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LETTER OF TRANSMITTAL

TO: CRWQCB
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Santa Rosa, CA 95403

ATTN:

DATE: April 1, 2005
JOB NO.: 5282.01
PROJECT: PFP CC Shell

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cc: Jim Seiler (Electronic Copy)

By: Michael Kitahara

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GROUNDWATER MONITORING REPORT; FIRST QUARTER 2005

Humboldt Petroleum, Incorporated; Crescent City Shell
1006 North Highway 101, Crescent City, California

California Regional Water Quality Control Board Case No. 1TDN026

Prepared for:
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April 1, 2005
Project No. 5282.01

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California Regional Water Quality Control Board (CRWQCB) Case No. 1TDN026
LACO ASSOCIATES Project No. 5282.01

EXECUTIVE SUMMARY

This report presents the results of first quarter 2005 groundwater monitoring for the Pay-for-Performance (PFP) project at the above-referenced site. A location map is included as Figure 1 and a site map is included as Figure 2. On February 16, 2004, groundwater samples were collected from observation and monitoring wells for performance and quarterly monitoring. Contaminants of concern (COC) include total petroleum hydrocarbons as gasoline (TPHg), benzene, toluene, ethyl benzene, and total xylenes (BTEX), and total petroleum hydrocarbons as diesel (TPHd). All COCs remained below active remedial goal (ARG) thresholds during this quarterly sampling period, except for the following:

- Total xylenes in monitoring well MW1 and observation well OW3 were detected at 870 and 440 µg/l, respectively (ARG is 300 µg/l).
- TPHd in observation well OW4 was detected at 540 µg/l (ARG is 500 µg/l).

Concentration increases for these parameters at the indicated locations are likely attributed to a malfunction of the remediation system air compressor. The compressor has been significantly rebuilt and is now operating normally.

INTRODUCTION

The goal of the PFP is to reduce the mass of the secondary source of the COCs through injection of ozone, thereby preventing discharge of TPHg, TPHd, BTEX, and the fuel oxygenate methyl tertiary butyl ether (MTBE) to shallow groundwater. Mass reduction of the secondary source is determined using dissolved-phase concentrations from key and perimeter monitoring wells as a proxy for sorbed-phase mass. During this quarter, groundwater samples were collected from key and perimeter monitoring wells to assess dissolved-phase contaminant concentrations and trends on-site.

An updated site chronology outlining sampling dates, and operation and maintenance of the ozone system is included as Attachment 1.

SAMPLING

Groundwater samples were collected from key monitoring wells MW1, MW5, MW6, and MW7, and perimeter monitoring wells MW2, MW4, MW8, OW3, OW4, and OW5 on February 16, 2004 (Table 1 and Table 2).

Prior to purging and sampling, depth-to-water (DTW) was measured for calculation of the hydraulic head elevation. The water level reached equilibrium with the atmosphere when a change of less than 0.02 feet was recorded for DTW measurements made not less than 5 minutes apart. Once the well equilibrated, water was purged from monitoring wells MW1 through MW5 using a down hole pump. Monitoring wells MW6 through MW8 and observation wells OW3 through OW5 were purged using a CAM pump. Pumps were set at a flow rate of less than 1 liter per minute with the intake set approximately at the middle of the screened interval of the water column. The depths of the pump intake and purge methods are noted on the field sampling data form, included as Attachment 2.

Water quality indicator parameters dissolved oxygen (DO), temperature (T), pH, oxygen reduction potential (ORP), and electrical conductivity (ECw) were monitored by routing the pump discharge through a flow cell (Table 2). Formation water was sampled when indicator parameters stabilized within the accuracy range of the meters for three consecutive readings not less than 1 minute apart. The accuracy range of the DO, T, pH, ORP, and ECw meters are +/- 0.3 mg/L, +/- 0.5 °C, +/- 0.2 pH, +/- 2 mV, and +/- 20 μmhos, respectively. While keeping the same flow rate, sample containers were filled directly from the pump discharge.

Sampling equipment was decontaminated with Alconox before its use in the field and after each sample collected. The sample containers were placed in an ice-filled cooler to ensure the preservation of the analytes, and submitted to North Coast Laboratories (NCL) under standard chain-of-custody protocols for analysis of:

- TPHg by EPA Method 8260B
- TPHd by EPA Method 3510GCFID
- BTEX by EPA Method 8260B
- MTBE, Tertiary Amyl Methyl Ether (TAME), Ethyl Tertiary Butyl Ether (ETBE), Di-isopropyl Ether (DIPE), Tertiary Butyl Alcohol (TBA), and Tertiary Butyl Formate (TBF) by EPA method 8260B

- Dissolved chromium by EPA Method 200.7

- ICAP Metals with Acid Digestion by EPA method 200.7

Additionally, vapor samples were collected from vapor points VP1 through VP6 on February 16, 2004. Vapor samples were collected with a vacuum pump into Tedlar bags. Samples were collected in laboratory-supplied containers and submitted to Air Toxics Ltd. under standard chain-of-custody protocols for analysis of:

- BTEX and MTBE by Method TO-14A

HYDRAULIC GRADIENT

DTW measurements collected on February 16, 2004, were used to determine hydraulic head. Based on the well screen elevations on-site, separate gradients are generally determined using the monitoring wells (deeper screened intervals) and observation wells (shallow screened intervals). However, because some hydraulic head elevations may be influenced by subsurface anomalies (i.e., underground storage tank [UST] cavity, trenching, ozone sparging), the hydraulic head elevations may not be dependable. In addition, hydraulic gradients can vary across the site.

In the current sampling event, gas pressure at the subsurface has produced anomalous hydraulic head elevations in the deeper monitoring wells (i.e., monitoring wells screened to 20 feet bgs), resulting in an irregular potentiometric surface. Therefore, a hydraulic gradient was not calculated for the deeper wells. Hydraulic head elevations for the deep wells are presented on Figure 3.

The potentiometric surface for the water measured in the shallow wells was contoured from hydraulic head measurements using Surfer 7.0 software and is presented on Figure 4. Observation wells OW1, OW3, and OW4 were used to calculate the shallow hydraulic gradient by the three-point method. Using elevation data collected during the February 16, 2004, sampling event, the hydraulic gradient was calculated to be S44°E with a slope of 0.8 percent (Figure 4).

ANALYTICAL RESULTS

A summary of groundwater monitoring data with analytical results since implementation of the ozone sparge system is included as Table 1. Field and laboratory intrinsic analyses are included as Table 2. Historical groundwater monitoring data is included as Table 3. Table 4 presents historical chromium analysis data. Current and historical vapor analysis data is included as Table 5. Field sampling data forms are included as Attachment 2. Copies of current laboratory reports for this reporting period are included as Attachment 3. Charts 1 through 6 present concentration time trends in monitoring wells MW1, MW2, and MW5 through MW8.

DISCUSSION

Dissolved TPHg concentrations in key monitoring wells MW1, MW6 and MW7 exhibited increasing trends during this quarter. TPHg concentrations increased from 570 µg/l to 4,100 µg/l in monitoring well MW1; non-detect to 260 µg/l in monitoring well MW6; and from 65 µg/l to 260 µg/l in monitoring well MW7. TPHg increases were also observed in perimeter wells OW3 (3,600 µg/l to 4,100 µg/l) and OW4 (500 µg/l to 4,100 µg/l). All remaining wells maintained steady or declining trends for TPHg.

BTEX concentrations in key monitoring well MW1 and observation well OW4 exhibited increasing trends during this quarter. All remaining wells maintained steady or declining trends for BTEX.

MTBE concentrations in key monitoring wells MW7 increased from 90 µg/l to 240 µg/l during this quarter. MTBE increases were also observed in perimeter well OW3 (71 µg/l to 200 µg/l) All remaining wells maintained steady or declining trends for MTBE.

Increasing trends in contaminant concentrations may be attributed to a remediation system malfunction. Manifold pressure generated by the ozone compressor declined to 24.5 pounds per square inch (psi). The compressor was significantly rebuilt in early-March and pressure has increased to an average of 30.9 psi.

All total chromium concentrations were below detection levels, except for monitoring wells MW1 (130 µg/l), MW2 (33 µg/l), and MW4 (74 µg/l). The detection limit for total chromium was 10 µg/l. All laboratory results for chromium are presented in Table 4.

Vapor results to date indicate BTEX constituents on all points have decreased by three to four orders of magnitude to near or below detection limits. For samples collected on February 16, 2005, concentrations of toluene were slightly above the detection limit at vapor points VP4 and VP6 (8.4 and 5.5 parts per billion by volume [ppbv]). MTBE was slightly above the detection limit at vapor point VP2 (10 ppbv). The detection limit for toluene and MTBE is 5 ppbv. In the current sampling event, all BTEX or MTBE concentrations above the detection limit were less than 1 percent for the same perimeters analyzed in the initial November 2002 sampling event.

REMEDIATION SYSTEM OPERATION AND MAINTENANCE

Pressure test field forms are included as Attachment 4. As of February 16, 2005, the ozone generator was operational for 9208.99 hours. To date, ozone injection is approximately 85 kilograms.

Recently, the air compressor was significantly rebuilt. The piston, head seal, head ring seal, flapper valves, snubber and pressure gauge were replaced. Manifold pressure has increased from an average of 24.5 pounds per square inch (psi) to 30.9 psi. Damaged tubing and fittings were replaced on Station 7.

CONCLUSIONS

All COCs remained below active remedial goal (ARG) thresholds during this quarterly sampling period, except for the following:

- Total xylenes in monitoring well MW1 and observation well OW3 were detected at 870 and 440 µg/l, respectively (ARG is 300 µg/l).
- TPHd in observation well OW4 was detected at 540 µg/l (ARG is 500 µg/l).

Concentration increases for these parameters at the indicated locations are likely attributed to a malfunction of the remediation system air compressor. The compressor has been significantly rebuilt and is now operating normally.

LIMITATIONS

LACO ASSOCIATES has conducted the services identified herein in a manner consistent with the level of care and skill ordinarily exercised by members of our profession currently practicing in our area under similar conditions as this project. No other warranty or representation, express or implied, is included or intended for this document.

This report is an instrument of service of LACO ASSOCIATES and was prepared for, and intended for, the exclusive use of the client. The contents of this report may not be relied upon by any other party other than the client without express written permission of LACO ASSOCIATES.

This report's findings are based on conditions that existed on the dates indicated and in the specific locations where samples were taken. The findings herein should not be relied on to precisely represent conditions at any other time or location.

LIST OF FIGURES, TABLES, CHARTS, AND ATTACHMENTS

Figure 1: Location Map
Figure 2: Site Map
Figure 3: Deep-Hydraulic Head Elevation Map (2\16\05)
Figure 4: Observation - Hydraulic Gradient Map (2\16\05)

Table 1: Performance Monitoring Sampling Results
Table 2 Intrinsics Analyses Monitoring Results
Table 3: Groundwater Elevation Data and Groundwater Analytical Results
Table 4: Chromium Analyses Results
Table 5: Results of Vapor Sample Analysis

Chart 1: Combined TPH, Benzene, and MTBE Concentrations in Groundwater in MW1
Chart 2: TPHg, TPHd, Benzene, and MTBE Concentrations in Groundwater in MW2
Chart 3: TPHg, Benzene, and MTBE Concentrations in Groundwater in MW5
Chart 4: TPHg, TPHd, Benzene, and MTBE Concentrations in Groundwater in MW6
Chart 5: TPHg, Benzene, and MTBE Concentrations in Groundwater in MW7
Chart 6: TPHg and MTBE Concentrations in Groundwater in MW8

Attachment 1: Project Chronology
Attachment 2: Field Forms
Attachment 3: Current Laboratory Reports
Attachment 4: Ozone System Pressure Test Field Forms

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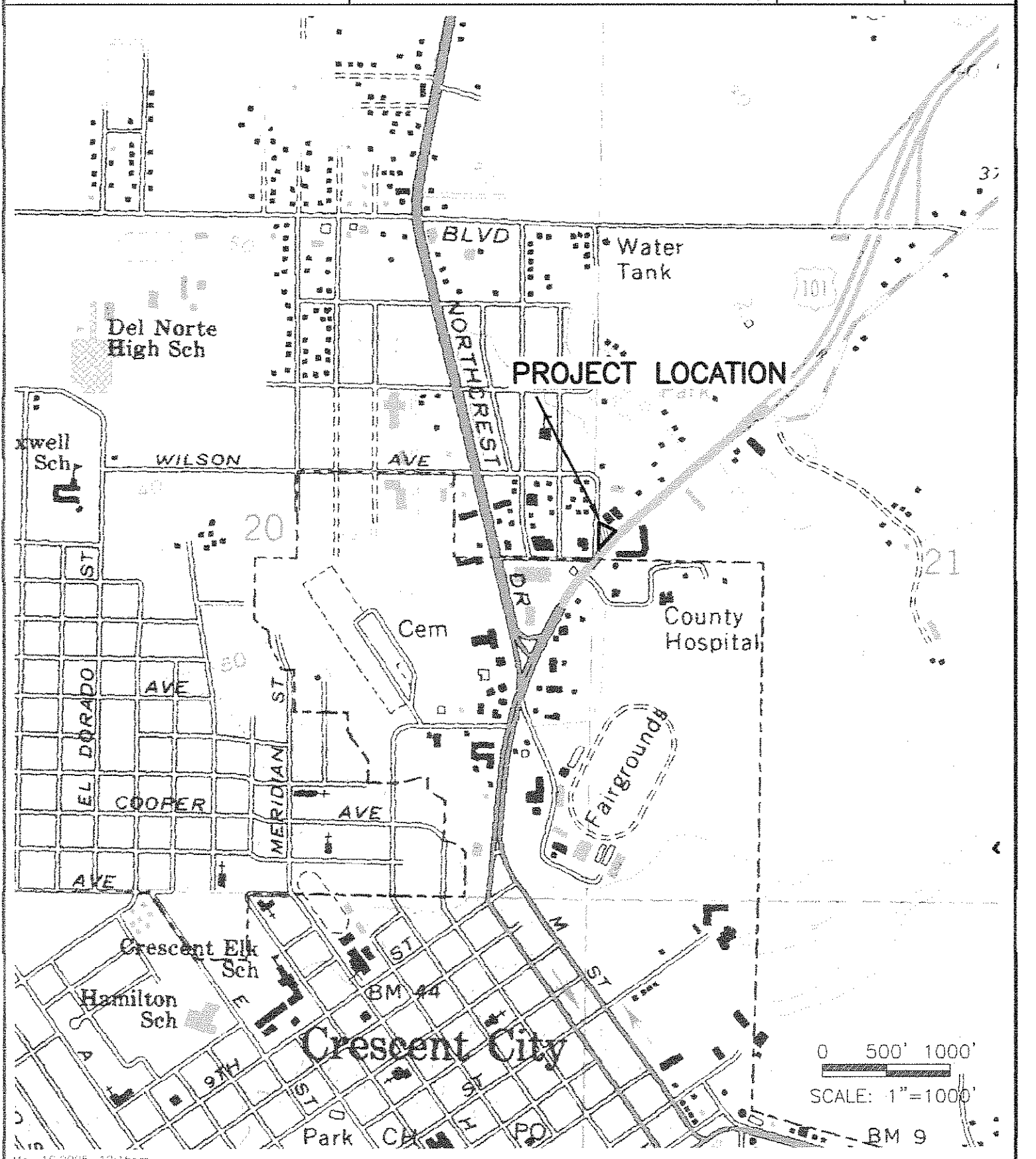
LACO ASSOCIATES CONSULTING ENGINEERS 21 W 4TH ST. EUREKA, CA 95501 (707)443-5054	PROJECT	GROUNDWATER MONITORING REPORT	BY	RJM	FIGURE
	CLIENT	HUMBOLDT PETROLEUM, INC.	DATE	3/16/05	1
	LOCATION	CRESCENT CITY SHELL	CHECK		JOB NO.
		LOCATION MAP	SCALE	1"=1000'	5282.01



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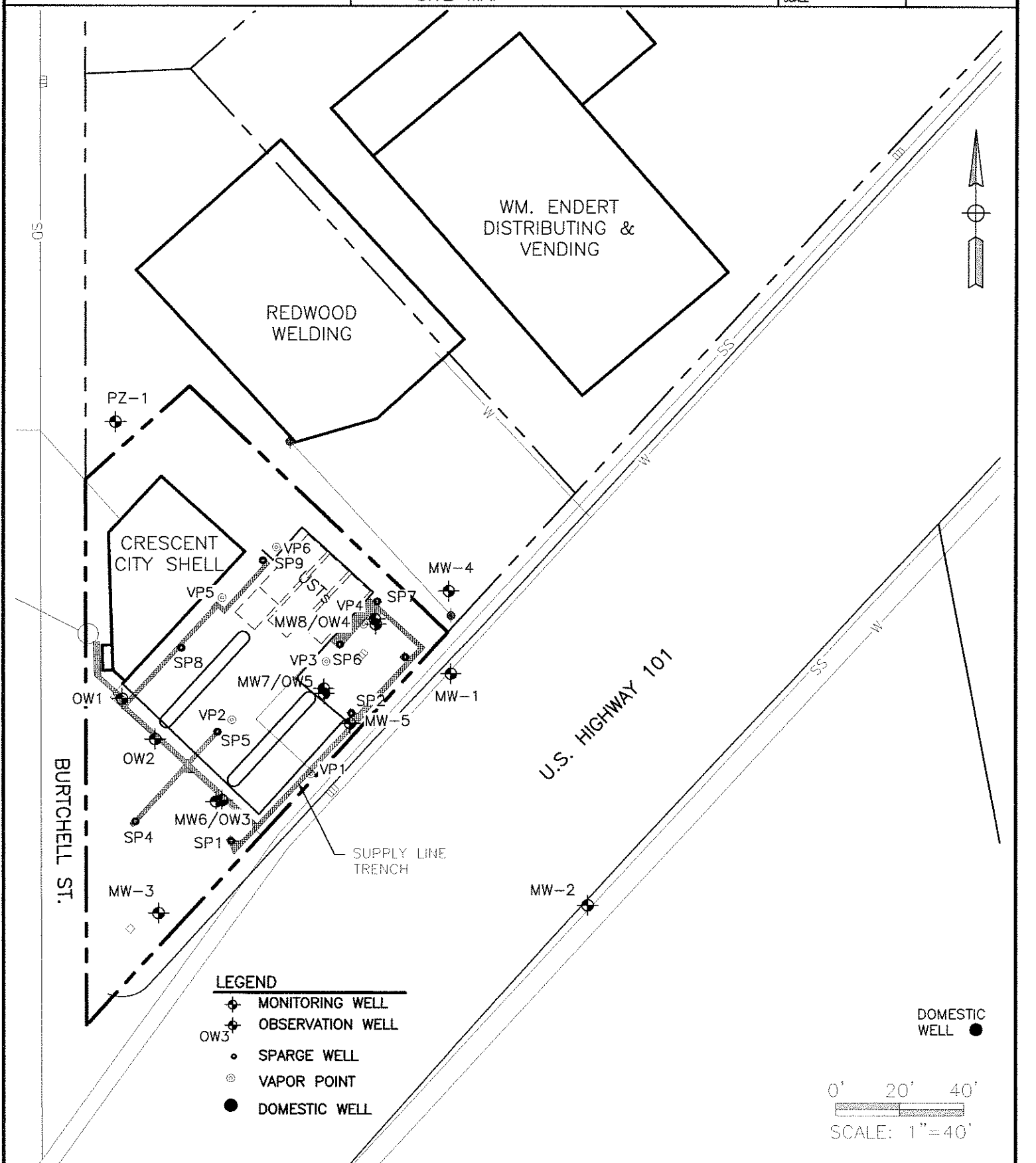
LACO ASSOCIATES CONSULTING ENGINEERS 21 W 4TH ST. EUREKA, CA 95501 (707)443-5054	PROJECT	GROUNDWATER MONITORING REPORT	BY	RJM	FIGURE
	CLIENT	HUMBOLDT PETROLEUM, INC	DATE	3/16/05	2
	LOCATION	CRESCENT CITY SHELL	CHECK		JOB NO.
		SITE MAP	SCALE	1"=40'	5282.01



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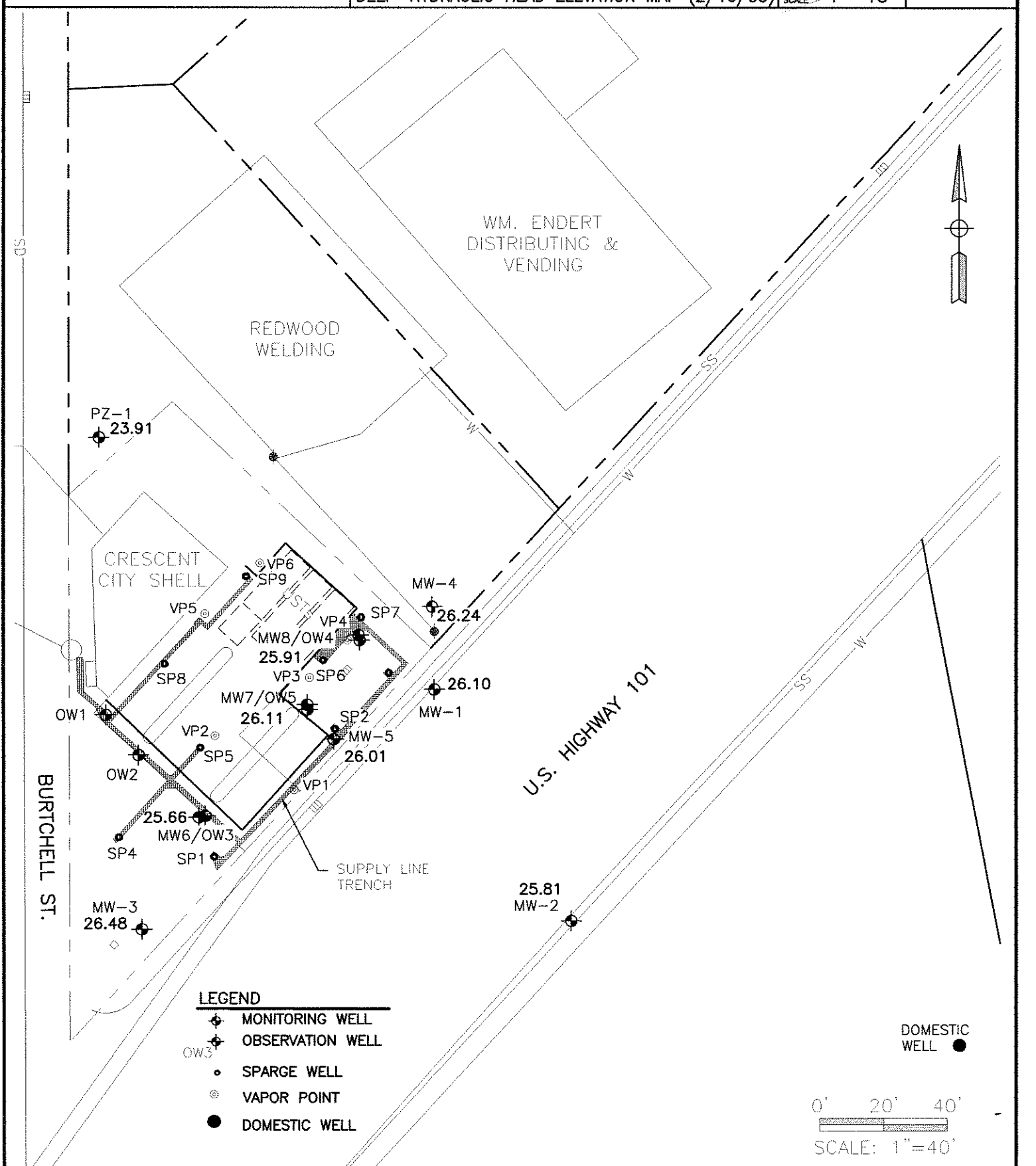
LACO ASSOCIATES CONSULTING ENGINEERS 21 W 4TH ST. EUREKA, CA 95501 (707)443-5054	PROJECT	GROUNDWATER MONITORING REPORT	BY	RJM	FIGURE
	CLIENT	HUMBOLDT PETROLEUM, INC	DATE	3/16/05	3
	LOCATION	CRESCENT CITY SHELL	CHECK		JOB NO.
		DEEP-HYDRAULIC HEAD ELEVATION MAP (2/16/05)	SCALE	1"=40'	5282.01



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LACO ASSOCIATES CONSULTING ENGINEERS 21 W 4TH ST. EUREKA, CA 95501 (707)443-5054	PROJECT	GROUNDWATER MONITORING REPORT	BY	RJM	FIGURE
	CLIENT	HUMBOLDT PETROLEUM, INC	DATE	3/16/05	4
	LOCATION	CRESCENT CITY SHELL	CHECK		JOB NO.
		OBSERVATION-HYDRAULIC GRADIENT MAP (2/16/05)	SCALE	1"=40'	5282.01

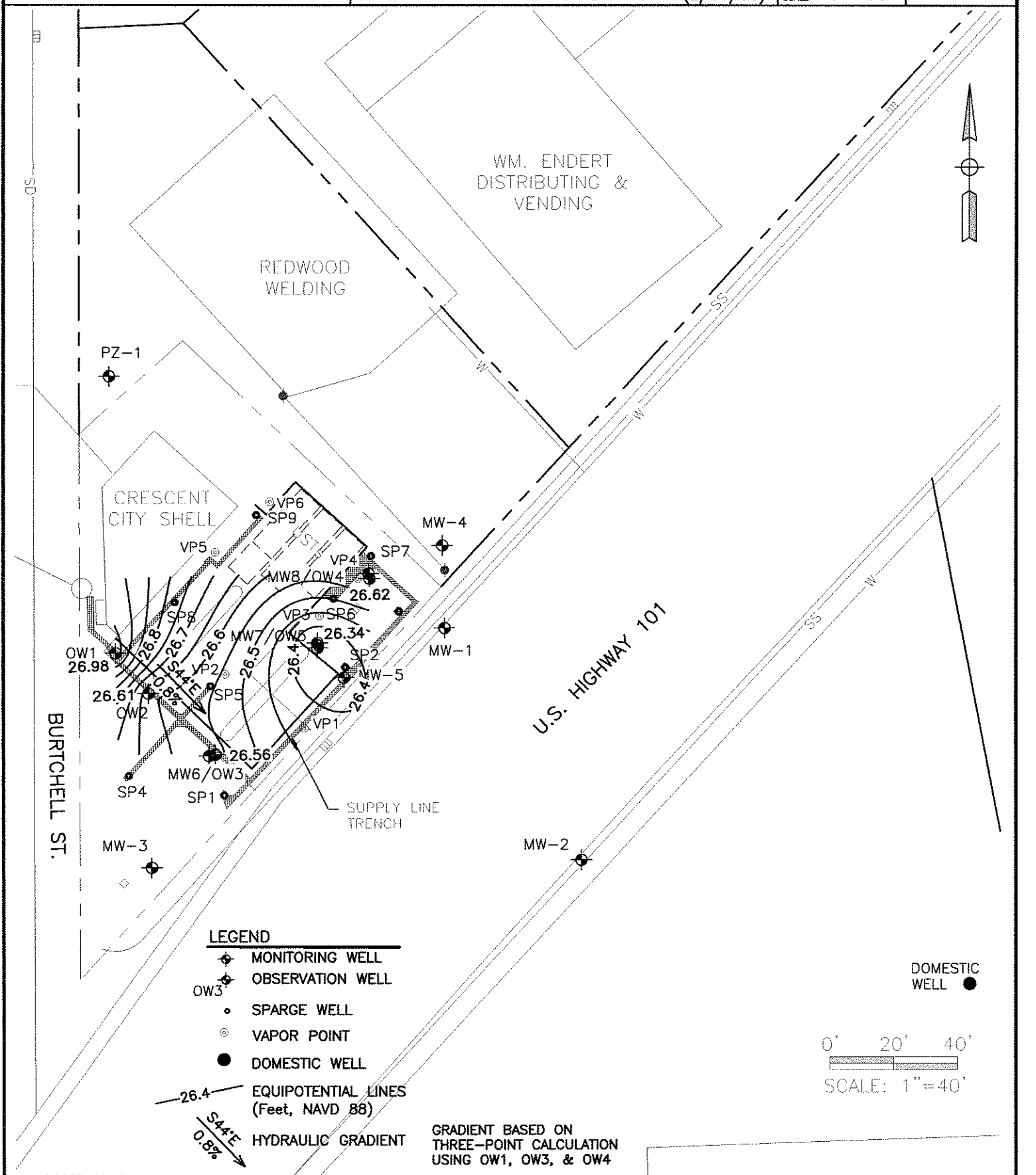

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TABLE 1: PERFORMANCE MONITORING SAMPLING RESULTS
HPI / Crescent City Shell, PFP; LACO Project No. 5282.01
1006 N. Highway 101, Crescent City, CA; Case No. 1TDN026

		Contaminants of Concern						Fuel Oxygenates					
	Date	TPHg	TPHd	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	TAME	TBA	ETBE	DIPE	TBF
PARGs		12,500	500	500	300	300	300	---	---	---	---	---	---
MW-1													
Baseline Data	10/9/02-11/4/02	56,000	270,000	2,700	1,200	2,900	5,280	1,200	220	220	ND<20	ND<20	---
	11/12/02	7,000	490	58	ND<25	ND<25	242	1,100	98	1,000	ND<50	ND<50	---
	11/27/02	870	970	ND<0.50	ND<0.50	2.0	2.0	740	57	460	1.4	ND<1.0	ND<2.0
	12/10/02	4,800	560	8.2	2.8	75	66	690	32	430	ND<5.0	ND<5.0	ND<2.0
	12/23/02	3,100	62	11.0	4.9	63	88	540	43	ND<100	1.2	ND<1.0	ND<2.0
	1/9/03	780	160	1.7	1.1	8.6	18	540	53	42	ND<1.0	ND<1.0	---
	1/30/03	200	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	310	18	ND<20	ND<1.0	ND<1.0	ND<2.0
	2/12/03	140	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	190	9.4	ND<20	ND<1.0	ND<1.0	ND<2.0
	3/12/03	100	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	160	8.8	ND<20	ND<1.0	ND<1.0	ND<2.0
	4/17/03	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	42	ND<1.0	ND<20	ND<1.0	ND<1.0	ND<2.0
	5/14/03	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	10	ND<1.0	ND<20	ND<1.0	ND<1.0	ND<2.0
	6/10/03	1,200	380	15	4.4	16	184	72	17	26	ND<1.0	ND<1.0	ND<2.0
	7/16/03	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1.0	ND<20	ND<1.0	ND<1.0	ND<2.0
	8/15/03	ND<50	ND<50	ND<0.50	ND<0.50	1.3	1.1	ND<1.0	ND<1.0	ND<20	ND<1.0	ND<1.0	ND<2.0
	9/16/03	ND<50	ND<50	ND<0.50	ND<0.50	0.5	1.1	ND <1.0	ND<1.0	ND<20	ND<1.0	ND<1.0	---
	10/15/03	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND <1.0	ND<1.0	ND<20	ND<1.0	ND<1.0	---
	11/19/03	2,200	140	110	11	18	95	75	18	45	ND<1.0	ND<1.0	---
	12/11/03	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	1.1	ND<1.0	ND<20	ND<1.0	ND<1.0	---
	1/14/04	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	1.5	ND<1.0	ND<20	ND<1.0	ND<1.0	---
	2/9/04	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	4.9	ND<1.0	ND<20	ND<1.0	ND<1.0	---
	3/10/04	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	0.53	1.6	ND<1.0	ND<10	ND<1.0	ND<1.0	---
	4/14/04	190	50	ND<0.50	ND<0.50	0.96	10.3	4.0	ND<1.0	ND<10	ND<1.0	ND<1.0	---
	5/13/04	ND<50	ND<50	ND<0.50	ND<0.50	0.64	1.4	4.3	ND<1.0	ND<10	ND<1.0	ND<1.0	---
	6/24/04	1,300	93	120	12	11	148	59	31	31	ND<1.0	ND<1.0	---
	7/27/04	4,900	380	440	69	91	530	72	24	46	ND<1.0	ND<1.0	---
	9/21/04	590	67	27	6.4	8.7	85	34	9.4	ND<10	ND<1.0	ND<1.0	---
	10/19/04	570	78	40	8	13	78	27	5.2	ND<10	ND<1.0	ND<1.0	---
	2/16/05	4,100	270	83	160	85	870	12	5.8	ND<10	ND<1.0	ND<1.0	---
MW-2													
Baseline Data	10/9/02-11/4/02	2,000	90	320	0.73	ND<0.50	0.57	1,700	110	170	1.5	1.1	---
	11/12/02	5,700	75	1,500	1.7	ND<0.50	5.0	3,500	240	770	3.2	ND<10	---
	11/27/02	5,000	92	1,200	0.64	ND<0.50	2.4	3,300	200	850	3.1	ND<10	ND
	12/10/02	5,700	76	1,000	4.2	ND<2.5	5.3	3,100	190	600	ND<5.0	ND<5.0	ND<2.0
	12/23/02	430	ND<50	8.8	ND<0.50	0.61	0.82	90	4.9	ND<20	ND<1.0	ND<1.0	ND<2.0
	1/9/03	340	ND<50	1.3	ND<0.50	ND<0.50	ND<0.50	42	2.7	ND<20	ND<1.0	ND<1.0	---
	1/30/03	470	ND<50	1.0	ND<0.50	ND<0.50	0.59	ND<1.0	ND<1.0	ND<20	ND<1.0	ND<1.0	ND<2.0
	2/12/03	580	ND<50	1.4	ND<0.50	ND<0.50	0.52	2.0	ND<1.0	ND<20	ND<1.0	ND<1.0	ND<2.0
	3/12/03	200	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<10	ND<1.0	ND<20	ND<1.0	ND<1.0	ND<2.0
	4/17/03	200	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1.0	ND<20	ND<1.0	ND<1.0	ND<2.0
	5/14/03	84	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1.0	ND<20	ND<1.0	ND<1.0	ND<2.0
	6/10/03	77	ND<50	1.1	0.66	ND<0.50	ND<0.50	ND<1.0	ND<1.0	ND<20	ND<1.0	ND<1.0	ND<2.0
	7/16/03	65	ND<50	1.1	ND<0.50	ND<0.50	0.6	3.9	ND<1.0	ND<20	ND<1.0	ND<1.0	ND<2.0
	8/15/03	84	ND<50	7.6	ND<0.50	ND<0.50	ND<0.50	27	1.4	ND<20	ND<1.0	ND<1.0	ND<2.0
	9/16/03	650	ND<50	20	ND<0.50	0.63	2.16	390	17	47	ND<1.0	ND<1.0	---
	10/15/03	2,200	75	63	1.6	2.3	7.3	1,800	95	200	ND<1.0	ND<1.0	---
	11/19/03	1,200	ND<50	2.3	ND<0.50	ND<0.50	ND<0.50	1,200	61	47	ND<1.0	ND<1.0	---
	12/11/03	120	ND<50	3.0	ND<0.50	ND<0.50	ND<0.50	150	8.8	ND<20	ND<1.0	ND<1.0	---
	1/14/04	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	36	2.0	ND<20	ND<1.0	ND<1.0	---
	2/9/04	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	16	1.1	ND<20	ND<1.0	ND<1.0	---
	3/10/04	ND <50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	9.2	ND<1.0	ND<10	ND<1.0	ND<1.0	---
	4/14/04	ND <50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	10	ND<1.0	ND<10	ND<1.0	ND<1.0	---
	5/13/04	ND <50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	6.8	ND<1.0	ND<10	ND<1.0	ND<1.0	---
	6/24/04	210	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	160	14	ND<10	ND<1.0	ND<1.0	---
	7/27/04	160	ND<50	6.0	ND<0.50	ND<0.50	1.13	97	6.1	ND<10	ND<1.0	ND<1.0	---
	9/21/04	930	ND<50	94	ND<0.50	ND<0.50	0.65	620	63	68	ND<1.0	ND<1.0	---
	10/19/2004	680	ND<50	26	ND<0.50	ND<0.50	ND<0.50	680	77	ND<10	ND<1.0	ND<1.0	---
	2/16/05	ND <50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	40	2.5	ND<10	ND<1.0	ND<1.0	---

TABLE 1: PERFORMANCE MONITORING SAMPLING RESULTS
HPI / Crescent City Shell, PFP; LACO Project No. 5282.01
1006 N. Highway 101, Crescent City, CA; Case No. 1TDN026

