LACO ASSOCIATES
ENGINEERS · GEOLOGISTS · ENVIRONMENTAL CONSULTANTS

LEONARD M. OSBORNE · CE 38573
DAVID R. GERVAN · CE 57282
DAVID N. LINDBERG · PG 5581/CEG 1895
FRANK R. BICKNER · PG 7428
RONALD C. CHANEY, Ph.D · CE 29027/GE 00934

January 19, 2006

5282.01

California Regional Water Quality Control Board
5550 Skylane Boulevard, Suite A
Santa Rosa, California 95403

Attention: Mr. Ron Allen

Subject: Groundwater Monitoring Report; Fourth Quarter 2005
W & S Enviro; Crescent City Shell
1006 North Highway 101, Crescent City, California
CRWQCB Case No. 1TDN026; USTCF No. 541

Dear Mr. Allen:

LACO ASSOCIATES (LACO) presents the results of groundwater monitoring for the fourth quarter of 2005, and results of additional performance monitoring sampling conducted during the third quarter of 2005 for the Crescent City Shell site in Crescent City, California. This report was prepared on behalf of W & S Enviro in accordance with the requirements of the Pay-for-Performance agreement.

The following elements are included:

- Summary of work performed;
- Site chronology;
- Tabular summary of hydraulic head and gradients;
- Tabular summary of analytical data;
- Summary of remediation system operation and maintenance;
- Statement of recommendations and future work;
- Location map, site map, and hydraulic gradient figures; and
- Charts of declining concentration trends

Please do not hesitate to call if you have any questions or concerns.

Sincerely,
LACO ASSOCIATES

Todd B. Becker
Assistant Geologist

Christine Manhart, PG
PG 7576, Exp. 03/31/07

PROFESSIONAL GEOLOGIST
CHRISTINE SHIVELLE MANHART
No. 7576
Exp. 03/31/
STATE OF CALIFORNIA

TBB:jg

Attachments

cc: Jim Seiler, W & S Enviro (electronically sent)

P:\5200\5282 PFP CC Shell\Submittals\Quarterly Reports\2005\4q05\5282_4Q05_GMR.doc

21 W. 4th Street · P.O. Box 1023 · Eureka, California 95502 · 707-443-5054 · 1-800-515-5054 · FAX 707-443-0553
www.lacoassociates.us

GROUNDWATER MONITORING REPORT; FOURTH QUARTER 2005

W & S Enviro; Crescent City Shell

1006 North Highway 101, Crescent City, California

CRWQCB Case No. 1TDN026; USTCF No. 541; LACO Project No. 5282.01

EXECUTIVE SUMMARY

This report presents the results of fourth quarter 2005 groundwater monitoring and additional sampling results for third quarter 2005 for the Pay-for-Performance (PFP) project at the above-referenced site. On November 15, 2005, groundwater samples and vapor samples were collected for performance and quarterly monitoring. During the third quarter of 2005, additional performance monitoring samples were collected in monitoring well MW8 and observation well OW3 on August 18, 2005; these results will be included in this report. Contaminants of concern (COCs) include total petroleum hydrocarbons as gasoline (TPHg); benzene, toluene, ethylbenzene, and total xylenes (BTEX); and total petroleum hydrocarbons as diesel (TPHd). Generally, all wells continue to exhibit decreasing COC trends.

INTRODUCTION

The goal of PFP is to reduce the mass secondary source 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.

Please refer below to Tables A and B for the current groundwater monitoring details of the August 18 and November 15, 2005, sampling events. Monitoring well sampling protocol is included in LACO's *Standard Operating Procedures,* on file at your office. A location and site map are provided as Figures 1 and 2, respectively.

TABLE A: MONITORING EVENT DETAILS, August 18, 2005							
MONITORING WELL ID	SCREENED INTERVAL (feet)	DTW (feet)	PURGE METHOD	WATER QUALITY PARAMETERS	ANALYTICALS		SAMPLING SCHEDULE
					ORGANICS	INORGANICS	
MW8	10-15	6.87	Cam pump	pH, T, ECw, ORP, DO	TPHg, TPHd, BTEX, MTBE, TBA, DIPE, ETBE, TAME	NA	Quarterly
OW3	5-10	7.37	Bailer	---			

TABLE B: MONITORING EVENT DETAILS, November 15, 2005							
MONITORING WELL ID	SCREENED INTERVAL (feet)	DTW (feet)	PURGE METHOD	WATER QUALITY PARAMETERS	ANALYTICALS		SAMPLING SCHEDULE
					ORGANICS	INORGANICS	
MW1	5-15	5.56	DHP	pH, T, ECw, ORP, DO	TPHg, TPHd, BTEX, MTBE, TBA, DIPE, ETBE, TAME	Diss Cr	Quarterly
MW2	5-15	3.41					
MW3	5-15	5.15			TPHg, TPHd/mo, BTEX, MTBE, TBA, DIPE, ETBE, TAME	---	
MW4	4-14	4.99			TPHg, TPHd, BTEX, MTBE, TBA, DIPE, ETBE, TAME	Diss Cr	
MW5	4-19	5.22					
MW6	10-14	5.46	Cam pump				
MW7	10-15	6.02					
MW8	10-15	5.35					
OW1	5-10	5.56			TPHg, TPHd/mo, BTEX, MTBE, TBA, DIPE, ETBE, TAME	---	
OW2	5-10	5.92				---	
OW3	5-10	5.44			TPHg, TPHd, BTEX, MTBE, TBA, DIPE, ETBE, TAME	Diss Cr	
OW4	5-10	5.18					
OW5	5-10	5.19					
DW	---	3.11	DHP		TPHg, TPHd/mo, BTEX, MTBE, TBA, DIPE, ETBE, TAME	---	
PZ1	5-15	5.64	DHP		---	---	

A key to this table is included as Attachment 1.

Additionally, on November 15, 2005, vapor samples were collected from vapor points VP1 though VP6. Vapor samples were collected with a vacuum pump into laboratory-supplied Tedlar bags. Samples were submitted to Air Toxics Ltd. under standard chain-of-custody protocols for analysis of:

- BTEX and MTBE by Method TO-14A

SITE CHRONOLOGY

An updated site chronology outlining sampling dates and operation and maintenance of the ozone system is included as Attachment 2.

HYDRAULIC GRADIENT AND HYDROGEOLOGY

The aquifer identified in the vicinity of the subject property primarily comprises approximately 5 feet of poorly graded sand underlain by silty sand to sandy silt. The silty sand unit extends to approximately 40 feet below ground surface and is typical of marine terrace deposits. Based on review of the Smith River Plain Groundwater Study, marine terrace deposits at the site are likely part of the Pleistocene Battery Formation (Department of Water Resources, 1987), which is described as the principal aquifer in the Crescent City area.

Groundwater is generally found at depths between approximately 0.5 to 13.5 feet. Calculated hydraulic gradients have been, in general, consistently to the northeast and southeast. The site sits between two unnamed drainages, one located approximately 1,200 feet east, and one located approximately 2,500 feet south (Figure 1). These drainages likely dominate groundwater flow direction at the site.

Based on the well screen elevations on-site, separate gradients are 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] cavities, trenching, ozone sparging), the hydraulic head elevations may not be dependable. In addition, hydraulic gradients can vary across the site.

The potentiometric surface for groundwater measured in the deep wells was contoured from hydraulic head measurements using Surfer 7.0 software and is presented on Figure 3. Monitoring wells MW2, MW3, and MW4 were used to calculate the deep well hydraulic gradient by the three-point method using hydraulic head elevation data collected during the November 15, 2005, monitoring event. The hydraulic gradient for deep wells during the November 15, 2005, sampling event is less than 0.01 feet per feet in a N13°E direction (Figure 3).

The potentiometric surface for ground 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 well hydraulic gradient by the three-point method using hydraulic head elevation data collected during the

November 15, 2005, monitoring event. The hydraulic gradient for shallow wells during the November 15, 2005, sampling event is 0.01 feet per feet in a S75°E direction (Figure 4).

LABORATORY RESULTS

Groundwater laboratory analytical results from the August 18 and November 15, 2005, monitoring events are included below in Tables C and D, respectively. Performance monitoring sampling results are presented in Table 1. Field intrinsic analyses are included as Table 2, and historical groundwater monitoring data is included as Table 3. Tables 4 and 5 present current and historical chromium and vapor analysis data, respectively. Field sampling data forms are included as Attachment 3, and copies of the laboratory reports for this reporting period are included as Attachment 4. Charts 1 through 6 present concentration time trends in monitoring wells MW1, MW2, and MW5 through MW8.

Table C: Analytical Results for August 18, 2005

WELL	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 Organic Analytes (µg/l)
MW8	1,800	220	---	0.61	ND<0.50	43	12	ND<1.0	All oxygenates ND
OW3	4,200	360	---	2.7	4.2	25	194	55	TAME = 18 TBA = 280 Other oxygenates ND

Table D: Analytical Results for November 15, 2005

WELL	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 Organic Analytes (µg/l)
MW1	ND<50	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND <1.0	All oxygenates ND
MW2	160	ND<50	---	20	ND<0.50	ND<0.50	ND<0.50	96	TAME = 8.4
MW3	ND <50	ND <50	ND <170	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <1.0	All oxygenates ND
MW4	ND <50	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND< 1.0	All oxygenates ND
MW5	ND <50	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND< 1.0	All oxygenates ND
MW6	80	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND< 1.0	All oxygenates ND
MW7	ND <0.50	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	19	TAME = 2.0 Other oxygenates ND
MW8	1,600	210	---	1.9	ND<0.50	34	12	ND<1.0	All oxygenates ND

Table D: Analytical Results for November 15, 2005, Continued									
WELL	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 Organic Analytes (µg/l)
OW1	ND <50	ND <50	ND <170	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <1.0	All oxygenates ND
OW2	ND <50	ND <50	ND <170	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <1.0	All oxygenates ND
OW3	**2,200**	**220**	---	**2.3**	**3.6**	**7.0**	**90**	ND<15	**TAME = 3.1** Other oxygenates ND
OW4	**69**	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	All oxygenates ND
OW5	ND<50	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	**3.4**	All oxygenates ND
DW	ND <50	ND <50	ND <170	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <1.0	All oxygenates ND

DISCUSSION OF ANALYTICAL RESULTS

Groundwater results for the November 2005 quarterly sampling event indicate that petroleum hydrocarbon concentrations generally continue to exhibit a declining trend or continue to be reported below standard detection limits for all wells with the exception of monitoring well MW8. The results reported in monitoring well MW8 during this quarter remain within the same order of magnitude of concentrations reported last quarter. We speculate the increase in dissolved TPHg concentrations in monitoring well MW8 are possibly from desorption of proximal sorbed-phase TPHg.

Dissolved chromium concentrations were reported for monitoring wells MW2 and MW5 at 25µg/l and 18 µg/l, respectively. All other wells were reported below the detection limit of 10 µg/l for dissolved chromium. Results of historical chromium analyses are presented in Table 4.

Vapor results to date indicate BTEX constituents for the sampled points have generally decreased by three to four orders of magnitude, to below detection limits, since the initiation of the *in-situ* chemical oxidation system. Toluene was reported above the detection limit at vapor point VP1 (13 ppbv), and MTBE was reported above the detection limit at vapor point VP2 (16 ppbv). Air Toxics Ltd. laboratory case narrative indicates no receiving or analytical discrepancies during this monitoring event. Results of historical vapor sample analyses are presented in Table 5, and laboratory reports for vapor sample analyses are included in Attachment 4

REMEDIATION SYSTEM OPERATION AND MAINTENANCE

Remediation system operations and maintenance field forms are included as Attachment 5. As of December 1, 2005, the ozone generator was operational for 13,140.39 hours. To date, ozone

injection is approximately 106 kilograms (kg). Note, this estimate of ozone mass injected to date is slightly less than that reported during the previous quarter. The 106 kg mass reported here is the corrected ozone mass injected to date.

RECOMMENDATIONS AND FUTURE WORK

- Quarterly groundwater monitoring will continue as scheduled. The next sampling event is scheduled for February 2006.

- A request to utilize a mobile perozone unit to mitigate hydrocarbon ganglia remaining in two small areas on-site has been approved by the California Regional Water Quality Control Board. LACO will implement this workplan if dissolved-phase TPHg concentrations increase.

- LACO recommends discontinuing monitoring in monitoring well MW3 and observation wells OW1 and OW2 due to analytical results reported below standard laboratory detection limits for all analytes tested in these wells for at least one hydrologic cycle.

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.

REFERENCES

Department of Water Resources, 1987. Smith River Plain Groundwater Study. State of California The Resources Agency Department of Water Resources Northern District. December, 1987

LIST OF FIGURES, TABLES, CHARTS, AND ATTACHMENTS

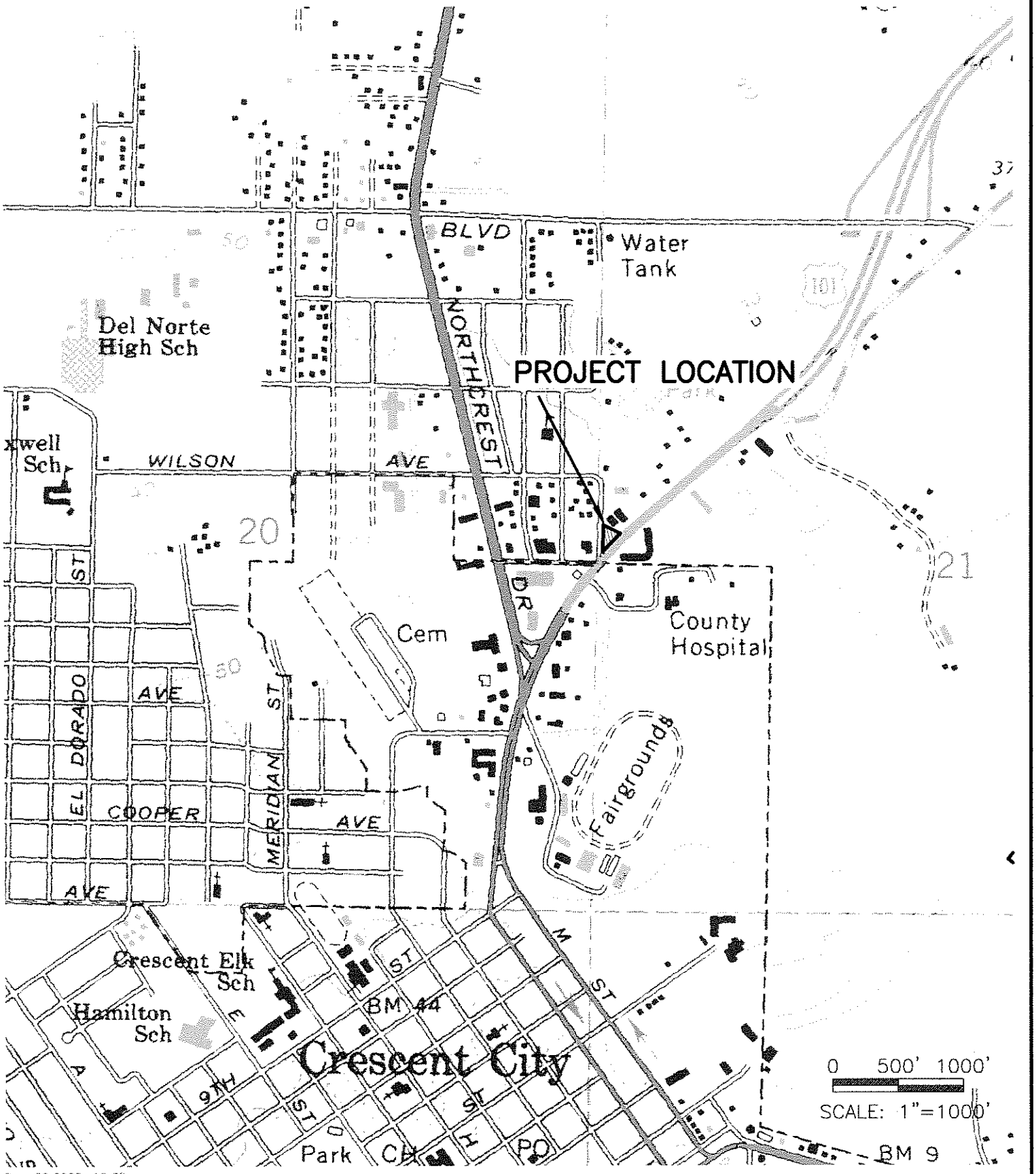
Figure 1: Location Map
Figure 2: Site Map
Figure 3: Deep Well-Hydraulic Gradient Map (11/15/05)
Figure 4: Observation Well - Hydraulic Gradient Map (11/15/05)

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 Analyses

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

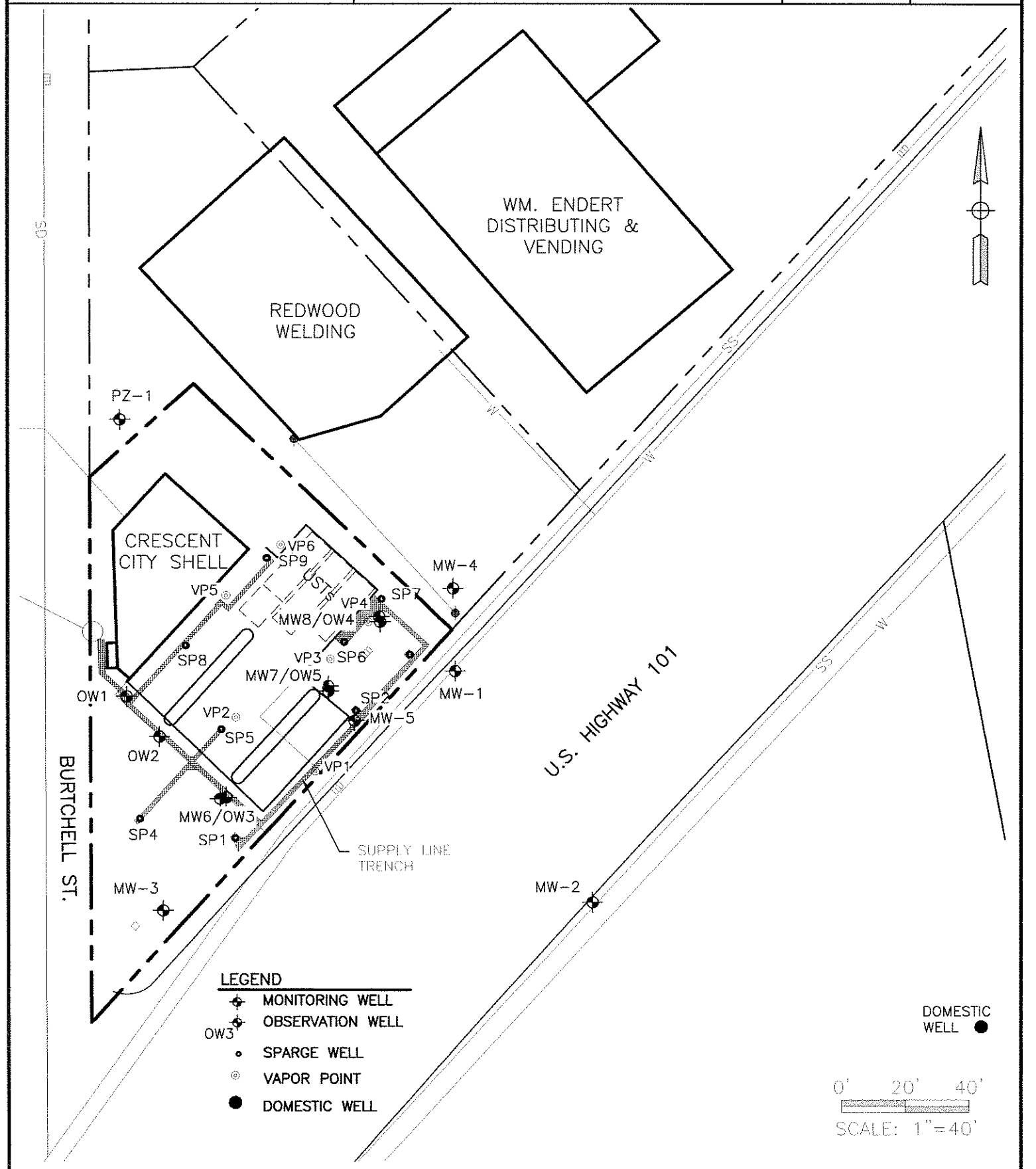
Attachment 1: Key to Abbreviations
Attachment 2: Project Chronology
Attachment 3: Field Forms
Attachment 4: Current Laboratory Reports
Attachment 5: Ozone System Operations and Maintenance Field Forms

LACO ASSOCIATES CONSULTING ENGINEERS 21 W 4TH ST. EUREKA, CA 95501 (707)443-5054	PROJECT	GROUNDWATER MONITORING REPORT	BY	RJM	FIGURE
	CLIENT	W & S ENVIRO	DATE	12/30/05	1
	LOCATION	CRESCENT CITY SHELL	CHECK		JOB NO.
		LOCATION MAP	SCALE	1"=1000'	5282.01



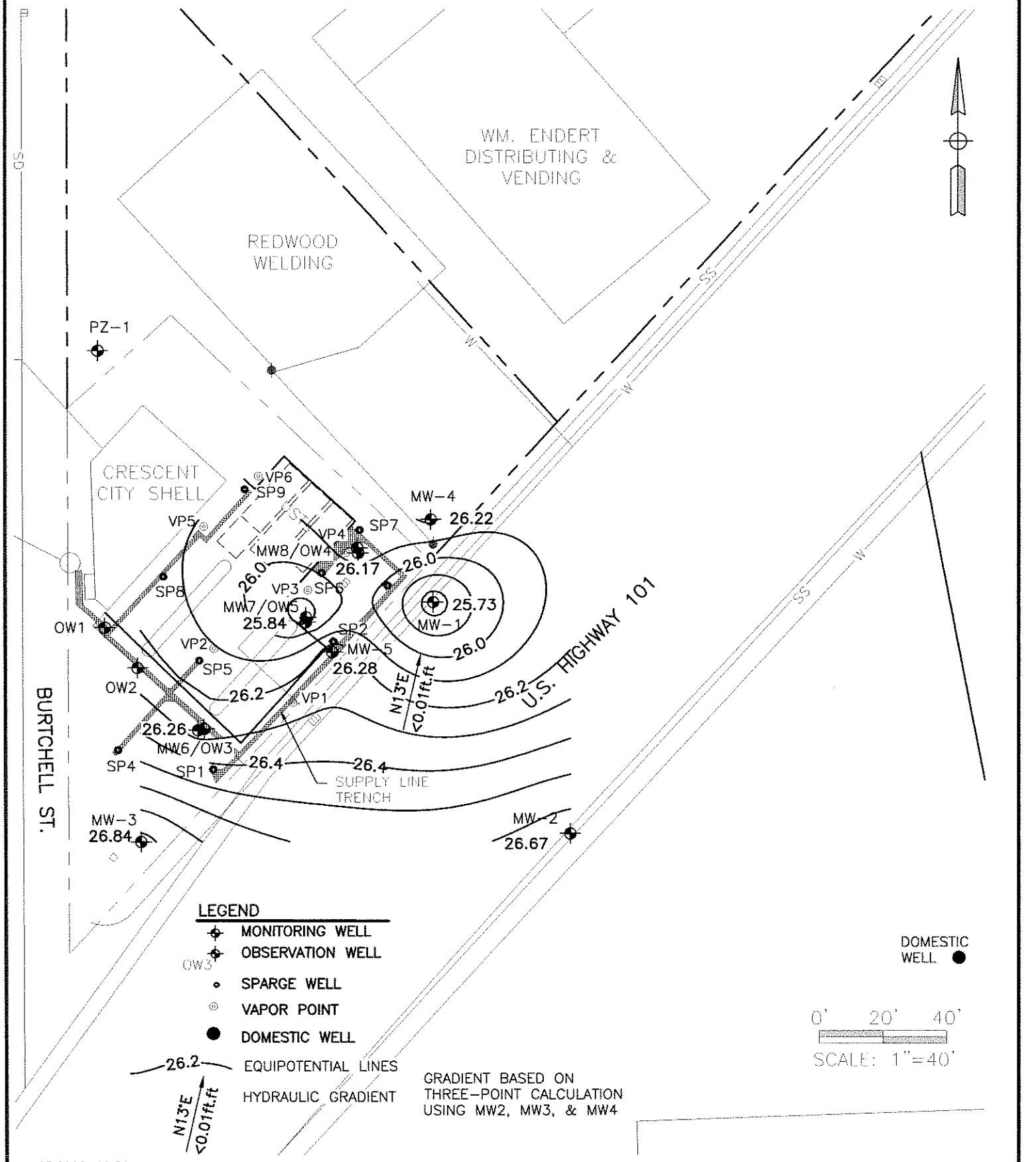
Dec 30,2005-10:38am
T:\CADFILES\5200\5282(3503) HPI Crescent City Shell\dwg\5282-GMR-2ndQ-june05\ 5282fig1.dwg

LACO ASSOCIATES CONSULTING ENGINEERS 21 W 4TH ST. EUREKA, CA 95501 (707)443-5054	PROJECT	GROUNDWATER MONITORING REPORT	BY	RJM	FIGURE
	CLIENT	W & S ENVIRO	DATE	12/30/05	2
	LOCATION	CRESCENT CITY SHELL	CHECK		JOB NO.
		SITE MAP	SCALE	1"=40'	5282.01



