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DATE: _	8/28/2012				RENCE NO.: ECT NAME:		Project No. 311950 Former Chevron Station 95607			
_	Alamed	arbor Ba	erman ity Environme ny Parkway, Si fornia 94502				RECEIVED 10:59 am, Aug 29, 2012 Alameda County Environmental Health			
Please find enclosed: Draft Originals Prints					Final Other					
Sent via:			Mail Overnight Co	urier 🗌	Same Day Other		r ker and ACEH ftp site			
QUANT	TTY				DESCRI	PTIO	N			
1		Site Co	nceptual Mod	del and Work Plan						
	quested our Use				and Comme	ent				
COMMEN Please call		ariu at 5	10-420-3344 if	you have any	questions	or con	nments			
Copy to:	(]	(electron	Hetrick, Chev ic copy) in Hickley, Pro			Tow	Diane Riggs, Forest Creek nhomes Association			
Completed	l by: _1	Kiersten	Hoey [Please Print]]	Signed:					

Filing: Correspondence File



Eric HetrickProject Manager
Marketing Business Unit

Chevron Environmental Management Company 6101 Bollinger Canyon Road San Ramon, CA 94583 Tel (925) 790-6491 ehetrick@chevron.com

August 28, 2012

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

Re: Former Chevron Service Station 95607

5269 Crow Canyon Road

Castro Valley, CA ACEH Case #RO 0350

I have reviewed the attached Site Conceptual Model and Work Plan.

I agree with the conclusions and recommendations presented in the referenced report. This information in this report is accurate to the best of my knowledge and all local Agency/Regional Board guidelines have been followed. This report was prepared by Conestoga Rovers Associates, upon who assistance and advice I have relied.

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

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

Sincerely,

Eric Hetrick Project Manager

1-A-3

Attachment: Site Conceptual Model and Work Plan



SITE CONCEPTUAL MODEL AND WORK PLAN

FORMER CHEVRON SERVICE STATION 95607 5269 CROW CANYON ROAD CASTRO VALLEY, CALIFORNIA ALAMEDA COUNTY LOP #RO0350

Prepared For:

Mr. Mark Detterman Alameda County Environmental Health 1131 Harbor Bay Parkway, Suite 250 Alameda, California 94502

> Prepared by: Conestoga-Rovers & Associates

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AUGUST 28, 2012 REF. NO. 311950 (15)

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SITE CONCEPTUAL MODEL AND WORK PLAN

FORMER CHEVRON SERVICE STATION 95607 5269 CROW CANYON ROAD CASTRO VALLEY, CALIFORNIA ALAMEDA COUNTY LOP #RO0350

Kiersten Hoey

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Brandon S. Wilken, PG 7564

AUGUST 28, 2012 Ref. no. 311950 (15)

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TABLE OF CONTENTS

			Page
1.0	INTRO	DUCTION	1
2.0	SITE D	ESCRIPTION	1
	2.1	SITE BACKGROUND	
	2.2	PREVIOUS ENVIRONMENTAL INVESTIGATIONS	1
	2.3	SITE GEOLOGY	
	2.4	SITE HYDROGEOLOGY	2
3.0	PREFEI	RENTIAL PATHWAY STUDY	2
4.0	SENSIT	TVE RECEPTOR SURVEY	3
5.0	HYDRO	OCARBON DISTRIBUTION AND SOURCE	4
	5.1	SOIL	4
	5.2	GROUNDWATER	5
	5.3	SOIL VAPOR	11
	5.4	LIGHT NON-AQUEOUS PHASE LIQUID	12
6.0	HYDRO	OCARBON SOURCE AND REMEDIATION	12
7.0	DATA	GAPS	13
8.0	WORK	PLAN FOR FURTHER GROUNDWATER DELINEATION	13

LIST OF FIGURES (Following Text)

FIGURE 1	VICINITY MAP
FIGURE 2	SITE MAP WITH UTILITY LOCATIONS
FIGURE 3	GEOLOGIC CROSS SECTION A-A'
FIGURE 4	GEOLOGIC CROSS SECTION B-B'
FIGURE 5	MAXIMUM TOTAL PETROLEUM HYDROCARBONS AS GASOLINE IN SOIL
FIGURE 6	MAXIMUM BENZENE IN SOIL
FIGURE 7	TOTAL PETROLEUM HYDROCARBONS AS GASOLINE IN GROUNDWATER – JANUARY 12, 2012
FIGURE 8	BENZENE IN GROUNDWATER – JANUARY12, 2012
	<u>LIST OF TABLES</u> (Following Text)
TABLE 1	WELL CONSTRUCTION DETAILS

I ADLE I	WELL CONSTRUCTION DETAILS
TABLE 2	CUMULATIVE SOIL ANALYTICAL DATA
TABLE 3	CUMULATIVE SOIL VAPOR ANALYTICAL DATA
TABLE 4	GRAB-GROUNDWATER ANALYTICAL DATA

LIST OF APPENDICES

APPENDIX A	REGULATORY CORRESPONDENCE
APPENDIX B	SUMMARY OF ENVIRONMENTAL INVESTIGATION AND REMEDIATION
APPENDIX C	BORING LOGS

APPENDIX D CURRENT AND HISTORICAL GROUNDWATER DATA

APPENDIX E NORCAL'S GEOPHYSICAL REPORT AND ALAMEDA COUNTY PUBLIC WORKS' SEWER MAP

APPENDIX F SENSITIVE RECEPTOR SURVEY TABLE AND MAP

APPENDIX G GETTLER-RYAN'S 1990 UST REMOVAL AND EXCAVATION SOIL SAMPLING MAPS

APPENDIX H DEGRADATION TREND GRAPHS AND CALCULATIONS

APPENDIX I STANDARD FIELD PROCEDURES FOR SOIL BORING AND MONITORING WELL INSTALLATION

1.0 INTRODUCTION

Conestoga-Rovers & Associates (CRA) is submitting this *Site Conceptual Model and Work Plan (SCM/WP)* on behalf of Chevron Environmental Management Company (Chevron) for the former Chevron Service Station located at 5269 Crow Canyon Road in Castro Valley, California, as requested by the Alameda County Environmental Health (ACEH) in a letter dated June 7, 2012 (Appendix A). The purpose of this SCM/WP is to characterize current subsurface conditions, identify potential data gaps, and recommend work to address the identified data gaps.

2.0 <u>SITE DESCRIPTION</u>

2.1 <u>SITE BACKGROUND</u>

The site is a former Chevron service station, currently occupied by an automotive repair shop, located on the corner of the intersection of Waterford Place and Crow Canyon Road in Castro Valley, California (Figure 1). A used-oil underground storage tank (UST), owned by the current property owner, is located on the west side of the repair shop. The former station facilities consisted of a station building, three gasoline USTs and two dispenser islands under one canopy (Figure 2). Surrounding properties consist of residential properties to the south, west and east, and undeveloped hillside to the north.

2.2 PREVIOUS ENVIRONMENTAL INVESTIGATIONS

Environmental investigations have been ongoing since 1985 when a fuel UST and associated product piping, installed in 1971, were removed after failing a tightness test. Since then, seventeen monitoring wells and one recovery well have been installed, five soil borings have been advanced, sixteen temporary soil vapor probes have been installed, and 81 soil samples have been collected.

In 1985, a groundwater extraction and treatment system (GWET) was installed using recovery well RW-1. Then in 1990 the GWET system was upgraded and an additional pump was installed in monitoring well C-9. The system appears to have operated through May 1995. In 1990, station operations ceased and three 10,000-gallon fiberglass USTs and product piping were removed. After the tanks were removed, an additional 300 cubic yards of petroleum hydrocarbon-bearing soil was over-excavated from the UST pit. In 2003, a two-phase extraction (TPE) pilot test was conducted and deemed a

viable remedial option. A summary of previous environmental investigations and remediation is included as Appendix B.

2.3 SITE GEOLOGY

Regionally, the site lies within the Northern Coast Range geomorphic province at an elevation of approximately 285 feet above mean sea level (ft-amsl). Lithology beneath the site is mapped as Miocene age sandstone, shale, siltstone, conglomerate, and breccia. Soil encountered beneath the site is characterized as interbedded clay, silt, silty sand, and clayey sand to the maximum depth explored of 55 fbg. Bedrock is encountered beneath the site at depths ranging from approximately 30 to 55 fbg. Geologic Cross-Sections A-A' and B-B' illustrate the site geology and are presented on Figures 3 and 4, respectively. Boring logs are presented in Appendix C.

2.4 SITE HYDROGEOLOGY

The site is located in the Castro Valley Groundwater Basin (California Department of Water Resources, Bulletin 118 2004). The San Francisco Bay Regional Water Quality Control Board (RWQCB-SF) Basin Plan considers groundwater in this basin a potential resource for municipal, industrial process, and agricultural water usage.

The nearest surface water bodies are Crow Creek located approximately 380 feet southwest (downgradient) of the site, and Cull Canyon Lake located approximately 2,245 feet northwest (crossgradient) of the site. Depth to groundwater has historically ranged between approximately 0.5 and 34 fbg. Groundwater flow direction is to the west-southwest toward Crow Creek. Well construction details are summarized in Table 1. Historical groundwater data is presented in Appendix D.

3.0 PREFERENTIAL PATHWAY STUDY

CRA conducted a preferential pathway study to characterize potential conduits for offsite groundwater migration downgradient of the site. CRA obtained utility maps from Alameda County Public Works and contracted Norcal Geophysical Consultant, Inc. (Norcal) to perform a comprehensive utility survey. Norcal utilized the electromagnetic line location/metal detection (EMLL/MD) and ground penetrating radar (GPR) methods to investigate the designated survey area.

Telecommunication, electric, and natural gas lines run beneath the eastern sidewalk of Waterford Place and in front of the Townhomes. These two sections are connected by lines that run east-west beneath Waterford Place. Pacific Gas and Electric Company (PG&E) generalizes that depths of electric and natural gas underground facilities are located approximately 24-inches to 36-inches below ground surface. A water line runs down the center of Waterford Place, and is located approximately 5 fbg, and a sanitary sewer trends north-south between C-9 and the Townhomes and is approximately 6 fbg. Historic depths to groundwater in monitoring wells C-4, C-6, C-9, and C-12, located downgradient of the site on the east and west sides of Waterford Place, range from approximately 7 to 29 fbg. Although dissolved hydrocarbon concentrations have historically been detected in all these offsite wells, groundwater has never been shallower than 7 fbg, and the dissolved hydrocarbon plume is shrinking. In fact, hydrocarbons have decreased to below laboratory detection limits in C-9, and no dissolved hydrocarbons have been detected in well C-11, located adjacent to the water and sewer lines beneath Waterford Place, since 1997.

Electric, telecommunication, and natural gas lines (located approximately 2 to 3 fbg) are also located along the northern (upgradient) property boundary, but are located above the shallowest groundwater depth recorded in C-1 and C-8. A storm drain line (approximately 6 fbg) runs from the north edge of the site beneath Crow Canyon Road and connects to the main line located on the north side of Crow Canyon Road. Historically, the shallowest recorded depth to water in source area wells C-1 and C-2, located adjacent to the storm drain connector, is approximately 10 fbg and the storm drain connector is located upgradient of the dissolved plume; therefore unlikely to act as a preferential pathway for hydrocarbon migration.

It is unlikely that underground utilities act as preferential pathways for dissolved hydrocarbon migration the majority of the time considering that groundwater is generally significantly deeper than the base of the utilities. However, it is possible that during infrequent times when groundwater is at its shallowest that the deeper utilities may act as preferential pathways. However, the existing well network adequately monitors the plume in all directions. Underground utilities are illustrated on Figure 2 and the Alameda County Public Works sewer map and the Norcal Geophysical Consultants geophysical report are included in Appendix E.

4.0 <u>SENSITIVE RECEPTOR SURVEY</u>

CRA completed a search for municipal, domestic, industrial, and irrigation wells within a ½-mile radius of the site by contacting Alameda County of Public Works. No water

supply wells were identified in the search area; however, there are existing groundwater wells between ½-mile and 1-mile radius of the site. The nearest surface water bodies are Crow Creek approximately 380 feet southwest (downgradient) of the site, and Cull Canyon Lake approximately 2,245 feet northwest (crossgradient) of the site. Two schools are located within ½-mile of the site. Independent Elementary School is located approximately 1,230 feet southwest (downgradient) of the site and Canyon Middle School is located approximately 1,380 feet northwest (crossgradient) of the site.

The only sensitive receptor identified that could potentially be affected is Crow Creek. Low dissolved hydrocarbon concentrations were historically detected in offsite downgradient well C-15 prior to its destruction in 2008. However, the current rapidly decreasing hydrocarbon concentration trends in well C-9 demonstrate that downgradient extent of the hydrocarbon plume is naturally attenuating and shrinking back toward the source area onsite. Therefore, Crow Creek does not appear to be at risk from the petroleum hydrocarbon plume at the site. A sensitive receptor survey table and map are presented in Appendix F.

5.0 HYDROCARBON DISTRIBUTION AND SOURCE

The primary constituents of concern (COCs) are total petroleum hydrocarbons as gasoline (TPHg) and benzene. Other COCs are toluene, ethylbenzene, and total xylenes. Methyl tertiary butyl ether (MTBE) is no longer a constituent of concern.

5.1 SOIL

During the gasoline UST removal, approximately 300 cubic yards of hydrocarbon bearing soil was over-excavated. Residual TPHg in soil are primarily within saturated soil between 20 and 45 fbg in the vicinity of the former USTs, with the exception of 1,300 milligrams per kilograms (mg/kg) detected in SB-2 at 10.5 fbg. As illustrated on Figures 5 and 6, TPHg and benzene in saturated soil extend downgradient of the site to SV-7, but are delineated below the applicable environmental screening levels (ESLs)¹ in all directions, including downgradient before Crow Creek by C-15, SV-6 and SV-8. The highest residual hydrocarbon concentrations are 4,600 mg/kg TPHg in SB-3 at 35 fbg and 14 mg/kg benzene in SB-5 at 35 fbg. These depths are within the groundwater bearing zone, adjacent to the former UST pit. The vertical extent of hydrocarbons in soil

California Regional Water Quality Control Board – San Francisco Bay Region, Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater, Interim Final-November 2007 (Revised May 2008)

is defined by onsite boring SB-4, located in the source area. No hydrocarbons were detected at the 47.5 fbg, the maximum depth explored at the site.

Lateral and vertical distribution of hydrocarbons in soil at the site has been adequately delineated through the collection of 81 soil samples to a maximum depth of 47.5 fbg. Cumulative soil analytical data is presented in Table 2. The vertical distribution of hydrocarbons is illustrated on Geologic Cross-Sections A-A' and B-B' (Figures 3 and 4), and the lateral distribution of TPHg and benzene are presented on Figures 5 and 6. Gettler-Ryan's soil sampling maps during the 1990 UST removal and excavation are included in Appendix G.

5.2 GROUNDWATER

Groundwater has been monitored since 1985 by 18 wells. The 2012 semiannual monitoring results are summarized below in Table A. Hydrocarbon concentrations as gasoline and benzene are presented on Figures 7 and 8, respectively.

TABLE A:	HYDROCAR	BON CONCEN	TRATION	IS IN GRO	UNDWAT	ER - 2012		
Well ID/ESL Table	Sample Date	ТРНg	Benzene	Toluene	Ethyl-be nzene	Total Xylenes	МТВЕ	
			Micros	grams per I	Liter (µg/L)			
F-1a: Potential Drin	king Water	100	1	40	30	20	5	
F-1a: Aquatic Hab	itat Goal	210	46	130	43	100	8,000	
E-1a: Potential Vapo	or Intrusion	Use Soil Gas	540	380,000	170,000	160,000	24,000	
C-1	1/12/2012	4,700	350	41	33	36	<0.5	
	7/2/2012		Sa	ampled An	nually			
C-2	1/12/2012	120	<0.5	<0.5	<0.5	<0.5	<0.5	
	7/2/2012	Sampled Annually						
C-3	1/12/2012	46,000	9,000	390	3,100	3,100	<3	
	7/2/2012	44,000	9,100	320	2,800	1,800	<3	
C-5	1/12/2012	<50	< 0.5	<0.5	<0.5	< 0.5	<0.5	
	7/2/2012		Sa	ampled An	nually			
C-6	1/12/2012	35,000	15,000	83	690	190	<25	
	7/2/2012	24,000	9,400	82	780	280	15	
C-7	1/12/2012	<50	<0.5	<0.5	<0.5	<0.5	<0.5	
	7/2/2012		Sa	ampled An	nually			
C-8	1/12/2012	<50	<0.5	<0.5	<0.5	<0.5	<0.5	
	7/2/2012		Sa	ampled An	nually			
C-9	1/12/2012	180	< 0.5	<0.5	<0.5	<0.5	<0.5	
	7/2/2012	<50	<0.5	<0.5	<0.5	<0.5	<0.5	
C-11	1/12/2012	<50	< 0.5	<0.5	<0.5	<0.5	<0.5	
	7/2/2012		Sa	ampled An	nually			

TABLE A:	TABLE A: HYDROCARBON CONCENTRATIONS IN GROUNDWATER - 2012										
Well ID/ESL Table	Sample Date	ТРНд	Benzene	Toluene	Ethyl-be nzene	Total Xylenes	МТВЕ				
C-12	1/12/2012	890	890 26 <0.5 1 2 <0								
	7/2/2012	1,200	0 10 <0.5 3 0.7 <								
C-13	1/12/2012	<50	<0.5	<0.5	<0.5	<0.5	<0.5				
	7/2/2012		Sa	ampled An	nually						
C-16	1/12/2012	<50	<0.5	<0.5	<0.5	<0.5	<0.5				
	7/2/2012		Sa	ampled An	nually						
RW-1	1/12/2012			Not Samp	led						
	7/2/2012	17,000	6,800	58	690	220	12				

Petroleum hydrocarbon concentrations in groundwater are centered on monitoring wells C-3, and C-6, located adjacent to, and downgradient of the former USTs. The dissolved plume historically extended downgradient past C-9 to C-15, but overtime has been retracting back toward the source area. Dissolved concentrations in well C-9 have decreased four orders of magnitude. During the July 2012 sampling event, no hydrocarbons were detected. The dissolved hydrocarbon plume also extends northwest (crossgradient) to well C-12, where dissolved TPHg concentrations have historically fluctuated around 1,000 micrograms per liter (μ g/L) and benzene concentrations have recently been fluctuated between 10 and 100 μ g/L. The dissolved TPHg and benzene plumes are defined by wells C-2, C-5, C-7, C-8, C-9, C-11, C-13, C-14 and C-16 and destroyed wells C-10A, C-10B and C-15 (Figures 7 and 8). Current and historic groundwater monitoring and sampling data are presented in Appendix D.

Risk to Crow Creek

To monitor groundwater conditions downgradient of the site near Crow Creek, wells C-10A, C-10B, C-15, and C-16 were installed. To assess the risk to the creek, dissolved hydrocarbons detected in these wells are compared to the aquatic ESLs (ESL Table F-4a) of 210 μ g/L TPHg, 46 μ g/L benzene, 130 μ g/L toluene, 43 μ g/L ethylbenzene, and 100 μ g/L xylenes. No concentrations detected in former wells C-10a and C-10B exceeded the aquatic ESLs. With the exception of an unidentified TPHg concentration of 724 μ g/L, dissolved hydrocarbons in well C-16 were generally below the laboratory detection limits. Well C-15 is located approximately 45 feet upgradient of Crow Creek. No toluene, ethylbenzene, or xylenes concentrations and only one benzene concentration detected in C-15 exceeded the aquatic ESLs. TPHg concentrations in C-15 ranged between <50 and 1,000 μ g/L, and 520 μ g/L was detected in 2008 before it was destroyed. During the same sampling event, monitoring well C-9, located directly upgradient of C-15, contained 4,500 μ g/L TPHg. As previously stated, concentrations in C-9 have since decreased two orders of magnitude to below laboratory reporting limits. The decreasing concentrations in C-9 indicate the dissolved hydrocarbon plume is

shrinking back toward the source area and it can be assumed that the dissolved hydrocarbon concentrations in well C-15 have also decreased to near or below laboratory detection limits. Based on the above, it is unlikely dissolved phase hydrocarbons originating at the site are currently or will impact Crow Creek in the future.

Dissolved Hydrocarbon Trends and Projections

CRA uses the guidance provided within the United States Environmental Protection Agency (EPA) document *Calculation and Use of First-Order Rate Constants for Monitored Natural Attenuation Studies* (November 2002) to estimate the time for groundwater concentrations to reach water quality objectives (WQOs). CRA also uses the EPA document *On-line Tools for Assessing Petroleum Releases* (September 2004) to assess the proper methodology of determining where to begin a trend analysis. A receptor is located some distance from the source, and no impact to the receptor is seen when the release first occurs. The analytes take time to travel to the receptor. The first data points that show an analyte detection is called the first arrival time. The first arrival time varies for each receptor based upon distance from the receptor and the transport rates through the heterogeneous medium.

As the analyte plume expands and stabilizes, the analyte concentration reaches the maximum concentration. If the source of the release is finite (e.g., a single release from an underground storage tank), the concentration will eventually decrease from the maximum, to below the concentration of concern. This period is called the duration.

CRA evaluates groundwater monitoring data from each well (the receptor) and creates a degradation trend analysis for site COCs from the maximum detection through the latest sampling date. The starting point can vary from the maximum detection if the transport mechanisms are not sufficiently linear. For example, groundwater monitoring data may show that the maximum concentration occurred at some point in the past and that degradation seemed to be occurring. However, due to the heterogeneous nature of the subsurface and seasonal groundwater level fluctuations, the duration does not demonstrate a steady degradation behavior. The concentrations of the analyte may increase one or more times before showing consistent attenuation towards the concentration objective.

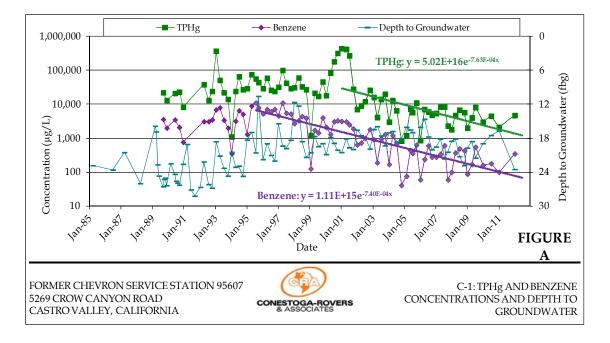
CRA calculated estimated times for dissolved TPHg and benzene concentrations to meet the RWQCB ESL for drinking water at wells C-1, C-3, C-6, C-9, and C-12. The drinking water ESLs for TPHg and benzene are 100 and $1 \mu g/L$, respectively. CRA used the

following first order exponential decay rate calculation² to estimate the time to meet the applicable ESL:

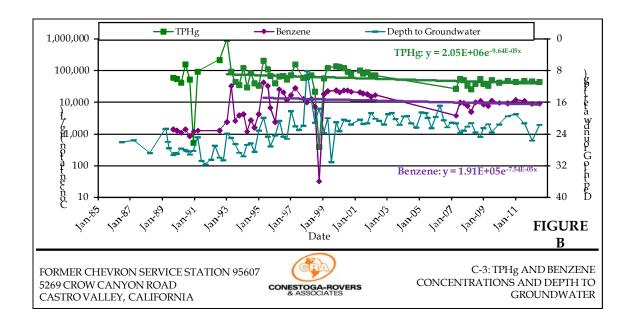
$$y = be^{(ax)}$$

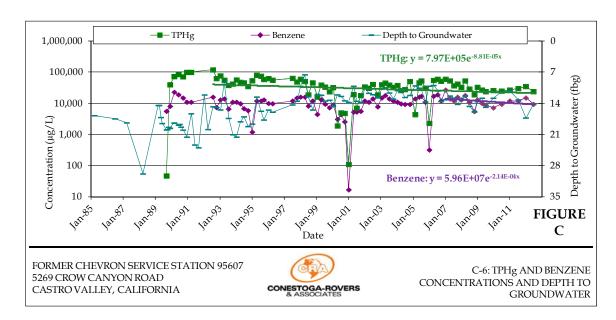
Where "a" is a decay constant, "b" is a concentration at time (x), y is concentration (WQG), and "x" is time.