		Contaminants of Concern						Fuel Oxygenates					
	Date	TPHg	TPHd	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	TAME	TBA	ETBE	DIPE	TBF
PARGs		**12,500**	**500**	**500**	**300**	**300**	**300**	---	---	---	---	---	---
MW-4													
Baseline Data	**10/9/02-11/4/02**	**330**	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	440	35	12	ND<1.0	ND<1.0	---
	10/9/02	ND<50	ND<50	ND<0.50	ND<50	ND<50	ND<50	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	---
	11/12/02	ND<50	ND<50	ND<0.50	ND<50	ND<50	ND<50	66	3.7	ND<20	ND<1.0	ND<1.0	---
	11/27/02	ND<50	ND<50	1.3	ND<50	ND<50	ND<50	37	1.6	ND<20	ND<1.0	ND<1.0	ND<2.0
	12/10/02	ND<50	ND<50	0.76	ND<50	ND<50	ND<50	13	ND<1.0	ND<20	ND<1.0	ND<1.0	ND<2.0
	12/23/02	ND<50	ND<50	ND<0.50	ND<50	ND<50	ND<50	2.2	ND<1.0	ND<20	ND<1.0	ND<1.0	ND<2.0
	1/9/03	ND<50	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1.0	ND<20	ND<1.0	ND<1.0	---
	1/30/03	ND<50	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1.0	ND<20	ND<1.0	ND<1.0	ND<2.0
	2/12/03	ND<50	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1.0	ND<20	ND<1.0	ND<1.0	ND<2.0
	3/12/03	ND<50	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	1.0	ND<1.0	ND<20	ND<1.0	ND<1.0	ND<2.0
	4/17/03	ND<50	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	1.7	ND<1.0	ND<20	ND<1.0	ND<1.0	ND<2.0
	5/14/03	ND<50	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	5.0	ND<1.0	ND<20	ND<1.0	ND<1.0	ND<2.0
	6/10/03	89	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	86	1.2	ND<20	ND<1.0	ND<1.0	ND<2.0
	7/16/03	ND<50	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	4.7	ND<1.0	ND<20	ND<1.0	ND<1.0	ND<2.0
	8/15/03	ND<50	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	11	ND<1.0	ND<20	ND<1.0	ND<1.0	ND<2.0
	9/16/03	ND <0.50	ND <50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	4.1	ND<1.0	ND<20	ND<1.0	ND<1.0	---
	10/15/03	ND <0.50	ND <50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND< 1.0	ND<1.0	ND<20	ND<1.0	ND<1.0	---
	11/19/03	ND <0.50	ND <50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	12	ND<1.0	ND<20	ND<1.0	ND<1.0	---
	12/11/03	ND <0.50	ND <50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND< 1.0	ND<1.0	ND<20	ND<1.0	ND<1.0	---
	1/14/03	ND <0.50	ND <50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND< 1.0	ND<1.0	ND<20	ND<1.0	ND<1.0	---
	2/9/04	ND <0.50	ND <50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND< 1.0	ND<1.0	ND<20	ND<1.0	ND<1.0	---
	3/10/04	ND <0.50	ND <50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	1.7	ND<1.0	ND<10	ND<1.0	ND<1.0	---
	4/14/04	66	ND <50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	6.6	ND<1.0	ND<10	ND<1.0	ND<1.0	---
	5/13/04	ND <0.50	ND <50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	11	ND<1.0	ND<10	ND<1.0	ND<1.0	---
	6/24/04	ND <0.50	ND <50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	7.9	ND<1.0	ND<10	ND<1.0	ND<1.0	---
	7/27/04	ND <0.50	ND <50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	4.4	ND<1.0	ND<10	ND<1.0	ND<1.0	---
	9/21/04	ND <0.50	ND <50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	7.7	ND<1.0	ND<10	ND<1.0	ND<1.0	---
	10/19/04	ND <0.50	ND <50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	13	ND<1.0	ND<10	ND<1.0	ND<1.0	---
	2/16/05	ND <50	ND <50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	2.4	ND<1.0	ND<10	ND<1.0	ND<1.0	---
MW-5													
Baseline Data	**10/9/02-11/4/02**	**9,000**	**120**	**470**	ND<0.50	ND<0.50	ND<0.50	10,000	580	530	ND<20	ND<20	---
	11/12/02	2,400	ND<50	4,700	ND<0.50	ND<0.50	ND<0.50	4,700	0.97	750	4.7	ND<10	---
	11/27/02	2,400	ND<50	2.3	ND<0.50	ND<0.50	ND<0.50	4,800	260	610	16	ND<10	ND<10
	12/10/02	2,000	ND<50	ND<2.5	ND<0.50	ND<0.50	ND<0.50	3,400	190	760	10	ND<5.0	ND<5.0
	12/23/02	1,100	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	1,600	89	140	5.6	ND<1.0	ND<5.0
	1/9/03	240	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	280	8.2	22	1.8	ND<1.0	---
	1/30/03	71	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	79	3.2	ND<20	ND<1.0	ND<1.0	ND<2.0
	2/12/03	110	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	87	ND<1.0	ND<20	4.8	ND<1.0	ND<2.0
	3/12/03	ND<50	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1.0	ND<20	ND<1.0	ND<1.0	ND<2.0
	4/17/03	ND<50	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1.0	ND<20	ND<1.0	ND<1.0	ND<2.0
	5/14/03	ND<50	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1.0	ND<20	ND<1.0	ND<1.0	ND<2.0
	6/10/03	ND<50	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1.0	ND<20	ND<1.0	ND<1.0	ND<2.0
	7/16/03	ND<50	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1.0	ND<20	ND<1.0	ND<1.0	ND<2.0
	8/15/03	ND<50	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	1.3	ND<1.0	ND<20	ND<1.0	ND<1.0	ND<2.0
	9/16/03	ND <50	ND <50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <1.0	ND<1.0	ND<20	ND<1.0	ND<1.0	---
	10/15/03	ND <50	ND <50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <1.0	ND<1.0	ND<20	ND<1.0	ND<1.0	---
	11/19/03	ND <50	ND <50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <1.0	ND<1.0	ND<20	ND<1.0	ND<1.0	---
	12/11/03	ND <50	ND <50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <1.0	ND<1.0	ND<20	ND<1.0	ND<1.0	---
	1/14/04	ND <50	ND <50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <1.0	ND<1.0	ND<20	ND<1.0	ND<1.0	---
	2/9/04	ND <50	ND <50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <1.0	ND<1.0	ND<20	ND<1.0	ND<1.0	---
	3/10/04	ND <50	ND <50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <1.0	ND<1.0	ND<10	ND<1.0	ND<1.0	---
	4/14/04	ND <50	ND <50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <1.0	ND<1.0	ND<10	ND<1.0	ND<1.0	---
	5/13/04	ND <50	ND <50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <1.0	ND<1.0	ND<10	ND<1.0	ND<1.0	---
	6/24/04	ND <50	ND <50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	1.1	ND<1.0	ND<10	ND<1.0	ND<1.0	---
	7/27/04	51	ND <50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	26	2.9	ND<10	ND<1.0	ND<1.0	---
	9/21/04	ND <50	ND <50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	1.2	ND<10	ND<10	ND<1.0	ND<1.0	---
	10/19/04	ND <50	ND <50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <1.0	ND<1.0	ND<10	ND<1.0	ND<1.0	---
	2/16/05	ND <50	ND <50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	8.0	ND<1.0	ND<10	ND<1.0	ND<1.0	---

TABLE 1: PERFORMANCE MONITORING SAMPLING RESULTS
HPI / Crescent City Shell, PFP; LACO Project No. 5282.01
1006 N. Highway 101, Crescent City, CA; Case No. 1TDN026

		Contaminants of Concern						Fuel Oxygenates					
	Date	TPHg	TPHd	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	TAME	TBA	ETBE	DIPE	TBF
PARGs		**12,500**	**500**	**500**	**300**	**300**	**300**	---	---	---	---	---	---
OW-3													
Baseline Data	**10/9/02**	**59,000**	---	**4,200**	**4,100**	**1,900**	**8,100**	29,000	2,800	2,200	ND<40	ND<40	---
	12/23/02	4,700	51	76	96	31	320	2,600	240	ND<1000	ND<50	ND<50	ND<2.0
	1/9/03	2,600	120	9.9	17	9.8	150	890	94	1,500	ND<1.0	ND<1.0	---
	1/30/03	4,800	460	19	28	41	281	470	52	730	ND<1.0	ND<1.0	ND<2.0
	2/12/03	3,000	490	21	32	29	330	440	43	1,100	ND<5.0	ND<5.0	ND<2.0
	3/12/03	5,900	710	21	42	56	530	210	28	480	ND<1.0	ND<1.0	ND<2.0
	4/17/03	4,200	250	15	30	53	500	110	18	340	ND<1.0	ND<1.0	ND<2.0
	5/14/03	1,300	110	3.1	2.1	12	57	52	6.8	140	ND<1.0	ND<1.0	ND<2.0
	6/10/03	2,600	150	14	2.5	23	92	1,500	110	1,900	ND<1.0	ND<1.0	ND<2.0
	7/16/03	4,900	180	8.1	3.2	27	106	490	43	620	ND<1.0	ND<1.0	ND<2.0
	8/15/03	3,300	---	62	51.0	42	164	1,900	220	1,200	ND<1.0	ND<1.0	ND<2.0
	9/16/03	4,600	---	130	140	50	233	1,200	190	440	ND<1.0	ND<1.0	---
	10/15/03	3,600	---	69	85	17	158	720	230	260	ND<1.0	ND<1.0	---
	11/19/03	2,700	---	27	39	10	90	530	75	170	ND<1.0	ND<1.0	---
	12/11/03	3,600	180	49	160	39	272	ND<150	30	57	ND<1.0	ND<1.0	---
	1/14/04	4,300	160	35	160	66	540	48	18	ND<70	ND<1.0	ND<1.0	---
	2/9/2004	3,700	160	7	25	18	200	61	14	250	ND<1.0	ND<1.0	---
	3/10/04	2,100	93	3.7	18	12	127	28	6.7	50	ND<1.0	ND<1.0	---
	4/14/04	4,300	150	18	52	45	300	96	29	120	ND<1.0	ND<1.0	---
	5/13/04	3,200	190	11	39	36	269	62	17	67	ND<1.0	ND<1.0	---
	6/24/04	2,300	280	27	45	30	262	440	100	1,200	ND<1.0	ND<1.0	---
	7/27/04	3,400	220	53	39	30	203	720	140	1,400	ND<1.0	ND<1.0	---
	9/21/04	2,700	---	70	73	43	277	180	58	ND<10	ND<1.0	ND<1.0	---
	10/19/04	3,600	1,200	74	59	43	620	71	35	ND<10	ND<1.0	ND<1.0	---
	2/16/05	4,100	410	24	18	52	440	200	77	1,300	ND<1.0	ND<1.0	---
MW-6													
Baseline Data	**11/12/02**	**18,000**	**260**	**160**	**690**	**480**	**3,070**	3,200	420	ND<200	ND<20	ND<20	---
	11/27/02	2,400	ND<50	2.3	ND<0.50	ND<0.50	ND<0.50	4,800	260	610	16	ND<10	ND<10
	12/10/02	6,800	ND<50	18	37	28	650	2,500	320	420	ND<5.0	ND<5.0	ND<10
	12/23/02	2,300	84	2.7	5.5	2.9	121	580	82	78	ND<1.0	ND<1.0	ND<2.0
	1/9/03	2,900	190	1.6	3.9	1.4	81	790	97	470	ND<1.0	ND<1.0	---
	1/30/03	1,900	81	1.5	3.4	3.4	87	1,000	130	290	ND<1.0	ND<1.0	ND<2.0
	2/12/03	1,300	56	1.5	1.7	ND<0.50	49	700	65	220	ND<1.0	ND<1.0	ND<2.0
	3/12/03	210	ND<50	ND<0.50	ND<0.50	ND<0.50	7.2	84	11	47	ND<1.0	ND<1.0	ND<2.0
	4/17/03	510	58	ND<0.50	1.5	2.2	36	ND<10	ND<1.0	ND<20	ND<1.0	ND<1.0	ND<2.0
	5/14/03	510	ND<50	ND<0.50	1.4	ND<5.0	15.5	ND<5.0	ND<1.0	ND<20	ND<1.0	ND<1.0	ND<2.0
	6/10/03	1,100	98	0.6	3.2	ND<5.0	25.3	ND<5.0	ND<1.0	ND<20	ND<1.0	ND<1.0	ND<2.0
	7/16/03	430	ND<50	ND<0.50	1.1	ND<5.0	17.2	5.2	ND<1.0	ND<20	ND<1.0	ND<1.0	ND<2.0
	8/15/03	280	ND<50	ND<0.50	0.8	ND<5.0	12.0	ND<5.0	ND<1.0	ND<20	ND<1.0	ND<1.0	ND<2.0
	9/16/03	150	ND<50	ND<0.50	ND<5.0	ND<5.0	2.5	4.1	ND<1.0	ND<20	ND<1.0	ND<1.0	---
	10/15/03	370	ND<50	ND<0.50	0.57	ND<5.0	3.2	ND<10	ND<1.0	ND<20	ND<1.0	ND<1.0	---
	11/19/03	150	ND<50	ND<0.50	ND<5.0	ND<5.0	1.4	ND<10	ND<1.0	ND<20	ND<1.0	ND<1.0	---
	12/11/03	470	ND<50	ND<0.50	0.78	0.52	8.7	ND<5.0	ND<1.0	ND<20	ND<1.0	ND<1.0	---
	1/14/03	650	ND<50	ND<0.50	ND<0.50	0.52	8.0	ND<3.0	ND<1.0	ND<20	ND<1.0	ND<1.0	---
	2/9/04	560	53	ND<0.50	ND<0.50	ND<5.0	5.4	ND<8.0	1.0	ND<20	ND<1.0	ND<1.0	---
	3/10/04	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1.0	ND<10	ND<1.0	ND<1.0	---
	4/14/04	240	ND<50	ND<0.50	ND<0.50	ND<0.51	1.9	ND<1.0	ND<1.0	ND<10	ND<1.0	ND<1.0	---
	5/13/04	370	ND<50	ND<0.50	ND<0.50	ND<0.51	1.4	ND<1.0	ND<1.0	ND<10	ND<1.0	ND<1.0	---
	6/24/04	83	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	1.1	ND<1.0	ND<10	ND<1.0	ND<1.0	---
	7/27/04	130	ND<50	ND<0.50	ND<0.50	ND<0.50	1.51	ND<1.0	ND<1.0	ND<10	ND<1.0	ND<1.0	---
	9/21/04	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1.0	ND<10	ND<1.0	ND<1.0	---
	10/19/04	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	4.6	ND<1.0	ND<10	ND<1.0	ND<1.0	---
	2/16/05	260	ND<50	ND<0.50	ND<0.50	ND<0.50	0.54	ND<1.0	ND<1.0	ND<10	ND<1.0	ND<1.0	---

TABLE 1: PERFORMANCE MONITORING SAMPLING RESULTS
HPI / Crescent City Shell, PFP; LACO Project No. 5282.01
1006 N. Highway 101, Crescent City, CA; Case No. 1TDN026

		Contaminants of Concern						Fuel Oxygenates					
	Date	TPHg	TPHd	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	TAME	TBA	ETBE	DIPE	TBF
PARGs		**12,500**	**500**	**500**	**300**	**300**	**300**	---	---	---	---	---	---
OW-5													
	11/12/2002	---	---	---	---	---	---	---	---	---	---	---	---
	1/9/2003	390	77	3.5	1.0	1.7	3.5	150	20	82	ND<1.0	ND<1.0	---
	1/30/2003	3,000	230	4.7	ND <0.50	0.56	0.63	4,400	730	210	1.4	ND<1.0	ND<2.0
	2/12/2003	2,200	ND<50	ND<0.50	ND <0.50	0.76	ND<0.50	4,400	730	210	1.4	ND<1.0	ND<2.0
	3/12/2003	1,000	120	ND<0.50	ND <0.50	0.94	ND<0.50	1,900	99	22	ND<1.0	ND<1.0	ND<4.0
	4/17/2003	800	91	8.6	ND <0.50	15	2.0	1,100	98	35	ND<1.0	ND<1.0	ND<2.0
	5/14/2003	210	56	2.5	ND <0.50	1.7	1.3	440	27	ND<20	ND<1.0	ND<1.0	ND<2.0
	6/10/2003	450	ND<50	11	ND <0.50	1.5	ND<0.50	330	25	39	ND<1.0	ND<1.0	ND<2.0
	7/16/2003	170	ND<50	2.7	ND <0.50	2.4	ND<0.50	95	7.4	36	ND<1.0	ND<1.0	ND<2.0
	8/15/2003	210	---	ND<0.50	ND <0.50	ND<0.50	0.51	210	14	140	ND<1.0	ND<1.0	ND<2.0
	9/16/03	---	---	---	---	---	---	---	---	---	---	---	---
	10/15/03	---	---	---	---	---	---	---	---	---	---	---	---
	11/19/03	---	---	---	---	---	---	---	---	---	---	---	---
	12/11/03	ND <50	ND <50	ND <0.50	ND <0.50	ND <0.50	ND <0.5	6.7	ND<1.0	ND<20	ND<1.0	ND<1.0	---
	1/14/04	52	ND <50	ND <0.50	ND <0.50	ND <0.50	ND <0.5	64	1.5	ND<20	ND<1.0	ND<1.0	---
	2/9/2004	ND <50	ND <50	ND <0.50	ND <0.50	ND <0.50	ND <0.5	1.4	ND<1.0	ND<20	ND<1.0	ND<1.0	---
	3/10/04	ND <50	ND <50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <1.0	ND<1.0	ND<10	ND<1.0	ND<1.0	---
	4/14/04	ND <50	ND <50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	1.4	ND<1.0	ND<10	ND<1.0	ND<1.0	---
	5/13/04	ND <50	ND <50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <1.0	ND<1.0	ND<10	ND<1.0	ND<1.0	---
	6/24/04	ND <50	ND <50	0.60	ND <0.50	ND <0.50	ND <0.50	5.5	ND<1.0	ND<10	ND<1.0	ND<1.0	---
	7/27/04	ND <50	ND <50	0.65	ND <0.50	ND <0.50	ND <0.50	18	2.2	68	ND<1.0	ND<1.0	---
	9/21/04					dry well							
	10/19/04	62	ND <50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	4.3	ND<1.0	ND<10	ND<1.0	ND<1.0	---
	2/16/04	ND <50	ND <50	0.51	ND <0.50	ND <0.50	ND <0.50	4.7	ND<1.0	ND<10	ND<1.0	ND<1.0	---
MW-7													
Baseline Data	**11/12/02**	**5,600**	**160**	**83**	ND<0.50	**14**	**130**	5,800	550	200	ND<10	ND<10	---
	11/27/02	1,900	ND<50	0.90	ND<0.50	0.91	3.1	3,000	220	380	6.2	ND<1.0	ND<20
	12/10/02	1,600	ND<50	28	ND<2.5	7.0	ND<2.5	3,700	180	360	5.6	ND<5.0	ND<10
	12/23/02	2,900	ND<50	0.58	ND<5.0	0.9	0.6	6,000	350	750	6.1	ND<1.0	ND<10
	1/9/03	3,200	ND<50	ND<5.0	ND<5.0	ND<5.0	ND<5.0	6,700	330	1,000	6.7	ND<1.0	---
	1/30/03	3,000	ND<50	ND<2.5	ND<2.5	ND<2.5	ND<2.5	5,400	270	2,000	6.7	ND<5.0	2.9
	2/12/03	3,100	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	3,300	84	200	5.3	ND<5.0	ND<2.0
	3/12/03	1,000	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	2,000	ND<1.0	31	2.7	ND<1.0	ND<2.0
	4/17/03	590	ND<50	2.1	ND<0.50	ND<0.50	3.1	860	47	ND<20	2.0	ND<1.0	ND<2.0
	5/14/03	450	ND<50	1.4	ND<0.50	0.53	0.82	1,500	79	ND<20	2.6	ND<1.0	ND<2.0
	6/10/03	200	ND<50	0.54	ND<0.50	ND<0.50	ND<0.50	190	11	ND<20	ND<1.0	ND<1.0	ND<2.0
	7/16/03	87	ND<50	1.6	ND<0.50	ND<0.50	ND<0.50	97	5	ND<20	ND<1.0	ND<1.0	ND<2.0
	8/15/03	130	ND<50	ND<0.50	ND <0.50	ND<0.50	ND <0.50	170	10	ND<20	ND<1.0	ND<1.0	ND<2.0
	9/16/03	140	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	89	4.7	ND<20	ND<1.0	ND<1.0	---
	10/15/03	230	ND<50	2.2	ND<0.50	0.5	ND<0.50	170	13	ND<20	ND<1.0	ND<1.0	---
	11/19/03	61	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	28	1.7	ND<20	ND<1.0	ND<1.0	---
	12/11/03	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	42	2.9	ND<20	ND<1.0	ND<1.0	---
	1/14/04	52	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	62	4.3	ND<20	ND<1.0	ND<1.0	---
	2/9/04	81	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	51	3.5	ND<10	ND<1.0	ND<1.0	---
	3/10/04	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	46	2.4	ND<10	ND<1.0	ND<1.0	---
	4/14/04	55	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	35	2.7	ND<10	ND<1.0	ND<1.0	---
	5/13/04	88	ND<50	1.4	ND<0.50	ND<0.50	ND<0.50	95	6.7	ND<10	ND<1.0	ND<1.0	---
	6/24/04	180	ND<50	0.63	ND<0.50	ND<0.50	ND<0.50	190	18	ND<10	ND<1.0	ND<1.0	---
	7/27/04	120	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	140	11	ND<10	ND<1.0	ND<1.0	---
	9/21/04	270	ND<50	0.54	ND<0.50	ND<0.50	ND<0.50	280	38	ND<10	ND<1.0	ND<1.0	---
	10/19/04	65	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	90	7.0	ND<10	ND<1.0	ND<1.0	---
	2/16/05	250	ND<50	1.6	ND<0.50	ND<0.50	ND<0.50	240	38	210	ND<1.0	ND<1.0	---

TABLE 1: PERFORMANCE MONITORING SAMPLING RESULTS
HPI / Crescent City Shell, PFP; LACO Project No. 5282.01
1006 N. Highway 101, Crescent City, CA; Case No. 1TDN026

		Contaminants of Concern						Fuel Oxygenates					
	Date	TPHg	TPHd	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	TAME	TBA	ETBE	DIPE	TBF
PARGs		**12,500**	**500**	**500**	**300**	**300**	**300**	---	---	---	---	---	---
OW-4													
Baseline Data	**10/9/02**	**18,000**	---	**250**	**88**	**2,500**	**479**	220	52	ND<100	ND<10	ND<10	---
	12/23/02	560	ND<50	ND<0.50	ND<0.50	29	22	260	11	ND<100	3	ND<1.0	ND<2.0
	1/9/03	2,800	590	7.6	4.0	83	86	150	19	310	1.4	ND<1.0	---
	1/30/03	190	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	130	3.9	1,100	1.5	ND<1.0	ND<2.0
	2/12/03	2,000	170	ND<0.50	ND<0.50	13	16	100	1.4	ND<20	1.1	ND<1.0	ND<2.0
	3/12/03	1,800	300	ND<0.50	ND<0.50	30	27	7.9	ND<1.0	72	ND<1.0	ND<1.0	ND<2.0
	4/17/03	2,200	390	ND<0.50	0.60	91	90	ND<1.0	ND<1.0	ND<20	ND<1.0	ND<1.0	ND<2.0
	5/14/2003	290	ND<50	ND<0.50	ND <0.50	3.5	3.7	4.0	ND<1.0	ND<20	ND<1.0	ND<1.0	ND<2.0
	6/10/2003	6,400	1,600	0.88	2.8	160	182	ND<5.0	ND<1.0	ND<20	ND<1.0	ND<1.0	ND<2.0
	7/16/2003	1,900	170	ND<0.50	1.30	110	97	ND<1.0	ND<1.0	ND<20	ND<1.0	ND<1.0	ND<2.0
	8/15/2003	560	---	ND<0.50	ND <0.50	47	16.98	ND<5.0	ND<1.0	ND<20	ND<1.0	ND<1.0	ND<2.0
	9/16/03	---	---	---	---	---	---	---	---				
	10/15/03	---	---	---	---	---	---	---	---				
	11/19/03	---	---	---	---	---	---	---	---				
	12/11/03	1,600	270	6.2	0.99	51	38	ND<50	ND<1.0	ND<20	ND<1.0	ND<1.0	ND<2.0
	1/14/04	2,000	110	ND<0.50	0.52	100	54	35	ND<1.0	ND<20	ND<1.0	ND<1.0	---
	2/9/2004	2,500	190	ND<0.50	ND<0.50	83	61	ND<4.0	ND<1.0	ND<20	ND<1.0	ND<1.0	---
	3/10/04	790	80	ND<0.50	ND<0.50	43	20	ND<1.0	ND<1.0	ND<10	ND<1.0	ND<1.0	---
	4/14/04	4,700	370	ND<0.50	ND<0.50	160	124	ND<1.0	ND<1.0	ND<10	ND<1.0	ND<1.0	---
	5/13/04	1,500	ND<50	ND<0.50	ND<0.50	81	36	ND<1.0	ND<1.0	ND<10	ND<1.0	ND<1.0	---
	6/24/04	2,100	160	ND<0.50	1.2	94	47	ND<1.0	ND<1.0	ND<10	ND<1.0	ND<1.0	---
	7/27/04	2,100	150	ND<0.50	ND<0.50	100	47	2.3	ND<1.0	ND<10	ND<1.0	ND<1.0	---
	9/21/04					dry well							
	10/19/04	500	180	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1.0	ND<10	ND<1.0	ND<1.0	---
	2/16/05	4,100	580	3.5	ND<0.50	170	76.6	ND<1.0	1.0	ND<10	ND<1.0	ND<1.0	---
MW-8													
Baseline Data	**11/12/02**	**2,700**	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	4,900	380	1,200	14	ND<10	---
	11/27/02	830	ND<50	4.20	ND<0.50	0.92	ND<0.50	1,200	73	710	6.0	ND<1.0	ND<2.0
	12/23/02	280	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	1,300	14	ND<160	3.9	ND<1.0	ND<2.0
	1/9/03	120	ND<50	ND<5.0	ND<5.0	ND<5.0	ND<5.0	170	8.5	56	1.7	ND<1.0	---
	1/30/03	140	ND<50	5.0	ND<2.5	ND<2.5	ND<2.5	190	5.0	57	2.3	ND<1.0	ND<2.0
	2/12/03	76	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	140	2.8	ND<20	2.0	ND<1.0	ND<2.0
	3/12/03	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	4.8	ND<1.0	ND<20	ND<1.0	ND<1.0	ND<2.0
	4/17/03	75	ND<50	ND<0.50	ND<0.50	0.99	1.7	3.6	ND<1.0	ND<20	ND<1.0	ND<1.0	ND<2.0
	5/14/03	56	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	3.8	ND<1.0	ND<20	ND<1.0	ND<1.0	ND<2.0
	6/10/03	330	59	ND<0.50	ND<0.50	ND<0.50	9.3	1.0	ND<1.0	ND<20	ND<1.0	ND<1.0	ND<2.0
	7/16/03	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1.0	ND<20	ND<1.0	ND<1.0	ND<2.0
	8/15/03	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1.0	ND<20	ND<1.0	ND<1.0	ND<2.0
	9/16/03	ND <50	ND <50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	1.7	ND<1.0	ND<20	ND<1.0	ND<1.0	---
	10/15/03	ND <50	ND <50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	1.5	ND<1.0	ND<20	ND<1.0	ND<1.0	---
	11/19/03	96	ND <50	ND<0.50	ND<0.50	ND<0.50	0.51	ND<1.0	ND<1.0	ND<20	ND<1.0	ND<1.0	---
	12/11/03	ND <50	ND <50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	9.3	ND<1.0	ND<20	ND<1.0	ND<1.0	---
	1/14/04	ND <50	ND <50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	49	ND<1.0	ND<20	ND<1.0	ND<1.0	---
	2/9/04	ND <50	ND <50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	3.7	ND<1.0	ND<20	ND<1.0	ND<1.0	---
	3/10/04	ND <50	ND <50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1.0	ND<10	ND<1.0	ND<1.0	---
	4/14/04	210	ND <50	ND<0.50	ND<0.50	0.66	4.5	ND<1.0	ND<1.0	ND<10	ND<1.0	ND<1.0	---
	5/13/04	ND <50	ND <50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1.0	ND<10	ND<1.0	ND<1.0	---
	6/24/04	ND <50	ND <50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1.0	ND<10	ND<1.0	ND<1.0	---
	7/27/04	62	ND <50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	3.7	ND<1.0	ND<10	ND<1.0	ND<1.0	---
	9/21/04	ND <50	ND <50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	1.3	ND<1.0	ND<10	ND<1.0	ND<1.0	---
	10/19/04	ND <50	ND <50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	1.3	ND<1.0	ND<10	ND<1.0	ND<1.0	---
	2/16/05	ND <50	ND <50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	1.8	ND<1.0	ND<10	ND<1.0	ND<1.0	---

Note: "---" indicates that an analyte was not sampled for.
ND indicates results below the laboratory detection limits.

TABLE 2: INTRINSICS ANALYSES MONITORING RESULTS
HPI / Crescent City Shell, PFP; LACO Project No. 5282.01
1006 N. Highway 101, Crescent City, CA; Case No. 1TDN026

	Field Analyses				
WELL/ Sample Date	Temperature (Celsius)	pH	Conductivity (µmohs)	ORP (mV)	Dissolved Oxygen (mg/l)
MW-1					
8/18/1999	15.7	6.22	820	-26	3.50
12/12/1999	16.2	6.99	800	-183	0.50
2/15/2000	15.0	6.68	870	-134	0.60
5/30/2000	15.6	6.78	730	-119	1.00
8/29/2000	18.8	6.82	770	115	1.00
11/8/2000	18.1	---	700	-105	3.20
2/7/2001	13.6	---	710	-79	---
4/24/2001	13.8	6.91	330	-90	0.60
8/8/2001	---	---	---	---	---
11/13/2001	---	---	790	-101	0.00
2/5/2002	Not sampled due to the presence of free product.				---
5/7/2002	Not sampled due to the presence of free product.				
8/14/2002	Not sampled due to the presence of free product.				
12/23/2002	---	---	---	-41	6.50
1/9/2003	---	---	---	7	7.30
1/30/2003	---	---	---	-43	12.63
2/12/2003	---	---	---	49	13.13
3/12/2003	13.6	7.24	315	25	8.00
4/17/2003	14.9	7.08	389	172	11.38
5/14/2003	15.3	7.23	303	75	11.18
6/10/2003	17.2	7.40	29	76	7.34
7/16/2003	18.5	7.80	71	101	10.30
8/15/2003	19.8	7.40	263	92	9.59
9/16/2003	18.7	7.26	321	60	10.09
10/15/2003	17.7	6.97	318	163	10.27
11/19/2003	16.2	6.70	542	-13	5.85
12/11/2003	15.6	7.83	392	135	6.62
1/14/2004	---	---	---	---	---
2/9/2004	13.8	6.59	404	52	11.42
3/10/2004	15.5	7.40	326	23	10.29
4/14/2004	13.8	7.60	455	47	7.93
5/13/2004	17.6	7.50	399	150	8.17
6/24/2004	18.7	7.12	420	86	7.28
7/27/2004	19.4	7.10	391	32	3.12
8/26/2004	20.1	7.80	395	-8	6.74
9/21/2004	19.5	7.40	365	-26	6.74
10/16/2004	17.2	7.40	342	24	6.86
2/16/2005	13.4	7.10	288	65	8.01
MW-2					
8/18/1999	14.5	6.32	280	160	4.40
12/12/1999	16.5	6.45	220	72	5.00
2/15/2000	14.0	6.50	120	57	5.10
5/30/2000	15.8	6.99	150	210	7.80
8/29/2000	18.4	6.76	230	210	2.30
11/8/2000	18.6	---	440	20	1.50
2/7/2001	13.4	---	100	270	---
4/24/2001	13.9	7.86	---	265	6.30
8/8/2001	---	---	---	---	---
11/13/2001	---	7.93	530	-55	0.00
2/5/2002	10.5	7.63	---	207	6.60
5/7/2002	---	6.80	123	11	6.10

TABLE 2: INTRINSICS ANALYSES MONITORING RESULTS
HPI / Crescent City Shell, PFP; LACO Project No. 5282.01
1006 N. Highway 101, Crescent City, CA; Case No. 1TDN026

	Field Analyses				
WELL/ Sample Date	Temperature (Celsius)	pH	Conductivity (µmohs)	ORP (mV)	Dissolved Oxygen (mg/l)
MW-2 continued					
8/14/2002	16.6	3.72	227	200	5.16
12/23/2002	---	---	---	14	4.20
1/9/2003	---	---	---	19	4.00
1/30/2003	---	---	---	8	2.62
2/12/2003	---	---	---	-12	5.12
3/12/2003	13.7	7.07	103	56	3.40
4/17/2003	13.6	6.38	186	61	0.20
5/14/2003	14.4	7.10	170	47	0.57
6/10/2003	15.8	6.40	24	-1	0.00
7/16/2003	18.0	6.00	0	-10	0.29
8/15/2003	20.6	5.70	114	115	1.06
9/16/2003	18.8	6.86	243	52	0.62
10/15/2003	18.4	6.71	275	119	0.72
11/19/2003	16.9	5.90	278	-21	1.69
12/11/2003	14.1	7.38	192	169	2.40
1/14/2004	13.1	6.00	129	162	4.42
2/9/2004	12.5	6.40	114	153	4.89
3/10/2004	13.4	6.40	113	66	5.34
4/14/2004	13.5	6.90	142	79	5.59
5/13/2004	14.2	7.47	116	129	5.50
6/24/2004	18.5	5.80	160	143	1.85
7/27/2004	18.9	6.60	185	129	2.05
8/26/2004	20.2	6.30	179	123	2.99
9/21/2004	19.3	6.20	224	107	0.73
10/19/2004	18.1	6.30	225	130	6.86
2/16/2005	12.7	6.50	110	103	6.63
MW-3					
8/18/1999	15.1	6.38	370	129	4.40
12/12/1999	17.2	6.34	260	86	3.60
2/15/2000	15.9	6.45	280	6	1.90
5/30/2000	16.2	6.55	270	141	2.80
8/29/2000	18.8	6.74	240	192	3.50
11/8/2000	18.8	---	310	47	4.10
2/7/2001	13.7	---	230	260	---
4/24/2001	14.2	7.26	---	313	3.40
8/8/2001	---	---	---	---	---
11/13/2001	---	8.21	230	20	0.00
2/5/2002	12.7	6.55	---	406	3.50
5/7/2002	---	6.72	257	16	4.60
8/14/2002	17.4	2.82	14	154	7.96
5/14/2003	14.9	7.12	250	73	5.06
7/21/2003	---	---	---	---	---
8/15/2003	21.7	6.00	175	149	5.79
11/19/2003	17.6	7.14	168	70	6.93
2/9/2004	12.7	6.44	286	81	3.94
5/13/2004	17.1	6.20	197	161	6.50
8/26/2004	21.6	6.4	146	83	5.44
10/19/2004	---	---	---	---	---
2/16/2005	---	---	---	---	---
MW-4					
8/18/1999	15.5	6.31	650	53	3.90
12/12/1999	16.1	6.58	400	25	1.10
2/15/2000	15.0	6.45	300	83	2.30

TABLE 2: INTRINSICS ANALYSES MONITORING RESULTS
HPI / Crescent City Shell, PFP; LACO Project No. 5282.01
1006 N. Highway 101, Crescent City, CA; Case No. 1TDN026

	Field Analyses				
WELL/ Sample Date	Temperature (Celsius)	pH	Conductivity (µmohs)	ORP (mV)	Dissolved Oxygen (mg/l)
MW-4 Cont'd					
5/30/2000	16.1	6.32	320	129	1.70
8/29/2000	18.1	6.98	530	-97	1.60
11/8/2000	18.1	---	570	-21	1.40
2/7/2001	15.0	---	510	-17	---
4/24/2001	13.4	6.94	---	189	1.10
8/8/2001	---	---	---	---	---
11/13/2001	---	7.47	554	-98	0.00
2/5/2002	12.7	5.72	---	31	3.90
5/7/2002	---	6.92	395	16	1.90
8/14/2002	16.1	3.50	326	79	2.50
12/23/2002	---	---	---	10	6.80
1/9/2003	---	---	---	-9	7.20
1/30/2003	---	---	---	-56	11.28
2/12/2003	---	---	---	63	11.53
3/12/2003	13.8	7.09	137	99	8.60
4/17/2003	15.2	6.81	211	216	10.17
5/14/2003	15.5	7.19	196	123	10.53
6/10/2003	16.8	6.40	17	103	3.61
7/16/2003	18.5	7.10	80	97	9.12
8/15/2003	20.7	6.90	392	113	8.41
9/16/2003	19.1	7.53	467	95	8.83
10/15/2003	17.5	6.95	387	171	9.93
11/19/2003	17.1	7.45	293	126	0.54
12/11/2003	15.0	7.58	277	167	1.75
1/14/2004	14.1	6.20	208	172	11.30
2/9/2004	13.2	6.70	272	71	11.78
3/10/2004	14.9	6.40	214	43	10.05
4/14/2004	14.1	6.80	277	83	9.21
5/13/2004	17.2	8.00	326	160	8.10
6/24/2004	18.7	6.83	322	138	4.80
7/27/2004	18.6	7.10	331	135	3.08
8/26/2004	20.7	7.10	294	117	5.91
9/21/2004	19.6	6.90	309	122	6.05
10/19/2004	17.6	6.80	279	168	6.89
2/16/2005	15.1	6.3	223	125	1.82
MW-5					
12/13/2001	---	---	---	---	---
2/5/2002	11.6	7.27	---	472	3.50
5/7/2002	---	6.95	566	-47	1.90
8/14/2002	16.2	1.67	92	-18	3.05
12/23/2002	---	---	---	-1	6.20
1/9/2003	---	---	---	-31	8.10
1/30/2003	---	---	---	-43	12.43
2/12/2003	---	---	---	65	12.44
3/12/2003	13.1	7.10	293	81	11.00
4/17/2003	14.7	6.81	297	141	11.61
5/14/2003	14.9	7.16	269	64	11.70
6/10/2003	16.0	7.70	66	57	11.07
7/16/2003	17.4	7.80	19	111	11.03
7/21/2003	17.4	7.40	104	120	11.46
8/15/2003 #	19.0	7.10	68	67	10.44

TABLE 2: INTRINSICS ANALYSES MONITORING RESULTS
HPI / Crescent City Shell, PFP; LACO Project No. 5282.01
1006 N. Highway 101, Crescent City, CA; Case No. 1TDN026

	Field Analyses				
WELL/ Sample Date	Temperature (Celsius)	pH	Conductivity (µmohs)	ORP (mV)	Dissolved Oxygen (mg/l)
MW-5 Cont'd					
9/16/2003	17.7	7.04	242	58	10.53
10/15/2003	17.1	6.77	210	153	10.99
11/19/2003	16.4	7.41	181	124	10.01
12/11/2003	15.5	7.70	240	135	10.48
1/14/2004	---	---	---	---	---
2/9/2004	14.2	7.10	210	143	10.71
3/10/2004	15.4	6.90	220	36	11.98
4/14/2004	13.2	7.60	280	53	12.08
5/13/2004	17.1	7.92	260	99	8.88
6/24/2004	17.6	7.40	332	90	8.19
7/27/2004	18.3	7.50	277	76	6.73
8/26/2004	20.9	7.30	231	91	7.61
9/21/2004	18.7	7.40	240	91	8.21
10/19/2004	16.5	7.10	231	124	10.88
2/16/2005	14.9	7.00	213	76	11.41
MW-6					
12/23/2002					
1/9/2003	---	---	---	-38	3.00
1/30/2003	---	---	---	32	2.90
2/12/2003	---	---	---	-1	3.87
3/12/2003	---	---	---	-56	6.58
4/17/2003	13.4	7.13	344	22	6.50
5/14/2003	15.0	6.43	365	39	4.40
6/10/2003	17.6	6.70	219	190	3.50
7/16/2003	---	---	---	---	---
8/15/2003	20.4	6.30	36	144	1.32
9/16/2003	21.8	7.10	213	19	1.71
10/15/2003	18.6	7.52	253	-18	1.82
11/19/2003	17.2	6.80	225	-17	1.55
12/11/2003	17.7	7.52	189	97	0.92
1/14/2004	16.3	7.70	217	150	1.25
2/9/2004	---	---	---	---	---
3/10/2004	16.0	6.20	192	80	1.64
4/14/2004	15.7	6.00	167	27	0.92
5/13/2004	15.0	6.60	207	35	1.30
6/24/2004	18.4	6.00	196	13	1.54
7/27/2004	19.1	6.20	211	---	1.82
8/26/2004	19.7	6.70	196	5	2.15
9/21/2004	---	---	---	---	---
10/19/2004	17.9	6.80	180	55	1.60
2/16/2005	15.7	6.30	156	84	0.90
MW-7					
12/23/2002					
1/9/2003	---	---	---	-48	10.30
1/30/2003	---	---	---	-36	4.80
2/12/2003	---	---	---	-24	6.64
3/12/2003	---	---	---	8	7.81
4/17/2003	13.6	7.26	374	58	6.80
5/14/2003	15.2	6.89	425	99	9.40
6/10/2003	15.6	7.40	378	170	9.70
7/16/2003	16.3	7.30	9	151	9.42
8/15/2003	19.1	7.40	9	127	8.82
9/16/2003	19.5	7.40	262	112	8.47
10/15/2003	18.4	7.66	300	9	8.35

TABLE 2: INTRINSICS ANALYSES MONITORING RESULTS
HPI / Crescent City Shell, PFP; LACO Project No. 5282.01
1006 N. Highway 101, Crescent City, CA; Case No. 1TDN026