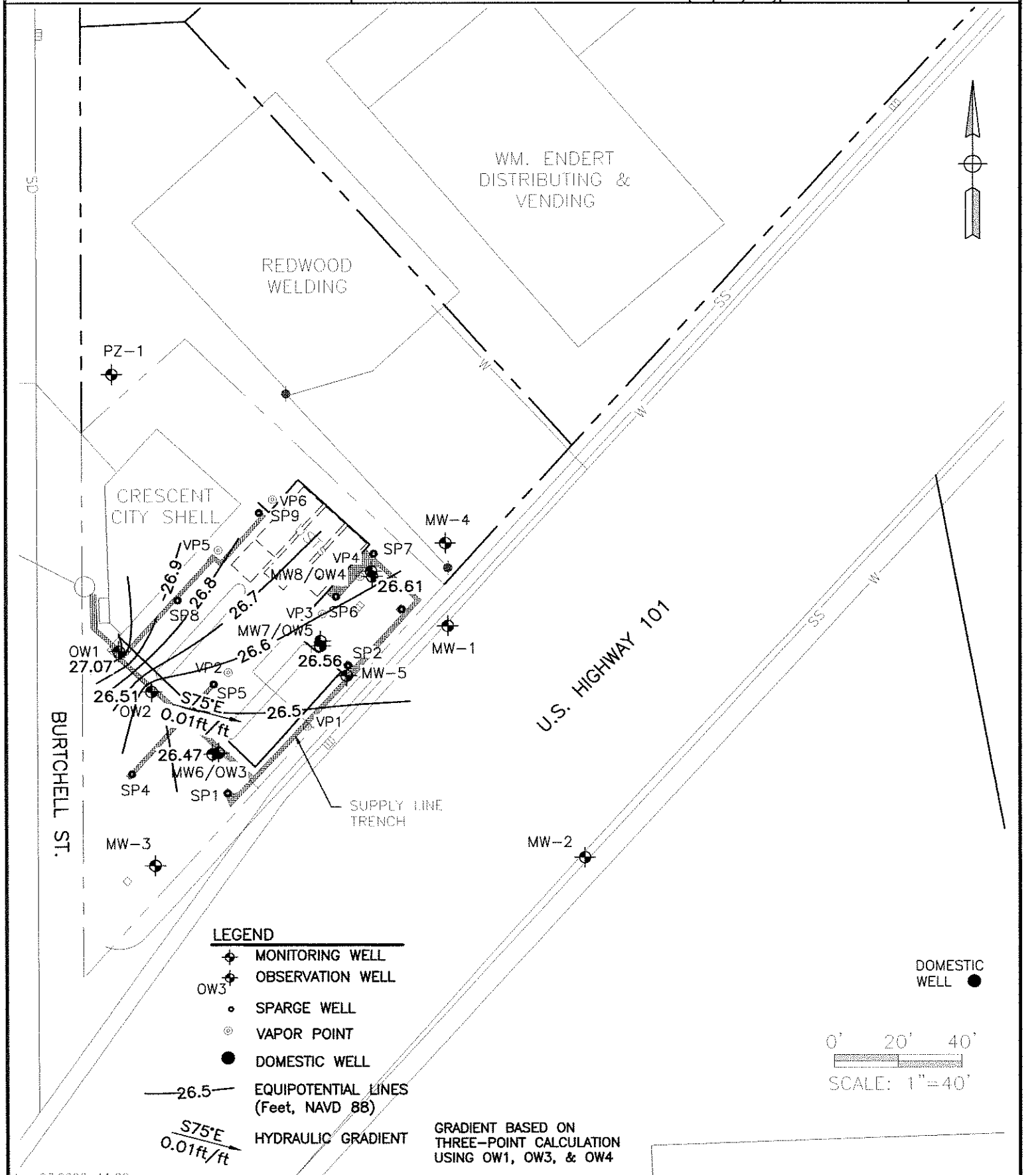
Dec 30,2005-10:47am
T:\CADFILES\5200\5282(3503) HPI Crescent City Shell\dwg\5282-GMR-40-dec05\ 5282-ENV-GMR-40dec05-SITE.dwg

LACO ASSOCIATES CONSULTING ENGINEERS 21 W 4TH ST. EUREKA, CA 95501 (707)443-5054	PROJECT GROUNDWATER MONITORING REPORT	BY RJM	FIGURE 3
	CLIENT W & S ENVIRO	DATE 12/30/05	
	LOCATION CRESCENT CITY SHELL	CHECK TBS	JOB NO. 5282.01
	DEEP-HYDRAULIC GRADIENT MAP (11/15/05)	SCALE 1"=40'	



Jan 03,2006 - 10:34am
I:\CADFILES\5200\5282(3503) HPI Crescent City Shell\dwg\5282-GMR-4Q-dec05\ 5282-ENV-GMR-4Qdec05-SITE.dwg

LACO ASSOCIATES CONSULTING ENGINEERS 21 W 4TH ST. EUREKA, CA 95501 (707)443-5054	PROJECT GROUNDWATER MONITORING REPORT	BY RJM	FIGURE 4
	CLIENT W & S ENVIRO	DATE 1/03/06	
	LOCATION CRESCENT CITY SHELL	CHECK	JOB NO. 5282.01
	OBSERVATION-HYDRAULIC GRADIENT MAP (11/15/05)	SCALE 1"=40'	



Jan 03,2006-11:20am
I:\CADFILES\5200\5282(550.3) HPI Crescent City Shell\dwg\5282-GMR-4Q-dec05\ 5282-ENV-GMR-4Qdec05-SITE.dwg

TABLE 1: PERFORMANCE MONITORING SAMPLING RESULTS
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	---
	3/15/05	1,100	68	42	15	10	198	28	8.7	ND<10	ND<1.0	ND<1.0	---
	5/12/05	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	---
	8/9/05	3,800	260	530	56	2.2	470	39	44	ND<40	ND<1.0	ND<1.0	---
	11/15/05	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	---

TABLE 1: PERFORMANCE MONITORING SAMPLING RESULTS
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-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	---
	5/12/05	ND <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	---
	8/9/05	330	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	260.0	30.0	ND<10	ND<1.0	ND<1.0	---
	11/15/05	160	ND<50	20	ND<0.50	ND<0.50	ND<0.50	96	8.4	ND<10	ND<1.0	ND<1.0	---

TABLE 1: PERFORMANCE MONITORING SAMPLING RESULTS
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	---
	5/12/05	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	---
	8/9/05	ND <50	ND <50	0.75	ND <0.50	ND <0.50	ND <0.50	4.7	ND<1.0	ND<10	ND<1.0	ND<1.0	---
	11/15/05	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	---

TABLE 1: PERFORMANCE MONITORING SAMPLING RESULTS
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-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	---
	3/15/05	ND <50	ND <50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	4.9	ND<1.0	ND<10	ND<1.0	ND<1.0	---
	5/12/05	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	---
	8/9/05	ND <50	ND <50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	5.9	ND<1.0	ND<10	ND<1.0	ND<1.0	---
	11/15/05	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	---

TABLE 1: PERFORMANCE MONITORING SAMPLING RESULTS
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	---
	3/15/05	5,300	570	20	21	83	920	320	85	800	ND<1.0	ND<1.0	---
	5/12/05	3,300	130	5.3	10	16	212	ND<10	3.0	ND<25	ND<1.0	ND<1.0	---
	8/9/05	2,800	240	3.5	6.7	24	297	40	15	280	ND<1.0	ND<1.0	---
	8/18/05	4,200	360	2.7	4.2	25	194	55	18	280	ND<1.0	ND<1.0	---
	11/15/05	2,200	220	2.3	3.6	7.0	90	ND<15	3.1	ND<40	ND<1.0	ND<1.0	---

TABLE 1: PERFORMANCE MONITORING SAMPLING RESULTS
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-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	---
	5/12/05	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	---
	8/9/05	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	---
	11/15/05	80	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	---

TABLE 1: PERFORMANCE MONITORING SAMPLING RESULTS
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	---
2/16/05	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	---
3/15/05	ND <50	ND <50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	2.5	ND<1.0	ND<10	ND<1.0	ND<1.0	---
5/12/05	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	---
8/9/05	ND <50	ND <50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	23	2.5	ND<10	ND<1.0	ND<1.0	---
11/15/05	ND <50	ND <50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	3.4	ND<1.0	ND<10	ND<1.0	ND<1.0	---

TABLE 1: PERFORMANCE MONITORING SAMPLING RESULTS
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-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	---
	5/12/05	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	5.2	ND<1.0	ND<10	ND<1.0	ND<1.0	---
	8/9/05	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	17	1.6	ND<10	ND<1.0	ND<1.0	---
	11/15/05	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	19	2.0	ND<10	ND<1.0	ND<1.0	---

TABLE 1: PERFORMANCE MONITORING SAMPLING RESULTS
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	---
	3/15/05	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	---
	5/12/05	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	---
	8/9/05	59	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	---
	11/15/05	69	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	---

TABLE 1: PERFORMANCE MONITORING SAMPLING RESULTS
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-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	---
	5/12/05	2,200	220	9.3	ND<0.50	32	14	3.3	1.7	ND<10	ND<1.0	ND<1.0	---
	8/9/05	1,500	270	1.3	ND<0.50	33	8.1	ND<2.0	ND<1.0	ND<10	ND<1.0	ND<1.0	---
	8/18/05	1,800	220	0.61	ND<0.50	43	12	ND<1.0	ND<1.0	ND<10	ND<1.0	ND<1.0	---
	11/15/05	1,600	210	1.9	ND<0.50	34	12	ND<1.0	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
Crescent City Shell, PFP; LACO Project No. 5282.01
1006 N. Highway 101, Crescent City, CA; Case No. 1TDN026

Field Intrinsics Analyses					
WELL/ Sample Date	Temperature (Celsius)	pH	Conductivity (µmohs)	ORP (mV)	Dissolved Oxygen (mg/l)
MW1					
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
3/15/2005	15.2	7.42	389	-8	8.71
5/12/2005	16.0	7.10	505	157	7.53
8/9/2005	18.4	7.50	364	31	1.02
11/15/2005	16.5	7.10	496	-31	5.77
MW2					
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
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

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

Field Intrinsics Analyses					
WELL/ Sample Date	Temperature (Celsius)	pH	Conductivity (µmohs)	ORP (mV)	Dissolved Oxygen (mg/l)
MW2Cont'd					
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
5/12/2005	15.3	6.65	120	121	7.28
8/9/2005	16.5	6.29	190	113	2.33
11/15/2005	17.7	6.20	217	94	4.61
MW3					
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	---	---	---	---	---
5/12/2005	16.0	6.50	256	115	3.81
8/9/2005	20.1	6.90	159	48	5.79
11/15/2005	16.4	6.20	144	96	6.86
MW4					
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
Crescent City Shell, PFP; LACO Project No. 5282.01
1006 N. Highway 101, Crescent City, CA; Case No. 1TDN026

Field Intrinsics Analyses					
WELL/ Sample Date	Temperature (Celsius)	pH	Conductivity (µmohs)	ORP (mV)	Dissolved Oxygen (mg/l)
MW4 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
5/12/2005	15.3	6.5	336	190	6.53
8/9/2005	17.6	6.5	269	60	0.97
11/15/2005	19.2	6.2	454	126	5.02
MW5					
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
Crescent City Shell, PFP; LACO Project No. 5282.01
1006 N. Highway 101, Crescent City, CA; Case No. 1TDN026

Field Intrinsics Analyses					
WELL/ Sample Date	Temperature (Celsius)	pH	Conductivity (µmohs)	ORP (mV)	Dissolved Oxygen (mg/l)
MW5 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
3/15/2005	15.0	7.31	301	33	10.59
5/12/2005	15.6	7.10	328	161	9.23
8/9/2005	16.2	6.53	306	110	1.16
11/15/2005	17.0	7.10	368	79	10.28
MW6					
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
5/12/2005	17.3	6.47	180	91	0.94
8/9/2005	19.5	6.41	194	-53	0.21
11/15/2005	18.6	6.30	140	14	0.93
MW7					
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

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

Field Intrinsics Analyses					
WELL/ Sample Date	Temperature (Celsius)	pH	Conductivity (µmohs)	ORP (mV)	Dissolved Oxygen (mg/l)
MW7 Cont'd					
10/15/2003	18.4	7.66	300	9	8.35
11/19/2003	16.4	6.96	291	35	8.16
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
5/12/2005	15.7	7.20	288	86	7.77
8/9/2005	17.3	6.80	307	-41	0.41
11/15/2005	15.3	6.90	562	-81	7.35
MW8					
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
5/12/2005	17.0	6.70	323	-5	0.68
8/9/2005	19.6	7.30	291	-65	0.25
8/18/2005	20.0	6.83	249	-37	0.22
11/15/2005	17.7	6.80	655	-81	0.53

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

Field Intrinsics Analyses					
WELL/ Sample Date	Temperature (Celsius)	pH	Conductivity (µmohs)	ORP (mV)	Dissolved Oxygen (mg/l)
OW1					
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
5/12/2005	16.2	6.45	246	54	6.54
8/9/2005	17.8	7.00	187	-30	2.86
11/15/2005	17.9	6.10	166	89	5.13
OW2					
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				
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
5/12/2005	16.7	6.5	240	119	5.76
8/9/2005	18.7	6.9	220	-19	5.12
11/15/2005	18.2	6.2	180	93	5.90
OW3					
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
3/15/2005	16.6	6.57	480	-67	0.49
5/12/2005	17.5	6.67	228	-36	1.21
8/9/2005	20.4	6.52	291	-88	1.03
11/15/2005	18.8	6.60	381	UR	0.42

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

Field Intrinsics Analyses					
WELL/ Sample Date	Temperature (Celsius)	pH	Conductivity (µmohs)	ORP (mV)	Dissolved Oxygen (mg/l)
OW4					
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
3/15/2005	15.1	7.39	354	-72	1.19
5/12/2005	16.2	7.22	302	38	2.16
8/9/2005	17.9	7.50	277	-43	0.69
11/15/2005	17.6	6.70	256	-11	0.59
OW5					
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
3/15/2005	14.8	6.92	354	-52	0.36
5/12/2005	15.5	7.21	298	40	0.38
8/9/2005	17.3	6.61	336	-53	0.49
11/15/2005	16.6	6.30	265	10	0.36

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

Field Intrinsics Analyses					
WELL/ Sample Date	Temperature (Celsius)	pH	Conductivity (µmohs)	ORP (mV)	Dissolved Oxygen (mg/l)
PZ1					
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
5/12/2005	15.9	6.0	283	212	3.79
8/9/2005	19.3	6.6	191	69	3.28
11/15/2005	17.1	6.0	187	103	4.01
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	---	---	---	---	---
5/12/2005	13.3	6.64	169	-29	0.26
8/9/2005	17.7	6.69	157	58	0.13
11/15/2005	14.5	6.50	121	91	0.66

TABLE 3: GROUNDWATER ELEVATION DATA AND GROUNDWATER ANALYTICAL RESULTS
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	**Screened Interval 5-15 feet bgs**											
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**	---

TABLE 3: GROUNDWATER ELEVATION DATA AND GROUNDWATER ANALYTICAL RESULTS
Crescent City Shell, PFP; LACO Project No. 5282.01
1006 N. Highway 101, Crescent City, CA; Case No. ITDN026

	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	**Screened Interval 5-15 feet bgs**											
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**	---

TABLE 3: GROUNDWATER ELEVATION DATA AND GROUNDWATER ANALYTICAL RESULTS
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-1 Continued												
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	2,900	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
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-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	1.1	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

TABLE 3: GROUNDWATER ELEVATION DATA AND GROUNDWATER ANALYTICAL RESULTS
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-1 Continued												
2/16/05		26.10	5.19	**4,100**	**270**	---	**83**	**160**	**85**	**870**	**12**	**TAME = 5.8** Other oxygenates ND
3/15/05		25.58	5.71	**1,100**	**68**	---	**42**	**15**	**10**	**198**	**28**	**TAME = 8.7** Other oxygenates ND
5/12/05		27.92	3.37	ND<50	ND<50	---	ND<0.50	ND<0.50	ND<0.50	**1.44**	ND <1.0	All oxygenates ND
8/9/05		24.82	6.47	**3,800**	**260**	---	**530**	**56**	**2.2**	**470**	**39**	**TAME = 44** Other oxygenates ND
11/15/05		25.73	5.56	ND<50	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND <1.0	All other ND
MW-2	**Screened Interval 5-15 feet bgs**											
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 <500	**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**	---

TABLE 3: GROUNDWATER ELEVATION DATA AND GROUNDWATER ANALYTICAL RESULTS
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-2 Continued feet bgs												
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
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

TABLE 3: GROUNDWATER ELEVATION DATA AND GROUNDWATER ANALYTICAL RESULTS
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-2 Continued												
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

TABLE 3: GROUNDWATER ELEVATION DATA AND GROUNDWATER ANALYTICAL RESULTS
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-2 Continued												
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
5/12/05		27.79	2.29	ND <50	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	**4.4**	All oxygenates ND
8/9/05		23.92	6.16	**330**	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	**260**	**TAME = 30** Other oxygenates ND
11/15/05		26.67	3.41	**160**	ND<50	---	**20**	ND<0.50	ND<0.50	ND<0.50	**96**	**TAME = 8.4** Other oxygenates ND
MW-3	**Screened Interval 5-15 feet bgs**											
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	---	---	---	---	---	---	---	---	---
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	---	---	---	---	---	---	---	---	---

TABLE 3: GROUNDWATER ELEVATION DATA AND GROUNDWATER ANALYTICAL RESULTS
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												
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	---	---	---	---	---	---	---	---	---

TABLE 3: GROUNDWATER ELEVATION DATA AND GROUNDWATER ANALYTICAL RESULTS
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												
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	---	---	---	---	---	---	---	---	---
5/12/05		28.27	3.72	ND <50	ND <50	ND <170	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <1.0	All oxygenates ND
8/9/05		24.87	7.12	ND <50	ND <50	ND <170	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <1.0	All oxygenates ND
11/15/05		26.84	5.15	ND <50	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <1.0	All oxygenates ND
MW-4	**Screened Interval 4-14 feet bgs**											
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

TABLE 3: GROUNDWATER ELEVATION DATA AND GROUNDWATER ANALYTICAL RESULTS
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-4 Continued												
4/24/2001		Field Duplicate		**130**	---	---	ND <0.5	ND <0.5	**0.56**	**4.0**	**210**	**TBA=28** **TAME =14** Other oxygenates ND
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 <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 <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 <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 <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 <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 <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 <50	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	**1.0**	All oxygenates ND
4/17/03		---	---	ND <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 <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 <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 <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 <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 <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 <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 <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 <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 <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 <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

TABLE 3: GROUNDWATER ELEVATION DATA AND GROUNDWATER ANALYTICAL RESULTS
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-4 Continued												
5/13/04		26.61	4.60	ND <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 <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 <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 <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 <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 <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 <50	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	**2.4**	All oxygenates ND
5/12/05		27.93	3.28	ND <50	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND< 1.0	All oxygenates ND
8/9/05		24.94	6.27	ND <50	ND <50	---	**0.75**	ND <0.50	ND <0.50	ND <0.50	**4.7**	All oxygenates ND
11/15/05		26.22	4.99	ND <50	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND< 1.0	All oxygenates ND
MW-5	**Screened Interval 4-19 feet bgs**											
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

TABLE 3: GROUNDWATER ELEVATION DATA AND GROUNDWATER ANALYTICAL RESULTS
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												
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
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
3/15/05		25.52	5.98	ND <50	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	**4.9**	All oxygenates ND
5/12/05		27.99	3.51	ND <50	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND< 1.0	All oxygenates ND
8/9/05		24.63	6.87	ND <50	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	**5.9**	All oxygenates ND
11/15/05		26.28	5.22	ND <50	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND< 1.0	All oxygenates ND
MW-6	**Screened Interval 10-14 feet bgs**											
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

TABLE 3: GROUNDWATER ELEVATION DATA AND GROUNDWATER ANALYTICAL RESULTS
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-6 Continued												
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
5/12/05		26.67	5.05	ND<50	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND< 1.0	All oxygenates ND
8/9/05		24.61	7.11	ND<50	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND< 1.0	All oxygenates ND
11/15/05		26.26	5.46	80	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND< 1.0	All oxygenates ND
MW-7	Screened Interval 10-15 feet bgs											
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

TABLE 3: GROUNDWATER ELEVATION DATA AND GROUNDWATER ANALYTICAL RESULTS
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-7 Continued												
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
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-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
5/12/05		27.87	3.99	ND<50	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	5.2	All oxygenates ND
8/9/05		24.75	7.11	ND<50	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	17	TAME = 1.6 Other oxygenates ND
11/15/05		25.84	6.02	ND<50	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	19	TAME = 2.0 Other oxygenates ND
MW-8	Screened Interval 10-15 feet bgs											
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

TABLE 3: GROUNDWATER ELEVATION DATA AND GROUNDWATER ANALYTICAL RESULTS
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-8 Continued												
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 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 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 oxygenates ND
6/10/03		26.32	5.20	**330**	**59**		ND<0.50	ND<0.50	ND<0.50	**9**	**1.0**	All 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 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 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 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 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 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 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 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 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 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 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 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 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 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 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 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 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 oxygenates ND
5/12/05		28.17	3.35	**2,200**	**220**	---	**9.3**	ND<0.50	**32**	**14**	**3.3**	**TAME=1.7** All other oxygenates ND
8/9/05		24.91	6.61	**1,500**	**270**	---	**1.3**	ND<0.50	**33**	**8.1**	ND<2.0	All oxygenates ND
8/18/05		24.65	6.87	**1,800**	**220**	---	**0.61**	ND<0.50	**43**	**12**	ND<1.0	All oxygenates ND
11/15/05		26.17	5.35	**1,600**	**210**	---	**1.9**	ND<0.50	**34**	**12**	ND<1.0	All 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	---	---	---	---	---	---	---	---	---

TABLE 3: GROUNDWATER ELEVATION DATA AND GROUNDWATER ANALYTICAL RESULTS
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)
PZ-1 Continued												
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	---	---	---	---	---	---	---	---	---
5/12/05		26.38	3.38	---	---	---	---	---	---	---	---	---
8/9/05		22.33	7.43	---	---	---	---	---	---	---	---	---
11/15/05		24.12	5.64	---	---	---	---	---	---	---	---	---
OW-1	**Screened Interval 5-10 feet bgs**											
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
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	---	---	---	---	---	---	---	---	---
5/12/05		28.53	4.10	ND <50	ND <50	ND <170	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <1.0	All oxygenates ND
8/9/05		25.23	7.40	ND <50	ND <50	ND <170	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <1.0	All oxygenates ND
11/15/05		27.07	5.56	ND <50	ND <50	ND <170	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
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-2	**Screened Interval 5-10 feet bgs**											
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	---	---	---	---	---	---	---	---	---
5/12/05		28.25	4.18	ND <50	ND <50	ND <170	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <1.0	All oxygenates ND
8/9/05		25.13	7.30	ND <50	ND <50	ND <170	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <1.0	All oxygenates ND
11/15/05		26.51	5.92	ND <50	ND <50	ND <170	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <1.0	All oxygenates ND
OW-3	**Screened Interval 5-10 feet bgs**											
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		---	---	---	---	---	---	---	---	---	---	---

TABLE 3: GROUNDWATER ELEVATION DATA AND GROUNDWATER ANALYTICAL RESULTS
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-3 Continued												
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

TABLE 3: GROUNDWATER ELEVATION DATA AND GROUNDWATER ANALYTICAL RESULTS
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-3 Continued												
12/11/03		26.14	5.77	3,600	180	---	49	160	39	272	ND<150	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
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
3/15/05		26.09	5.82	5,300	570	---	20	21	83	920	320	TAME = 85 TBA = 800 Other oxygenates ND
5/12/05		28.00	3.91	3,300	130	---	5.3	9.8	16	212	ND<10	TAME = 3.0 Other oxygenates ND
8/9/05		24.99	6.92	2,800	240	---	3.5	6.7	24	297	40	TAME = 15 TBA = 280 Other oxygenates ND
8/18/05		24.54	7.37	4,200	360	---	2.7	4.2	25	194	55	TAME = 18 TBA = 280 Other oxygenates ND
11/15/05		26.47	5.44	2,200	220	---	2.3	3.6	7.0	90	ND<15	TAME = 3.1 Other oxygenates ND

TABLE 3: GROUNDWATER ELEVATION DATA AND GROUNDWATER ANALYTICAL RESULTS
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	**Screened Interval 5-10 feet bgs**											
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

TABLE 3: GROUNDWATER ELEVATION DATA AND GROUNDWATER ANALYTICAL RESULTS
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 Continued												
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
3/15/05		25.77	6.02	ND<50	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	Other oxygenates ND
5/12/05		28.22	3.57	ND<50	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	All oxygenates ND
8/9/05		24.95	6.84	**59**	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	All oxygenates ND
11/15/05		26.61	5.18	**69**	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	All oxygenates ND
OW-5	**Screened Interval 5-10 feet bgs**											
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

TABLE 3: GROUNDWATER ELEVATION DATA AND GROUNDWATER ANALYTICAL RESULTS
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-5 Continued												
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
3/15/05		25.89	5.86	ND <50	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	**2.5**	Other oxygenates ND
5/12/05		28.23	3.52	ND<50	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	All oxygenates ND
8/9/05		24.90	6.85	ND<50	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	**23**	**TAME = 2.5** Other oxygenates ND
11/15/05		26.56	5.19	ND<50	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	**3.4**	All oxygenates ND
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

TABLE 3: GROUNDWATER ELEVATION DATA AND GROUNDWATER ANALYTICAL RESULTS
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 Continued												
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
5/12/2005		24.34	1.93	ND <50	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <1.0	All oxygenates ND
8/9/05		20.02	6.25	ND <50	ND <50	ND <170	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <1.0	All oxygenates ND
11/15/05		23.16	3.11	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 City.