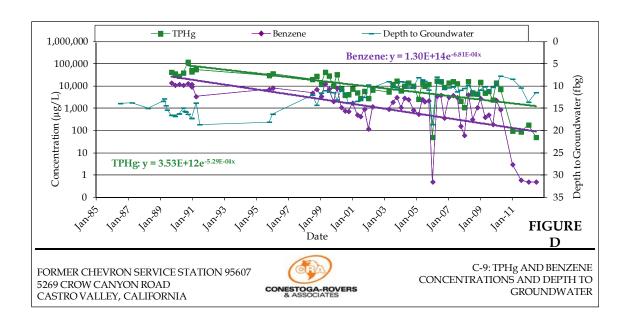
The results of the calculations are described below. A summary of historical maximum concentrations and current concentrations for wells C-1, C-3, C-6, C-9, and C-12 and projections to meet the ESLs are presented in Table B. The trend analysis graphs for TPHg and benzene in wells C-1, C-3, C-6, C-9, and C-12 are presented in Figures A, B, C, D, and E below. Trend graphs and degradation calculations are presented as Appendix H.



EPA-Groundwater Issue; Calculation and Use of First-Order Rate Constants for Monitored Natural Attenuation Studies; Charles J. Newell, et al., 2002.







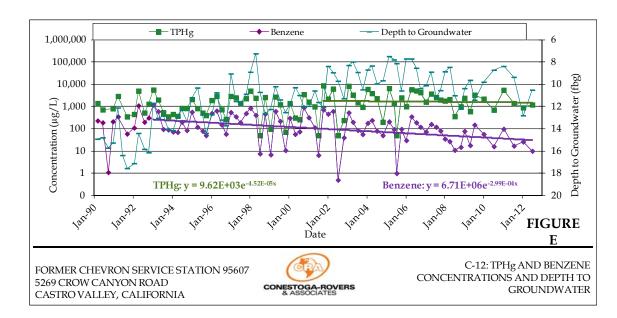


	TABLE B: SUMMARY OF DEGRADATION RATE CALCULATIONS										
		Maximum	Most Current	Approximate	Approximate						
		Concentration	Concentration		Date to Reach	Years to reach					
Well	Analyte	(μg/L)	(μg/L)	ESL	ESL	ESL					
C-1	TPHg	437,000	4,700	100	June 2021	9					
	Benzene	11,000	350	1	Feb 2028	16					
C-3	TPHg	1,000,000	44,000	100	Dec 2181	169					
	Benzene	43,000	9,100	1	May 2341	329					
C-6	TPHg	120,000	24,000	100	Jan 2179	167					
	Benzene	27,000	9,400	1	July 2129	117					

	TABLE B: SUMMARY OF DEGRADATION RATE CALCULATIONS											
Well	Analyte	Maximum Concentration (µg/L)	Most Current Concentration (µg/L)	ESL	Approximate Date to Reach ESL	Approximate Years to reach ESL						
C-9	TPHg	120,000	<50	100	July 2025	13						
	Benzene	14,000	<0.5	1	Aug 2030	18						
C-12	TPHg	8,700	1,200	100	Sept 2176	164						
	Benzene	1,200	10	1	Dec 2043	31						

Trend analysis calculations predict that TPHg and benzene concentrations in upgradient and downgradient wells C-1 and C-9 will reach the drinking water ESLs within a maximum of 18 years. TPHg and benzene concentrations in source area wells C-3 and C-6 are expected to reach ESLs in over 100 years. TPHg and benzene concentrations in crossgradient well C-12 are expected to reach the ESLs within 164 years and 31 years, respectively.

5.3 SOIL VAPOR

In 1989, a soil vapor assessment was completed onsite; however, no report was located. A total of twenty-one soil vapor samples were collected around the downgradient Townhomes between 1996 and 1998 to evaluate the risk of soil vapor intrusion to the Townhomes, and if the sewer line was a vapor pathway to the Townhomes. Based on data from vapor probes SV-1 through SV-8, elevated concentrations were detected at 25 fbg (saturated soil), but concentrations collected between 3 and 11 fbg, with the exception of benzene concentrations detected in SV-6 and SV-8, were below laboratory detection limit and/or ESLs (ESL Tables E-2 and E-4), indicating there is no significant risk of vapor intrusion to the Townhomes. Based on concentrations detected in vapor probes SV-9 through SV-16, advanced within the sewer line trench, Weiss determined the sewer line was not acting as a preferential pathway for vapor migration to the Townhomes. Cumulative soil vapor analytical data is presented in Table 3. In 1996, a grab-groundwater sample was collected from temporary vapor probe SV-1, located adjacent to the Townhomes. Concentrations were well below the ESLs for potential vapor intrusion concerns (ESL Table E-1). Grab-groundwater sample data is presented in Table 4.

5.4 <u>LIGHT NON-AQUEOUS PHASE LIQUID</u>

Light non-aqueous phase liquid (LNAPL) was detected in onsite well C-3 between 1991 and 2007 at a maximum thickness of 0.7 foot. A total of 28.95 gallons of LNAPL and water was bailed from the well between 2002 and 2007. No LNAPL has been detected in any well since April 2007.

6.0 HYDROCARBON SOURCE AND REMEDIATION

Based on the distribution of residual TPHg and benzene in soil and groundwater, it appears the source of hydrocarbons are the former USTs removed in 1985 and 1990. In 1985, a fuel UST and associated product piping were removed after failing a tightness test. Chevron inventory discrepancies from September 1984 to February 1985 indicated an estimated a loss of 670 gallons of gasoline. The tank was replaced with three 10,000-gallon USTs and two fuel dispensing islands. After the replacement of the fuel UST a remediation well (RW-1) was installed to house a GWET system which utilized a ½ horsepower water table depression pump to induce LNAPL to flow to RW-1. Due to the low permeable soil, the system had a low extraction rate of 0.2 gallons per minute. The system appeared to run in this configuration through 1990; however, no data is available for the system operation from 1988 to 1990. In March 1990, the GWET system was upgraded and pumps were installed in RW-1 and C-9, and water was treated using an oil/water separator and air stripper. The system appeared to run in this configuration through May 1995.

In October 1990, the three 10,000-gallon USTs, associated piping, and two dispenser islands were removed. An additional 300 cubic yards of hydrocarbon-bearing soil was over-excavated from the UST pit. Gettler-Ryan soil sampling maps are included as Appendix G. In October 2003, Cambria Environmental Technology, Inc. (Cambria) conducted a TPE pilot test. The pilot test consisted of a 400 cubic foot per minute thermal/catalytic oxidizer operating in thermal mode. Cambria concluded the TPE could be a viable remedial option. In their January 8, 2007 Remedial Action Plan, Cambria proposed dual-phase extraction (DPE) as the most viable and cost-effective method to remediate the site. Since 2007, Chevron and CRA have been working with the property owner to secure a location for the DPE system. Several remedial implementation updates have been submitted to ACEH, including most recently, CRA's July 16, 2012 Notification of Remedial Implementation Status. Chevron and CRA intend to install and implement DPE in early 2013.

7.0 DATA GAPS

Groundwater Delineation

The ACEH has requested additional lateral and vertical delineation of dissolved hydrocarbons between offsite wells C-9 and C-12. Therefore, CRA proposes installing one monitoring well between wells C-9 and C-12 to collect groundwater data (Figure 2). No other data gaps were identified.

8.0 WORK PLAN FOR FURTHER GROUNDWATER DELINEATION

To fulfill the data gaps and recommendations made above, CRA proposes to conduct the following activities:

Utility Location

CRA will mark the site for Underground Service Alert (USA) clearance. USA and a licensed geophysicist will be contacted a minimum of 48 hours prior to field activities to mark and identify locations of utilities near the proposed well location.

Utility Clearance

Per Chevron and CRA safety requirements, the proposed well location will be cleared to 8 fbg using a hand auger to detect any unknown utilities prior to drilling.

Site Health and Safety Plan

CRA will prepare a site health and safety plan to provide safety guidelines to all site workers and visitors. The plan will be kept onsite at all times and followed by all site workers and visitors each day of operation.

Permits

CRA will obtain a well installation permit from the Alameda County Public Works Agency (ACPWA) prior to beginning field operations. A minimum of 48 hours of notice will be given to ACEH and ACPWA prior to beginning activities.

Well Installation

After clearing to 8 fbg, the well will be advanced using 8-inch diameter hollow-stem augers to a maximum depth of approximately 20 fbg. The wells will be constructed using 2-inch diameter Schedule 40 PVC casing with a 0.010-inch slotted screen from approximately 5 to 20 fbg. The proposed screen interval is based on the large range of depth to water (DTW) measurements observed in wells C-9 and C-12. Historically DTW measurements have ranged between 7.74 and 18.64 in C-9 and 7.25 and 17.55 in C-12.

The filter pack will consists of #2/12 sand from the bottom of the boring to approximately 2 feet above the screened interval. The well annulus will have a 2-foot bentonite seal above the screen and sand pack, with the remainder backfilled with Portland Type I/II cement to approximately 1 foot below grade. A well box equipped with a traffic rated lid will be installed flush with grade. Well construction may be altered based upon field observations. Well locations and top-of-casing elevation will be surveyed by a licensed land surveyor. CRA's standard operating procedures for monitoring well installation are included as Appendix I.

Well Development and Sampling

The well will be developed using agitation and pumping. Gettler-Ryan, Inc. of Dublin, California will develop and sample the wells no sooner than 72 hours after installation.

Soil Disposal

Soil cuttings and decontamination water will be temporarily stored onsite in properly labeled 55-gallon drums pending soil profiling results. The waste will transported and disposed of at appropriate Chevron and State-approved disposal facilities.

Chemical Analysis

Groundwater, soil, and disposal samples will be analyzed for the following constituents:

- TPHg by EPA Method 8015B modified
- Benzene, toluene, ethylbenzene, and total xylenes (BTEX) by EPA Method 8260B
- Methyl-tertiary butyl ether (MTBE) by EPA Method 8260B
- Total lead by EPA Method 6010 (waste composite soil samples only)

Reporting

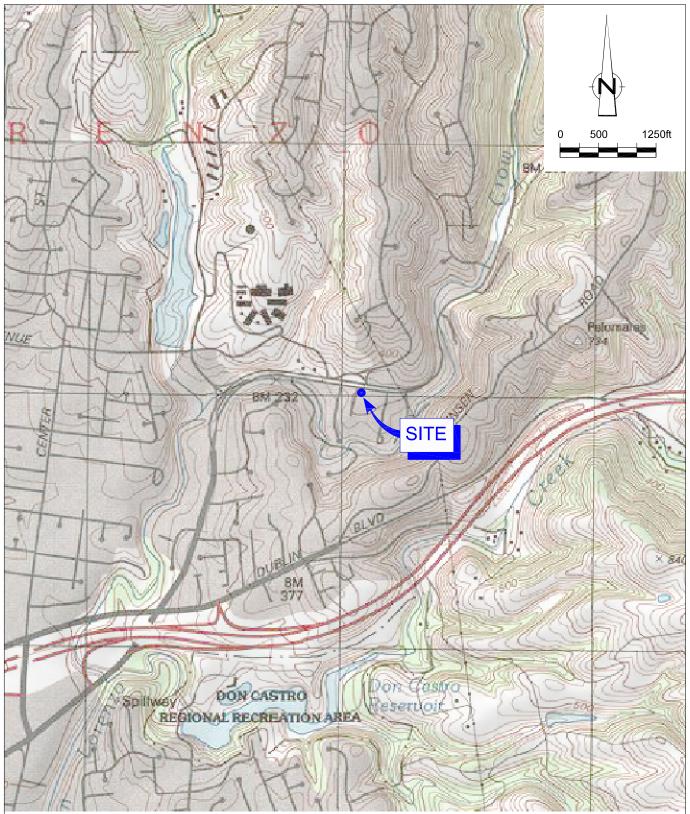
Upon completion of field activities and review of the analytical results, we will prepare an investigation report that at a minimum will contain:

- Geophysical survey findings
- Descriptions of drilling and sampling methods
- Well construction log
- Tabulated groundwater analytical results
- A figure illustrating the boring location
- Analytical reports and chain-of-custody forms
- Soil disposal methods

• Conclusions and recommendations

CRA will conduct this work following approval from the ACEH and approval from the property owner. After approval, CRA will obtain the necessary permits, meet with utility service providers, and schedule a drilling subcontractor. CRA will submit the investigation report approximately eight weeks after completion of field activities.

FIGURES

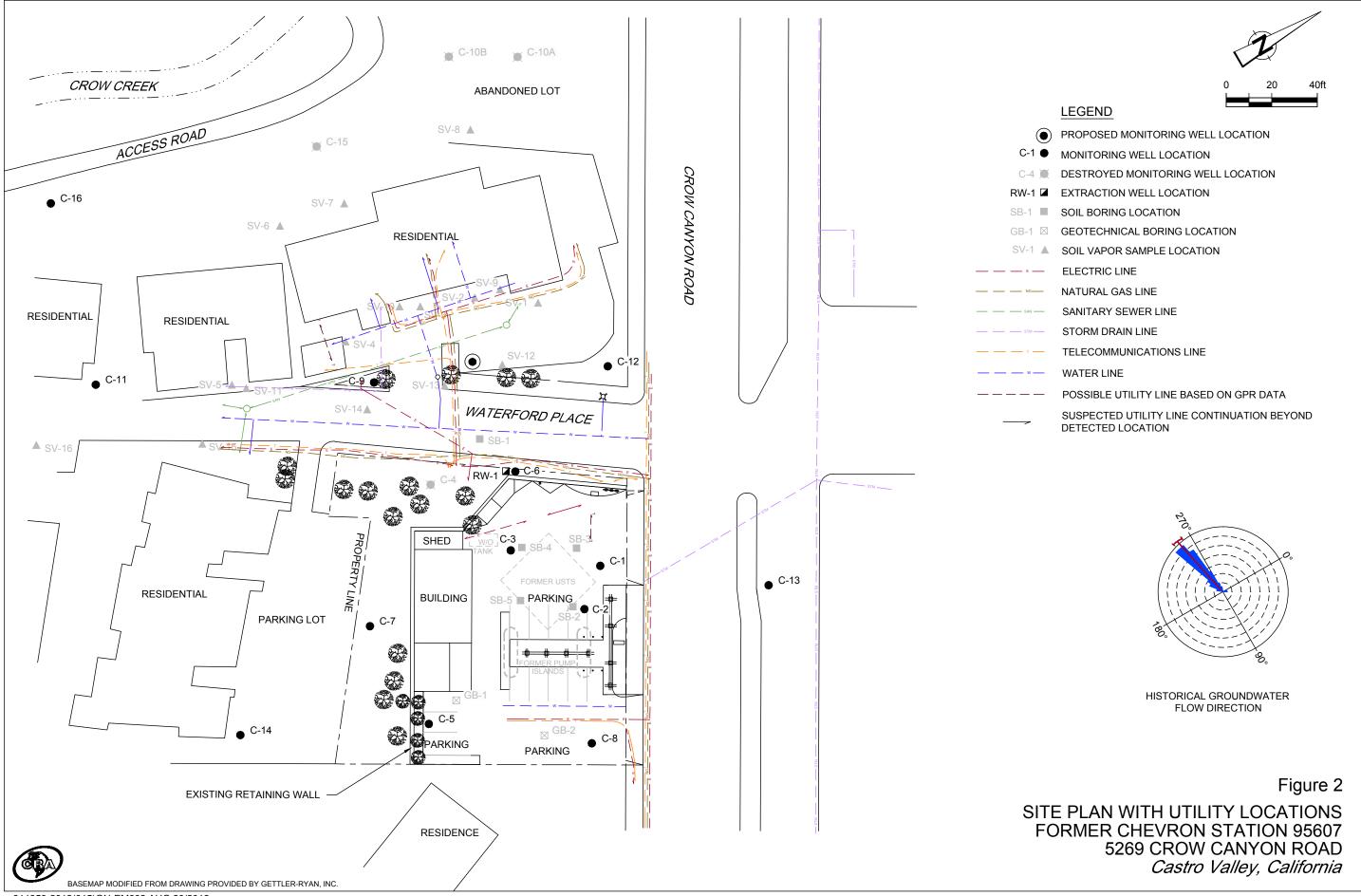


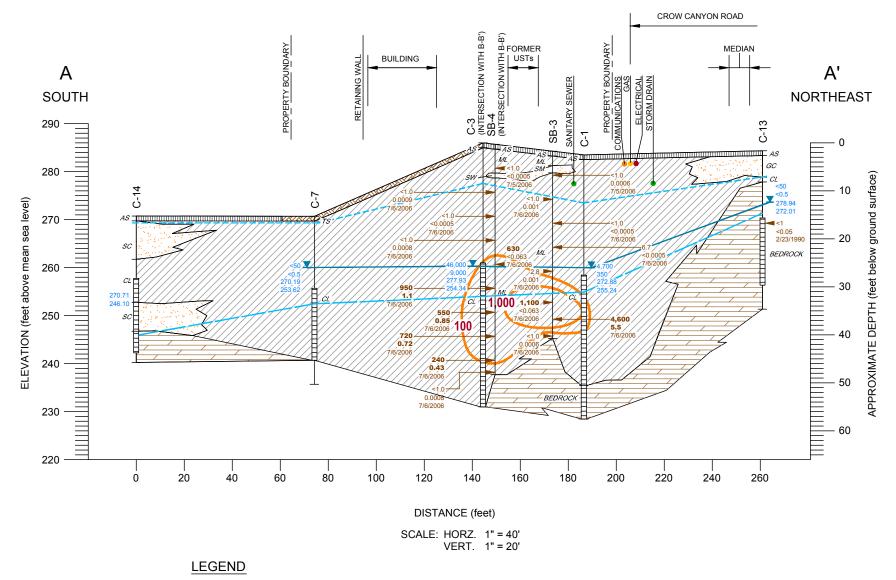
SOURCE: TOPO! MAPS.

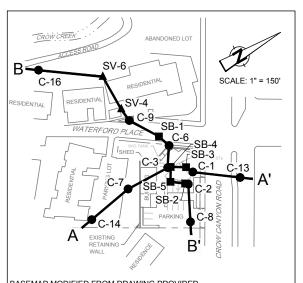
Figure 1

VICINITY MAP FORMER CHEVRON STATION 95607 5269 CROW CANYON ROAD Castro Valley, California









— WELL DESIGNATION **GROUND SURFACE** OBSERVATION WELL INSTALLATION STRATIGRAPHIC BOUNDARY TYPICAL SOIL CLASSIFICATION SCREENED INTERVAL **BOTTOM OF BORING** APPROXIMATE SOIL SAMPLE LOCATION BENZENE HYDROCARBON CONCENTRATIONS IN SOIL (mg/kg) APPROXIMATE GROUNDWATER SAMPLE LOCATION HYDROCARBON CONCENTRATIONS IN GROUNDWATER (µg/L) - 01/12/12 HISTORIC HIGH GROUNDWATER ELEVATION HISTORIC LOW GROUNDWATER ELEVATION

TS - TOPSOIL AS - ASPHALT SC - CLAYEY SANDS, SAND-CLAY MIXTURES SW - WELL-GRADED SAND, GRAVELLY SANDS, LITTLE OR NO FINES SM - SILTY SANDS, SAND-SILT MIXTURES GC - CLAYEY GRAVELS, GRAVEL-SAND-CLAY MIXTURES