	Field Analyses				
WELL/ Sample Date	Temperature (Celsius)	pH	Conductivity (µmohs)	ORP (mV)	Dissolved Oxygen (mg/l)
MW-7 Cont'd	16.4	6.96	291	35	8.16
11/19/2003					
12/11/2003	---	---	---	---	---
1/14/2004	15.1	7.77	310	139	8.24
2/9/2004	---	---	---	---	---
3/10/2004	14.1	7.30	255	151	9.12
4/14/2004	14.8	7.20	258	49	9.75
5/13/2004	13.9	7.40	321	38	9.82
6/24/2004	16.1	7.72	312	69	6.80
7/27/2004	17.4	6.93	299	---	0.58
8/26/2004	17.5	7.40	282	22	2.43
9/21/2004	19.9	7.19	328	147	4.13
10/16/2004	15.4	7.00	260	-6	3.77
2/16/2005	14.5	6.92	437	128	5.46
MW-8					
12/23/2002					
1/9/2003	---	---	---	-31	8.30
1/30/2003	---	---	---	-30	8.80
2/12/2003	---	---	---	-52	12.17
3/12/2003	---	---	---	---	---
4/17/2003	14.0	7.19	309	66	7.10
5/14/2003	15.3	7.49	483	121	10.80
6/10/2003	16.3	8.00	444	162	10.60
7/16/2003	18.6	7.30	106	90	4.25
8/15/2003	19.8	7.90	128	38	8.87
9/16/2003	21.2	7.60	359	73	8.69
10/15/2003	20.5	7.81	439	47	8.83
11/19/2003	18.1	7.07	366	85	9.59
12/11/2003	16.5	7.10	433	41	1.54
1/14/2004	16.3	7.78	499	70	1.10
2/9/2004	---	---	---	---	---
3/10/2004	14.9	7.20	394	131	9.61
4/14/2004	15.3	7.40	483	33	10.12
5/13/2004	14.6	7.70	464	27	5.75
6/24/2004	16.8	7.10	403	148	5.67
7/27/2004	19.3	7.23	371	-11	1.25
8/26/2004	18.6	7.60	298	1	1.39
9/21/2004	---	---	---	---	---
10/16/2004	18.0	7.10	286	27	2.42
2/16/2005	14.5	7.26	426	20	1.98
OW-1					
2/5/2002					
5/7/2002	12.2	6.12	---	273	2.60
8/14/2002	---	6.79	569	82	2.80
5/14/2003	15.5	3.23	12	140	4.04
8/15/2003	15.3	6.20	309	260	8.60
11/19/2003	Not enough water for sample				
2/9/2004	---	---	---	---	---
5/13/2004	13.3	6.16	285	84	10.56
8/26/2004	17.1	5.90	253	224	7.86
10/19/2004	---	---	---	---	---
2/16/2005	14.6	6.49	394	167	8.70
OW-2					
2/5/2002					
5/7/2002	11.6	6.08	---	71	2.50
8/14/2002	---	6.79	550	80	2.80
5/14/2003	Not enough water for sample			---	---
8/15/2003	15.7	6.40	379	232	3.70
11/19/2003	Not enough water for sample				

TABLE 2: INTRINSICS ANALYSES MONITORING RESULTS
HPI / Crescent City Shell, PFP; LACO Project No. 5282.01
1006 N. Highway 101, Crescent City, CA; Case No. 1TDN026

	Field Analyses				
WELL/ Sample Date	Temperature (Celsius)	pH	Conductivity (µmohs)	ORP (mV)	Dissolved Oxygen (mg/l)
OW-2 Cont'd	---	---	---	---	---
2/9/2004					
5/13/2004	14.7	6.1	256	185	8.20
8/26/2004	18.6	7.8	307	215	6.23
10/19/2004	---	---	---	---	---
2/16/2005	14.5	6.4	358	173	5.48
OW-3					
2/5/2002					
5/7/2002	12.7	6.21	---	-44	2.20
8/14/2002	---	6.88	826	-54	2.50
12/23/2002	Not enough water for sample			---	---
1/9/2003	---	---	---	-50	4.10
1/30/2003	---	---	---	-9	2.80
2/12/2003	---	---	---	-18	4.15
3/12/2003	---	---	---	---	6.39
4/17/2003	14.4	7.04	369	9	3.90
5/14/2003	15.6	6.31	432	-10	4.30
6/10/2003	16.2	6.50	322	-12	3.00
7/16/2003	17.6	7.19	549	-3	3.60
8/15/2003	21.5	6.60	154	-19	4.46
11/19/2003	Not enough water for sample				
12/11/2003	---	---	---	---	---
1/14/2004	16.8	7.63	362	13	0.49
2/9/2004	---	---	---	---	---
3/10/2004	15.2	6.40	248	41	0.45
4/14/2004	# 15.7	6.10	250	-21	0.94
5/13/2004	15.6	6.80	376	-45	0.98
6/24/2004	19.1	6.20	331	---	0.38
7/27/2004	19.5	6.40	420	---	4.18
8/26/2004	20.0	7.00	417	---	1.02
9/21/2004	---	---	---	---	---
10/16/2004	---	---	---	---	---
2/16/2005	15.6	6.74	396	-54	0.41
OW-4					
2/5/2002					
5/7/2002	11.6	6.67	---	-115	2.30
8/14/2002	---	6.99	675	-69	2.00
12/23/2002	17.5	3.29	63	-30	1.44
1/9/2003	---	---	---	-19	7.00
1/30/2003	---	---	---	-13	5.50
2/12/2003	---	---	---	-59	10.66
3/12/2003	---	---	---	19	11.72
4/17/2003	13.8	7.27	361	55	6.10
5/14/2003	15.5	7.11	597	125	7.80
6/10/2003	17.1	7.80	227	117	7.40
7/16/2003	18.0	7.44	500	62	3.30
8/15/2003	21.2	7.40	166	-5	7.45
11/19/2003	Not enough water for sample				
12/11/2003	---	---	---	---	---
1/14/2004	---	---	---	---	---
2/9/2004	12.7	6.90	432	177	8.74
3/10/2004	13.8	6.90	370	137	6.19
4/14/2004	14.2	7.20	380	31	9.03
5/13/2004	14.1	7.20	448	8	0.95
6/24/2004	17.6	6.70	405	68	2.17
7/27/2004	19.8	7.13	369	-12	6.67
8/26/2004	---	---	---	---	---
9/21/2004	---	---	---	---	---
10/16/2004	---	---	---	---	---
2/16/2005	13.6	6.92	436	-17	0.47

TABLE 2: INTRINSICS ANALYSES MONITORING RESULTS
HPI / Crescent City Shell, PFP; LACO Project No. 5282.01
1006 N. Highway 101, Crescent City, CA; Case No. 1TDN026

	Field Analyses				
WELL/ Sample Date	**Temperature (Celsius)**	**pH**	**Conductivity (µmohs)**	**ORP (mV)**	**Dissolved Oxygen (mg/l)**
OW-5					
2/5/2002					
5/7/2002	11.1	7.03	---	16	2.60
8/14/2002	---	6.94	744	-82	2.30
1/9/2003	Sample not collected due to free product				---
1/30/2003	---	---	---	-29	3.90
2/12/2003	---	---	---	-28	10.42
3/12/2003	---	---	---	-3	10.61
4/17/2003	13.9	7.29	267	35	4.70
5/14/2003	14.3	6.55	434	134	8.60
6/10/2003	16.0	6.80	416	135	6.20
7/16/2003	16.4	7.39	414	131	4.00
8/15/2003	18.3	6.60	13	151	5.91
11/19/2003	Not enough water for sample				
12/11/2003	---	---	---	---	---
2/9/2004	14.2	7.70	245	136	4.39
3/10/2004	13.5	6.80	386	152	5.73
4/14/2004	13.8	6.90	410	43	4.92
5/13/2004	13.9	7.10	461	43	3.82
6/24/2004	16.3	7.77	422	192	2.73
7/27/2004	17.1	6.40	349	146	1.28
8/26/2004	---	---	---	---	---
10/19/2004	---	---	---	---	---
2/16/2005	13.0	6.76	428	123	0.31
PZ-1					
11/20/2001					
2/5/2002	---	6.70	377	124	3.30
5/7/2002	12.2	6.40	---	267	4.30
8/14/2002	---	---	---	---	---
5/14/2003	---	---	---	---	---
7/16/2003	---	---	---	---	---
7/21/2003	19.5	6.00	70	160	5.13
11/19/2003	19.1	5.90	55	153	5.77
2/9/2004	15.7	6.00	357	78	6.09
5/13/2004	13.6	6.0	368	177	6.12
6/24/2004	17.1	7.74	314	149	5.15
8/26/2004	17.9	6.08	263	71	4.27
10/19/2004	---	---	---	---	---
2/16/2005	22.0	6.2	231	104	4.33
DW-Totem					
8/18/1999					
12/12/1999	14.0	6.74	180	175	5.00
2/15/2000	13.1	6.31	200	91	15.10
5/30/2000	12.1	6.47	160	123	1.60
8/29/2000	13.7	6.65	190	-42	2.30
11/8/2000	14.6	7.67	170	2	2.00
2/7/2001	15.9	---	150	188	3.00
4/24/2001	12.7	---	140	129	---
8/8/2001	12.2	8.32	---	42	1.90
11/13/2001	---	---	---	---	---
2/5/2002	---	---	---	---	---
5/7/2002	9.4	7.74	---	-547	4.50
8/14/2002	---	6.76	217	-89	2.30
5/14/2003	Sample not collected		---	---	---
11/19/2003	12.0	7.20	160	14	0.03
2/9/2004	14.0	6.60	164	-37	0.15
5/13/2004	9.7	7.0	66	122	1.26
8/26/2004	12.2	6.5	187	-36	0.70
10/19/2004	---	---	---	---	---
2/16/2005	---	---	---	---	---

TABLE 3: GROUNDWATER ELEVATION DATA AND GROUNDWATER ANALYTICAL RESULTS
HPI / Crescent City Shell, PFP; LACO Project No. 5282.01
1006 N. Highway 101, Crescent City, CA; Case No. 1TDN026

	Groundwater Measurements			Analytical Results								
WELL/ Sample Date	Well Head Elevation (feet msl)	Groundwater Elevation (feet msl)	Depth to Water (feet)	TPHg (µg/l)	TPHd (µg/l)	TPHmo (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethylbenzene (µg/l)	Xylenes (µg/l)	MTBE (µg/l)	Other Analytes (µg/l)
			mcl/(al)	---	1.0		1.0	150	700	1,700	13	
			tot	5	---	100	---	42	29	17	5	---
MW-1												
3/20/1995	28.28	26.13	2.15	8,100	ND <50	ND <500	27	85	58	299	---	---
4/13/1995		25.72	2.56	---	---	---	---	---	---	---	---	---
5/15/1995		24.62	3.66	---	---	---	---	---	---	---	---	---
6/13/1995		23.38	4.90	77,000	170	ND <500	4,600	4,600	1,400	6,700	---	---
7/17/1995		22.38	5.90	---	---	---	---	---	---	---	---	---
9/1/1995		21.38	6.90	---	---	---	---	---	---	---	---	---
9/25/1995		20.85	7.43	80,000	740	---	9,700	8,800	2,000	9,600	10,000	---
10/30/1995		19.75	8.53	---	---	---	---	---	---	---	---	---
11/20/1995		19.25	9.03	---	---	---	---	---	---	---	---	---
12/21/1995		18.18	10.10	46,000	130	---	4,300	3,400	1,100	3,850	4,400	---
1/18/1996		25.32	2.96	---	---	---	---	---	---	---	---	---
2/20/1996		25.90	2.38	---	---	---	---	---	---	---	---	---
3/26/1996		24.98	3.30	8,300	ND <50	---	1,500	240	330	680	7,200	---
4/15/1996		24.84	3.44	---	---	---	---	---	---	---	---	---
6/7/1996		23.94	4.34	---	---	---	---	---	---	---	---	---
6/28/1996		22.84	5.44	48,000	150	---	7,500	6,200	1,500	6,800	14,000	---
7/17/1996		22.12	6.16	---	---	---	---	---	---	---	---	---
9/13/1996		20.44	7.84	58,000	2,600	---	11,000	7,900	1,600	7,400	11,000	---
10/9/1996		19.94	8.34	---	---	---	---	---	---	---	---	---
11/27/1996		22.67	5.61	---	---	---	---	---	---	---	---	---
12/23/1996		25.37	2.91	29,000	230	---	9,200	1,200	1,800	2,300	19,000	---
1/30/1997		25.67	2.61	---	---	---	---	---	---	---	---	---
2/21/1997		25.27	3.01	---	---	---	---	---	---	---	---	---
3/20/1997		24.67	3.61	15,000	ND <50	---	1,100	1,000	540	2,240	9,200	---
4/16/1997		23.57	4.71	---	---	---	---	---	---	---	---	---
6/25/1997		22.35	5.93	56,000	93	---	8,700	6,900	1,700	7,000	8,100	---
7/11/1997		20.78	7.50	---	---	---	---	---	---	---	---	---
9/11/1997		20.12	8.16	61,000	310	---	8,000	5,200	2,100	9,500	8,800	---
12/15/1997		23.89	4.39	31,000	590	---	1,300	1,200	790	3,090	14,000	---
3/5/1998		25.77	2.51	24,000	280	---	4,100	120	1,300	555	8,100	---
6/17/1998		23.01	5.27	68,000	390	---	6,500	6,200	1,500	6,800	19,000	---
9/28/1998		19.93	8.35	65,000	860	---	7,100	5,300	2,500	9,300	26,000	---
12/18/1998		25.10	3.18	18,000	300	---	3,100	180	920	1,280	33,000	---
3/5/1999		25.65	2.63	290,000	300	---	1,200	ND <100	380	450	30,000	TAME = 2,200 Other oxygenates ND Lead scavengers <200
6/6/1999		23.40	4.88	54,000	320	---	2,800	3,100	1,300	4,760	32,000	---
8/18/1999		20.80	7.48	88,000	440	---	6,100	6,700	3,200	11,900	36,000	TAME = 2,500 Other oxygenates ND [4]
12/12/1999		23.61	4.67	6,700	330	---	160	54	390	660	6,800	TAME = 750 Other oxygenates ND [4]
2/15/2000		25.49	2.79	12,000	290	---	970	100	570	615	11,000	TAME = 1,100 TBA = 1,100 Other oxygenates ND
5/30/2000		23.77	4.51	29,000	280	---	850	860	1,500	4,130	6,200	TAME = 1300 Other oxygenates ND
8/29/2000		20.70	7.58	42,000	740	---	3,600	2,200	2,100	6,900	7,400	TAME = 1,500 Other oxygenates ND
11/8/2000		20.40	7.88	28,000	370	---	1,800	700	1,600	5,010	2,100	TAME = 790 Other oxygenates ND
2/7/2001		22.13	6.15	44,000	1,300	---	3,300	950	2,300	5,260	3,900	TAME = 830 Other oxygenates ND
4/24/2001		22.35	5.93	29,000	1,300	---	2,800	1,100	2,600	6,340	2,300	TAME = 470 Other oxygenates ND
8/8/2001		19.91	8.37	47,000	1,200	---	3,700	1,000	2,700	5,790	3,900	TAME = 650 TBA = 1,200 Other oxygenates ND
11/13/2001		17.36	10.92	81,000	2,300	---	2,000	9,900	2,990	15,100	2,000	TAME = 370 TBA = 890 Other oxygenates ND
2/5/2002		24.16	4.16	Unable to sample due to presence of free product (0.05 feet thick)								
5/7/2002		23.84	4.50	Unable to sample due to presence of free product (0.07 feet thick)								
8/14/2002	31.29	---	---	Unable to sample due to presence of free product (0.32 feet thick)								
11/12/2002		23.75	7.54	7,000	490	---	58	ND<25	ND<25	242	1,100	TAME = 98 TBA = 1000 Other oxygenates ND
11/26/02		22.11	9.18	870	970	370	ND<0.50	ND<0.50	2.0	2.0	740	TAME = 57 TBA = 460 ETBE= 1.4 Other oxygenates ND

TABLE 3: GROUNDWATER ELEVATION DATA AND GROUNDWATER ANALYTICAL RESULTS
HPI / Crescent City Shell, PFP; LACO Project No. 5282.01
1006 N. Highway 101, Crescent City, CA; Case No. 1TDN026

WELL/ Sample Date	Groundwater Measurements: Well Head Elevation (feet msl)	Groundwater Elevation (feet msl)	Depth to Water (feet)	Analytical Results: TPHg (µg/l)	TPHd (µg/l)	TPHmo (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethylbenzene (µg/l)	Xylenes (µg/l)	MTBE (µg/l)	Other Analytes (µg/l)
MW-1 Continued												
12/10/02		21.52	9.77	4,800	560	---	8.2	2.8	75	66.4	690	TAME = 32 TBA = 430 Other oxygenates ND
12/23/02		25.84	5.45	3,100	62	---	11	4.9	63	87.7	540	TAME = 43 ETBE= 1.2 Other oxygenates ND
1/9/03		27.62	3.67	780	160	---	1.7	1.1	8.6	17.8	540	TAME = 53 TBA= 42 Other oxygenates ND
1/30/03		27.92	3.37	200	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	310	TAME = 18 other oxygenates ND
3/12/03		26.90	4.39	100	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	160	TAME = 8.8 other oxygenates ND
4/17/03		28.11	3.18	ND<50	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	42	All other oxygenates ND
5/14/03		26.71	4.58	ND<50	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	10	All other oxygenates ND
6/10/03		26.27	5.02	1,200	380	---	15	4.4	16	184	72	TAME = 17 TBA= 26 Other oxygenates ND
7/16/03		24.17	7.12	ND<50	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND <1.0	All other oxygenates ND
8/15/03		23.06	8.23	ND<50	ND<50	---	ND<0.50	ND<0.50	1.3	1.1	ND <1.0	All other oxygenates ND
9/16/03		21.86	9.43	ND<50	ND<50	---	ND<0.50	ND<0.50	0.5	1.3	ND <1.0	All other oxygenates ND
10/15/03		21.08	10.21	ND<50	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND <1.0	All other oxygenates ND
11/19/03		22.88	8.41	2,200	140	---	110	11	18	95	75	TAME = 18 TBA= 45 Other oxygenates ND
12/11/03		25.50	5.79	ND<50	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	1.1	All other oxygenates ND
1/14/04		27.49	3.80	ND<50	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	1.5	All other oxygenates ND
2/9/04		27.67	3.62	ND<50	ND<50	---	ND<0.50	ND<0.50	ND<0.50	0.53	4.9	All other oxygenates ND
3/10/04		27.57	3.72	ND<50	ND<50	---	ND<0.50	ND<0.50	ND<0.50	0.53	1.6	All other oxygenates ND
4/14/04		26.93	4.36	190	50	---	ND<0.50	ND<0.50	0.96	10.3	4.0	All other oxygenates ND
5/13/04		26.35	4.94	ND<50	ND<50	---	ND<0.50	ND<0.50	0.64	1.4	4.3	All other oxygenates ND
6/24/04		24.55	6.74	1,300	93	---	120	12	11	148	59	TAME = 31 TBA= 31 Other oxygenates ND
7/27/04		23.93	7.36	4,900	380	---	440	69	91	530	72	TAME = 24 TBA= 46 Other oxygenates ND
8/26/04		23.11	8.18	950		---	49	9.2	11	130	42	TAME = 9.1 Other oxygenates ND
9/21/04		22.59	8.70	590	67	---	27	6.4	8.7	85	34	TAME = 9.4 Other oxygenates ND
10/19/04		22.59	8.70	570	78	---	40	8.2	13	78	27	TAME = 5.2 Other oxygenates ND
2/16/05		26.10	5.19	4,100	270	---	83	160	85	870	12	TAME = 5.8 Other oxygenates ND
MW-2												
3/20/1995	27.11	26.06	1.05	ND <50	ND <50	ND <500	ND <0.5	ND <0.5	ND <0.5	ND <0.5	---	---
4/13/1995		24.54	2.57	---	---	---	---	---	---	---	---	---
5/15/1995		24.04	3.07	---	---	---	---	---	---	---	---	---
6/13/1995		22.61	4.50	220	ND <50	ND <300	2.5	1.5	1.0	4.5	---	---
7/17/1995		21.66	5.45	---	---	---	---	---	---	---	---	---
9/1/1995		20.66	6.45	---	---	---	---	---	---	---	---	---
9/25/1995		20.13	6.98	530	ND <50	---	110	2.1	1.2	7.1	19	---
10/30/1995		19.43	7.68	---	---	---	---	---	---	---	---	---
11/20/1995		18.40	8.71	---	---	---	---	---	---	---	---	---
12/21/1995		17.46	9.65	140	ND <50	---	0.63	ND <0.5	ND <0.5	0.53	ND <5.0	---
1/18/1996		25.61	1.50	---	---	---	---	---	---	---	---	---
2/20/1996		26.05	1.06	---	---	---	---	---	---	---	---	---
3/26/1996		24.59	2.52	ND <50	ND <50	---	ND <0.5	ND <0.5	ND <0.5	ND <0.5	ND <5.0	---
4/15/1996		24.49	2.62	---	---	---	---	---	---	---	---	---
6/7/1996		23.31	3.80	---	---	---	---	---	---	---	---	---
6/28/1996		22.03	5.08	150.0	ND <50	---	6.1	4.7	1.0	3.5	ND <5.0	---
7/17/1996		21.33	5.78	---	---	---	---	---	---	---	---	---
9/13/1996		19.93	7.18	860	58	---	260	13	3.8	17.3	73	---
10/9/1996		19.49	7.62	---	---	---	---	---	---	---	---	---
11/27/1996		22.69	4.42	---	---	---	---	---	---	---	---	---
12/23/1996		25.61	1.50	66	ND <50	---	19	ND <0.5	ND <0.5	0.63	8.7	---
1/30/1997		25.68	1.43	---	---	---	---	---	---	---	---	---
2/21/1997		25.05	2.06	---	---	---	---	---	---	---	---	---
3/20/1997		24.45	2.66	ND <50	ND <50	---	1.7	ND <0.5	ND <0.5	ND <0.5	ND <5.0	---
4/16/1997		22.87	4.24	---	---	---	---	---	---	---	---	---
6/25/1997		21.47	5.64	75	ND <50	---	10	2.1	ND <0.5	1.98	79	---
7/11/1997		16.38	10.73	---	---	---	---	---	---	---	---	---
9/11/1997		19.65	7.46	3,700	250	---	1,100	22	7.3	39	1,000	---
12/15/1997		23.95	3.16	160	84	---	65	1.3	0.58	2.8	73	---
3/5/1998		25.83	1.28	ND <50	ND <50	---	2.3	ND <0.5	ND <0.5	ND <0.5	5.6	---
6/17/1998		22.29	4.82	ND <50	ND <50	---	0.67	ND <0.5	ND <0.5	ND <0.5	11	---
9/28/1998		19.61	7.50	860	110	---	180	6.2	1.4	6.1	960	---
12/18/1998		25.19	1.92	ND <50	ND <50	---	5.0	ND <0.5	ND <0.5	ND <0.5	61	---
3/5/1999		25.73	1.38	360	ND <50	---	0.57	ND <0.5	ND <0.5	ND <0.5	10	Other oxygenates ND Lead scavengers <200
6/3/1999		22.72	4.39	ND <50	ND <50	---	ND <0.5	ND <0.5	ND <0.5	ND <0.5	8.0	---
6/22/1999		21.85	5.26	---	---	---	---	---	---	---	---	---
8/18/1999		20.35	6.76	610	ND <50	---	70	6.7	1.1	13.6	930	---
12/12/1999		24.31	2.80	89	ND <50	---	24	ND <0.5	ND <0.5	1.3	46	Other oxygenates ND
2/15/2000		25.91	1.20	ND <50	ND <50	---	ND <0.5	ND <0.5	ND <0.5	ND <0.5	5.2	Other oxygenates ND
5/30/2000		23.41	3.70	ND <50	ND <50	---	ND <0.5	ND <0.5	ND <0.5	ND <0.5	5.7	Other oxygenates ND

TABLE 3: GROUNDWATER ELEVATION DATA AND GROUNDWATER ANALYTICAL RESULTS
HPI / Crescent City Shell, PFP; LACO Project No. 5282.01
1006 N. Highway 101, Crescent City, CA; Case No. 1TDN026

WELL/ Sample Date	Groundwater Measurements: Well Head Elevation (feet msl)	Groundwater Elevation (feet msl)	Depth to Water (feet)	Analytical Results: TPHg (µg/l)	TPHd (µg/l)	TPHmo (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethylbenzene (µg/l)	Xylenes (µg/l)	MTBE (µg/l)	Other Analytes (µg/l)
MW-2 Continued												
8/29/2000		20.37	6.74	900	ND <50	---	58	0.63	ND <0.5	3.1	950	TAME = 40 TBA = 130 ETBE = 3.6 DIPE ND<1.0
11/8/2000		20.07	7.04	4,000	57	---	970	ND <10	ND <10	ND <10	1700	TAME = 120 Other oxygenates ND
2/7/2001		22.00	5.11	67	ND <50	---	ND <0.5	ND <0.5	ND <0.5	ND <0.5	57	TAME = 2 Other oxygenates ND
4/24/2001		22.05	5.06	ND <50	ND <50	---	ND <0.5	ND <0.5	ND <0.5	ND <0.5	18	Other oxygenates ND
8/8/2001		19.69	7.42	2,100	78	---	920	3.5	ND <0.5	14	2,000	TAME = 71 TBA = 470 ETBE = 3.8 DIPE = 1.4
11/13/2001		18.32	8.79	6,400	86	---	580	4.1	1.2	7.7	6,200	TAME = 280 TBA = 1900 ETBE = 5.4 Other oxygenates ND
12/13/2001		23.94	3.17	---	---	---	---	---	---	---	---	---
2/5/2002		25.21	1.90	ND <50	ND <50	---	1.5	ND <0.50	ND <0.50	ND <0.50	25	TAME=1.2
5/7/2002		22.61	4.50	ND <50	ND <50	ND <170	ND <0.50	ND <0.50	ND <0.50	ND <0.50	25	TAME=1.3
8/14/2002	30.08	22.99	7.09	1,000	ND <50	ND <170	82	1.1	ND <0.50	1.6	450	TAME = 33 TBA = 54 Other oxygenates ND
11/12/2002		21.73	8.35	5,700	75	---	1,500	1.7	ND <0.50	5.0	3,500	TAME = 240 TBA = 770 ETBE = 3.2 DIPE = ND<10
11/26/2002		21.61	8.47	5,000	92	ND <170	1,200	0.6	ND <0.50	2.4	3,300	TAME = 200 TBA = 850 ETBE = 3.1 Other oxygenates ND
12/10/2002		21.53	8.55	5,700	76	---	1,000	4.2	ND <0.50	5.3	3,100	TAME = 190 TBA = 600 Other oxygenates ND
12/23/2002		26.83	3.25	430	ND <50	---	8.8	ND <0.50	0.61	0.82	90	TAME = 4.9 Other oxygenates ND
1/9/03		28.12	1.96	340	ND <50	---	1.3	ND <0.50	ND <0.50	ND <0.50	42	TAME = 2.7 Other oxygenates ND
1/30/03		29.65	0.43	470	ND <50	---	1.0	ND <0.50	ND <0.50	ND <0.50	ND<1.0	All oxygenates ND
3/12/03		28.16	1.92	200	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND<1.0	All oxygenates ND
4/17/03		29.17	0.91	200	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	All oxygenates ND
5/14/03		27.56	2.52	84	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	All oxygenates ND
6/10/03		25.84	4.24	77	ND<50	---	1.1	0.66	ND<0.50	ND<0.50	ND<1.0	All oxygenates ND
7/16/03		24.37	5.71	65	ND<50	---	1.1	ND<0.50	ND<0.50	0.58	3.9	All oxygenates ND
8/15/03		23.54	6.54	84	ND<50	---	7.6	ND<0.50	ND<0.50	0.52	27	TAME = 1.4 Other oxygenates ND
9/16/03		22.84	7.24	650	ND<50	---	20	ND<0.50	0.63	2.16	390	TAME = 17 TBA=47 Other oxygenates ND
10/15/03		22.17	7.91	2,200	75	---	63	1.6	2.3	7.3	1,800	TAME = 95 TBA=200 Other oxygenates ND
11/19/03		22.35	7.73	1,200	ND<50	---	2.3	ND<0.50	ND<0.50	ND<0.50	1,200	TAME = 61 TBA=47 Other oxygenates ND
12/11/03		26.36	3.72	120	ND<50	---	3.0	ND<0.50	ND<0.50	ND<0.50	150	TAME = 8.8 Other oxygenates ND
1/14/04		28.69	1.39	ND <50	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	36	TAME = 2.0 Other oxygenates ND
2/9/04		28.55	1.53	ND <50	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	16	TAME = 1.1 Other oxygenates ND
3/10/04		27.78	2.30	ND <50	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	9.2	All oxygenates ND
4/14/04		26.64	3.44	ND <50	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	10	All oxygenates ND
5/13/04		25.96	4.12	ND <50	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	6.8	All oxygenates ND
6/24/04		24.29	5.79	210	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	160	TAME = 14 Other oxygenates ND
7/27/04		23.78	6.30	160	ND<50	---	6.0	ND<0.50	ND<0.50	1.13	97	TAME = 6.1 Other oxygenates ND
8/26/04		22.98	7.10	500	ND<50	---	84	ND<0.50	ND<0.50	ND<0.50	350	TAME = 24 Other oxygenates ND
9/21/04		22.49	7.59	930	ND<50	---	94	ND<0.50	ND<0.50	0.65	620	TAME = 63 TBA=68 Other oxygenates ND
10/19/04		22.49	7.59	680	ND<50	---	26	ND<0.50	ND<0.50	ND<0.50	680	TAME = 77 Other oxygenates ND
2/16/05		25.81	4.27	ND <50	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	40	TAME = 2.5 Other oxygenates ND
MW-3												
3/20/1995	28.99	26.89	2.10	ND <50	ND <50	ND <500	ND <0.5	ND <0.5	ND <0.5	ND <0.5	---	---
4/13/1995		27.61	1.38	---	---	---	---	---	---	---	---	---
5/15/1995		25.12	3.87	---	---	---	---	---	---	---	---	---
6/13/1995		23.95	5.04	ND <50	ND <50	ND <500	1.4	1.7	ND <0.5	0.76	---	---
7/17/1995		22.93	6.06	---	---	---	---	---	---	---	---	---
9/1/1995		21.93	7.06	---	---	---	---	---	---	---	---	---
9/25/1995		21.07	7.92	ND <50	---	---	ND <0.5	ND <0.5	ND <0.5	ND <0.5	ND <5.0	---
10/30/1995		19.86	9.13	---	---	---	---	---	---	---	---	---
11/20/1995		19.26	9.73	---	---	---	---	---	---	---	---	---
12/21/1995		18.69	10.30	ND <50	ND <50	---	ND <0.5	ND <0.5	ND <0.5	ND <0.5	ND <5.0	---
1/18/1996		26.27	2.72	---	---	---	---	---	---	---	---	---
2/20/1996		26.67	2.32	---	---	---	---	---	---	---	---	---
3/26/1996		25.49	3.50	ND <50	ND <50	---	ND <0.5	ND <0.5	ND <0.5	ND <0.5	ND <5.0	---
4/15/1996		25.39	3.60	---	---	---	---	---	---	---	---	---

TABLE 3: GROUNDWATER ELEVATION DATA AND GROUNDWATER ANALYTICAL RESULTS
HPI / Crescent City Shell, PFP; LACO Project No. 5282.01
1006 N. Highway 101, Crescent City, CA; Case No. 1TDN026

	Groundwater Measurements			Analytical Results								
WELL/ Sample Date	Well Head Elevation (feet msl)	Groundwater Elevation (feet msl)	Depth to Water (feet)	TPHg (µg/l)	TPHd (µg/l)	TPHmo (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethylbenzene (µg/l)	Xylenes (µg/l)	MTBE (µg/l)	Other Analytes (µg/l)
MW-3 Continued												
6/7/1996		24.47	4.52	---	---	---	---	---	---	---	---	---
6/28/1996		23.39	5.60	ND <50	ND <50	---	ND <0.5	ND <0.5	ND <0.5	ND <0.5	ND <5.0	---
7/17/1996		22.53	6.46	---	---	---	---	---	---	---	---	---
9/13/1996		20.63	8.36	ND <50	ND <50	---	2.6	2.5	0.55	2.08	ND <5.0	---
10/9/1996		20.15	8.84	---	---	---	---	---	---	---	---	---
11/27/1996		23.40	5.59	---	---	---	---	---	---	---	---	---
12/23/1996		26.12	2.87	ND <50	ND <50		ND <0.5	ND <0.5	ND <0.5	ND <0.5	ND <5.0	---
1/30/1997		26.28	2.71	---	---	---	---	---	---	---	---	---
2/21/1997		25.56	3.43	---	---	---	---	---	---	---	---	---
3/20/1997		25.56	3.43	ND <50	ND <50	---	ND <0.5	ND <0.5	ND <0.5	ND <0.5	ND <5.0	---
4/16/1997		24.06	4.93	---	---	---	---	---	---	---	---	---
6/25/1997		22.93	6.06	68	ND <50	---	8.3	7.8	1.6	5.7	ND <5.0	---
7/11/1997		21.13	7.86	---	---	---	---	---	---	---	---	---
9/11/1997		20.13	8.86	ND <50	ND <50	---	2.8	1.7	0.57	2.02	ND <5.0	---
12/15/1997		24.42	4.57	ND <50	ND <50	---	1.3	1.2	0.76	2.52	ND <5.0	---
3/5/1998		26.33	2.66	ND <50	ND <50	---	ND <0.5	ND <0.5	ND <0.5	ND <0.5	ND <5.0	---
6/17/1998		23.56	5.43	ND <50	ND <50	---	ND <0.5	ND <0.5	ND <0.5	ND <0.5	ND <5.0	---
9/28/1998		19.98	9.01	ND <50	ND <50	---	3.5	2.7	0.98	3.45	ND <5.0	---
12/18/1998		25.61	3.38	ND <50	ND <50	---	ND <0.5	ND <0.5	ND <0.5	ND <0.5	ND <5.0	---
3/5/1999		26.16	2.83	160	ND <50	---	ND <0.5	ND <0.5	ND <0.5	ND <0.5	ND <5.0	Other oxygenates ND Lead scavengers <200
6/3/1999		23.96	5.03	ND <50	ND <50	---	ND <0.5	ND <0.5	ND <0.5	ND <0.5	ND <5.0	---
6/22/1999		23.11	5.88	---	---	---	---	---	---	---	---	---
8/18/1999		20.98	8.01	ND <50	ND <50	---	ND <0.5	ND <0.5	ND <0.5	ND <0.5	ND <3.0	---
12/12/1999		24.38	4.61	ND <50	ND <50	---	ND <0.5	ND <0.5	ND <0.5	ND <0.5	ND <3.0	Other oxygenates ND
2/15/2000		26.28	2.71	ND <50	ND <50	---	ND <0.5	ND <0.5	ND <0.5	ND <0.5	ND <3.0	Other oxygenates ND
5/30/2000		24.37	4.62	ND <50	ND <50	---	ND <0.5	ND <0.5	ND <0.5	ND <0.5	ND <3.0	Other oxygenates ND
8/29/2000		22.25	6.74	ND <50	ND <50	---	ND <0.5	ND <0.5	ND <0.5	ND <0.5	ND <3.0	Other oxygenates ND
8/29/2000		Method Blank		ND <50	ND <50	---	ND <0.5	ND <0.5	ND <0.5	ND <0.5	1.2	TAME =19 Other oxygenates ND
8/29/2000		Field Duplicate		ND <50	ND <50	---	ND <0.5	ND <0.5	ND <0.5	ND <0.5	ND <3.0	Other oxygenates ND
11/8/2000		20.84	8.15	ND <50	ND <50	---	ND <0.5	ND <0.5	ND <0.5	0.61	ND <3.0	Other oxygenates ND
2/7/2001		22.47	6.52	ND <50	ND <50	---	ND <0.5	ND <0.5	ND <0.5	ND <0.5	ND <3.0	Other oxygenates ND
4/24/2001		22.81	6.18	ND <50	ND <50	---	ND <0.5	ND <0.5	ND <0.5	ND <0.5	ND <3.0	Other oxygenates ND
8/8/2001		19.96	9.03	ND <50	ND <50	---	ND <0.5	ND <0.5	ND <0.5	0.61	ND <3.0	TBA =35 Other oxygenates ND
11/13/2001		18.69	10.30	ND <50	ND <50	---	ND <0.5	ND <0.5	ND <0.5	ND<0.50	ND<1.0	Other oxygenates ND
11/20/2001		20.13	8.86	---	---	---	---	---	---	---	---	---
12/13/2001		24.36	4.63	---	---	---	---	---	---	---	---	---
2/5/2002		25.78	3.21	ND <50	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <1.0	Other oxygenates ND
5/7/2002		23.79	5.20	56	ND <50	ND <170	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <1.0	Other oxygenates ND
8/14/2002	31.99	23.45	8.54	ND <50	ND <50	ND <170	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <1.0	Other oxygenates ND
11/12/2002		22.51	9.48	ND <50	ND <50	ND <170	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <1.0	Other oxygenates ND
5/14/2003		27.85	4.14	ND <50	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <1.0	Other oxygenates ND
7/16/03		---	---	---	---	---	---	---	---	---	---	---
8/15/03		23.97	8.02	ND <50	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <1.0	Other oxygenates ND
11/19/03		23.18	8.81	ND <50	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <1.0	Other oxygenates ND
2/9/04		28.54	3.45	ND <50	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <1.0	Other oxygenates ND
3/10/04		---	---	---	---	---	---	---	---	---	---	---
4/14/04		---	---	---	---	---	---	---	---	---	---	---
5/13/04		26.97	5.02	ND <50	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <1.0	Other oxygenates ND
8/26/04		23.38	8.61	ND <50	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <1.0	Other oxygenates ND
10/19/04		---	---	---	---	---	---	---	---	---	---	---
2/16/05		26.48	5.51	---	---	---	---	---	---	---	---	---
MW-4												
6/22/1999	28.21	22.34	5.87	ND <50	85	---	2.0	1.4	ND <0.5	11.1	6,000	---
8/18/1999		20.79	7.42	850	ND <50	---	ND <2.0	ND <2.0	ND <0.5	ND <0.5	8,400	---
12/12/1999		23.60	4.61	200	ND <50	---	ND <0.5	ND <0.5	ND <0.5	0.53	800	TAME = 72 TBA = 82 Other oxygenates ND
2/15/2000		25.77	2.44	65	ND <50	---	0.57	ND <0.5	ND <0.5	ND <0.5	190	TAME =11 Other oxygenates ND
5/30/2000		24.00	4.21	240	ND <50	---	ND <0.5	ND <0.5	ND <0.5	ND <0.5	370	TBA=45 TAME =24 Other oxygenates ND
8/29/2000		20.73	7.48	1,700	130	---	64	53	25	145	470	TAME =49 Other oxygenates ND
11/8/2000		20.31	7.90	1,100	ND <50	---	3.4	5.2	33	65	910	TAME =98 Other oxygenates ND
2/7/2001		22.13	6.08	1,000	110	---	2.3	1.3	13	16.5	740	TBA=240 TAME =61 Other oxygenates ND
4/24/2001		22.52	5.69	140	ND <50	---	ND <0.5	ND <0.5	0.61	4.2	220	TBA=34 TAME =14 Other oxygenates ND
4/24/2001		Field Duplicate		130	---	---	ND <0.5	ND <0.5	0.56	4.0	210	TBA=28 TAME =14 Other oxygenates ND

TABLE 3: GROUNDWATER ELEVATION DATA AND GROUNDWATER ANALYTICAL RESULTS
HPI / Crescent City Shell, PFP; LACO Project No. 5282.01
1006 N. Highway 101, Crescent City, CA; Case No. 1TDN026