TABLE 4: CHROMIUM ANALYSES RESULTS
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	---
3/15/2005	---	ND<10	---
5/12/2005	---	ND<10	---
8/9/2005	---	ND<10	---
11/15/2005	---	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	---
5/12/2005	---	21	---
8/9/2005	---	35	---
11/15/2005	---	25	---

TABLE 4: CHROMIUM ANALYSES RESULTS
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
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	---
5/12/2005	---	ND<10	---
8/9/2005	---	ND<10	---
11/15/2005	---	ND<10	---
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	---
3/15/2005	---	ND<10	---
5/12/2005	---	ND<10	---
8/9/2005	---	ND<10	---
11/15/2005	---	18	---

TABLE 4: CHROMIUM ANALYSES RESULTS
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
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	---
5/12/2005	---	ND<10	---
8/9/2005	---	ND<10	---
11/15/2005	---	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	---
5/12/2005	---	ND<10	---
8/9/2005	---	ND<10	---
11/15/2005	---	ND<10	---

TABLE 4: CHROMIUM ANALYSES RESULTS
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	---
5/12/2005	---	ND<10	---
8/9/2005	---	ND<10	---
11/15/2005	---	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	---
3/15/2005	---	ND<10	---
5/12/2005	---	ND<10	---
8/9/2005	---	ND<10	---
11/15/2005	---	ND<10	---

TABLE 4: CHROMIUM ANALYSES RESULTS
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
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	---
3/15/2005	---	ND<10	---
5/12/2005	---	ND<10	---
8/9/2005	---	ND<10	---
11/15/2005	---	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	---
3/15/2005	---	ND<10	---
5/12/2005	---	ND<10	---
8/9/2005	---	ND<10	---
11/15/2005	---	ND<10	---
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
Crescent City Shell, PFP; LACO Project No. 5282.01
1006 N. Highway 101, Crescent City, CA; Case No. 1TDN026

Sampling Location	Date	Analytical Results					
		Benzene (ppbv)	Toluene (ppbv)	Ethylbenzene (ppbv)	m,p-xylene (ppbv)	o-xylene (ppbv)	MTBE (ppbv)
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
	5/12/05	---	---	---	---	---	---
	8/9/05	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0
	11/15/05	ND<5.0	13	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
	5/12/05	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	46
	8/9/05	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	27
	11/15/05	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	16
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
	5/12/05	---	---	---	---	---	---
	8/9/05	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0
	11/15/05	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0

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

Sampling Location	Date	Analytical Results					
		Benzene (ppbv)	Toluene (ppbv)	Ethylbenzene (ppbv)	m,p-xylene (ppbv)	o-xylene (ppbv)	MTBE (ppbv)
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
	5/12/05	---	---	---	---	---	---
	8/9/05	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0
	11/15/05	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0
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
	5/12/05	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0
	8/9/05	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0
	11/15/05	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
	5/12/05	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0
	8/9/05	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0
	11/15/05	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0

CHART 1: COMBINED TPH, BENZENE, and MTBE CONCENTRATIONS IN GROUNDWATER IN MW1

Crescent City Shell, PFP; LACO Project No. 5282.01

1006 N. Highway 101, Crescent City, CA; Case No. 1TDN026

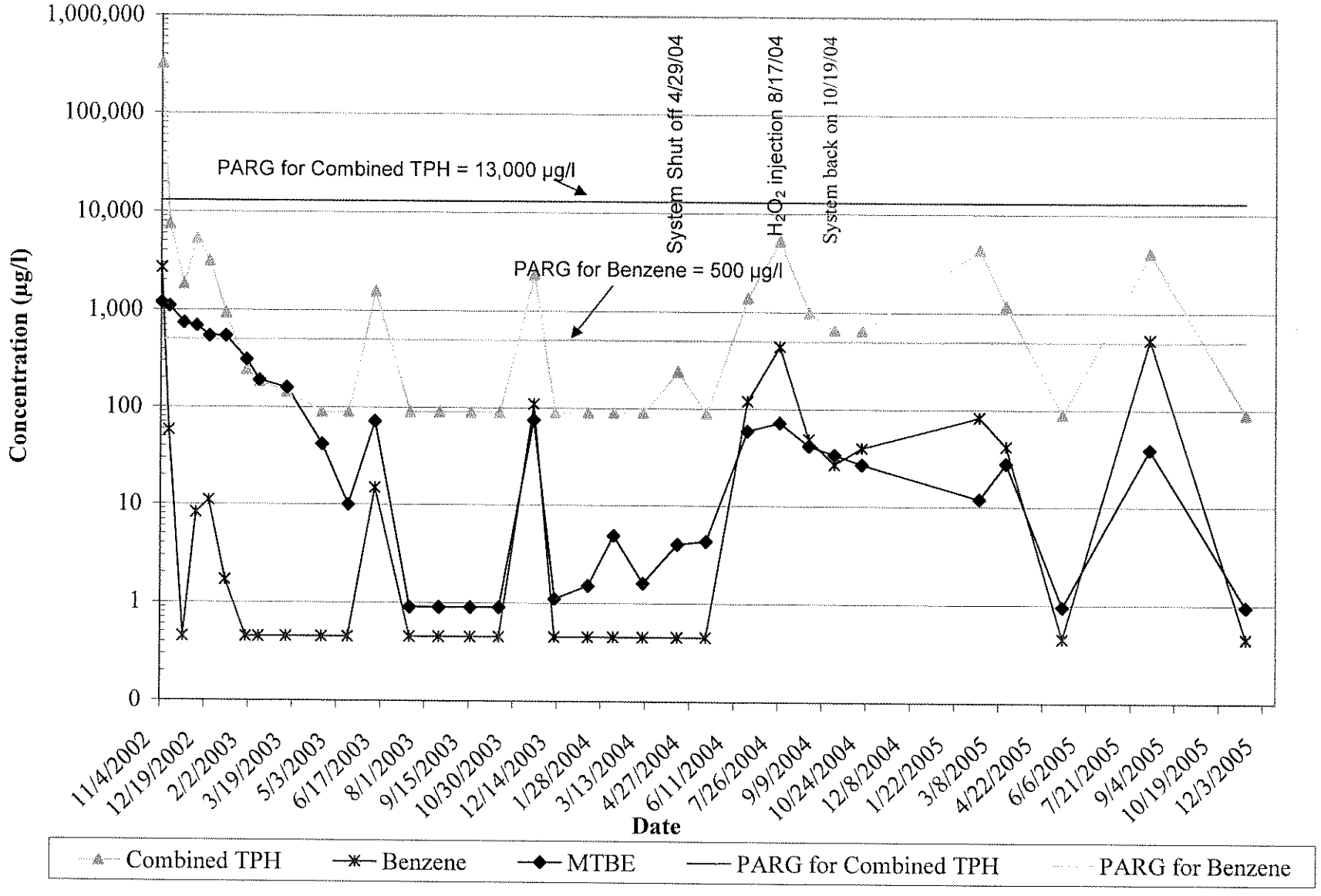


CHART 2: TPHg, TPHd, BENZENE, and MTBE CONCENTRATIONS IN GROUNDWATER IN MW2
Crescent City Shell, PFP; LACO Project No. 5282.01
1006 N. Highway 101, Crescent City, CA; Case No. 1TDN026

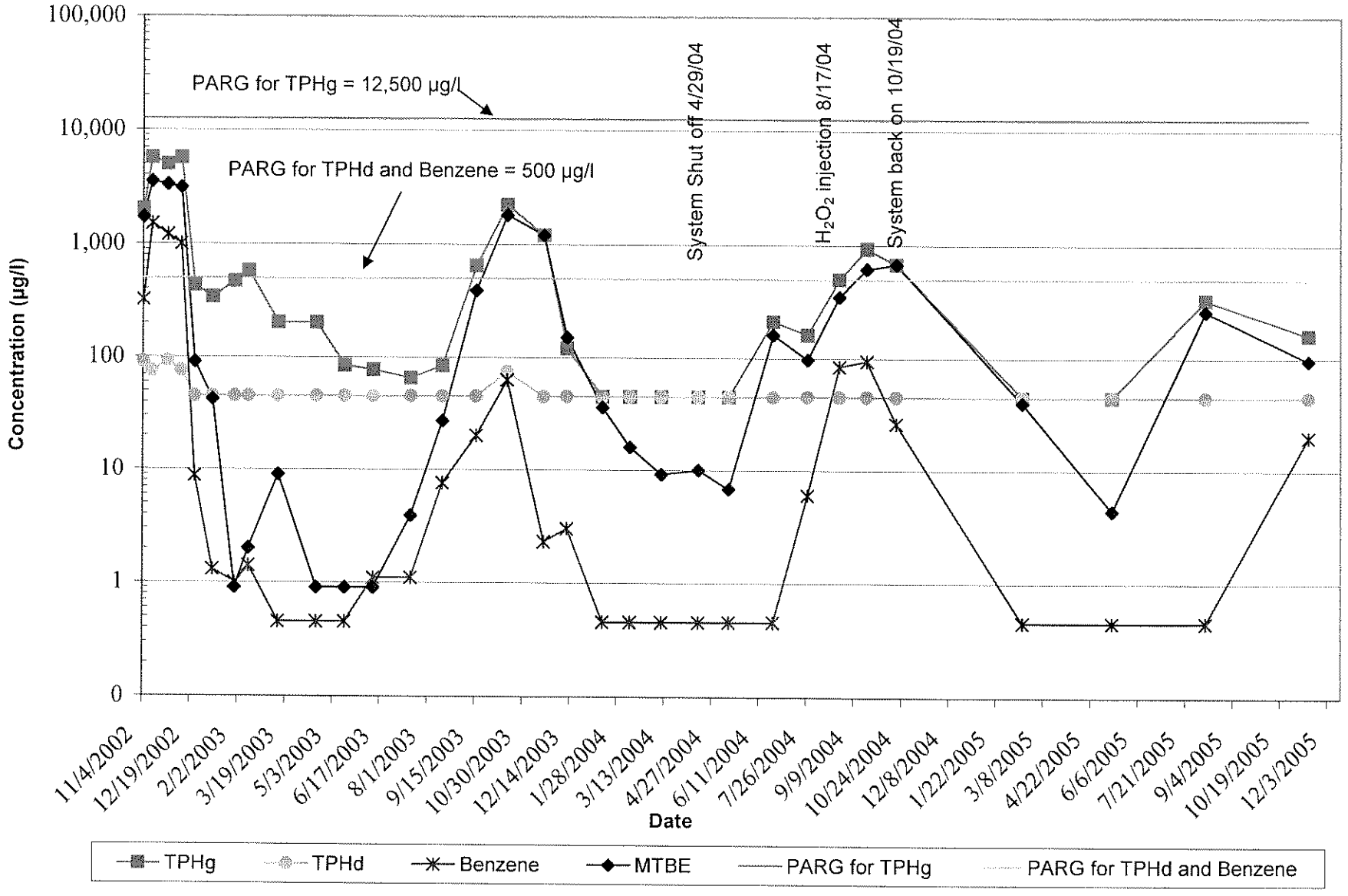


CHART 3: TPHg, BENZENE, and MTBE CONCENTRATIONS IN GROUNDWATER IN MW5
Crescent City Shell, PFP; LACO Project No. 5282.01
1006 N. Highway 101, Crescent City, CA; Case No. 1TDN026

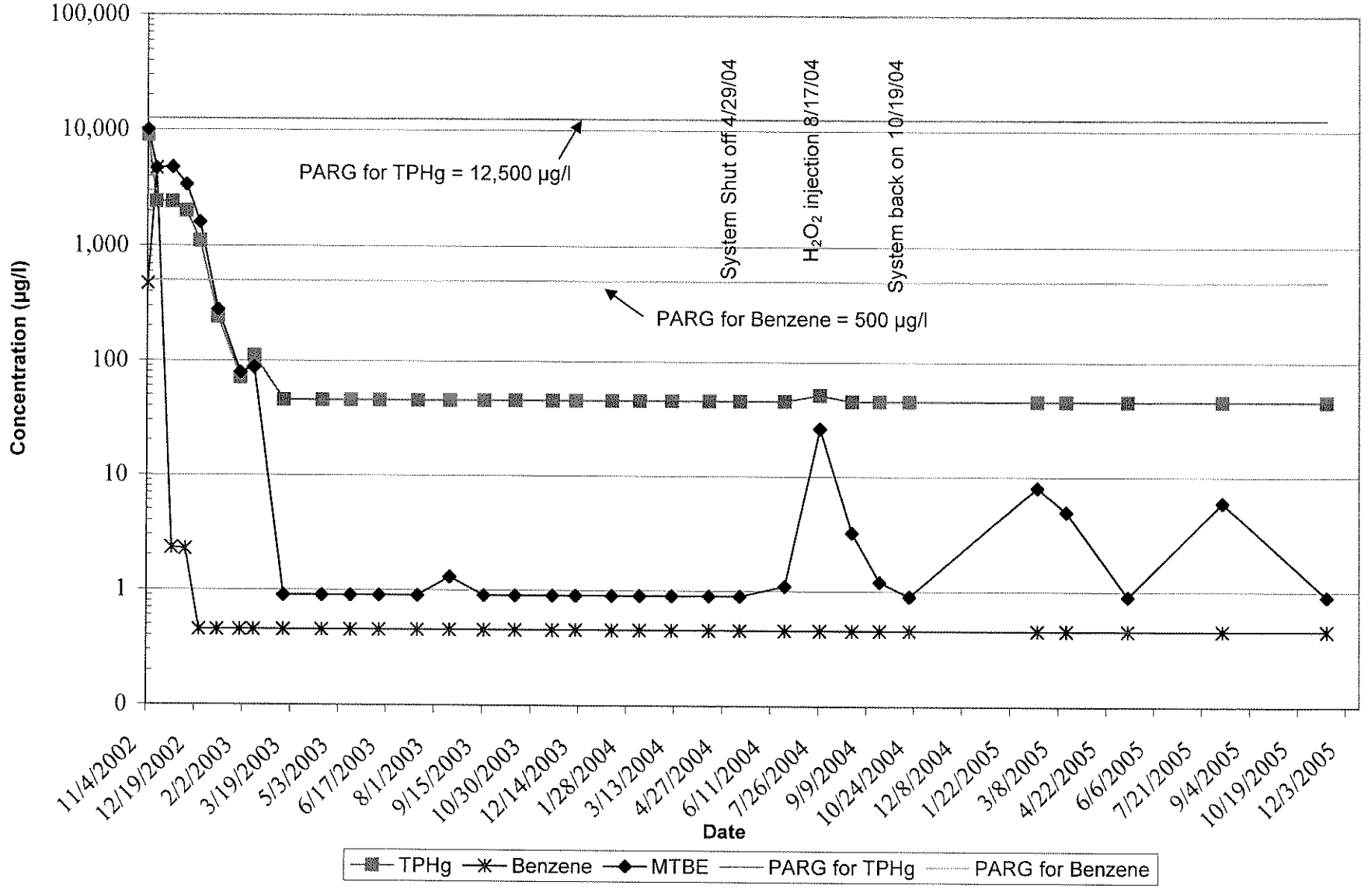


CHART 4: TPHg, TPHd, BENZENE, and MTBE CONCENTRATIONS IN GROUNDWATER IN MW6
Crescent City Shell, PFP; LACO Project No. 5282.01
1006 N. Highway 101, Crescent City, CA; Case No. 1TDN026

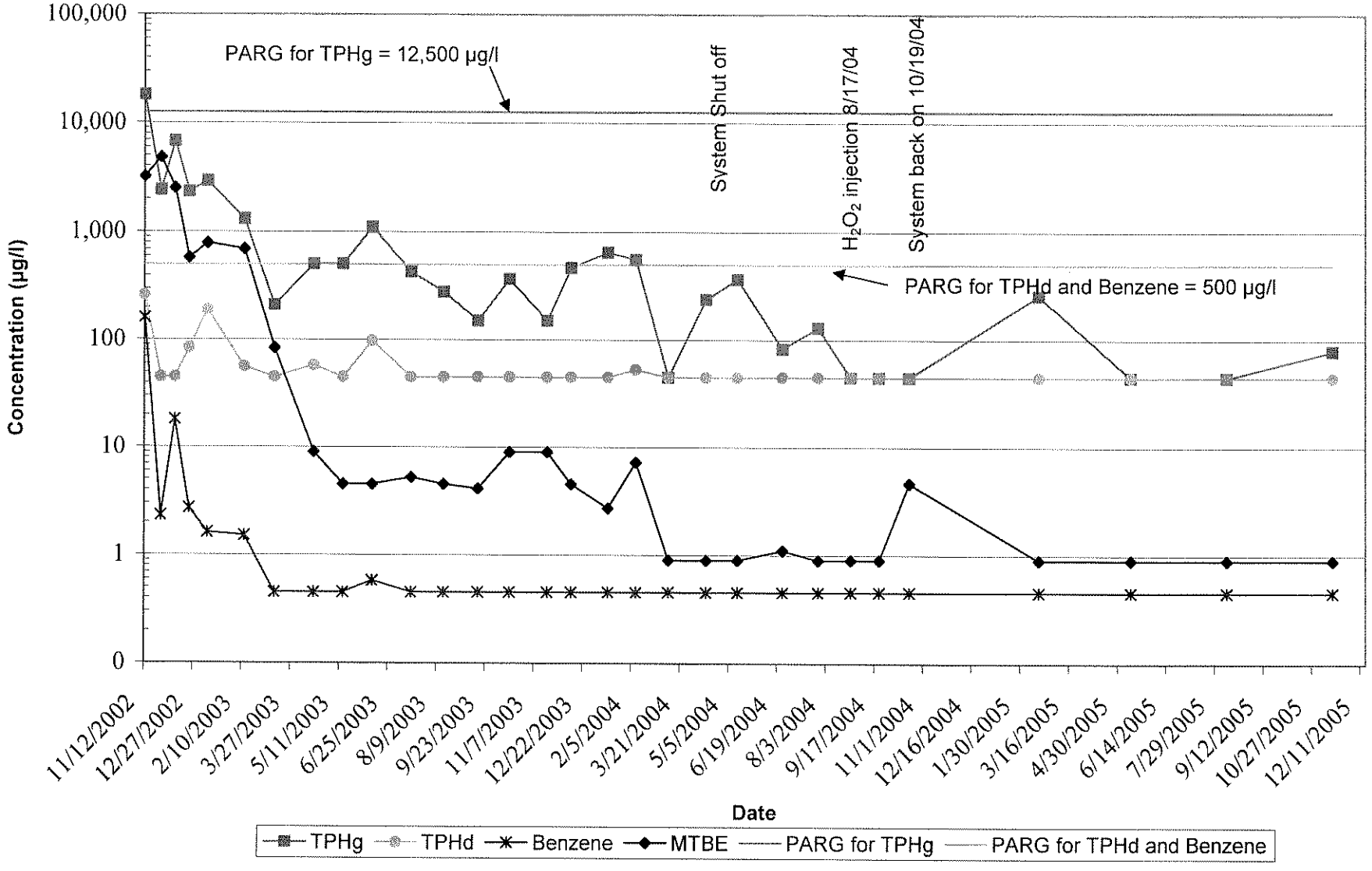


CHART 5: TPHg, BENZENE, and MTBE CONCENTRATIONS IN GROUNDWATER IN MW7
Crescent City Shell, PFP; LACO Project No. 5282.01
1006 N. Highway 101, Crescent City, CA; Case No. 1TDN026

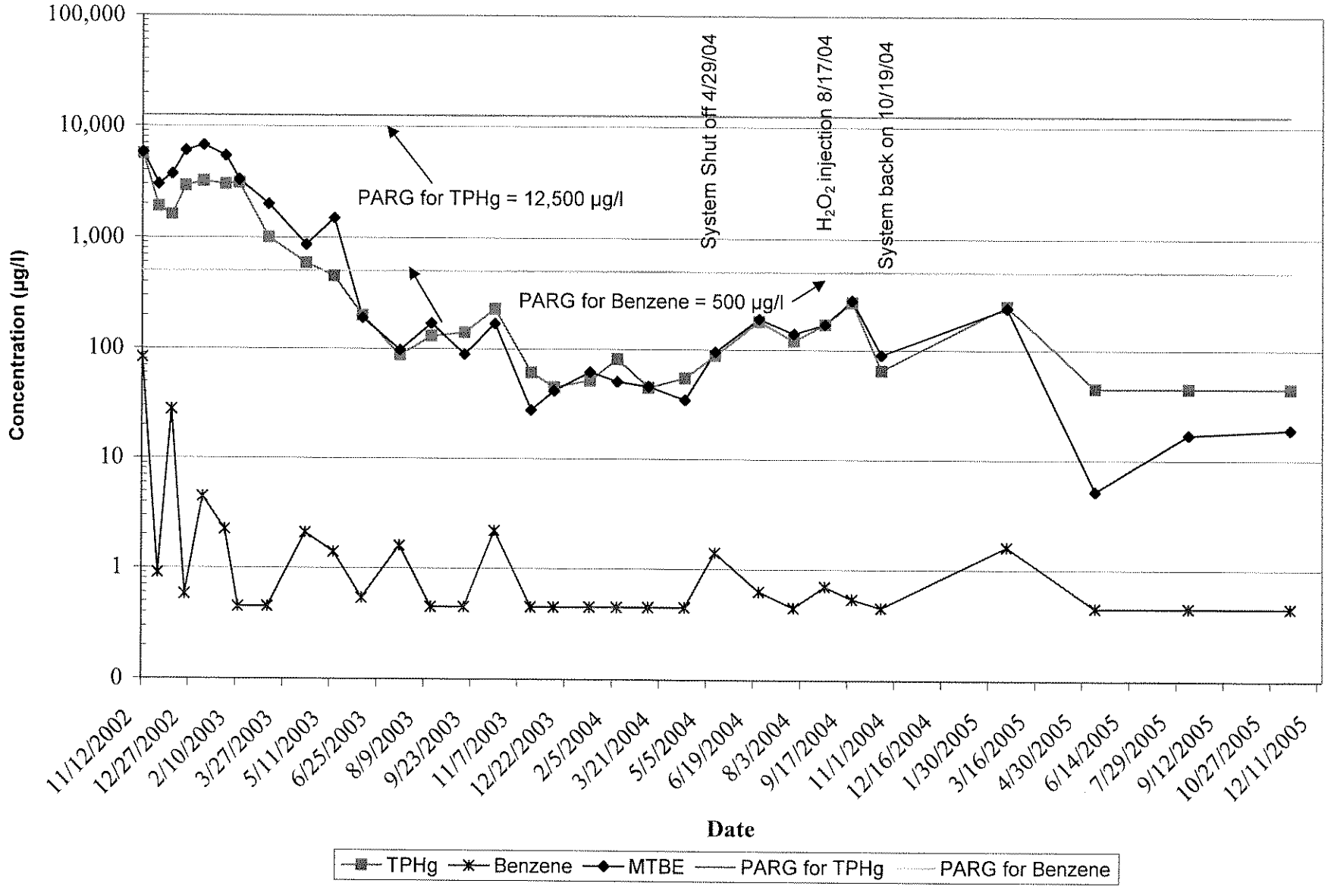
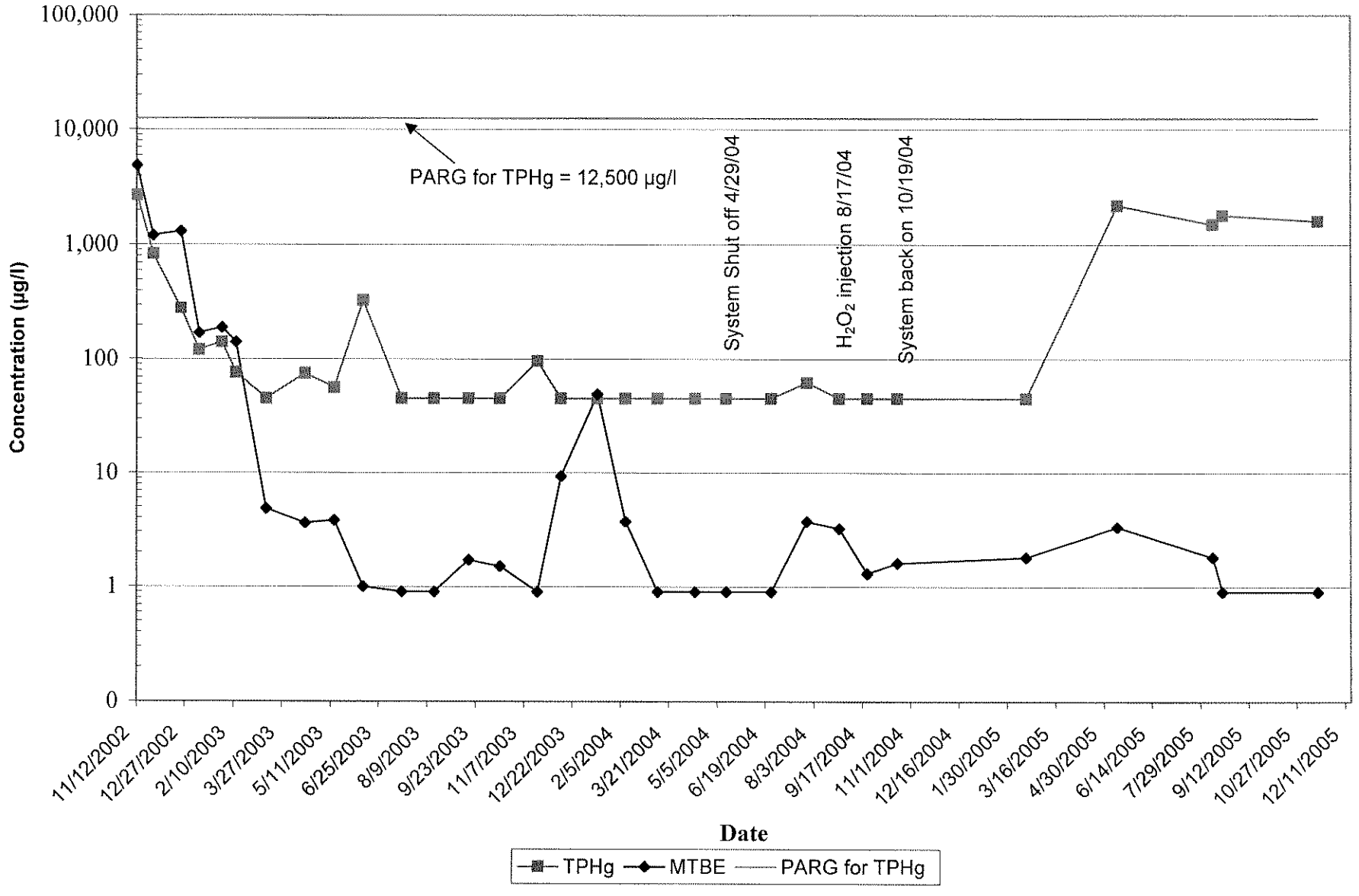


CHART 6: TPHg and MTBE CONCENTRATIONS IN GROUNDWATER IN MW8

Crescent City Shell, PFP; LACO Project No. 5282.01

1006 N. Highway 101, Crescent City, CA; Case No. 1TDN026



Attachment 1

ATTACHMENT 1: KEY TO ABBREVIATIONS

Crescent City Shell, PFP; LACO Project No. 5282.01

1006 N. Highway 101, Crescent City, CA; Case No. 1TDN026

KEY TO ABBREVIATIONS	
Alk	-- Alkalinity
As	-- Arsenic
B	-- Bailer; diameter specified
BTEX	-- Benzene; Toluene; Ethylbenzene; m,p- and o- Xylenes
CAM	-- Cam Pump
Cl	-- Chloride
CO_2	-- Carbon dioxide
COC	-- Chain of custody
Cr	-- Chromium
DHP	-- Down-hole-pump (submersible pump)
DIPE	-- Di-isopropyl Ether
Dis	-- Dissolved
DO	-- Dissolved Oxygen; accuracy range of the DO meter is ± 0.3 mg/L
DTW	-- Depth-to-Water
ECw	-- Electrical Conductivity in water; accuracy range of the ECw meter is ± 20 µmohs
ETBE	-- Ethyl Tertiary Butyl Ether
Fe	-- Iron
FP	-- Free Product
Mn	-- Manganese
MTBE	-- Methyl Tertiary Butyl Ether
N	-- Nitrogen
ND<50	-- non-detect at reporting limits shown
NO_3	-- Nitrate
NOT ACTIVE	-- Sample not analyzed for parameter during current sampling event
ORP	-- Oxidation Reduction Potential; accuracy range of the ORP meter is ± 2 mV
P	-- Phosphorous
PCP/TCP	-- penta- tetra- tri- chlorophenols
pH	-- Potential of hydrogen; accuracy range of the pH meter is ± 0.2 pH
SGC	-- Silica gel cleanup
SO_4	-- Sulfate
T	-- Temperature; accuracy range of the temperature meter is ± 0.5 °C
T&P	-- Tape and Paste
TAME	-- Tertiary Amyl Methyl Ether
TBA	-- Tetiary Butyl Alcohol
TBF	-- Tertiary Butyl Formate
TIC	-- Total Inorganic Carbon
TOC	-- Total Organic Carbon
Tot	-- Total
TPHd	-- Total Petroluem Hydrocarbons as Diesel
TPHg	-- Total Petroluem Hydrocarbons as Gasoline
TPHk	-- Total Petroluem Hydrocarbons as Kerosene
TPHmo	-- Total Petroluem Hydrocarbons as Motor Oil
TPHs	-- Total Petroluem Hydrocarbons as Solvent
µg/L	-- Micro grams per liter (parts per billion)

Attachment 2

PROJECT CHRONOLOGY

W & S Enviro; Crescent City Shell
100 North Highway 101, Crescent City, California
CRWQCB Case No. 1TDN026; LACO Project No. 5282.01

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 Northern 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 OW3 through OW5. 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 a 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 a systems check. The oxygen booster for Unit 1 was installed and turned on by a LACO technician. The solenoid on Port 8 of Unit 2 was discovered to be intermittently staying open.
December 10, 2002	LACO performed a systems check and sample collection.
December 26, 2002	LACO performed a systems check and sample collection. The LACO technician still reported low pressures in Unit 2.

