	96	96	0	94	91	2.75	70 - 130	30	70 - 130	30

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
NONE

BATCH 57303 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1113054-001A	03/30/11 10:48 AM	04/01/11	04/01/11 8:35 PM	1113054-001A	03/30/11 10:48 AM	04/01/11	04/01/11 8:35 PM
1113054-002A	03/30/11 11:06 AM	04/01/11	04/01/11 9:17 PM	1113054-002A	03/30/11 11:06 AM	04/01/11	04/01/11 9:17 PM
1113054-003A	03/30/11 11:24 AM	04/01/11	04/01/11 10:00 PM	1113054-003A	03/30/11 11:24 AM	04/01/11	04/01/11 10:00 PM
1113054-004A	03/30/11 9:28 AM	04/01/11	04/01/11 10:41 PM	1113054-004A	03/30/11 9:28 AM	04/01/11	04/01/11 10:41 PM
1113054-005A	03/30/11 9:55 AM	04/01/11	04/01/11 11:22 PM	1113054-005A	03/30/11 9:55 AM	04/01/11	04/01/11 11:22 PM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / (MS + MSD) * 2.

MS and / or MSD spike recoveries may not be near 100% or the RPDs near 0% if: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) if that specific sample matrix interferes with spike recovery. The LCS and LCSD are spikes into a clean, known, similar matrix and they and the surrogate standards reflect the overall validity of their extraction batch. Our control limits are 70-130% recovery and a 30% RPD for the LCS-LCSD and for the Surrogate Standards.



QC SUMMARY REPORT FOR SW8260B

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 57348

WorkOrder 1113054

Table with columns: EPA Method SW8260B, Extraction SW5030B, Spiked Sample ID: 1113054-018A, Analyte, Sample (µg/L), Spiked (µg/L), MS (% Rec.), MSD (% Rec.), MS-MSD (% RPD), LCS (% Rec.), LCSD (% Rec.), LCS-LCSD (% RPD), and Acceptance Criteria (%).

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions: NONE

BATCH 57348 SUMMARY

Summary table with columns: Lab ID, Date Sampled, Date Extracted, Date Analyzed, and corresponding values for 18 different samples.

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / (MS + MSD) * 2.

MS and / or MSD spike recoveries may not be near 100% or the RPDs near 0% if: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) if that specific sample matrix interferes with spike recovery.