WELL/ Sample Date	Groundwater Measurements: Well Head Elevation (feet msl)	Groundwater Elevation (feet msl)	Depth to Water (feet)	Analytical Results: TPHg (µg/l)	TPHd (µg/l)	TPHmo (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethylbenzene (µg/l)	Xylenes (µg/l)	MTBE (µg/l)	Other Analytes (µg/l)
MW-4 Continued												
8/8/2001		20.08	8.13	930	ND <50	---	ND <0.5	ND <0.5	1.6	2.4	1,600	TBA=490 TAME =100 Other oxygenates ND
11/13/2001		18.81	9.40	330	ND <50	---	ND <0.5	ND <0.5	1.6	1.94	420	TAME =26 Other oxygenates ND
11/20/2001		19.84	8.37	---	---	---	---	---	---	---	---	---
12/13/2001		23.83	4.38	---	---	---	---	---	---	---	---	---
2/5/2002		24.53	3.68	ND <0.50	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND< 1.0	Other oxygenates ND
5/7/2002		23.41	4.80	390	ND <50	ND <170	12	ND <0.50	ND <0.50	0.69	540	TBA=97 TAME =42 Other oxygenates ND
8/14/2002	31.21	23.55	7.66	410	ND <50	ND <170	ND <0.50	ND <0.50	ND <0.50	ND <0.50	470	TBA=33 TAME =41 Other oxygenates ND
11/12/2002		21.75	9.46	ND <0.50	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	66	TAME =3.7 Other oxygenates ND
11/26/2002		21.82	9.39	ND <50	ND <50	ND <170	1.3	ND <0.50	ND <0.50	ND <0.50	41	TAME =1.6 Other oxygenates ND
12/10/2002		21.90	9.31	ND <0.50	ND <50	---	0.76	ND <0.50	ND <0.50	ND <0.50	13	Other oxygenates ND
12/23/2002		26.28	4.93	ND <0.50	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	2.2	All oxygenates ND
1/9/03		27.56	3.65	ND <0.50	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND< 1.0	All oxygenates ND
1/30/03		26.01	5.20	ND <0.50	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND< 1.0	All oxygenates ND
3/12/03		26.97	4.24	ND <0.50	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	1.0	All oxygenates ND
4/17/03		---	---	ND <0.50	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	1.7	All oxygenates ND
5/14/03		27.23	3.98	ND <0.50	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	5.0	All oxygenates ND
6/10/03		26.44	4.77	89	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	86	TAME =1.2 Other oxygenates ND
7/16/03		24.91	6.30	ND <0.50	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	4.7	All oxygenates ND
8/15/03		23.71	7.50	ND <0.50	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	11	All oxygenates ND
9/16/03		22.92	8.29	ND <0.50	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	4.1	All oxygenates ND
10/15/03		21.94	9.27	ND <0.50	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND< 1.0	All oxygenates ND
11/19/03		23.08	8.13	ND <0.50	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	12	All oxygenates ND
12/11/03		25.81	5.40	ND <0.50	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND< 1.0	All oxygenates ND
1/14/04		28.18	3.03	ND <0.50	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND< 1.0	All oxygenates ND
2/9/04		28.16	3.05	ND <0.50	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND< 1.0	All oxygenates ND
3/10/04		27.91	3.30	ND <0.50	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	1.7	All oxygenates ND
4/14/04		27.22	3.99	66	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	6.6	All oxygenates ND
5/13/04		26.61	4.60	ND <0.50	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	11	All oxygenates ND
6/24/04		25.23	5.98	ND <0.50	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	7.9	All oxygenates ND
7/27/04		24.30	6.91	ND <0.50	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	4.4	All oxygenates ND
8/26/04		23.69	7.52	ND <0.50	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	8.5	All oxygenates ND
9/21/04		23.17	8.04	ND <0.50	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	7.7	All oxygenates ND
10/19/04		23.12	8.09	ND <0.50	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	13	All oxygenates ND
2/16/05		26.29	4.92	ND <0.50	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	2.4	All oxygenates ND
MW-5												
12/13/2001	28.51	24.04	4.47	1,100	ND <50	---	15	ND <0.5	1.0	0.63	1,200	TAME =110 Other oxygenates ND
2/5/2002		25.43	3.08	330	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	460	TAME =40 Othery oxygenates ND
5/7/2002		23.53	4.98	7,100	120	ND <170	360	7.0	170	12.3	5,600	TBA=280 TAME =620 Other oxygenates ND
8/14/2002	31.50	23.24	8.26	25,000	ND <50	ND <170	200	ND <0.50	150	ND <0.50	12,000	TAME =2,300 Other oxygenates ND
11/12/2002		21.69	9.81	2,400	ND <50	---	0.97	ND <0.50	ND <0.50	ND <0.50	4,700	TAME = 390 TBA = 750 ETBE = 4.7 DIPE = ND<1.0
11/26/2002		22.11	9.39	2,400	ND <50	ND <170	2.3	ND <0.50	ND <0.50	ND <0.50	4,800	TAME = 260 TBA = 610 ETBE = 16 Other oxygenates ND
12/10/2002		21.99	9.51	2,000	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	3,400	TAME = 190 TBA = 760 ETBE = 10 DIPE = ND<1.0
12/23/2002		26.21	5.29	1,100	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	1,600	TAME = 89 TBA = 140 ETBE = 5.6 Other oxygenates ND
1/9/03		27.91	3.59	240	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	280	TAME = 8.2 TBA = 22 ETBE = 1.8 Other oxygenates ND
1/30/03		29.06	2.44	71	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	79	TAME = 3.2
3/12/03		27.91	3.59	ND <50	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <1.0	All oxygenates ND
4/17/03		---	---	ND <50	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <1.0	All oxygenates ND
5/14/03		27.51	3.99	ND <50	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <1.0	All oxygenates ND
6/10/03		26.08	5.42	ND <50	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <1.0	All oxygenates ND
7/16/03		24.34	7.16	ND <50	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <1.0	All oxygenates ND
8/15/03		23.37	8.13	ND <50	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	1.3	All oxygenates ND
9/16/03		22.38	9.12	ND <50	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <1.0	All oxygenates ND
10/15/03		21.79	9.71	ND <50	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <1.0	All oxygenates ND
11/19/03		22.39	9.11	ND <50	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <1.0	All oxygenates ND
12/11/03		25.85	5.65	ND <50	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <1.0	All oxygenates ND
1/14/04		28.45	3.05	ND <50	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <1.0	All oxygenates ND
2/9/04		28.30	3.20	ND <50	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <1.0	All oxygenates ND
3/10/04		28.01	3.49	ND <50	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <1.0	All oxygenates ND
4/14/04		27.03	4.47	ND <50	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <1.0	All oxygenates ND
5/13/04		26.68	4.82	ND <50	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <1.0	All oxygenates ND

TABLE 3: GROUNDWATER ELEVATION DATA AND GROUNDWATER ANALYTICAL RESULTS
HPI / Crescent City Shell, PFP; LACO Project No. 5282.01
1006 N. Highway 101, Crescent City, CA; Case No. 1TDN026

	Groundwater Measurements			Analytical Results								
WELL/ Sample Date	Well Head Elevation (feet msl)	Groundwater Elevation (feet msl)	Depth to Water (feet)	TPHg (µg/l)	TPHd (µg/l)	TPHmo (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethylbenzene (µg/l)	Xylenes (µg/l)	MTBE (µg/l)	Other Analytes (µg/l)
MW-5 Continued												
6/24/04		24.90	6.60	ND <50	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	1.1	All oxygenates ND
7/27/04		23.88	7.62	51	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	26	TAME = 2.9
8/26/04		23.11	8.39	ND <50	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	3.2	All oxygenates ND
9/21/04		22.55	8.95	ND <50	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	1.2	All oxygenates ND
10/19/04		22.55	8.95	ND <50	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <1.0	All oxygenates ND
2/16/05		26.01	5.49	ND <50	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	8.0	All oxygenates ND
MW-6												
11/12/2002	31.72	21.86	9.86	18,000	260	---	160	690	480	3070	3,200	TAME =400 Other oxygenates ND
11/26/2002		22.31	9.41	6,400	400	ND <170	30	97	83	660	1,800	TAME =260 TBA=150 Other oxygenates ND
12/10/2002		22.01	9.71	6,800	ND <50	---	18	37	28.0	650	2,500	TAME =320 TBA=420 Other oxygenates ND
12/23/2002		23.31	8.41	2,300	84	---	2.7	5.5	2.9	121	580	TAME =82 TBA=78 Other oxygenates ND
1/9/03		22.76	8.96	2,900	190	---	1.6	3.9	1.4	81	790	TAME =97 TBA=470 Other oxygenates ND
1/30/03		22.45	9.27	1,900	81	---	1.5	3.4	3.4	77	1,000	TAME =130 TBA=290 Other oxygenates ND
3/12/03		22.00	9.72	270	ND <50	---	ND <0.5	ND <0.5	ND <0.5	7.7	84	TAME =11 TBA=47 Other oxygenates ND
4/17/03		22.73	8.99	510	58	---	ND<0.50	1.5	2.2	36	ND<10	All oxygenates ND
5/14/03		27.41	4.31	510	ND<50	---	ND<0.50	1.4	ND<5.0	15.5	ND<5.0	All oxygenates ND
6/10/03		26.16	5.56	1,100	98	---	0.58	3.2	ND<5.0	25	ND<5.0	All oxygenates ND
7/16/03		24.75	6.97	430	ND<50	---	ND<0.50	1.1	ND<5.0	17.2	5.2	All oxygenates ND
8/15/03		23.80	7.92	280	ND<50	---	ND<0.50	0.78	ND<5.0	12	4.5	All oxygenates ND
9/16/03		22.79	8.93	150	ND<50	---	ND<0.50	ND<5.0	ND<5.0	2.5	4.1	All oxygenates ND
10/15/03		22.69	9.03	370	ND<50	---	ND<0.50	0.57	ND<5.0	3.2	ND<10	All oxygenates ND
11/19/03		22.71	9.01	150	ND<50	---	ND<0.50	ND<5.0	ND<5.0	1.4	ND<10	All oxygenates ND
12/11/03		25.01	6.71	470	ND<50	---	ND<0.50	0.78	0.52	8.7	ND<5.0	All oxygenates ND
1/14/04		28.10	3.62	650	ND<50	---	ND<0.50	ND<0.50	0.52	8.0	ND<3.0	All oxygenates ND
2/9/04		27.86	3.86	560	53	---	ND<0.50	ND<0.50	ND<0.50	5.4	ND<8.0	Tame=1.0 Other oxygenates ND
3/10/04		27.70	4.02	ND<50	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	All oxygenates ND
4/14/04		26.32	5.40	240	ND<50	---	ND<0.50	ND<0.50	ND<0.50	1.9	ND<1.0	All oxygenates ND
5/13/04		26.31	5.41	370	ND<50	---	ND<0.50	ND<0.50	ND<0.50	1.4	ND<1.0	All oxygenates ND
6/24/04		25.61	6.11	83	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	1.1	All oxygenates ND
7/27/04		23.17	8.55	130	ND<50	---	ND<0.50	ND<0.50	ND<0.50	1.51	ND<1.0	All oxygenates ND
8/26/04		21.70	10.02	ND<50	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	All oxygenates ND
9/21/04		22.47	9.25	ND<50	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	All oxygenates ND
10/19/04		22.47	9.25	ND<50	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	4.6	All oxygenates ND
2/16/05		25.66	6.06	260	ND<50	---	ND<0.50	ND<0.50	ND<0.50	0.54	ND<1.0	All oxygenates ND
MW-7												
11/12/2002	31.86	20.90	10.96	5,600	160	---	83	ND <0.5	14	129.9	5,700	TAME =450 TBA=1,600 Other oxygenates ND
11/26/2002		22.40	9.46	1,900	ND <50	ND <170	0.90	ND <0.5	0.91	3.05	3,000	TAME =220 TBA=380 ETBE=6.2 Other oxygenates ND
12/10/2002		21.86	10.00	1,600	ND <50	---	28	ND <0.5	7.0	ND <0.5	3,700	TAME =180 TBA=360 ETBE=5.6 Other oxygenates ND
12/23/2002		21.74	10.12	2,900	ND <50	---	0.58	ND <0.5	0.87	0.57	6,000	TAME =350 TBA=750 ETBE=6.1 Other oxygenates ND
1/9/03		21.51	10.35	3,200	ND <50	---	ND <0.5	ND <0.5	ND <0.5	ND <0.5	6,700	TAME =330 TBA=1,000 ETBE=6.7 Other oxygenates ND
1/30/03		21.78	10.08	3,000	ND <50	---	ND <0.25	ND <0.25	ND <0.25	ND <0.25	5,400	TAME =270 TBA=2,000 ETBE=6.7 TBF=2.9 Other oxygenates ND
3/12/03		21.84	10.02	1,000	ND <50	---	ND <0.25	ND <0.25	ND <0.25	ND <0.25	2,000	TAME =97 TBA=31 ETBE=2.7 Other oxygenates ND
4/17/03		27.67	4.19	590	ND<50	---	2.1	ND<0.50	ND<0.50	3.1	860	TAME =47 ETBE=2.0 Other oxygenates ND
5/14/03		27.65	4.21	450	ND<50	---	1.4	ND<0.50	0.53	0.82	1,500	TAME =79 ETBE=2.6 Other oxygenates ND
6/10/03		26.66	5.20	200	ND<50	---	0.54	ND<0.50	0.53	ND<0.50	190	TAME = 11 Other oxygenates ND
7/16/03		24.86	7.00	87	ND<50	---	1.6	ND<0.50	ND<0.50	ND<0.50	97	TAME = 4.6 Other oxygenates ND
8/15/03		23.98	7.88	130	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	170	TAME = 10 Other oxygenates ND
9/16/03		23.13	8.73	140	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	89	TAME = 4.7 Other oxygenates ND
10/15/03		22.47	9.39	230	ND<50	---	2.2	ND<0.50	0.5	ND<0.50	170	TAME = 13 Other oxygenates ND
11/19/03		22.11	9.75	61	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	28	TAME = 1.7 Other oxygenates ND

TABLE 3: GROUNDWATER ELEVATION DATA AND GROUNDWATER ANALYTICAL RESULTS
HPI / Crescent City Shell, PFP; LACO Project No. 5282.01
1006 N. Highway 101, Crescent City, CA; Case No. 1TDN026

WELL/ Sample Date	Groundwater Measurements: Well Head Elevation (feet msl)	Groundwater Elevation (feet msl)	Depth to Water (feet)	Analytical Results: TPHg (µg/l)	TPHd (µg/l)	TPHmo (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethylbenzene (µg/l)	Xylenes (µg/l)	MTBE (µg/l)	Other Analytes (µg/l)
MW-7 Continued												
12/11/03		25.81	6.05	ND<50	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	42	TAME = 2.9 Other oxygenates ND
1/14/04		28.61	3.25	52	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	62	TAME = 4.3 Other oxygenates ND
2/9/04		28.45	3.41	81	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	51	TAME = 3.5 Other oxygenates ND
3/10/04		28.08	3.78	ND<50	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	46	TAME = 2.4 Other oxygenates ND
4/14/04		27.25	4.61	55	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	35	TAME = 2.7 Other oxygenates ND
5/13/04		26.96	4.90	88	ND<50	---	1.4	ND<0.50	ND<0.50	ND<0.50	95	TAME = 6.7 Other oxygenates ND
6/24/04		25.29	6.57	180	ND<50	---	0.63	ND<0.50	ND<0.50	ND<0.50	190	TAME = 18 Other oxygenates ND
7/27/04		24.28	7.58	120	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	140	TAME = 11 Other oxygenates ND
8/26/04		23.49	8.37	170	ND<50	---	0.70	ND<0.50	ND<0.50	ND<0.50	170	TAME = 13 Other oxygenates ND
9/21/04		22.91	8.95	270	ND<50	---	0.54	ND<0.50	ND<0.50	ND<0.50	280	TAME = 38 Other oxygenates ND
10/19/04		22.78	9.08	65	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	90	TAME = 7.0 Other oxygenates ND
2/16/05		26.11	5.75	250	ND<50	---	1.6	ND<0.50	ND<0.50	ND<0.50	240	TAME = 38 TBA = 210 Other oxygenates ND
MW-8												
11/12/2002	31.52	20.21	11.31	2,100	ND <50	---	ND <0.5	ND <0.5	ND <0.5	ND <0.5	4,300	TAME =310 TBA=1,200 ETBE=14 Other oxygenates ND
11/26/2002		19.62	11.90	830	ND <50	ND <170	4.2	ND <0.5	0.92	ND <0.5	1,200	TAME =73 TBA=710 ETBE=6.0 Other oxygenates ND
12/10/2002		17.87	13.65	---	---	---	---	---	---	---	---	---
12/23/2002		22.37	9.15	280	ND <50	---	ND <0.5	ND <0.5	ND <0.5	ND <0.5	1,300	TAME =14 ETBE=3.9 Other oxygenates ND
1/9/03		26.15	5.37	120	ND <50	---	ND <0.5	ND <0.5	ND <0.5	ND <0.5	170	TAME =8.5 TBA=56 ETBE=1.7 Other oxygenates ND
1/30/03		27.73	3.79	140	ND <50	---	ND <0.5	ND <0.5	ND <0.5	ND <0.5	190	TAME =5.0 TBA=57 ETBE=2.3 Other oxygenates ND
3/12/03		24.09	7.43	ND <50	ND <50	---	ND <0.5	ND <0.5	ND <0.5	ND <0.5	4.8	All other oxygenates ND
4/17/03		27.50	4.02	75	ND<50		ND<0.50	ND<0.50	0.99	1.7	3.6	All other oxygenates ND
5/14/03		26.75	4.77	56	ND<50		ND<0.50	ND<0.50	ND<0.50	ND<0.50	3.8	All other oxygenates ND
6/18/03		26.32	5.20	330	59		ND<0.50	ND<0.50	ND<0.50	9	1.0	All other oxygenates ND
7/16/03		23.75	7.77	ND <50	ND <50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	All other oxygenates ND
8/15/03		22.47	9.05	ND <50	ND <50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	All other oxygenates ND
9/16/03		21.81	9.71	ND <50	ND <50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	1.7	All other oxygenates ND
10/15/03		20.86	10.66	ND <50	ND <50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	1.5	All other oxygenates ND
11/19/03		22.85	8.67	96	ND <50	---	ND<0.50	ND<0.50	ND<0.50	0.51	ND<1.0	All other oxygenates ND
12/11/03		25.50	6.02	ND <50	ND <50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	9.3	All other oxygenates ND
1/14/04		27.34	4.18	ND <50	ND <50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	49	All other oxygenates ND
2/9/04		27.56	3.96	ND <50	ND <50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	3.7	All other oxygenates ND
3/10/04		27.10	4.42	ND <50	ND <50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	All other oxygenates ND
4/14/04		27.23	4.29	210	ND <50	---	ND<0.50	ND<0.50	0.66	4.5	ND<1.0	All other oxygenates ND
5/13/04		26.49	5.03	ND <50	ND <50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	All other oxygenates ND
6/24/04		25.88	5.64	ND <50	ND <50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	All other oxygenates ND
7/27/04		23.90	7.62	62	ND <50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	3.7	All other oxygenates ND
8/26/04		23.24	8.28	ND <50	ND <50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	3.2	All other oxygenates ND
9/21/04		22.64	8.88	ND <50	ND <50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	1.3	All other oxygenates ND
10/19/04		22.65	8.87	ND <50	ND <50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	1.6	All other oxygenates ND
2/16/05		25.91	5.61	ND <50	ND <50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	1.8	All other oxygenates ND
PZ-1												
11/20/2001	29.76	20.12	9.64	ND <50	ND <50	---	ND <0.5	ND <0.5	ND <0.5	ND <0.5	ND <1.0	TAME ND<20 Other oxygenates ND
12/13/2001		24.75	5.01	---	---	---	---	---	---	---	---	---
2/5/2002		26.43	3.33	---	---	---	---	---	---	---	---	---
5/7/2002		24.51	5.25	---	---	---	---	---	---	---	---	---
8/14/2002		20.96	8.80	ND <50	---	---	ND <0.5	ND <0.5	ND <0.5	ND <0.5	ND <1.0	Other oxygenates ND
11/12/2002		19.53	10.23	---	---	---	---	---	---	---	---	---
5/14/2003		25.06	4.70	---	---	---	---	---	---	---	---	---
7/16/03		22.74	7.02	---	---	---	---	---	---	---	---	---
8/15/03		21.57	8.19	---	---	---	---	---	---	---	---	---
11/19/03		20.53	9.23	---	---	---	---	---	---	---	---	---
2/9/04		26.69	3.07	---	---	---	---	---	---	---	---	---
3/10/04		---	---	---	---	---	---	---	---	---	---	---
4/14/04		---	---	---	---	---	---	---	---	---	---	---
5/13/04		24.73	5.03	---	---	---	---	---	---	---	---	---
6/24/04		22.82	6.94	---	---	---	---	---	---	---	---	---
8/26/04		20.86	8.90	---	---	---	---	---	---	---	---	---
10/19/04		---	---	---	---	---	---	---	---	---	---	---
2/16/05		23.91	5.85	---	---	---	---	---	---	---	---	---
OW-1												
11/20/2001	29.64	---	---	---	---	---	---	---	---	---	---	---
2/5/2002		24.09	5.55	ND <50	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <1.0	Other oxygenates ND
5/7/2002		25.53	4.11	ND <50	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <1.0	Other oxygenates ND
8/14/2002	32.63	24.48	8.15	ND <50	---	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <1.0	Other oxygenates ND
11/12/2002		22.98	9.65	---	---	---	---	---	---	---	---	---
5/14/2003		28.93	3.70	83	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <1.0	Other oxygenates ND

TABLE 3: GROUNDWATER ELEVATION DATA AND GROUNDWATER ANALYTICAL RESULTS
HPI / Crescent City Shell, PFP; LACO Project No. 5282.01
1006 N. Highway 101, Crescent City, CA; Case No. 1TDN026

	Groundwater Measurements			Analytical Results								
WELL/ Sample Date	Well Head Elevation (feet msl)	Groundwater Elevation (feet msl)	Depth to Water (feet)	TPHg (µg/l)	TPHd (µg/l)	TPHmo (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethylbenzene (µg/l)	Xylenes (µg/l)	MTBE (µg/l)	Other Analytes (µg/l)
7/16/03		---	---	---	---	---	---	---	---	---	---	---
8/15/03		24.40	8.23	ND <50	---	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <1.0	Other oxygenates ND
11/9/03		23.43	9.20	ND <50	---	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <1.0	Other oxygenates ND
2/9/04		29.21	3.42	ND <50	ND <50	ND <170	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <1.0	Other oxygenates ND
3/10/04		---	---	---	---	---	---	---	---	---	---	---
4/14/04		---	---	---	---	---	---	---	---	---	---	---
5/13/04		27.45	5.18	ND <50	ND <50	ND <170	ND <0.50	ND <0.50	ND <0.50	ND <0.50	33	Other oxygenates ND
8/26/04		23.72	8.91	50	ND <50	ND <170	ND <0.50	ND <0.50	ND <0.50	ND <0.50	43	Other oxygenates ND
10/19/04		---	---	---	---	---	---	---	---	---	---	---
2/16/05		26.98	5.65	---	---	---	---	---	---	---	---	---
OW-2												
11/20/2001	29.95	---	---	---	---	---	---	---	---	---	---	---
2/5/2002		24.97	4.98	ND <50	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	35	TAME=3.2 Other oxygenates ND
5/7/2002		25.03	4.92	55	ND <50	190	ND <0.50	ND <0.50	ND <0.50	ND <0.50	25	TAME=2.5 Other oxygenates ND
8/14/2002	32.43	23.67	8.76	---	---	---	---	---	---	---	---	---
11/12/2002		22.80	9.63	---	---	---	---	---	---	---	---	---
5/14/2003		28.41	4.02	120	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	1.2	Other oxygenates ND
7/16/03		---	---	---	---	---	---	---	---	---	---	---
8/15/03		24.28	8.15	ND <50	ND <50	ND <170	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <1.0	Other oxygenates ND
11/19/03		23.34	9.09	ND <50	ND <50	ND <170	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <1.0	Other oxygenates ND
2/9/04		29.00	3.43	ND <50	ND <50	ND <170	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <1.0	Other oxygenates ND
3/10/04		---	---	---	---	---	---	---	---	---	---	---
4/14/04		---	---	---	---	---	---	---	---	---	---	---
5/13/04		27.29	5.14	58	ND <50	ND <170	ND <0.50	ND <0.50	ND <0.50	ND <0.50	66	Other oxygenates ND
8/26/04		23.54	8.89	93	ND <50	ND <170	ND <0.50	ND <0.50	ND <0.50	ND <0.50	76	Other oxygenates ND
10/19/04		---	---	---	---	---	---	---	---	---	---	---
2/16/05		26.61	5.82	---	---	---	---	---	---	---	---	---
OW-3												
11/20/2001	28.92	19.94	8.98	---	---	---	---	---	---	---	---	---
2/5/2002		24.53	4.39	16,000	410	---	770	830	270	890	5,800	TAME=560 Other oxygenates ND
5/7/2002		24.24	4.68	42,000	440	ND <170	1,100	3,200	1,000	4,300	17,000	TBA=1,800 TAME =3,100 Other oxygenates ND
8/14/2002	31.91	23.09	8.82	---	---	---	---	---	---	---	---	---
11/12/2002		21.96	9.95	---	---	---	---	---	---	---	---	---
11/26/2002		---	---	---	---	---	---	---	---	---	---	---
12/10/2002		---	---	---	---	---	---	---	---	---	---	---
12/23/2002		26.71	5.20	4,700	51	---	76	96	31	420	2,600	TAME=240 Other oxygenates ND
1/9/03		28.34	3.57	2,600	120	---	9.9	17	9.8	150	890	TBA=1,500 TAME =94 Other oxygenates ND
1/30/03		29.21	2.70	4,800	460	---	19	28	41	281	470	TBA=730 TAME =52 Other oxygenates ND
3/12/03		28.73	3.18	5,900	710	---	21	42	56	530	210	TBA=480 TAME =28 Other oxygenates ND
4/17/03		29.30	2.61	4,200	250	---	15	30	53	500	110	TBA=340 TAME =18 Other oxygenates ND
5/14/03		27.90	4.01	1,300	110	---	3.1	2.1	12	57	52	TBA=140 TAME =6.8 Other oxygenates ND
6/10/03		26.74	5.17	2,600	150	---	14	2.5	23	92	150	TBA = 1,900 TAME = 110 Other oxygenates ND
7/16/03		25.18	6.73	1,900	180	---	8.1	3.2	27	106	490	TBA = 620 TAME = 43 Other oxygenates ND
8/15/03		24.13	7.78	3,300	---	---	62	51	42	164	1,900	TBA = 1,200 TAME = 220 Other oxygenates ND
9/16/03		23.28	8.63	4,600	---	---	130	140	50	233	1,200	TBA = 440 TAME =190 Other oxygenates ND
10/15/03		22.63	9.28	3,600	---	---	69	85	17	158	720	TBA = 260 TAME =230 Other oxygenates ND
11/19/03		23.19	8.72	2,700	---	---	27	39	10	90	530	TBA = 170 TAME =75 Other oxygenates ND
12/11/03		26.14	5.77	3,600	180	---	49	160	39	272	ND<130	TBA = 57 TAME =30 Other oxygenates ND
1/14/04		28.82	3.09	4,300	160	---	35	160	66	540	48	TAME =18 Other oxygenates ND
2/9/04		28.55	3.36	3,700	160	---	6.6	25	18	200	61	TAME =14 Other oxygenates ND
3/10/04		28.21	3.70	2,100	93	---	3.7	18	12	127	28	TBA = 50 TAME = 6.7 Other oxygenates ND
4/14/04		27.50	4.41	4,300	150	---	18	52	45	300	96	TBA = 120 TAME = 29 Other oxygenates ND
5/13/04		27.07	4.84	3,200	190	---	11	39	36	269	62	TBA = 67 TAME = 17 Other oxygenates ND
6/24/04		25.37	6.54	2,300	280	---	27	45	30	262	440	TBA = 1,200 TAME = 100 Other oxygenates ND
7/27/04		24.27	7.64	3,400	220	---	53	39	30	203	720	TBA = 1,400 TAME = 140 Other oxygenates ND

TABLE 3: GROUNDWATER ELEVATION DATA AND GROUNDWATER ANALYTICAL RESULTS
HPI / Crescent City Shell, PFP; LACO Project No. 5282.01
1006 N. Highway 101, Crescent City, CA; Case No. 1TDN026

	Groundwater Measurements			Analytical Results								
WELL/ Sample Date	Well Head Elevation (feet msl)	Groundwater Elevation (feet msl)	Depth to Water (feet)	TPHg (µg/l)	TPHd (µg/l)	TPHmo (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethylbenzene (µg/l)	Xylenes (µg/l)	MTBE (µg/l)	Other Analytes (µg/l)
8/26/04		23.51	8.40	1,500		---	26	23	17	187	68	TBA = 41 TAME = 23 Other oxygenates ND
9/21/04		22.95	8.96	2,700	---	---	70	73	43	277	180	TAME = 58 Other oxygenates ND
10/19/04		22.88	9.03	3,600	1,200	---	74	59	43	620	71	TAME = 35 Other oxygenates ND
2/16/05		26.56	5.35	4,100	410	---	24	18	52	440	200	TAME = 77 TBA = 1,300 Other oxygenates ND

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HPI / Crescent City Shell, PFP; LACO Project No. 5282.01
1006 N. Highway 101, Crescent City, CA; Case No. 1TDN026

	Groundwater Measurements			Analytical Results								
WELL/ Sample Date	Well Head Elevation (feet msl)	Groundwater Elevation (feet msl)	Depth to Water (feet)	TPHg (µg/l)	TPHd (µg/l)	TPHmo (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethylbenzene (µg/l)	Xylenes (µg/l)	MTBE (µg/l)	Other Analytes (µg/l)
OW-4												
11/20/2001	28.82	19.70	9.12	---	---	---	---	---	---	---	---	---
2/5/2002		25.21	3.61	23,000	1,200	---	480	890	1,500	2,360	820	TAME=110 Other oxygenates ND
5/7/2002		24.47	4.35	30,000	1,200	ND <170	480	520	1,800	3,200	570	TAME=170 Other oxygenates ND
8/14/2002	31.79	23.73	8.06	24,000	ND <62	ND <210	240	140	3,100	1,382	120	TAME=24 Other oxygenates ND
11/12/2002		22.26	9.53	---	---	---	---	---	---	---	---	---
11/26/2002		---	---	---	---	---	---	---	---	---	---	---
12/10/2002		---	---	---	---	---	---	---	---	---	---	---
12/23/2002		25.95	5.84	560	ND <50	---	ND <0.5	ND <0.5	29	22.1	260	TAME=11 ETBE=2.8 Other oxygenates ND
1/9/03		27.43	4.36	2,800	590	---	7.6	4	83	86	150	TAME=19 TBA=310 ETBE=1.4 Other oxygenates ND
1/30/03		28.77	3.02	190	ND<50	---	ND <0.5	ND <0.5	ND <0.5	ND <0.5	130	TAME=3.9 TBA=1,100 ETBE=1.5 Other oxygenates ND
3/12/03		28.42	3.37	1,800	300	---	ND <0.5	ND <0.5	30	27	7.9	TBA=72 Other oxygenates ND
4/17/03		29.25	2.54	2,200	390	---	ND<0.50	0.60	91	90	ND<1.0	Other oxygenates ND
5/14/03		28.50	3.29	290	ND<50	---	ND<0.50	ND <0.50	3.5	3.7	4.0	Other oxygenates ND
6/10/03		27.04	4.75	6,400	1,600	---	0.88	2.8	160	182	ND<5.0	Other oxygenates ND
7/16/03		25.43	6.36	1,900	170	---	ND<0.50	1.3	110	97	ND<1.0	Other oxygenates ND
8/15/03		24.41	7.38	560	—	---	ND<0.50	ND<0.50	47	17	ND<1.0	Other oxygenates ND
9/16/03		---	dry	—	—	—	---	---	---	---	---	---
10/15/03		---	dry	—	—	—	---	---	---	---	---	---
11/19/03		---	dry	—	—	—	---	---	---	---	---	---
12/11/03		25.72	6.07	1,600	270	---	6.2	0.99	51	38	ND<50	Other oxygenates ND
1/14/04		29.14	2.65	2,000	110	---	ND<0.50	0.52	100	54	35	Other oxygenates ND
2/9/04		29.03	2.76	2,500	190	---	ND<0.50	ND<0.50	83	61	ND<4.0	Other oxygenates ND
3/10/04		28.71	3.08	790	80	---	ND<0.50	ND<0.50	43	20	ND<1.0	Other oxygenates ND
4/14/04		27.69	4.10	4,700	370	---	ND<0.50	ND<0.50	160	124	ND<1.0	Other oxygenates ND
5/13/04		27.21	4.58	1,500	ND<50	---	ND<0.50	ND<0.50	81	36	ND<1.0	Other oxygenates ND
6/24/04		24.97	6.82	2,100	160	---	ND<0.50	1.2	94	47	ND<1.0	Other oxygenates ND
7/27/04		24.34	7.45	2,100	150	---	ND<0.50	ND<0.50	100	47	2.3	Other oxygenates ND
8/26/04		23.61	8.18	4,000	54	---	ND<0.50	ND<0.50	57	53	ND<1.0	Other oxygenates ND
9/21/04		---	dry	—	—	—	—	—	—	—	—	—
10/19/04		22.98	8.81	500	180	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	Other oxygenates ND
2/16/05		26.62	5.17	4,100	580	---	3.5	ND<0.50	170	77	ND<1.0	Other oxygenates ND
OW-5												
11/20/2001	28.76	19.63	9.13	---	---	---	---	---	---	---	---	---
2/5/2002		25.54	3.22	1,600	110	---	21	0.7	41	4.8	210	TAME=21 TBA=24 Other oxygenates
5/7/2002		23.70	5.06	6,800	450	ND <170	280	ND <25	480	56	640	TAME=100 Other oxygenates ND
8/14/2002	31.75	23.52	8.23	Unable to sample due to presence of free product (0.8 feet thick)						---	---	---
11/12/2002		22.26	9.49	---	---	---	---	---	---	---	---	---
1/9/2003		27.78	3.97	390	77	---	3.5	0.95	1.7	3.5	150	TBA=82 TAME=20 Other oxygenates ND
1/30/2003		29.22	2.53	3,000	230	---	4.7	ND<0.50	0.56	0.63	4,400	TBA=730 TAME=210 ETBE=1.4 Other oxygenates ND
3/12/2003		28.49	3.26	1,000	120	---	ND <0.5	ND<0.50	0.94	ND <0.5	1,900	TBA=22 TAME=99 Other oxygenates ND
4/17/2003		27.49	4.26	800	91	---	8.6	ND <0.50	15	2.0	1,100	TBA=35 TAME=98 Other oxygenates ND
5/14/2003		26.49	5.26	210	56	---	2.5	ND <0.50	1.7	1.3	440	TAME=27 Other oxygenates ND
6/10/2003		26.70	5.05	450	ND <50	---	11	ND <0.50	1.5	ND <0.5	330	TAME = 25 TBA = 39 Other oxygenates ND
7/16/03		24.89	6.86	170	ND <50	---	2.7	ND <0.50	2.4	ND <0.5	95	TAME = 7.4 TBA = 36 Other oxygenates ND
8/15/03		24.05	7.70	210	---	---	ND <0.50	ND <0.50	ND <0.50	0.51	210	TAME = 14 TBA = 140 Other oxygenates ND
9/16/03		---	dry	---	---	---	---	---	---	---	---	---
10/15/03		---	dry	---	---	---	---	---	---	---	---	---
11/19/03		---	dry	---	---	---	---	---	---	---	---	---
12/11/03		25.85	5.90	ND <50	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.5	6.7	Other oxygenates ND
1/14/04		28.87	2.88	52	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.5	64	TAME=1.5 Other oxygenates ND
2/9/04		28.57	3.18	ND <50	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	1.4	Other oxygenates ND
3/10/04		28.34	3.41	ND <50	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <1.0	Other oxygenates ND
4/14/04		27.54	4.21	ND <50	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	1.4	Other oxygenates ND
5/13/04		26.90	4.85	ND <50	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <1.0	Other oxygenates ND
6/24/04		25.22	6.53	ND <50	ND <50	---	0.60	ND <0.50	ND <0.50	ND <0.50	5.5	Other oxygenates ND
7/27/04		24.13	7.62	ND <50	ND <50	---	0.65	ND <0.50	ND <0.50	ND <0.50	18	TAME = 2.2 TBA = 68 Other oxygenates ND
8/26/04		23.53	8.22	57	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	45	TAME = 3.9 Other oxygenates ND
9/21/04		---	dry	—	—	—	—	—	—	—	—	—
10/19/04		23.00	8.75	62	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	4.3	Other oxygenates ND
2/16/05		26.34	5.41	ND <50	ND <50	---	0.51	ND <0.50	ND <0.50	ND <0.50	4.7	Other oxygenates ND

TABLE 3: GROUNDWATER ELEVATION DATA AND GROUNDWATER ANALYTICAL RESULTS
HPI / Crescent City Shell, PFP; LACO Project No. 5282.01
1006 N. Highway 101, Crescent City, CA; Case No. 1TDN026

	Groundwater Measurements			Analytical Results								
WELL/ Sample Date	Well Head Elevation (feet msl)	Groundwater Elevation (feet msl)	Depth to Water (feet)	TPHg (µg/l)	TPHd (µg/l)	TPHmo (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethylbenzene (µg/l)	Xylenes (µg/l)	MTBE (µg/l)	Other Analytes (µg/l)
Domestic Well, Totem Motel												
3/20/1995	26.27	---	---	ND <50	ND <50	---	ND <0.5	ND <0.5	ND <0.5	ND <0.5	---	---
6/11/1999		---	---	ND <50	ND <50	---	ND <0.5	ND <0.5	ND <0.5	ND <0.5	ND <3.0	---
8/18/1999		---	---	ND <50	ND <50	---	ND <0.5	ND <0.5	ND <0.5	ND <0.5	ND <3.0	---
12/12/1999		23.37	2.90	ND <50	ND <67	---	ND <0.5	ND <0.5	ND <0.5	ND <0.5	ND <0.5	Other oxygenates ND
2/15/2000		---	--	ND <50	--	---	ND <0.5	ND <0.5	ND <0.5	ND <0.5	ND <0.5	Other oxygenates ND
5/30/2000		---	--	ND <50	--	---	ND <0.5	ND <0.5	ND <0.5	ND <0.5	ND <0.5	Other oxygenates ND
8/29/2000		19.07	7.20	ND <50	--	---	ND <0.5	ND <0.5	ND <0.5	ND <0.5	ND <0.5	Other oxygenates ND
11/8/2000		19.27	7.00	ND <50	ND <50	---	ND <0.5	ND <0.5	ND <0.5	ND <0.5	ND <0.5	Other oxygenates ND
2/7/2001		20.96	5.31	ND <50	ND <50	---	ND <0.5	ND <0.5	ND <0.5	ND <0.5	ND <0.5	Other oxygenates ND
4/24/2001		21.26	5.01	ND <50	ND <50	---	ND <0.5	ND <0.5	ND <0.5	ND <0.5	ND <0.5	Other oxygenates ND
8/8/2001		---	---	ND <50	ND <50	---	ND <0.5	ND <0.5	ND <0.5	ND <0.5	ND <0.5	TBA =60 Other oxygenates ND
11/13/2001		---	---	ND <50	57	---	ND <0.5	ND <0.5	ND <0.5	ND <0.5	ND <0.5	All oxygenates ND
11/20/2001		19.02	7.25	---	—	---	---	---	---	---	---	---
2/5/2002		24.76	1.51	ND <50	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	All oxygenates ND
5/7/2002		21.67	4.60	ND <50	ND <50	ND <170	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	All oxygenates ND
8/14/2002		---	---	---	---	---	---	---	---	---	---	---
11/12/2002		18.03	8.24	ND <50	ND <50	ND <170	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	All oxygenates ND
5/14/2003		23.64	2.63	ND <50	ND <50	ND <170	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	All oxygenates ND
11/19/2003		18.68	7.59	ND <50	ND <50	ND <170	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	All oxygenates ND
2/9/2004		25.04	1.23	ND <50	ND <50	ND <170	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <1.0	All oxygenates ND
3/10/04		---	---	—	—	---	—	—	—	—	---	---
4/14/04		---	---	---	---	---	---	---	—	—	—	—
5/13/2004		21.93	4.34	ND <50	ND <50	ND <170	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <1.0	All oxygenates ND
8/26/2004		18.77	7.50	ND <50	ND <50	ND <170	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <1.0	All oxygenates ND
Trailer Park Domestic Well												
5/7/2002		---	---	ND <50	ND <50	ND <170	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	All oxygenates ND
8/15/2003		---	6.98	ND <50	ND <50	ND <170	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	All oxygenates ND