January 9, 2003	LACO performed a systems check and sample collection. The LACO technician discovered that Unit 1 had been off since the last visit. Unit 1 was turned back on. The oxygen booster for Unit 2 was installed. A crack in the air compressor piston for Unit 2 was discovered. The air compressor was removed and Unit 2 was turned off.
January 16, 2003	LACO performed a systems check. The LACO technician installed the new air compressor for Unit 2 and turned on the oxygen booster. The pressure in the ports on Unit 2 returned to the normal range (29 to 41 psi).
January 21, 2003	LACO performed a systems check. LACO discovered the run time clock for Unit 2 had not been working since approximately December 18, 2002. The run time error was caused by an improper setting on the current sensing relay. No problems were discovered with the rest of the system. The current relay was reset to its operational range and the dial was taped in place.
January 30, 2003	LACO performed a 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 a 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 marked the transition to monthly sampling for the Pay-for-Performance 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 on 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 of Unit 1 sheared off after being bumped. The damaged section was replaced. The cracked tubing between the backflow valve and the well head connection for sparge point 2S was noticed after an 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 below ground surface 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 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 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 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. The ozone system was shut down at the start of work on March 10, 2003, 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." The field technician noted that the supply tubing on sparge point SP4S was cracked; this was fixed. It was noted that sparge point SP4D had a 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	LACO performed a mid-cycle site check to sample vapor points for fugitive ozone using a Dräger pump with an ozone detector tube. LACO arrived onsite and found Unit 1 down. The technicians determined the problem to be a shorted out main power switch. The technicians disconnected the switch and called KVA to have a replacement sent out overnight. Ozone concentrations were measured at the port and wellhead of sparge point SP1S, and in vapor points VP1 and VP2. Technicians replaced the air filter on the Unit 2 air compressor, and the particulate filter on the Unit 2 oxygen concentrator.
May 2, 2003	The Project Manager (PM) arrived onsite to replace the main power switch. After replacing the switch, the air compressor was found to be operating at sub-normal pressures. The head was removed from the compressor body and it was discovered that the rubber band around the piston was shredded. KVA was called to have a 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 were in use. LACO will use these new lines to monitor the buildup of the discoloration.

May 5, 2003	The PM arrived onsite to replace the piston. After taking the air compressor apart to make the repair, LACO noticed that the shaft through which the piston travels was cracked. The PM called KVA for a replacement air compressor.
May 8, 2003	The PM arrived onsite to replace the air compressor; the pressure output was still sub-normal. A soap solution was used to check for leaks and it was found that the seal in the head was not tight. As a gasket set that was shipped out for the previous compressor was not brought, the leak could not be fixed. The system was left off.
May 9, 2003	The senior technician replaced the gasket and ran a pressure test on Unit 1; all pressures were normal.
May 14, 2003	The technicians arrived onsite for quarterly monitoring. The technicians performed system checks on both units; all appeared normal and operational.
June 2, 2003	The technician arrived onsite for a systems check. They found the GFI on Unit 1 had tripped so they reset the GFI. Run time indicated that the system shut down on May 26, 2003, at 0335.
June 10, 2003	The technicians arrived onsite for monthly performance monitoring with vapor monitoring postponed from last month due to pump failure. The technicians found Unit 1 down with a shorted and melted GFI and main power switch. They found that neither unit was grounded. Both units were grounded and shorted parts were replaced. Run times in Unit 1 indicated failure occurred on June 3, 2003, at 2146. The unit was restarted at 1445 on June 10, 2003.
June 15, 2003	The PM arrived onsite to perform systems check on both Units 1 and 2; all appeared normal and operational.
June 24, 2003	The technician arrived onsite to perform a system check. Unit 1 appeared normal and operational. Compression fittings on Stations 4 and 5 of Unit 2 were observed to be leaking; the technician replaced compression fittings; all appeared normal and operational.
July 9, 2003	The technician arrived onsite to perform a 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	The technicians arrived onsite 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 onsite. 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 The technician arrived onsite 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 The technicians arrived onsite to collect groundwater samples to analyze for chromium and replaced the HDPE tubing at the C-Sparger and well heads with Teflon tubing. The 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. The HDPE tubing was replaced with Teflon tubing at well heads 1S to 4S, 6S, 7S, 1D to 3D, and 7D. In addition, the compression fitting on the Unit 1 compressor outflow was replaced.

August 15, 2003 The technicians arrived onsite for monthly performance monitoring. A systems check was not performed due to lack of time.

August 25, 2003 The technicians arrived onsite to perform a 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 The PM and a technician arrived onsite to replace the 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, 2003, 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 The technicians arrived onsite for monthly performance monitoring and to perform the systems operation and maintenance check on Units 1 and 2. Both units were fully operational.

September 30, 2003 The technician arrived onsite 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. A system check was run on both units.

October 10, 2003	The technician arrived onsite for the bi-monthly performance monitoring. The master circuit breaker had tripped, which the technician reset. The Unit 1 case fan was non-operational and was replaced.
October 15, 2003	The technicians arrived onsite for the monthly performance monitoring and to perform the systems operation and maintenance check on Units 1 and 2. Both units were fully operational.
October 29, 2003	The technicians arrived onsite to perform the systems operation and maintenance check on Units 1 and 2. Leaks were discovered in the 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	The technicians arrive onsite to collect quarterly groundwater monitoring samples. A systems check was not performed due to time constraints.
December 11, 2003	The technicians arrived onsite to perform the monthly performance monitoring in conjunction with a split sampling event to meet requirements for the 75 percent milestone. Leon Perrault of the DNCDEH 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 and Unit 1 was left non-operational. The line pressure on Station 8 of Unit 2 was over-range and it was believed that the line might be plugged. Unit 2 was left in good condition and operational.
January 12, 2004	The technicians arrived onsite 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 onsite to perform the monthly performance monitoring and the systems operation and maintenance check. Both Units 1 and 2 were fully operational.
January 28, 2004	A LACO technician arrived onsite to collect vapor samples from vapor extraction wells VP1 and VP2. Vapor samples were not collected from vapor extraction wells VP3 through VP6 due to the shallow saturated conditions.
February 9, 2004	LACO technicians arrived onsite to collect the 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	The technicians arrived onsite to perform the 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 be rebuilt as the drive shaft was broken.
February 26, 2004	The technicians arrived onsite to replace the compressor. Unit 2 was left in operating condition.
March 10, 2004	LACO technicians arrived onsite to collect the monthly groundwater samples.

March 16, 2004	LACO technicians arrived onsite to perform a systems operation and maintenance check. Unit 1 was observed to be operational. Unit 2 was taken off-line to return the failed compressor to the shop.
March 24, 2004	LACO technicians arrived onsite to perform a systems operation and maintenance check. Both Units 1 and 2 were observed to be operational.
April 6, 2004	LACO technicians arrived onsite to perform a systems operation and maintenance check. Both Units 1 and 2 were observed to be operational.
April 14, 2004	The technicians arrived onsite to collect the 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 onsite to perform a systems operation and maintenance check. Both Units 1 and 2 were observed to be operational.
April 29, 2004	LACO technicians arrived onsite to perform a systems operation and maintenance check. Both Units 1 and 2 were observed to be operational. System run times were reduced to 1 minute per sparge point in order to test for rebound while keeping the sparge points pressurized.
May 13, 2004	LACO technicians arrive onsite 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 onsite 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 times 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 onsite to perform a systems operation and maintenance check. Monthly groundwater sampling was also performed. Unit 2 was observed to be operational.
July 27, 2004	LACO technicians arrived onsite to perform monthly groundwater sampling.
August 11, 2004	LACO technicians arrived onsite to perform a systems operation and maintenance check. Unit 2 was observed to be operational.
August 17, 2004	LACO technicians arrived onsite 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 onsite.
August 26, 2004	LACO technicians arrived onsite 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 onsite to perform monthly groundwater sampling. Vapor points were also sampled for laboratory analysis.
October 18, 2004	LACO technicians arrived onsite to develop observation wells OW3, OW4, and OW5.

October 19, 2004	LACO technicians arrived onsite to perform quarterly groundwater sampling. The ozone system was reset to full capacity following rebound of some analytes after the ozone run times were reduced in April.
November 15, 2004	LACO technicians arrived onsite to perform a systems operation and maintenance check.
December 13, 2004	LACO technicians arrived onsite to perform a systems operation and maintenance check. A gauge was replaced and a fitting was replaced on lower stem No. 2.
January 12, 2005	LACO technicians arrived onsite to perform a systems operation and maintenance check.
February 16, 2005	LACO technicians arrived onsite 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 onsite to perform a systems operation and maintenance check. The 1207 compressor was completely rebuilt and a new snubber and pressure gauge was added. Additionally, groundwater samples were collected to confirm the air compressor is properly operating.
April 11, 2005	LACO technicians arrived onsite to perform a systems operation and maintenance check.
April 14, 2005	LACO technicians arrived onsite to perform a systems operation and maintenance check.
May 12, 2005	LACO technicians arrived onsite to perform quarterly groundwater sampling. Vapor points were also sampled for laboratory analysis.
May 17, 2005	LACO technicians arrived onsite to perform a systems operation and maintenance check. Wells MW8 and OW4 were re-developed.
June 16, 2005	LACO technician arrived onsite to perform monthly systems operation and maintenance check. Teflon tubing to the back flow valve on Station 2 was replaced, and the solenoid plunger and spring on Station 4 was replaced. Manifold pressures appeared normal to all stations.
July 14, 2005	LACO technicians arrived onsite to perform monthly systems operation and maintenance check. Manifold pressures appeared normal.
August 9, 2005	LACO technicians arrived onsite to perform quarterly groundwater sampling. Vapor points were also sampled for laboratory analysis.
August 11, 2005	LACO technicians arrived onsite to perform monthly systems operation and maintenance check.
August 18, 2005	LACO technicians arrived onsite to perform additional third quarter of 2005 sampling of monitoring well MW8 and observation well OW3.
October 4, 2005	LACO technicians arrived onsite to perform monthly systems operation and maintenance check. The system was shut down for repairs.
October 11, 2005	LACO technicians arrived onsite to perform monthly systems operation and maintenance check. A 16 amperes (A) breaker fault, 230 volt/50 A service outlet, and 1207 compressor was installed.

October 18, 2005	LACO technicians arrived onsite to perform monthly systems operation and maintenance check.
November 2, 2005	LACO technicians arrived onsite to perform monthly systems operation and maintenance check. Faulty parts were repaired or removed and replaced for sparge point stations SP1D, SP2S, SP2D, SP4S, SP4D, SP5D, SP8, and SP9.
November 14, 2005	LACO technicians arrived onsite to perform monthly systems operation and maintenance check. Tubing for sparge points SP1D, SP2S, SP2D, SP4S, SP4D,and SP5D was replaced.
November 15, 2005	LACO technicians arrived onsite to perform quarterly groundwater sampling. Vapor points were also sampled for laboratory analysis.
December 1, 2005	LACO technicians arrived onsite to perform monthly systems operation and maintenance check. A 16 A breaker fault and controller fault was reset.

:jg

P:\5200\5282 PFP CC Shell\Submittals\Quarterly Reports\2005\4q05\project chronology4Q05.doc

Attachment 3

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: 8-18-05
Golbal ID No.: T0601500022
PM: CSM

Tech: RLD
Mob/Demob time: .25/.25
Travel time: 3 hrs
Time on site: 9:40
Time off site: 10:33
Mileage: 100

WELL No.:	MW8		OW3							
DIAMETER (in)	1.25		1.10							
SCREENED INTERVAL (ft)	10-15		5 - 10							
DEPTH TO WATER (ft)	6.87		7.37							
	INITIAL	FINAL	INITIAL	FINAL	INITIAL	FINAL	INITIAL	FINAL	INITIAL	FINAL
FIELD INTRINSICS: pH	6.97	6.83								
TEMP (°C)	19.4	20.0								
Ecw (µmohs)	2.68	2.49								
ORP (mV)	-8	-37								
DO (mg/L)	0.65	0.22								
OTHER (units)	—		—							
PURGE: TIME	10:07	10:19	10:06	10:15						
METHOD (DHP/CB/B)	CAM		3/4 B							
RATE (Lpm)	0.21		NO PURGE							
VOLUME (L)	2.5		—							
COLOR	CLEAR	CLEAR	CLEAR	—						
ODOR	MED FUEL		SULFUR / LT FUEL							
INTAKE DEPTH (FEET)	13.0									
SAMPLE: TIME	10:21		10:15							
METHOD (DHP/CB/B)	CAM		3/4 B							
ANALYTES	8260 list 1; TPHd w/SGC		8260 List 1; TPHd w/SGC							
TOTAL DRAWDOWN (FEET)	0.60		—							
REMARKS	—		—							
WELL CONDITION	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/PEP CC SHELL

Project No.: 5282.01

Tech: RLD

Date: 8-18-05

WELL ID:	METER ACCURACY RANGE				
MW8	+/- 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)
10:09	6.85	19.7	257	-15	0.65
10:11	6.84	19.8	255	-20	0.76
10:13	6.84	19.9	254	-25	0.51
10:15	6.84	19.9	249	-29	0.30
10:17	6.83	20.0	249	-35	0.24
10:19	6.83	20.0	249	-37	0.22

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)

LACO ASSOCIATES
CONSULTING ENGINEERS

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

Project Name: MDI/RP - C.C. SHELL
Project No.: 5282.01

Tech: RLD
Date: 8-18-05

WELL ID: OW3		WELL ID: MW8		WELL ID:		WELL ID:		WELL ID:		WELL ID:	
TIME	DTW (ft)	TIME	DTW (ft)	TIME	DTW (ft)	TIME	DTW (ft)	TIME	DTW (ft)	TIME	DTW (ft)
10:00	7.37	9:59	6.87								
10:10	7.37	10:09	6.87								

WELL ID:		WELL ID:		WELL ID:		WELL ID:		WELL ID:		WELL ID:	
TIME	DTW (ft)	TIME	DTW (ft)	TIME	DTW (ft)	TIME	DTW (ft)	TIME	DTW (ft)	TIME	DTW (ft)

WELL ID:		WELL ID:		WELL ID:		WELL ID:		WELL ID:		WELL ID:	
TIME	DTW (ft)	TIME	DTW (ft)	TIME	DTW (ft)	TIME	DTW (ft)	TIME	DTW (ft)	TIME	DTW (ft)

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): RLD

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

LAB ID	SAMPLE ID	DATE	TIME	MATRIX*	CONTAINER	PRESERVATIVE	ANALYSIS: 8260 list 1	ANALYSIS: TPHd w/SGC
	5282-MW8-W	8-18-05	AM	GW	9	b	3	1
	5282-OW3-W	↓	↓	↓	7	------	3	1

SAMPLE CONDITION/SPECIAL INSTRUCTIONS
GEOTRACKER

ON ice, intact

RELINQUISHED BY (Sign & Print)	DATE/TIME	RECEIVED BY (Sign)	DATE/TIME
	8/18/05		8/18/05 1410

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

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: 11-15-05
Golbal ID No.: T0601500022
PM: CSM

Tech: SJD / RLD
Mob/Demob time: 1.50/1.50
Travel time: 3.0
Time on site: 7:50
Time off site: 2:30
Mileage: 150

WELL No.	MW1		MW2		MW4		MW5		MW6	
DIAMETER (in)	2.00		2.00		2.00		4.00		~~2.00~~ 1.10	
SCREENED INTERVAL (ft)	5-15		5-15		4-14		4-19		10 - 14	
DEPTH TO WATER (ft)	5.56		3.41		4.99		5.22		—	
	INITIAL	FINAL	INITIAL	FINAL	INITIAL	FINAL	INITIAL	FINAL	INITIAL	FINAL
FIELD INTRINSICS: pH	7.3	7.1	7.8	6.2	7.1	6.2	7.5	7.1		
TEMP (°C)	17.4	16.5	17.6	17.7	18.7	19.2	16.0	17.0		
Ecw (µmohs)	523	496	223	217	445	454	381	368		
ORP (mV)	-53	-31	0	94	71	126	77	79		
DO (mg/L)	6.34	5.77	4.46	4.61	4.98	5.02	9.42	10.28		
OTHER (units)	—		—		—		—			
PURGE: TIME	10:57	11:05	11:35	11:45	12:47	12:55	12:17	12:23		
METHOD (DHP/CB/B)	DHP		DHP		DHP		DHP			
RATE (Lpm)	0.19		0.20		0.25		0.33			
VOLUME (L)	1.5		2.0		2.0		2.0			
COLOR	TAN TURBID	TAN TURBID	CLEAR	CLEAR	ORANGE TINT	ORANGE TINT	CLEAR	CLEAR		
ODOR	ORGANIC		NONE		NONE		NONE			
INTAKE DEPTH (FEET)	10.0		10.0		10.0		12.0			
SAMPLE: TIME	11:07		11:47		12:57		12:25			
METHOD (DHP/CB/B)	DHP		DHP		DHP		DHP			
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)	0.74		0.11		0.53		0.05			
REMARKS	20' OUT - 1 BEIT OLD TUBE FULL OF SAND		—		FD + MB		—			
WELL CONDITION	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: 11-15-05
Golbal ID No.: T0601500022
PM: CSM

Tech: SJD/RLD
Mob/Demob time: .50/.50
Travel time: 3.0
Time on site: 7:50
Time off site: 2:30
Mileage: 150

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)	6.02		5.35		5.44		—		—	
	INITIAL	FINAL	INITIAL	FINAL	INITIAL	FINAL	INITIAL	FINAL	INITIAL	FINAL
FIELD INTRINSICS: pH	7.2	6.9	6.9	6.8	7.1	6.6				
TEMP (°C)	14.0	15.3	16.7	17.7	18.0	18.8				
Ecw (µmohs)	750	562	666	655	401	381				
ORP (mV)	UP	-81	-64	-81	UP	UP				
DO (mg/L)	1.67	7.35	0.36	0.53	0.30	0.42				
OTHER (units)	—		—		—					
PURGE: TIME	9:13	9:25	9:47	9:55	10:21	10:27				
METHOD (DHP/CB/B)	CAM		CAM		CAM		CAM		CAM	
RATE (Lpm)	0.17		0.25		0.25					
VOLUME (L)	2.0		2.0		1.5					
COLOR	CLEAR	CLEAR	CLEAR	CLEAR	CLEAR	CLEAR				
ODOR	LIGHT SULFUR		SLIGHT SULFUR MED FUEL		MED SULFUR					
INTAKE DEPTH (FEET)	13.0		13.0		13.0					
SAMPLE: TIME	9:27		9:57		10:29					
METHOD (DHP/CB/B)	CAM		CAM		CAM		CAM		CAM	
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)	7.31		0.08		2.05					
REMARKS	—		—		1" C-FLEX 1-B.F.IT 5' DHT		—		—	
WELL CONDITION	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: 11-15-05
Golbal ID No.: T0601500022
PM: CSM

Tech: SJD
Mob/Demob time: .25/.50
Travel time: 2.0
Time on site: 8:30 / 11:30
Time off site: 8:50 / 2:20
Mileage: 100

WELL No.:	MW1		MW2		MW4		MW5		MW6	
DIAMETER (in)	2.00		2.00		2.00		4.00		~~2.00~~ 1.10	
SCREENED INTERVAL (ft)	5-15		5-15		4-14		4-19		10 - 14	
DEPTH TO WATER (ft)									5.46	
	INITIAL	FINAL	INITIAL	FINAL	INITIAL	FINAL	INITIAL	FINAL	INITIAL	FINAL
FIELD INTRINSICS: pH									6.3	6.3
TEMP (°C)									18.0	18.6
Ecw (µmohs)									142	140
ORP (mV)									74	14
DO (mg/L)									1.62	0.93
OTHER (units)										
PURGE: TIME									11:41	11:51
METHOD (DHP/CB/B)									CAM PUMP	
RATE (Lpm)									0.19	
VOLUME (L)									1.90	
COLOR									CLEAR	CLEAR
ODOR									MED. SULFUR	
INTAKE DEPTH (FEET)									12.0	
SAMPLE: TIME									11:56	
METHOD (DHP/CB/B)									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)									6.34	
REMARKS										
WELL CONDITION									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: 11-15-05
Golbal ID No.: T0601500022
PM: CSM

Tech: SJD
Mob/Demob time: .25 / 1.50
Travel time: 2.0
Time on site: 7:50 / 11:30
Time off site: 8:30 / 2:20
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)							5.18		5.19	
	INITIAL	FINAL	INITIAL	FINAL	INITIAL	FINAL	INITIAL	FINAL	INITIAL	FINAL
FIELD INTRINSICS: pH							6.7	6.7	6.3	6.3
TEMP (°C)							18.3	17.6	16.7	16.6
Ecw (µmohs)							256	256	268	265
ORP (mV)							-8	-11	12	10
DO (mg/L)							1.08	0.59	0.82	0.36
OTHER (units)										
PURGE: TIME							12:53	12:59	12:27	12:33
METHOD (DHP/CB/B)							CAM PUMP		CAM PUMP	
RATE (Lpm)							0.21		0.19	
VOLUME (L)							1.25		1.15	
COLOR							CLEAR	CLEAR	CLEAR	CLEAR
ODOR							SLIGHT SWEET		VERY SLIGHT SULFUR/SHOE STORE	
INTAKE DEPTH (FEET)							9.0		9.0	
SAMPLE: TIME							1:03		12:38	
METHOD (DHP/CB/B)							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)							1.51		1.57	
REMARKS										
WELL CONDITION							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/REP CC. SHELL

Project No.: 5282.01

Tech: RLD

Date: 11-15-05

WELL ID:	METER ACCURACY RANGE				
MW7	+/- 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)
9:15	6.9	14.8	679	ur	2.45
9:17	6.9	14.8	630	ur	4.62
9:19	6.9	14.8	604	ur	5.86
9:21	6.9	15.1	581	-96	6.47
9:23	6.9	15.1	576	-83	7.00
9:25	6.9	15.3	562	-81	7.35

WELL ID: MW8

TIME	pH	TEMP (°C)	Ecw (µmohs)	ORP (mV)	DO (mg/L)
9:49	6.8	17.2	666	-64	0.49
9:51	6.8	17.5	656	-75	0.53
9:53	6.8	17.6	655	-79	0.53
9:55	6.8	17.7	655	-81	0.53

WELL ID: MW3

TIME	pH	TEMP (°C)	Ecw (µmohs)	ORP (mV)	DO (mg/L)
10:23	6.6	18.0	381	ur	0.42
10:25	6.6	18.8	381	ur	0.38
10:27	6.6	18.8	381	ur	0.42

WELL ID: MW1

TIME	pH	TEMP (°C)	Ecw (µmohs)	ORP (mV)	DO (mg/L)
10:59	7.2	16.9	498	-38	6.10
11:01	7.2	16.8	498	-36	5.93
11:03	7.2	16.6	497	-32	5.80
11:05	7.1	16.5	496	-31	5.77

WELL ID: MW2

TIME	pH	TEMP (°C)	Ecw (µmohs)	ORP (mV)	DO (mg/L)
11:37	6.6	17.2	222	45	4.93
11:39	6.4	17.3	220	66	4.94
11:41	6.3	17.5	217	87	4.71
11:43	6.3	17.6	217	94	4.63
11:45	6.2	17.7	217	94	4.61

WELL ID: MW5

TIME	pH	TEMP (°C)	Ecw (µmohs)	ORP (mV)	DO (mg/L)
12:19	7.2	16.1	371	79	10.90
12:21	7.2	16.8	369	78	10.33
12:23	7.1	17.0	368	79	10.28

LACO ASSOCIATES
CONSULTING ENGINEERS

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

Project Name: HPI/DEP CC SHELL

Project No.: 5282.01

Tech: RLD

Date: 11-15-05

WELL ID:	METER ACCURACY RANGE				
MW4	+/- 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)
12:49	6.3	19.0	450	106	5.04
12:51	6.2	19.3	453	115	5.04
12:53	6.2	19.0	453	124	5.03
12:55	6.2	19.2	454	126	5.02

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)

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

Tech: RLD
Date: 11-15-05

WELL ID: MW7		WELL ID: MW8		WELL ID: OW3		WELL ID: MW4		WELL ID: OW5		WELL ID: MW1	
TIME	DTW (ft)	TIME	DTW (ft)	TIME	DTW (ft)	TIME	DTW (ft)	TIME	DTW (ft)	TIME	DTW (ft)
9:00	6.02	9:36	5.35	10:05	5.44	12:32	4.99	12:03	5.22	10:42	5.56
9:10	6.02	9:46	5.35	10:15	5.44	12:42	4.99	12:13	5.22	10:52	5.56

WELL ID: MW2		WELL ID:		WELL ID:		WELL ID:		WELL ID:		WELL ID:	
TIME	DTW (ft)	TIME	DTW (ft)	TIME	DTW (ft)	TIME	DTW (ft)	TIME	DTW (ft)	TIME	DTW (ft)
11:21	3.41										
11:31	3.41										

WELL ID:		WELL ID:		WELL ID:		WELL ID:		WELL ID:		WELL ID:	
TIME	DTW (ft)	TIME	DTW (ft)	TIME	DTW (ft)	TIME	DTW (ft)	TIME	DTW (ft)	TIME	DTW (ft)

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

Chain of Custody

LABORATORY NUMBER:

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:

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): ~~SID~~ RLD

PROJECT INFORMATION
Project Number: 5282.01
Project Name: HPI/PFP C.C. Shell
Purchase Order Number: task 3031