¹ - GENERALIZED ROCK TYPES FROM CALIFORNIA GEOLOGICAL SURVEY GEOLOGIC MAP OF CALIFORNIA 2010 HISTORICAL HIGH GROUNDWATER

HISTORICAL LOW GROUNDWATER

DASHED WHERE INFERRED

TOTAL PETROLEUM HYDROCARBONS AS GASOLINE IN SOIL CONCENTRATION CONTOUR

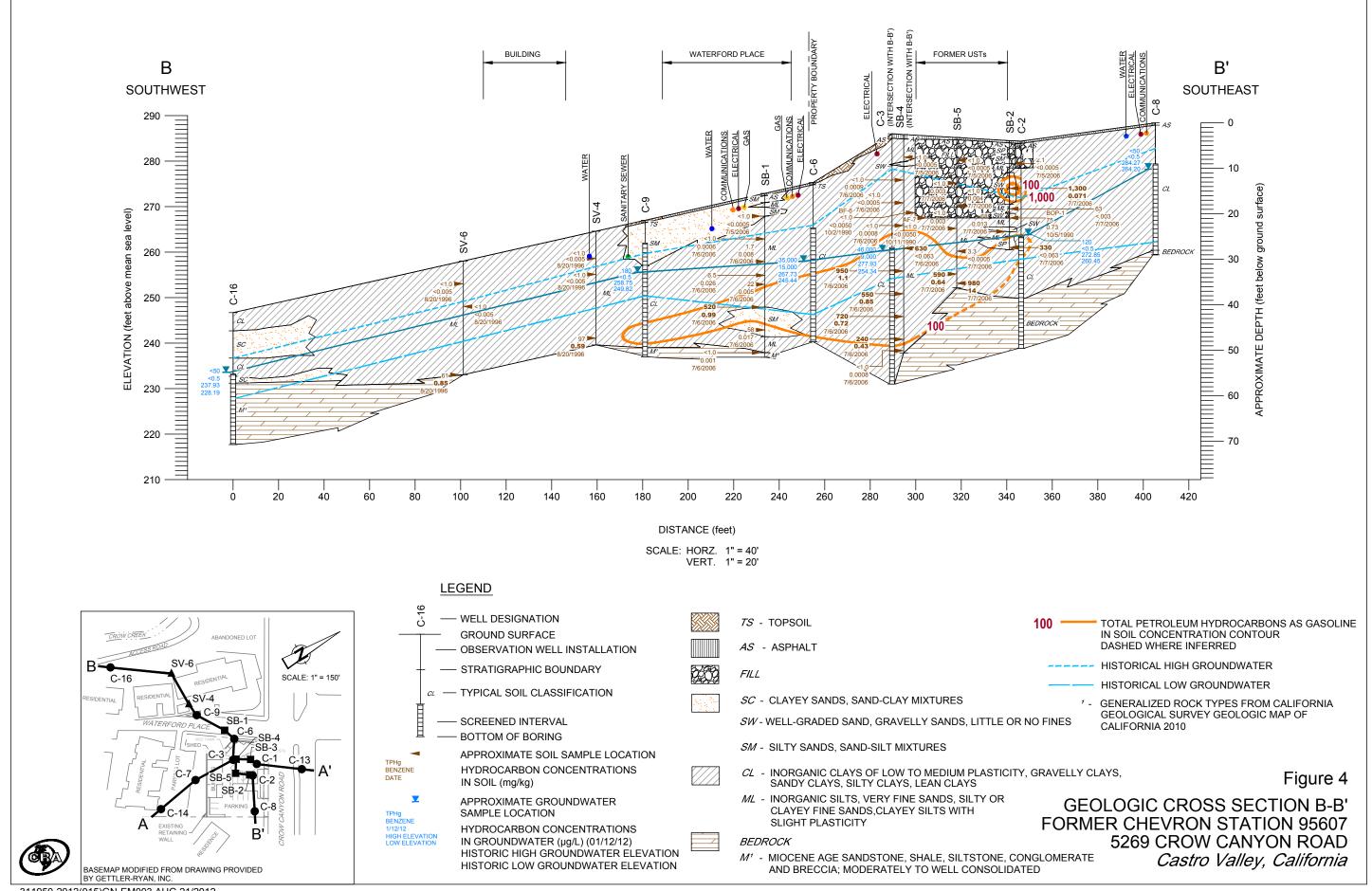
Figure 3

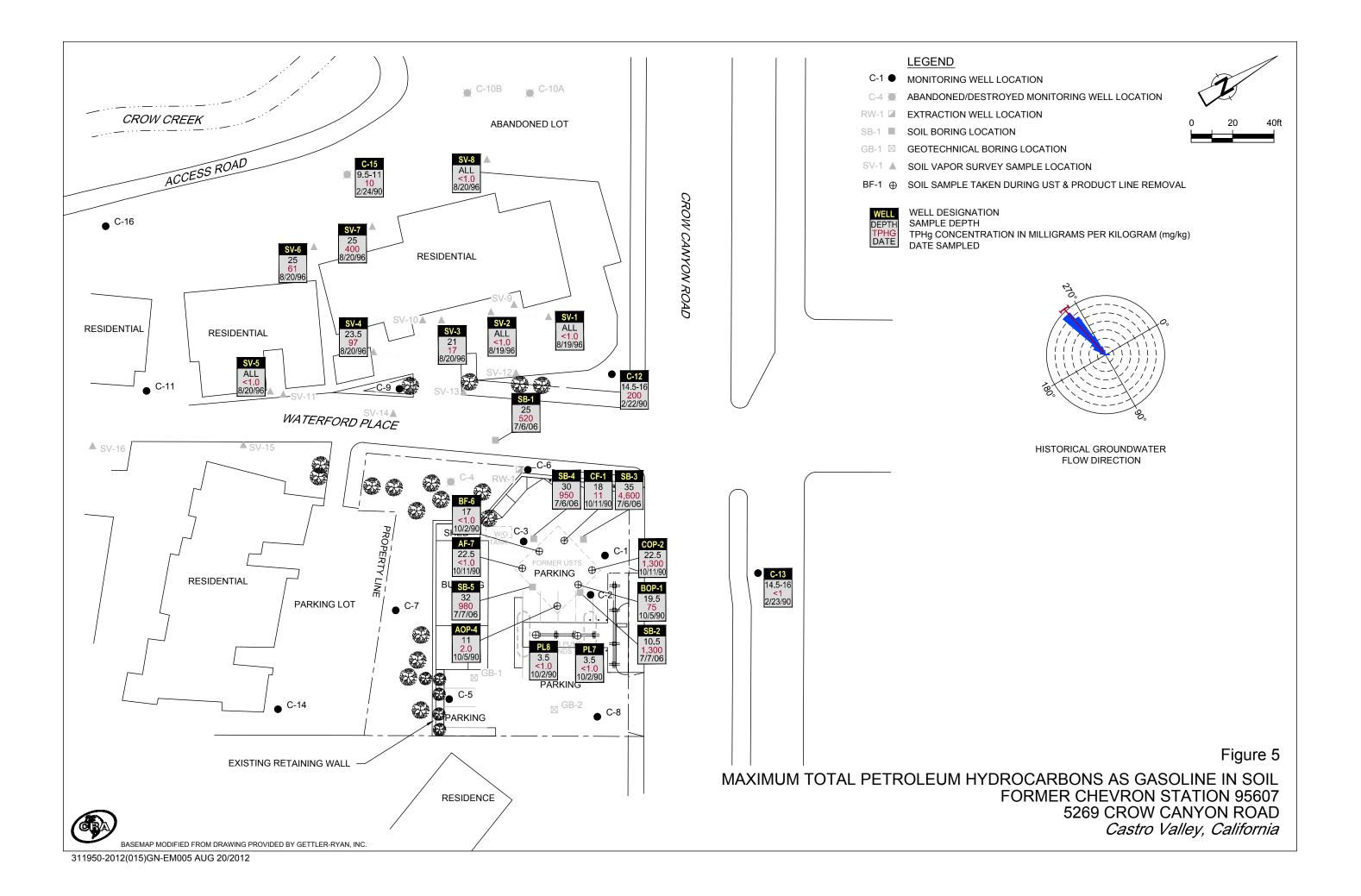
CL - INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS

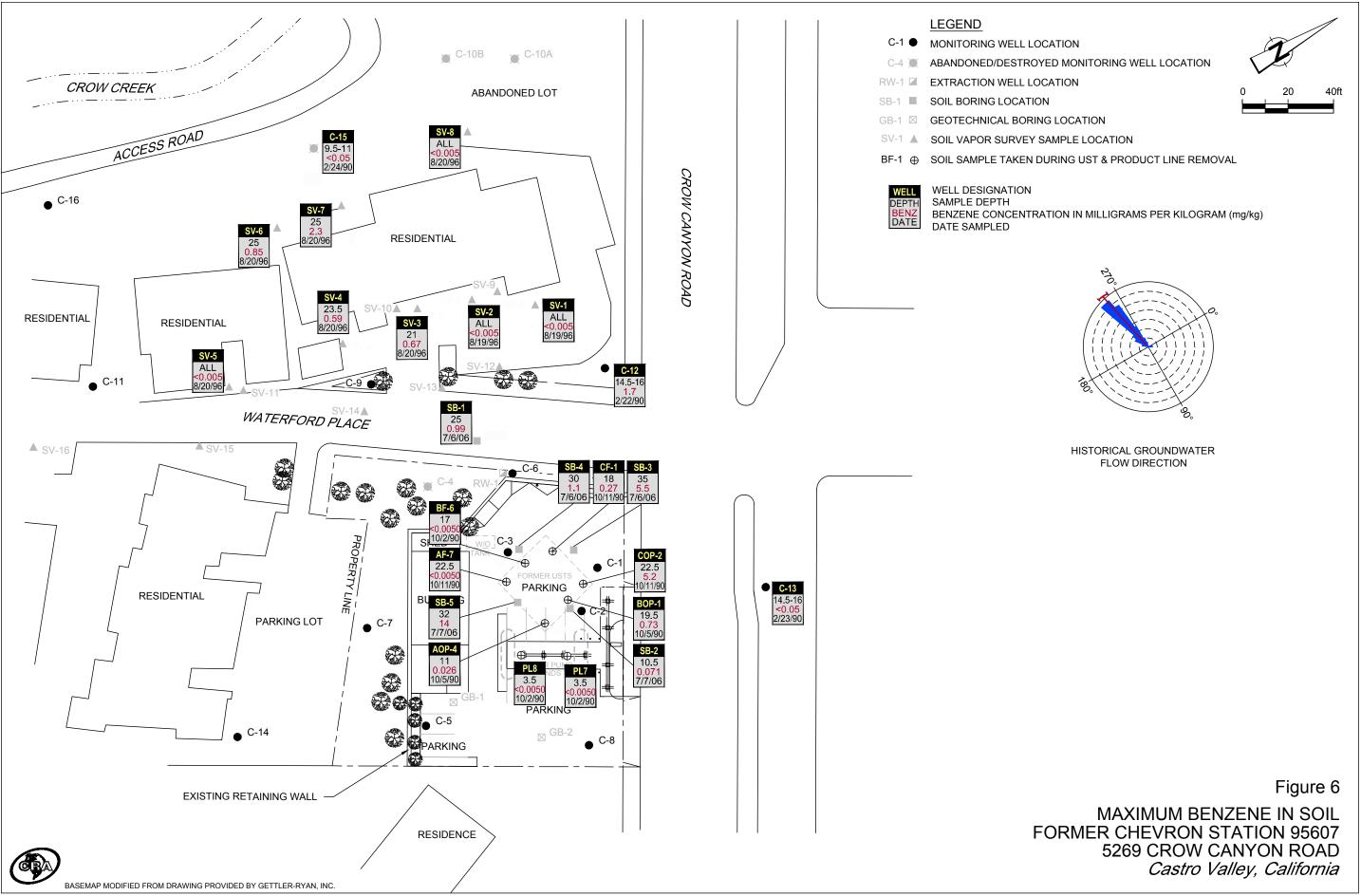
ML - INORGANIC SILTS, VERY FINE SANDS, SILTY OR CLAYEY FINE SANDS, CLAYEY SILTS WITH SLIGHT PLASTICITY

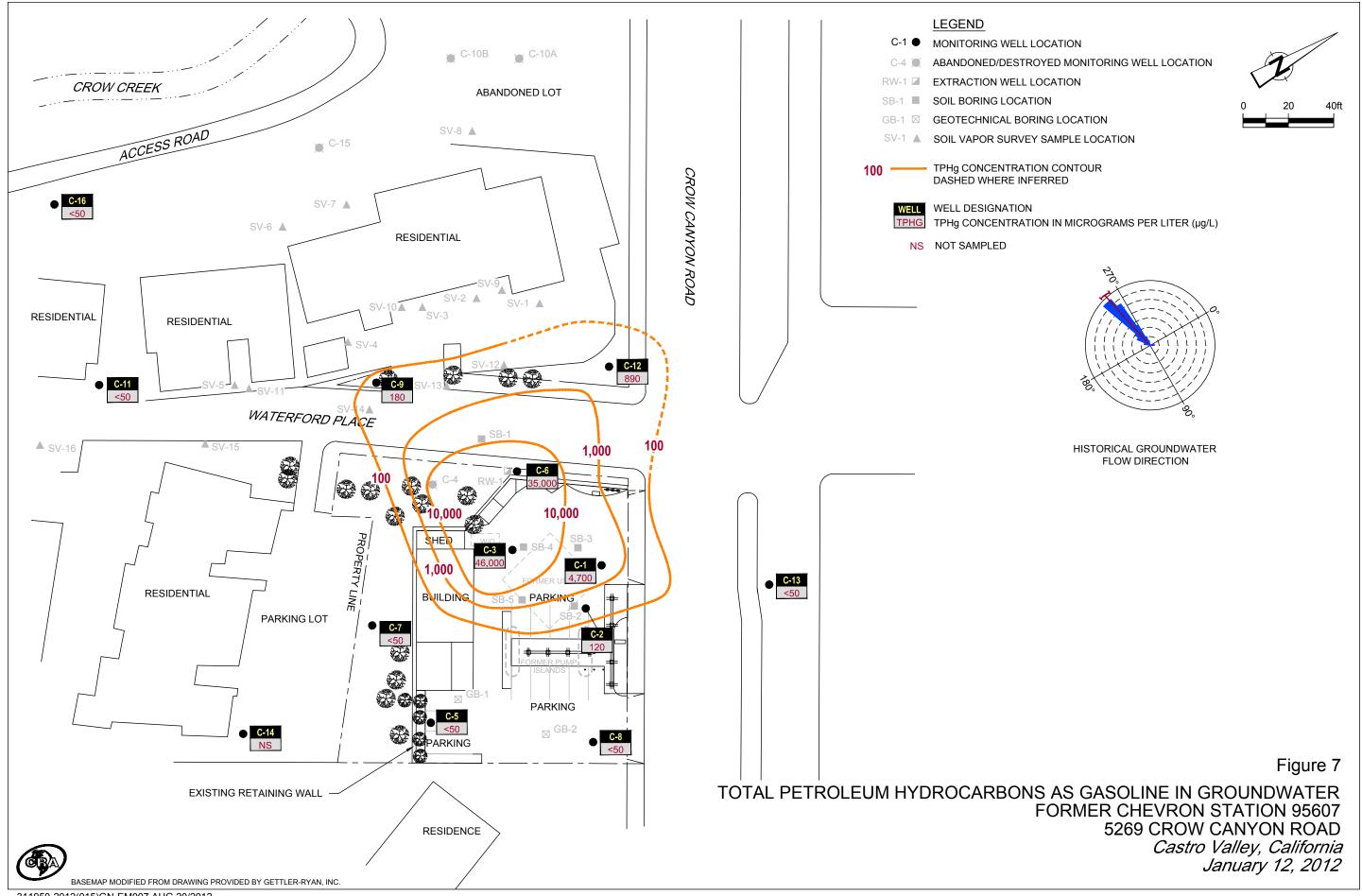
GEOLOGIC CROSS SECTION A-A' **FORMER CHEVRON STATION 95607** 5269 CROW CANYON ROAD Castro Valley, California

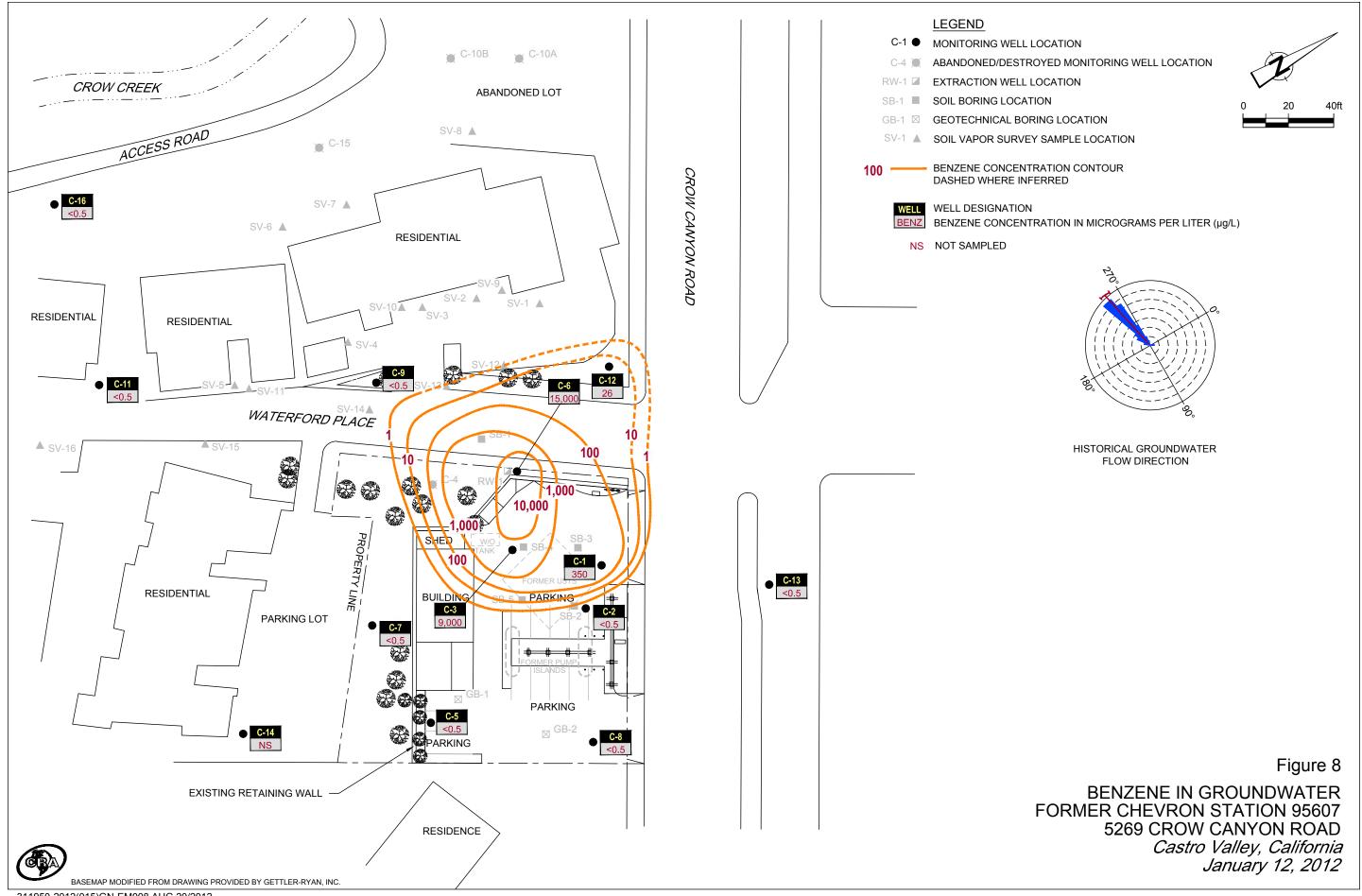
 ${\it M}^{\scriptscriptstyle 1}\,$ - MIOCENE AGE SANDSTONE, SHALE, SILTSTONE, CONGLOMERATE AND BRECCIA; MODERATELY TO WELL CONSOLIDATED











TABLES

TABLE 1 Page 1 of 1

WELL CONSTRUCTION DETAILS FORMER CHEVRON SERVICE STATION 95607 5269 CROW CANYON ROAD CASTRO VALLEY , CALIFORNIA

Well ID	Date Installed	TOC	Total Depth (fbg)	Casing Diameter (inches)	Screen Interval (fbg)	Status
$C-1^{1}$	3/5/1985	283.46	55	4	25-55	Active
$C-2^{1}$	3/6/1985	284.37	46	4	20-46	Active
C-3	3/6/1985	285.98	55	4	25-55	Active
C-4	3/9/1985		35	4	10-35	Destroyed
$C-5^{1}$	3/9/1985	287.95	45	4	15-45	Active
C-6	3/14/1985	275.28	35	4	10-35	Active
$C-7^{1}$	3/21/1985	270.70	30	2	15-30	Active
$C-8^{1}$	3/21/1985	288.40	31	2	9-29	Active
C-9	6/24/1985		30	4	5-30	Active
C-10A	2/22/1990		21	3	12-21	Destroyed
C-10B	2/22/1990		32	3	21-32	Destroyed
$C-11^{1}$	2/22/1990	265.30	35	3	14-34	Active
C-12	2/22/1990	269.66	34.5	3	9.5-30.5	Active
C-13	2/23/1990	284.32	33	3	14-28.5	Active
C-14 ²	2/23/1990	270.74	30.5	3	13-28.5	Active
C-15	2/24/1990		21	3	7.5-17.5	Destroyed
C-16 ¹	2/24/1990	246.69	29	3	13.5-29	Active
RW-1	5/31/1985	274.52	36	10	10-35	Active

Notes:

fbg = Feet below grade.

TOC = Top of casing elevation (feet above mean sea level).

-- = Not available / not applicable.

Footnotes:

- 1 = Sampled annually.
- 2 = Removed from monitoring/sampling schedule.

TABLE 2

CUMULATIVE SOIL ANALYTICAL DATA FORMER CHEVRON SERVICE STATION 95607 5269 CROW CANYON ROAD CASTRO VALLEY, CALIFORNIA

Sample ID	Date	Depth	TOG	TPHd	TPHg			Ethylbenzene	Xylenes	MTBE	Lead	Notes
		fbg				Con	centrations	in mg/kg				
ESL	T			ı	1	1	ı	,			1	7
Table G	Soil Leaching Water Re	, ,	NE	83	83	0.044	2.9	3.3	2.3	0.023	NE	
Table K-1	Direct Ex Reside		370	100	100	0.12	63	2.3	31	30	260	
Table K-2	Direct Ex Commercial-		3,700	450	450	0.27	210	5.0	100	65	750	
Table K-3	Direct Ex Construction Work	on-Trench	12,400	4,200	4,200	12	650	210	420	2,800	750	
	•					1						_
Monitoring W C-12	<u>/ells</u> 2/22/1990	14.5-16			200	1.7	4.7	3.4	18			
C-13	2/23/1990	14.5-16			<1	<0.05	<0.05	<0.05	<0.05			
C-15	2/24/1990	9.5-11			10	<0.05	0.10	<0.05	<0.05			
UST Pit												
AF (#2)	10/2/1990	17	<30	< 1.0	2.8	0.37	<0.0050	0.010	0.17		< 0.050	Excavated on 10/11/90
AF (#7)	10/11/1990	22.5			<1.0	<0.0050	<0.0050	< 0.0050	<0.0050			
Aop (#1)	10/2/1990	18	<30	< 1.0	<1.0	0.020	0.023	0.0078	0.019		<0.050	Excavated on 10/5/90
Aop (#4)	10/5/1990	11			2.0	0.026	0.053	0.068	0.33			
BF (#6)	10/2/1990	17			<1.0	<0.0050	<0.0050	<0.0050	<0.0050			
D (#2)	40 (2 (4000	4.0			440	2.0	2.0	44	40			
B op (#3) Bop (#1)	10/2/1990 10/5/1990	16 19.5			440 75	3.9 0.73	2.0 0.58	11 2.6	42 12			Excavated on 10/5/90
Бор (и 1)	10/ 5/ 1770	17.5			73	0.75	0.50	2.0	12			
CF (#5)	10/2/1990	15			<1.0	<0.0050	<0.0050	<0.0050	<0.0050			Excavated on 10/11/90
CF (#1)	10/11/1990	18			11	0.27	0.074	0.27	1.1			
Care (#4)	10 /2 /1000	1(2.2	0.20	0.0050	0.017	0.042			E 1 10 / E / 00
C op (#4) C op (#2)	10/2/1990 10/5/1990	16 20			2.2 240	0.20 1.5	0.0058 9.5	0.017 7.0	0.042 34		_	Excavated on 10/5/90 Excavated on 10/11/90
Cop (#2)	10/5/1990	15			55	0.30	0.80	1.5	8.0			Excavated on 10/11/90
Cop (#2)	10/11/1990	22.5			1,300	5.2	37	28	140			
Product Lines		2.5			<1.0	<0.0050	<0.0050	<0.0050	<0.00E0			
PL (#7) PL (#8)	10/2/1990 10/2/1990	3.5 3.5			<1.0 <1.0	<0.0050	<0.0050	<0.0050 <0.0050	<0.0050 0.0097			
1 L (#0)	10/2/1770	3.3			1.0	<0.0050	10.0030	10.0050	0.0077			
Soil Vapor Bo												
SV-1 (SS-1)	8/19/1996	5			<1.0	< 0.005	< 0.005	<0.005	< 0.005			
SV-1 (SS-1)	8/19/1996	10			<1.0	<0.005	<0.005	<0.005	< 0.005			
SV-1 (SS-1)	8/19/1996	21			<1.0	<0.005	<0.005	<0.005	0.014			
SV-2 (SS-2)	8/19/1996	3			<1.0	< 0.005	< 0.005	< 0.005	< 0.005			
SV-2 (SS-2)	8/19/1996	8			<1.0	< 0.005	< 0.005	< 0.005	< 0.005			
SV-2 (SS-2)	8/19/1996	10			<1.0	< 0.005	< 0.005	< 0.005	< 0.005			
SV-2 (SS-2)	8/19/1996	21			<1.0	< 0.005	< 0.005	< 0.005	< 0.005			