Reference B.M. - Manhole cover at Harding & Douglas Streets; established by tie to County BM "E-6" (elev. 33.57 ft msl) Elevations set 5/30/95 by Michael Young & Associates, Crescent

TABLE 4: CHROMIUM ANALYSES RESULTS
HPI / Crescent City Shell, PFP; LACO Project No. 5282.01
1006 N. Highway 101, Crescent City, CA; Case No. 1TDN026

WELL/ Sample Date	Total Chromium µg/L	Dissolved Chromium µg/L	Hexavalent Chromium µg/L
MW1			
9/16/2003	---	3.9	---
10/15/2003	---	ND<10	---
11/19/2003	---	ND<10	---
12/11/2003	---	ND<10	---
1/14/2004	---	ND<10	---
2/9/2004	---	4.9	---
3/10/2004	---	ND<10	---
4/14/2004	---	ND<10	---
5/13/2004	---	ND<10	---
8/26/2004	---	ND<10	---
9/21/2004	---	ND<10	---
10/19/2004	---	ND<10	---
2/16/2005	130	ND<10	---
MW2			
8/15/2003	12	ND<10	ND<10
9/16/2003	---	35	---
10/15/2003	---	26	---
11/19/2003	---	57	---
12/11/2003	---	22	---
1/14/2004	---	23	---
2/9/2004	---	18	---
3/10/2004	---	25	---
4/14/2004	---	29	---
5/13/2004	---	31	---
8/26/2004	---	40	---
9/21/2004	---	56	---
10/19/2004	---	48	---
2/16/2005	33	25	---
MW4			
8/15/2003	190	ND<10	ND<10
9/16/2003	---	1.0	---
10/15/2003	---	ND<10	---
11/19/2003	---	ND<10	---
12/11/2003	---	ND<10	---
1/14/2004	---	ND<10	---
2/9/2004	---	7.7	---
3/10/2004	---	ND<10	---
4/14/2004	---	ND<10	---
5/13/2004	---	ND<10	---
8/26/2004	---	ND<10	---
9/21/2004	---	ND<10	---
10/19/2004	---	ND<10	---
2/16/2005	74	ND<10	---

TABLE 4: CHROMIUM ANALYSES RESULTS
HPI / Crescent City Shell, PFP; LACO Project No. 5282.01
1006 N. Highway 101, Crescent City, CA; Case No. 1TDN026

WELL/ Sample Date	Total Chromium µg/L	Dissolved Chromium µg/L	Hexavalent Chromium µg/L
MW5			
8/8/2003	---	---	32
8/15/2003	67	57	64
9/16/2003	---	43	---
10/15/2003	---	61	---
11/19/2003	---	72	---
12/11/2003	---	55	---
1/14/2004	---	26	---
2/9/2004	---	44	---
3/10/2004	---	81	---
4/14/2004	---	39	---
5/13/2004	---	18	---
8/26/2004	---	ND<10	---
9/21/2004	---	ND<10	---
10/19/2004	---	ND<10	---
2/16/2005	ND<10	ND<10	---
MW6			
9/16/2003	---	---	ND<1.0
10/15/2003	---	ND<10	---
11/19/2003	---	ND<10	---
12/11/2003	---	ND<10	---
1/14/2004	---	ND<10	---
2/9/2004	---	1.7	---
3/10/2004	---	ND<10	---
4/14/2004	---	ND<10	---
5/13/2004	---	ND<10	---
8/26/2004	---	ND<10	---
9/21/2004	---	ND<10	---
10/19/2004	---	ND<10	---
2/16/2005	ND<10	ND<10	---
MW7			
9/16/2003	---	---	ND<1.0
10/15/2003	---	ND<10	---
11/19/2003	---	ND<10	---
12/11/2003	---	ND<10	---
1/14/2004	---	ND<10	---
2/9/2004	---	1.3	---
3/10/2004	---	ND<10	---
4/14/2004	---	ND<10	---
5/13/2004	---	ND<10	---
8/26/2004	---	ND<10	---
9/21/2004	---	ND<10	---
10/19/2004	---	ND<10	---
2/16/2005	ND<10	ND<10	---

TABLE 4: CHROMIUM ANALYSES RESULTS
HPI / Crescent City Shell, PFP; LACO Project No. 5282.01
1006 N. Highway 101, Crescent City, CA; Case No. 1TDN026

WELL/ Sample Date	Total Chromium µg/L	Dissolved Chromium µg/L	Hexavalent Chromium µg/L
MW8			
8/15/2003	65	59	62
9/16/2003	---	50	---
10/15/2003	---	98	---
11/19/2003	---	ND<10	---
12/11/2003	---	ND<10	---
1/14/2004	---	ND<10	---
2/9/2004	---	260	---
3/10/2004	---	480	---
4/14/2004	---	120	---
5/13/2004	---	56	---
8/26/2004	---	ND<10	---
9/21/2004	---	ND<10	---
10/19/2004	---	ND<10	---
2/16/2005	ND<10	ND<10	---
OW3			
9/16/2003	---	2.5	---
12/11/2003	---	ND<10	---
1/14/2004	---	ND<10	---
2/9/2004	---	2.4	---
3/10/2004	---	ND<10	---
4/14/2004	---	ND<10	---
5/13/2004	---	ND<10	---
8/26/2004	---	1,600	---
10/19/2004	---	ND<10	---
2/16/2005	ND<10	ND<10	---
OW4			
12/11/2003	---	ND<10	---
1/14/2004	---	ND<10	---
2/9/2004	---	1.6	---
3/10/2004	---	12	---
4/14/2004	---	ND<10	---
5/13/2004	---	ND<10	---
8/26/2004	---	ND<10	---
10/19/2004	---	ND<10	---
2/16/2005	ND<10	ND<10	---
OW5			
12/11/2003	---	ND<10	---
1/14/2004	---	ND<10	---
2/9/2004	---	2.2	---
3/10/2004	---	ND<10	---
4/14/2004	---	ND<10	---
5/13/2004	---	ND<10	---
8/26/2004	---	ND<10	---
10/19/2004	---	ND<10	---
2/16/2005	ND<10	ND<10	---

TABLE 4: CHROMIUM ANALYSES RESULTS
HPI / Crescent City Shell, PFP; LACO Project No. 5282.01
1006 N. Highway 101, Crescent City, CA; Case No. 1TDN026

WELL/ Sample Date	Total Chromium µg/L	Dissolved Chromium µg/L	Hexavalent Chromium µg/L
PZ1			
8/8/2003	---	---	ND<10
SP3D			
8/15/2003	460	400	---
DW			
8/26/2004	---	ND<10	---

TABLE 5: RESULTS OF VAPOR SAMPLE ANALYSIS
HPI / Crescent City Shell, PFP; LACO Project No. 5282.01
1006 N. Highway 101, Crescent City, CA; Case No. 1TDN026

		Analytical Results					
	Date	Benzene	Toluene	Ethylbenzene	m,p-xylene	o-xylene	MTBE
VP-1	11/26/2002	8,600	240	26,000	16,000	640	61,000
	2/12/03	---	---	---	---	---	---
	3/12/03	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0
	6/10/03	ND<18	ND<18	ND<18	ND<18	ND<18	14,000
	9/30/03	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	33
	10/29/03	ND<5.0	8.4	ND<5.0	5.7	ND<5.0	28
	1/28/04	ND<5.0	6.5	ND<5.0	ND<5.0	ND<5.0	21
	2/9/04	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	15
	5/13/04	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	6.8
	9/21/04	7.3	ND<5.0	ND<5.0	ND<5.0	ND<5.0	6.5
	11/1/04	ND<5.0	7.2	ND<5.0	6.4	ND<5.0	ND<5.0
	2/16/04	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0
VP-2	11/26/2002	10,000	120,000	36,000	140,000	36,000	98,000
	2/12/03	ND<5.0	7.3	ND<5.0	ND<5.0	ND<5.0	ND<5.0
	3/12/03	ND<5.0	17	ND<5.0	7.1	7.8	1,800
	6/10/03	ND<20	ND<20	ND<20	ND<20	ND<20	13,000
	9/30/03	ND<5.0	ND<5.0	15	51	ND<5.0	91
	10/29/03	ND<500	ND<500	ND<500	ND<500	ND<500	560
	1/28/04	ND<5.0	9.6	ND<5.0	ND<5.0	ND<5.0	7.1
	2/9/04	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	23
	5/13/04	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	45
	9/21/04	ND<5.0	9.2	ND<5.0	ND<5.0	ND<5.0	65
	11/1/04	ND<5.0	5.2	ND<5.0	ND<5.0	ND<5.0	ND<5.0
	2/16/04	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<10.0
VP-3	11/26/2002	56	660	510	1,800	450	ND<5.0
	2/12/03	ND<5.0	10	ND<5.0	5.5	ND<5.0	ND<5.0
	3/12/03	ND<5.0	6.6	ND<5.0	ND<5.0	ND<5.0	ND<5.0
	6/10/03	ND<5.0	6.3	ND<5.0	ND<5.0	ND<5.0	ND<5.0
	9/30/03	ND<5.0	5.8	ND<5.0	ND<5.0	ND<5.0	ND<5.0
	10/29/03	ND<5.0	8.1	ND<5.0	ND<5.0	ND<5.0	ND<5.0
	1/28/04	---	---	---	---	---	---
	2/9/04	---	---	---	---	---	---
	5/13/04	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0
	9/21/04	ND<5.0	5.8	ND<5.0	ND<5.0	ND<5.0	ND<5.0
	11/1/04	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0
	2/16/04	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0
VP-4	11/26/2002	5,800	670	610	1,100	ND<500	ND<500
	2/12/03	ND<5.0	16	ND<5.0	ND<5.0	ND<5.0	5.6
	3/12/03	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0
	6/10/03	ND<5.0	7.6	ND<5.0	5.0	ND<5.0	ND<5.0
	9/30/03	ND<5.0	8.5	ND<5.0	6.5	ND<5.0	ND<5.0
	10/29/03	ND<5.0	7.4	ND<5.0	ND<5.0	ND<5.0	ND<5.0
	1/28/04	---	---	---	---	---	---
	2/9/04	---	---	---	---	---	---
	5/13/04	ND<5.0	10	ND<5.0	17	ND<5.0	ND<5.0
	9/21/04	ND<5.0	7.5	ND<5.0	ND<5.0	ND<5.0	ND<5.0
	11/1/04	ND<5.0	5.6	ND<5.0	5.6	ND<5.0	ND<5.0
	2/16/04	ND<5.0	8.5	ND<5.0	ND<5.0	ND<5.0	ND<5.0

TABLE 5: RESULTS OF VAPOR SAMPLE ANALYSIS
HPI / Crescent City Shell, PFP; LACO Project No. 5282.01
1006 N. Highway 101, Crescent City, CA; Case No. 1TDN026

		Analytical Results					
	Date	**Benzene**	**Toluene**	**Ethylbenzene**	**m,p-xylene**	**o-xylene**	**MTBE**
VP-5	**11/26/2002**	25	140	170	450	100	ND<5.0
	2/12/03	ND<5.0	18	ND<5.0	ND<5.0	ND<5.0	6.0
	3/12/03	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0
	6/10/03	ND<5.0	6.1	ND<5.0	6.4	ND<5.0	31
	9/30/03	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0
	10/29/03	ND<5.0	6.4	ND<5.0	ND<5.0	ND<5.0	ND<5.0
	1/28/04	---	---	---	---	---	---
	2/9/04	---	---	---	---	---	---
	5/13/04	ND<5.0	5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0
	9/21/04	ND<5.0	5.2	ND<5.0	ND<5.0	ND<5.0	ND<5.0
	11/1/04	ND<5.0	5.3	ND<5.0	ND<5.0	ND<5.0	ND<5.0
	2/16/04	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0
VP-6	**11/26/2002**	ND<5.0	32	30	82	19	17
	2/12/03	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0
	3/12/03	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0
	6/10/03	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0
	9/30/03	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0
	10/29/03	---	---	---	---	---	---
	1/28/04	---	---	---	---	---	---
	2/9/04	---	---	---	---	---	---
	5/13/04	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0
	9/21/04	ND<5.0	5.4	ND<5.0	ND<5.0	ND<5.0	ND<5.0
	11/1/04	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0
	2/16/04	ND<5.0	5.5	ND<5.0	ND<5.0	ND<5.0	ND<5.0

CHART 1: COMBINED TPH, BENZENE, and MTBE CONCENTRATIONS IN GROUNDWATER IN MW-1
PFP Crescent City Shell; LACO No. 5282.01
Case No. 1TDN026

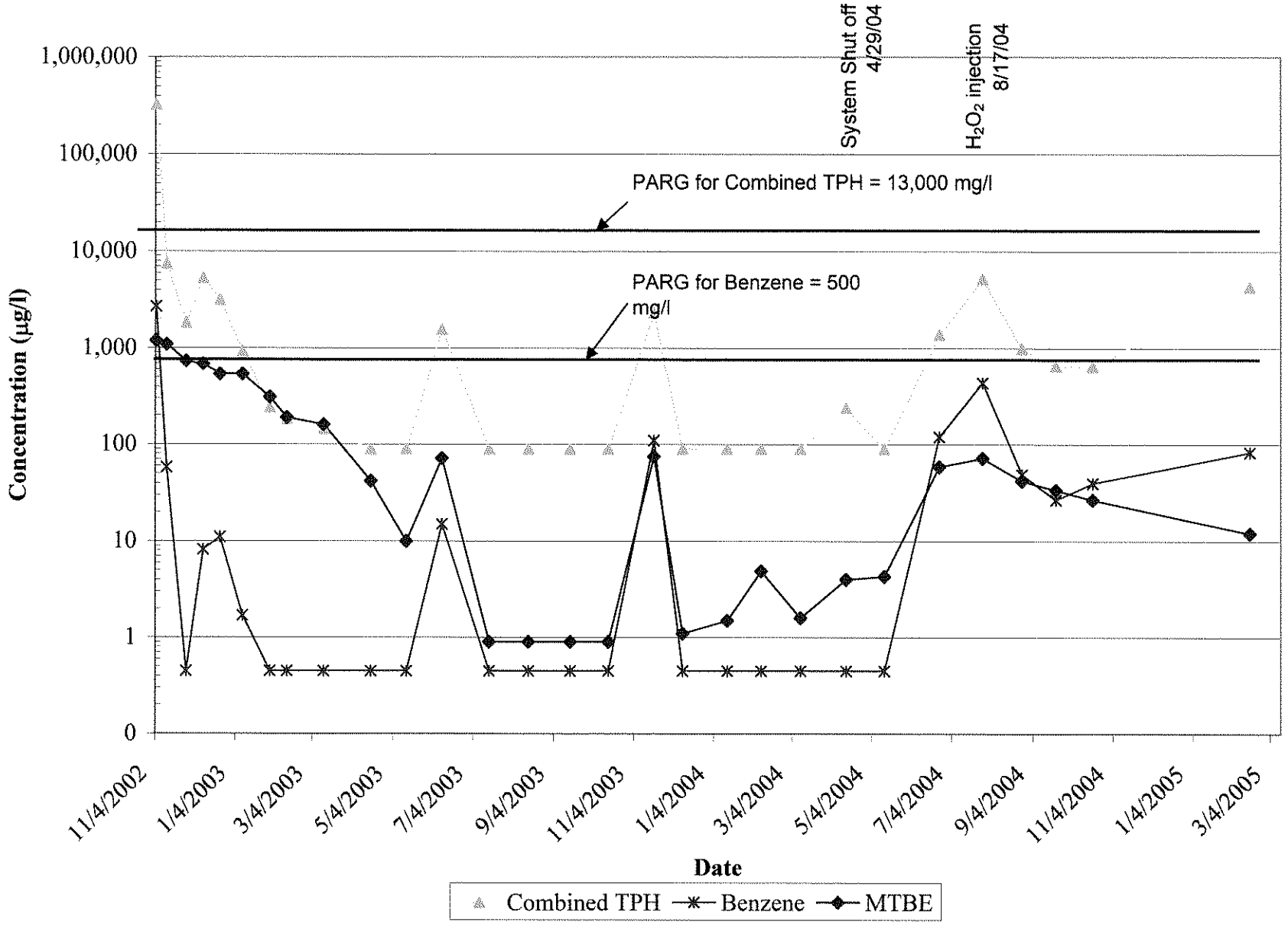


CHART 2: TPHg, TPHd, BENZENE, and MTBE CONCENTRATIONS IN GROUNDWATER IN MW-2
PFP Crescent City Shell; LACO No. 5282.01
Case No. 1TDN026

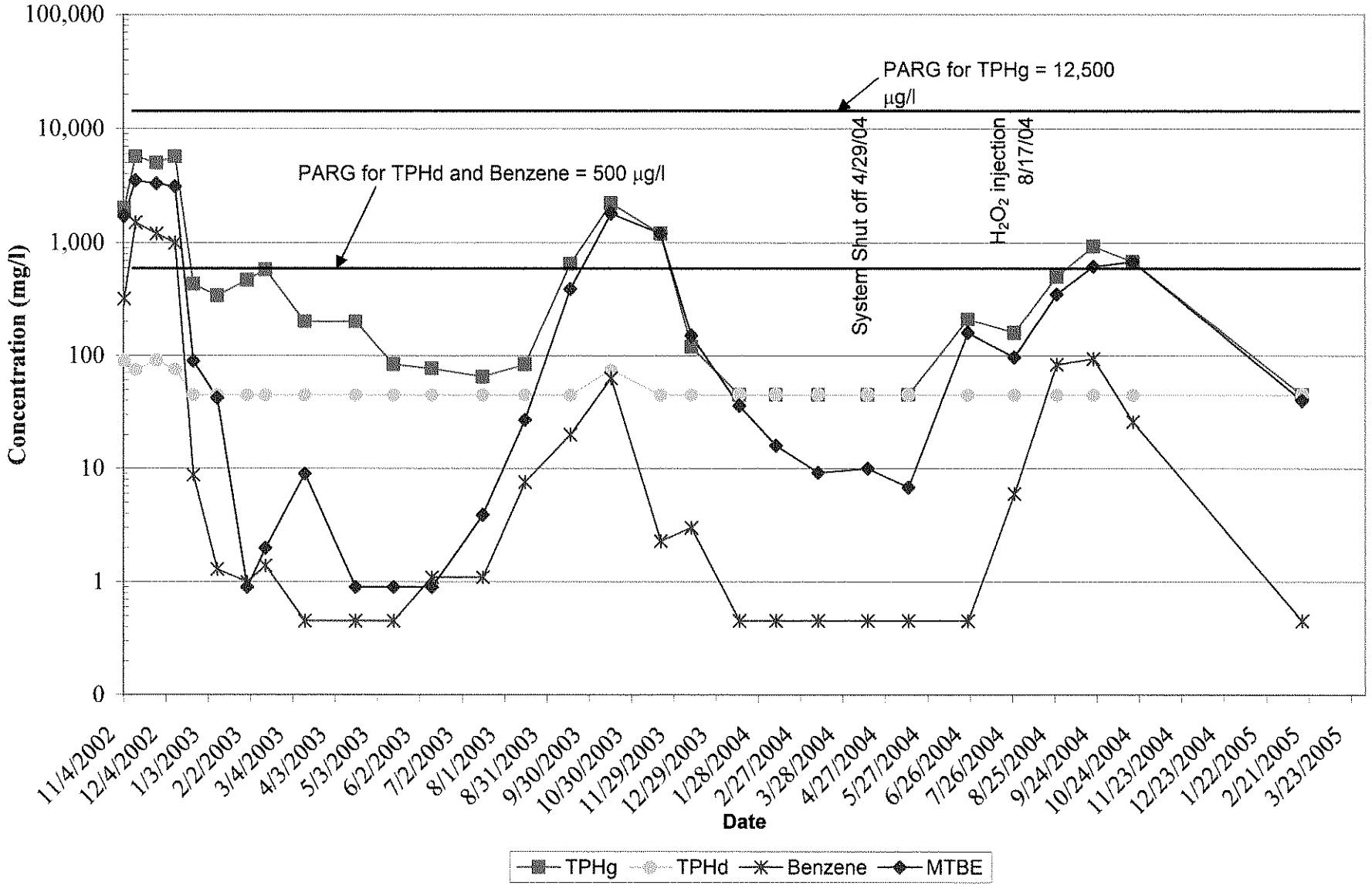


CHART 3: TPHg, BENZENE, and MTBE CONCENTRATIONS IN GROUNDWATER IN MW-5
PFP Crescent City Shell; LACO No. 5282.01
Case No. 1TDN026

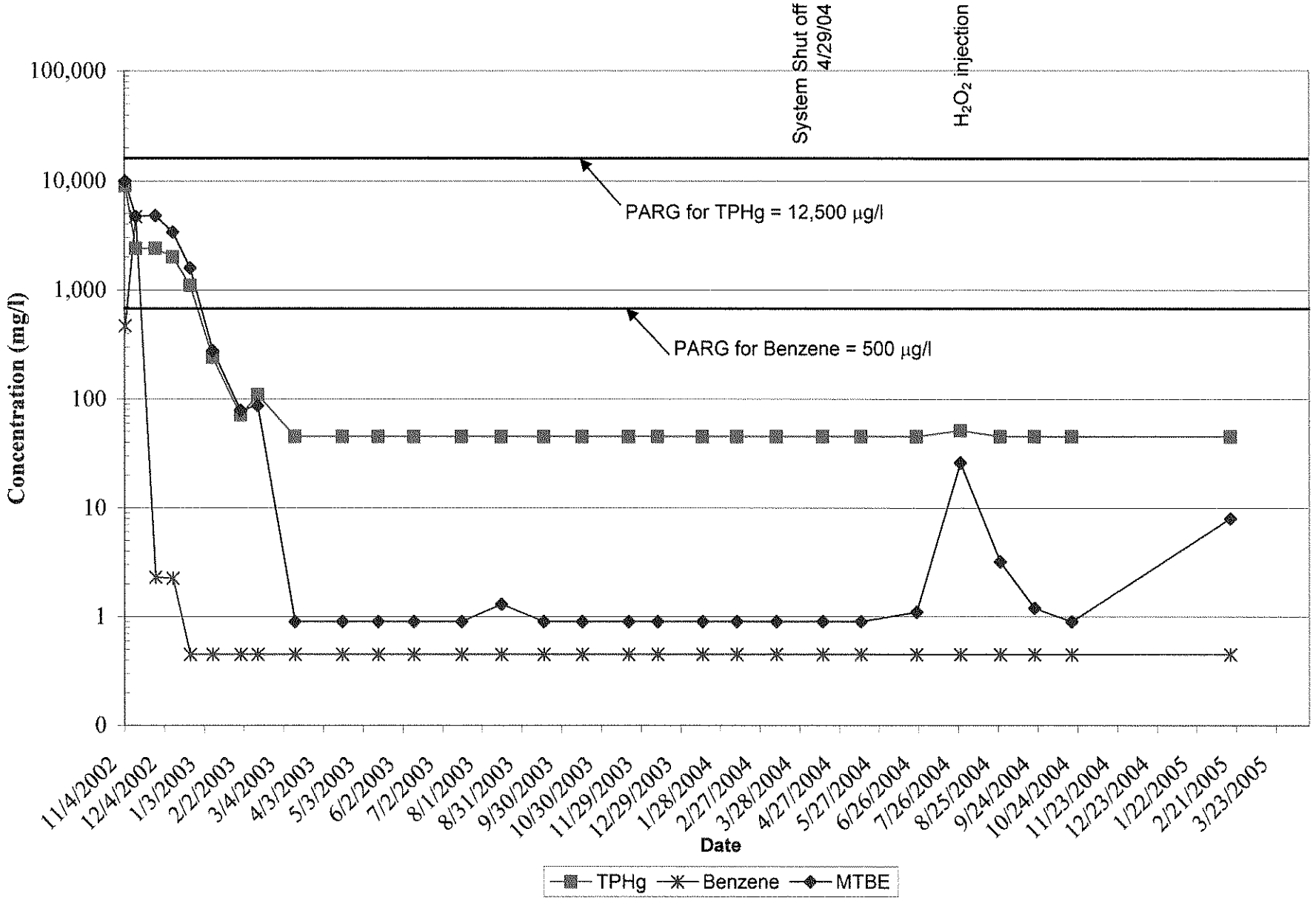


CHART 4: TPHg, TPHd, BENZENE, and MTBE CONCENTRATIONS IN GROUNDWATER IN MW-6
PFP Crescent City Shell; LACO No. 5282.01
Case No. 1TDN026

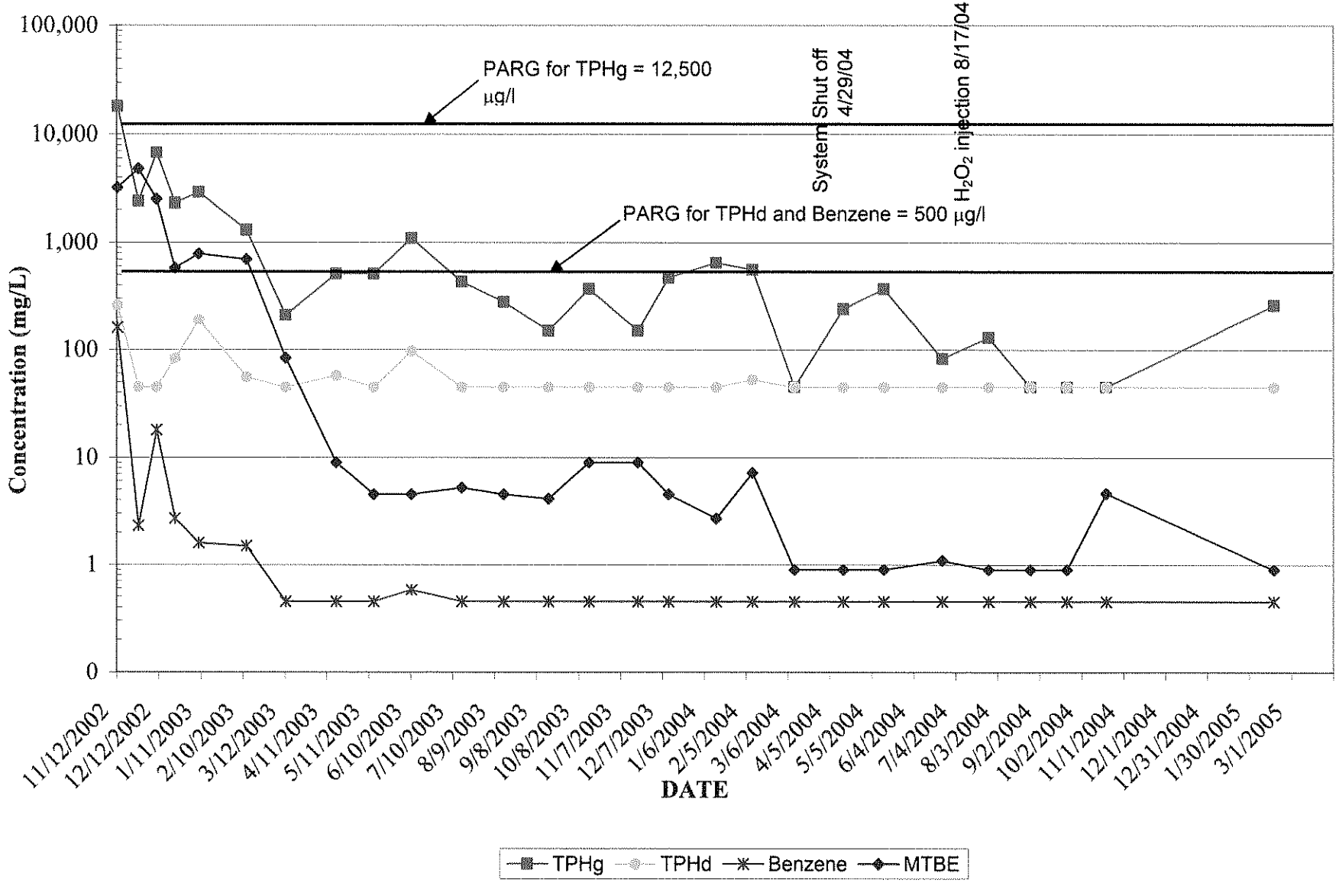


CHART 5: TPHg, BENZENE, and MTBE CONCENTRATIONS IN GROUNDWATER IN MW-7
PFP Crescent City Shell; LACO No. 5282.01
Case No. 1TDN026

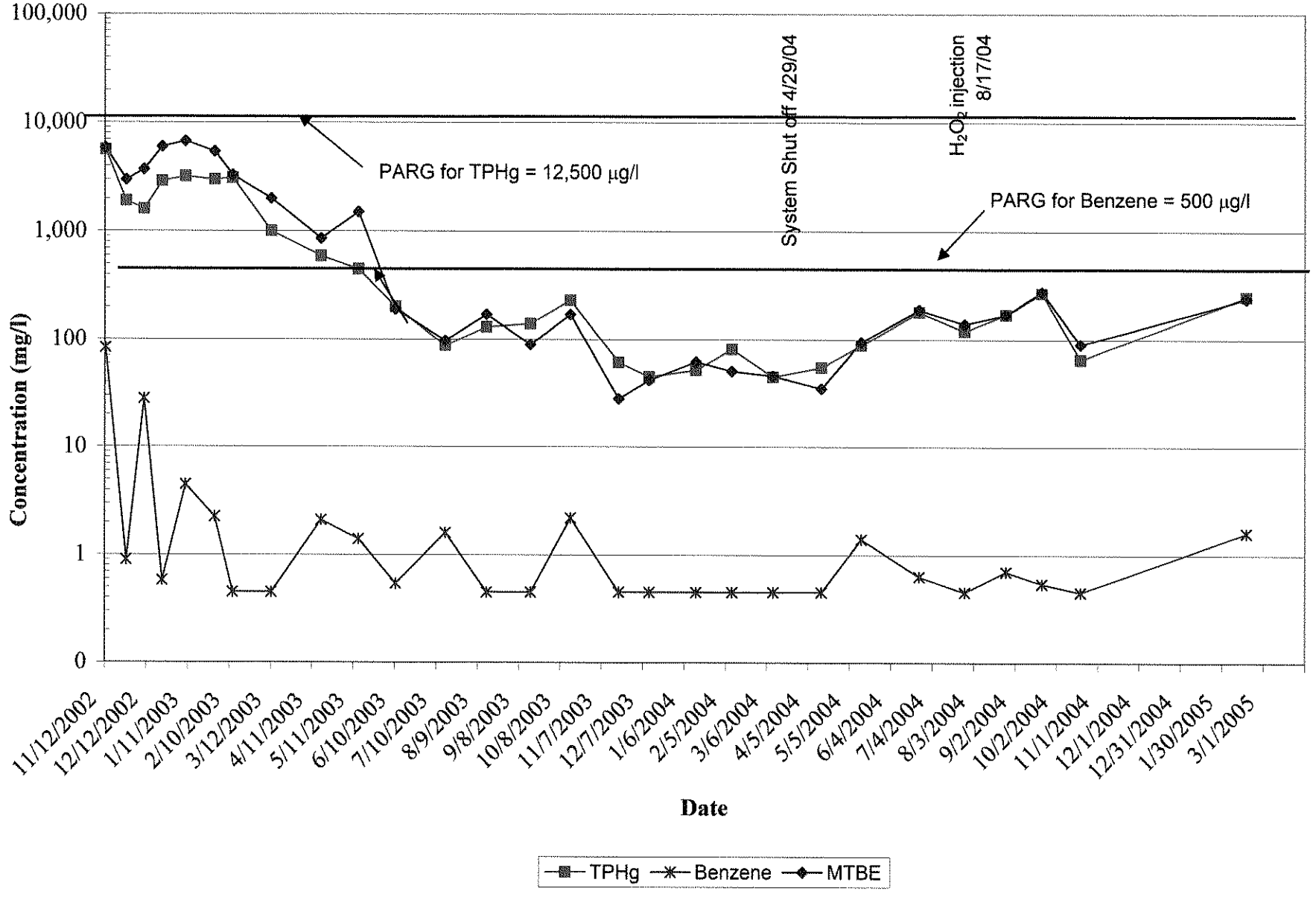
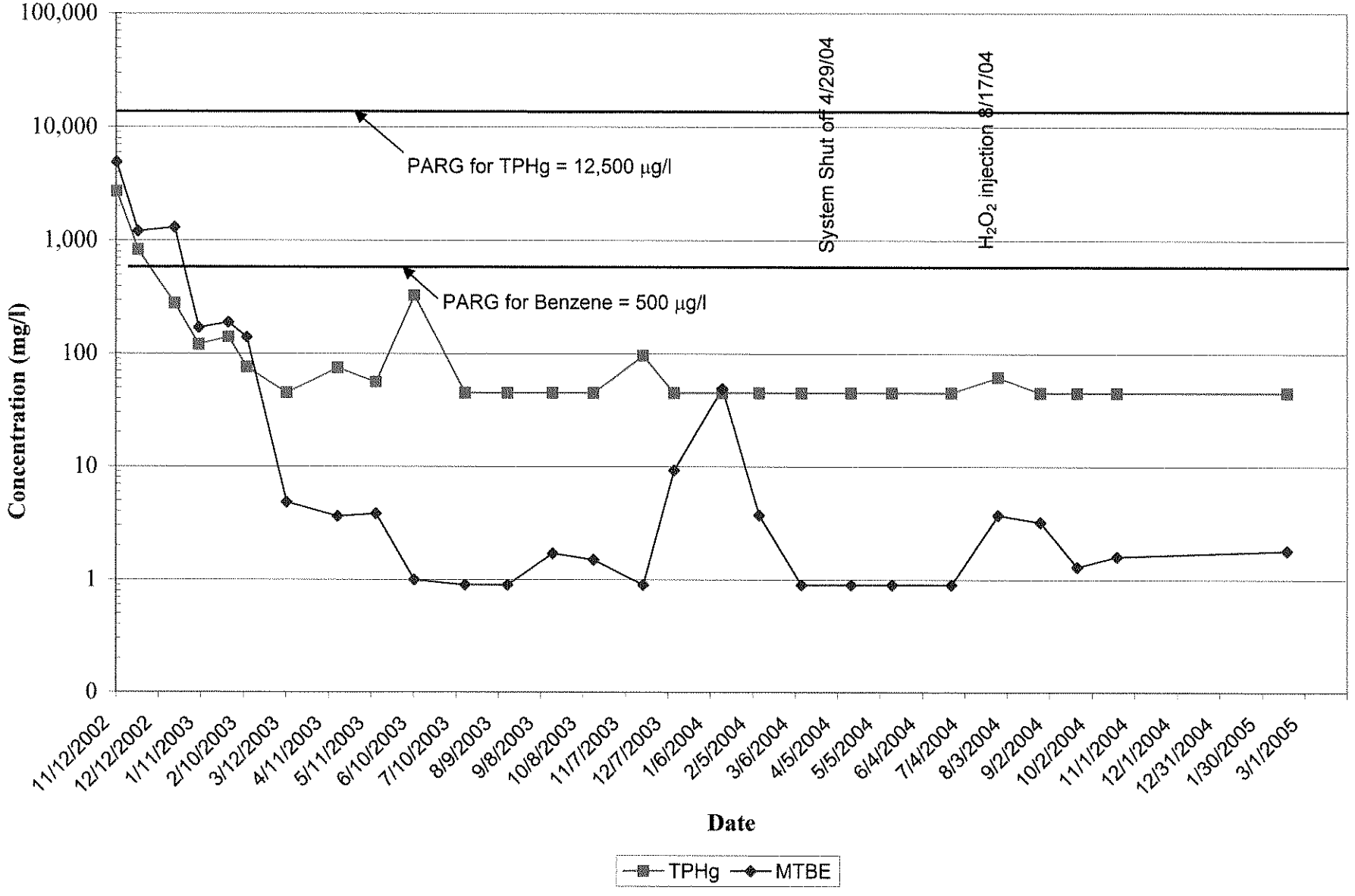


CHART 6: TPHg and MTBE CONCENTRATIONS IN GROUNDWATER IN MW-8
PFP Crescent City Shell; LACO No. 5282.01
Case No. 1TDN026



Attachment 1

PROJECT CHRONOLOGY

Humboldt Petroleum, Incorporated, Crescent City Shell
LACO ASSOCIATES, Pay-for-Performance
Project No. 5882.01, Case No. 1TDN026

October 7-11, 2002	Lake's Well Drilling (Lake's) and LACO ASSOCIATES (LACO) installed 16 sparge points in nine sparge wells.
October 9, 2002	LACO and a representative of the California Regional Water Quality Control Board (NCRWQCB) collected the initial baseline split samples. They were submitted to North Coast Laboratories (NCL) and Alpha Analytical for analysis of the contaminants of concern (COCs).
October 10-11, 2002	Lake's and LACO installed the first three vapor monitoring points.
October 11-18, 2002	Julien Construction installed the distribution network and control shed.
October 11, 2002	Northridge Electrical began the installation of the electrical service to the sparge system.
October 18, 2002	Northridge Electrical made the final connections of the electrical system and installed the outlets and meter in the control shed.
November 4, 2002	LACO and a representative of the NCRWQCB collected follow-up split samples of monitoring wells MW1, MW2, and MW5. They were submitted to NCL and Alpha Analytical for analysis. Later in the day, the generator panels were delivered and installed in the shed. The sparge points were connected, a pressure test was performed, and the system was operational.
November 7, 2002	Lake's and LACO installed three additional monitoring wells, to be paired with the shallow wells OW-3 through OW-5. These wells were requested by the NCRWQCB following the observation that the shallow wells frequently ran dry in low groundwater months.
November 8, 2002	Lake's and LACO installed the final three vapor monitoring points.
November 12, 2002	LACO sampled the newly installed monitoring wells under the observation of a representative of the Del Norte County Department of Environmental Health (DNCDEH), who also observed the operation of the system.
November 26, 2002	LACO performed systems check and sample collection. A LACO technician reported Unit 2 station pressures between 10 and 20 pounds per square inch (psi).
December 8, 2002	LACO performed systems check. Oxygen booster for Unit 1 was installed and turned on by a LACO technician. Solenoid on port 8, Unit 2 was discovered to be intermittently staying open.
December 10, 2002	LACO performed systems check and sample collection.
December 26, 2002	LACO performed systems check and sample collection. LACO technician still reported low pressures in Unit 2.
January 9, 2003	LACO performed systems check and sample collection. LACO technician discovered Unit 1 was off since last visit. Unit 1 is turned back on. The oxygen booster for Unit 2 is installed. A crack in the air compressor piston for Unit 2 was discovered. The air compressor was removed and Unit 2 turned off.