LAB ID	SAMPLE ID	DATE	TIME	MATRIX*	ANALYSIS: 8260 List 1 (CONTAINER 9, PRESERVATIVE b)	ANALYSIS: TPHd w/SGC (CONTAINER 7, PRESERVATIVE ------)	ANALYSIS: Diss. Cr (CONTAINER 2, PRESERVATIVE ------)
	5282-MW1-W	11-15-05	AM	GW	3	1	1
	5282-MW2-W				3	1	1
	5282-MW4-W				3	1	1
	5282-MW5-W				3	1	1
	5282-MW6-W				3	1	1
	5282-MW7-W				3	1	1
	5282-MW8-W				3	1	1
	5282-OW3-W				3	1	1
	5282-OW4-W				3	1	1
	5282-OW5-W		PM		3	1	1

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

SAMPLE CONDITION/SPECIAL INSTRUCTIONS
GEOTRACKER
FIELD FILTERED DISS CR
on ice, intact

RELINQUISHED BY (Sign & Print)	DATE/TIME	RECEIVED BY (Sign)	DATE/TIME
	11/15/05		11/15/05 1630

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~~ RLD

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 3031

LAB ID	SAMPLE ID	DATE	TIME	MATRIX*	PRESERVATIVE	CONTAINER	ANALYSIS
	5282-QCMB-W	11-15-05	PM	GW	b	9	8260 list 1
	5282-QCFD-W	↓	↓	↓			3
	5282-QCTB-W						3
							1

SAMPLE CONDITION/SPECIAL INSTRUCTIONS

on ice, intact

RELINQUISHED BY (Sign & Print)	DATE/TIME	RECEIVED BY (Sign)	DATE/TIME
	11/15/05		11/15/05 1650

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

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

Project Name: Crescent City Shell - HPI
Project No.: 3503.03
Date: 11-15-05
Golbal ID No.: T0601500022
PM: CSM

Tech: SJD
Mob/Demob time: .25 / .25
Travel time: 1.25
Time on site: 7:50
Time off site: 11:30
Mileage: 60

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)	5.64		5.56		5.93		5.15		3.11	
	INITIAL	FINAL	INITIAL	FINAL	INITIAL	FINAL	INITIAL	FINAL	INITIAL	FINAL
FIELD INTRINSICS: pH	6.3	6.0	6.5	6.1	6.4	6.2	6.5	6.2	7.2	6.5
TEMP (°C)	15.3	17.1	15.9	17.9	17.6	18.2	15.3	16.4	15.0	14.5
Ecw (µmohs)	187	187	169	166	183	180	149	144	124	121
ORP (mV)	99	103	94	89	89	93	88	96	82	91
DO (mg/L)	4.53	4.01	3.65	5.13	3.27	5.90	7.47	6.86	1.21	0.66
OTHER (units)	—		—		—		—		—	
PURGE: TIME	10:02	10:10	10:42	10:50	11:09	11:17	9:35	9:43	9:05	9:13
METHOD (DHP/CB/B)	DHP		CAM PUMP		CAM PUMP		DHP		DHP	
RATE (Lpm)	0.20		0.18		0.19		0.19		0.19	
VOLUME (L)	1.60		1.40		1.50		1.50		1.50	
COLOR	CLEAR	CLEAR	CLEAR	CLEAR	CLEAR	CLEAR	CLOUDY	CLOUDY	CLOUDY	LT. BROWN CLOUDY
ODOR	NONE		MED. SULFUR/BAY WATER		SLIGHT SHOE STORE		NONE		NONE	
INTAKE DEPTH (FEET)	10.0		9.0		9.0		10.0		12.0	
SAMPLE: TIME			10:53		11:20		9:45		9:15	
METHOD (DHP/CB/B)			CAM PUMP		CAM PUMP		DHP		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; TPHd/mo w/SGC	
TOTAL DRAWDOWN (FEET)	0.13		3.48		1.63		0.07		0.16	
REMARKS	—		FD-MB		—		—		—	
WELL CONDITION	good		good		good		ALL THREE BOLTS MISSING - 1 TAB BROKEN - 2 STRIPPED		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: CRESCENT CITY SHELL - HPI
Project No.: 3503.03
Tech: SJD
Date: 11-15-05

WELL ID:	METER ACCURACY RANGE				
DW	+/- 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)
9:07	6.9	14.3	124	85	0.87
9:09	6.7	14.3	122	90	0.56
9:11	6.6	14.4	121	91	0.73
9:13	6.5	14.5	121	91	0.66

WELL ID: MW3

TIME	pH	TEMP (°C)	Ecw (µmohs)	ORP (mV)	DO (mg/L)
9:37	6.4	15.6	148	92	6.87
9:39	6.3	15.7	146	94	6.92
9:41	6.3	16.2	145	95	6.84
9:43	6.2	16.4	144	96	6.86

WELL ID: PZ1

TIME	pH	TEMP (°C)	Ecw (µmohs)	ORP (mV)	DO (mg/L)
10:04	6.1	16.1	187	101	4.03
10:06	6.0	16.3	187	102	4.07
10:08	6.0	16.9	188	102	4.05
10:10	6.0	17.1	187	103	4.01

WELL ID: OW1

TIME	pH	TEMP (°C)	Ecw (µmohs)	ORP (mV)	DO (mg/L)
10:44	6.3	17.4	164	92	3.37
10:46	6.2	17.6	163	88	3.43
10:48	6.2	17.8	165	88	4.93
10:50	6.1	17.9	166	89	5.13

WELL ID: OW2

TIME	pH	TEMP (°C)	Ecw (µmohs)	ORP (mV)	DO (mg/L)
11:11	6.3	17.8	180	92	3.81
11:13	6.2	17.9	179	92	4.98
11:15	6.2	18.1	181	93	5.73
11:17	6.2	18.2	180	93	5.90

WELL ID:

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

LACO ASSOCIATES
CONSULTING ENGINEERS

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

Project Name: CRESCENT CITY SHELL - HPI

Project No.: 3503.03

Tech: SJD

Date: 11-15-05

WELL ID: PZ1		WELL ID: OW1		WELL ID: OW2		WELL ID: MW3		WELL ID: DW		WELL ID:	
TIME	DTW (ft)	TIME	DTW (ft)	TIME	DTW (ft)	TIME	DTW (ft)	TIME	DTW (ft)	TIME	DTW (ft)
8:07	5.64	8:09	5.56	8:10	5.92	8:12	5.15	8:17	3.11		
8:22	5.64	8:24	5.56	8:26	5.92	8:28	5.15	8:34	3.11		

WELL ID:		WELL ID:		WELL ID:		WELL ID:		WELL ID:		WELL ID:	
TIME	DTW (ft)	TIME	DTW (ft)	TIME	DTW (ft)	TIME	DTW (ft)	TIME	DTW (ft)	TIME	DTW (ft)

WELL ID:		WELL ID:		WELL ID:		WELL ID:		WELL ID:		WELL ID:	
TIME	DTW (ft)	TIME	DTW (ft)	TIME	DTW (ft)	TIME	DTW (ft)	TIME	DTW (ft)	TIME	DTW (ft)

NORTH COAST LABORATORIES LTD.
5680 West End Road • Arcata • CA 95521-9202
707-822-4649 Fax 707-822-0831

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 3031

LAB ID	SAMPLE ID	DATE	TIME	MATRIX*	ANALYSIS: 8260 List 1 (CONTAINER 9, PRESERVATIVE b)	ANALYSIS: TPHd/mo w/SGC (CONTAINER 7, PRESERVATIVE —)
	3503-MW3-W	11-15-05	AM	GW	3	1
	3503-DW-W	↓	↓	↓	3	1
	3503-OW1-W				3	1
	3503-OW2-W				3	1
	3503-QCTB-W				1	
	3503-QCFD-W				3	
	3503-QCMB-W				3	

SAMPLE CONDITION/SPECIAL INSTRUCTIONS

GEOTRACKER

RELINQUISHED BY (Sign & Print)	DATE/TIME	RECEIVED BY (Sign)	DATE/TIME

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

LACO ASSOCIATES
CONSULTING ENGINEERS
21 W. 4th Street
Eureka, California 95502
707-443-5054

PROJECT	BY	SHEET NO.
LOCATION	DATE	
CLIENT	CHECKED	JOB NO.
	DATE	

5282.01
CRESCENT CITY SHELL
11-15-05

SCOPE: VAPOR SAMPLES

1:30 pm - OPEN VAPORS
1:39 pm - PURGE VP1 (70 pumps)
1:45 pm - COLLECT SAMPLE VP-1
1:47 pm - PURGE VP2 (70 pumps)
1:49 pm - COLLECT SAMPLE VP-2
1:51 pm - PURGE VP-3 (70 pumps)
1:52 pm - COLLECT SAMPLE VP-3
1:55 pm - PURGE VP-4 (70 pumps)
1:57 pm - COLLECT SAMPLE VP-4
2:00 pm - PURGE VP-5 (70 pumps)
2:03 pm - COLLECT SAMPLE VP-5
2:05 pm - PURGE VP-6 (70 pumps)
2:08 pm - COLLECT SAMPLE

@ AIR TOXICS LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

CHAIN-OF-CUSTODY RECORD

Sample Transportation Notice

Relinquishing signature on this document indicates that sample is being shipped in compliance with all applicable local, State, Federal, national, and international laws, regulations and ordinances of any kind. Air Toxics Limited assumes no liability with respect to the collection, handling or shipping of these samples. Relinquishing signature also indicates agreement to hold harmless, defend, and indemnify Air Toxics Limited against any claim, demand, or action of any kind, related to the collection, handling, or shipping of samples. D.O.T. Hotline (800) 467-4922

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 STREET City: EUREKA State: CA Zip: 95501
Phone: (707) 443-5054 FAX: (707) 443-0553
Collected By: Signature:

Project info:
P.O. #:
Project #: 5282.01
Project Name: PFP/HPI C.C. 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	11-15-05 1350	BTEX/MTBE By TO14			
	5282-VP2	11-15-05 1357	" " " "			
	5282-VP3	11-15-05 1403	" " " "			
	5282-VP4	11-15-05 1408	" " " "			
	5282-VP5	11-15-05 1413	" " " "			
	5282-VP6	11-15-05 1420	" " " "			

Relinquished By: (Signature)	Date/Time	Received By: (Signature)	Date/Time
	11-15-04		
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	

FedEx Express **US Airbill**

FedEx Tracking Number 8508 4047 7313

Form ID No. 0215

Sender's Copy

1 From *Please print and press hard.*

Date 11-15-05 Sender's FedEx Account Number 1222-1316-1

Sender's Name STEVE DAVIS Phone (707) 443-5054

Company LACO ASSOCIATES

Address 21 W 4TH ST

Dept./Floor/Suite/Room

City EUREKA State CA ZIP 95501-0216

2 Your Internal Billing Reference First 24 characters will appear on invoice. 5282.01 (3030)

3 To

Recipient's Name Phone ( )

Company AIR TOXICS LTD.

Recipient's Address 180 BLUE RAVINE ROAD STE. B

We cannot deliver to P.O. boxes or P.O. ZIP codes. Dept./Floor/Suite/Room

Address

To request a package be held at a specific FedEx location, print FedEx address here.

City FOLSOM State CA ZIP 95630-4719

4a Express Package Service *Packages up to 150 lbs.* * To most locations

- [ ] FedEx Priority Overnight — Next business morning*
- [x] FedEx Standard Overnight — Next business afternoon*
- [ ] FedEx First Overnight — Earliest next business morning delivery to select locations*
- [ ] FedEx 2Day — Second business day*
- [ ] FedEx Express Saver — Third business day*

FedEx Envelope rate not available. Minimum charge: One-pound rate

4b Express Freight Service *Packages over 150 lbs.* ** To most locations

- [ ] FedEx 1Day Freight* — Next business day**
- [ ] FedEx 2Day Freight — Second business day**
- [ ] FedEx 3Day Freight — Third business day**

* Call for Confirmation:

5 Packaging * Declared value limit $500

- [ ] FedEx Envelope*
- [ ] FedEx Pak* — Includes FedEx Small Pak, FedEx Large Pak, and FedEx Sturdy Pak
- [ ] FedEx Box
- [ ] FedEx Tube
- [x] Other

6 Special Handling Include FedEx address in Section 3.

- [ ] **SATURDAY Delivery** Available ONLY for FedEx Priority Overnight, FedEx 2Day, FedEx 1Day Freight, and FedEx 2Day Freight to select ZIP codes
- [ ] **HOLD Weekday** at FedEx Location NOT Available for FedEx First Overnight
- [ ] **HOLD Saturday** at FedEx Location Available ONLY for FedEx Priority Overnight and FedEx 2Day to select locations

Does this shipment contain dangerous goods? One box must be checked.

- [x] No
- [ ] Yes — As per attached Shipper's Declaration
- [ ] Yes — Shipper's Declaration not required
- [ ] Dry Ice — Dry Ice, 9, UN 1845 _____ x _____ kg
- [ ] Cargo Aircraft Only

Dangerous goods (including Dry Ice) cannot be shipped in FedEx packaging.

7 Payment *Bill to:* Enter FedEx Acct. No. or Credit Card No. below.

- [x] Sender — Acct. No. in Section 1 will be billed.
- [ ] Recipient
- [ ] Third Party
- [ ] Credit Card
- [ ] Cash/Check

FedEx Acct. No. Credit Card No. Exp. Date

Total Packages	Total Weight	Total Declared Value†
1	2	$ ø .00

†Our liability is limited to $100 unless you declare a higher value. See back for details.

FedEx Use Only

8 Sign to Authorize Delivery Without a Signature

By signing you authorize us to deliver this shipment without obtaining a signature and agree to indemnify and hold us harmless from any resulting claims.

466

PULL AND RETAIN THIS COPY BEFORE AFFIXING TO THE PACKAGE.

fedex.com

By using this Airbill you agree to the service conditions on the back of this Airbill and in our current Service Guide, including terms that limit our liability.

Questions? Visit our Web site at fedex.com or call 1.800.GoFedEx 1.800.463.3339.

0304830549

SRF • Rev. Date 11/03 • Part #156278 • ©1994–2003 FedEx • PRINTED IN U.S.A.

Attachment 4

RECEIVED
LACO ASSOCIATES
SEP 06 2005
BY: JK

NORTH COAST LABORATORIES LTD.

September 01, 2005

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

Attn: Accounts Payable

RE: 5282.01, HPI/PFP C.C. Shell

Order No.: 0508532
Invoice No.: 52532
PO No.: TASK
ELAP No. 1247-Expires July 2006

SAMPLE IDENTIFICATION

Fraction	Client Sample Description
01A	5282-MW8-W
01D	5282-MW8-W
02A	5282-OW3-W
02D	5282-OW3-W

ND = Not Detected at the Reporting Limit

Limit = Reporting Limit

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

LMO
✓DRG
DNL
GH
GEO
HPI
CSM

File
Project #

REPORT CERTIFIED BY

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

North Coast Laboratories, Ltd. **Date:** *01-Sep-05*

CLIENT: LACO Associates
Project: 5282.01, HPI/PFP C.C. Shell
Lab Order: 0508532

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-MW8-W and 5282-OW3-W contain some material lighter than diesel. However, some of this material extends into the diesel range of molecular weights. These samples also contain material in the diesel range of molecular weights, but the material does not exhibit the peak pattern typical of diesel oil.

The surrogate recoveries were below the lower acceptance limit for samples 5282-MW8-W, 5282-OW3-W, the method blank and the laboratory control sample/laboratory control sample duplicate (LCS/LCSD). The LCS/LCSD recoveries were within the acceptance limits for diesel; therefore, the data were accepted.

The relative percent difference's (RPD's) for the laboratory control samples were above the upper acceptance limits for diesel and the surrogate. This indicates that the results could be variable.

Gasoline Components/Additives:
Samples 5282-MW8-W and 5282-OW3-W appear to be similar to gasoline but certain peak ratios are not that of a fresh gasoline standard. The reported results represent the amount of material in the gasoline range.

NORTH COAST LABORATORIES
5680 West End Road • Arcata, California 95521-9202 • 707-822-4649 • FAX 707-822-6831

Date: 01-Sep-05
WorkOrder: 0508532

ANALYTICAL REPORT

Client Sample ID: 5282-MW8-W **Received:** 8/18/05 **Collected:** 8/18/05 0:00
Lab ID: 0508532-01A **Matrix:** Groundwater

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

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Methyl tert-butyl ether (MTBE)	ND	1.0	µg/L	1.0		8/26/05
Tert-butyl alcohol (TBA)	ND	10	µg/L	1.0		8/26/05
Di-isopropyl ether (DIPE)	ND	1.0	µg/L	1.0		8/26/05
Ethyl tert-butyl ether (ETBE)	ND	1.0	µg/L	1.0		8/26/05
Benzene	0.61	0.50	µg/L	1.0		8/26/05
Tert-amyl methyl ether (TAME)	ND	1.0	µg/L	1.0		8/26/05
Toluene	ND	0.50	µg/L	1.0		8/26/05
Ethylbenzene	43	0.50	µg/L	1.0		8/26/05
m,p-Xylene	12	0.50	µg/L	1.0		8/26/05
o-Xylene	ND	0.50	µg/L	1.0		8/26/05
Surrogate: 1,4-Dichlorobenzene-d4	110	80.8-139	% Rec	1.0		8/26/05

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

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
TPHC Gasoline	1,800	50	µg/L	1.0		8/26/05

Client Sample ID: 5282-MW8-W **Received:** 8/18/05 **Collected:** 8/18/05 0:00
Lab ID: 0508532-01D **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)	220	50	µg/L	1.0	8/30/05	8/31/05
Surrogate: N-Tricosane	52.6	70-130	% Rec	1.0	8/30/05	8/31/05

NORTH COAST LABORATORIES
5680 West End Road • Arcata, California 95521-9202 • 707-822-4649 • FAX 707-822-6831

Date: 01-Sep-05
WorkOrder: 0508532

ANALYTICAL REPORT

Client Sample ID: 5282-OW3-W **Received:** 8/18/05 **Collected:** 8/18/05 0:00
Lab ID: 0508532-02A **Matrix:** Groundwater

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

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Methyl tert-butyl ether (MTBE)	55	1.0	µg/L	1.0		8/27/05
Tert-butyl alcohol (TBA)	280	10	µg/L	1.0		8/27/05
Di-isopropyl ether (DIPE)	ND	1.0	µg/L	1.0		8/27/05
Ethyl tert-butyl ether (ETBE)	ND	1.0	µg/L	1.0		8/27/05
Benzene	2.7	0.50	µg/L	1.0		8/27/05
Tert-amyl methyl ether (TAME)	18	1.0	µg/L	1.0		8/27/05
Toluene	4.2	0.50	µg/L	1.0		8/27/05
Ethylbenzene	25	0.50	µg/L	1.0		8/27/05
m,p-Xylene	130	25	µg/L	50		8/27/05
o-Xylene	64	25	µg/L	50		8/27/05
Surrogate: 1,4-Dichlorobenzene-d4	105	80.8-139	% Rec	1.0		8/27/05

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

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
TPHC Gasoline	4,200	50	µg/L	1.0		8/27/05

Client Sample ID: 5282-OW3-W **Received:** 8/18/05 **Collected:** 8/18/05 0:00
Lab ID: 0508532-02D **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)	360	50	µg/L	1.0	8/30/05	8/31/05
Surrogate: N-Tricosane	47.2	70-130	% Rec	1.0	8/30/05	8/31/05

NORTH COAST LABORATORIES
5680 West End Road • Arcata, California 95521-9202 • 707-822-4649 • FAX 707-822-6831

North Coast Laboratories, Ltd.

Date: 01-Sep-05

CLIENT: LACO Associates
Work Order: 0508532
Project: 5282.01, HPI/PFP C.C. Shell

QC SUMMARY REPORT

Method Blank

Sample ID **MB 082605** Batch ID: **R36633** Test Code: **8260OXYW** Units: **µg/L** Analysis Date **8/26/05 5:51:00 AM** Prep Date
Client ID: Run ID: **ORGCMS3_050826B** SeqNo: **527311**

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	ND	0.50									
Ethylbenzene	0.09870	0.50									J
m,p-Xylene	0.1924	0.50									J
o-Xylene	ND	0.50									
1,4-Dichlorobenzene-d4	1.02	0.10	1.00	0	102%	81	139	0			

Sample ID **MB 082605** Batch ID: **R36632** Test Code: **GASW-MS** Units: **µg/L** Analysis Date **8/26/05 5:51:00 AM** Prep Date
Client ID: Run ID: **ORGCMS3_050826A** SeqNo: **527288**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPHC Gasoline	16.61	50									J

Sample ID **MB-14126** Batch ID: **14126** Test Code: **SGTPHDW** Units: **µg/L** Analysis Date **8/31/05 8:19:54 PM** Prep Date **8/30/05**
Client ID: Run ID: **ORGC5_050831A** SeqNo: **528075**

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	28.0	0.10	50.0	0	56.0%	70	130	0			S

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: 01-Sep-05

CLIENT: LACO Associates
Work Order: 0508532
Project: 5282.01, HPI/PFP C.C. Shell

QC SUMMARY REPORT

Laboratory Control Spike

Sample ID **LCS-05543** Batch ID: **R36633** Test Code: **8260OXYW** Units: **µg/L** Analysis Date **8/26/05 2:28:00 AM** Prep Date

Client ID: Run ID: **ORGCMS3_050826B** SeqNo: **527308**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	20.19	1.0	20.0	0	101%	80	120	0			
Tert-butyl alcohol (TBA)	408.7	10	400	0	102%	25	162	0			
Di-isopropyl ether (DIPE)	20.69	1.0	20.0	0	103%	80	120	0			
Ethyl tert-butyl ether (ETBE)	20.10	1.0	20.0	0	101%	77	120	0			
Benzene	21.89	0.50	20.0	0	109%	78	117	0			
Tert-amyl methyl ether (TAME)	20.07	1.0	20.0	0	100%	64	136	0			
Toluene	19.93	0.50	20.0	0	99.6%	80	120	0			
Ethylbenzene	19.24	0.50	20.0	0	96.2%	80	120	0			
m,p-Xylene	39.17	0.50	40.0	0	97.9%	80	120	0			
o-Xylene	18.16	0.50	20.0	0	90.8%	80	120	0			
1,4-Dichlorobenzene-d4	1.10	0.10	1.00	0	110%	81	139	0			

Sample ID **LCSD-05543** Batch ID: **R36633** Test Code: **8260OXYW** Units: **µg/L** Analysis Date **8/26/05 2:53:00 AM** Prep Date

Client ID: Run ID: **ORGCMS3_050826B** SeqNo: **527309**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	20.48	1.0	20.0	0	102%	80	120	20.2	1.43%	20	
Tert-butyl alcohol (TBA)	420.2	10	400	0	105%	25	162	409	2.78%	20	
Di-isopropyl ether (DIPE)	20.81	1.0	20.0	0	104%	80	120	20.7	0.591%	20	
Ethyl tert-butyl ether (ETBE)	20.51	1.0	20.0	0	103%	77	120	20.1	2.02%	20	
Benzene	22.20	0.50	20.0	0	111%	78	117	21.9	1.43%	20	
Tert-amyl methyl ether (TAME)	20.24	1.0	20.0	0	101%	64	136	20.1	0.850%	20	
Toluene	20.29	0.50	20.0	0	101%	80	120	19.9	1.80%	20	
Ethylbenzene	19.46	0.50	20.0	0	97.3%	80	120	19.2	1.12%	20	
m,p-Xylene	39.87	0.50	40.0	0	99.7%	80	120	39.2	1.77%	20	
o-Xylene	18.26	0.50	20.0	0	91.3%	80	120	18.2	0.545%	20	
1,4-Dichlorobenzene-d4	1.11	0.10	1.00	0	111%	81	139	1.10	0.534%	20	

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: 0508532
Project: 5282.01, HPI/PFP C.C. Shell

QC SUMMARY REPORT

Laboratory Control Spike

Sample ID **LCS-05544** Batch ID: **R36632** Test Code: **GASW-MS** Units: **µg/L** Analysis Date **8/26/05 4:10:00 AM** Prep Date
Client ID: Run ID: **ORGCMS3_050826A** SeqNo: **527285**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPHC Gasoline	941.0	50	1,000	0	94.1%	80	120	0			

Sample ID **LCSD-05544** Batch ID: **R36632** Test Code: **GASW-MS** Units: **µg/L** Analysis Date **8/26/05 4:35:00 AM** Prep Date
Client ID: Run ID: **ORGCMS3_050826A** SeqNo: **527286**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPHC Gasoline	953.7	50	1,000	0	95.4%	80	120	941	1.34%	20	

Sample ID **LCS-14126** Batch ID: **14126** Test Code: **SGTPHDW** Units: **µg/L** Analysis Date **8/31/05 5:25:18 PM** Prep Date **8/30/05**
Client ID: Run ID: **ORGC5_050831A** SeqNo: **528073**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPHC Diesel (C12-C22)	220.7	50	500	0	44.1%	40	107	0			
N-Tricosane	21.1	0.10	50.0	0	42.2%	70	130	0			S

Sample ID **LCSD-14126** Batch ID: **14126** Test Code: **SGTPHDW** Units: **µg/L** Analysis Date **8/31/05 5:53:51 PM** Prep Date **8/30/05**
Client ID: Run ID: **ORGC5_050831A** SeqNo: **528074**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPHC Diesel (C12-C22)	321.9	50	500	0	64.4%	40	107	221	37.3%	15	R
N-Tricosane	28.8	0.10	50.0	0	57.7%	70	130	21.1	30.9%	15	SR

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.
5680 West End Road • Arcata • CA 95521-9202
707-822-4649 Fax 707-822-6831

Chain of Custody

0508532

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): RLD

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

LAB ID	SAMPLE ID	DATE	TIME	MATRIX*	CONTAINER	PRESERVATIVE	ANALYSIS: 8260 list 1	ANALYSIS: TPHd w/SGC
	5282-MW8-W	8-18-05	AM	GW	9	b	3	1
	5282-OW3-W	↓	↓	↓	7	------	3	1

SAMPLE CONDITION/SPECIAL INSTRUCTIONS

GEOTRACKER

on ice, intact

RELINQUISHED BY (Sign & Print)	DATE/TIME	RECEIVED BY (Sign)	DATE/TIME
	8/18/05		8/18/05 1410

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.