TABLE 2

CUMULATIVE SOIL ANALYTICAL DATA FORMER CHEVRON SERVICE STATION 95607 5269 CROW CANYON ROAD CASTRO VALLEY, CALIFORNIA

Sample ID	Date	Depth	TOG	TPHd	TPHg			Ethylbenzene	Xylenes	MTBE	Lead	Notes
TCI.		fbg				Con	centrations	з іп тужу				
ESL	1			1				I				
Table G	Soil Leaching Water Re		NE	83	83	0.044	2.9	3.3	2.3	0.023	NE	
Table K-1	Direct Exp Resider		370	100	100	0.12	63	2.3	31	30	260	
Table K-2	Direct Exp		3,700	450	450	0.27	210	5.0	100	65	750	
Table K-3	Direct Exp Constructio Work	n-Trench	12,400	4,200	4,200	12	650	210	420	2,800	750	
SV-3 (SS-3)	8/19/1996	5			<1.0	< 0.005	<0.005	<0.005	<0.005			
SV-3 (SS-3)	8/20/1996	10			<1.0	< 0.005	< 0.005	< 0.005	< 0.005			
SV-3 (SS-3)	8/20/1996	21			17	0.67	0.74	0.38	1.2			
()	., .,											
SV-4 (SS-4)	8/20/1996	6			<1.0	< 0.005	< 0.005	< 0.005	0.012			
SV-4 (SS-4)	8/20/1996	9.5			<1.0	< 0.005	< 0.005	< 0.005	< 0.005			
SV-4 (SS-4)	8/20/1996	23.5			97	0.59	< 0.010	1.0	2.9			
CV E (CC E)	9 /20 /100/	F			~ 1.0	<0.00E	<0.00E	<0.00E	<0.00E			
SV-5 (SS-5)	8/20/1996	5 10			<1.0	<0.005	<0.005	<0.005	<0.005			
SV-5 (SS-5)	8/20/1996	10			<1.0	<0.005	<0.005	<0.005	<0.005			
SV-5 (SS-5)	8/20/1996	24.5			<1.0	<0.005	< 0.005	<0.005	< 0.005			
SV-6 (SS-6)	8/20/1996	5			<1.0	< 0.005	< 0.005	< 0.005	< 0.005			
SV-6 (SS-6)	8/20/1996	10			<1.0	< 0.005	< 0.005	< 0.005	< 0.005			
SV-6 (SS-6)	8/20/1996	25			61	0.85	0.65	1.2	3.6			
OT = (00 =)	0.400.4400.4	_										
SV-7 (SS-7)	8/20/1996	5			<1.0	<0.005	<0.005	<0.005	<0.005			
SV-7 (SS-7)	8/20/1996	10			<1.0	<0.005	< 0.005	<0.005	< 0.005			
SV-7 (SS-7)	8/20/1996	25			400	2.3	2.7	9.3	40			
SV-8 (SS-8)	8/20/1996	5			<1.0	< 0.005	< 0.005	< 0.005	< 0.005			
SV-8 (SS-8)	8/20/1996	10			<1.0	< 0.005	< 0.005	< 0.005	< 0.005			
SV-8 (SS-8)	8/20/1996	25			<1.0	< 0.005	< 0.005	< 0.005	< 0.005			
Soil Borings	F /F /2004	_			.4.0	.0.000=	-0.004	-0.004	-0.004	.0.000=		
SB-1 SB-1	7/5/2006	5 10			<1.0	< 0.0005	<0.001 <0.001	<0.001 <0.001	<0.001 <0.001	<0.0005 <0.0005		
SB-1 SB-1	7/6/2006 7/6/2006	10 15			<1.0 1.7	0.0006 0.008	0.001	<0.001	0.001	<0.0005		
SB-1	7/6/2006	18			6.5	0.026	< 0.001	0.019	0.003	< 0.0005		
SB-1	7/6/2006	20			22	0.005	< 0.001	0.025	0.040	< 0.0005		
SB-1	7/6/2006	25			520	0.99	0.83	11	28	< 0.062		
SB-1	7/6/2006	30			58	0.017	0.007	0.21	0.44	< 0.002		
SB-1	7/6/2006	35			<1.0	0.001	0.003	0.004	0.009	0.0006		
SB-2	7/5/2006	5			2.1	< 0.0005	< 0.001	< 0.001	< 0.001	<0.0005		
SB-2	7/7/2006	10.5			1,300	0.071	< 0.001	0.36	0.18	< 0.062		
SB-2	7/7/2006	15			63	<.003	< 0.005	0.013	< 0.005	< 0.003		
SB-2	7/7/2006	20			68	0.013	0.010	0.41	0.10	< 0.002		
SB-2	7/7/2006	23.5			330	< 0.063	< 0.13	0.77	< 0.13	< 0.063		

TABLE 2

CUMULATIVE SOIL ANALYTICAL DATA FORMER CHEVRON SERVICE STATION 95607 5269 CROW CANYON ROAD CASTRO VALLEY, CALIFORNIA

Table K-1	Sample ID	Date	Depth	TOG	TPHd	TPHg			Ethylbenzene	Xylenes	MTBE	Lead	Notes
Table G Soil Leaching, Drinking Water Resource NE 83 83 0.044 2.9 3.3 2.3 0.023 NE Table K-1 Direct Exposure: Residential 370 100 100 0.12 63 2.3 31 30 260 Table K-2 Direct Exposure: Commercial-Industrial Worker 3,700 450 450 0.27 210 5.0 100 65 750 SB-3 7/6/2006 5 < 1.0 0.000 4.200 12 650 210 420 2.800 750 SB-3 7/6/2006 5 < 1.0 0.000 < 0.001 < 0.001 < 0.0005 < 30 SB-3 7/6/2006 10 < 1.0 < 0.000 < 0.001 < 0.001 < 0.0005 < 3 SB-3 7/6/2006 15 < 1.0 < 0.0005 < 0.001 < 0.001 < 0.0005 < 3.0 SB-3 7/6/2006 25 <td></td> <td></td> <td>fbg</td> <td></td> <td></td> <td></td> <td>Cond</td> <td>centrations</td> <td>s in mg/kg</td> <td></td> <td></td> <td></td> <td></td>			fbg				Cond	centrations	s in mg/kg				
Table K-1	ESL												_
Table K-2	Table G			NE	83	83	0.044	2.9	3.3	2.3	0.023	NE	
Table K-2 Commercial-Industrial 3,700 450 450 450 420 4,200 12 650 210 420 2,800 750	Table K-1			370	100	100	0.12	63	2.3	31	30	260	
Table K-3	Table K-2	,		3,700	450	450	0.27	210	5.0	100	65	750	
SB-3	Table K-3	Construction-Trench		12,400	4,200	4,200	12	650	210	420	2,800	750	
SB-3		•	'						•				1
SB-3													
SB-3		, ,											
SB-3 7/6/2006 25 2.8 0.001 0.001 0.22 0.55 <0.0005 SB-3 7/6/2006 31.5 1,100 <0.063													
SB-3 7/6/2006 31.5 1,100 <0.063 <0.13 7.0 22 <0.063 SB-3 7/6/2006 35 4,600 5.5 28 96 450 <0.062													
SB-3 7/6/2006 35 4,600 5.5 28 96 450 <0.062													
SB-3 7/6/2006 38.5 <1.0 0.0006 <0.001 0.001 0.002 <0.0005 SB-4 7/6/2006 5 <1.0						-							
SB-4 7/6/2006 10 <1.0 <0.0005 <0.001 <0.001 <0.001 <0.0005 SB-4 7/6/2006 10 <1.0 0.0009 0.001 <0.001 <0.001 <0.0005 SB-4 7/6/2006 15 <1.0 0.0009 0.001 <0.001 <0.001 <0.0005 SB-4 7/6/2006 20 <1.0 0.0008 0.001 <0.001 <0.001 <0.0001 <0.0005 SB-4 7/6/2006 25 <630 <0.063 <0.13 4.0 22 <0.063 SB-4 7/6/2006 30 <- 550 0.85 0.58 5.3 26 <0.063 SB-4 7/6/2006 40 <- 720 0.72 0.73 14 69 <0.063 SB-4 7/6/2006 45 <- 240 0.43 0.15 4.7 19 <0.063 SB-4 7/6/2006 47.5 <- <1.0 0.0008 <0.001 <0.001 <0.001 <0.005 SB-5 7/7/2006 10 <- <1.0 0.0008 <0.001 <0.001 <0.001 <0.0005 SB-5 7/7/2006 20 <- <1.0 0.0008 <0.001 <0.001 <0.001 <0.0005 SB-5 7/7/2006 20 <- <1.0 0.003 0.003 <0.001 <0.001 <0.0005 SB-5 7/7/2006 20 <- <1.0 0.003 0.003 <0.001 <0.001 <0.0005 SB-5 7/7/2006 25 <- <1.0 0.003 0.003 <0.001 <0.001 <0.002 <0.0005 SB-5 7/7/2006 20 <- <1.0 0.003 0.003 <0.001 <0.001 <0.002 <0.0005 SB-5 7/7/2006 25 <- <1.0 0.003 0.003 <0.001 <0.001 <0.001 <0.0005 SB-5 7/7/2006 25 <- <1.0 0.003 0.003 <0.001 <0.001 <0.001 <0.0005 SB-5 7/7/2006 25 <- <1.0 0.003 0.003 <0.001 <0.001 <0.001 <0.0005 SB-5 7/7/2006 25 <- <1.0 0.003 0.003 <0.001 <0.001 <0.001 <0.0005 SB-5 7/7/2006 25 <- <1.0 0.003 0.003 <0.001 <0.001 <0.001 <0.0005 SB-5 7/7/2006 25 <- <1.0 0.003 0.003 <0.001 <0.001 <0.001 <0.0005 SB-5 7/7/2006 25 <- <1.0 0.003 0.003 <0.001 <0.001 <0.001 <0.0005 SB-5 7/7/2006 25 <- <- <1.0 0.003 0.003 <0.001 <0.001 <0.001 <0.0005 SB-5 7/7/2006 25 <- <- <1.0 0.003 0.003 <0.001 <0.001 <0.001 <0.0005 SB-5 7/7/2006 25 <- <- <1.0 0.004 0.004 <0.001 <0.001 <0.001 <0.0005 SB-5 7/7/2006 25 <- <- <1.0 0.003 0.003 <0.001 <0.001 <0.001 <0.0005 SB-5 7/7/2006 25 <- <- <1.0 0.004 0.004 0.004 <0.001 <0.001 <0.0005 SB-5 7/7/2006 25 <- <- <1.0 0.005 <0.005 <0		7/6/2006				4,600		28		450			
SB-4 7/6/2006 10 <1.0	SB-3	7/6/2006	38.5			<1.0	0.0006	< 0.001	0.001	0.002	< 0.0005		
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SB-5 7/7/2006 30 590 0.64 0.80 8.4 35 < 0.062													
	SB-5	7/7/2006	32			980	14	60	34	180	<0.062		

TABLE 2

CUMULATIVE SOIL ANALYTICAL DATA FORMER CHEVRON SERVICE STATION 95607 5269 CROW CANYON ROAD CASTRO VALLEY, CALIFORNIA

Sample ID	Date	Depth	TOG	TPHd	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	Lead	Notes
		fbg				Con	centrations	in mg/kg				
ESL												
Table G	Soil Leaching Water Re	,	NE	83	83	0.044	2.9	3.3	2.3	0.023	NE	
Table K-1	Direct Ex Reside		370	100	100	0.12	63	2.3	31	30	260	
Table K-2	Direct Ex Commercial		3,700	450	450	0.27	210	5.0	100	65	750	
Table K-3	Direct Ex Construction Work	on-Trench	12,400	4,200	4,200	12	650	210	420	2,800	750	

Notes:

mg/kg = Milligrams per kilogram

<x = Indicates chemical not detected at or above reporting limit x</p>

fbg = Feet below grade

ND = Non-detect

-- = Not analyzed for this constituent

ESL = Environmental Screening Level, California Regional Water Quality Control Board - San Francisco Bay Region's Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater, Interim Final - November 2007 (Revised May 2008).

Bold = Concentration exceeds California Regional Water Quality Control Board ESL

100 = Excavated sample location

NE = Not established

TOG = Total oil and grease

TPHd = Total petroleum hydrocarbons quantified as diesel

TPHg = Total petroleum hydrocarbons quantified as gasoline

MTBE = Methyl-tertiary butyl ether

2006 samples

Total petroleum hydrocarbons as gasoline (TPHg) by EPA Method 8015M Benzene, toluene, ethylbenzene and xylenes (BTEX) by EPA Method 8260B Methyl tertiary butyl ether (MTBE) by EPA Method 8260B

1996 samples

TPHg by Modified EPA Method 8015 BTEX by EPA Method 8020

1990 samples

TPHg by EPA Method 3550/8015 BTEX by EPA Method 5020/8015/8020 Lead by California LUFT Manual, 12/87 Total oil and grease (TOG) by SM 503 D&E TABLE 3 Page 1 of 2

CUMULATIVE SOIL VAPOR ANALYTICAL DATA FORMER CHEVRON STATION 95607 5269 CROW CANYON ROAD CASTRO VALLEY, CALIFORNIA

Sample ID	Date	Depth (feet)	Benzene	<i>Toluene</i> parts per billion l	Ethyl- benzene oy volume (p	Total Xylenes	Oxygen	Carbon Dioxide %	Methane
ESL Tabl Shallow	e E-2, Residen Soil Gas	itial	84 (26)*	63,000 (16,719)*	980 (226)*	21,000 (4,836)*	NE	NE	NE
Shallow	e E-4, Residen Soil Gas - Usi ion Factors		42 (13)*	31,000 (8,227)*	490 (113)*	10,000 (2,303)*	NE	NE	NE
SV-1	8/19/1996	3	<4.3	<4.3	<4.3	<8.6	22	0.076	<0.002
SV-2	8/19/1996	8	<6.1	<6.1	<6.1	<12.2	1.4	28	0.010
SV-3 SV-3	8/19/1996 8/20/1996	8 25	<4.4 2,100	7.6 3,800	<4.4 680	6.7 2,300	21 21	0.25 0.58	<0.002 0.004
SV-4 SV-4 SV-4 SV-4	8/20/1996 8/20/1996 8/20/1996 8/20/1996 8/20/1996	3 8 11 25 25	<4.3 <4.2 <4.2 38,000 39,000	<4.3 <4.2 6.0 140,000 140,000	<4.3 <4.2 <4.2 20,000 22,000	<4.6 5.7 <8.4 83,000 87,000	14 21 21 21 21	9.3 0.35 0.80 0.37 0.35	<0.002 <0.002 0.007 0.002 0.002
SV-4 DOI	8/20/1996	12	6.2	32	11	39	22	0.091	<0.002
SV-6	8/20/1996	3	29	42	6.4	25.4	0.51	0.054	0.005
SV-7	8/20/1996	3	<4.2	5.1	<4.2	6.8	21	0.47	<0.002
SV-8	8/20/1996	3	40	83	9.5	59	19	3.6	<0.002
SV-9	7/30/1998	3	<4.0	4.7	<4.0	<4.0	NA	NA	NA
SV-10	7/30/1998	3	6.9	<3.9	<3.9	<3.9	NA	NA	NA
SV-11	7/30/1998	3	<4.0	<4.0	<4.0	<4.0	NA	NA	NA
SV-12	7/30/1998	6	<3.9	<3.9	<3.9	<3.9	NA	NA	NA
SV-13	7/30/1998	6.5	<4.0	<4.0	<4.0	<4.0	NA	NA	NA
SV-14	7/30/1998	6	<4.0	<4.0	<4.0	<4.0	NA	NA	NA
SV-15	7/30/1998	6	<4.0	<4.0	<4.0	<4.0	NA	NA	NA
SV-16	7/30/1998	6	<4.0	<4.0	<4.0	<4.0	NA	NA	NA

TABLE 3 Page 2 of 2

CUMULATIVE SOIL VAPOR ANALYTICAL DATA FORMER CHEVRON STATION 95607 5269 CROW CANYON ROAD CASTRO VALLEY, CALIFORNIA

Sample ID	Date	Depth (feet)	Benzene	<i>Toluene</i> parts per billion l	Ethyl- benzene by volume (p	Total Xylenes	Oxygen	Carbon Dioxide %	Methane
ESL Table Shallow So	•	ential	84 (26)*	63,000 (16,719)*	980 (226)*	21,000 (4,836)*	NE	NE	NE
ESL Table Shallow So Attenuation	oil Gas - Us		42 (13)*	31,000 (8,227)*	490 (113)*	10,000 (2,303)*	NE	NE	NE

Notes:

Benzene, toluene, ethylbenzene and total xylenes (BTEX) Modified EPA Method TO-14

x =Indicates chemical not detected at or above reporting limit x =

Environmental Concerns at Sites with Contaminated Soil and Groundwater, Interim Final November 2007 (Revised May 2008).

NA = Not analyzed

NE = Not established

Bold = Concentration exceeds California Regional Water Quality Control Board ESL

^{*} Initial number is in micrograms per cubic meter as quoted by SF-RWQCB (converted to ppbv using Air Toxics Units Conversion Calculator (http://www.airtoxics.com/cclasses/unitcalc.html))

TABLE 4 Page 1 of 1

GRAB-GROUNDWATER ANALYTICAL DATA FORMER CHEVRON SERVICE STATION 95607 5269 CROW CANYON ROAD CASTRO VALLEY, CALIFORNIA

Sample ID ES	Date SL	ТРНд	Benzene	Toluene microgran	Ethylbenzene ns per liter (μg/L)	Xylenes	МТВЕ
Table F-1A: Po Drinking Wate		100	1	40	30	20	5
Table E-1: Potential Vapor Intrusion Concerns for Residential Use		Use Soil Gas	540	380,000	170,000	160,000	24,000
SV-1 (WS-1)	8/19/1996	610	28	8.2	25	100	NA

Notes:

fbg = feet below grade

TPHg = Total petroleum hydrocarbons as gasoline analyzed by EPA Method 8015.

Benzene, toluene, ethylbenzene, and xylenes (BTEX) analyzed by EPA Method 8020.

MTBE = Methyl tertiary butyl ether

-- = Not analyzed/not applicable

NA = Not Analyzed

<x = Not detected above laboratory reporting limit x.

ESL = Environmental Screening Levels, San Francisco Regional Water Quality Control Board, Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater, Interim Final November 2007 (Revised May 2008)

Bold = Concentration exceeds California Regional Water Quality Control Board ESL

APPENDIX A REGULATORY CORRESPONDENCE

ALAMEDA COUNTY HEALTH CARE SERVICES

AGENCY

ALEX BRISCOE, Agency Director



June 7, 2012

ENVIRONMENTAL HEALTH SERVICES ENVIRONMENTAL PROTECTION 1131 Harbor Bay Parkway, Suite 250 Alameda, CA 94502-6577 (510) 567-6700 FAX (510) 337-9335

NOTICE TO COMPLY

Mr. Ian Robb Chevron Corporation 6101 Bollinger Canyon Road San Ramon, CA 94583 (sent via electronic mail to: ianrobb@chevron.com) Kevin & Julia Hinkley Kevin Hinkley Service 5269 Crow Canyon Road Castro Valley, CA 94552

Subject:

Notice to Comply; Fuel Leak Case No. RO0000350 and GeoTracker Global ID T0600100344, Chevron #9-5607, 5269 Crow Canyon Road, Castro Valley, CA 94552

Dear Mr. Robb, and Mr. and Ms. Hinkley:

Alameda County Environmental Health (ACEH) staff has reviewed the case file for the above referenced site including the *Site Status Update*, dated January 26, 2010, the *Site Status Update*, dated August 17, 2010, and the *First Semi-Annual 2012 Groundwater Monitoring and Sampling Report*, dated February 27, 2012. The reports were prepared and submitted on your behalf by Conestoga-Rovers & Associates (CRA). A document entitled *Two-Phase Extraction Pilot Test Report*, dated July 12, 2005 documented an apparently successful pilot test (conducted in October 2003) of this remedial technology and reported that a minimum radius of influence of over 30 feet was achieved with less than 1 gallon of groundwater extracted. The July 2005 report also reported a significant residual contaminant mass.

An August 2005 directive letter expressed concern about the delay in reporting of the results and the lack of a submitted Remedial Action Plan. This directive letter also requested a groundwater sampling transect between C-16 to C-15, to protect Crow Creek from direct discharges, and a Site Conceptual Model (SCM). Due dates for a Remedial Action Plan, the transect work plan, and the initial SCM were set in the directive letter. A work plan submitted in June 2006 proposed additional bores around the former UST complex for the purpose of refining the remedial area of concern. Ultimately a Remedial Action Plan was submitted in January 2007 and modified the remedial technology to Dual-Phased Extraction (DPE). In a directive letter in February 2007, ACEH approved the remedial action and requested a remedial action report 60 days after installation of the DPE.

While remedial work design has progressed, to this date implementation has been stalled for multiple years. These delays are apparently related to concern regarding the location of a remedial compound. Please note that all responsible parties are jointly and severally liable to implement corrective actions. The delays in remedial implementation are not justified nor acceptable. While ACEH notes significant more recent declines in groundwater concentrations in offsite well C-9, the migration pathways for contamination have not been evaluated nor has an SCM been submitted. This site is out of compliance with ACEH directives.

Implementation of site characterization and/or cleanup at this site is necessary to be protective of human health and the environment and to move this case towards completion. Please note that as Responsible Parties, you are required by California Code of Regulations, Title 23, Division 3, Chapter 16, Article 11, §2720 through §2728 to characterize the site and implement corrective action. In order to regain compliance with directives from this agency, please complete the work requested below and submit the identified reports by the dates listed below. Failure to submit the requested documents by the due dates specified below may result in issuance of a Notice of Violation and possible enforcement action by the District Attorney and/or ineligibility for reimbursement of corrective action costs incurred at the site from

Mr. Robb, and Mr. and Ms. Hinkley RO0000350

June 7, 2012, Page 2

the Underground Storage Tank Cleanup Fund. Furthermore, ACEH may recommend removal of this site from the Underground Storage Tank Cleanup Fund.

Based on ACEH staff review of the case file, we request that you address the following technical comments and send us the reports described below.

TECHNICAL COMMENTS

- 1) Request for Implementation of Interim Remedial Action Residual groundwater concentrations up to 35,000 μg/l TPHg and 15,000 μg/l benzene are present offsite in offsite well C-6. Groundwater in onsite well C-3 contains up to 46,000 μg/l TPHg and 9,000 μg/l benzene. Non-cooperative property owners not only can retain future financial liability for contamination that exists beneath the property vicinity, but also current financial liability, and can be required to financially participate in site investigations and remedial action. ACEH requests that a final compound location selection be immediately prioritized and that ACEH be informed that remedial actions have been implemented by the date identified below.
- 2) Request for Work Plan Significant decreases in the dissolved-phase groundwater plume at well C-9 over the past approximately 1.5 years are apparent. This may preclude the need to install a bore transect between C-15 and C-16; however, it does appear appropriate to define the lateral and vertical extent of the groundwater plume between C-9 and C-12, a distance of approximately 85 to 90 feet. This is intended to be protective of the residential units immediately downgradient of these well locations, and may address the data gap associated with potential direct discharges to Crow Creek. As a consequence, please submit a work plan for this task by the date identified below. Data gaps currently known can dovetailed with this work plan, or if identified in the SCM (requested below), can be addressed at a later time.
- 3) Request for Preferential Pathway Study As you are aware, the purpose of a preferential pathway study is to locate potential migration pathways and conduits and determine the probability of a groundwater plume encountering preferential pathways and conduits that could spread contamination.