January 16, 2003	LACO performed systems check. LACO technician installed the new air compressor for Unit 2 and turned on the oxygen booster. The pressure in ports on Unit 2 returned to the normal range (29 to 41 psi).
January 21, 2003	LACO performed systems check. LACO discovered run time clock for Unit 2 has not been working since approximately December 18, 2002. The run time error was caused by improper setting on the current sensing relay. No problems discovered with the rest of the system. Current relay was reset to its operational range and the dial was taped in place.
January 30, 2003	LACO performed systems check and LACO and a representative of the NCRWQCB collected split samples for the 25 percent milestone. They were submitted to NCL and Alpha Analytical for analysis of the COCs.
February 12, 2003	LACO performed systems check and collected performance monitoring samples. This event coincided with the quarterly sampling for the remainder of the wells associated with this site. Additionally, this event marks the transition to monthly sampling for the Pay-for-performance (PFP) project wells. While running the pressure test for the ozone panels, the technician noted that Unit 2 was not receiving any power. The run time clock indicated that the short circuit occurred February 7, 2003.
February 13, 2003	A LACO senior technician visited the site to diagnose the reason for the lack of power in Unit 2. It was determined that the main power receptacle into the unit had experienced a short circuit. The receptacle was dismantled, and a replacement part was ordered.
February 14, 2003	LACO technicians replaced the receptacle and performed a pressure test. During the pressure test, tubing into port 5, Unit 1 sheared off after being bumped. The damaged section was replaced. Cracked tubing between the backflow valve and the well head connection for sparge point 2S was noticed after inspection prompted by abnormally high pressure during the Unit 2 pressure test. The section of tubing was replaced and the pressure test proceeded normally. Both units were left up and running.
March 3-4, 2003	Lake's and LACO installed three continuous core borings to 16 feet bellow ground surface (bgs) for the collection of soil samples. Hydropunch borings were installed adjacent to each continuous core, with groundwater samples collected from water-bearing zones identified in the continuous cores. Monitoring wells MW6 through MW8 were redeveloped due to anomalous depth-to-water (DTW) readings. The sparge system was shut off during the installations. The crew performed a pressure test at the end of the field activities. All readings were within the normal range.
March 7, 2003	Humboldt Petroleum, Incorporated (HPI) performed periodic vacuum tests of the vapor recovery system, and found that the lines were not holding pressure. It was determined that one of the borings had compromised the vapor recovery line. The station was shut down pending repairs.
March 10-11, 2003	Beacom Construction began repair of the vapor recovery line. LACO personnel were onsite to monitor activities. A small hole in the vapor recovery line was found to have been caused by the boring installation. It was able to be repaired with a patch, and the crew worked on it until it was

	completely sealed, at the end of the first day. The second day was spent performing repairs to the secondary containment system for the product piping lines into the dispensers. (Not sure which dispenser). The ozone system was shut down at the start of work on March 10 and restarted at the end of work on March 11, 2003.
March 12, 2003	LACO performed monthly performance monitoring. An additional round of vapor samples was collected to document any vapor release associated with the breach in the vapor recovery line.
April 17, 2003	LACO performed monthly performance monitoring. The ozone generator for Unit 1 was noticed to be turned off, apparently since the last site visit. It was also noted that the air compressor in Unit 1 sounded "rough/choppy." Field technician noted that the supply tubing on sparge point SP4S was cracked; this was fixed. It was noted that sparge point SP4D had leaky backflow valve at the well head; this was replaced. A slight ozone leak from the master panel of Unit 1 was noted, but all connections were tested and found to be tight.
April 29, 2003	Performed a mid-cycle site check to sample vapor points for fugitive ozone using a Dräger pump with an ozone detector tube. Arrived on site and found Unit 1 down. Technicians determined the problem to be a shorted out main power switch. Disconnected the switch and called KVA to have a replacement sent out overnight. Measured ozone concentrations at the port and wellhead of sparge point SP1S, and in vapor points VP1 and VP2. Technicians replaced air filter on Unit 2 air compressor, and the particulate filter on the Unit 2 oxygen concentrator.
May 2, 2003	Project manager (PM) arrived onsite to replace main power switch. After replacing the switch, the air compressor was operating at sub-normal pressures. Removed the head from the compressor body and discovered that the rubber band around the piston was shredded. Called KVA to have replacement piston and gasket set shipped. The PM completed the pressure test on Unit 2 and switched out Teflon tubing from two of the unused ports on Unit 2 with two ports that are in use. We will use these new lines to monitor the buildup of the discoloration.
May 5, 2003	PM arrived on site to replace piston. After taking the air compressor apart to make the repair, we noticed that the shaft through which the piston travels was cracked. The PM called KVA for a replacement air compressor.
May 8, 2003	PM arrived on site to replace air compressor; pressure output still sub-normal. Used soap solution to check for leaks and found that the seal in the head was not tight. Had not brought the gasket set that was shipped out for the previous compressor, so we could not fix the leak. Left the system off.
May 9, 2003	Senior technician replaced gasket and ran pressure test on Unit 1. All pressures were normal.
May 14, 2003	Technicians arrived on-site for quarterly monitoring. Performed system checks on both units; all appeared normal and operational.

June 2, 2003	Technician arrived on-site for a systems check. Found the GFI on Unit 1 had tripped. Reset the GFI. Run time indicated that the system shut down on May 26, 2003 at 0335.
June 10, 2003	Technicians arrived on-site for monthly performance monitoring with vapor monitoring postponed from last month due to pump failure. Found Unit 1 down with shorted and melted GFI and main power switch. Found that neither unit was grounded. Grounded both units and replaced shorted parts. Run times in Unit 1 indicated failure occurred on June 3, 2003 at 2146. Unit was restarted at 1445 on June 10, 2003.
June 15, 2003	PM arrived on-site to perform systems check on both Units 1 and 2; all appears normal and operational.
June 24, 2003	Technician arrived on-site to perform system check. Unit 1 appears normal and operational. Compression fittings on Stations 4 and 5 of Unit 2 were observed to be leaking; the technician replaced compression fittings; all appears normal and operational.
July 9, 2003	Technician arrived on-site to perform systems check. Several of the ports on Unit 1 were observed to have leaking compression fittings; compression fittings on Stations 2, 4, and 5 were replaced. Compression fittings on Stations 1 and 6 of Unit 1 may still need to be replaced. Nothing unusual was observed on Unit 2. Units were left operational.
July 16, 2003	Technicians arrived on site for monthly performance monitoring. Performed system checks on both units; all appeared operational. The front supports for the Unit 2 compressor were observed to be cracked.
July 22, 2003	A staff geologist and drill crew visited the site to install two soil borings (B15 and B16) adjacent to borings B12 and B13 to assess the possible degradation of sorbed-phase contaminants on site. Soil and respective depth hydro-punch samples were collected from the two borings. A systems check was performed on both units by the staff geologist during that visit. The compression fitting for Station 2 on Unit 2 was replaced. All else appeared functional.
July 28, 2003	Technician arrived on site to perform a system check on both Units 1 and 2. The HDPE tubing was not connected from Station 6 to Unit 1, the tubing was re-connected and the Unit then appeared fully operational. The compression fitting for Station 8 on Unit 2 was replaced. Nothing else unusual was observed and the units were left operational.
August 8, 2003	Technicians arrived on site to collect groundwater samples to analyze for chromium and replace HDPE tubing at the C-Sparger and well heads with Teflon tubing. HDPE tubing experiencing ozone corrosion was replaced with Teflon and Teflon lined LDPE tubing on stations 3 and 9 on Unit 1 and stations 1 to 3 on Unit 2 at the C-Sparger system. HDPE tubing was replaced with Teflon tubing at well heads 1S to 4S, 6S, and 7S and 1D to 3D, and 7D. In addition, the compression fitting on the Unit 1 compressor outflow was replaced.
August 15, 2003	Technicians arrived on site for monthly performance monitoring. Systems check was not performed due to lack of time.

August 25, 2003	Technicians arrived on site to perform systems operation and maintenance check on Units 1 and 2. The technician noted the top of the main power plug on Unit 1 appeared burnt around the black wire but the wire appeared fine. The C-Sparger on Unit 2 was non-operational upon arrival and the rain-bird had an error reading on its display. The technician observed the main power switch to the unit was burnt; the technician removed the main power switch and hot wired the unit. The oxygen compressors for both units were turned off. Pressure tests were performed on both units and both units were left running upon departure.
September 2, 2003	PM and a technician arrived on site to replace main power switches and associated wiring on both Units 1 and 2. A yellowish, acidic smelling liquid was observed in the Teflon feed tube from the oxygen compressor to the ozone unit on Unit 1; a similar liquid was observed in the pressure release valve, below the ozone unit, on Unit 2. This liquid may be nitric acid, resulting from the passive flow of ambient air through the oxygen booster that had been off since the August 25 visit. A system pressure test was performed; a leak was observed and noted for port 8 on Unit 2. The tubing was replaced and both units were left in good condition.
September 16, 2003	Technicians arrived on site for monthly performance monitoring and perform systems operation and maintenance check on Units 1 and 2. Both units were fully operational.
September 30, 2003	Technician arrived on site for quarterly monitoring and system check. Found singed wires on the master relay of Unit 1 – unit not operational. The technician removed and cleaned the wire before replacing. Ran system check on both units.
October 10, 2003	Technician arrived on site for bimonthly performance monitoring. The master circuit breaker had tripped, which the technician reset. The Unit 1 case fan was non-operational; it was replaced.
October 15, 2003	Technicians arrived on site for monthly performance monitoring and perform systems operation and maintenance check on Units 1 and 2. Both units were fully operational.
October 29, 2003	Technicians arrived on site to perform systems operation and maintenance check on Units 1 and 2. Leaks were discovered in HDPE lines to stations 2 and 6 on Unit 1 and station 4 on Unit 2. Compression fittings were replaced on the three lines. Both units were left in good condition.
November 19, 2003	Technicians arrive on-site to collect quarterly groundwater monitoring samples. A systems check was not performed due to time constraints.
December 11, 2003	Technicians arrived on site to perform monthly performance monitoring in conjunction with a split sampling event to meet requirements for the 75 percent milestone. Leon Perrault of the DNCEHD collected duplicate samples. In addition, a systems operation and maintenance check was performed on both Units 1 and 2. Unit 1 was not running when the technician arrived; a fuse was found in the off position. A systems check was attempted on Unit 1 but the fuse failed. Unit 1 was left non-operational. The line pressure on station 8 on Unit 2 was over-range, the line may be plugged. Unit 2 was left in good condition and operational.

January 12, 2004	Technicians arrived on site to replace the air compressors on both Units 1 and 2. In addition, a surge protector outlet was installed on each unit. Both units were left in good condition and operational.
January 14, 2004	A LACO technician arrived on site to perform monthly performance monitoring and systems operation and maintenance check. Both Units 1 and 2 were fully operational.
January 28, 2004	A LACO technician arrived on site to collect vapor samples from vapor extraction wells VP1 and VP2. Vapor samples were not collected from vapor extraction wells VP3 through VP6 because of shallow saturated conditions.
February 9, 2004	LACO technicians arrived on site to collect quarterly groundwater samples. A monthly systems operation and maintenance check was also performed. Both Units 1 and 2 were observed to be operational.
February 25, 2004	Technicians arrived on site to perform a systems operation and maintenance check. Unit 1 was fully operational. The new compressor on Unit 2 was observed to be non-operational. The compressor was removed to rebuild. The drive shaft was broken.
February 26, 2004	Technicians arrived on site to replace the compressor. Unit 2 was left in operating condition.
March 10, 2004	LACO technicians arrived on site to collect monthly groundwater samples.
March 16, 2004	LACO technicians arrived on site to perform a systems operation and maintenance check. Unit 1 was observed to be operational. Unit 2 was taken off-line to return failed compressor to shop.
March 24, 2004	LACO technicians arrived on site to perform a systems operation and maintenance check. Both Units 1 and 2 were observed to be operational.
April 6, 2004	LACO technicians arrived on site to perform a systems operation and maintenance check. Both Units 1 and 2 were observed to be operational.
April 14, 2004	Technicians arrived on site to collect monthly groundwater samples. A systems operation and maintenance check was also performed. Both Units 1 and 2 were observed to be operational.
April 20, 2004	LACO technicians arrived on site to perform a systems operation and maintenance check. Both Units 1 and 2 were observed to be operational.
April 29, 2004	LACO technicians arrived on site to perform a systems operation and maintenance check. Both Units 1 and 2 were observed to be operational. System run times were reduced to one minute per sparge point in order to test for rebound while keeping the sparge points pressurized.
May 13, 2004	LACO technicians arrive on site to collect quarterly groundwater samples. Vapor samples were collected from vapor extraction wells VP1 through VP6. A systems operation and maintenance check was also performed. Both Units 1 and 2 were observed to be operational.
June 7, 2004	LACO technicians arrived on site to remove the oxygen concentrator and KV sparge panel for Unit 1. Unit 1, lines 1 through 6 were connected to Unit 2, lines 1 through 6 (using Kynar tube x 3-Tees). The LACO technicians performed a systems operation and maintenance check. Unit 2 was observed to be operational.

June 24, 2004	LACO technicians arrived on site to perform a systems operation and maintenance check. Unit 2 was observed to be operational. Monthly groundwater sampling was also performed.
July 27, 2004	LACO technicians arrived on site to perform monthly groundwater sampling.
August 11, 2004	LACO technicians arrived on site to perform a systems operation and maintenance check. Unit 2 was observed to be operational.
August 17, 2004	LACO technicians arrived on site to perform a systems operation and maintenance check. Unit 2 was observed to be operational, and the Station 5 solenoid was rebuilt. Additionally, a compressor filter was installed, and a peroxide injection was performed on site.
August 26, 2004	LACO technicians arrived on site to perform a systems operation and maintenance check. Unit 2 was observed to be operational, and the Station 6 solenoid was rebuilt. Quarterly groundwater sampling was also performed.
September 21, 2004	LACO technicians arrived on site to perform monthly ground water sampling. Vapor points were also sampled for laboratory analysis.
October 18, 2004	LACO technicians arrived on site to develop observation wells OW3, OW4 and OW 5.
October 19, 2004	LACO technicians arrived on site to perform quarterly groundwater sampling.
November 15, 2004	LACO technicians arrived on site to perform a systems operation and maintenance check.
December 13, 2004	LACO technicians arrived on site to perform a systems operation and maintenance check. Gauge replaced. Fitting replaced on lower stem #2.
January 12, 2005	LACO technicians arrived on site to perform a systems operation and maintenance check.
February 16, 2005	LACO technicians arrived on site to perform a systems operation and maintenance check and quarterly groundwater sampling. Tubing fittings were replaced on Station 7.
March 15, 2005	LACO technicians arrived on site to perform a systems operation and maintenance check. The 1207 compressor was completely rebuilt. New snubber and pressure gauge was added.

P:\5200\5282 PFP CC Shell\Project mgmt\project chronology.doc

Attachment 2

LACO ASSOCIATES
CONSULTING ENGINEERS
21 West Fourth Street, Eureka, CA 95501
TEL 707.443.5054
FAX 707.443.0553

Project Name: HPI/PFP C.C. Shell
Project No.: 5282.01
Date: 2-16-05
Golbal ID No.: T0601500022
PM: CSM

Tech: SJD
Mob/Demob time: .15/.25
Travel time: 2.0
Time on site: 7:30
Time off site: 2:10
Mileage: 100

WELL No.:	MW1		MW2		MW4		MW5		MW6	
DIAMETER (in)	2.00		2.00		2.00		4.00		2.00	
SCREENED INTERVAL (ft)	5-15		5-15		4-14		4-19		10 - 14	
DEPTH TO WATER (ft)	5.19		4.27		4.92		5.49		6.00	
	INITIAL	FINAL	INITIAL	FINAL	INITIAL	FINAL	INITIAL	FINAL	INITIAL	FINAL
FIELD INTRINSICS: pH	8.1	7.1	7.7	6.5	6.5	6.3	7.3	7.0	6.1	6.3
TEMP (°C)	11.8	13.4	11.3	12.7	13.4	15.1	13.6	14.9	15.7	15.7
Ecw (µmohs)	333	288	125	110	213	223	221	213	158	156
ORP (mV)	84	65	120	103	61	125	131	76	72	84
DO (mg/L)	8.32	8.01	7.56	6.63	2.64	1.82	12.00	11.41	3.02	0.90
OTHER (units)										
PURGE: TIME	8:23	8:31	8:56	9:04	10:01	10:13	10:33	10:45	12:21	12:27
METHOD (DHP/CB/B)	DHP		DHP		DHP		DHP		CAM PUMP	
RATE (Lpm)	0.19		0.19		0.17		0.17		0.20	
VOLUME (L)	1.50		1.50		2.0		2.0		1.20	
COLOR	LT. BROWN CLOUDY	LT. BROWN CLOUDY	CLEAR	CLEAR	CLOUDY	LT. BROWN CLOUDY	CLEAR	CLEAR	CLEAR	CLEAR
ODOR	PINE TREE		NONE		NONE		NONE		NONE	
INTAKE DEPTH (FEET)	10.0		10.0		10.0		12.0		12.0	
SAMPLE: TIME	8:32		9:05		10:14		10:46		12:28	
METHOD (DHP/CB/B)	DHP		DHP		DHP		DHP		CAM PUMP	
ANALYTES	8260 List 1; Diss Cr; TPHd w/SGC		8260 List 1; Diss Cr; TPHd w/SGC		8260 List 1; Diss Cr; TPHd w/SGC		8260 List 1; Diss Cr; TPHd w/SGC		8260 List 1; Diss Cr; TPHd w/SGC	
TOTAL DRAWDOWN (FEET)	0.55		0.12		0.83		0.04		4.64	
REMARKS										
WELL CONDITION	good		good		good		good		good	
WASTE DRUMS										

DEPTH MEASUREMENTS ARE REFERENCED TO TOP OF CASING

DHP=DOWN HOLE PUMP CB=CHECK BALL B=BAILER FD=FIELD DUPLICATE MB=METHOD BLANK FF=FIELD FILTERED

LACO ASSOCIATES
CONSULTING ENGINEERS

21 West Fourth Street, Eureka, CA 95501
TEL 707.443.5054
FAX 707.443.0553

Project Name: HPI/PFP C.C. Shell
Project No.: 5282.01
Date: 2-16-05
Golbal ID No.: T0601500022
PM: CSM

Tech: SJD
Mob/Demob time: .15 / .25
Travel time: 2.0
Time on site: 7:30
Time off site: 2:10
Mileage: 100

WELL No.:	MW7		MW8		OW3		OW4		OW5	
DIAMETER (in)	1.25		1.25		1.10		1.10		1.10	
SCREENED INTERVAL (ft)	10-15		10-15		5 - 10		5 - 10		5 - 10	
DEPTH TO WATER (ft)	5.33		5.41		5.35		5.0		5.41	
	INITIAL	FINAL	INITIAL	FINAL	INITIAL	FINAL	INITIAL	FINAL	INITIAL	FINAL
DEPTH MEASUREMENTS ARE REFERENCED TO TOP OF CASING — FIELD INTRINSICS: pH										
TEMP (°C)										
Ecw (µmohs)										
ORP (mV)										
DO (mg/L)										
OTHER (units)										
PURGE: TIME										
METHOD (DHP/CB/B)										
RATE (Lpm)										
VOLUME (L)										
COLOR										
ODOR										
INTAKE DEPTH (FEET)										
SAMPLE: TIME	—		—		—		—		—	
METHOD (DHP/CB/B)	CAM PUMP		CAM PUMP		CAM PUMP		CAM PUMP		CAM PUMP	
ANALYTES	8260 list 1; Diss. Cr; TPHd w/SGC		8260 List 1; Diss Cr; TPHd w/SGC		8260 List 1; Diss Cr; TPHd w/SGC		8260 List 1; Diss Cr; TPHd w/SGC		8260 List 1; Diss Cr; TPHd w/SGC	
TOTAL DRAWDOWN (FEET)	—		—		—		—		—	
REMARKS	—		—		—		—		—	
WELL CONDITION	good		good		good		good		good	
WASTE DRUMS										

DHP=DOWN HOLE PUMP CB=CHECK BALL B=BAILER FD=FIELD DUPLICATE MB=METHOD BLANK FF=FIELD FILTERED

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Project No.: 5282.01
Date: 2-16-05
Golbal ID No.: T0601500022
PM: CSM

Tech: ~~SJD~~ JLS
Mob/Demob time: -/-
Travel time: 2.0
Time on site: 7:30
Time off site: 2:10
Mileage: —

WELL No.:	MW7		~~MW8~~ OW4		OW3		~~OW4~~ MW8		OW5	
DIAMETER (in)	1.25		1.25		1.10		1.10		1.10	
SCREENED INTERVAL (ft)	10-15		5 - ~~10-15~~		5 - 10		~~5~~ 10 - 15		5 - 10	
DEPTH TO WATER (ft)	5.75		5.17		5.35		5.61		5.41	
	INITIAL	FINAL	INITIAL	FINAL	INITIAL	FINAL	INITIAL	FINAL	INITIAL	FINAL
FIELD INTRINSICS: pH	6.92	6.92	6.80	6.92	6.81	6.74	7.49	7.26	6.84	6.76
TEMP (°C)	14.1	14.5	14.0	13.6	15.4	15.6	14.3	14.5	13.9	13.0
Ecw (µmohs)	451	437	498	436	394	396	428	426	442	428
ORP (mV)	150	128	47	-17	-53	-54	4	20	131	123
DO (mg/L)	6.15	5.46	0.85	0.47	1.02	0.41	2.39	1.98	1.07	0.31
OTHER (units)										
PURGE: TIME	10:09	10:17	11:08	11:24	12:35	12:41	11:57	12:07	10:40	10:48
METHOD (DHP/CB/B)	Cam Pump		Cam pump		Cam pump		Cam pump		Cam pump	
RATE (Lpm)	0.25		0.28		0.25		.25		.31	
VOLUME (L)	2.0		4.5		1.5		2.5		2.5	
COLOR	Clear	Clear	Clear	Lt Brown	Clear	Lt Black	Clear	Lt Brown	Clear	Clear
ODOR	Slight		Strong oil		Sulfur		Slight		Slight	
INTAKE DEPTH (FEET)	13.50		9.00		9.75		14.00		9.00	
SAMPLE: TIME	10:24		11:30		12:50		12:12		10:58	
METHOD (DHP/CB/B)	Cam Pump		Cam Pump		Cam pump		Cam Pump		Cam Pump	
ANALYTES	8260 list 1; Diss. Cr; TPHd w/SGC		8260 List 1; Diss Cr; TPHd w/SGC		8260 List 1; Diss Cr; TPHd w/SGC		8260 List 1; Diss Cr; TPHd w/SGC		8260 List 1; Diss Cr; TPHd w/SGC	
TOTAL DRAWDOWN (FEET)	4.80		2.61		4.40		0.99		1.81	
REMARKS										
WELL CONDITION	Good		Needs well cap		Good		Good		Good	
WASTE DRUMS										

DEPTH MEASUREMENTS ARE REFERENCED TO TOP OF CASING

DHP=DOWN HOLE PUMP CB=CHECK BALL B=BAILER FD=FIELD DUPLICATE MB=METHOD BLANK FF=FIELD FILTERED

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Project Name: HPI/PFP C.CITY SHELL
Project No.: 5282.01
Tech: SJD
Date: 2-16-05

WELL ID:	METER ACCURACY RANGE				
mw1	+/- 0.2 pH	+/- 0.5 °C	+/- 20 µmohs	+/- 2 mv	+/- 0.3 mg/L

TIME	pH	TEMP (°C)	Ecw (µmohs)	ORP (mV)	DO (mg/L)
8:25	7.4	12.4	310	72	8.01
8:27	7.2	12.7	300	70	7.96
8:29	7.1	13.1	294	65	8.00
8:31	7.1	13.4	288	65	8.01

WELL ID: MW2

TIME	pH	TEMP (°C)	Ecw (µmohs)	ORP (mV)	DO (mg/L)
8:58	7.0	12.0	120	108	6.91
9:00	6.7	12.4	114	102	6.76
9:02	6.6	12.6	111	102	6.52
9:04	6.5	12.7	110	103	6.63

WELL ID: DW (3503.03)

TIME	pH	TEMP (°C)	Ecw (µmohs)	ORP (mV)	DO (mg/L)
9:30	6.9	12.2	124	-69	0.86
9:32	6.9	12.4	123	-72	0.72
9:34	6.8	12.7	122	-74	0.60
9:36	6.8	12.7	122	-74	0.51

WELL ID: MW4

TIME	pH	TEMP (°C)	Ecw (µmohs)	ORP (mV)	DO (mg/L)
10:03	6.4	13.8	218	88	2.46
10:05	6.4	14.1	221	106	2.30
10:07	6.3	14.4	222	116	2.09
10:09	6.3	14.8	222	124	1.96
10:11	6.3	15.0	222	125	1.91
10:13	6.3	15.1	223	125	1.82

WELL ID: MW5

TIME	pH	TEMP (°C)	Ecw (µmohs)	ORP (mV)	DO (mg/L)
10:35	7.1	13.9	218	113	11.76
10:37	7.0	14.0	216	94	12.06
10:39	7.0	14.2	215	85	11.87
10:41	7.0	14.4	214	80	11.64
10:43	7.0	14.7	214	77	11.50
10:45	7.0	14.9	213	76	11.41

WELL ID: PZ1 (3503.03)

TIME	pH	TEMP (°C)	Ecw (µmohs)	ORP (mV)	DO (mg/L)
11:21	6.4	14.1	193	135	4.56
11:23	6.2	14.2	192	133	4.54
11:25	6.2	14.4	192	132	4.48
11:27	6.2	14.5	192	133	4.47

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Project Name: HPI/PFP C. CITY SHELL
Project No.: 5282.01
Tech: SJD
Date: 2-16-05

WELL ID:	METER ACCURACY RANGE				
mw6	+/- 0.2 pH	+/- 0.5 °C	+/- 20 µmohs	+/- 2 mv	+/- 0.3 mg/L
TIME	pH	TEMP (°C)	Ecw (µmohs)	ORP (mV)	DO (mg/L)
12:23	6.3	15.7	158	82	1.30
12:25	6.3	15.7	156	84	1.00
12:27	6.3	15.7	156	84	0.90

WELL ID:

TIME	pH	TEMP (°C)	Ecw (µmohs)	ORP (mV)	DO (mg/L)

WELL ID:

TIME	pH	TEMP (°C)	Ecw (µmohs)	ORP (mV)	DO (mg/L)

WELL ID:

TIME	pH	TEMP (°C)	Ecw (µmohs)	ORP (mV)	DO (mg/L)

WELL ID:

TIME	pH	TEMP (°C)	Ecw (µmohs)	ORP (mV)	DO (mg/L)

WELL ID:

TIME	pH	TEMP (°C)	Ecw (µmohs)	ORP (mV)	DO (mg/L)

WELL ID:

TIME	pH	TEMP (°C)	Ecw (µmohs)	ORP (mV)	DO (mg/L)

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Project Name: Crescent City Shell (HPI)
Project No.: ~~3[illegible]05~~ 5282.01

Tech: JLS
Date: 2-16-05

METER ACCURACY RANGE

	+/- 0.2 pH	+/- 0.5 °C	+/- 20 µmohs	+/- 2 mv	+/- 0.3 mg/L

WELL ID: OW 1

TIME	pH	TEMP (°C)	Ecw (µmohs)	ORP (mV)	DO (mg/L)
8:27	6.59	14.3	450	154	8.80
8:29	6.44	14.3	412	159	8.86
8:31	6.48	14.3	399	168	8.72
8:33	6.49	14.6	394	167	8.70

WELL ID: OW 2

TIME	pH	TEMP (°C)	Ecw (µmohs)	ORP (mV)	DO (mg/L)
9:09	6.47	14.6	367	177	4.60
9:11	6.44	14.6	285	175	5.49
9:13	6.40	14.6	367	171	5.61
9:15	6.40	14.5	358	173	5.48

WELL ID: MW 3

TIME	pH	TEMP (°C)	Ecw (µmohs)	ORP (mV)	DO (mg/L)
:36	6.58	13.3	200	164	7.10
:38	6.55	13.8	197	163	6.72
:40	6.55	13.8	196	162	6.65

WELL ID: 5282 - MW 7

TIME	pH	TEMP (°C)	Ecw (µmohs)	ORP (mV)	DO (mg/L)
10:11	6.92	14.5	443	131	5.74
10:13	6.92	14.5	405	132	5.72
10:15	6.92	14.5	437	129	5.71
10:17	6.92	14.5	437	128	5.46

WELL ID: 5282 - OW 5

TIME	pH	TEMP (°C)	Ecw (µmohs)	ORP (mV)	DO (mg/L)
:42	6.77	13.6	434	130	2.00
:44	6.75	13.4	434	128	0.29
:46	6.75	13.1	431	124	0.28
:48	6.76	13.0	428	123	0.31

WELL ID: 5282 - OW 4

TIME	pH	TEMP (°C)	Ecw (µmohs)	ORP (mV)	DO (mg/L)
11:10	6.79	13.5	485	41	0.75
11:12	6.80	13.5	481	35	0.54
11:14	6.82	13.5	472	20	0.43
11:16	6.87	13.6	461	6	0.35
11:18	6.90	13.6	451	-4	0.30
11:20	6.91	13.6	444	-10	0.38
11:22	6.92	13.6	439	-15	0.49
11:24	6.92	13.6	436	-17	0.47

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Project Name: HPI / PFP C.C. Shell
Project No.: 5282.01
Tech: TLS
Date: 2-16-05

METER ACCURACY RANGE

	+/- 0.2 pH	+/- 0.5 °C	+/- 20 µmohs	+/- 2 mv	+/- 0.3 mg/L

WELL ID: MW 8

TIME	pH	TEMP (°C)	Ecw (µmohs)	ORP (mV)	DO (mg/L)
11:59	7.36	14.3	422	6	2.24
12:01	7.32	14.4	422	10	2.01
12:03	7.29	14.4	421	15	2.04
12.05	7.28	14.5	421	19	1.93
12:07	7.26	14.5	426	20	1.98

WELL ID: OW 3

TIME	pH	TEMP (°C)	Ecw (µmohs)	ORP (mV)	DO (mg/L)
12:37	6.70	15.8	398	-54	0.93
12:39	6.69	15.6	406	-53	0.32
12:41	6.74	15.6	396	-54	0.41
12:43					

WELL ID:

TIME	pH	TEMP (°C)	Ecw (µmohs)	ORP (mV)	DO (mg/L)

WELL ID:

TIME	pH	TEMP (°C)	Ecw (µmohs)	ORP (mV)	DO (mg/L)

WELL ID:

TIME	pH	TEMP (°C)	Ecw (µmohs)	ORP (mV)	DO (mg/L)

WELL ID:

TIME	pH	TEMP (°C)	Ecw (µmohs)	ORP (mV)	DO (mg/L)

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Project Name: Crescent City Shell - HPI
Project No.: 3503.03
Date: 2-16-05
Golbal ID No.: T0601500022
PM: CSM

Tech: SJD
Mob/Demob time: .15/.25
Travel time: 1.0
Time on site: 7:30
Time off site: 2:10
Mileage: 40

WELL No.:	PZ1		OW1		OW2		MW3		DW	
DIAMETER (in)	2.00		1.50		0.50		2.00		6.00	
SCREENED INTERVAL (ft)	5 - 15		5 - 10		5 - 10		5 - 15			
DEPTH TO WATER (ft)	5.85								4.45	
	INITIAL	FINAL	INITIAL	FINAL	INITIAL	FINAL	INITIAL	FINAL	INITIAL	FINAL
FIELD INTRINSICS: pH	6.9	6.2							6.9	6.8
FIELD INTRINSICS: TEMP (°C)	14.0	14.5							11.8	12.7
FIELD INTRINSICS: Ecw (µmohs)	196	192							126	122
FIELD INTRINSICS: ORP (mV)	140	133							-59	-74
FIELD INTRINSICS: DO (mg/L)	5.34	4.47							1.33	0.51
FIELD INTRINSICS: OTHER (units)	—								—	
PURGE: TIME	11:19	11:27							9:28	9:36
PURGE: METHOD (DHP/CB/B)	DHP								DHP	
PURGE: RATE (Lpm)	0.19								0.19	
PURGE: VOLUME (L)	1.50								1.50	
PURGE: COLOR	CLEAR	CLEAR							LT. BROWN CLOUDY	LT. ORANGE CLOUDY
PURGE: ODOR	NONE								SLIGHT ORGANIC	
PURGE: INTAKE DEPTH (FEET)	10.0								10.0	
SAMPLE: TIME			—		—		—		9:37	
SAMPLE: METHOD (DHP/CB/B)			—		—		—		DHP	
SAMPLE: ANALYTES	DTW & Field Intrinsics Only		8260 List 1; TPHd/mo w/SGC		8260 List 1; TPHd/mo w/SGC		8260 List 1; TPHd/mo w/SGC		8260 List 1; TPHd/mo w/SGC	
SAMPLE: TOTAL DRAWDOWN (FEET)	0.04		—		—		—		0.02	
SAMPLE: REMARKS	—		—		—		—		—	
WELL CONDITION	good		good		good		good		good	
WASTE DRUMS										

DEPTH MEASUREMENTS ARE REFERENCED TO TOP OF CASING

DHP=DOWN HOLE PUMP CB=CHECK BALL B=BAILER FD=FIELD DUPLICATE MB=METHOD BLANK FF=FIELD FILTERED

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Project No.: 3503.03
Date: 2-16-05
Golbal ID No.: T0601500022
PM: CSM

Tech: ~~SJD~~ SLS
Mob/Demob time: -/-
Travel time: 1.0
Time on site: 7:30 am
Time off site: 2110
Mileage: -

WELL No.:	PZ1		OW1		OW2		MW3		DW	
DIAMETER (in)	2.00		1.50		0.50		2.00			
SCREENED INTERVAL (ft)	5 - 15		5 - 10		5 - 10		5 - 15			
DEPTH TO WATER (ft)			5.65		5.82		5.51			
	INITIAL	FINAL	INITIAL	FINAL	INITIAL	FINAL	INITIAL	FINAL	INITIAL	FINAL
FIELD INTRINSICS: pH			6.93	6.49	6.69	6.40	6.65	6.55		
TEMP (°C)			13.8	14.6	13.7	14.5	13.4	13.8		
Ecw (µmohs)			598	394	409	358	2.17	196		
ORP (mV)			143	167	181	143	168	162		
DO (mg/L)			9.40	8.90	4.81	5.48	6.95	6.65		
OTHER (units)			—		—		—			
PURGE: TIME			8:25	9:33	9.07	9:15	9:34	9.40		
METHOD (DHP/CB/B)			Cam pump		Cam Pump		DHP			
RATE (Lpm)			0.25		0.33		0.25			
VOLUME (L)			2.0 L		2.0		1.5			
COLOR			Clear	Clear	Clear	clear	clear	clear		
ODOR			None		Slight		None			
INTAKE DEPTH (FEET)			9.50		9.50		10.50			
SAMPLE: TIME			8:40		9:20		9.43			
METHOD (DHP/CB/B)			Cam Pump		Cam Pump		DHP			
ANALYTES	DTW & Field Intrinsics Only		8260 List 1; TPHd/mo w/SGC		8260 List 1; TPHd/mo w/SGC		8260 List 1; TPHd/mo w/SGC		8260 List 1; + Diss. C TPHd/mo w/SGC	
TOTAL DRAWDOWN (FEET)			3.32		2.85		0.24			
REMARKS			14' NEW DHT		—		—			
WELL CONDITION			Good		Good		Needs New Bolts			
WASTE DRUMS										

DEPTH MEASUREMENTS ARE REFERENCED TO TOP OF CASING

DHP=DOWN HOLE PUMP CB=CHECK BALL B=BAILER FD=FIELD DUPLICATE MB=METHOD BLANK FF=FIELD FILTERED

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Project Name: HPI/PFP C. CITY SHELL
Project No.: 5282.01

Tech: SJD
Date: 2-16-05

WELL ID:	METER ACCURACY RANGE				
mw1	+/- 0.2 pH	+/- 0.5 °C	+/- 20 µmohs	+/- 2 mv	+/- 0.3 mg/L

TIME	pH	TEMP (°C)	Ecw (µmohs)	ORP (mV)	DO (mg/L)
8:25	7.4	12.4	310	72	8.01
:27	7.2	12.7	300	70	7.96
:29	7.1	13.1	294	65	8.00
:31	7.1	13.4	288	65	8.01

WELL ID: mw2

TIME	pH	TEMP (°C)	Ecw (µmohs)	ORP (mV)	DO (mg/L)
8:58	7.0	12.0	120	108	6.91
9:00	6.7	12.4	114	102	6.76
9:02	6.6	12.6	111	102	6.52
9:04	6.5	12.7	110	103	6.63

WELL ID: DW (3503.03)

TIME	pH	TEMP (°C)	Ecw (µmohs)	ORP (mV)	DO (mg/L)
:30	6.9	12.2	124	-69	0.86
:32	6.9	12.4	123	-72	0.72
:34	6.8	12.7	122	-74	0.60
:36	6.8	12.7	122	-74	0.51

WELL ID: mw4

TIME	pH	TEMP (°C)	Ecw (µmohs)	ORP (mV)	DO (mg/L)
10:03	6.4	13.8	218	88	2.46
10:05	6.4	14.1	221	106	2.30
10:07	6.3	14.4	222	116	2.09
10:09	6.3	14.8	222	124	1.96
10:11	6.3	15.0	222	125	1.91
10:13	6.3	15.1	223	125	1.82

WELL ID: mw5

TIME	pH	TEMP (°C)	Ecw (µmohs)	ORP (mV)	DO (mg/L)
:35	7.1	13.9	218	113	11.76
:37	7.0	14.0	216	94	12.06
:39	7.0	14.2	215	85	11.87
:41	7.0	14.4	214	80	11.64
:43	7.0	14.7	214	77	11.50
:45	7.0	14.9	213	76	11.41

WELL ID: PZ1 (3503.03)

TIME	pH	TEMP (°C)	Ecw (µmohs)	ORP (mV)	DO (mg/L)
11:21	6.4	14.1	193	135	4.56
11:23	6.2	14.2	192	133	4.54
11:25	6.2	14.4	192	132	4.48
11:27	6.2	14.5	192	133	4.47

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Project Name: Crescent City Shell (HPI)
Project No.: 3503.05
Tech: TLS
Date: 2-16-05

METER ACCURACY RANGE

	+/- 0.2 pH	+/- 0.5 °C	+/- 20 µmohs	+/- 2 mv	+/- 0.3 mg/L

WELL ID: OW 1

TIME	pH	TEMP (°C)	Ecw (µmohs)	ORP (mV)	DO (mg/L)
8:27	6.59	14.3	450	154	8.80
8:29	6.44	14.3	412	159	8.86
8:31	6.48	14.3	399	168	8.72
8:33	6.49	14.6	394	167	8.70

WELL ID: OW 2

TIME	pH	TEMP (°C)	Ecw (µmohs)	ORP (mV)	DO (mg/L)
9:09	6.47	14.6	367	177	4.60
9:11	6.44	14.6	285	175	5.49
9:13	6.40	14.6	367	171	5.61
9:15	6.40	14.5	358	173	5.48

WELL ID: MW 3

TIME	pH	TEMP (°C)	Ecw (µmohs)	ORP (mV)	DO (mg/L)
9:36	6.58	13.3	200	164	7.10
9:38	6.55	13.8	197	163	6.72
9:40	6.55	13.8	196	162	6.65

WELL ID: 5282 - MW 7

TIME	pH	TEMP (°C)	Ecw (µmohs)	ORP (mV)	DO (mg/L)
10:11	6.92	14.5	443	131	5.74
10:13	6.92	14.5	405	132	5.72
10:15	6.92	14.5	437	129	5.71
10:17	6.92	14.5	437	128	5.46

WELL ID: 5282 - OW 5

TIME	pH	TEMP (°C)	Ecw (µmohs)	ORP (mV)	DO (mg/L)
11:42	6.77	13.6	434	130	2.00
11:44	6.75	13.4	434	128	0.29
11:46	6.75	13.1	431	124	0.28
11:48	6.76	13.0	428	123	0.31

WELL ID: 5282 - OW 4

TIME	pH	TEMP (°C)	Ecw (µmohs)	ORP (mV)	DO (mg/L)
11:10	6.79	13.5	485	41	0.75
11:12	6.80	13.5	481	35	0.54
11:14	6.82	13.5	472	20	0.43
11:16	6.87	13.6	461	6	0.33
11:18	6.90	13.6	451	-4	0.30
11:20	6.91	13.6	444	-10	0.38
11:22	6.92	13.6	439	-15	0.43
11:24	6.92	13.6	436	-17	0.47

Attachment 3

NORTH COAST LABORATORIES LTD.