December 07, 2005

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

Attn: Accounts Payable

RE: 5282.01, HPI/PFP C.C. Shell

Order No.: 0511445
Invoice No.: 54804
PO No.: TASK 3031
ELAP No. 1247-Expires July 2006

SAMPLE IDENTIFICATION

Fraction	Client Sample Description
01A	5282-MW1-W
01D	5282-MW1-W
01E	5282-MW1-W (Dissolved)
02A	5282-MW2-W
02D	5282-MW2-W
02E	5282-MW2-W (Dissolved)
03A	5282-MW4-W
03D	5282-MW4-W
03E	5282-MW4-W (Dissolved)
04A	5282-MW5-W
04D	5282-MW5-W
04E	5282-MW5-W (Dissolved)
05A	5282-MW6-W
05D	5282-MW6-W
05E	5282-MW6-W (Dissolved)
06A	5282-MW7-W
06D	5282-MW7-W
06E	5282-MW7-W (Dissolved)
07A	5282-MW8-W
07D	5282-MW8-W
07E	5282-MW8-W (Dissolved)
08A	5282-OW3-W
08D	5282-OW3-W
08E	5282-OW3-W (Dissolved)
09A	5282-OW4-W
09D	5282-OW4-W
09E	5282-OW4-W (Dissolved)
10A	5282-OW5-W

ND = Not Detected at the Reporting Limit

Limit = Reporting Limit

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

LMO
DRG
DNL
GH
GEO
HPI
CSM

File
Project #

REPORT CERTIFIED BY

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

December 07, 2005

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

Order No.: 0511445
Invoice No.: 54804
PO No.: TASK 3031
ELAP No. 1247-Expires July 2006

Attn: Accounts Payable

RE: 5282.01, HPI/PFP C.C. Shell

SAMPLE IDENTIFICATION

10D	5282-OW5-W
10E	5282-OW5-W (Dissolved)
11A	5282-QCMB-W
12A	5282-QCFD-W
13A	5282-QCTB-W

North Coast Laboratories, Ltd. **Date:** *07-Dec-05*

CLIENT: LACO Associates
Project: 5282.01, HPI/PFP C.C. Shell
Lab Order: 0511445

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-MW8-W and 5282-OW3-W contain some material lighter than diesel. However, some of this material extends into the diesel range of molecular weights. These samples also 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:
The gasoline values for samples 5282-MW2-W and 5282-OW3-W include the reported gasoline components and additives in addition to other peaks in the gasoline range.

The gasoline value for sample 5282-MW8-W includes the reported gasoline components in addition to other peaks in the gasoline range.

Samples 5282-MW6-W and 5282-OW4-W do not present a peak pattern consistent with that of gasoline. The reported results represent the amount of material in the gasoline range.

The MTBE and TBA reporting limits were raised for sample 5282-OW3-W due to matrix interference.

The laboratory control sample duplicate (LCSD) recovery was below the lower acceptance limit for o-xylene. The laboratory control sample (LCS) recovery was within the acceptance limits; therefore, the data were accepted.

TPH as Diesel:
The LCS/LCSD recoveries were below the lower acceptance limit for diesel. The response of the reporting limit standard was such that the analyte would have been detected even with the low recoveries; therefore, the data were accepted.

The LCS recovery was above the upper acceptance limit for the surrogate. This recovery indicates that the sample results may be erroneously high. There were no detectable levels of the analyte in the samples; therefore, the data were accepted.

NORTH COAST LABORATORIES
5680 West End Road • Arcata, California 95521-9202 • 707-822-4649 • FAX 707-822-6831

Date: 07-Dec-05
WorkOrder: 0511445

ANALYTICAL REPORT

Client Sample ID: 5282-MW1-W **Received:** 11/15/05 **Collected:** 11/15/05 0:00
Lab ID: 0511445-01A **Matrix:** Groundwater

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

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Methyl tert-butyl ether (MTBE)	ND	1.0	µg/L	1.0		11/29/05
Tert-butyl alcohol (TBA)	ND	10	µg/L	1.0		11/29/05
Di-isopropyl ether (DIPE)	ND	1.0	µg/L	1.0		11/29/05
Ethyl tert-butyl ether (ETBE)	ND	1.0	µg/L	1.0		11/29/05
Benzene	ND	0.50	µg/L	1.0		11/29/05
Tert-amyl methyl ether (TAME)	ND	1.0	µg/L	1.0		11/29/05
Toluene	ND	0.50	µg/L	1.0		11/29/05
Ethylbenzene	ND	0.50	µg/L	1.0		11/29/05
m,p-Xylene	ND	0.50	µg/L	1.0		11/29/05
o-Xylene	ND	0.50	µg/L	1.0		11/29/05
Surrogate: 1,4-Dichlorobenzene-d4	111	80.8-139	% Rec	1.0		11/29/05

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		11/29/05

Client Sample ID: 5282-MW1-W **Received:** 11/15/05 **Collected:** 11/15/05 0:00
Lab ID: 0511445-01D **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	11/26/05	11/29/05
Surrogate: N-Tricosane	87.4	70-130	% Rec	1.0	11/26/05	11/29/05

Client Sample ID: 5282-MW1-W (Dissolved) **Received:** 11/15/05 **Collected:** 11/15/05 0:00
Lab ID: 0511445-01E **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	11/17/05	11/21/05

NORTH COAST LABORATORIES
5680 West End Road • Arcata, California 95521-9202 • 707-822-4649 • FAX 707-822-6831

Date: 07-Dec-05
WorkOrder: 0511445

ANALYTICAL REPORT

Client Sample ID: 5282-MW2-W **Received:** 11/15/05 **Collected:** 11/15/05 0:00
Lab ID: 0511445-02A **Matrix:** Groundwater

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

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Methyl tert-butyl ether (MTBE)	96	1.0	µg/L	1.0		11/29/05
Tert-butyl alcohol (TBA)	ND	10	µg/L	1.0		11/29/05
Di-isopropyl ether (DIPE)	ND	1.0	µg/L	1.0		11/29/05
Ethyl tert-butyl ether (ETBE)	ND	1.0	µg/L	1.0		11/29/05
Benzene	20	0.50	µg/L	1.0		11/29/05
Tert-amyl methyl ether (TAME)	8.4	1.0	µg/L	1.0		11/29/05
Toluene	ND	0.50	µg/L	1.0		11/29/05
Ethylbenzene	ND	0.50	µg/L	1.0		11/29/05
m,p-Xylene	ND	0.50	µg/L	1.0		11/29/05
o-Xylene	ND	0.50	µg/L	1.0		11/29/05
Surrogate: 1,4-Dichlorobenzene-d4	110	80.8-139	% Rec	1.0		11/29/05

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

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
TPHC Gasoline	160	50	µg/L	1.0		11/29/05

Client Sample ID: 5282-MW2-W **Received:** 11/15/05 **Collected:** 11/15/05 0:00
Lab ID: 0511445-02D **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	11/26/05	11/29/05
Surrogate: N-Tricosane	119	70-130	% Rec	1.0	11/26/05	11/29/05

Client Sample ID: 5282-MW2-W (Dissolved) **Received:** 11/15/05 **Collected:** 11/15/05 0:00
Lab ID: 0511445-02E **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	11/17/05	11/21/05

NORTH COAST LABORATORIES
5680 West End Road • Arcata, California 95521-9202 • 707-822-4649 • FAX 707-822-6831

Date: 07-Dec-05
WorkOrder: 0511445

ANALYTICAL REPORT

Client Sample ID: 5282-MW4-W **Received:** 11/15/05 **Collected:** 11/15/05 0:00
Lab ID: 0511445-03A **Matrix:** Groundwater

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

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Methyl tert-butyl ether (MTBE)	ND	1.0	µg/L	1.0		11/28/05
Tert-butyl alcohol (TBA)	ND	10	µg/L	1.0		11/28/05
Di-isopropyl ether (DIPE)	ND	1.0	µg/L	1.0		11/28/05
Ethyl tert-butyl ether (ETBE)	ND	1.0	µg/L	1.0		11/28/05
Benzene	ND	0.50	µg/L	1.0		11/28/05
Tert-amyl methyl ether (TAME)	ND	1.0	µg/L	1.0		11/28/05
Toluene	ND	0.50	µg/L	1.0		11/28/05
Ethylbenzene	ND	0.50	µg/L	1.0		11/28/05
m,p-Xylene	ND	0.50	µg/L	1.0		11/28/05
o-Xylene	ND	0.50	µg/L	1.0		11/28/05
Surrogate: 1,4-Dichlorobenzene-d4	112	80.8-139	% Rec	1.0		11/28/05

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		11/28/05

Client Sample ID: 5282-MW4-W **Received:** 11/15/05 **Collected:** 11/15/05 0:00
Lab ID: 0511445-03D **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	11/26/05	11/29/05
Surrogate: N-Tricosane	113	70-130	% Rec	1.0	11/26/05	11/29/05

Client Sample ID: 5282-MW4-W (Dissolved) **Received:** 11/15/05 **Collected:** 11/15/05 0:00
Lab ID: 0511445-03E **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	11/17/05	11/21/05

NORTH COAST LABORATORIES
5680 West End Road • Arcata, California 95521-9202 • 707-822-4649 • FAX 707-822-6831

Date: 07-Dec-05
WorkOrder: 0511445

ANALYTICAL REPORT

Client Sample ID: 5282-MW5-W **Received:** 11/15/05. **Collected:** 11/15/05 0:00
Lab ID: 0511445-04A **Matrix:** Groundwater

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

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Methyl tert-butyl ether (MTBE)	ND	1.0	µg/L	1.0		11/28/05
Tert-butyl alcohol (TBA)	ND	10	µg/L	1.0		11/28/05
Di-isopropyl ether (DIPE)	ND	1.0	µg/L	1.0		11/28/05
Ethyl tert-butyl ether (ETBE)	ND	1.0	µg/L	1.0		11/28/05
Benzene	ND	0.50	µg/L	1.0		11/28/05
Tert-amyl methyl ether (TAME)	ND	1.0	µg/L	1.0		11/28/05
Toluene	ND	0.50	µg/L	1.0		11/28/05
Ethylbenzene	ND	0.50	µg/L	1.0		11/28/05
m,p-Xylene	ND	0.50	µg/L	1.0		11/28/05
o-Xylene	ND	0.50	µg/L	1.0		11/28/05
Surrogate: 1,4-Dichlorobenzene-d4	111	80.8-139	% Rec	1.0		11/28/05

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		11/28/05

Client Sample ID: 5282-MW5-W **Received:** 11/15/05 **Collected:** 11/15/05 0:00
Lab ID: 0511445-04D **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	11/26/05	11/29/05
Surrogate: N-Tricosane	123	70-130	% Rec	1.0	11/26/05	11/29/05

Client Sample ID: 5282-MW5-W (Dissolved) **Received:** 11/15/05 **Collected:** 11/15/05 0:00
Lab ID: 0511445-04E **Matrix:** Groundwater

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

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Chromium	18	10	µg/L	1.0	11/17/05	11/21/05

NORTH COAST LABORATORIES
5680 West End Road • Arcata, California 95521-9202 • 707-822-4649 • FAX 707-822-6831

Date: 07-Dec-05
WorkOrder: 0511445

ANALYTICAL REPORT

Client Sample ID: 5282-MW6-W **Received:** 11/15/05 **Collected:** 11/15/05 0:00
Lab ID: 0511445-05A **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		11/28/05
Tert-butyl alcohol (TBA)	ND	10	µg/L	1.0		11/28/05
Di-isopropyl ether (DIPE)	ND	1.0	µg/L	1.0		11/28/05
Ethyl tert-butyl ether (ETBE)	ND	1.0	µg/L	1.0		11/28/05
Benzene	ND	0.50	µg/L	1.0		11/28/05
Tert-amyl methyl ether (TAME)	ND	1.0	µg/L	1.0		11/28/05
Toluene	ND	0.50	µg/L	1.0		11/28/05
Ethylbenzene	ND	0.50	µg/L	1.0		11/28/05
m,p-Xylene	ND	0.50	µg/L	1.0		11/28/05
o-Xylene	ND	0.50	µg/L	1.0		11/28/05
Surrogate: 1,4-Dichlorobenzene-d4	112	80.8-139	% Rec	1.0		11/28/05

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

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
TPHC Gasoline	80	50	µg/L	1.0		11/28/05

Client Sample ID: 5282-MW6-W **Received:** 11/15/05 **Collected:** 11/15/05 0:00
Lab ID: 0511445-05D **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	11/29/05	12/6/05
Surrogate: N-Tricosane	60.8	38-129	% Rec	1.0	11/29/05	12/6/05

Client Sample ID: 5282-MW6-W (Dissolved) **Received:** 11/15/05 **Collected:** 11/15/05 0:00
Lab ID: 0511445-05E **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	11/17/05	11/21/05

NORTH COAST LABORATORIES
5680 West End Road • Arcata, California 95521-9202 • 707-822-4649 • FAX 707-822-6831

Date: 07-Dec-05
WorkOrder: 0511445

ANALYTICAL REPORT

Client Sample ID: 5282-MW7-W **Received:** 11/15/05 **Collected:** 11/15/05 0:00
Lab ID: 0511445-06A **Matrix:** Groundwater

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

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Methyl tert-butyl ether (MTBE)	19	1.0	µg/L	1.0		11/28/05
Tert-butyl alcohol (TBA)	ND	10	µg/L	1.0		11/28/05
Di-isopropyl ether (DIPE)	ND	1.0	µg/L	1.0		11/28/05
Ethyl tert-butyl ether (ETBE)	ND	1.0	µg/L	1.0		11/28/05
Benzene	ND	0.50	µg/L	1.0		11/28/05
Tert-amyl methyl ether (TAME)	2.0	1.0	µg/L	1.0		11/28/05
Toluene	ND	0.50	µg/L	1.0		11/28/05
Ethylbenzene	ND	0.50	µg/L	1.0		11/28/05
m,p-Xylene	ND	0.50	µg/L	1.0		11/28/05
o-Xylene	ND	0.50	µg/L	1.0		11/28/05
Surrogate: 1,4-Dichlorobenzene-d4	111	80.8-139	% Rec	1.0		11/28/05

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		11/28/05

Client Sample ID: 5282-MW7-W **Received:** 11/15/05 **Collected:** 11/15/05 0:00
Lab ID: 0511445-06D **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	11/26/05	11/29/05
Surrogate: N-Tricosane	118	70-130	% Rec	1.0	11/26/05	11/29/05

Client Sample ID: 5282-MW7-W (Dissolved) **Received:** 11/15/05 **Collected:** 11/15/05 0:00
Lab ID: 0511445-06E **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	11/17/05	11/21/05

NORTH COAST LABORATORIES
5680 West End Road • Arcata, California 95521-9202 • 707-822-4649 • FAX 707-822-6831

Date: 07-Dec-05
WorkOrder: 0511445

ANALYTICAL REPORT

Client Sample ID: 5282-MW8-W **Received:** 11/15/05 **Collected:** 11/15/05 0:00
Lab ID: 0511445-07A **Matrix:** Groundwater

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

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Methyl tert-butyl ether (MTBE)	ND	1.0	µg/L	1.0		11/28/05
Tert-butyl alcohol (TBA)	ND	10	µg/L	1.0		11/28/05
Di-isopropyl ether (DIPE)	ND	1.0	µg/L	1.0		11/28/05
Ethyl tert-butyl ether (ETBE)	ND	1.0	µg/L	1.0		11/28/05
Benzene	1.9	0.50	µg/L	1.0		11/28/05
Tert-amyl methyl ether (TAME)	ND	1.0	µg/L	1.0		11/28/05
Toluene	ND	0.50	µg/L	1.0		11/28/05
Ethylbenzene	34	0.50	µg/L	1.0		11/28/05
m,p-Xylene	11	0.50	µg/L	1.0		11/28/05
o-Xylene	0.78	0.50	µg/L	1.0		11/28/05
Surrogate: 1,4-Dichlorobenzene-d4	108	80.8-139	% Rec	1.0		11/28/05

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

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
TPHC Gasoline	1,600	50	µg/L	1.0		11/28/05

Client Sample ID: 5282-MW8-W **Received:** 11/15/05 **Collected:** 11/15/05 0:00
Lab ID: 0511445-07D **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)	210	50	µg/L	1.0	11/29/05	12/6/05
Surrogate: N-Tricosane	57.3	38-129	% Rec	1.0	11/29/05	12/6/05

Client Sample ID: 5282-MW8-W (Dissolved) **Received:** 11/15/05 **Collected:** 11/15/05 0:00
Lab ID: 0511445-07E **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	11/17/05	11/21/05

NORTH COAST LABORATORIES
5680 West End Road • Arcata, California 95521-9202 • 707-822-4649 • FAX 707-822-6831

Date: 07-Dec-05
WorkOrder: 0511445

ANALYTICAL REPORT

Client Sample ID: 5282-OW3-W **Received:** 11/15/05 **Collected:** 11/15/05 0:00
Lab ID: 0511445-08A **Matrix:** Groundwater

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

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Methyl tert-butyl ether (MTBE)	ND	15	µg/L	1.0		11/29/05
Tert-butyl alcohol (TBA)	ND	40	µg/L	1.0		11/29/05
Di-isopropyl ether (DIPE)	ND	1.0	µg/L	1.0		11/29/05
Ethyl tert-butyl ether (ETBE)	ND	1.0	µg/L	1.0		11/29/05
Benzene	2.3	0.50	µg/L	1.0		11/29/05
Tert-amyl methyl ether (TAME)	3.1	1.0	µg/L	1.0		11/29/05
Toluene	3.6	0.50	µg/L	1.0		11/29/05
Ethylbenzene	7.0	0.50	µg/L	1.0		11/29/05
m,p-Xylene	53	0.50	µg/L	1.0		11/29/05
o-Xylene	37	0.50	µg/L	1.0		11/29/05
Surrogate: 1,4-Dichlorobenzene-d4	106	80.8-139	% Rec	1.0		11/29/05

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

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
TPHC Gasoline	2,200	50	µg/L	1.0		11/29/05

Client Sample ID: 5282-OW3-W **Received:** 11/15/05 **Collected:** 11/15/05 0:00
Lab ID: 0511445-08D **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)	220	50	µg/L	1.0	11/29/05	12/6/05
Surrogate: N-Tricosane	53.8	38-129	% Rec	1.0	11/29/05	12/6/05

Client Sample ID: 5282-OW3-W (Dissolved) **Received:** 11/15/05 **Collected:** 11/15/05 0:00
Lab ID: 0511445-08E **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	11/17/05	11/21/05

NORTH COAST LABORATORIES
5680 West End Road • Arcata, California 95521-9202 • 707-822-4649 • FAX 707-822-6831

Date: 07-Dec-05
WorkOrder: 0511445

ANALYTICAL REPORT

Client Sample ID: 5282-OW4-W **Received:** 11/15/05 **Collected:** 11/15/05 0:00
Lab ID: 0511445-09A **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	1.0	µg/L	1.0		11/28/05
Tert-butyl alcohol (TBA)	ND	10	µg/L	1.0		11/28/05
Di-isopropyl ether (DIPE)	ND	1.0	µg/L	1.0		11/28/05
Ethyl tert-butyl ether (ETBE)	ND	1.0	µg/L	1.0		11/28/05
Benzene	ND	0.50	µg/L	1.0		11/28/05
Tert-amyl methyl ether (TAME)	ND	1.0	µg/L	1.0		11/28/05
Toluene	ND	0.50	µg/L	1.0		11/28/05
Ethylbenzene	ND	0.50	µg/L	1.0		11/28/05
m,p-Xylene	ND	0.50	µg/L	1.0		11/28/05
o-Xylene	ND	0.50	µg/L	1.0		11/28/05
Surrogate: 1,4-Dichlorobenzene-d4	110	80.8-139	% Rec	1.0		11/28/05

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

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
TPHC Gasoline	69	50	µg/L	1.0		11/28/05

Client Sample ID: 5282-OW4-W **Received:** 11/15/05 **Collected:** 11/15/05 0:00
Lab ID: 0511445-09D **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	11/26/05	11/29/05
Surrogate: N-Tricosane	109	70-130	% Rec	1.0	11/26/05	11/29/05

Client Sample ID: 5282-OW4-W (Dissolved) **Received:** 11/15/05 **Collected:** 11/15/05 0:00
Lab ID: 0511445-09E **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	11/17/05	11/21/05

NORTH COAST LABORATORIES
5680 West End Road • Arcata, California 95521-9202 • 707-822-4649 • FAX 707-822-6831

Date: 07-Dec-05
WorkOrder: 0511445

ANALYTICAL REPORT

Client Sample ID: 5282-OW5-W **Received:** 11/15/05 **Collected:** 11/15/05 0:00
Lab ID: 0511445-10A **Matrix:** Groundwater

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

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Methyl tert-butyl ether (MTBE)	3.4	1.0	µg/L	1.0		11/28/05
Tert-butyl alcohol (TBA)	ND	10	µg/L	1.0		11/28/05
Di-isopropyl ether (DIPE)	ND	1.0	µg/L	1.0		11/28/05
Ethyl tert-butyl ether (ETBE)	ND	1.0	µg/L	1.0		11/28/05
Benzene	ND	0.50	µg/L	1.0		11/28/05
Tert-amyl methyl ether (TAME)	ND	1.0	µg/L	1.0		11/28/05
Toluene	ND	0.50	µg/L	1.0		11/28/05
Ethylbenzene	ND	0.50	µg/L	1.0		11/28/05
m,p-Xylene	ND	0.50	µg/L	1.0		11/28/05
o-Xylene	ND	0.50	µg/L	1.0		11/28/05
Surrogate: 1,4-Dichlorobenzene-d4	112	80.8-139	% Rec	1.0		11/28/05

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		11/28/05

Client Sample ID: 5282-OW5-W **Received:** 11/15/05 **Collected:** 11/15/05 0:00
Lab ID: 0511445-10D **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	11/26/05	11/29/05
Surrogate: N-Tricosane	115	70-130	% Rec	1.0	11/26/05	11/29/05

Client Sample ID: 5282-OW5-W (Dissolved) **Received:** 11/15/05 **Collected:** 11/15/05 0:00
Lab ID: 0511445-10E **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	11/17/05	11/21/05

NORTH COAST LABORATORIES
5680 West End Road • Arcata, California 95521-9202 • 707-822-4649 • FAX 707-822-6831

Date: 07-Dec-05
WorkOrder: 0511445

ANALYTICAL REPORT

Client Sample ID: 5282-QCMB-W **Received:** 11/15/05 **Collected:** 11/15/05 0:00
Lab ID: 0511445-11A **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		11/28/05
Tert-butyl alcohol (TBA)	ND	10	µg/L	1.0		11/28/05
Di-isopropyl ether (DIPE)	ND	1.0	µg/L	1.0		11/28/05
Ethyl tert-butyl ether (ETBE)	ND	1.0	µg/L	1.0		11/28/05
Benzene	ND	0.50	µg/L	1.0		11/28/05
Tert-amyl methyl ether (TAME)	ND	1.0	µg/L	1.0		11/28/05
Toluene	ND	0.50	µg/L	1.0		11/28/05
Ethylbenzene	ND	0.50	µg/L	1.0		11/28/05
m,p-Xylene	ND	0.50	µg/L	1.0		11/28/05
o-Xylene	ND	0.50	µg/L	1.0		11/28/05
Surrogate: 1,4-Dichlorobenzene-d4	111	80.8-139	% Rec	1.0		11/28/05

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		11/28/05

Client Sample ID: 5282-QCFD-W **Received:** 11/15/05 **Collected:** 11/15/05 0:00
Lab ID: 0511445-12A **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		11/29/05
Tert-butyl alcohol (TBA)	ND	10	µg/L	1.0		11/29/05
Di-isopropyl ether (DIPE)	ND	1.0	µg/L	1.0		11/29/05
Ethyl tert-butyl ether (ETBE)	ND	1.0	µg/L	1.0		11/29/05
Benzene	ND	0.50	µg/L	1.0		11/29/05
Tert-amyl methyl ether (TAME)	ND	1.0	µg/L	1.0		11/29/05
Toluene	ND	0.50	µg/L	1.0		11/29/05
Ethylbenzene	ND	0.50	µg/L	1.0		11/29/05
m,p-Xylene	ND	0.50	µg/L	1.0		11/29/05
o-Xylene	ND	0.50	µg/L	1.0		11/29/05
Surrogate: 1,4-Dichlorobenzene-d4	111	80.8-139	% Rec	1.0		11/29/05

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		11/29/05

NORTH COAST LABORATORIES
5680 West End Road • Arcata, California 95521-9202 • 707-822-4649 • FAX 707-822-6831

Date: 07-Dec-05
WorkOrder: 0511445

ANALYTICAL REPORT

Client Sample ID: 5282-QCTB-W **Received:** 11/15/05 **Collected:** 11/15/05 0:00
Lab ID: 0511445-13A **Matrix:** Trip Blank

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		11/28/05
Tert-butyl alcohol (TBA)	ND	10	µg/L	1.0		11/28/05
Di-isopropyl ether (DIPE)	ND	1.0	µg/L	1.0		11/28/05
Ethyl tert-butyl ether (ETBE)	ND	1.0	µg/L	1.0		11/28/05
Benzene	ND	0.50	µg/L	1.0		11/28/05
Tert-amyl methyl ether (TAME)	ND	1.0	µg/L	1.0		11/28/05
Toluene	ND	0.50	µg/L	1.0		11/28/05
Ethylbenzene	ND	0.50	µg/L	1.0		11/28/05
m,p-Xylene	ND	0.50	µg/L	1.0		11/28/05
o-Xylene	ND	0.50	µg/L	1.0		11/28/05
Surrogate: 1,4-Dichlorobenzene-d4	106	80.8-139	% Rec	1.0		11/28/05

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		11/28/05

NORTH COAST LABORATORIES
5680 West End Road • Arcata, California 95521-9202 • 707-822-4649 • FAX 707-822-6831

North Coast Laboratories, Ltd.