ACEH is aware that a limited utility survey (sanitary sewer only) was conducted and reported on in the August 1997 *Vapor Pathway Survey;* however, the data is limited. Additionally ACEH has located a written notation concerning the presence of an unknown well located, or previously located, on the immediately downgradient parcel. The notation dates from 2008, at about the time of the destruction of well C-15, so is presumed not to be one of the wells installed by Chevron. As a consequence, ACEH requests that you perform a preferential pathway study that details the potential migration pathways and potential conduits (utilities, utility laterals, pipelines, foundational, and etc.) for vertical and lateral migration that may be present in the vicinity of the site.

Discuss your analysis and interpretation of the results of the preferential pathway study (including the well survey and utility survey requested below) and report your results in the report requested below. The results of your study shall contain all information required by California Code of Regulations, Title 23, Division 3, Chapter 16, §2654(b). ACEH requests that this available information be utilized and that it be augmented with onsite, or site vicinity, utility lateral locations, including utility invert depths. ACEH has found that the location of utility laterals can be of import in vadose zone contaminant migration.

- a. Utility Survey An evaluation of all utility lines, utility laterals, and trenches (including sewers, storm drains, pipelines, trench backfill, foundation backfill, etc.) within and near the site and plume area(s) is required as part of your study. Please reduce, and synthesize available information and maps, and generate appropriate (vicinity and / or site specific) maps and cross-sections illustrating the location and depth of all utility lines and trenches within and near the site and plume areas(s) as part of your study.
- b. Well Survey The preferential pathway study is requested to include a well survey of all wells (monitoring and production wells: active, inactive, standby, decommissioned (sealed

Mr. Robb, and Mr. and Ms. Hinkley RO0000350 June 7, 2012, Page 3

with concrete), abandoned (improperly decommissioned or lost); and dewatering, drainage, and cathodic protection wells) within a ¼ mile radius of the subject site.

- 4) Request for an SCM The SCM for the site is overdue, and will be required by the new Low-Threat Policy, once implemented. Identification of data gaps in the SCM is appropriate and required. As a consequence ACEH requests the submittal of an initial SCM by the date identified below.
- 5) Groundwater Monitoring Groundwater monitoring at recovery well RW-1 has not been conducted since January 1996, at which time the concentration of benzene was higher than near source wells C-6 and C-3. As a consequence, ACEH requests the incorporation of this well into the semi-annual groundwater monitoring currently conducted at the site, and the reporting of any and all sampling or product removal events since that time.

TECHNICAL REPORT REQUEST

Please submit technical reports to Alameda County Environmental Health (Attention: Mr. Mark Detterman), according to the following schedule:

- July 20, 2012 Notification of Remedial Action Implementation
- August 10, 2012 Work Plan and Preferential Pathway Study
- August 31, 2012 SCM
- 60 Days After Work Plan Approval Soil and Groundwater Investigation Report
- September 28, 2012 Second Semiannual 2012 Groundwater Monitoring Report
- March 1, 2013 First Semiannual 2013 Groundwater Monitoring Report

These reports are being requested pursuant to California Health and Safety Code Section 25296.10. 23 CCR Sections 2652 through 2654, and 2721 through 2728 outline the responsibilities of a responsible party in response to an unauthorized release from a petroleum UST system, and require your compliance with this request.

Should you have any questions, please contact me at (510) 567-6876 or send me an electronic mail message at mark.detterman@acgov.org.

Sincerely,

Enclosures:

Mark E. Detterman, PG, CEG

Senior Hazardous Materials Specialist

Digitally signed by Mark E. Detterman DN: cn=Mark E. Detterman, o, ou, email,

c=US Date: 2012.06.07 14:26:53 -07'00'

Attachment 1 – Responsible Party (ies) Legal Requirements / Obligations

Electronic Report Upload (ftp) Instructions

cc: Kiersten Hoey, Conestoga-Rovers & Assoc., 5900 Hollis Street, Suite A, Emeryville, CA 94608 (sent via electronic mail to khoey@craworld.com)

Greg Barclay, Conestoga-Rovers & Associates, 10969 Trade Center Drive, Suite 107, Rancho Cordova, CA 95670; (sent via electronic mail to: GBarclay@CRAworld.com)

Donna Drogos, ACEH, (sent via electronic mail to donna.drogos@acgov.org)
Mark Detterman, ACEH, (sent via electronic mail to mark.detterman@acgov.org)
Geotracker, Electronic File

Attachment 1

Responsible Party(ies) Legal Requirements/Obligations

REPORT REQUESTS

These reports are being requested pursuant to California Health and Safety Code Section 25296.10. 23 CCR Sections 2652 through 2654, and 2721 through 2728 outline the responsibilities of a responsible party in response to an unauthorized release from a petroleum UST system, and require your compliance with this request.

ELECTRONIC SUBMITTAL OF REPORTS

ACEH's Environmental Cleanup Oversight Programs (LOP and SLIC) require submission of reports in electronic form. The electronic copy replaces paper copies and is expected to be used for all public information requests, regulatory review, and compliance/enforcement activities. submission of electronic documents to the Alameda County Environmental Cleanup Oversight Program FTP site are provided on the attached "Electronic Report Upload Instructions." Submission of reports to the Alameda County FTP site is an addition to existing requirements for electronic submittal of information to the State Water Resources Control Board (SWRCB) GeoTracker website. In September 2004, the SWRCB adopted regulations that require electronic submittal of information for all groundwater cleanup programs. For several years, responsible parties for cleanup of leaks from underground storage tanks (USTs) have been required to submit groundwater analytical data, surveyed locations of monitoring wells, and other data to the GeoTracker database over the Internet. Beginning July 1, 2005, these same reporting requirements were added to Spills, Leaks, Investigations, and Cleanup (SLIC) sites. Beginning July 1, 2005, electronic submittal of a complete copy of all reports for all sites is required in GeoTracker Please visit the SWRCB website for more information on these requirements (in PDF format). (http://www.waterboards.ca.gov/water_issues/programs/ust/electronic_submittal/).

PERJURY STATEMENT

All work plans, technical reports, or technical documents submitted to ACEH must be accompanied by a cover letter from the responsible party that states, at a minimum, the following: "I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge." This letter must be signed by an officer or legally authorized representative of your company. Please include a cover letter satisfying these requirements with all future reports and technical documents submitted for this fuel leak case.

PROFESSIONAL CERTIFICATION & CONCLUSIONS/RECOMMENDATIONS

The California Business and Professions Code (Sections 6735, 6835, and 7835.1) requires that work plans and technical or implementation reports containing geologic or engineering evaluations and/or judgments be performed under the direction of an appropriately registered or certified professional. For your submittal to be considered a valid technical report, you are to present site specific data, data interpretations, and recommendations prepared by an appropriately licensed professional and include the professional registration stamp, signature, and statement of professional certification. Please ensure all that all technical reports submitted for this fuel leak case meet this requirement.

UNDERGROUND STORAGE TANK CLEANUP FUND

Please note that delays in investigation, later reports, or enforcement actions may result in your becoming ineligible to receive grant money from the state's Underground Storage Tank Cleanup Fund (Senate Bill 2004) to reimburse you for the cost of cleanup.

AGENCY OVERSIGHT

If it appears as though significant delays are occurring or reports are not submitted as requested, we will consider referring your case to the Regional Board or other appropriate agency, including the County District Attorney, for possible enforcement actions. California Health and Safety Code, Section 25299.76 authorizes enforcement including administrative action or monetary penalties of up to \$10,000 per day for each day of violation.

Alameda County Environmental Cleanup Oversight Programs (LOP and SLIC)

REVISION DATE: July 20, 2010

ISSUE DATE: July 5, 2005

PREVIOUS REVISIONS: October 31, 2005; December 16, 2005; March 27, 2009; July 8, 2010

SECTION: Miscellaneous Administrative Topics & Procedures

SUBJECT: Electronic Report Upload (ftp) Instructions

The Alameda County Environmental Cleanup Oversight Programs (LOP and SLIC) require submission of all reports in electronic form to the county's ftp site. Paper copies of reports will no longer be accepted. The electronic copy replaces the paper copy and will be used for all public information requests, regulatory review, and compliance/enforcement activities.

REQUIREMENTS

- Please do not submit reports as attachments to electronic mail.
- Entire report including cover letter must be submitted to the ftp site as a single portable document format (PDF) with no password protection.
- It is preferable that reports be converted to PDF format from their original format, (e.g., Microsoft Word) rather than scanned.
- Signature pages and perjury statements must be included and have either original or electronic signature.
- <u>Do not</u> password protect the document. Once indexed and inserted into the correct electronic case file, the
 document will be secured in compliance with the County's current security standards and a password.
 <u>Documents with password protection will not be accepted.</u>
- Each page in the PDF document should be rotated in the direction that will make it easiest to read on a computer monitor.
- Reports must be named and saved using the following naming convention:

RO# Report Name Year-Month-Date (e.g., RO#5555_WorkPlan_2005-06-14)

Submission Instructions

- 1) Obtain User Name and Password
 - a) Contact the Alameda County Environmental Health Department to obtain a User Name and Password to upload files to the ftp site.
 - i) Send an e-mail to deh.loptoxic@acgov.org
 - b) In the subject line of your request, be sure to include "ftp PASSWORD REQUEST" and in the body of your request, include the Contact Information, Site Addresses, and the Case Numbers (RO# available in Geotracker) you will be posting for.
- 2) Upload Files to the ftp Site
 - a) Using Internet Explorer (IE4+), go to ftp://alcoftp1.acgov.org
 - (i) Note: Netscape, Safari, and Firefox browsers will not open the FTP site as they are NOT being supported at this time.
 - b) Click on Page located on the Command bar on upper right side of window, and then scroll down to Open FTP Site in Windows Explorer.
 - c) Enter your User Name and Password. (Note: Both are Case Sensitive.)
 - d) Open "My Computer" on your computer and navigate to the file(s) you wish to upload to the ftp site.
 - e) With both "My Computer" and the ftp site open in separate windows, drag and drop the file(s) from "My Computer" to the ftp window.
- 3) Send E-mail Notifications to the Environmental Cleanup Oversight Programs
 - a) Send email to deh.loptoxic@acgov.org notify us that you have placed a report on our ftp site.
 - b) Copy your Caseworker on the e-mail. Your Caseworker's e-mail address is the entire first name then a period and entire last name @acgov.org. (e.g., firstname.lastname@acgov.org)
 - c) The subject line of the e-mail must start with the RO# followed by **Report Upload**. (e.g., Subject: RO1234 Report Upload). If site is a new case without an RO#, use the street address instead.
 - d) If your document meets the above requirements and you follow the submission instructions, you will receive a notification by email indicating that your document was successfully uploaded to the ftp site.

APPENDIX B

SUMMARY OF ENVIRONMENTAL INVESTIGATION AND REMEDIATION

SUMMARY OF ENVIRONMENT INVESTIGATION AND REMEDIATION FORMER CHEVRON STATION 95607 CASTRO VALLEY

1985 Tank Leak

A fuel underground storage tank (UST) and associated product piping, installed in 1971, were removed after failing a tightness test. According to Chevron's leak report, no product was observed in the tank excavation or on the water table. Inventory discrepancies from September 1984 to February 26, 1985 indicated an estimated loss of approximately 670 gallons of regular gasoline. No additional information is available.

March 1985 Monitoring Well Installation

Groundwater Technology, Inc. (GTI) installed wells C-1 through C-8 to determine the extent of hydrocarbons in groundwater. There is no documentation that soil samples collected from the well borings were submitted for laboratory analysis. Light non-aqueous phase liquid (LNAPL) was detected in wells C-1 and C-3. Additional information available in GTI's April 1, 1985 *Monitoring Well Results*.

May 1985 Remediation Well Installation

GTI installed 10-inch recovery well RW-1 near well C-6 using an 18-inch bucket auger. GTI also installed well C-9 downgradient of the recovery well. A groundwater extraction and treatment system (GWET) using a ½ horsepower water table depression pump was installed in RW-1 to create a cone of depression and induce LNAPL flow to RW-1. A 200-gallon carbon vessel was installed to treat extracted groundwater prior to storm sewer discharge. GTI concluded that the system's effectiveness was limited by the low permeability clay underlying the site and low extraction rate averaging 0.2 gallons per minute. Site wells were monitored and bailed bi-weekly while the system was operating. As of October 1987, GTI recorded 32 gallons of LNAPL removed. The system appeared to run in this configuration through 1988 (GTI's April 13, 1988 Update Report). No data is available for system operation from 1988 to 1990. Well Installation details are available in GTI's 1985 Gasoline Recovery Report.

September 1989 Soil Vapor Investigation

Pacific Environmental Group Inc. (PEG) installed 16 onsite exploratory soil probes and collected soil vapor data from depths between 8 and 20 fbg. Data presented herein is based on a PEG letter dated May 8, 1990. No investigation report was located.

February 1990 Monitoring Well Installation

PEG installed offsite wells C-10A, C-10B, and C-11 through C-16 to assess groundwater conditions crossgradient and downgradient of the site. Soil samples were only collected from wells C-12, C-13, and C-15. Data presented herein is based on a PEG letter dated May 8, 1990. No investigation report was located.

March 1990 Remediation System Upgrades

Chemical Processors, Inc. (Chempro) installed a GWET with pumps in RW-1 and C-9 and water treatment using an oil/water separator and air stripper. It appears the system operated in this

configuration through May 25, 1995. Additional information is available in Geraghty & Miller Inc.'s June 22, 1992 letter titled *Response to Regional Water Quality Control Board Inquiry*.

October 1990 UST Removal and Compliance Sampling

Blaine Tech collected soil samples following the removal of three 10,000 gallon fiberglass USTs and product piping. Soil samples AF(#2), AOP(#1), BF(#6), BOP(#3), CF(#5), and COP(#4) were collected from beneath the ends of the USTs at depths ranging from 15 to 18 fbg. An additional 300 cubic yards of hydrocarbon-bearing soil were excavated from the UST pit, and confirmation samples AF(#7), AOP(#4), BOP(#1), CF(#1), COP(#3), and COP(#2) were collected at depths ranging from 18 to 22.5 fbg. No TPHg or benzene were detected in soil samples PL(#7) and PL(#8) collected beneath the product piping. Additional information is available in Blaine Tech's October 24, 1990 *Tank Removal* report.

August 1996 Soil Vapor Sampling

Weiss Associates (Weiss) collected 12 soil vapor samples from temporary soil vapor probes SV-1 through SV-8. One sample was collected from SV-1, SV-2, SV-5, SV-6, SV-7, and SV-8, two samples were collected from SV-3 at 8 and 25 fbg, and four samples were collected from SV-4 at 3, 8, 11, and 25 fbg. The highest soil vapor concentrations were detected in SV-3 and SV-4 at 25 fbg. Soil samples were collected from each soil vapor boring and a grab-groundwater samples was collected from boring SV-1 at 23 fbg. Hydrocarbons were only detected in saturated soil. Additional details are presented in Wiess's January 20, 1997 *Soil Vapor Survey Sampling Report*.

June 1997 Vapor Pathway Survey

Weiss conducted a vapor pathway survey to identify possible preferential vapor transport pathways that may intersect condominium units in the Forest Creek Townhomes complex located on Waterford Place in Castro Valley. The survey consisted of collecting parcel plans from the City of Castro Valley Building Department (CVBD) and contacting utility services to determine the locations and depths of underground conduits in the vicinity of Townhome units 1 through 9. Weiss determined that preferential vapor transport was unlikely to be present at the Forest Creek Townhomes. Impacted groundwater and soil is several feet deeper than the conduits identified in this survey. Additionally, in September 1996, WA conducted a well survey within ½-mile radius of the site by contacting Alameda County Department of Public Works for the location of water supply wells. No water supply wells were identified, and WA concluded installation of future water supply wells was unlikely due to the current use and availability of municipal water. Additional details are presented in Weiss' August 8, 1997 *Vapor Pathway Survey*.

July 1998 Soil Vapor Survey

Weiss installed temporary vapor probes SV-9 through SV-16 along the sanitary sewer trench beneath Waterford Place. One soil vapor sample was collected from each probe at depths ranging from 3 to 6.5 fbg to investigate whether a preferential vapor pathway may intersection Townhomes Unit #1. Based on the soil vapor data, Weiss concluded there is no preferential vapor pathway into Townhomes Unit #1 or other units from the sewer line. Additional details are presented in Weiss' May 31, 2000 *Project Summary*.

May 2000 Corrective Action Plan

Weiss submitted a Corrective Action Plan (CAP) recommending bailing LNAPL, installing ORC socks in plume centerline wells and quarterly groundwater monitoring. The plume length was estimated to be approximately 200 feet and plume centerline wells were identified as C-3, C-6, C-9, and C-15. More information is available in Weiss' May 31, 2000 *Corrective Action Plan*.

July 2001 Offsite Well Destruction

Delta Environmental (Delta) destroyed wells C-10A and C-10B by pressure grouting with neat cement grout to facilitate the sale of County owned property downgradient of the site. More information is available in Delta's August 31, 2001 Well Destruction Report.

2002 Interim Remedial Action Proposal

Delta proposed a short-term high vacuum two-phase extraction (TPE) event on well C-3 as the most cost effective remedial alternative. Decreasing TPHg and benzene concentration trends were observed in wells upgradient, crossgradient, and downgradient of the source area, indicating the plume was naturally attenuating. More information is available in Delta's September 23, 2002 Source Area Assessment and Proposed Work and November 22, 2002 Evaluation of Plume Length and Impacts to Crow Creek.

October 2003 Pilot Test

Cambria Environmental Technology, Inc. (Cambria) conducted a TPE pilot test. The pilot test was originally scheduled to be performed for five days, but was extended for a total of twelve days to collect additional system performance data to better evaluate possible full-scale TPE system installation. TPE pilot test equipment consisted of a 400 cubic foot per minute thermal/catalytic oxidizer operating in thermal mode. Cambria concluded that TPE could be a viable remedial option for the site based on water table drawdown and vapor-phase hydrocarbon removal rates. Additional information is available in Cambria's July 12, 2005 *Two-Phase Extraction Pilot Test Report*.

July 2006 Subsurface Investigation

Cambria advanced soil boring SB-1 adjacent to well C-6, and soil borings SB-2 through SB-5 adjacent to the former fuel UST pit to assess residual hydrocarbons in soil. Additional information is available in Cambria's October 25, 2006 Subsurface Investigation Report.

January 2007 Remedial Action Plan

Cambria proposed dual-phase extraction (DPE), a form of multi-phase extraction using in-well pumps to extract groundwater, as the most viable and cost-effective method to remediate the site. DPE was more technically feasible then TPE given the increased distances from the proposed remediation compound to the proposed extraction wells. More information is available in Cambria's January 8, 2007 *Remedial Action Plan*.

September 2008 Offsite Well Destruction

CRA destroyed offsite well C-15 to assist with redevelopment construction. The adjacent property was originally owned by Alameda County when the well was installed, but the property has since been sold to the current landowner, who planned to develop the property with single family homes. The well was pressure grouted and the upper portions of the well

were removed. <i>Report</i> .	Additional information is available in CRA's December 3, 2008 Well Destruction
7	

APPENDIX C

BORING LOGS



TAL E I WELL LOGS

	on Necover	y Systems, i	Well Number 1	Drilling Log
Project Chevron/Cast	ro Valley	Owner		Sketch Map
Location 5269 Crow Ca	anyon Rd.	Project	Number <u>20-3231</u>	CROW CANYON RD.
			55' Diameter 4'' 42' 24-hrs. 23.26'	# Lata —
Screen: Dia4!!	Length _	30'	Slot Size JOZO	
Casing: Dia. 411	Length _	25 !_	Type <u>PVC</u>	Ň
			Method <u>HSA</u>	Notes
Driller <u>John/Doug</u>	· · · · · · · · · · · · · · · · · · ·	Log by	P.J. Walsh	
Depth (Feet) Well Construction Notes	Sample Number	Graphic Log		oil Classification re, Structures)
- 3''- - 4''- - 7'- -10 - - 20 - - 30 - -			Asphalt Gravel base (slight gas of Gray clay with gravel Brown clay with some grave Alternating layers of brocklay to 30 feet Intermittant moist clay a Initial depth to water Tighter gray brown clay, present Hit bedrock. Spoils indite bottom	vel own clay and graveley and gravel



Drilling Log Well Number _____2___ Project Chevron/Castro Valley Owner Sketch Map CROW CANYON RD Location 5269 Crow Canyon Rd. Project Number 20-3231 Date Drilled 3-6-85 Total Depth of Hole 46! Diameter 4!! Surface Elevation _____ Water Level, Initial _____ 24-hrs. ____26.10 ' Screen: Dia. 4" Length 25' Slot Size .020 Casing: Dia 4'' Length 21' Type PVC Notes Drilling Company Kleinfelder Drilling Method HSA Driller Paul/Doug P. Walsh _____ Log by (Feet) Notes Description/Soil Classification (Color, Texture, Structures) 411 Asphalt and concrete 6" Gravel base with brown soil 1' Gray brown soil 5 Gray soil 60% rounded pebbles Gray clay with pebbles Very dark gray clay with occasional white dust Slight odor at 10 feet Reddish brown clay with some pebbles 20 Light brown dry soil with rounded pebbles, slight 23 odor .25 Intermittant layers of gravel and light brown clayey soils with auger occasionally bringing up very moist clay. Bedrock reached at 35 feet 30 35 Bedrock BOTTOM OF WELL Refusal

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Division of Oil Recovery Systems, Inc. **Drilling Log** Well Number_ Project Chevron/Castro Valley Owner Sketch Map CROW CANYON RD. Location 5269 Crow Canyon Rd. Project Number 20-3231 Date Drilled 3-6-85 Total Depth of Hole 55' Diameter ______ Water Level, Initial ______ 24-hrs. __26.301 4". 30' _____ Slot Size ___.020 Screen: Dia. 4 25' 4" ___Type ____PVC Length **Notes** Drilling Company Kleinfelder **HSA** __ Drilling Method __ P.Walsh Driller Paul/Doug _ Log by __

Depth (Feet)	Well Construction	Notes	Sample Number	Graphic Log	Description/Soil Classification (Color, Texture, Structures)
- 4'' - 1'					Asphalt Gravel
					Dark gray clay
-10 -					
15					Continue dark gray clayey soil
-20 - 					Reddish brown clayey soil
					Light brown clayey soil
					Slight odor at 25 feet
-30 - 					
			·		
					·
-40 - 					
 -50 -					Pulled augers indicate moist clay from 30 feet
					to wet clay at 40 feet to bottom of well at 55.
- <u> </u> -					·