March 09, 2005

RECEIVED
MAR 1 0 2005
BY: JG

LACO Associates
P.O. Box 1023
Eureka, CA 95502

Order No.: 0502352
Invoice No.: 48597
PO No.: TASK 3020
ELAP No. 1247-Expires July 2006

Attn: Accounts Payable

RE: 5282.01 HPI/PFP C. C. Shell

DRG
CSM

SAMPLE IDENTIFICATION

Fraction	Client Sample Description
01A	5282-MW1-W
01D	5282-MW1-W
01E	5282-MW1-W
01F	5282-MW1-W (Dissolved)
02A	5282-MW2-W
02D	5282-MW2-W
02E	5282-MW2-W
02F	5282-MW2-W (Dissolved)
03A	5282-MW4-W
03D	5282-MW4-W
03E	5282-MW4-W
03F	5282-MW4-W (Dissolved)
04A	5282-MW5-W
04D	5282-MW5-W
04E	5282-MW5-W
04F	5282-MW5-W (Dissolved)
05A	5282-MW6-W
05D	5282-MW6-W
05E	5282-MW6-W
05F	5282-MW6-W (Dissolved)
06A	5282-MW7-W
06D	5282-MW7-W
06E	5282-MW7-W
06F	5282-MW7-W (Dissolved)
07A	5282-MW8-W
07D	5282-MW8-W
07E	5282-MW8-W
07F	5282-MW8-W (Dissolved)

ND = Not Detected at the Reporting Limit

Limit = Reporting Limit

All solid results are expressed on a wet-weight basis unless otherwise noted.

REPORT CERTIFIED BY

Lab Manager

Laboratory Supervisor(s) | QA Unit | Jesse G. Chaney, Jr. Laboratory Director

5680 West End Road • Arcata California 95521-9202 • 707-822-4649 • FAX 707-822-6831

March 09, 2005

LACO Associates
P.O. Box 1023
Eureka, CA 95502

Order No.: 0502352
Invoice No.: 48597
PO No.: TASK 3020
ELAP No. 1247-Expires July 2006

Attn: Accounts Payable

RE: 5282.01 HPI/PFP C. C. Shell

SAMPLE IDENTIFICATION

08A	5282-OW3-W
08D	5282-OW3-W
08E	5282-OW3-W
08F	5282-OW3-W (Dissolved)
09A	5282-OW4-W
09D	5282-OW4-W
09E	5282-OW4-W
09F	5282-OW4-W (Dissolved)
10A	5282-OW5-W
10D	5282-OW5-W
10E	5282-OW5-W
10F	5282-OW5-W (Dissolved)

North Coast Laboratories, Ltd. **Date:** *09-Mar-05*

CLIENT: LACO Associates
Project: 5282.01 HPI/PFP C. C. Shell
Lab Order: 0502352

CASE NARRATIVE

All samples submitted for a silica gel cleanup were initially analyzed for diesel. The samples showing no detectable levels of the analyte were not subjected to the cleanup procedure.

TPH as Diesel with Silica Gel Cleanup:
Samples 5282-OW3-W and 5282-OW4-W contain some material lighter than diesel. However, some of this material extends into the diesel range of molecular weights.

Samples 5282-MW1-W, 5282-OW3-W and 5282-OW4-W contain material in the diesel range of molecular weights, but the material does not exhibit the peak pattern typical of diesel oil.

Gasoline Components/Additives:
Sample 5282-MW6-W does not present a peak pattern consistent with that of gasoline. The reported result represents the amount of material in the gasoline range.

The gasoline values for samples 5282-MW1-W, 5282-OW3-W and 5282-OW4-W include the reported gasoline components and additives in addition to other peaks in the gasoline range.

The gasoline value for sample 5282-MW7-W is primarily from the reported gasoline additives.

Some reporting limits were raised for samples 5282-MW1-W and 5282-OW4-W due to matrix interference.

The laboratory control sample/laboratory control sample duplicate (LCS/LCSD) recoveries were above the upper acceptance limits for toluene and the surrogate. The LCS recovery was also above the upper acceptance limit for m,p-xylene. The reported results for these analytes may be higher than the actual amount present in the sample.

TPH as Diesel:
The LCSD recovery was slightly above the upper acceptance limit for the surrogate. The diesel recovery was within the acceptance limits; therefore, the data were accepted.

The LCS recovery was slightly below the lower acceptance limit for diesel. The LCSD recovery was within the acceptance limits; therefore, the data were accepted.

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Date: 08-Mar-05
WorkOrder: 0502352

ANALYTICAL REPORT

Client Sample ID: 5282-MW1-W **Received:** 2/16/05 **Collected:** 2/16/05 0:00
Lab ID: 0502352-01A **Matrix:** Groundwater

Test Name: Gasoline Components/Additives **Reference:** LUFT/EPA 8260B Modified

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Methyl tert-butyl ether (MTBE)	12	1.0	µg/L	1.0		2/24/05
Tert-butyl alcohol (TBA)	ND	75	µg/L	1.0		2/24/05
Di-isopropyl ether (DIPE)	ND	1.0	µg/L	1.0		2/24/05
Ethyl tert-butyl ether (ETBE)	ND	1.0	µg/L	1.0		2/24/05
Benzene	83	25	µg/L	50		2/23/05
Tert-amyl methyl ether (TAME)	5.8	1.0	µg/L	1.0		2/24/05
Toluene	160	25	µg/L	50		2/23/05
Ethylbenzene	85	0.50	µg/L	1.0		2/24/05
m,p-Xylene	440	25	µg/L	50		2/23/05
o-Xylene	430	25	µg/L	50		2/23/05
Surrogate: 1,4-Dichlorobenzene-d4	101	80.8-139	% Rec	50		2/23/05

Test Name: TPH as Gasoline **Reference:** LUFT/EPA 8260B Modified

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
TPHC Gasoline	4,100	2,500	µg/L	50		2/23/05

Client Sample ID: 5282-MW1-W **Received:** 2/16/05 **Collected:** 2/16/05 0:00
Lab ID: 0502352-01D **Matrix:** Groundwater

Test Name: TPH as Diesel with Silica Gel Cleanup **Reference:** EPA 3510/3630/GCFID(LUFT)/8015B

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
TPHC Diesel (C12-C22)	270	50	µg/L	1.0	3/1/05	3/7/05
Surrogate: N-Tricosane	94.0	34-145	% Rec	1.0	3/1/05	3/7/05

Client Sample ID: 5282-MW1-W **Received:** 2/16/05 **Collected:** 2/16/05 0:00
Lab ID: 0502352-01E **Matrix:** Groundwater

Test Name: ICAP Metals with Acid Digestion **Reference:** EPA 200.7

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Chromium	130	10	µg/L	1.0	2/18/05	2/23/05

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Date: 08-Mar-05
WorkOrder: 0502352

ANALYTICAL REPORT

Client Sample ID: 5282-MW1-W (Dissolved) **Received:** 2/16/05 **Collected:** 2/16/05 0:00
Lab ID: 0502352-01F **Matrix:** Groundwater

Test Name: ICAP Metals with Acid Digestion **Reference:** EPA 200.7

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Chromium	ND	10	µg/L	1.0	2/16/05	2/17/05

Client Sample ID: 5282-MW2-W **Received:** 2/16/05 **Collected:** 2/16/05 0:00
Lab ID: 0502352-02A **Matrix:** Groundwater

Test Name: Gasoline Components/Additives **Reference:** LUFT/EPA 8260B Modified

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Methyl tert-butyl ether (MTBE)	40	1.0	µg/L	1.0		2/24/05
Tert-butyl alcohol (TBA)	ND	10	µg/L	1.0		2/24/05
Di-isopropyl ether (DIPE)	ND	1.0	µg/L	1.0		2/24/05
Ethyl tert-butyl ether (ETBE)	ND	1.0	µg/L	1.0		2/24/05
Benzene	ND	0.50	µg/L	1.0		2/24/05
Tert-amyl methyl ether (TAME)	2.5	1.0	µg/L	1.0		2/24/05
Toluene	ND	0.50	µg/L	1.0		2/24/05
Ethylbenzene	ND	0.50	µg/L	1.0		2/24/05
m,p-Xylene	ND	0.50	µg/L	1.0		2/24/05
o-Xylene	ND	0.50	µg/L	1.0		2/24/05
Surrogate: 1,4-Dichlorobenzene-d4	87.8	80.8-139	% Rec	1.0		2/24/05

Test Name: TPH as Gasoline **Reference:** LUFT/EPA 8260B Modified

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
TPHC Gasoline	ND	50	µg/L	1.0		2/24/05

Client Sample ID: 5282-MW2-W **Received:** 2/16/05 **Collected:** 2/16/05 0:00
Lab ID: 0502352-02D **Matrix:** Groundwater

Test Name: TPH as Diesel **Reference:** EPA 3510/GCFID(LUFT)/EPA 8015B

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
TPHC Diesel (C12-C22)	ND	50	µg/L	1.0	2/23/05	2/24/05
Surrogate: N-Tricosane	74.4	27.6-107	% Rec	1.0	2/23/05	2/24/05

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Date: 08-Mar-05
WorkOrder: 0502352

ANALYTICAL REPORT

Client Sample ID: 5282-MW2-W **Received:** 2/16/05 **Collected:** 2/16/05 0:00
Lab ID: 0502352-02E **Matrix:** Groundwater

Test Name: ICAP Metals with Acid Digestion **Reference:** EPA 200.7

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Chromium	33	10	µg/L	1.0	2/18/05	2/23/05

Client Sample ID: 5282-MW2-W (Dissolved) **Received:** 2/16/05 **Collected:** 2/16/05 0:00
Lab ID: 0502352-02F **Matrix:** Groundwater

Test Name: ICAP Metals with Acid Digestion **Reference:** EPA 200.7

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Chromium	25	10	µg/L	1.0	2/16/05	2/17/05

Client Sample ID: 5282-MW4-W **Received:** 2/16/05 **Collected:** 2/16/05 0:00
Lab ID: 0502352-03A **Matrix:** Groundwater

Test Name: Gasoline Components/Additives **Reference:** LUFT/EPA 8260B Modified

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Methyl tert-butyl ether (MTBE)	2.4	1.0	µg/L	1.0		2/24/05
Tert-butyl alcohol (TBA)	ND	10	µg/L	1.0		2/24/05
Di-isopropyl ether (DIPE)	ND	1.0	µg/L	1.0		2/24/05
Ethyl tert-butyl ether (ETBE)	ND	1.0	µg/L	1.0		2/24/05
Benzene	ND	0.50	µg/L	1.0		2/24/05
Tert-amyl methyl ether (TAME)	ND	1.0	µg/L	1.0		2/24/05
Toluene	ND	0.50	µg/L	1.0		2/24/05
Ethylbenzene	ND	0.50	µg/L	1.0		2/24/05
m,p-Xylene	ND	0.50	µg/L	1.0		2/24/05
o-Xylene	ND	0.50	µg/L	1.0		2/24/05
Surrogate: 1,4-Dichlorobenzene-d4	82.5	80.8-139	% Rec	1.0		2/24/05

Test Name: TPH as Gasoline **Reference:** LUFT/EPA 8260B Modified

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
TPHC Gasoline	ND	50	µg/L	1.0		2/24/05

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ANALYTICAL REPORT

Client Sample ID: 5282-MW4-W **Received:** 2/16/05 **Collected:** 2/16/05 0:00
Lab ID: 0502352-03D **Matrix:** Groundwater

Test Name: TPH as Diesel **Reference:** EPA 3510/GCFID(LUFT)/EPA 8015B

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
TPHC Diesel (C12-C22)	ND	50	µg/L	1.0	2/23/05	2/24/05
Surrogate: N-Tricosane	66.3	27.6-107	% Rec	1.0	2/23/05	2/24/05

Client Sample ID: 5282-MW4-W **Received:** 2/16/05 **Collected:** 2/16/05 0:00
Lab ID: 0502352-03E **Matrix:** Groundwater

Test Name: ICAP Metals with Acid Digestion **Reference:** EPA 200.7

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Chromium	74	10	µg/L	1.0	2/18/05	2/23/05

Client Sample ID: 5282-MW4-W (Dissolved) **Received:** 2/16/05 **Collected:** 2/16/05 0:00
Lab ID: 0502352-03F **Matrix:** Groundwater

Test Name: ICAP Metals with Acid Digestion **Reference:** EPA 200.7

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Chromium	ND	10	µg/L	1.0	2/16/05	2/17/05

Client Sample ID: 5282-MW5-W **Received:** 2/16/05 **Collected:** 2/16/05 0:00
Lab ID: 0502352-04A **Matrix:** Groundwater

Test Name: Gasoline Components/Additives **Reference:** LUFT/EPA 8260B Modified

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Methyl tert-butyl ether (MTBE)	8.0	1.0	µg/L	1.0		2/24/05
Tert-butyl alcohol (TBA)	ND	10	µg/L	1.0		2/24/05
Di-isopropyl ether (DIPE)	ND	1.0	µg/L	1.0		2/24/05
Ethyl tert-butyl ether (ETBE)	ND	1.0	µg/L	1.0		2/24/05
Benzene	ND	0.50	µg/L	1.0		2/24/05
Tert-amyl methyl ether (TAME)	ND	1.0	µg/L	1.0		2/24/05
Toluene	ND	0.50	µg/L	1.0		2/24/05
Ethylbenzene	ND	0.50	µg/L	1.0		2/24/05
m,p-Xylene	ND	0.50	µg/L	1.0		2/24/05
o-Xylene	ND	0.50	µg/L	1.0		2/24/05
Surrogate: 1,4-Dichlorobenzene-d4	80.9	80.8-139	% Rec	1.0		2/24/05

Test Name: TPH as Gasoline **Reference:** LUFT/EPA 8260B Modified

Parameter	Result	Limit	Units	DF	Extracted	Analyzed

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ANALYTICAL REPORT

TPHC Gasoline	ND	50	µg/L	1.0	2/24/05

Client Sample ID: 5282-MW5-W **Received:** 2/16/05 **Collected:** 2/16/05 0:00
Lab ID: 0502352-04D **Matrix:** Groundwater

Test Name: TPH as Diesel **Reference:** EPA 3510/GCFID(LUFT)/EPA 8015B

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
TPHC Diesel (C12-C22)	ND	50	µg/L	1.0	2/23/05	2/24/05
Surrogate: N-Tricosane	82.7	27.6-107	% Rec	1.0	2/23/05	2/24/05

Client Sample ID: 5282-MW5-W **Received:** 2/16/05 **Collected:** 2/16/05 0:00
Lab ID: 0502352-04E **Matrix:** Groundwater

Test Name: ICAP Metals with Acid Digestion **Reference:** EPA 200.7

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Chromium	ND	10	µg/L	1.0	2/18/05	2/23/05

Client Sample ID: 5282-MW5-W (Dissolved) **Received:** 2/16/05 **Collected:** 2/16/05 0:00
Lab ID: 0502352-04F **Matrix:** Groundwater

Test Name: ICAP Metals with Acid Digestion **Reference:** EPA 200.7

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Chromium	ND	10	µg/L	1.0	2/16/05	2/17/05

Client Sample ID: 5282-MW6-W **Received:** 2/16/05 **Collected:** 2/16/05 0:00
Lab ID: 0502352-05A **Matrix:** Groundwater

Test Name: Gasoline Components/Additives **Reference:** LUFT/EPA 8260B Modified

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Methyl tert-butyl ether (MTBE)	ND	1.0	µg/L	1.0		2/24/05
Tert-butyl alcohol (TBA)	ND	10	µg/L	1.0		2/24/05
Di-isopropyl ether (DIPE)	ND	1.0	µg/L	1.0		2/24/05
Ethyl tert-butyl ether (ETBE)	ND	1.0	µg/L	1.0		2/24/05
Benzene	ND	0.50	µg/L	1.0		2/24/05
Tert-amyl methyl ether (TAME)	ND	1.0	µg/L	1.0		2/24/05
Toluene	ND	0.50	µg/L	1.0		2/24/05
Ethylbenzene	ND	0.50	µg/L	1.0		2/24/05
m,p-Xylene	0.54	0.50	µg/L	1.0		2/24/05
o-Xylene	ND	0.50	µg/L	1.0		2/24/05
Surrogate: 1,4-Dichlorobenzene-d4	88.2	80.8-139	% Rec	1.0		2/24/05

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Date: 08-Mar-05

ANALYTICAL REPORT

WorkOrder: 0502352

Test Name: TPH as Gasoline **Reference:** LUFT/EPA 8260B Modified

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
TPHC Gasoline	260	50	µg/L	1.0		2/24/05

Client Sample ID: 5282-MW6-W **Received:** 2/16/05 **Collected:** 2/16/05 0:00

Lab ID: 0502352-05D **Matrix:** Groundwater

Test Name: TPH as Diesel with Silica Gel Cleanup **Reference:** EPA 3510/3630/GCFID(LUFT)/8015B

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
TPHC Diesel (C12-C22)	ND	50	µg/L	1.0	3/1/05	3/7/05
Surrogate: N-Tricosane	91.6	34-145	% Rec	1.0	3/1/05	3/7/05

Client Sample ID: 5282-MW6-W **Received:** 2/16/05 **Collected:** 2/16/05 0:00

Lab ID: 0502352-05E **Matrix:** Groundwater

Test Name: ICAP Metals with Acid Digestion **Reference:** EPA 200.7

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Chromium	ND	10	µg/L	1.0	2/18/05	2/23/05

Client Sample ID: 5282-MW6-W (Dissolved) **Received:** 2/16/05 **Collected:** 2/16/05 0:00

Lab ID: 0502352-05F **Matrix:** Groundwater

Test Name: ICAP Metals with Acid Digestion **Reference:** EPA 200.7

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Chromium	ND	10	µg/L	1.0	2/16/05	2/17/05

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Date: 08-Mar-05
WorkOrder: 0502352

ANALYTICAL REPORT

Client Sample ID: 5282-MW7-W **Received:** 2/16/05 **Collected:** 2/16/05 0:00
Lab ID: 0502352-06A **Matrix:** Groundwater

Test Name: Gasoline Components/Additives **Reference:** LUFT/EPA 8260B Modified

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Methyl tert-butyl ether (MTBE)	240	100	µg/L	100		2/23/05
Tert-butyl alcohol (TBA)	210	10	µg/L	1.0		2/24/05
Di-isopropyl ether (DIPE)	ND	1.0	µg/L	1.0		2/24/05
Ethyl tert-butyl ether (ETBE)	ND	1.0	µg/L	1.0		2/24/05
Benzene	1.6	0.50	µg/L	1.0		2/24/05
Tert-amyl methyl ether (TAME)	38	1.0	µg/L	1.0		2/24/05
Toluene	ND	0.50	µg/L	1.0		2/24/05
Ethylbenzene	ND	0.50	µg/L	1.0		2/24/05
m,p-Xylene	ND	0.50	µg/L	1.0		2/24/05
o-Xylene	ND	0.50	µg/L	1.0		2/24/05
Surrogate: 1,4-Dichlorobenzene-d4	88.6	80.8-139	% Rec	1.0		2/24/05

Test Name: TPH as Gasoline **Reference:** LUFT/EPA 8260B Modified

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
TPHC Gasoline	250	50	µg/L	1.0		2/24/05

Client Sample ID: 5282-MW7-W **Received:** 2/16/05 **Collected:** 2/16/05 0:00
Lab ID: 0502352-06D **Matrix:** Groundwater

Test Name: TPH as Diesel **Reference:** EPA 3510/GCFID(LUFT)/EPA 8015B

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
TPHC Diesel (C12-C22)	ND	50	µg/L	1.0	2/23/05	2/24/05
Surrogate: N-Tricosane	69.4	27.6-107	% Rec	1.0	2/23/05	2/24/05

Client Sample ID: 5282-MW7-W **Received:** 2/16/05 **Collected:** 2/16/05 0:00
Lab ID: 0502352-06E **Matrix:** Groundwater

Test Name: ICAP Metals with Acid Digestion **Reference:** EPA 200.7

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Chromium	ND	10	µg/L	1.0	2/18/05	2/23/05

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Date: 08-Mar-05
WorkOrder: 0502352

ANALYTICAL REPORT

Client Sample ID: 5282-MW7-W (Dissolved) **Received:** 2/16/05 **Collected:** 2/16/05 0:00
Lab ID: 0502352-06F **Matrix:** Groundwater

Test Name: ICAP Metals with Acid Digestion **Reference:** EPA 200.7

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Chromium	ND	10	µg/L	1.0	2/16/05	2/17/05

Client Sample ID: 5282-MW8-W **Received:** 2/16/05 **Collected:** 2/16/05 0:00
Lab ID: 0502352-07A **Matrix:** Groundwater

Test Name: Gasoline Components/Additives **Reference:** LUFT/EPA 8260B Modified

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Methyl tert-butyl ether (MTBE)	1.8	1.0	µg/L	1.0		2/24/05
Tert-butyl alcohol (TBA)	ND	10	µg/L	1.0		2/24/05
Di-isopropyl ether (DIPE)	ND	1.0	µg/L	1.0		2/24/05
Ethyl tert-butyl ether (ETBE)	ND	1.0	µg/L	1.0		2/24/05
Benzene	ND	0.50	µg/L	1.0		2/24/05
Tert-amyl methyl ether (TAME)	ND	1.0	µg/L	1.0		2/24/05
Toluene	ND	0.50	µg/L	1.0		2/24/05
Ethylbenzene	ND	0.50	µg/L	1.0		2/24/05
m,p-Xylene	ND	0.50	µg/L	1.0		2/24/05
o-Xylene	ND	0.50	µg/L	1.0		2/24/05
Surrogate: 1,4-Dichlorobenzene-d4	82.8	80.8-139	% Rec	1.0		2/24/05

Test Name: TPH as Gasoline **Reference:** LUFT/EPA 8260B Modified

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
TPHC Gasoline	ND	50	µg/L	1.0		2/24/05

Client Sample ID: 5282-MW8-W **Received:** 2/16/05 **Collected:** 2/16/05 0:00
Lab ID: 0502352-07D **Matrix:** Groundwater

Test Name: TPH as Diesel **Reference:** EPA 3510/GCFID(LUFT)/EPA 8015B

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
TPHC Diesel (C12-C22)	ND	50	µg/L	1.0	2/23/05	2/24/05
Surrogate: N-Tricosane	88.8	27.6-107	% Rec	1.0	2/23/05	2/24/05

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Date: 08-Mar-05
WorkOrder: 0502352

ANALYTICAL REPORT

Client Sample ID: 5282-MW8-W **Received:** 2/16/05 **Collected:** 2/16/05 0:00
Lab ID: 0502352-07E **Matrix:** Groundwater

Test Name: ICAP Metals with Acid Digestion **Reference:** EPA 200.7

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Chromium	ND	10	µg/L	1.0	2/18/05	2/23/05

Client Sample ID: 5282-MW8-W (Dissolved) **Received:** 2/16/05 **Collected:** 2/16/05 0:00
Lab ID: 0502352-07F **Matrix:** Groundwater

Test Name: ICAP Metals with Acid Digestion **Reference:** EPA 200.7

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Chromium	ND	10	µg/L	1.0	2/16/05	2/17/05

Client Sample ID: 5282-OW3-W **Received:** 2/16/05 **Collected:** 2/16/05 0:00
Lab ID: 0502352-08A **Matrix:** Groundwater

Test Name: Gasoline Components/Additives **Reference:** LUFT/EPA 8260B Modified

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Methyl tert-butyl ether (MTBE)	200	50	µg/L	50		2/23/05
Tert-butyl alcohol (TBA)	1,300	10	µg/L	1.0		2/24/05
Di-isopropyl ether (DIPE)	ND	1.0	µg/L	1.0		2/24/05
Ethyl tert-butyl ether (ETBE)	ND	1.0	µg/L	1.0		2/24/05
Benzene	24	0.50	µg/L	1.0		2/24/05
Tert-amyl methyl ether (TAME)	77	1.0	µg/L	1.0		2/24/05
Toluene	18	0.50	µg/L	1.0		2/24/05
Ethylbenzene	52	0.50	µg/L	1.0		2/24/05
m,p-Xylene	310	25	µg/L	50		2/23/05
o-Xylene	130	25	µg/L	50		2/23/05
Surrogate: 1,4-Dichlorobenzene-d4	120	80.8-139	% Rec	1.0		2/24/05

Test Name: TPH as Gasoline **Reference:** LUFT/EPA 8260B Modified

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
TPHC Gasoline	4,100	2,500	µg/L	50		2/23/05

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ANALYTICAL REPORT

Client Sample ID: 5282-OW3-W **Received:** 2/16/05 **Collected:** 2/16/05 0:00
Lab ID: 0502352-08D **Matrix:** Groundwater

Test Name: TPH as Diesel with Silica Gel Cleanup **Reference:** EPA 3510/3630/GCFID(LUFT)/8015B

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
TPHC Diesel (C12-C22)	410	50	µg/L	1.0	3/1/05	3/8/05
Surrogate: N-Tricosane	93.4	34-145	% Rec	1.0	3/1/05	3/8/05

Client Sample ID: 5282-OW3-W **Received:** 2/16/05 **Collected:** 2/16/05 0:00
Lab ID: 0502352-08E **Matrix:** Groundwater

Test Name: ICAP Metals with Acid Digestion **Reference:** EPA 200.7

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Chromium	ND	10	µg/L	1.0	2/18/05	2/23/05

Client Sample ID: 5282-OW3-W (Dissolved) **Received:** 2/16/05 **Collected:** 2/16/05 0:00
Lab ID: 0502352-08F **Matrix:** Groundwater

Test Name: ICAP Metals with Acid Digestion **Reference:** EPA 200.7

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Chromium	ND	10	µg/L	1.0	2/16/05	2/17/05

Client Sample ID: 5282-OW4-W **Received:** 2/16/05 **Collected:** 2/16/05 0:00
Lab ID: 0502352-09A **Matrix:** Groundwater

Test Name: Gasoline Components/Additives **Reference:** LUFT/EPA 8260B Modified

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Methyl tert-butyl ether (MTBE)	ND	3.0	µg/L	1.0		2/24/05
Tert-butyl alcohol (TBA)	ND	40	µg/L	1.0		2/24/05
Di-isopropyl ether (DIPE)	ND	1.0	µg/L	1.0		2/24/05
Ethyl tert-butyl ether (ETBE)	ND	1.0	µg/L	1.0		2/24/05
Benzene	3.5	0.50	µg/L	1.0		2/24/05
Tert-amyl methyl ether (TAME)	1.0	1.0	µg/L	1.0		2/24/05
Toluene	ND	0.50	µg/L	1.0		2/24/05
Ethylbenzene	170	5.0	µg/L	10		2/24/05
m,p-Xylene	74	0.50	µg/L	1.0		2/24/05
o-Xylene	2.6	0.50	µg/L	1.0		2/24/05
Surrogate: 1,4-Dichlorobenzene-d4	110	80.8-139	% Rec	1.0		2/24/05

Test Name: TPH as Gasoline **Reference:** LUFT/EPA 8260B Modified

Parameter	Result	Limit	Units	DF	Extracted	Analyzed

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ANALYTICAL REPORT

TPHC Gasoline	4,100	500	µg/L	10	2/24/05

Client Sample ID: 5282-OW4-W **Received:** 2/16/05 **Collected:** 2/16/05 0:00
Lab ID: 0502352-09D **Matrix:** Groundwater

Test Name: TPH as Diesel with Silica Gel Cleanup **Reference:** EPA 3510/3630/GCFID(LUFT)/8015B

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
TPHC Diesel (C12-C22)	580	50	µg/L	1.0	3/1/05	3/8/05
Surrogate: N-Tricosane	83.3	34-145	% Rec	1.0	3/1/05	3/8/05

Client Sample ID: 5282-OW4-W **Received:** 2/16/05 **Collected:** 2/16/05 0:00
Lab ID: 0502352-09E **Matrix:** Groundwater

Test Name: ICAP Metals with Acid Digestion **Reference:** EPA 200.7

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Chromium	ND	10	µg/L	1.0	2/18/05	2/23/05

Client Sample ID: 5282-OW4-W (Dissolved) **Received:** 2/16/05 **Collected:** 2/16/05 0:00
Lab ID: 0502352-09F **Matrix:** Groundwater

Test Name: ICAP Metals with Acid Digestion **Reference:** EPA 200.7

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Chromium	ND	10	µg/L	1.0	2/16/05	2/17/05

Client Sample ID: 5282-OW5-W **Received:** 2/16/05 **Collected:** 2/16/05 0:00
Lab ID: 0502352-10A **Matrix:** Groundwater

Test Name: Gasoline Components/Additives **Reference:** LUFT/EPA 8260B Modified

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Methyl tert-butyl ether (MTBE)	4.7	1.0	µg/L	1.0		2/24/05
Tert-butyl alcohol (TBA)	ND	10	µg/L	1.0		2/24/05
Di-isopropyl ether (DIPE)	ND	1.0	µg/L	1.0		2/24/05
Ethyl tert-butyl ether (ETBE)	ND	1.0	µg/L	1.0		2/24/05
Benzene	0.51	0.50	µg/L	1.0		2/24/05
Tert-amyl methyl ether (TAME)	ND	1.0	µg/L	1.0		2/24/05
Toluene	ND	0.50	µg/L	1.0		2/24/05
Ethylbenzene	ND	0.50	µg/L	1.0		2/24/05
m,p-Xylene	ND	0.50	µg/L	1.0		2/24/05
o-Xylene	ND	0.50	µg/L	1.0		2/24/05
Surrogate: 1,4-Dichlorobenzene-d4	85.0	80.8-139	% Rec	1.0		2/24/05

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Date: 08-Mar-05

ANALYTICAL REPORT

WorkOrder: 0502352

Test Name: TPH as Gasoline **Reference:** LUFT/EPA 8260B Modified

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
TPHC Gasoline	ND	50	µg/L	1.0		2/24/05

Client Sample ID: 5282-OW5-W **Received:** 2/16/05 **Collected:** 2/16/05 0:00

Lab ID: 0502352-10D **Matrix:** Groundwater

Test Name: TPH as Diesel **Reference:** EPA 3510/GCFID(LUFT)/EPA 8015B

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
TPHC Diesel (C12-C22)	ND	50	µg/L	1.0	2/23/05	2/24/05
Surrogate: N-Tricosane	76.4	27.6-107	% Rec	1.0	2/23/05	2/24/05

Client Sample ID: 5282-OW5-W **Received:** 2/16/05 **Collected:** 2/16/05 0:00

Lab ID: 0502352-10E **Matrix:** Groundwater

Test Name: ICAP Metals with Acid Digestion **Reference:** EPA 200.7

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Chromium	ND	10	µg/L	1.0	2/18/05	2/23/05

Client Sample ID: 5282-OW5-W (Dissolved) **Received:** 2/16/05 **Collected:** 2/16/05 0:00

Lab ID: 0502352-10F **Matrix:** Groundwater

Test Name: ICAP Metals with Acid Digestion **Reference:** EPA 200.7

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Chromium	ND	10	µg/L	1.0	2/16/05	2/17/05

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North Coast Laboratories, Ltd.

Date: 08-Mar-05

CLIENT: LACO Associates
Work Order: 0502352
Project: 5282.01 HPI/PFP C. C. Shell

QC SUMMARY REPORT

Method Blank

Sample ID **MB 022305** Batch ID: **R33534** Test Code: **8260OXYW** Units: **µg/L** Analysis Date **2/23/05 7:05:00 AM** Prep Date
Client ID: Run ID: **ORGCMS2_050223B** SeqNo: **485491**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	ND	1.0									
Tert-butyl alcohol (TBA)	ND	10									
Di-isopropyl ether (DIPE)	ND	1.0									
Ethyl tert-butyl ether (ETBE)	ND	1.0									
Benzene	ND	0.50									
Tert-amyl methyl ether (TAME)	ND	1.0									
Toluene	0.08740	0.50									J
Ethylbenzene	0.1297	0.50									J
m,p-Xylene	0.1381	0.50									J
o-Xylene	ND	0.50									
1,4-Dichlorobenzene-d4	0.851	0.10	1.00	0	85.1%	81	139	0			

Sample ID **MB 022305** Batch ID: **R33528** Test Code: **GASW-MS** Units: **µg/L** Analysis Date **2/23/05 7:05:00 AM** Prep Date
Client ID: Run ID: **ORGCMS2_050223A** SeqNo: **485375**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPHC Gasoline	ND	50									

Sample ID **MB-12994P** Batch ID: **12994** Test Code: **ICPX** Units: **µg/L** Analysis Date **2/17/05 3:51:00 PM** Prep Date **2/16/05**
Client ID: Run ID: **INICP1_050217A** SeqNo: **483703**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	ND	10									

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

CLIENT: LACO Associates
Work Order: 0502352
Project: 5282.01 HPI/PFP C. C. Shell

QC SUMMARY REPORT

Method Blank

Sample ID **MB-13008P** Batch ID: **13008** Test Code: **ICPX** Units: **µg/L** Analysis Date **2/23/05 3:28:00 PM** Prep Date **2/18/05**
Client ID: Run ID: **INICP1_050223A** SeqNo: **485298**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	ND	10									

Sample ID **MB-13069** Batch ID: **13069** Test Code: **SGTPHDW** Units: **µg/L** Analysis Date **3/7/05 7:50:27 PM** Prep Date **3/1/05**
Client ID: Run ID: **ORGC5_050307A** SeqNo: **488391**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPHC Diesel (C12-C22)	48.96	50									J
N-Tricosane	53.4	0.10	50.0	0	107%	34	145	0			

Sample ID **MB-13033** Batch ID: **13033** Test Code: **TPHDIW** Units: **µg/L** Analysis Date **2/24/05 1:43:09 PM** Prep Date **2/23/05**
Client ID: Run ID: **ORGC7_050224A** SeqNo: **486276**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPHC Diesel (C12-C22)	ND	50									
N-Tricosane	43.9	0.10	50.0	0	87.8%	28	107	0			

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

North Coast Laboratories, Ltd.