Date: 07-Dec-05

CLIENT: LACO Associates
Work Order: 0511445
Project: 5282.01, HPI/PFP C.C. Shell

QC SUMMARY REPORT

Method Blank

Sample ID: **MB 112805** Batch ID: **R38254** Test Code: **8260OXYW** Units: **µg/L** Analysis Date **11/28/05 3:36:00 AM** Prep Date:
Client ID: Run ID: **ORGCMS3_051128B** SeqNo: **551003**

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	ND	0.50									
Ethylbenzene	0.08132	0.50									J
m,p-Xylene	ND	0.50									
o-Xylene	ND	0.50									
1,4-Dichlorobenzene-d4	1.07	0.10	1.00	0	107%	81	139	0			

Sample ID: **MB 112805** Batch ID: **R38253** Test Code: **GASW-MS** Units: **µg/L** Analysis Date **11/28/05 3:36:00 AM** Prep Date:
Client ID: Run ID: **ORGCMS3_051128A** SeqNo: **550978**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPHC Gasoline	27.03	50									J

Sample ID: **MB-14682P** Batch ID: **14682** Test Code: **ICPX** Units: **µg/L** Analysis Date **11/21/05 7:35:00 PM** Prep Date: **11/17/05**
Client ID: Run ID: **INICP1_051121A** SeqNo: **549642**

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: 0511445
Project: 5282.01, HPI/PFP C.C. Shell

QC SUMMARY REPORT

Method Blank

Sample ID: **MB-14746** Batch ID: **14746** Test Code: **SGTPHDW** Units: **µg/L** Analysis Date **12/6/05 12:08:12 PM** Prep Date: **11/29/05**
Client ID: Run ID: **ORGC5_051206A** SeqNo: **553102**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPHC Diesel (C12-C22)	41.36	50									J
N-Tricosane	39.4	0.10	50.0	0	78.8%	38	129	0			

Sample ID: **MB-14731** Batch ID: **14731** Test Code: **TPHDIW** Units: **µg/L** Analysis Date **11/29/05 5:16:13 PM** Prep Date: **11/26/05**
Client ID: Run ID: **ORGC7_051129A** SeqNo: **551133**

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	60.0	0.10	50.0	0	120%	70	130	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: 07-Dec-05

CLIENT: LACO Associates
Work Order: 0511445
Project: 5282.01, HPI/PFP C.C. Shell

QC SUMMARY REPORT

Laboratory Control Spike

Sample ID: **LCS-05753** Batch ID: **R38254** Test Code: **8260OXYW** Units: **µg/L** Analysis Date **11/28/05 1:54:00 AM** Prep Date:

Client ID: Run ID: **ORGCMS3_051128B** SeqNo: **551002**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	17.70	1.0	20.0	0	88.5%	80	120	0			
Tert-butyl alcohol (TBA)	380.0	10	400	0	95.0%	25	162	0			
Di-isopropyl ether (DIPE)	17.82	1.0	20.0	0	89.1%	80	120	0			
Ethyl tert-butyl ether (ETBE)	17.50	1.0	20.0	0	87.5%	77	120	0			
Benzene	19.14	0.50	20.0	0	95.7%	78	117	0			
Tert-amyl methyl ether (TAME)	16.57	1.0	20.0	0	82.9%	64	136	0			
Toluene	19.61	0.50	20.0	0	98.0%	80	120	0			
Ethylbenzene	18.17	0.50	20.0	0	90.9%	80	120	0			
m,p-Xylene	37.58	0.50	40.0	0	93.9%	80	120	0			
o-Xylene	17.02	0.50	20.0	0	85.1%	80	120	0			
1,4-Dichlorobenzene-d4	1.11	0.10	1.00	0	111%	81	139	0			

Sample ID: **LCSD-05753** Batch ID: **R38254** Test Code: **8260OXYW** Units: **µg/L** Analysis Date **11/28/05 10:23:00 AM** Prep Date:

Client ID: Run ID: **ORGCMS3_051128B** SeqNo: **551019**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	16.29	1.0	20.0	0	81.5%	80	120	17.7	8.26%	20	
Tert-butyl alcohol (TBA)	357.2	10	400	0	89.3%	25	162	380	6.19%	20	
Di-isopropyl ether (DIPE)	16.55	1.0	20.0	0	82.8%	80	120	17.8	7.39%	20	
Ethyl tert-butyl ether (ETBE)	15.81	1.0	20.0	0	79.1%	77	120	17.5	10.1%	20	
Benzene	19.00	0.50	20.0	0	95.0%	78	117	19.1	0.739%	20	
Tert-amyl methyl ether (TAME)	15.13	1.0	20.0	0	75.7%	64	136	16.6	9.11%	20	
Toluene	19.83	0.50	20.0	0	99.2%	80	120	19.6	1.14%	20	
Ethylbenzene	18.06	0.50	20.0	0	90.3%	80	120	18.2	0.623%	20	
m,p-Xylene	37.87	0.50	40.0	0	94.7%	80	120	37.6	0.761%	20	
o-Xylene	15.59	0.50	20.0	0	77.9%	80	120	17.0	8.77%	20	S
1,4-Dichlorobenzene-d4	1.17	0.10	1.00	0	117%	81	139	1.11	5.53%	20	

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: 0511445
Project: 5282.01, HPI/PFP C.C. Shell

QC SUMMARY REPORT

Laboratory Control Spike

Sample ID: **LCS-05754** Batch ID: **R38253** Test Code: **GASW-MS** Units: **µg/L** Analysis Date **11/28/05 2:45:00 AM** Prep Date:
Client ID: Run ID: **ORGCMS3_051128A** SeqNo: **550977**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPHC Gasoline	890.6	50	1,000	0	89.1%	80	120	0			

Sample ID: **LCSD-05754** Batch ID: **R38253** Test Code: **GASW-MS** Units: **µg/L** Analysis Date **11/28/05 10:49:00 AM** Prep Date:
Client ID: Run ID: **ORGCMS3_051128A** SeqNo: **550994**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPHC Gasoline	850.1	50	1,000	0	85.0%	80	120	891	4.65%	20	

Sample ID: **LCS-14682P** Batch ID: **14682** Test Code: **ICPX** Units: **µg/L** Analysis Date **11/21/05 7:38:00 PM** Prep Date: **11/17/05**
Client ID: Run ID: **INICP1_051121A** SeqNo: **549643**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	447.3	10	500	0	89.5%	85	115	0			

Sample ID: **LCS-14746** Batch ID: **14746** Test Code: **SGTPHDW** Units: **µg/L** Analysis Date **12/6/05 10:35:44 AM** Prep Date: **11/29/05**
Client ID: Run ID: **ORGC5_051206A** SeqNo: **553100**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPHC Diesel (C12-C22)	339.2	50	500	0	67.8%	41	96	0			
N-Tricosane	37.6	0.10	50.0	0	75.1%	38	129	0			

Sample ID: **LCSD-14746** Batch ID: **14746** Test Code: **SGTPHDW** Units: **µg/L** Analysis Date **12/6/05 10:58:51 AM** Prep Date: **11/29/05**
Client ID: Run ID: **ORGC5_051206A** SeqNo: **553101**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPHC Diesel (C12-C22)	306.7	50	500	0	61.3%	41	96	339	10.1%	15	
N-Tricosane	36.7	0.10	50.0	0	73.3%	38	129	37.6	2.47%	15	

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: 0511445
Project: 5282.01, HPI/PFP C.C. Shell

QC SUMMARY REPORT

Laboratory Control Spike

Sample ID: **LCS-14731** Batch ID: **14731** Test Code: **TPHDIW** Units: **µg/L** Analysis Date **11/29/05 3:32:50 PM** Prep Date: **11/26/05**
Client ID: Run ID: **ORGC7_051129A** SeqNo: **551130**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPHC Diesel (C12-C22)	321.3	50	500	0	64.3%	67	120	0			S
N-Tricosane	65.3	0.10	50.0	0	131%	70	130	0			S

Sample ID: **LCSD-14731** Batch ID: **14731** Test Code: **TPHDIW** Units: **µg/L** Analysis Date **11/29/05 3:53:07 PM** Prep Date: **11/26/05**
Client ID: Run ID: **ORGC7_051129A** SeqNo: **551131**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPHC Diesel (C12-C22)	329.3	50	500	0	65.9%	67	120	321	2.46%	15	S
N-Tricosane	62.6	0.10	50.0	0	125%	70	130	65.3	4.15%	15	

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.
5680 West End Road • Arcata • CA 95521-9202
707-822-4649 Fax 707-822-6831

Chain of Custody

LABORATORY NUMBER: 0511445

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): ~~SID~~ RLD

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 3031

LAB ID	SAMPLE ID	DATE	TIME	MATRIX*	8260 list 1 (PRESERVATIVE: b; CONTAINER: 9)	TPHd w/SGC (PRESERVATIVE: ------; CONTAINER: 7)	Diss. Cr (PRESERVATIVE: ------; CONTAINER: 2)
	5282-MW1-W	11-15-05	AM	GW	3	1	1
	5282-MW2-W				3	1	1
	5282-MW4-W				3	1	1
	5282-MW5-W				3	1	1
	5282-MW6-W				3	1	1
	5282-MW7-W				3	1	1
	5282-MW8-W				3	1	1
	5282-OW3-W				3	1	1
	5282-OW4-W				3	1	1
	5282-OW5-W		PM		3	1	1

SAMPLE CONDITION/SPECIAL INSTRUCTIONS
GEOTRACKER
FIELD FILTERED DISS CR
on ice, intact

RELINQUISHED BY (Sign & Print)	DATE/TIME	RECEIVED BY (Sign)	DATE/TIME
	11/15/05		11/15/05 1630

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

0511445

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): ~~SID~~ RLD

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 3031

LAB ID	SAMPLE ID	DATE	TIME	MATRIX*	ANALYSIS	CONTAINER	PRESERVATIVE
	5282-QCMB-W	11-15-05	PM	GW	8260 list1	3	b
	5282-QCFD-W	↓	↓	↓		3	
	5282-QCTB-W					1	

SAMPLE CONDITION/SPECIAL INSTRUCTIONS

on ice, intact

RELINQUISHED BY (Sign & Print)	DATE/TIME	RECEIVED BY (Sign)	DATE/TIME
	11/15/05		11/15/05 1630

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

DEC 14 2005
BY JR

NORTH COAST LABORATORIES LTD.

December 12, 2005

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

Attn: Accounts Payable

Order No.: 0511523
Invoice No.: 54900
PO No.: TASK 3031
ELAP No. 1247-Expires July 2006

RE: 3503.03, CRESCENT CITY SHELL

SAMPLE IDENTIFICATION

Fraction	Client Sample Description
01A	3503-MW3-W
01D	3503-MW3-W
02A	3503-DW-W
02D	3503-DW-W
03A	3503-OW1-W
03D	3503-OW1-W
04A	3503-OW2-W
04D	3503-OW2-W
05A	3503-QCTB-W
06A	3503-QCFD-W
07A	3503-QCMB-W

ND = Not Detected at the Reporting Limit

Limit = Reporting Limit

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

LMO
DRG
DNL
GH
GEO
HPI
CSM

File
Project #

REPORT CERTIFIED BY

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

North Coast Laboratories, Ltd. **Date:** *12-Dec-05*

CLIENT: LACO Associates
Project: 3503.03, CRESCENT CITY SHELL
Lab Order: 0511523

CASE NARRATIVE

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

Gasoline Components/Additives:
The laboratory control sample duplicate (LCSD) recovery was slightly below the lower acceptance limit for o-xylene. The laboratory control sample (LCS) recovery was within the acceptance limits; therefore, the data were accepted.

TPH as Diesel/Motor Oil:
The LCS/LCSD recoveries were above the upper acceptance limit for diesel. These recoveries indicate that the sample results may be erroneously high. There were no detectable levels of the analyte in the samples; therefore, the data were accepted.

Date: 12-Dec-05
WorkOrder: 0511523

ANALYTICAL REPORT

Client Sample ID: 3503-MW3-W **Received:** 11/17/05 **Collected:** 11/15/05 0:00
Lab ID: 0511523-01A **Matrix:** Groundwater

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

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Methyl tert-butyl ether (MTBE)	ND	1.0	µg/L	1.0		11/28/05
Tert-butyl alcohol (TBA)	ND	10	µg/L	1.0		11/28/05
Di-isopropyl ether (DIPE)	ND	1.0	µg/L	1.0		11/28/05
Ethyl tert-butyl ether (ETBE)	ND	1.0	µg/L	1.0		11/28/05
Benzene	ND	0.50	µg/L	1.0		11/28/05
Tert-amyl methyl ether (TAME)	ND	1.0	µg/L	1.0		11/28/05
Toluene	ND	0.50	µg/L	1.0		11/28/05
Ethylbenzene	ND	0.50	µg/L	1.0		11/28/05
m,p-Xylene	ND	0.50	µg/L	1.0		11/28/05
o-Xylene	ND	0.50	µg/L	1.0		11/28/05
Surrogate: 1,4-Dichlorobenzene-d4	109	80.8-139	% Rec	1.0		11/28/05

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		11/28/05

Client Sample ID: 3503-MW3-W **Received:** 11/17/05 **Collected:** 11/15/05 0:00
Lab ID: 0511523-01D **Matrix:** Groundwater

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

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
TPHC Diesel (C12-C22)	ND	50	µg/L	1.0	11/22/05	12/8/05
TPHC Motor Oil	ND	170	µg/L	1.0	11/22/05	12/8/05

Date: 12-Dec-05
WorkOrder: 0511523

ANALYTICAL REPORT

Client Sample ID: 3503-DW-W **Received:** 11/17/05 **Collected:** 11/15/05 0:00
Lab ID: 0511523-02A **Matrix:** Groundwater

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

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Methyl tert-butyl ether (MTBE)	ND	1.0	µg/L	1.0		11/28/05
Tert-butyl alcohol (TBA)	ND	10	µg/L	1.0		11/28/05
Di-isopropyl ether (DIPE)	ND	1.0	µg/L	1.0		11/28/05
Ethyl tert-butyl ether (ETBE)	ND	1.0	µg/L	1.0		11/28/05
Benzene	ND	0.50	µg/L	1.0		11/28/05
Tert-amyl methyl ether (TAME)	ND	1.0	µg/L	1.0		11/28/05
Toluene	ND	0.50	µg/L	1.0		11/28/05
Ethylbenzene	ND	0.50	µg/L	1.0		11/28/05
m,p-Xylene	ND	0.50	µg/L	1.0		11/28/05
o-Xylene	ND	0.50	µg/L	1.0		11/28/05
Surrogate: 1,4-Dichlorobenzene-d4	109	80.8-139	% Rec	1.0		11/28/05

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		11/28/05

Client Sample ID: 3503-DW-W **Received:** 11/17/05 **Collected:** 11/15/05 0:00
Lab ID: 0511523-02D **Matrix:** Groundwater

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

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
TPHC Diesel (C12-C22)	ND	50	µg/L	1.0	11/22/05	12/8/05
TPHC Motor Oil	ND	170	µg/L	1.0	11/22/05	12/8/05

Date: 12-Dec-05
WorkOrder: 0511523

ANALYTICAL REPORT

Client Sample ID: 3503-OW1-W **Received:** 11/17/05 **Collected:** 11/15/05 0:00
Lab ID: 0511523-03A **Matrix:** Groundwater

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

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Methyl tert-butyl ether (MTBE)	ND	1.0	µg/L	1.0		11/28/05
Tert-butyl alcohol (TBA)	ND	10	µg/L	1.0		11/28/05
Di-isopropyl ether (DIPE)	ND	1.0	µg/L	1.0		11/28/05
Ethyl tert-butyl ether (ETBE)	ND	1.0	µg/L	1.0		11/28/05
Benzene	ND	0.50	µg/L	1.0		11/28/05
Tert-amyl methyl ether (TAME)	ND	1.0	µg/L	1.0		11/28/05
Toluene	ND	0.50	µg/L	1.0		11/28/05
Ethylbenzene	ND	0.50	µg/L	1.0		11/28/05
m,p-Xylene	ND	0.50	µg/L	1.0		11/28/05
o-Xylene	ND	0.50	µg/L	1.0		11/28/05
Surrogate: 1,4-Dichlorobenzene-d4	112	80.8-139	% Rec	1.0		11/28/05

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		11/28/05

Client Sample ID: 3503-OW1-W **Received:** 11/17/05 **Collected:** 11/15/05 0:00
Lab ID: 0511523-03D **Matrix:** Groundwater

Test Name: TPH as Diesel/Motor Oil w/ 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	11/29/05	12/11/05
TPHC Motor Oil	ND	170	µg/L	1.0	11/29/05	12/11/05

Date: 12-Dec-05
WorkOrder: 0511523

ANALYTICAL REPORT

Client Sample ID: 3503-OW2-W **Received:** 11/17/05 **Collected:** 11/15/05 0:00
Lab ID: 0511523-04A **Matrix:** Groundwater

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

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Methyl tert-butyl ether (MTBE)	ND	1.0	µg/L	1.0		11/28/05
Tert-butyl alcohol (TBA)	ND	10	µg/L	1.0		11/28/05
Di-isopropyl ether (DIPE)	ND	1.0	µg/L	1.0		11/28/05
Ethyl tert-butyl ether (ETBE)	ND	1.0	µg/L	1.0		11/28/05
Benzene	ND	0.50	µg/L	1.0		11/28/05
Tert-amyl methyl ether (TAME)	ND	1.0	µg/L	1.0		11/28/05
Toluene	ND	0.50	µg/L	1.0		11/28/05
Ethylbenzene	ND	0.50	µg/L	1.0		11/28/05
m,p-Xylene	ND	0.50	µg/L	1.0		11/28/05
o-Xylene	ND	0.50	µg/L	1.0		11/28/05
Surrogate: 1,4-Dichlorobenzene-d4	109	80.8-139	% Rec	1.0		11/28/05

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		11/28/05

Client Sample ID: 3503-OW2-W **Received:** 11/17/05 **Collected:** 11/15/05 0:00
Lab ID: 0511523-04D **Matrix:** Groundwater

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

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
TPHC Diesel (C12-C22)	ND	50	µg/L	1.0	11/22/05	12/8/05
TPHC Motor Oil	ND	170	µg/L	1.0	11/22/05	12/8/05

Date: 12-Dec-05
WorkOrder: 0511523

ANALYTICAL REPORT

Client Sample ID: 3503-QCTB-W **Received:** 11/17/05 **Collected:** 11/15/05 0:00
Lab ID: 0511523-05A **Matrix:** Trip Blank

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		11/28/05
Tert-butyl alcohol (TBA)	ND	10	µg/L	1.0		11/28/05
Di-isopropyl ether (DIPE)	ND	1.0	µg/L	1.0		11/28/05
Ethyl tert-butyl ether (ETBE)	ND	1.0	µg/L	1.0		11/28/05
Benzene	ND	0.50	µg/L	1.0		11/28/05
Tert-amyl methyl ether (TAME)	ND	1.0	µg/L	1.0		11/28/05
Toluene	ND	0.50	µg/L	1.0		11/28/05
Ethylbenzene	ND	0.50	µg/L	1.0		11/28/05
m,p-Xylene	ND	0.50	µg/L	1.0		11/28/05
o-Xylene	ND	0.50	µg/L	1.0		11/28/05
Surrogate: 1,4-Dichlorobenzene-d4	108	80.8-139	% Rec	1.0		11/28/05

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		11/28/05

Client Sample ID: 3503-QCFD-W **Received:** 11/17/05 **Collected:** 11/15/05 0:00
Lab ID: 0511523-06A **Matrix:** Groundwater

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

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Methyl tert-butyl ether (MTBE)	ND	1.0	µg/L	1.0		11/28/05
Tert-butyl alcohol (TBA)	ND	10	µg/L	1.0		11/28/05
Di-isopropyl ether (DIPE)	ND	1.0	µg/L	1.0		11/28/05
Ethyl tert-butyl ether (ETBE)	ND	1.0	µg/L	1.0		11/28/05
Benzene	ND	0.50	µg/L	1.0		11/28/05
Tert-amyl methyl ether (TAME)	ND	1.0	µg/L	1.0		11/28/05
Toluene	ND	0.50	µg/L	1.0		11/28/05
Ethylbenzene	ND	0.50	µg/L	1.0		11/28/05
m,p-Xylene	ND	0.50	µg/L	1.0		11/28/05
o-Xylene	ND	0.50	µg/L	1.0		11/28/05
Surrogate: 1,4-Dichlorobenzene-d4	108	80.8-139	% Rec	1.0		11/28/05

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		11/28/05

Date: 12-Dec-05
WorkOrder: 0511523

ANALYTICAL REPORT

Client Sample ID: 3503-QCMB-W **Received:** 11/17/05 **Collected:** 11/15/05 0:00
Lab ID: 0511523-07A **Matrix:** Groundwater

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

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Methyl tert-butyl ether (MTBE)	ND	1.0	µg/L	1.0		11/28/05
Tert-butyl alcohol (TBA)	ND	10	µg/L	1.0		11/28/05
Di-isopropyl ether (DIPE)	ND	1.0	µg/L	1.0		11/28/05
Ethyl tert-butyl ether (ETBE)	ND	1.0	µg/L	1.0		11/28/05
Benzene	ND	0.50	µg/L	1.0		11/28/05
Tert-amyl methyl ether (TAME)	ND	1.0	µg/L	1.0		11/28/05
Toluene	ND	0.50	µg/L	1.0		11/28/05
Ethylbenzene	ND	0.50	µg/L	1.0		11/28/05
m,p-Xylene	ND	0.50	µg/L	1.0		11/28/05
o-Xylene	ND	0.50	µg/L	1.0		11/28/05
Surrogate: 1,4-Dichlorobenzene-d4	108	80.8-139	% Rec	1.0		11/28/05

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		11/28/05

North Coast Laboratories, Ltd.

Date: 12-Dec-05

CLIENT: LACO Associates
Work Order: 0511523
Project: 3503.03, CRESCENT CITY SHELL

QC SUMMARY REPORT

Method Blank

Sample ID: **MB 112805** Batch ID: **R38254** Test Code: **8260OXYW** Units: **µg/L** Analysis Date **11/28/05 3:36:00 AM** Prep Date:
Client ID: Run ID: **ORGCMS3_051128B** SeqNo: **551003**

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	ND	0.50									
Ethylbenzene	0.08132	0.50									J
m,p-Xylene	ND	0.50									
o-Xylene	ND	0.50									
1,4-Dichlorobenzene-d4	1.07	0.10	1.00	0	107%	81	139	0			

Sample ID: **MB 112805** Batch ID: **R38253** Test Code: **GASW-MS** Units: **µg/L** Analysis Date **11/28/05 3:36:00 AM** Prep Date:
Client ID: Run ID: **ORGCMS3_051128A** SeqNo: **550978**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPHC Gasoline	27.03	50									J

Sample ID: **MB-14744** Batch ID: **14744** Test Code: **SGTPDMW** Units: **µg/L** Analysis Date **12/11/05 1:30:59 AM** Prep Date: **11/29/05**
Client ID: Run ID: **ORGC5_051210A** SeqNo: **554473**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPHC Diesel (C12-C22)	20.52	50									J
TPHC Motor Oil	82.95	170									J

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: 0511523
Project: 3503.03, CRESCENT CITY SHELL

QC SUMMARY REPORT

Method Blank

Sample ID: **MB-14712** Batch ID: **14712** Test Code: **TPHDMW** Units: **µg/L** Analysis Date **12/8/05 2:51:53 AM** Prep Date: **11/22/05**

Client ID: Run ID: **ORGC7_051207A** SeqNo: **553717**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPHC Diesel (C12-C22)	41.07	50									J
TPHC Motor Oil	ND	170									

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: 12-Dec-05

CLIENT: LACO Associates
Work Order: 0511523
Project: 3503.03, CRESCENT CITY SHELL

QC SUMMARY REPORT

Laboratory Control Spike

Sample ID: **LCS-05753** Batch ID: **R38254** Test Code: **8260OXYW** Units: **µg/L** Analysis Date **11/28/05 1:54:00 AM** Prep Date:

Client ID: Run ID: **ORGCMS3_051128B** SeqNo: **551002**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	17.70	1.0	20.0	0	88.5%	80	120	0			
Tert-butyl alcohol (TBA)	380.0	10	400	0	95.0%	25	162	0			
Di-isopropyl ether (DIPE)	17.82	1.0	20.0	0	89.1%	80	120	0			
Ethyl tert-butyl ether (ETBE)	17.50	1.0	20.0	0	87.5%	77	120	0			
Benzene	19.14	0.50	20.0	0	95.7%	78	117	0			
Tert-amyl methyl ether (TAME)	16.57	1.0	20.0	0	82.9%	64	136	0			
Toluene	19.61	0.50	20.0	0	98.0%	80	120	0			
Ethylbenzene	18.17	0.50	20.0	0	90.9%	80	120	0			
m,p-Xylene	37.58	0.50	40.0	0	93.9%	80	120	0			
o-Xylene	17.02	0.50	20.0	0	85.1%	80	120	0			
1,4-Dichlorobenzene-d4	1.11	0.10	1.00	0	111%	81	139	0			

Sample ID: **LCSD-05753** Batch ID: **R38254** Test Code: **8260OXYW** Units: **µg/L** Analysis Date **11/28/05 10:23:00 AM** Prep Date:

Client ID: Run ID: **ORGCMS3_051128B** SeqNo: **551019**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	16.29	1.0	20.0	0	81.5%	80	120	17.7	8.26%	20	
Tert-butyl alcohol (TBA)	357.2	10	400	0	89.3%	25	162	380	6.19%	20	
Di-isopropyl ether (DIPE)	16.55	1.0	20.0	0	82.8%	80	120	17.8	7.39%	20	
Ethyl tert-butyl ether (ETBE)	15.81	1.0	20.0	0	79.1%	77	120	17.5	10.1%	20	
Benzene	19.00	0.50	20.0	0	95.0%	78	117	19.1	0.739%	20	
Tert-amyl methyl ether (TAME)	15.13	1.0	20.0	0	75.7%	64	136	16.6	9.11%	20	
Toluene	19.83	0.50	20.0	0	99.2%	80	120	19.6	1.14%	20	
Ethylbenzene	18.06	0.50	20.0	0	90.3%	80	120	18.2	0.623%	20	
m,p-Xylene	37.87	0.50	40.0	0	94.7%	80	120	37.6	0.761%	20	
o-Xylene	15.59	0.50	20.0	0	77.9%	80	120	17.0	8.77%	20	S
1,4-Dichlorobenzene-d4	1.17	0.10	1.00	0	117%	81	139	1.11	5.53%	20	

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: 0511523
Project: 3503.03, CRESCENT CITY SHELL

QC SUMMARY REPORT

Laboratory Control Spike

Sample ID: **LCS-05754** Batch ID: **R38253** Test Code: **GASW-MS** Units: **µg/L** Analysis Date **11/28/05 2:45:00 AM** Prep Date:
Client ID: Run ID: **ORGCMS3_051128A** SeqNo: **550977**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPHC Gasoline	890.6	50	1,000	0	89.1%	80	120	0			

Sample ID: **LCSD-05754** Batch ID: **R38253** Test Code: **GASW-MS** Units: **µg/L** Analysis Date **11/28/05 10:49:00 AM** Prep Date:
Client ID: Run ID: **ORGCMS3_051128A** SeqNo: **550994**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPHC Gasoline	850.1	50	1,000	0	85.0%	80	120	891	4.65%	20	

Sample ID: **LCS-14744** Batch ID: **14744** Test Code: **SGTPDMW** Units: **µg/L** Analysis Date **12/10/05 10:37:07 PM** Prep Date: **11/29/05**
Client ID: Run ID: **ORGC5_051210A** SeqNo: **554469**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPHC Diesel (C12-C22)	389.1	50	500	0	77.8%	46	91	0			
TPHC Motor Oil	801.5	170	1,000	0	80.1%	48	113	0			

Sample ID: **LCSD-14744** Batch ID: **14744** Test Code: **SGTPDMW** Units: **µg/L** Analysis Date **12/10/05 10:58:53 PM** Prep Date: **11/29/05**
Client ID: Run ID: **ORGC5_051210A** SeqNo: **554470**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPHC Diesel (C12-C22)	416.3	50	500	0	83.3%	46	91	389	6.75%	15	
TPHC Motor Oil	883.4	170	1,000	0	88.3%	48	113	802	9.73%	15	

Sample ID: **LCS-14712** Batch ID: **14712** Test Code: **TPHDMW** Units: **µg/L** Analysis Date **12/8/05 12:50:25 AM** Prep Date: **11/22/05**
Client ID: Run ID: **ORGC7_051207A** SeqNo: **553714**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPHC Diesel (C12-C22)	628.4	50	500	0	126%	72	124	0			S
TPHC Motor Oil	1,131	170	1,000	0	113%	71	139	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

CLIENT: LACO Associates
Work Order: 0511523
Project: 3503.03, CRESCENT CITY SHELL

QC SUMMARY REPORT

Laboratory Control Spike Duplicate

Sample ID: **LCSD-14712** Batch ID: **14712** Test Code: **TPHDMW** Units: **µg/L** Analysis Date **12/8/05 1:10:38 AM** Prep Date: **11/22/05**

Client ID: Run ID: **ORGC7_051207A** SeqNo: **553715**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPHC Diesel (C12-C22)	629.0	50	500	0	126%	72	124	628	0.0950%	15	S
TPHC Motor Oil	1,154	170	1,000	0	115%	71	139	1,130	2.03%	15	

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.
5680 West End Road • Arcata • CA 95521-9202
707-822-4649 Fax 707-822-6831

Chain of Custody

0511523

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 [signature]

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 3031

LAB ID	SAMPLE ID	DATE	TIME	MATRIX*	ANALYSIS: 8260 List 1 (CONTAINER 9)	ANALYSIS: TPHd/mo w/SGC (CONTAINER 7)
	3503-MW3-W	11-15-05	AM	GW	3	1
	3503-DW-W	↓	↓	↓	3	1
	3503-OW1-W	↓	↓	↓	3	1
	3503-OW2-W	↓	↓	↓	3	1
	3503-QCTB-W	↓	↓	↓	1	
	3503-QCFD-W	↓	↓	↓	3	
	3503-QCMB-W	↓	↓	↓	3	

SAMPLE CONDITION/SPECIAL INSTRUCTIONS

GEOTRACKER

Cooler temp = 4.3°C

RELINQUISHED BY (Sign & Print)	DATE/TIME	RECEIVED BY (Sign)	DATE/TIME
[signature] STEVE DAVIS	11-17-05 1:45 pm	[signature]	111705 1345

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

PIV

***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

AIR TOXICS LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

WORK ORDER #: 0511310

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 PFP/HPI C.C. SHELL
DATE RECEIVED:	11/16/2005	**CONTACT:**	Nicole Danbacher
DATE COMPLETED:	11/30/2005		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.
01A	5282-VP1	Mod. Method TO-14A	Tedlar Bag
02A	5282-VP2	Mod. Method TO-14A	Tedlar Bag
02AA	5282-VP2 Duplicate	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 S. Freeman DATE: 11/30/05

Laboratory Director

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: 07/01/05, Expiration date: 06/30/06
Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

This report shall not be reproduced, except in full, without the written approval of Air Toxics Ltd.