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Page 1 of 1



Drilling Log Well Number ____ Sketch Map Project Chevron/Castro Valley Owner CROW CANYON RD. Location 5269 Crow Canyon Rd. Project Number 20-3231 Date Drilled 3-9-85 Total Depth of Hole 35' Diameter FENCE-_ Water Level, Initial <u>17.80</u> 24-hrs. _____ Surface Elevation ____ Slot Size ___020_ 25' Screen: Dia. ___ 4" Length ______10' Type PVC Casing: Dia. Notes Drilling Company Kleinfelder Drilling Method HSA __Log by __P. Walsh_ Well Construction Graphic Log Sample Number Notes **Description/Soll Classification** Depth ((Color, Texture, Structures) Dark brown soil 2 Light brown sandy soil Light brown soil with some gravel 7 Dark brown clayey soil 8 Dark gray clay 10 15 Dark brown clay Very wet light brown mud 18 20 Rejection in gray weathered shale α

6	GROUNDWATER
	TECHNOLOGY
	Division of Oil Recovery Systems, Inc.

Well Number_

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Project Chevron/Castro Valley Owner CROW CANYON RD								
Location 5269 Crow Canyon Rd. Project Number 20–3231 CROW CANYON RD								
Date Drilled3_9_85T	otal Depth	of Hole .						
			25!24-hrs					
Screen: Dia Length Slot Size								
Casing: Dia								
Drilling Company KLIENE	elder.	Drilling N	Nethod <u>HSA</u>					
DrillerLog by P. Walsh								
Depth (Feet) Well Construction Notes	Sample Number	Graphic Log	Description/Sc (Color, Textu	oil Classification re, Structures)				
- 3 ⁴ - 1 ⁴ - 3 5 7 10 11 15 20 25 35 35 45 45			Asphalt Reddish brown soil Clayey reddish soil with Clayey brown soil with Brown clay Dark brown clay Dark brown clay with gra Lighter brown clayey so Saturated light brown c	some gravel avel il				



Project Chevron/Castro Valley Owner Location 5269 Cross Canyon Rd. Project Number 20-3231 Date Drilled 3-14-85. Total Depth of Hole 35! Diameter 4! Surface Elevation Water Level, Initial 18.51! 24-hrs. Casing: Dia 4 Length 10! Type PVC Drilling Company Klein/felder Drilling Method HSA Driller Log by P. Walsh Driller Driller Log by P. Walsh Dark brown top soil Dark gray clay Lighter brown clay Lighter brown clay Initial depth to water Light brown clay water saturated Bottom of well.		ivision of Oil f	Recovery S		well Number6	Drilling Log				
Date Drilled 3-14-85. Total Depth of Hole 35! Diameter 4!! Surface Elevation Water Level, Initial 18.51! 24-hrs Screen: Dia. 4 Length 25! Stot Size JOZO Casing: Dia. 4 Length 10! Type PVC Drilling Company Kleindfelder Drilling Method HSA Driller Log by P. Walsh Description/Soil Classification (Color, Texture, Structures) Dark brown top soil Dark gray clay Lighter brown clay Initial depth to water Light brown clay water saturated	Project <u>Chevror</u>	/Castro	Vallev_		•					
Date Drilled 3_14_85. Total Depth of Hole 35! Diameter 4!! Surface Elevation Water Level, Initial 18_51! 24-hrs. Screen: Dia. 4 Length 25! Stot SizeOZO Casing: Dia. 4 Length 10! Type PVC Drilling Company Kleindfelder Drilling Method HSA Drilling Company						CROW CANYON RD.				
Screen Dia. 4 Length 25! Slot Size 020 Casing: Dia. 4" Length 10! Type PVC Drilling Company Kleindfelder. Drilling Method HSA Driller Log by P. Walsh Description/Soil Classification (Color, Texture, Structures) Dark brown top soil Dark gray clay Lighter brown clay Initial depth to water Light brown clay water saturated	•	-								
Casing: Dia 4 Length 10! Type PVC Notes Drilling Company Kleindfelder Drilling Method HSA Description/Soil Classification (Color, Texture, Structures) Description/Soil Classification (Color, Texture, Structures) Dark brown top soil Dark gray clay Lighter brown clay Initial depth to water Light brown clay water saturated										
Casing: Dia 4 Length 10! Type PVC Notes Drilling Company Kleindfelder Drilling Method HSA Description/Soil Classification (Color, Texture, Structures) Description/Soil Classification (Color, Texture, Structures) Dark brown top soil Dark gray clay Lighter brown clay Initial depth to water Light brown clay water saturated	Screen: Dia. 4	L	ength	25!_	Slot Size020	\				
Drilling Company Reindfelder Drilling Method HSA Log by P. Walsh Description/Soil Classification (Color, Texture, Structures) Dark brown top soil Dark gray clay Lighter brown clay Initial depth to water Light brown clay water saturated	Casing: Dia. 4"	L	ength	10!_	TypePVC					
Description/Soil Classification (Color, Texture, Structures) Dark brown top soil Dark gray clay Lighter brown clay Initial depth to water Light brown clay water saturated	Orilling Company Kleindfelder Drilling Method HSA									
Dark brown top soil Dark gray clay Lighter brown clay Initial depth to water Light brown clay water saturated	rillerLog by _P, Walsh									
Dark brown top soil Dark gray clay Lighter brown clay Initial depth to water Light brown clay water saturated	Depth (Feet) Well Construction	Notes	Sample Number	Graphic Log						
					Dark gray clay Lighter brown clay Initial depth to water Light brown clay water	saturated				
	1 11 1	1 1	1	. !						



		Division of On t	necoron, c	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Well Number 68	Drilling Log
Project .	Castro	Valley_		_ Owner .	Chevron	1 4
		•	•		Number	
					111 Diameter	1
					Slot Size	1
Casing: D	ia	L	.ength		Type	
Drilling Co	ompany S	ierra Pac	ific	_ Drilling I	Method <u>HSA</u>	Notes
					_P. Walsh	
Depth (Feet)	Well Construction	Notes	Sample Number	Graphic Log		Soil Classification ture, Structures)
- 3 ⁴ - 4 ⁴ - 6 ⁴ - 10 ⁻ - 11 ⁻ - 1	øW O		0, 2	Gra	Asphalt Gravel bed Brown sandy soil Sandy clay Refusal at 11 feet power limey dust Backfilled hole and re-	der on end of bit white -surfaced road



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Division of Oil Recovery Systems, Inc. **Drilling Log** Well Number _____7___ Sketch Map Project Chevron/Castro Calley Owner __ Location 5269 Crow Canyon Rd. Project Number 20-3231 Date Drilled 3-21-85 Total Depth of Hole 35! Diameter 2" Surface Elevation _____ Water Level, Initial _____ 24-hrs. ____ 15' Slot Size _020_ Screen: Dia. __2'' _____ Length __ Length 15' Type PVC Casing: Dia. Notes Drilling Company Latine Western Drilling Method HSA Driller _Mike/Mark_ __Log by __P. Walsh__ Graphic Log Notes **Description/Soil Classification** (Color, Texture, Structures) 411 Top soil with gravel 51 1' Light brown soil Dark brown clay Some gravel Back into dark brown clay 1" of wet clay Back into dark brown clay Lighter brown clay 20 Water 21 feet 28 Firmed up a bit, flowing water at 30 feet Bottom of well

Page.



Drilling Log Well Number _____8_ Sketch Map Project Chevron/Castro Valley Owner ___ CROW CANYON RD Location 5269 Crow Canyon Rd. Project Number . 20-3231 Date Drilled 3-21-85 Total Depth of Hole 29! Diameter 2!! Surface Elevation _____ Water Level, Initial __23_50! 24-hrs. __ _____ Length ________ Slot Size .020 Screen: Dia. __ Casing: Dia. 2" N _ Length ______ 91 ____ Type ____ PVC_ Notes Drilling Company Layne Western Drilling Method . HSA Driller Gunner ____Log by _P._Walsh

Asphalt over concrete light brown clayey soil light brown moist clay Dark brown moist clay Light brown sandy clayey fill (dry) mixed with some gravel at 13 feet Very sandy light brown slightly Clayey soil Tight clay Initial depth to water Weathered bedrock Bedrock rejection (gray shale)	Depth (Feet)	Well Construction	Notes	Sample Number	Graphic Log	Description/Soil Classification (Color, Texture, Structures)
	- 4'- - 5 - - 7 - - 8 - - 12- - 13- - 20- - 21- - 23- - 23- - 25- - 25- - 29- - 29-					Light brown clay Dark brown moist clay Light brown sandy clayey fill (dry) mixed with some gravel at 13 feet Very sandy light brown slightly Clayey soil Tight clay Initial depth to water

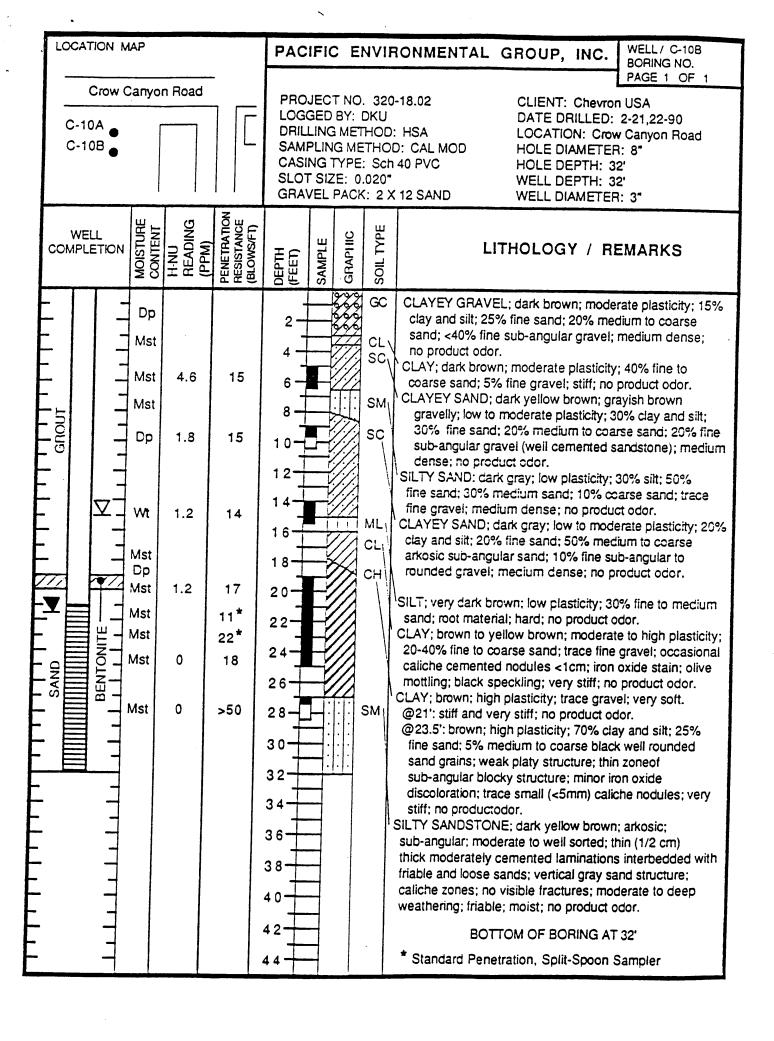


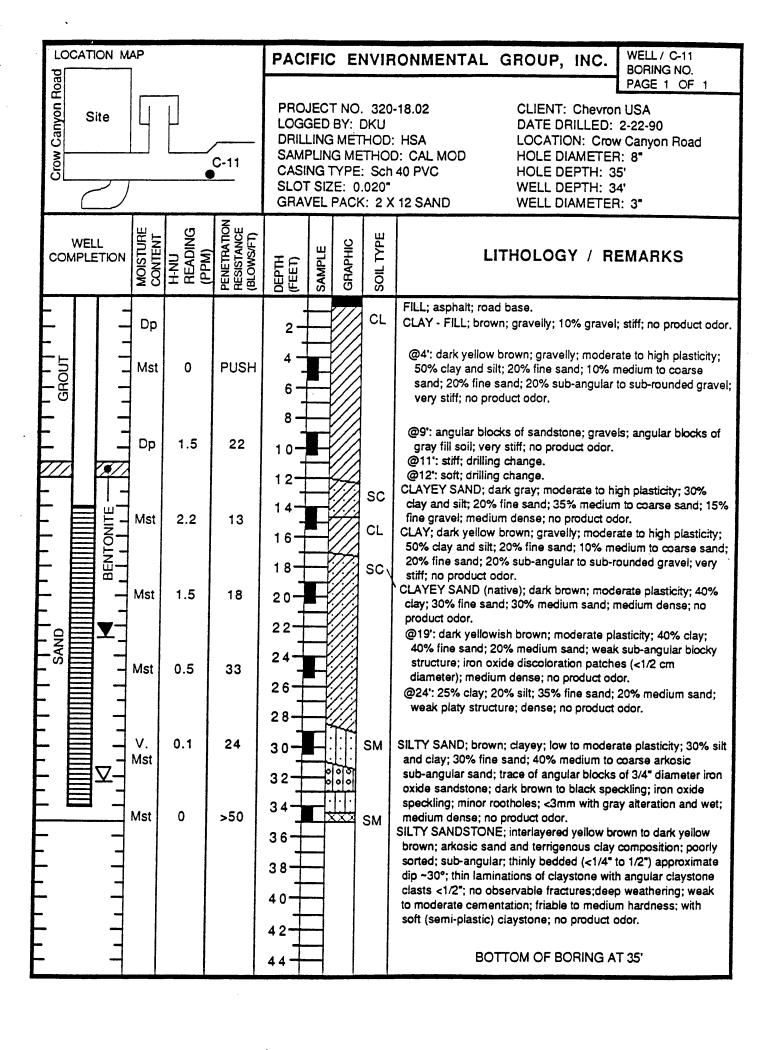
Drilling Log Well Number _____9 Project Chevron/Castro Valley Owner Chevron U.S.A. Sketch Map Location 5269 Crow Canyon Rd. Project Number 20-3231 Date Drilled 6-24-85 Total Depth of Hole 30 ft. Diameter 6-inch Surface Elevation _____ Water Level, Initial _____ 24-hrs. __ 25-feet Slot Size .020 in. 4-inch Length Casing: Dia. 4-inch Length 5-feet Type PVC Notes Drilling Company Sierra Pacific Drilling Method H.S. Auger Driller Lynn/Gary Log by B. Channell Sample Number Graphic I Description/Soll Classification (Color, Texture, Structures) . 0 0-6" top soil. 2 -Brown silty sand and gravel. 4. 6 -8 --10 -Brown silty clay with small gravel. -12 --14 --16 --18 --20 -Dark grey silty clay, gas odor. -22 --24 Green sandy clay, with gravel. -26 -28 Weathered grey shale, very hard in parts. -30

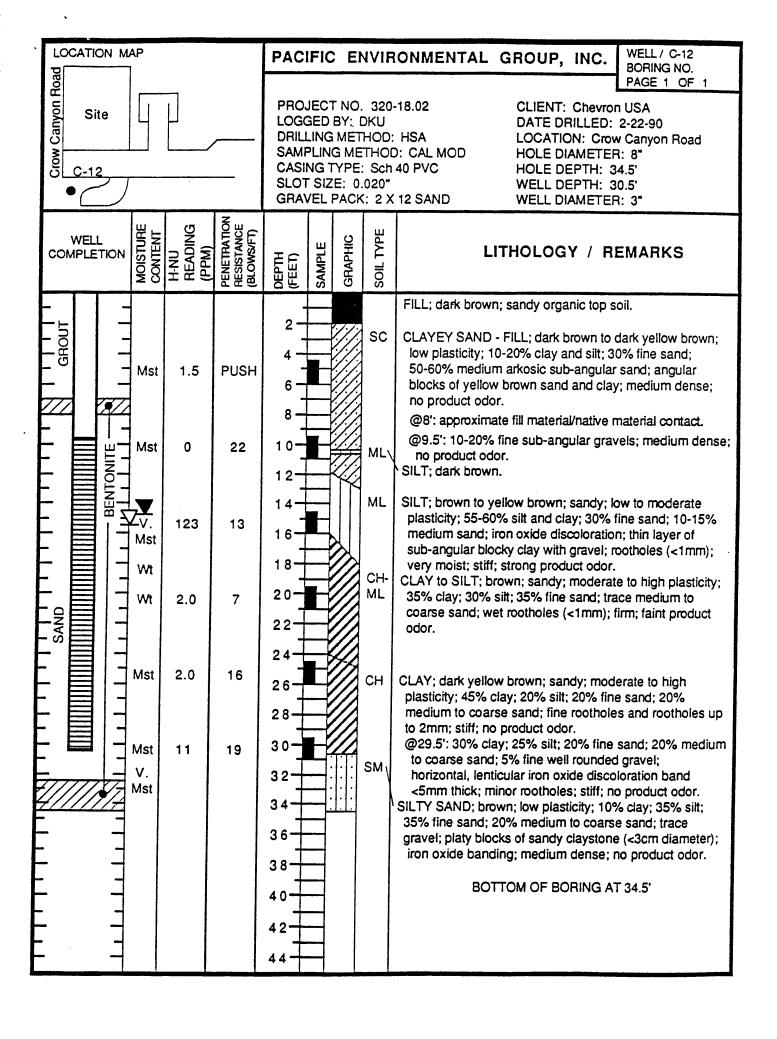
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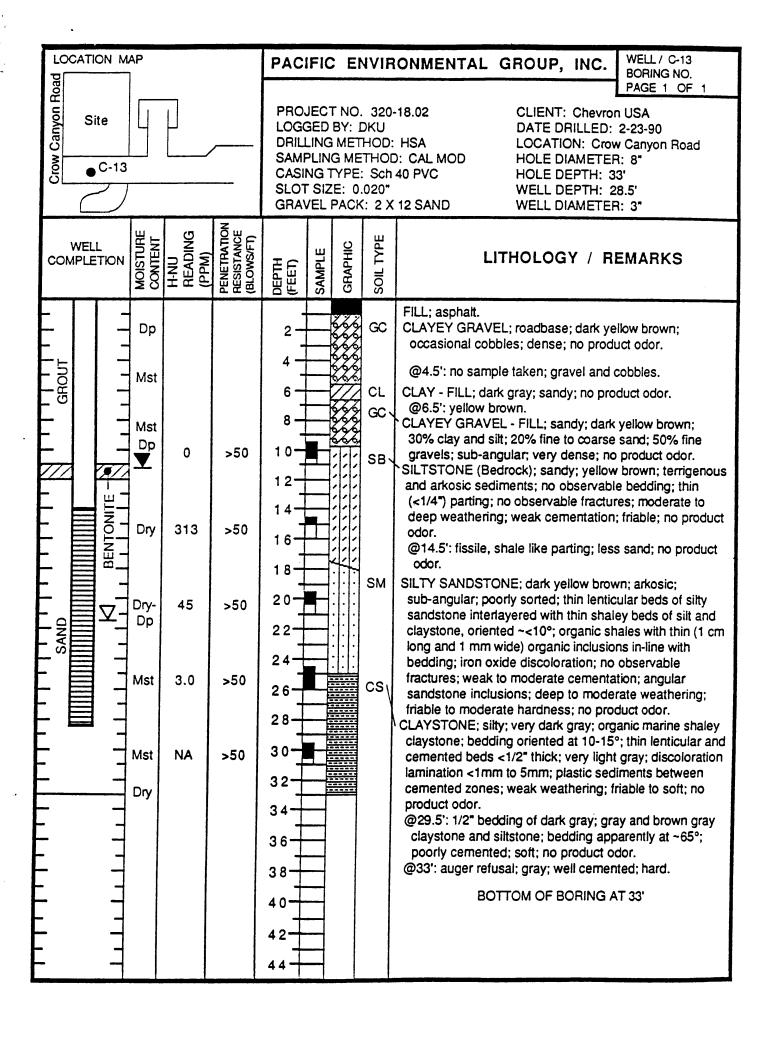
Page __1_ of __1_

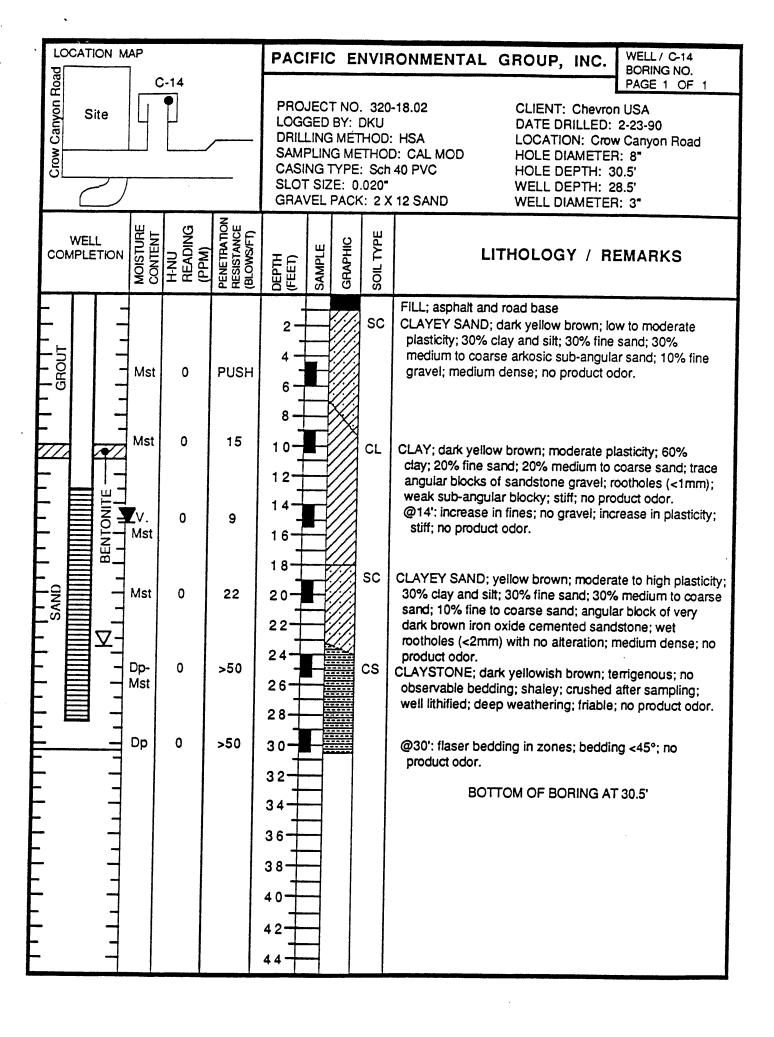
LOCATION MAP	PACIFIC ENVIRONMENTAL GROUP, INC. WELL/ C-10A			
Crow Canyon Road C-10A C-10B	PROJECT NO. 320-18.02 LOGGED BY: DKU DRILLING METHOD: HSA SAMPLING METHOD: CAL MOD CASING TYPE: Sch 40 PVC SLOT SIZE: 0.020" GRAVEL PACK: 2 X 12 SAND CLIENT: Chevron USA DATE DRILLED: 2-22-90 LOCATION: Crow Canyon Road HOLE DIAMETER: 8" HOLE DEPTH: 21' WELL DEPTH: 21' WELL DIAMETER: 3"			
SON TENT H-NU READING (PPM) PENETRATION RESISTANCE (BLOWS/FT)	SAMPLE GRAPHIC SOIL TYPE SOIL TYPE			
	CLAYEY GRAVEL; dark brown; moderate plasticity; 15% clay and silt; 25% fine sand; 20% medium to coarse sand; <10% fine sub-angular gravel; medium dense; no product odor. CLAY: dark brown; moderate plasticity; 40% fine to coarse sand; 5% fine gravel; stiff; no product odor. CLAYEY SAND; dark yellow brown; grayish brown; gravelly; low to moderate plasticity; 30% clay and silt; 30% fine sand; 20% medium to coarse sand; 20% fine sub-angular gravel (well cemented sandstone); medium dense; no product odor. CLAYEY SAND; dark gray; low plasticity; 30% silt; 50% fine sand; 30% medium sand; 10% coarse sand; trace fine gravel; medium dense; no product odor. CLAYEY SAND; dark gray; low plasticity; 30% silt; 50% fine sub-angular to rounded gravel; medium dense; no product odor. CLAYEY SAND; dark gray; low to moderate plasticity; 20% clay and silt; 20% fine sand; 50% medium to coarse arkosic sub-angular to rounded gravel; medium dense; no product odor. CLAYEY SAND; dark gray; low to moderate plasticity; 20% clay and silt; 20% fine sand; 50% fine sub-angular to rounded gravel; medium dense; no product odor. CLAYEY SAND; dark gray; low to moderate plasticity; 20% and silt; 20% fine sand; 50% medium to coarse arkosic sub-angular to rounded gravel; medium dense; no product odor. CLAYEY SAND; dark gray; low plasticity; 30% fine to medium sand; root material; hard; no product odor. CLAY; brown to yellow brown; moderate to high plasticity; 20-40% fine to coarse sand; trace fine gravel; occasional caliche cemented nodules <1cm; iron oxide stain; olive mottling; black speckling; very stiff; no product odor. BOTTOM OF BORING AT 21' NOTE: Refer to boring log for Well C-108 for Samplling Intervals, Penetration Resistance, and PID Vapor readings.			