Date: 08-Mar-05

CLIENT: LACO Associates
Work Order: 0502352
Project: 5282.01 HPI/PFP C. C. Shell

QC SUMMARY REPORT

Laboratory Control Spike

Sample ID **LCS-05129** Batch ID: **R33534** Test Code: **8260OXYW** Units: **µg/L** Analysis Date **2/23/05 3:03:00 AM** Prep Date

Client ID: Run ID: **ORGCMS2_050223B** SeqNo: **485488**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	19.36	1.0	20.0	0	96.8%	80	120	0			
Tert-butyl alcohol (TBA)	559.2	10	400	0	140%	25	162	0			
Di-isopropyl ether (DIPE)	19.30	1.0	20.0	0	96.5%	80	120	0			
Ethyl tert-butyl ether (ETBE)	23.57	1.0	20.0	0	118%	77	120	0			
Benzene	22.20	0.50	20.0	0	111%	78	117	0			
Tert-amyl methyl ether (TAME)	20.17	1.0	20.0	0	101%	64	136	0			
Toluene	27.56	0.50	20.0	0	138%	80	120	0			S
Ethylbenzene	23.13	0.50	20.0	0	116%	80	120	0			
m,p-Xylene	51.49	0.50	40.0	0	129%	80	120	0			S
o-Xylene	21.95	0.50	20.0	0	110%	80	120	0			
1,4-Dichlorobenzene-d4	1.43	0.10	1.00	0	143%	81	139	0			S

Sample ID **LCSD-05129** Batch ID: **R33534** Test Code: **8260OXYW** Units: **µg/L** Analysis Date **2/23/05 3:34:00 AM** Prep Date

Client ID: Run ID: **ORGCMS2_050223B** SeqNo: **485489**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	19.11	1.0	20.0	0	95.5%	80	120	19.4	1.31%	20	
Tert-butyl alcohol (TBA)	517.5	10	400	0	129%	25	162	559	7.73%	20	
Di-isopropyl ether (DIPE)	19.25	1.0	20.0	0	96.3%	80	120	19.3	0.228%	20	
Ethyl tert-butyl ether (ETBE)	23.44	1.0	20.0	0	117%	77	120	23.6	0.562%	20	
Benzene	22.18	0.50	20.0	0	111%	78	117	22.2	0.0901%	20	
Tert-amyl methyl ether (TAME)	19.47	1.0	20.0	0	97.3%	64	136	20.2	3.52%	20	
Toluene	28.88	0.50	20.0	0	144%	80	120	27.6	4.66%	20	S
Ethylbenzene	23.05	0.50	20.0	0	115%	80	120	23.1	0.361%	20	
m,p-Xylene	47.82	0.50	40.0	0	120%	80	120	51.5	7.38%	20	
o-Xylene	21.88	0.50	20.0	0	109%	80	120	22.0	0.297%	20	
1,4-Dichlorobenzene-d4	1.42	0.10	1.00	0	142%	81	139	1.43	0.753%	20	S

Qualifiers: ND - Not Detected at the Reporting Limit; S - Spike Recovery outside accepted recovery limits; B - Analyte detected in the associated Method Blank; J - Analyte detected below quantitation limits; R - RPD outside accepted recovery limits

CLIENT: LACO Associates
Work Order: 0502352
Project: 5282.01 HPI/PFP C. C. Shell

QC SUMMARY REPORT

Laboratory Control Spike

Sample ID **LCS-05130** Batch ID: **R33528** Test Code: **GASW-MS** Units: **µg/L** Analysis Date **2/23/05 5:04:00 AM** Prep Date
Client ID: Run ID: **ORGCMS2_050223A** SeqNo: **485372**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPHC Gasoline	1,011	50	1,000	0	101%	80	120	0			

Sample ID **LCSD-05130** Batch ID: **R33528** Test Code: **GASW-MS** Units: **µg/L** Analysis Date **2/23/05 5:34:00 AM** Prep Date
Client ID: Run ID: **ORGCMS2_050223A** SeqNo: **485373**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPHC Gasoline	993.2	50	1,000	0	99.3%	80	120	1,010	1.77%	20	

Sample ID **LCS-12994P** Batch ID: **12994** Test Code: **ICPX** Units: **µg/L** Analysis Date **2/17/05 3:54:00 PM** Prep Date **2/16/05**
Client ID: Run ID: **INICP1_050217A** SeqNo: **483704**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	480.0	10	500	0	96.0%	85	115	0			

Sample ID **LCS-13008P** Batch ID: **13008** Test Code: **ICPX** Units: **µg/L** Analysis Date **2/23/05 3:32:00 PM** Prep Date **2/18/05**
Client ID: Run ID: **INICP1_050223A** SeqNo: **485299**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	518.4	10	500	0	104%	85	115	0			

Sample ID **LCS-13069** Batch ID: **13069** Test Code: **SGTPHDW** Units: **µg/L** Analysis Date **3/7/05 5:55:07 PM** Prep Date **3/1/05**
Client ID: Run ID: **ORGC5_050307A** SeqNo: **488389**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPHC Diesel (C12-C22)	324.3	50	500	0	64.9%	33	92	0			
N-Tricosane	52.7	0.10	50.0	0	105%	34	145	0			

Qualifiers: ND - Not Detected at the Reporting Limit; S - Spike Recovery outside accepted recovery limits; B - Analyte detected in the associated Method Blank; J - Analyte detected below quantitation limits; R - RPD outside accepted recovery limits

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Chain of Custody

LABORATORY NUMBER:

Attention: Accounts Payable
Results & Invoice to: Laco Associates
Address: 21 W. 4th St. Eureka CA 95501

Phone: (707) 443-5054
Copies of Report to: LACO; Christine Manhart

Sampler (Sign & Print): SJD

TAT: ☐ 24 Hr ☐ 48 Hr ☐ 5 Day ☐ 5–7 Day
☑ STD (2–3 Wk) ☐ Other:
PRIOR AUTHORIZATION IS REQUIRED FOR RUSHES

REPORTING REQUIREMENTS: State Forms ☐
Preliminary: FAX ☑ Verbal ☐ By:
Final Report: FAX ☐ Verbal ☐ By:

CONTAINER CODES: 1—½ gal. pl; 2—250 ml pl; 3—500 ml pl; 4—1 L Nalgene; 5—250 ml BG; 6—500 ml BG; 7—1 L BG; 8—1 L cg; 9—40 ml VOA; 10—125 ml VOA; 11—4 oz glass jar; 12—8 oz glass jar; 13—brass tube; 14—other

PRESERVATIVE CODES: a—HNO_3; b—HCl; c—H_2SO_4; d—$Na_2S_2O_3$; e—NaOH; f—$C_2H_3O_2Cl$; g—other

PROJECT INFORMATION

Project Number: 5282.01
Project Name: HPI/PFP C.C. Shell
Purchase Order Number: task 3020

LAB ID	SAMPLE ID	DATE	TIME	MATRIX*	ANALYSIS	CONTAINER	PRESERVATIVE	SAMPLE CONDITION/SPECIAL INSTRUCTIONS
	5282-QCTB-W	2-16-05	Pm	GW	8260 list1	9	b	
					1			

Cold intact

RELINQUISHED BY (Sign & Print)	DATE/TIME	RECEIVED BY (Sign)	DATE/TIME
J L Short	2/16/05 1625	[illegible]	2/16/05 1625

SAMPLE DISPOSAL
☑ NCL Disposal of Non-Contaminated
☐ Return ☐ Pickup

CHAIN OF CUSTODY SEALS Y/N/NA
SHIPPED VIA: UPS Air-Ex Fed-Ex Bus Hand

***MATRIX:** DW=Drinking Water; Eff=Effluent; Inf=Influent; SW=Surface Water; GW=Ground Water; S=Soil; O=Other.

ALL CONTAMINATED NON-AQUEOUS SAMPLES WILL BE RETURNED TO CLIENT

NORTH COAST LABORATORIES LTD.
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Chain of Custody

LABORATORY NUMBER: 0502352

Attention: Accounts Payable
Results & Invoice to: Laco Associates
Address: 21 W. 4th St. Eureka CA 95501
Phone: (707) 443-5054
Copies of Report to: LACO; Christine Manhart
Sampler (Sign & Print): SJD

TAT: [ ] 24 Hr [ ] 48 Hr [ ] 5 Day [ ] 5–7 Day
[✓] STD (2–3 Wk) [ ] Other:
PRIOR AUTHORIZATION IS REQUIRED FOR RUSHES

REPORTING REQUIREMENTS: State Forms [ ]
Preliminary: FAX [✓] Verbal [ ] By:
Final Report: FAX [ ] Verbal [ ] By:

CONTAINER CODES: 1—½ gal. pl; 2—250 ml pl; 3—500 ml pl; 4—1 L Nalgene; 5—250 ml BG; 6—500 ml BG; 7—1 L BG; 8—1 L cg; 9—40 ml VOA; 10—125 ml VOA; 11—4 oz glass jar; 12—8 oz glass jar; 13—brass tube; 14—other

PRESERVATIVE CODES: a—HNO_3; b—HCl; c—H_2SO_4; d—$Na_2S_2O_3$; e—NaOH; f—$C_2H_3O_2Cl$; g—other

PROJECT INFORMATION

Project Number: 5282.01
Project Name: HPI/PFP C.C. Shell
Purchase Order Number: task 3020

LAB ID	SAMPLE ID	DATE	TIME	MATRIX*	ANALYSIS	CONTAINER	PRESERVATIVE
	~~5282-QCTB-W~~	~~2-16-05~~	~~pm~~	GW	8260 list1	9	b

ICT Not received Notified voice mail

SAMPLE CONDITION/SPECIAL INSTRUCTIONS

Cold, intact

RELINQUISHED BY (Sign & Print)	DATE/TIME	RECEIVED BY (Sign)	DATE/TIME
J L Short	2/16/05 1625	[signature]	2/16/05 1625

SAMPLE DISPOSAL
[✓] NCL Disposal of Non-Contaminated
[ ] Return [ ] Pickup

CHAIN OF CUSTODY SEALS Y/N/NA
SHIPPED VIA: UPS Air-Ex Fed-Ex Bus Hand

***MATRIX:** DW=Drinking Water; Eff=Effluent; Inf=Influent; SW=Surface Water; GW=Ground Water; S=Soil; O=Other.

ALL CONTAMINATED NON-AQUEOUS SAMPLES WILL BE RETURNED TO CLIENT

NORTH COAST LABORATORIES LTD.
5680 West End Road · Arcata · CA 95521-9202
707-822-4649 Fax 707-822-6831

Chain of Custody

LABORATORY NUMBER:

Attention: Accounts Payable
Results & Invoice to: Laco Associates
Address: 21 W. 4th St. Eureka CA 95501
Phone: (707) 443-5054
Copies of Report to: LACO ; CHRISTINE MANHART
Sampler (Sign & Print): SJD

TAT: ☐ 24 Hr ☐ 48 Hr ☐ 5 Day ☐ 5–7 Day
☑ STD (2–3 Wk) ☐ Other:
PRIOR AUTHORIZATION IS REQUIRED FOR RUSHES

REPORTING REQUIREMENTS: State Forms ☐
Preliminary: FAX ☑ Verbal ☐ By:
Final Report: FAX ☐ Verbal ☐ By:

CONTAINER CODES: 1—½ gal. pl; 2—250 ml pl; 3—500 ml pl; 4—1 L Nalgene; 5—250 ml BG; 6—500 ml BG; 7—1 L BG; 8—1 L cg; 9—40 ml VOA; 10—125 ml VOA; 11—4 oz glass jar; 12—8 oz glass jar; 13—brass tube; 14—other

PRESERVATIVE CODES: a—HNO_3; b—HCl; c—H_2SO_4; d—$Na_2S_2O_3$; e—NaOH; f—$C_2H_3O_2Cl$; g—other

PROJECT INFORMATION

Project Number: 3503.03
Project Name: CRESCENT CITY SHELL
Purchase Order Number: task 3020

LAB ID	SAMPLE ID	DATE	TIME	MATRIX*	ANALYSIS: 8260 List 1	ANALYSIS: TPHd/mo w/SGC	ANALYSIS: Dissolved Cr	CONTAINER	PRESERVATIVE
	3503-MW3-W	2-16-05	AM	GW	3	1		9	b
	3503-DW-W	↓	↓	↓	3	1	↓	7	↓
	3503-OW1-W				3	1			
	3503-OW2-W				3	1			
	3503-QCTB-W	↓	PM	↓	1			2	↓

SAMPLE CONDITION/SPECIAL INSTRUCTIONS

GEOTRACKER

Cold, intact

RELINQUISHED BY (Sign & Print)	DATE/TIME	RECEIVED BY (Sign)	DATE/TIME
J L Short	2/16/05 1625	K. Thompson	2/16/05 1625

SAMPLE DISPOSAL
☑ NCL Disposal of Non-Contaminated
☐ Return ☐ Pickup

CHAIN OF CUSTODY SEALS Y/N/NA
SHIPPED VIA: UPS Air-Ex Fed-Ex Bus Hand

***MATRIX:** DW=Drinking Water; Eff=Effluent; Inf=Influent; SW=Surface Water; GW=Ground Water; S=Soil; O=Other.

ALL CONTAMINATED NON-AQUEOUS SAMPLES WILL BE RETURNED TO CLIENT

AIR TOXICS LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Air Toxics Ltd. Introduces the Electronic Report

Thank you for choosing Air Toxics Ltd. To better serve our customers, we are providing your report by e-mail. This document is provided in Portable Document Format which can be viewed with Acrobat Reader by Adobe.

This electronic report includes the following:

- Work order Summary;
- Laboratory Narrative;
- Results; and
- Chain of Custody (copy).

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630

(916) 985-1000 .FAX (916) 985-1020
Hours 8:00 A.M to 6:00 P.M. Pacific
E-mail to:samplereceiving@airtoxics.com

AIR TOXICS LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

WORK ORDER #: 0502338

Work Order Summary

CLIENT:	Ms. Christine Manhart Laco Associates 21 W. 4th Street Eureka, CA 95501	**BILL TO:**	Ms. Christine Manhart Laco Associates 21 W. 4th Street Eureka, CA 95501
PHONE:	707-443-5054	**P.O. #**	
FAX:	707-443-0553	**PROJECT #**	5282.01 HPI/PFP C. CITY SHELL
DATE RECEIVED:	02/17/2005	**CONTACT:**	Kelly Buettner
DATE COMPLETED:	03/02/2005		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.
01A	5282-VP1	Mod. Method TO-14A	Tedlar Bag
02A	5282-VP2	Mod. Method TO-14A	Tedlar Bag
03A	5282-VP3	Mod. Method TO-14A	Tedlar Bag
04A	5282-VP4	Mod. Method TO-14A	Tedlar Bag
05A	5282-VP5	Mod. Method TO-14A	Tedlar Bag
06A	5282-VP6	Mod. Method TO-14A	Tedlar Bag
07A	Lab Blank	Mod. Method TO-14A	NA
08A	CCV	Mod. Method TO-14A	NA
09A	LCS	Mod. Method TO-14A	NA

CERTIFIED BY: Linda J. Freeman

Laboratory Director

DATE: 03/03/05

Certfication numbers: AR DEQ - 03-084-0, CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763, NJ NELAP - CA004
NY NELAP - 11291, UT NELAP - 9166389892
Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,
Accreditation number: E87680, Effective date: 07/01/04, Expiration date: 06/30/05
Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

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180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

LABORATORY NARRATIVE
Mod. Method TO-14A
Laco Associates
Workorder# 0502338

Six 1 Liter Tedlar Bag samples were received on February 17, 2005. The laboratory performed the analysis via Modified Method TO-14A using GC/MS in the full scan mode. The method involves direct injection of up to a 40 mL sample aliquot into a vapor management system. Following dehumidification the sample passes directly into the GC/MS for analysis. See the data sheets for the reporting limits of each compound.

Requirement	*TO-14A/TO-15*	*ATL Modifications*
Concentration of IS Spike	10 ppbv (TO-15)	500 ppbv
BFB Acceptance Criteria	CLP protocol (TO-15)	SW-846 protocol
Sampling Drying System	Nafion Dryer (TO-14A)	Multisorbent concentrator
Blank acceptance criteria	< 0.2 ppbv (TO-14A)	< RL.
IS Recovery	TO-15: Within 40 % of mean over ICAL for blanks, and w/in 40 % of daily CCV for samples	Within 40 % of CCV recovery for blank and samples.
Sample volume	Up to 400 mL (TO-14A)	Up to 40 mLs
Initial Calibration	+- 30 % RSD (TO-14A)	</= 30 % RSD with 2 compounds allowed out to < 40 %.
Primary Ions for Quantification	Freon 114: 85, Carbon Tetrachloride: 117, Trichloroethene: 130, Ethyl Benzene, m,p- and o-Xylene: 91	Freon 114: 135, Carbon Tetrachloride: 119, Trichloroethene: 95, Ethyl Benzene, m,p- and o-Xylene: 106
Daily CCV	+- 30 % D	</= 30 % D with 2 allowed out up to 40%; flag associated sample results.
Sample collection media	Summa canister	ATL recommends use of summa canisters to insure data defensibility, but will report results from Tedlar bags at client request
BFB Tune Absolute Abundance Criteria	Within 10% of that from the previous day. (TO-14A)	CCV Internal Standard area counts are compared to the ICAL; corrective action for > 40 %D.
Dilutions for Initial Calibration	Dynamic dilutions or static using canisters.	Syringe dilutions, bag dilutions.

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

There were no analytical discrepancies.

Definition of Data Qualifying Flags

Seven qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction no performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit.

UJ- Non-detected compound associated with low bias in the CCV.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

AIR TOXICS LTD.

SAMPLE NAME: 5282-VP1

ID#: 0502338-01A

MODIFIED EPA METHOD TO-14A DIRECT INJECT GC/MS

File Name:	e021820	Date of Collection:	2/16/05
Dil. Factor:	1.00	Date of Analysis:	2/18/05 11:02 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Benzene	5.0	Not Detected	16	Not Detected
Toluene	5.0	Not Detected	19	Not Detected
Ethyl Benzene	5.0	Not Detected	22	Not Detected
m,p-Xylene	5.0	Not Detected	22	Not Detected
o-Xylene	5.0	Not Detected	22	Not Detected
Methyl tert-butyl ether	5.0	Not Detected	18	Not Detected

Container Type: 1 Liter Tedlar Bag

Surrogates	%Recovery	Method Limits
Toluene-d8	104	70-130

AIR TOXICS LTD.

SAMPLE NAME: 5282-VP2

ID#: 0502338-02A

MODIFIED EPA METHOD TO-14A DIRECT INJECT GC/MS

File Name:	e021821	Date of Collection:	2/16/05
Dil. Factor:	1.00	Date of Analysis:	2/18/05 11:27 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Benzene	5.0	Not Detected	16	Not Detected
Toluene	5.0	Not Detected	19	Not Detected
Ethyl Benzene	5.0	Not Detected	22	Not Detected
m,p-Xylene	5.0	Not Detected	22	Not Detected
o-Xylene	5.0	Not Detected	22	Not Detected
Methyl tert-butyl ether	5.0	10	18	38

Container Type: 1 Liter Tedlar Bag

Surrogates	%Recovery	Method Limits
Toluene-d8	106	70-130

AIR TOXICS LTD.

SAMPLE NAME: 5282-VP3

ID#: 0502338-03A

MODIFIED EPA METHOD TO-14A DIRECT INJECT GC/MS

File Name:	e021822	Date of Collection:	2/16/05
Dil. Factor:	1.00	Date of Analysis:	2/18/05 11:52 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Benzene	5.0	Not Detected	16	Not Detected
Toluene	5.0	Not Detected	19	Not Detected
Ethyl Benzene	5.0	Not Detected	22	Not Detected
m,p-Xylene	5.0	Not Detected	22	Not Detected
o-Xylene	5.0	Not Detected	22	Not Detected
Methyl tert-butyl ether	5.0	Not Detected	18	Not Detected

Container Type: 1 Liter Tedlar Bag

Surrogates	%Recovery	Method Limits
Toluene-d8	107	70-130

AIR TOXICS LTD.

SAMPLE NAME: 5282-VP4

ID#: 0502338-04A

MODIFIED EPA METHOD TO-14A DIRECT INJECT GC/MS

File Name:	e021819	Date of Collection:	2/16/05
Dil. Factor:	1.00	Date of Analysis:	2/18/05 10:11 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Benzene	5.0	Not Detected	16	Not Detected
Toluene	5.0	8.5	19	32
Ethyl Benzene	5.0	Not Detected	22	Not Detected
m,p-Xylene	5.0	Not Detected	22	Not Detected
o-Xylene	5.0	Not Detected	22	Not Detected
Methyl tert-butyl ether	5.0	Not Detected	18	Not Detected

Container Type: 1 Liter Tedlar Bag

Surrogates	%Recovery	Method Limits
Toluene-d8	110	70-130

AIR TOXICS LTD.

SAMPLE NAME: 5282-VP5

ID#: 0502338-05A

MODIFIED EPA METHOD TO-14A DIRECT INJECT GC/MS

File Name:	e021823	Date of Collection:	2/16/05
Dil. Factor:	1.00	Date of Analysis:	2/18/05 12:19 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Benzene	5.0	Not Detected	16	Not Detected
Toluene	5.0	Not Detected	19	Not Detected
Ethyl Benzene	5.0	Not Detected	22	Not Detected
m,p-Xylene	5.0	Not Detected	22	Not Detected
o-Xylene	5.0	Not Detected	22	Not Detected
Methyl tert-butyl ether	5.0	Not Detected	18	Not Detected

Container Type: 1 Liter Tedlar Bag

Surrogates	%Recovery	Method Limits
Toluene-d8	114	70-130

AIR TOXICS LTD.

SAMPLE NAME: 5282-VP6

ID#: 0502338-06A

MODIFIED EPA METHOD TO-14A DIRECT INJECT GC/MS

File Name:	e021824	Date of Collection:	2/16/05
Dil. Factor:	1.00	Date of Analysis:	2/18/05 12:43 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Benzene	5.0	Not Detected	16	Not Detected
Toluene	5.0	5.5	19	21
Ethyl Benzene	5.0	Not Detected	22	Not Detected
m,p-Xylene	5.0	Not Detected	22	Not Detected
o-Xylene	5.0	Not Detected	22	Not Detected
Methyl tert-butyl ether	5.0	Not Detected	18	Not Detected

Container Type: 1 Liter Tedlar Bag

Surrogates	%Recovery	Method Limits
Toluene-d8	110	70-130

AIR TOXICS LTD.

SAMPLE NAME: Lab Blank

ID#: 0502338-07A

MODIFIED EPA METHOD TO-14A DIRECT INJECT GC/MS

File Name:	e021806	Date of Collection: NA	
Dil. Factor:	1.00	Date of Analysis: 2/18/05 03:17 AM	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Benzene	5.0	Not Detected	16	Not Detected
Toluene	5.0	Not Detected	19	Not Detected
Ethyl Benzene	5.0	Not Detected	22	Not Detected
m,p-Xylene	5.0	Not Detected	22	Not Detected
o-Xylene	5.0	Not Detected	22	Not Detected
Methyl tert-butyl ether	5.0	Not Detected	18	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	102	70-130

AIR TOXICS LTD.

SAMPLE NAME: CCV

ID#: 0502338-08A

MODIFIED EPA METHOD TO-14A DIRECT INJECT GC/MS

File Name:	e021804	Date of Collection: NA	
Dil. Factor:	1.00	Date of Analysis: 2/18/05 02:20 AM	

Compound	%Recovery
Benzene	98
Toluene	94
Ethyl Benzene	94
m,p-Xylene	102
o-Xylene	91
Methyl tert-butyl ether	95

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	104	70-130

AIR TOXICS LTD.

SAMPLE NAME: LCS

ID#: 0502338-09A

MODIFIED EPA METHOD TO-14A DIRECT INJECT GC/MS

File Name:	e021805	Date of Collection: NA	
Dil. Factor:	1.00	Date of Analysis: 2/18/05 02:48 AM	

Compound	%Recovery
Benzene	104
Toluene	99
Ethyl Benzene	100
m,p-Xylene	111
o-Xylene	89
Methyl tert-butyl ether	91

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	101	70-130

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CHAIN-OF-CUSTODY RECORD

Sample Transportation Notice

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180 BLUE RAVINE ROAD, SUITE B
FOLSOM, CA 95630-4719
(916) 985-1000 FAX: (916) 985-1020

Contact Person: CHRISTINE MANHART
Company: LACO ASSOCIATES
Address: 21 W. 4TH ST. City: EUREKA State: CA Zip: 95501
Phone: (707) 443-5054 FAX: (707) 443-0553
Collected By: Signature: [signature]

Project info:
P.O. #:
Project #: 5282.01
Project Name: HPI/PFP C. CITY SHELL

Turn Around Time:
☑ Normal
☐ Rush _____ Specify

Lab I.D.	Field Sample I.D.	Date & Time	Analyses Requested	Canister Pressure / Vacuum Initial	Final	Receipt
	5282-VP1	2-16-05 PM	BTEX / MTBE BY TO14			
	5282-VP2	↓	↓			
	5282-VP3	↓	↓			
	5282-VP4	↓	↓			
	5282-VP5	↓	↓			
	5282-VP6	↓	↓			

Relinquished By: (Signature)	Date/Time	Received By: (Signature)	Date/Time
[signature]	2-16-05		
Relinquished By: (Signature)	Date/Time	Received By: (Signature)	Date/Time
Relinquished By: (Signature)	Date/Time	Received By: (Signature)	Date/Time

Notes:

Lab Use Only	Shipper Name	Air Bill #	Opened By	Temp. (°C)	Condition	Custody Seals Intact?	Work Order #
						Yes No None	

Form 1293 rev. 09

Attachment 4

LACO ASSOCIATES
CONSULTING ENGINEERS
21 We[illegible]th Street, Eureka, CA 95501
TEL 70[illegible]443.5054
FAX 707.443.0553

Project Name: HPI PFP CC Sitell
Project No.: 5282.01
Task: 413
Date: 3/15/2005
PM: CSM

Tech: BWN
Mobe/Demobe time: .5/.5
Travel time: 2/1.75
Time on site: 1330
Time off site: 1515
Mileage: 180

SYSTEM READINGS

UNIT: C-SPARGER				UNIT:			
Master Panel Runtime (Hrs):	9727.32			Master Panel Runtime (Hrs):			
O_2 Concentrator Runtime (Hrs):	12985			O_2 Concentrator Runtime (Hrs):			
System Clock Time:	1440 @ 1442			System Clock Time:			
STATION	MANIFOLD PRESSURE (psi)	SPARGE POINT	WELL HEAD PRESSURE (psi)	STATION	MANIFOLD PRESSURE (psi)	SPARGE POINT	WELL HEAD PRESSURE (psi)
1	~~35~~ 33			1			
2	~~18~~ 37			2			
3	~~15~~ 39			3			
4	37			4			
5	29			5			
6	24			6			
7	27			7			
8	24			8			
9	34			9			
10	25			10			
11				11			
12				12			

ANCILLARY INFORMATION

Power Meter (Kwh):	23125	Max. Temperature (°F):	87.6°F
Max. Humidity (%RH):	65%	Ventilation Fan(s):	(ON) / OFF
Surge Suppression:	(ON) / OFF	Controller Battery Voltage (volts):	N/A

TROUBLESHOOTING

Ozone Detector Fault:	N/A YES / NO	16A Breaker Fault:	YES / (NO)
Panel GFI Fault:	YES / (NO)	Main Circuit Breaker Fault:	YES / (NO)
Controller Fault:	YES / (NO)	Fasteners/Fittings:	✓
Solenoid Malfunction:	1 2 3 4 5 6 7 8 9 10 11 12	Correct Controller Program:	(YES) / NO
Tubing:	✓	Wires:	✓

MAINTENANCE

O_2 Concentrator Filter	(YES) / NO	Reset Temperature/Humidity	(YES) / NO
Compressor Filter	CHANGE (YES) / NO	Check Peroxide Level	N/A YES / NO

TATION	RUN TIME A	B	C	HOURS/DAY	SPARGE POINT	WELL BOX OZONE CONC. (ppm)
1	14	12	12	228	1s	
2	14	12	12	228	1d	
3	14	12	12	228	4s	
4	14	12	12	228	4d	
5	14	12	12	228	5d	
6	—	2	2	24	3s, 2s	
7	—	2	2	24	2d, 3d	
8	—	2	2	24	6s, 7s	
9	—	2	2	24	6d, 7d	
10	—	2	2	24	8, 9	
11						
12						
13						
TOTAL:	420	420	420	1260		

START TIMES	A	B	C
1	1200	800	1600
2	120	920	1720
3	240	1040	1840
4	400	1200	2000
5	520	1320	2120
6	640	1440	2240

REPAIRS

REBUILT 1207 COMPRESSOR
- SS CYL
- PISTON
- HEAD SEAL
- HEAD RING SEAL
- 4 TOP FLAPPER
- 1 UNDER FLAPPER

ADDED SNUBBER & NEW PRESSURE GAUGE

MODIFICATIONS

CLEANED DUST/DIRT OUT OF SHED

LACO ASSOCIATES
CONSULTING ENGINEERS
21 West Fourth Street, Eureka, CA 95501
TEL 707.443.5054
FAX 707.443.0553

Project Name: CRESCENT CITY SHELL
Project No.: 5282.01
Task: 413
Date: 2-16-05
PM: CSM

Tech: SJD
Mobe/Demobe time: -/-
Travel time: -
Time on site: 1:00
Time off site: 1:45
Mileage: -

SYSTEM READINGS

UNIT: C-SPARGER #1				UNIT:			
Master Panel Runtime (Hrs): 9208.99				Master Panel Runtime (Hrs):			
O_2 Concentrator Runtime (Hrs): 1192.7				O_2 Concentrator Runtime (Hrs):			
System Clock Time: 1303 CORRECT				System Clock Time:			
STATION	MANIFOLD PRESSURE (psi)	SPARGE POINT	WELL HEAD PRESSURE (psi)	STATION	MANIFOLD PRESSURE (psi)	SPARGE POINT	WELL HEAD PRESSURE (psi)
1	25	1S		1			
2	26	1D		2			
3	25	4S		3			
4	24	4D		4			
5	23	5D		5			
6	24	2S/3S		6			
7	25	2D/3D		7			
8	22	6S/7S		8			
9	27	6D/7D		9			
10	24	8,9		10			
11				11			
12				12			

ANCILLARY INFORMATION

Power Meter (Kwh):	22536	Max. Temperature (°F):	86.5 °F
Max. Humidity (%RH):	65%	Ventilation Fan(s):	(ON) OFF
Surge Suppression:	(ON) OFF	Controller Battery Voltage (volts):	N/A

TROUBLESHOOTING

Ozone Detector Fault: N/A	YES / NO	16A Breaker Fault:	YES / (NO)
Panel GFI Fault:	YES / (NO)	Main Circuit Breaker Fault:	YES / (NO)
Controller Fault:	YES / (NO)	Fasteners/Fittings: ✓	REPLACED TUBING FITTINGS ON STATION 7
Solenoid Malfunction:	1 2 3 4 5 6 7 8 9 10 11 12	Correct Controller Program:	(YES) / NO
Tubing: ✓		Wires: ✓	

MAINTENANCE

O_2 Concentrator Filter	(YES) / NO	Reset Temperature/Humidity	(YES) / NO
Compressor Filter	(YES) / NO	Check Peroxide Level N/A	YES / NO

LACO ASSOCIATES
CONSULTING ENGINEERS

21 W. Fourth Street, Eureka, CA 95501
TEL 707.443.5054
FAX 707.443.0553

Project Name: CRESCENT CITY SHELL
Project No.: 5282.01
Task: 413
Date: 1/24/05
PM: CSM

Tech: BMN
Mobe/Demobe time: .25 / .25
Travel time: 1.75 / 1.75
Time on site: 1500
Time off site: 1600
Mileage: 165

SYSTEM READINGS

UNIT: C-SPARGER #1

Master Panel Runtime (Hrs): 8785.22
O_2 Concentrator Runtime (Hrs): 1179.7
System Clock Time: 1505 Correct

STATION	MANIFOLD PRESSURE (psi)		SPARGE POINT	WELL HEAD PRESSURE (psi)
1	21	25	1S	
2	25	28	1D	
3	21	26	4S	
4	22	26	4D	
5	23	27	5D	
6	19	23	2S/3S	
7	23	25	2D/3D	
8	15	20	6S/7S	
9	22	27	6D/7D	
10	18	26	8, 9	
11				
12				

UNIT:

Master Panel Runtime (Hrs):
O_2 Concentrator Runtime (Hrs):
System Clock Time:

STATION	MANIFOLD PRESSURE (psi)		SPARGE POINT	WELL HEAD PRESSURE (psi)
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				

ANCILLARY INFORMATION

ver Meter (Kwh): 22012
Humidity (%RH): 64%
e Suppression: (ON) / OFF

Max. Temperature (°F): 84.0°F
Ventilation Fan(s): (ON) / OFF
Controller Battery Voltage (volts): N/A

TROUBLESHOOTING

Detector Fault: N/A
GFI Fault: YES / NO
er Fault: YES / (NO)
Malfunction: YES / (NO)
1 2 3 4 5 6 7 8 9 10 11 12
/

16A Breaker Fault: YES / (NO)
Main Circuit Breaker Fault: YES / (NO)
Fasteners/Fittings: ✓
Correct Controller Program: (YES) / NO
Wires: ✓

MAINTENANCE

trator Filter
r Filter
(YES) / NO
(YES) / NO

Reset Temperature/Humidity: (YES) / NO
Check Peroxide Level: N/A YES / NO

LACO ASSOCIATES
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21 We[illegible]th Street, Eureka, CA 95501
TEL 707.[illegible]3.5054
FAX 707.443.0553

Project Name:	CRESCENT CITY SHELL	Tech:	SJD
Project No.:	5282.01	Mobe/Demobe time:	.50/.25
Task:	413	Travel time:	1.75
Date:	1-12-05	Time on site:	1:20
PM:	CSM	Time off site:	2:35
		Mileage:	86

SYSTEM READINGS

UNIT: C - SPARGER #1		UNIT:	
Master Panel Runtime (Hrs):	8553.95	Master Panel Runtime (Hrs):	
O_2 Concentrator Runtime (Hrs):	1150.8	O_2 Concentrator Runtime (Hrs):	
System Clock Time:	1432 SB 1432 CURRENT	System Clock Time:	

STATION	MANIFOLD PRESSURE (psi)	SPARGE POINT	WELL HEAD PRESSURE (psi)	STATION	MANIFOLD PRESSURE (psi)	SPARGE POINT	WELL HEAD PRESSURE (psi)
1	26	1S	—	1			
2	29	1D	—	2			
3	29	4S	—	3			
4	27	4D	—	4			
5	28	5D	—	5			
6	24	2S/3S	—	6			
7	26	2D/3D	—	7			
8	20	6S/7S	—	8			
9	28	6D/7D	—	9			
10	25	8,9	—	10			
11	—	—	—	11			
12	—	—	—	12			

ANCILLARY INFORMATION

Power Meter (Kwh):	21721	Max. Temperature (°F):	83.1 F
Max. Humidity (%RH):	78%	Ventilation Fan(s):	(ON) / OFF
Surge Suppression:	(ON) / OFF	Controller Battery Voltage (volts):	N/A

TROUBLESHOOTING

Ozone Detector Fault:	YES / (NO)	16A Breaker Fault:	YES / (NO)
Panel GFI Fault:	YES / (NO)	Main Circuit Breaker Fault:	YES / (NO)
Controller Fault:	YES / (NO)	Fasteners/Fittings:	✓
Solenoid Malfunction:	1 2 3 4 5 6 7 8 9 10 11 12	Correct Controller Program:	(YES) / NO
Tubing:	✓	Wires:	✓

MAINTENANCE

O_2 Concentrator Filter	(YES) / NO	Reset Temperature/Humidity	(YES) / NO
Compressor Filter	(YES) / NO	Check Peroxide Level N/A	YES / NO

ATION	R[illegible]N TIME				SP[illegible]GE POINT	WELL BOX OZONE CONC. (ppm)
	A	B	C	HOURS/DAY		
1	14	12	12	228	1s	
2	14	12	12	228	1d	
3	14	12	12	228	4s	
4	14	12	12	228	4d	
5	14	12	12	228	5d	
6	—	2	2	24	3s, 2s	
7	—	2	2	24	2d, 3d	
8	—	2	2	24	6s, 7s	
9	—	2	2	24	6d, 7d	
10	—	2	2	24	8, 9	
11						
12						
13						
TOTAL:	420	420	420	1260		

TART MES	A	B	C	REPAIRS
1	1200	800	1600	—
2	~~120~~	~~920~~	~~1720~~	
3	240	1040	1840	
4	400	1200	2000	
5	520	1320	2120	
6	640	1440	2240	

MODIFICATIONS

—

LACO ASSOCIATES
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Project Name: CRESCENT CITY SHELL
Project No.: 5282.01
Task: 413
Date: 12/13/2004
PM: CSM

Tech: BWN
Mobe/Demobe time: .25/.25
Travel time: 1.75/1.75
Time on site: 1325
Time off site: 1405
Mileage: 185

SYSTEM READINGS

UNIT: C-SPARGER #1

Master Panel Runtime (Hrs): 8010.82
O_2 Concentrator Runtime (Hrs): 10788
System Clock Time: 1357 SB 1357 CORRECT

STATION	MANIFOLD PRESSURE (psi)	SPARGE POINT	WELL HEAD PRESSURE (psi)
1	31	1S	—
2	37	1D	—
3	39	4S	—
4	37	4D	—
5	29	5D	—
6	24	2S, 3S	—
7	27	2D, 3D	—
8	23	6S, 7S	—
9	31	6D, 7D	—
10	28	8, 9	—
11			
12			

UNIT:

Master Panel Runtime (Hrs):
O_2 Concentrator Runtime (Hrs):
System Clock Time:

STATION	MANIFOLD PRESSURE (psi)	SPARGE POINT	WELL HEAD PRESSURE (psi)
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			

ANCILLARY INFORMATION

Power Meter (Kwh): 20921
Max. Humidity (%RH): HI
Surge Suppression: (ON) / OFF

Max. Temperature (°F): 76.8F
Ventilation Fan(s): (ON) / OFF
Controller Battery Voltage (volts): N/A

TROUBLESHOOTING

Ozone Detector Fault: YES / (NO)
Panel GFI Fault: YES / (NO)
Controller Fault: YES / (NO)
Solenoid Malfunction: 1 2 3 4 5 6 7 8 9 10 11 12
Tubing: ✓

16A Breaker Fault: YES / (NO)
Main Circuit Breaker Fault: YES / (NO)
Fasteners/Fittings: ✓
Correct Controller Program: (YES) / NO
Wires: ✓

MAINTENANCE

O_2 Concentrator Filter (YES) / NO
Compressor Filter (YES) / NO

Reset Temperature/Humidity (YES) / NO
Check Peroxide Level N/A YES / NO

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Project Name: CRESCENT CITY SHELL
oject No.: 5282.01
Task: 413
Date: 11/15/2004
PM: CSM

Tech: BNN
Mobe/Demobe time: .5/.5
Travel time: 2/2
Time on site: 1305
Time off site: 1450
Mileage: 170

SYSTEM READINGS

UNIT: C - SPARGER #1

aster Panel Runtime (Hrs): 7753.80

Concentrator Runtime (Hrs): 10141

stem Clock Time: 1410 SB 1310

ATION	MANIFOLD PRESSURE (psi)	SPARGE POINT	WELL HEAD PRESSURE (psi)
1	37	1s	
2	44	1d	
3	47	4s	
4	44	4d	
5	36	5d	
6	32	2s, 3s	
7	34	2d, 3d	
8	31	6s, 7s	
9	38	6d, 7d	
10	35	8, 9	
1			
2			

UNIT:

Master Panel Runtime (Hrs):

O_2 Concentrator Runtime (Hrs):

System Clock Time:

STATION	MANIFOLD PRESSURE (psi)	SPARGE POINT	WELL HEAD PRESSURE (psi)
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			

ANCILLARY INFORMATION

er Meter (Kwh): 20433

Humidity (%RH): Hi

e Suppression: ON / OFF

Max. Temperature (°F): 74.1°F

Ventilation Fan(s): ON / OFF

Controller Battery Voltage (volts): N/A

TROUBLESHOOTING

e Detector Fault: N/A YES / NO

GFI Fault: YES / NO

oller Fault: YES / NO

oid Malfunction: OK 1 2 3 4 5 6 7 8 9 10 11 12

: ✓

16A Breaker Fault: YES / NO

Main Circuit Breaker Fault: YES / NO

Fasteners/Fittings: ✓

Correct Controller Program: NEW SEE BACK YES / NO

Wires: ✓

MAINTENANCE

ncentrator Filter YES / NO

essor Filter YES / NO

Reset Temperature/Humidity YES / NO

Check Peroxide Level N/A YES / NO

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9

Project Name: CRESCENT CITY SHELL
Project No.: 5282.01
Task: 413
Date: 11/15/2004
PM: CSM

Tech: BNN
Mobe/Demobe time: .5/.5
Travel time: 2/2
Time on site: 1305
Time off site: 1450
Mileage: 170

SYSTEM READINGS

UNIT: C - SPARGER #1

Master Panel Runtime (Hrs): 7753.80
O_2 Concentrator Runtime (Hrs): 10141
System Clock Time: 1410 SB 1310

STATION	MANIFOLD PRESSURE (psi)	SPARGE POINT	WELL HEAD PRESSURE (psi)
1	37	1s	
2	44	1d	
3	47	4s	
4	44	4d	
5	36	5d	
6	32	2s, 3s	
7	34	2d, 3d	
8	31	6s, 7s	
9	38	6d, 7d	
10	35	8, 9	
11			
12			

UNIT:

Master Panel Runtime (Hrs):
O_2 Concentrator Runtime (Hrs):
System Clock Time:

STATION	MANIFOLD PRESSURE (psi)	SPARGE POINT	WELL HEAD PRESSURE (psi)
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			

ANCILLARY INFORMATION

Power Meter (Kwh): 20433
Max. Humidity (%RH): Hi
Surge Suppression: (ON) / OFF

Max. Temperature (°F): 74.1°F
Ventilation Fan(s): (ON) / OFF
Controller Battery Voltage (volts): N/A

TROUBLESHOOTING

Ozone Detector Fault: N/A YES / NO
Panel GFI Fault: YES / (NO)
Controller Fault: YES / (NO)
Solenoid Malfunction: OK 1 2 3 4 5 6 7 8 9 10 11 12
Tubing: ✓

16A Breaker Fault: YES / (NO)
Main Circuit Breaker Fault: YES / (NO)
Fasteners/Fittings: ✓
Correct Controller Program: NEW SEE BACK (YES) / NO
Wires: ✓

MAINTENANCE

O_2 Concentrator Filter (YES) / NO
Compressor Filter (YES) / NO

Reset Temperature/Humidity (YES) / NO
Check Peroxide Level N/A YES / NO

TATION	RUN TIME A	RUN TIME B	RUN TIME C	MINUTES/ HOURS/DAY	SPARGE POINT	WELL BOX OZONE CONC. (ppm)
1	14	12	12	228	1s	
2	14	12	12	228	1d	
3	14	12	12	228	4s	
4	14	12	12	228	4d	
5	14	12	12	228	5d	
6	—	2	2	24	3s, 2s	
7	—	2	2	24	2d, 3s	
8	—	2	2	24	6s, 7s	
9	—	2	2	24	6d, 7d	
10	—	2	2	24	8, 9	
11						
12						
13						
TOTAL:	420	420	420	1260		

START TIMES	A	B	C
1	1200AM	800	1600
2	120	920	1720
3	240	1040	1840
4	400	1200pm	2000
5	520	1320	2120
6	640	1440	2240

REPAIRS

Used T's & 90° Kynars to Allow Run changes. Removed more parts than added. None Billed.

MODIFICATIONS

Lines 7s, 7d, & 9 - Identified.