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# 0511310

Six 1 Liter Tedlar Bag samples were received on November 16, 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.

Summary of Detected Compounds
MODIFIED EPA METHOD TO-14A DIRECT INJECT GC/MS

Client Sample ID: 5282-VP1

Lab ID#: 0511310-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Toluene	5.0	13	19	48

Client Sample ID: 5282-VP2

Lab ID#: 0511310-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Methyl tert-butyl ether	5.0	16	18	58

Client Sample ID: 5282-VP2 Duplicate

Lab ID#: 0511310-02AA

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Methyl tert-butyl ether	5.0	16	18	58

Client Sample ID: 5282-VP3

Lab ID#: 0511310-03A

No Detections Were Found.

Client Sample ID: 5282-VP4

Lab ID#: 0511310-04A

No Detections Were Found.

Client Sample ID: 5282-VP5

Lab ID#: 0511310-05A

No Detections Were Found.

Client Sample ID: 5282-VP6

Lab ID#: 0511310-06A

No Detections Were Found.

AIR TOXICS LTD.

Client Sample ID: 5282-VP1

Lab ID#: 0511310-01A

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

File Name:	3111621	Date of Collection:	11/15/05
Dil. Factor:	1.00	Date of Analysis:	11/17/05 01:57 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	13	19	48
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	97	70-130

AIR TOXICS LTD.

Client Sample ID: 5282-VP2

Lab ID#: 0511310-02A

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

File Name:	3111622	Date of Collection:	11/15/05
Dil. Factor:	1.00	Date of Analysis:	11/17/05 02:27 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	16	18	58

Container Type: 1 Liter Tedlar Bag

Surrogates	%Recovery	Method Limits
Toluene-d8	99	70-130

AIR TOXICS LTD.

Client Sample ID: 5282-VP2 Duplicate

Lab ID#: 0511310-02AA

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

File Name:	3111627	Date of Collection:	11/15/05
Dil. Factor:	1.00	Date of Analysis:	11/17/05 05:23 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	16	18	58

Container Type: 1 Liter Tedlar Bag

Surrogates	%Recovery	Method Limits
Toluene-d8	97	70-130

AIR TOXICS LTD.

Client Sample ID: 5282-VP3

Lab ID#: 0511310-03A

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

File Name:	**3111623**	**Date of Collection:**	**11/15/05**
Dil. Factor:	**1.00**	**Date of Analysis:**	**11/17/05 03:02 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	98	70-130

AIR TOXICS LTD.

Client Sample ID: 5282-VP4

Lab ID#: 0511310-04A

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

File Name:	3111624	Date of Collection:	11/15/05
Dil. Factor:	1.00	Date of Analysis:	11/17/05 03:36 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	99	70-130

AIR TOXICS LTD.

Client Sample ID: 5282-VP5

Lab ID#: 0511310-05A

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

File Name:	3111625	Date of Collection:	11/15/05
Dil. Factor:	1.00	Date of Analysis:	11/17/05 04:09 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	96	70-130

AIR TOXICS LTD.

Client Sample ID: 5282-VP6

Lab ID#: 0511310-06A

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

File Name:	3111626	Date of Collection:	11/15/05
Dil. Factor:	1.00	Date of Analysis:	11/17/05 04:59 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	96	70-130

AIR TOXICS LTD.

Client Sample ID: Lab Blank

Lab ID#: 0511310-07A

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

File Name:	3111605	Date of Collection: NA	
Dil. Factor:	1.00	Date of Analysis: 11/16/05 09:50 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	99	70-130

AIR TOXICS LTD.

Client Sample ID: CCV

Lab ID#: 0511310-08A

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

File Name:	**3111603**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 11/16/05 08:23 AM**	

Compound	**%Recovery**
Benzene	94
Toluene	98
Ethyl Benzene	100
m,p-Xylene	109
o-Xylene	102
Methyl tert-butyl ether	93

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
Toluene-d8	100	70-130

AIR TOXICS LTD.

Client Sample ID: LCS

Lab ID#: 0511310-09A

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

File Name:	3111604	Date of Collection: NA	
Dil. Factor:	1.00	Date of Analysis: 11/16/05 09:14 AM	

Compound	%Recovery
Benzene	104
Toluene	104
Ethyl Benzene	104
m,p-Xylene	110
o-Xylene	100
Methyl tert-butyl ether	77

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	98	70-130

Attachment 5

LACO ASSOCIATES CONSULTING ENGINEERS	PROJECT CRESCENT CITY SHELL	BY BWN	SHEET NO. 1/1
21 W. 4th Street Eureka, California 95502 707-443-5054	LOCATION	DATE	JOB NO. 5282.01
	CLIENT HP1	CHECKED	
		DATE 8/11/05	

LEAVE ARCATA @ 0645 MILES 37817
ARRIVE CC @ 0825 37891

SYSTEM CHECK C-SPARGER #1

1	31	SP1S
2	35	SP1D
3	38	SP4S
4	25	SP4D
5	27	SP5D
6	26	SP3S, SP2S
7	28	SP3D, SP2D
8	27	SP6S
9	41	SP7D, SP7S
10	32	SP8, SP9

T.C.: 12351.82 HRS
G.C.#1: 15734 HRS
P.M.: 26110 KWH

CHANGE (LOST SP6D MOVED SP7S TO STA 9)

MRU

STATION	POINT
1	SP5D
2	SP6S
3	SP6D
4	SP1S

@START

UNIT	COUNTERS IN HRS
GENSET	00025.3
SF2 COMPRESSOR	00030.14
TC1-O_3	00018.31
BP1	00020.27
BP2	00017.49
OC1	44
OC2	42
TC2-O_3	00015.01

LEAVE SITE @ 1715

FUEL @ RENNER @ 1730

HOME @ 1915

@ DAYS END

GENSET	00032.7
SF2 COMPRESSOR	00033.44
TC1-O_3	00023.05
BP1	00026.79
BP2	00024.01
OC1	51
OC2	49
TC2-O_3	00019.71

~~ARRIVE~~ EUREKA MILES: 37977.0

LACO ASSOCIATES
CONSULTING ENGINEERS

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

Project Name: CRESCENT CITY SHELL HRI/PAP
Project No.: 5282.01
Task: 4.3
Date: 10/04/2005
PM: CSM

Tech: RWN
Mobe/Demobe time: .5/.5
Travel time: 2.00/2.00
Time on site: 0930
Time off site: 1515
Mileage: 174

SYSTEM READINGS

UNIT: C-SPARGER #1				UNIT:			
Master Panel Runtime (Hrs): 12532.71				Master Panel Runtime (Hrs):			
O_2 Concentrator Runtime (Hrs): 16993.00				O_2 Concentrator Runtime (Hrs):			
System Clock Time: —				System Clock Time:			
STATION	MANIFOLD PRESSURE (psi)	SPARGE POINT	WELL HEAD PRESSURE (psi)	STATION	MANIFOLD PRESSURE (psi)	SPARGE POINT	WELL HEAD PRESSURE (psi)
1				1			
2	SYSTEM			2			
3				3			
4	DOWN			4			
5				5			
6	FOR			6			
7				7			
8	REPAIRS			8			
9				9			
10	SCHEDUAL TO	REPAIR		10			
11	2ND OR	3RD	WEEK OF OCT	11			
12	PER CSM			12			

ANCILLARY INFORMATION

Power Meter (Kwh): 26804	Max. Temperature (°F): 91.4°F
Max. Humidity (%RH): HIGH	Ventilation Fan(s): ON / OFF
Surge Suppression: (ON) / OFF	Controller Battery Voltage (volts):

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	(YES) / NO	Check Peroxide Level N/A	YES / NO

STATION	RUN TIME				SPARGE POINT	WELL BOX OZONE CONC. (ppm)
	A	B	C	HOURS/DAY		
1	15					
2	15					
3	15					
4	15					
5						
6						
7						
8						
9						
10						
11						
12						
13						
TOTAL:	60					

START TIMES	A	B	C	REPAIRS
1	1200			
2	1300			
3	1400			
4	1500			
5	1600			
6	1700			

MODIFICATIONS

16 AMP BREAKER AT END OF LIFE. CHECKED COMPRESSOR'S INTERNALS OK. SURGE AMPS OF COMPRESSOR @ 8.6A WHICH IS WITHIN NORMAL RANGE. COMPRESSOR STARTS FINE WHEN MANUALLY FIRED. COMPRESSOR TRIPS BREAKER / ROTOR LOCK WHEN IN CABINET. REMOVED 16 AMP BREAKER, OPENED HOUSING. FOUND SPENT HEATER PACK AND CARBON SCORRING WITHIN.

LACO ASSOCIATES CONSULTING ENGINEERS	PROJECT MRU SPARGING	BY BWN	SHEET NO. 1
21 W. 4th Street Eureka, California 95502 707-443-5054	LOCATION CRESCENT CITY SHELL	DATE 10/4/05	
	CLIENT HPI	CHECKED	JOB NO. 5282.01
	PM - CSM	DATE	

10/4/2005 LEAVE ARCATA 0730

START MILES 40587.3
END 40760.9 GOAL 107.57
TOTAL 173.6 MILES

START GENSET	82.1	87.30	→ 5 TOTAL
SF2	75.57	78.09	
TC1	85.80	87.68	→ 5
BP1	102.57	107.63	
TC2	83.85	88.72	
BP2	104.53	109.60	

ARRIVE CC. @ 0930
START SPARGING @ 1000AM 15 MINUTES PER POINT ROTATION O_3 @ 30g/h

STATION #	SPARGE POINT #	MANIFOLD (PSI)	LINE (PSI)	FLOW (CFM)
1	SP1S	34	28	2.00
2	SP5S	34	28	2.10
3	SP6S	34	29	1.90
4	SP2D	34	29	1.60

5 hr = 300 min
300/4 = 75 min/hole

SYSTEM CHECK 1300

STATION #	SPARGE POINT #	MANIFOLD (PSI)	LINE (PSI)	FLOW (CFM)
1	SP1S	34	26	2.00
2	SP5S	34	27	2.10
3	SP6S	34	28	2.00
4	SP2D	34	28	1.60

DATS END 1500

1	SP1S	34	25	2.00
2	SP5S	34	26	2.15
3	SP6S	34	27	2.00
4	SP2D	34	28	1.70

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.: 5782.01
Task: 413
Date: 10/11/05
PM: CSM

Tech: BNN
Mobe/Demobe time: 1.5/1.5
Travel time: 1.75/1.75
Time on site: 1130
Time off site: 1515
Mileage: 175

SYSTEM READINGS

UNIT: C - SPARGER				UNIT:			
Master Panel Runtime (Hrs): 12533.81				Master Panel Runtime (Hrs):			
O_2 Concentrator Runtime (Hrs): 16995				O_2 Concentrator Runtime (Hrs):			
System Clock Time: 1500 @ 1500				System Clock Time:			
STATION	MANIFOLD PRESSURE (psi)	SPARGE POINT	WELL HEAD PRESSURE (psi)	STATION	MANIFOLD PRESSURE (psi)	SPARGE POINT	WELL HEAD PRESSURE (psi)
1	29	SP1S		1			
2	32	SP1D		2			
3	34	SP4S		3			
4	23	SP4D		4			
5	27	SP5D		5			
6	23	SP3S/SP2S		6			
7	26	SP3D/SP2D		7			
8	33	SP6S		8			
9	40	SP7D/SP7S		9			
10	30	SP9/SP9		10			
11				11			
12				12			

ANCILLARY INFORMATION

Power Meter (Kwh): 26809	Max. Temperature (°F): 75.4°F
Max. Humidity (%RH): 41.64	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: REPAIRED	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

STATION	RUN TIME				SPARGE POINT	WELL BOX OZONE CONC. (ppm)
	A	B	C	HOURS/DAY		
1	14	13	3			
2	14	13	13			
3	14	13	13			
4	14	13	13			
5	14	13	13			
6		1	1			
7		1	1			
8		1	1			
9		1	1			
10		1	1			
11						
12						
13						
TOTAL:	420	420	420			

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

INSTALLED 1207 COMPRESSOR
INSTALLED 16A BREAKER
PROGRAMMED CONTROLLER
INSTALLED 230V/50AMP SERVICE OUTLET

MODIFICATIONS

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

Project Name: CRESCENT CITY SHELL HPI/PFP
Project No.: 5282.01
Task: 423
Date: 10/18/2005
PM: CSM

Tech: BWN
Mobe/Demobe time: .5/.5
Travel time: 2.0/2.0
Time on site: 1000
Time off site: 1620
Mileage: 175

SYSTEM READINGS

UNIT: C-SPARGER				UNIT:			
Master Panel Runtime (Hrs): 12676.12				Master Panel Runtime (Hrs):			
O_2 Concentrator Runtime (Hrs): 17158				O_2 Concentrator Runtime (Hrs):			
System Clock Time: 1500 @ 1500				System Clock Time:			
STATION	MANIFOLD PRESSURE (psi)	SPARGE POINT	WELL HEAD PRESSURE (psi)	STATION	MANIFOLD PRESSURE (psi)	SPARGE POINT	WELL HEAD PRESSURE (psi)
1	29			1			
2	31			2			
3	33			3			
4	23			4			
5	27			5			
6	23			6			
7	26			7			
8	32			8			
9	41			9			
10	30			10			
11				11			
12				12			

ANCILLARY INFORMATION

Power Meter (Kwh): 26988	Max. Temperature (°F): 89.8°F
Max. Humidity (%RH): HIGH	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

STATION	RUN TIME				SPARGE POINT	WELL BOX OZONE CONC. (ppm)
	A	B	C	HOURS/DAY		
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
TOTAL:						

START TIMES	A	B	C	REPAIRS
1				
2				
3				
4				
5				
6				

MODIFICATIONS

LACO ASSOCIATES
CONSULTING ENGINEERS
21 W. 4th Street
Eureka, California 95502
707-443-5054

PROJECT MRU SPARGING	BY BMW	SHEET NO. 1/1	
LOCATION CRESCENT CITY SHELL	DATE 10/18/05		
CLIENT HPI	CHECKED	JOB NO. 5282.01	
	DATE		

ARRIVE 1000 AM

	START	END
SF2	87.91	89.58
TC1	96.68	102.68
BP1	119.29	125.33
TC2	97.72	103.72
BP2	121.26	127.30

6 HOURS TOTAL

BEGIN SPARGING @ 1020AM O_3 @ 60%

STATION #	SPARGE POINT	MANIFOLD (PSI)	LINE (PSI)	FLOW (CFM)	TIME (MIN)
1	SP1S	28	25	2.0	15
2	SP2S	28	28	1.8	15
3	SP5S	28	23	2.0	15
4	SP6S	28	28	1.9	15

CONTINOUS CYCLE 6 HRS

END SPARGING @ 1620 PM

LACO ASSOCIATES
CONSULTING ENGINEERS

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

Project Name: CRESCENT CITY SMALL
Project No.: 5282.01
Task: 413
Date: 11/02/2005
PM: CSM

Tech: RWN
Mobe/Demobe time: .5/.5
Travel time: 2.0/2.0
Time on site: 0900
Time off site: 1600
Mileage: 175

SYSTEM READINGS

UNIT: C - SPARGER

Master Panel Runtime (Hrs): 12736.12
O_2 Concentrator Runtime (Hrs): 17510.
System Clock Time: 1530 @ 1530

STATION	MANIFOLD PRESSURE (psi)	SPARGE POINT	WELL HEAD PRESSURE (psi)
1	35	SP1s	
2	39	SP1d	
3	39	SP4s	
4	34	SP4d	
5	33	SP5d	
6	31	SP3s, 2s	
7	33	SP3d, 2d	
8	31	SP6s	
9	32	SP7s, 7d	
10	37	SP9, 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): 27188
Max. Humidity (%RH): HIGH
Surge Suppression: (ON) / OFF

Max. Temperature (°F): 78.6°F
Ventilation Fan(s): (ON) / OFF
Controller Battery Voltage (volts):

TROUBLESHOOTING

Ozone Detector Fault: N/A 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 YES / NO

STATION	RUN TIME				SPARGE POINT	WELL BOX OZONE CONC. (ppm)
	A	B	C	HOURS/DAY		
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
TOTAL:						

START TIMES	A	B	C	REPAIRS
1				
2				
3				
4				
5				
6				

MODIFICATIONS

LACO ASSOCIATES CONSULTING ENGINEERS 21 W. 4th Street Eureka, California 95502 707-443-5054	PROJECT SYSTEM CHECK	BY BWJ	SHEET NO. 1
	LOCATION CRESCENT CITY SHED	DATE 11/02/05	
	CLIENT HPI	CHECKED	JOB NO. 5282.01 7413
		DATE	

WELL HEAD CHECK

SP1S – ✓ OK

SP1d – LEAK IN WELLBOX AT FORCED TUBING RADIUS

X: R&R FAILED TUBING AND BACKFLOW VALVE (B/F)
(REMOVE AND REPLACE)

SP2S – ✓ OK WELL HEAD – R&R SHED B/F

SP2d – LEAK AT B/F IN WELL BOX. R&R

SP3S & SP3d ✓ OK

SP4S – LEAK IN SHED. R&R

SP4d – LEAK IN WELLBOX AT FORCED TUBING RADIUS R&R

SP5d – LEAK IN WELL BOX

SP6S – ✓ OK

SP7S & 7d ✓ OK

SP8 LEAK IN WELLHEAD TUBING

SP9 REBUILT STATION SOLENOID

LACO ASSOCIATES CONSULTING ENGINEERS	PROJECT MRU SPARGING	BY BWN	SHEET NO.
21 W. 4th Street Eureka, California 95502 707-443-5054	LOCATION CRESCENT CITY SHELL	DATE 11/02/05	1/1
	CLIENT HPI	CHECKED	JOB NO.
		DATE	5282.01 T-413

LEAVE ARCATA 0700
ARRIVE 0900

	START	END
SF2	102.53	
TC1	120.36	126.37
BP1	143.52	149.55
TC2	121.23	126.48
BP2	145.48	151.52

BEGIN SPARGING @ 0930 O_3 @ 10% OF TOTAL 6g per hour

STATION #	SPARGE POINT	MANIFOLD (PSI)	LINE (PSI)	FLOW (CFM)	TIME (MIN)
1	SP1S	36	26	2.0	15
2	SP2S	36	32	2.0	15
3	SP5D	36	30	2.3	15
4	SP6S	36	31	2.0	15

END SPARGING @ 1530 CONTINOUS CYCLE 6 HRS

LEAVE SITE @ 1600

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.: 5262.01
Task: 413
Date: 11/14/05
PM: CSM

Tech: BWN
Mobe/Demobe time: .5/.5
Travel time: 2.0/2.0
Time on site: 0900
Time off site: 1545
Mileage: 180

SYSTEM READINGS

UNIT: C-SPARGER

Master Panel Runtime (Hrs): 12986.30
O_2 Concentrator Runtime (Hrs): 17794
System Clock Time: 1430 @ 1430

STATION	MANIFOLD PRESSURE (psi)	SPARGE POINT	WELL HEAD PRESSURE (psi)
1	36	1s	
2	44	1d	
3	44	4s	
4	37	4d	
5	33	5d	
6	31	2s 3s	
7	34	2d, 3d	
8	32	6s	
9	31	7s, 7d	
10	41	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): 27496
Max. Humidity (%RH): HIGH
Surge Suppression: (ON) / OFF

Max. Temperature (°F): 86.7°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: 1/OK 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

STATION	RUN TIME				SPARGE POINT	WELL BOX OZONE CONC. (ppm)
	A	B	C	HOURS/DAY		
1	NO	CHANGE				
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
TOTAL:						

START TIMES	A	B	C
1			
2			
3			
4			
5			
6			

REPAIRS

TRIED TO REPLACE TUBING TO SP6, SP7 TOO DIFFICULT. SUGGEST DOING DURING HOT SUMMER DAY. REPLACED TUBING ON SP1d, SP4s, SP4d, SP5d.

MODIFICATIONS

SYSTEM LEFT OFF FOR TUESDAYS SAMPLE.

LACO ASSOCIATES CONSULTING ENGINEERS	PROJECT MRU SPARGING	BY BWN	SHEET NO. 1/1
21 W. 4th Street Eureka, California 95502 707-443-5054	LOCATION CRESCENT CITY SHELL	DATE 11/14/05	
	CLIENT HPI	CHECKED	JOB NO. 5292.01 T413
		DATE	

LEAVE ARCATA 0700
ARRIVE 0900

	START	END
SF2	116.32	119.55
TC1	140.80	145.93
BP1	164.25	170.29
TC2	140.92	146.05
BP2	166.22	172.25

BEGIN SPARGING @ 0915 O_3 @ 20% OF TOTAL (12g per hour)

STATION #	SPARGE POINT	MANIFOLD (PSI)	LINE (PSI)	FLOW (CFM)	TIME (MIN)
1	SP1S	38	31	2.2	15
2	SP2S	38	35	2.0	15
3	SP5D	38	30	2.2	15
4	SP6S	38	35	2.0	15

END SPARGING @ 1530

Renner CC

DAY END 1730

0915-1530 = 6.25 h
total sparge
@ 15 min cycles, 4 wells
1.5 h sparge 1
Stns 2-4
1.75 h sparge Stn 1

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: 419
Date: 12/01/05
PM: C-Sm

Tech: BWN
Mobe/Demobe time: .25/.25
Travel time: 2.0/2.0
Time on site: 0815
Time off site: 1515
Mileage: 180

SYSTEM READINGS

UNIT: C-SPARGER

Master Panel Runtime (Hrs): 13140.39

O_2 Concentrator Runtime (Hrs): 18082

System Clock Time: 1120 @ 1120

STATION	MANIFOLD PRESSURE (psi)	SPARGE POINT	WELL HEAD PRESSURE (psi)
1	37	1s	
2	45	1d	
3	44	4s	
4	38	4d	
5	34	5d	
6	31	2s 3s	
7	36	7d, 3d	
8	33	6s	
9	31	7s, 7d	
10	42	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): 27741

Max. Humidity (%RH): HIGH

Surge Suppression: (ON) / OFF

Max. Temperature (°F): 82.9°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: REPLACE (YES) / NO

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

Tubing: ✓

16A Breaker Fault: REPLACE (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

STATION	RUN TIME				SPARGE POINT	WELL BOX OZONE CONC. (ppm)
	A	B	C	HOURS/DAY		
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
TOTAL:						

START TIMES	A	B	C	REPAIRS
1				
2				
3				
4				
5				
6				

MODIFICATIONS

LACO ASSOCIATES CONSULTING ENGINEERS	PROJECT MRU SPARGING	BY BWN	SHEET NO. 1/1
21 W. 4th Street Eureka, California 95502 707-443-5054	LOCATION CRESCENT CITY SHELL	DATE 12/1/05	JOB NO. 5282.01
	CLIENT HPI	CHECKED	419
		DATE	

ARRIVE 0845

	START	END
SF2	138.68	
TC1	171.81	177.77
BP1	197.50	203.56
TC2	171.92	177.88
BP2	199.46	205.51

BEGIN SPARGING @ 0900 (O_3 @ 20% OF TOTAL 12g/hr)

STATION #	SPARGE POINT	MANIFOLD (PSI)	LINE (PSI)	FLOW (CFM)	TIME (MIN)
1	SP1S	38	32	2.2	15
2	SP2S	38	35	2.0	15
3	SP5D	38	28	2.2	15
4	SP6S	38	38	1.8	15

END SPARGING @ 1500

6 hrs sparging
1.5 hr sparging/well
or 218 O_3/well