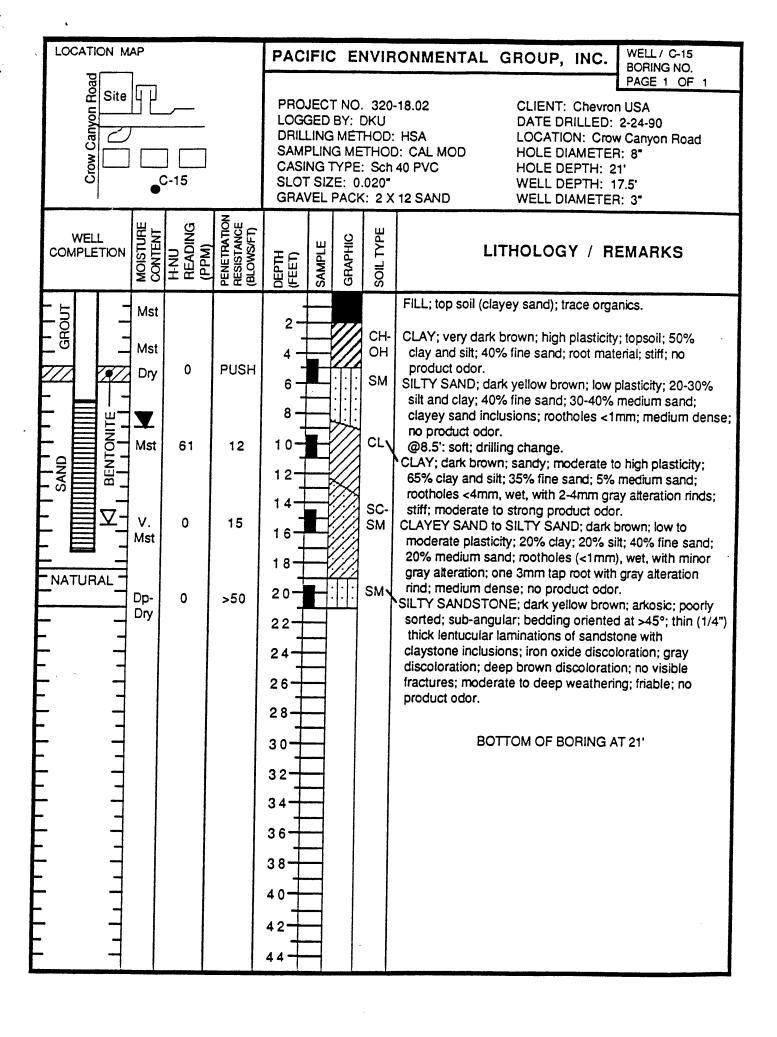


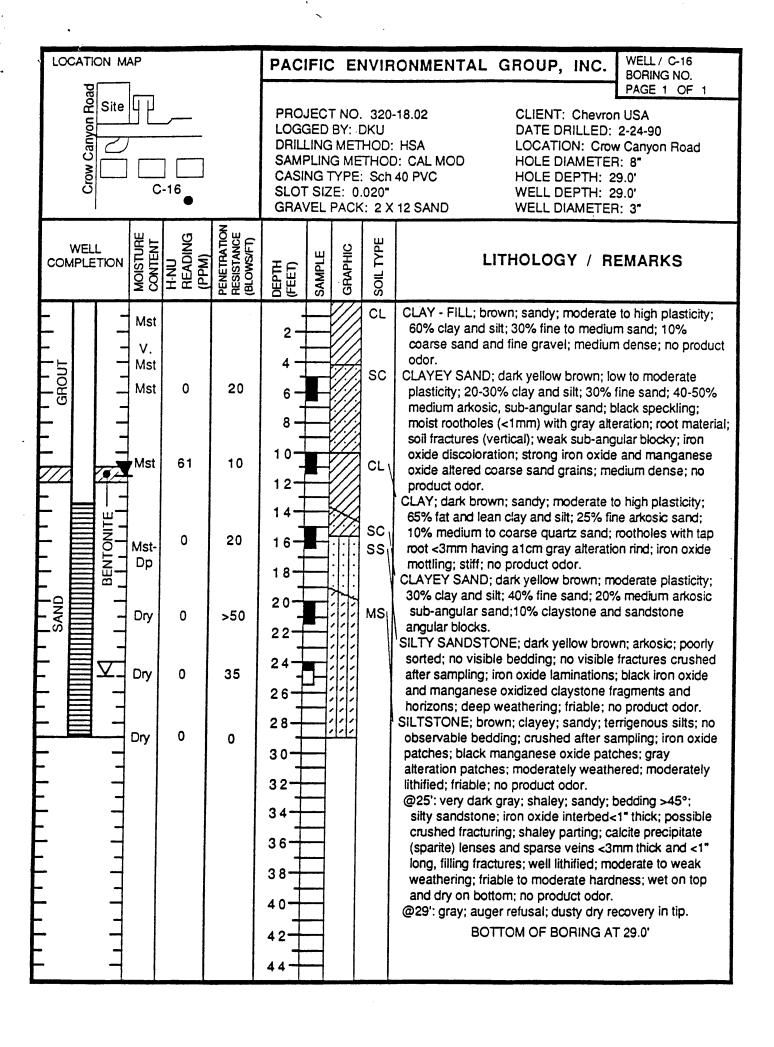












GROUND\.ATER			
TECHNOLOGY			
Division of Oll Recovery Systems, Inc.			

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					Well Number9	Drilling Log	
					Chevron U.S.A.	. Sketch Map	
Location 5269 Crow Canyon Rd. Project Number 20-3231							
Date Dril	led 6-2	4-85	Total Dept	h of Hole	30 ft. Diameter 6-inch	·	
Surface E	Surface Elevation Water Level, Initial 24-hrs						
Screen: [)ia4	-inch	Length	25-fee	stslot Size020 in.		
Casing: D	ia4	-inch	Length	5-fee	et Type PVC		
Drilling C	ompany S	<u>ierra Pac</u>	ific	_ Drilling	Method H.S. Auger	Notes	
Driller	Lynn/G	ary		_ Log by	B. Channell		
Depth (Feet)	Well Construction	Notes	Sample Number	Graphic Log		oll Classification ire, Structures)	
- 0 - - 2 -					0-6" top soil.		
- 4 - - 6 -				000	Brown silty sand and gra	vel.	
- 8 - -10 - -12 - -14 -				0 0 0 0	Brown silty clay with sma	all gravel.	
-16 - -18 - -20 - -22 -					Dark grey silty clay, gas	s odor.	
-24 - -26 -				a 6.	Green sandy clay, with gr	ravel.	
-28 - -30 -					Weathered grey shale, ver	y hard in parts.	
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		Well Number RW-1	Drilling Log				
Project Chevron/Cast	ro Vallewne	Chevron U.S.A., Inc.	Sketch Map				
Location Crow Canyon Rd. Project Number 20-3231							
Date Drilled 5-31-85 Total Depth of Hole 35 ft Diameter 18-inch							
Surface Elevation	_ Water Level, Initial	24-hrs					
Screen: Dia. 10-inch	Length 25 ft	Slot Size .020					
Casing: Dia. 10-inch	Length $10{ m ft}$	·type Steel					
Drilling Company M&M Dr	illing Drilling	Method <u>Auger</u>	Notes Aquarium Sand 36-22 feet				
	Log by	Cori Condon	Roofing Gravel 22-8 feet				
Depth (Feet) Well Construction Notes	Sample Number Graphic Log		oil Classification re, Structures)				
- 5- - 10- - 13- - 16- - 18- - 20- - 22- - 31- - 31- - 33- - 36- - 36- - 36-		Brown sandy clay fill, or no odor. Yellow-brown sandstone, for Dark silty clay, dense, must clay, moist, gas odor. Mottled silty clay, moist clay, occupas odor. Red sandy clay, moist, gas odor. Red sandy clay, moist, gas odor. Blue fine sand, occasional odor. Blue sand and gravels, lo	riable, moist, no odor. noist, high organic odor. r. , gas odor. asional pebbles, moist, s odor. , wet, gas odor. 1 cobble, moist, organic				



BORING/WELL LOG

Cambria Environmental Technology, Inc. 5900 Hollis Street, Suite A Emeryville, CA 94608 Telephone: 510-420-0700 Fax: 510-420-9170

CLIENT NAME	Chevron Environmental Management Company	BORING/WELL NAME SB-1	
JOB/SITE NAME	9-5607	DRILLING STARTED 05-Jul-06	
LOCATION	5269 Crow Canyon Road, Castro Valley, California	DRILLING COMPLETED 06-Jul-06	
PROJECT NUMBER	31J-1950	WELL DEVELOPMENT DATE (YIELD)_	NA
DRILLER	Gregg Drilling	GROUND SURFACE ELEVATION	Not Surveyed
DRILLING METHOD	Direct Push	TOP OF CASING ELEVATION Not Su	rveyed
BORING DIAMETER	3.25 inch	SCREENED INTERVALS NA	
LOGGED BY	B. Deboer	DEPTH TO WATER (First Encountered)25.0 fbg (06-Jul-06)
REVIEWED BY	B. Foss PG #7445	DEPTH TO WATER (Static)	NA ¥
REMARKS	Cleared to 8 fbg using air-knife-assisted vacuum tr	uck.	

REVIEWED BY REMARKS			ss PG # ed to 8		ng air-	Marife-assisted vacuum truck.		NA	
PID (ppm) BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	HOVE	DEPTH (fbg)	WELL DIAGRAM
0 NNOON NNOO	SB1-1 0 SB1-1 8 SB1-2 0		- 10	SM ML SM		ASPHALT Gravelly silty SAND: Brown; 60% coarse-grained sand, 20% silt, 20% gravel; moist; non-plastic; high estimated permeability. Clayey SILT with sand: Light Brown; 55% silt, 25% clay, 15% coarse-grained sand, 5% gravel; dry; medium estimated plasticity; low to medium estimated permeability. Gravelly silty SAND: Light Brown; 40% medium-grained sand, 35% silt, 20% gravel, 5% clay; dry; low estimated plasticity; medium estimated permeability. Sandy SILT: Light Brown; 60% silt, 35% sand, 5% clay; moist; low estimated plasticity; medium estimated permeability. Clayey SILT with sand and gravel: Light Brown; 45% silt, 40% clay, 10% fine-grained sand, 5% gravel; high estimated plasticity; low to medium estimated permeability. Clayey SILT with gravel and sand: Black; 50% silt, 35% clay, 10% medium-grained sand, 5% gravel; dry; medium estimated plasticity. Sandy SILT with gravel and clay: Brown; 55% Silt, 20% coarse-grained sand, 15% gravel, 10% clay; wet; high estimated permeability. Clayey SILT: Black; 70% silt, 30% clay; dry; high estimated plasticity; low estimated permeability. Clayey SILT: Brown/Green; 40% silt, 30% medium-grained sand, 15% gravel, 10% clay; wet; signs of staining. Sandy Clayey SILT: Brown/Green; 40% silt, 30% medium-grained sand, 30% clay; dry; medium estimated plasticity. Clayey SILT with sand: Brown/Green; 70% silt, 20% clay, 10% fine-grained sand; moist; high estimated plasticity. Clayey SILT with sand: Brown/Green; 70% silt, 20% clay, 10% fine-grained sand; moist; high estimated plasticity.	□ 0 2 3 3 5	25.0 25.0 25.0	Portland Type
			30-			Continued Next Page			





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CLIENT NAME	Chevron Environmental Management Company	BORING/WELL NAME	SB-1
JOB/SITE NAME	9-5607	DRILLING STARTED	05-Jul-06
LOCATION	5269 Crow Canyon Road, Castro Valley, California	DRILLING COMPLETED	06-Jul-06

				-			Continued from Previous Page			
PID (ppm)	BLOW	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WEL	L DIAGRAM
470		SB1-3 0					Sandy SILT: Light Brown; 55% silt, 35% very fine-grained sand, 10% clay; moist; medium estimated plasticity; medium estimated permeability. Sandy SILT: Light Brown; 55% silt, 45% fine-grained sand; saturated; high estimated plasticity; high estimated	31.5		
278		SB1-3 5		- - -35-	ML		Sandy SILT: Light Brown; 55% silt, 45% fine-grained sand; saturated; high estimated plasticity; high estimated permeability. Refusal on SANDSTONE: Light gray; dry.	35.0 36.0		Bottom of
								-		Boring @ 36 fbg
						-				
•										

BORING/WELL LOG

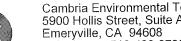


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Fax: 510-420-9170

CLIENT NAME	Chevron Environmental Management Company	BORING/WELL NAME SB-2		
JOB/SITE NAME	9-5607	DRILLING STARTED 05-Jul-06		
LOCATION	5269 Crow Canyon Road, Castro Valley, California	DRILLING COMPLETED 07-Jul-06		
PROJECT NUMBER	31J-1950	WELL DEVELOPMENT DATE (YIELD)	NA	
DRILLER	Gregg Drilling	GROUND SURFACE ELEVATION	Not Surveyed	· - -
DRILLING METHOD	Direct Push	TOP OF CASING ELEVATION Not Surv	reyed	
BORING DIAMETER	3.25 inch	SCREENED INTERVALS NA		
LOGGED BY	B. Deboer	DEPTH TO WATER (First Encountered)	NA	∇
REVIEWED BY	B. Foss PG #7445	DEPTH TO WATER (Static)	NA	Ţ
DEMARKS DI	Closed to 8 fbg using air-knife-assisted vacuum tr	, ,		

REMARKS CONTACT DEPTH (fbg) SAMPLE ID GRAPHIC LOG (mdd) BLOW COUNTS DEPTH (fbg) EXTENT U.S.C.S. LITHOLOGIC DESCRIPTION WELL DIAGRAM \Box 0.4 ASPHALT Gravelly SAND: Gray; 70% medium to coarse-grained sand, 30% gravel; dry; non-plastic; high estimated SP permeability. 3.0 Silty SAND: Light gray; 75% fine to medium-grained sand, 25% silt; moist; medium estimated plasticity; high SM estimated permeability. 5.0 <u>Gravelly SILT with sand:</u> Gray; 40% silt, 35% gravel, 15% sand, 10% clay; dry; low estimated plasticity; medium estimated permeability. SB2-5 5 ML 7.0 SAND with silt and gravel: Light gray; 70% medium-grained sand, 15% silt, 15% gravel; moist; low estimated plasticity; medium estimated permeability. @ 10 fbg change in the following parameters: Green; dry. SW 865 SB2-1 0.5 Portland Type @ 12 fbg change in moisture to moist. 1/11 14.0 Clayey SILT: Brown/Green; 60% silt, 40% clay; dry; high estimated plasticity; low estimated permeability. ML WELL LOG (PID) 1:19-5607~119-5607 BORING LOGS 082006.GPJ DEFAULT.GDT 10/25/06 SB2-1 5 1029 16.0 SAND with silt and gravel: Bright green; 70% medium-grained sand, 15% silt, 15% gravel; moist; low estimated plasticity; high estimated permeability. SW 17.0 Clayey SILT: Brown; 60% silt, 35% clay, 5% fine-grained sand; dry; high estimated plasticity; low estimated permeability. ML 19.0 SAND with silt and clay: Brown/Green; 70% medium-grained sand, 15% clay, 15% silt; high estimated SW 20.0 SB2-2 0 342 ML permeability 21.0 Clayey SILT: Dark green; 60% silt, 35% clay, 5% fine-grained sand; high estimated plasticity; low estimated SP SAND: Brown/Green; 90% fine-grained sand,10% silt; high estimated permeability. 24.0 SB2-2 3.5 946 Bottom of Refusal on SANDSTONE: Boring @ 24 25.0 fbg



BORING/WELL LOG



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CLIENT NAME	Chevron Environmental Management Company	BORING/WELL NAME	SB-3		
JOB/SITE NAME	9-5607	DRILLING STARTED	05-Jul-06		
LOCATION	5269 Crow Canyon Road, Castro Valley, California	DRILLING COMPLETED	07-Jul-06	·	
PROJECT NUMBER	31J-1950	WELL DEVELOPMENT DAT	TE (YIELD)	NA	
DRILLER	Gregg Drilling	GROUND SURFACE ELEVA	ATION	Not Surveyed	
DRILLING METHOD	Direct Push	TOP OF CASING ELEVATION	ON Not Surv	eyed	
BORING DIAMETER	3.25 inch	SCREENED INTERVALS	NA		
LOGGED BY	B. Deboer	DEPTH TO WATER (First E	incountered)	NA	<u> </u>
REVIEWED BY	B. Foss PG #7445	DEPTH TO WATER (Static)		NA	
NEVIEWED DI		,			

Cleared to 8 fbg using air-knife-assisted vacuum truck. REMARKS CONTACT DEPTH (fbg) GRAPHIC LOG (mdd) BLOW COUNTS U.S.C.S. EXTENT SAMPLE DEPTH (fbg) WELL DIAGRAM LITHOLOGIC DESCRIPTION PID (0.2 ASPHALT Sandy SILT: Light brown; 80% silt, 15% very fine-grained sand, 5% gravel; dry; low estimated plasticity; ML medium estimated permeability. 3.0 SAND with silt: Gray; 85% medium-grained sand, 15% SM silt; dry; non-plastic; high estimated permeability. 4.5 Clayey SILT with sand and gravel: Black; 55% silt, 20% clay, 15% fine-grained sand, 10% gravel; moist; low estimated plasticity; medium estimated permeability. SB3-5 3 @ 6 fbg change in the following parameters: Light brown; 55% silt, 25% clay, 10% fine-grained sand; 10% gravel; @ 7 fbg change in the following parameters: Dark brown; moist; medium estimated plasticity; medium estimated permeability. SB3-1 0 244 @ 11 fbg change in the following parameters: Black; 50% silt, 40% clay, 10% gravel; dry; high estimated plasticity; low estimated permeability. @ 12 fbg change in the following parameters: 70% silt, 20% clay, 10% coarse-grained sand; moist; medium estimated plasticity; medium estimated permeability. @ 13 fbg change in the following parameters: 55% silt, 35% clay, 10% coarse-grained sand; dry; high estimated WELL LOG (PID) 1:19-5607~119-5607 BORING LOGS 082006 GPJ DEFAULT.GDT 10/25/06 SB3-1 5 250 plasticity; low estimated permeability. @ 15 fbg change in the following parameters: 60% silt, 40% clay; high estimated plasticity; low estimated permeability. @ 16 fbg change to moist. @ 17 fbg change in the following parameters: 55% silt, 40% clay, 5% gravel; dry. Portland Type -20 SB3-2 0 530 ML SB3-2 5 1665 @ 26 fbg change in the following parameters: Dark brown; 45% silt, 35% clay, 15% fine-grained sand, 5% gravel; moist; medium estimated plasticity, medium estimated permeability. Continued Next Page PAGE 1 OF 2



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BORING/WELL LOG

CLIENT NAME	Chevron Environmental Management Company	BORING/WELL NAME	SB-3
JOB/SITE NAME	9-5607	DRILLING STARTED _	05-Jul-06
LOCATION	5269 Crow Canyon Road, Castro Valley, California	DRILLING COMPLETED	07-Jul-06

SB-3 BORING/WELL NAME 05-Jul-06 DRILLING STARTED

LOCATI							Continued from Previous Page			
PID (ppm)	BLOW	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WEL	L DIAGRAM
1332		SB3-3 1.5					@ 30 fbg change in the following parameters: Dark brown/green; 50% silt, 30% fine-grained sand, 20% clay; dry.			
1209		SB3-3 5		- 35-			@ 33 fbg change in the followng parameters: Dark brown; 70% silt, 15% clay, 15% very fine-grained sand; moist; high estimated plasticity.			
1289		SB3-3 8.5		_			@ 37 fbg change in the following parameters: Dark green; 70% silt, 15% clay, 15% very fine-grained sand; moist.	39.0		Bottom of
							SANDSTONE	40.0		Boring @ 39 fbg
				:						
000000000000000000000000000000000000000										
2000						:				
אמברב בספ (אנס) ווא-3500 ווא-350										
WELL LO										



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BORING/WELL LOG

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CLIENT NAME	Chevron Environmental Management Company	BORING/WELL NAMES	B-4		
JOB/SITE NAME	9-5607	DRILLING STARTED 0	5-Jul-06		
LOCATION	5269 Crow Canyon Road, Castro Valley, California	DRILLING COMPLETED0	7-Jul <u>-06</u>		
PROJECT NUMBER	31J-1950	WELL DEVELOPMENT DATE	(YIELD)N	IA	
DRILLER	Gregg Drilling	GROUND SURFACE ELEVAT	IONN	Not Surveyed	
DRILLING METHOD	Direct Push	TOP OF CASING ELEVATION	Not Surve	yed	
BORING DIAMETER	3.25 inch	SCREENED INTERVALS	NA		
LOGGED BY	B. Deboer	DEPTH TO WATER (First End	countered)	43.0 fbg (07-Jul-06)	Ž
REVIEWED BY	B. Foss PG #7445	DEPTH TO WATER (Static)	, _	NA .	V
KEVIEWED B1	Other Ite Office using air legifa against duranum fr	•	_		

REMARKS Cleared to 8 fbg using air-knife-assisted vacuum truck CONTACT DEPTH (fbg) GRAPHIC LOG (mdd) BLOW COUNTS EXTENT DEPTH (fbg) U.S.C.S. SAMPLE WELL DIAGRAM LITHOLOGIC DESCRIPTION PID (0.3 **ASPHALT** Sandy SILT: Light brown; 60% silt, 30% fine-grained sand, 10% gravel; dry; low estimated plasticity; medium estimated permeability. ML @ 4 fbg change in the following parameters: 70% silt, 15% sand, 10% gravel, 5% clay. 0 6.0 Gravelly SAND with silt: Gray, 60% medium-grained sand, 25% gravel, 15% silt; dry; low estimated plasticity; high estimated permeability. SW 7.0 Clayey SILT with sand: Black; 70% silt, 20% clay, 10% sand; dry; high estimated plasticity; low estimated permeability. SB4-10 3 @ 13 fbg change in the following parameters: 60% silt, 40% clay. WELL LOG (PID) 1:19-5607~119-5607 BORING LOGS 082006.GPJ DEFAULT.GDT 10/25/06 SB4-1 5 2 Gravelly, Clayey SILT with sand: Black; 50% silt, 25% clay, 10% fine-grained sand, 15% gravel; medium estimated plasticity. Clayey SILT: Black; 70% silt, 30% clay; high estimated SB4-2 0 plasticity. @ 23 fbg change in the following parameters: Dark brown/green; 60% silt, 40% clay. Portland Type <u>Sandy Clayey SILT:</u>Light Brown; 65% silt, 20% clay, 15% fine-grained sand; medium estimated plasticity; SB4-2 5 2099 medium estimated permeability. ML Continued Next Page PAGE 1 OF 2



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BORING/WELL LOG

CLIENT NAME	Chevron Environmental Management Company	BORING/WELL NAME	SB-4
JOB/SITE NAME	9-5607	DRILLING STARTED	05-Jul-06
LOCATION	5269 Crow Canyon Road, Castro Valley, California	DRILLING COMPLETED	07-Jul-06

SB-4 NAME 05-Jul-06 RTED

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WEL	L DIAGRAM
828		SB4-3 0					Clayey, Gravelly SILT with Sand: Black; 60% silt, 15% clay, 15% gravel, 10% medium-grained sand; moist. @ 31 fbg change in the following parameters: Brown; 60% silt, 30% clay, 10% fine-grained sand. Sandy SILT with clay: Brown; 60% silt, 30% fine-grained sand, 10% clay; moist, medium estimated plasticity, medium estimated permeability.			
269	·	SB4-3 5		-35 						
24		SB4-4 0		40 <i>-</i> -			@ 42 fbg change in the following parameters: 65% silt, 20% fine-grained sand, 10% clay, 5% gravel; wet.	Z		
772		SB4-4 5		45 			Sandy SILT with trace gravels: Brown; 55% silt, 40% fine-grained sand, 5% gravel; moist, low estimated plasticity.	40.0		
119		SB4-4 7.5					SANDSTONE	48.0 49.0		Bottom of Boring @ 48 fbg
:										



BORING/WELL LOG



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CLIENT NAME	Chevron Environmental Management Company	BORING/WELL NAME	SB-5		
JOB/SITE NAME	9-5607	DRILLING STARTED	05-Jul-06		
LOCATION	5269 Crow Canyon Road, Castro Valley, California	DRILLING COMPLETED	07-Jul-06		
PROJECT NUMBER	31J-1950	WELL DEVELOPMENT DA	ATE (YIELD)	NA	
DRILLER	Gregg Drilling	GROUND SURFACE ELEV	/ATION	Not Surveyed	
DRILLING METHOD	Direct Push	TOP OF CASING ELEVAT		eyed	
	3,25 inch	SCREENED INTERVALS	NA		
BORING DIAMETER _		DEPTH TO WATER (First		NA	<u>Z</u>
LOGGED BY	B. Deboer	,			
REVIEWED BY	B. Foss PG #7445	DEPTH TO WATER (Station	c)	NA	
REMARKS	Cleared to 8 fbg using air-knife-assisted vacuum to	uck.			

CONTACT DEPTH (fbg) GRAPHIC LOG SAMPLE ID (mdd) BLOW COUNTS U.S.C.S. EXTENT DEPTH (fbg) WELL DIAGRAM LITHOLOGIC DESCRIPTION 0.3 Silty SAND: Light Brown/gray; 80% sand, 20% silt; dry; non-plastic; high estimated permeability. SM 3.0 Gravelly SILT with sand: Light brown; 40% silt, 35% gravel, 15% medium-grained sand, 10% clay; dry; low estimated plasticity; medium estimated permeability. SB5-5 0 <u>Gravelly, Sandy SILT with clay:</u> Brown, 55% silt, 20% medium-grained sand, 15% gravel, 10% clay, dry, medium 7.0 cestimated plasticity; medium estimated permeability.

Clayey SILT with sand: Gray; 55% silt, 25% clay, 15% medium-grained sand, 5% gravel; moist, medium estimated plasticity; medium estimated permeability. @ 8 fbg change to color Black. @ 10 fbg change in the following parameters: 55% silt, SB5-1 0 0 30% clay, 10% medium-grained sand, 5% gravel. Sandy, Gravelly SILT with clay: Black; 50% silt, 20% coarse-grained sand, 20% gravel, 10% clay; moist, low estimated plasticity, medium estimated permeability. Clayey SILT with trace sand: Black; 70% silt, 25% clay, 5% medium-grained sand; moist, medium estimated WELL LOG (PID) 1:19-5607~119-5607 BORING LOGS 082006.GPJ DEFAULT.GDT 10/25/06 SB5-1 5 plasticity. 0 Portland Type @ 16 fbg change to dry. 1/11 @ 19 fbg change in the following parameters: Light brown; 60% silt, 40% clay; high estimated plasticity; low ML SB5-2 0 0 estimated permeability. -25 SB5-2 5 0 @ 26 fbg change in the following parameters: 75% silt, 25% clay.



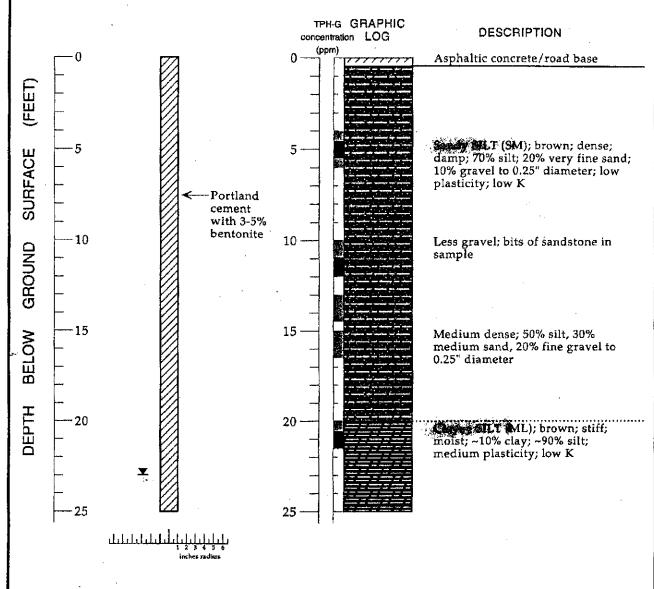
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BORING/WELL LOG

CLIENT NAME	Chevron Environmental Management Company	BORING/WELL NAME	SB-5
JOB/SITE NAME	9-5607	DRILLING STARTED	05-Jul-06
LOCATION	5269 Crow Canyon Road, Castro Valley, California	DRILLING COMPLETED _	07-Jul-06

Continued from Previous Page CONTACT DEPTH (fbg) SAMPLE ID GRAPHIC LOG PID (ppm) BLOW COUNTS U.S.C.S. EXTENT DEPTH (fbg) LITHOLOGIC DESCRIPTION WELL DIAGRAM Sandy SILT with clay and gravel: Brown; 65% silt, 15% medium-grained sand, 10% clay, 10% gravel; medium estimated plasticity; medium estimated permeability. Clayey SILT:Green/Black; 60% silt, 30% clay, 10% fine-grained sand; moist; high estimated plasticity. Boring Terminated at 32.5 feet. 31 SB5-3 0 32.5 SB5-3 2 74 Bottom of Boring @ 32.5 fbg WELL LOG (PID) 1/9-5607~1/9-5607 BORING LOGS 082006.GPJ DEFAULT.GDT 10/25/06





EXPLANATION

Water level during drilling (date)

Contact (dotted where approximate)

-?--?- Uncertain contact

Gradational contact

Location of recovered drive sample

Location of drive sample sealed for chemical analysis

Water level during drilling (date)

Supervisor: Michael Cooke

Drilling Company: Gregg Drilling, Martinez, CA

License Number: C57-485165

Driller: Ted Hogan

Drilling Method: Hollow-stem auger

Date Drilled: August 19, 1996

Type of Sampler: Geoprobe sampler

Cutting sample

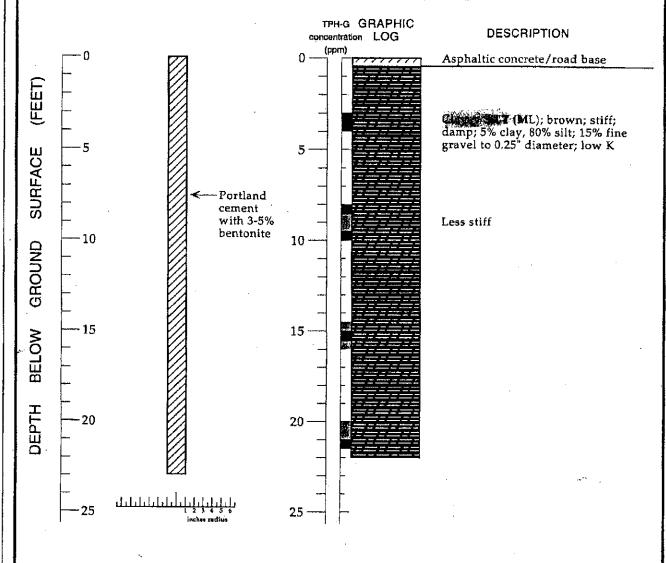
Ground Surface Elevation: feet above mean sea level

K = Estimated hydraulic conductivity

Lithologic Log - Sample Location SV-1 - Former Chevron Service Station #9-5607, 5269 Crow Canyon Road, Castro Valley, California

MA





EXPLANATION

Water level during drilling (date)

Contact (dotted where approximate)

Contact (dotted where approximate)

Contact (dotted where approximate)

Uncertain contact

Coradational contact

Coradational contact

Coradion of recovered drive sample

Location of drive sample sealed
for chemical analysis

Logged By: Brian Busch

Supervisor: Michael Cooke

Drilling Company: Gregg Drilling, Martinez, CA

License Number: C57-485165

Driller: Ted Hogan

Drilling Method: Hollow-stem auger

Date Drilled: August 19, 1996

Type of Sample: Geoprobe sampler

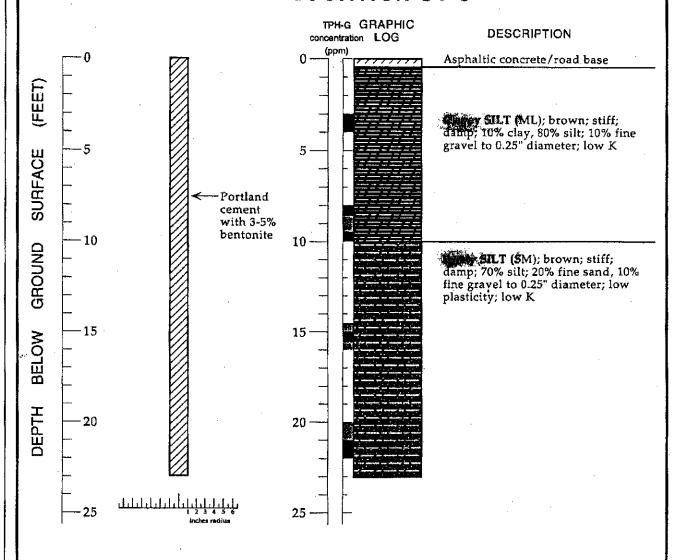
Cutting sample

K = Estimated hydraulic conductivity

Type of Sampler: Geoprobe sampler

Ground Surface Elevation: feet above mean sea level

Lithologic Log - Sample Location SV-2 - Former Chevron Service Station #9-5607, 5269 Crow Canyon Road, Castro Valley, California



EXPLANATION

Water level during drilling (date)

Contact (dotted where approximate)

Supervisor: Michael Cooke

Drilling Company: Gregg Drilling, Martinez, CA

License Number: C57-485165

Driller: Ted Hogan

Drilling Method: Hollow-stem auger

Date Drilled: August 19, 1996

Type of Sampler: Geoprobe sampler

Cutting sample

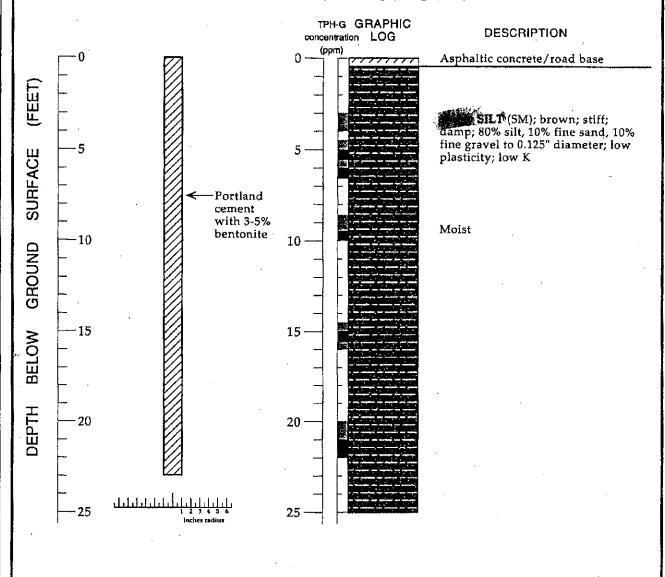
Ground Surface Elevation: feet above mean sea level

K = Estimated hydraulic conductivity

Lithologic Log - Sample Location SV-3 - Former Chevron Service Station #9-5607, 5269 Crow Canyon Road, Castro Valley, California

MA

SAMPLE LOCATION SV-4



EXPLANATION

Water level during drilling (date)

Contact (dotted where approximate)

Procedure Gradational contact

Location of recovered drive sample
Location of drive sample sealed
for chemical analysis

ExampleK = Estimated hydraulic conductivity

Logged By: Brian Busch Supervisor: Michael Cooke

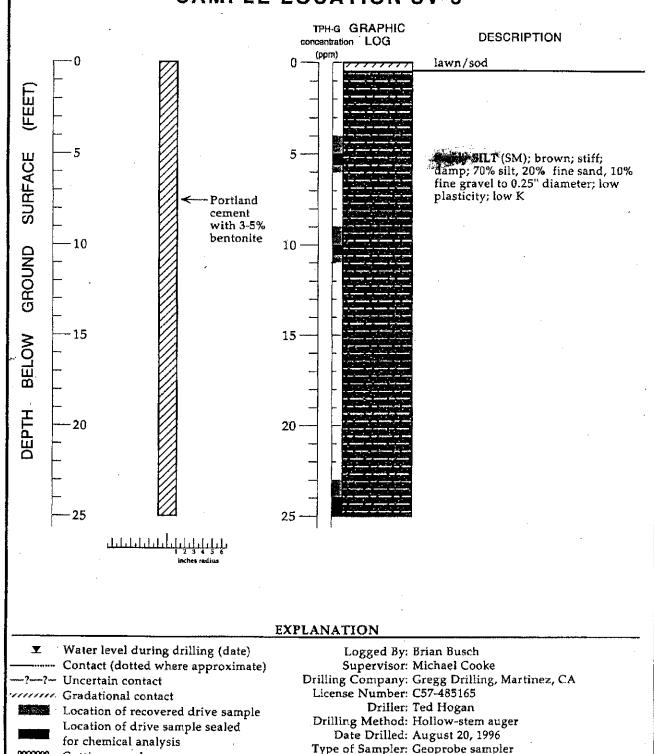
Drilling Company: Gregg Drilling, Martinez, CA

License Number: C57-485165 Driller: Paul Rogers

Drilling Method: Hollow-stem auger Date Drilled: August 20, 1996 Type of Sampler: Geoprobe sampler

Ground Surface Elevation: feet above mean sea level

Lithologic Log - Sample Location SV-4 - Former Chevron Service Station #9-5607, 5269 Crow Canyon Road, Castro Valley, California



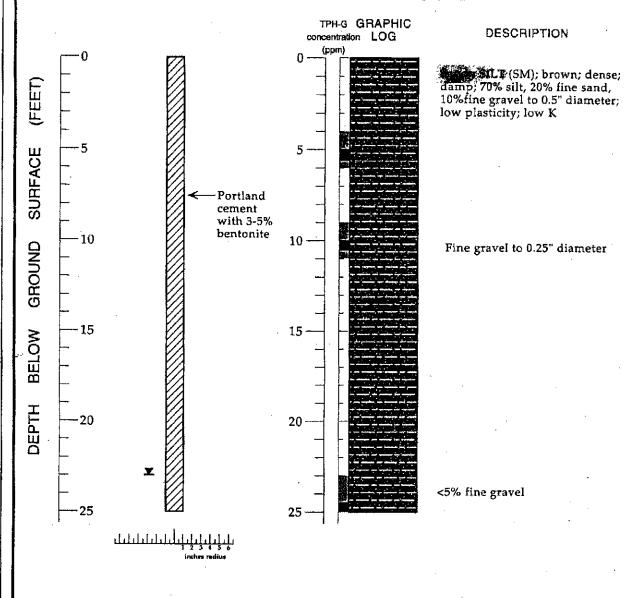
Lithologic Log - Sample Location SV-5 - Former Chevron Service Station #9-5607, 5269 Crow Canyon Road, Castro Valley, California

Ground Surface Elevation: feet above mean sea level

3838888

Cutting sample

Estimated hydraulic conductivity



EXPLANATION

?▼ Water level during drilling (date)

---- Contact (dotted where approximate)

?— Uncertain contact

Cradational contact

Location of recovered drive sample

Location of drive sample sealed for chemical analysis

Cutting sample

K = Estimated hydraulic conductivity

Logged By: Brian Busch Supervisor: Michael Cooke

Drilling Company: Gregg Drilling, Martinez, CA

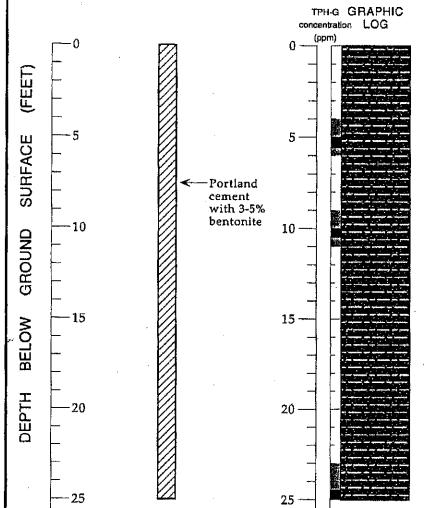
License Number: C57-485165 Driller: Ted Hogan

Drilling Method: Hollow-stem auger Date Drilled: August 20, 1996

Type of Sampler: Geoprobe sampler

Ground Surface Elevation: feet above mean sea level

Lithologic Log - Sample Location SV-6 - Former Chevron Service Station #9-5607, 5269 Crow Canyon Road, Castro Valley, California



DESCRIPTION

Sandy SILT (SM); brown; dense; damp; 70% silt, 20% fine sand, 10% fine gravel to 0.25" diameter; low plasficity; low K

<5% gravel

EXPLANATION

? 🗷 Water level during drilling (date) Contact (dotted where approximate) -?- Uncertain contact

ادارا بالبليليليليل

cereice. Gradational contact

Location of recovered drive sample Location of drive sample sealed

for chemical analysis Cutting sample

Estimated hydraulic conductivity

Logged By: Brian Busch Supervisor: Michael Cooke

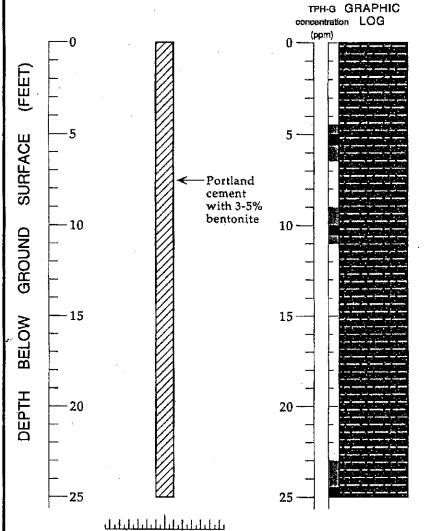
Drilling Company: Gregg Drilling, Martinez, CA

License Number: C57-485165 Driller: Ted Hogan

Drilling Method: Hollow-stem auger Date Drilled: August 20, 1996 Type of Sampler: Geoprobe sampler

Ground Surface Elevation: feet above mean sea level

Lithologic Log - Sample Location SV-7 - Former Chevron Service Station #9-5607, 5269 Crow Canyon Road, Castro Valley, California



DESCRIPTION

Sandy SILT (SM); brown; stiff; dry; 80% silt, 10% fine sand, 10% fine gravel to 0.125" diameter; low plasticity; low K

60% silt, 30% sand, 10% fine gravel

Damp; 80% silt, 10% fine sand, 10% fine gravel

EXPLANATION

?▼ Water level during drilling (date)

- Contact (dotted where approximate)

-?- Uncertain contact

Gradational contact

Location of recovered drive sample

Location of drive sample sealed

for chemical analysis

Cutting sample

K = Estimated hydraulic conductivity

Logged By: Brian Busch

Supervisor: Michael Cooke

Drilling Company: Gregg Drilling, Martinez, CA

License Number: C57-485165

Driller: Ted Hogan

Drilling Method: Hollow-stem auger

Date Drilled: August 20, 1996

Type of Sampler: Geoprobe sampler

Ground Surface Elevation: feet above mean sea level

Lithologic Log - Sample Location SV-8 - Former Chevron Service Station #9-5607, 5269 Crow Canyon Road, Castro Valley, California

APPENDIX D CURRENT AND HISTORICAL GROUNDWATER DATA

					HYDROCARBONS			PR	IMARY	VOCS			ADDI	TIONAL	VOCS		
Location	Date	тос	DTW	GWE	TPH-GRO	В	T	E	X	MTBE by SW8260	Ethanol	ТВА	ЭЫБ	ETBE	TAME	ЕDВ	1,2-DCA
	Units	ft	ft	ft-amsl	μg/L	μg/L	μg/L	μg/L	µg/L	μg/L	µg/L	μg/L	μg/L	µg/L	µg/L	μg/L	μg/L
C-1 C-1 C-1 C-1	07/13/2010 01/12/2011 07/23/2011 01/12/2012 ¹ 07/02/2012 ¹	283.46 283.46 283.46 283.46 283.46	17.50 16.72 - 23.50	265.96 266.74 - 259.96	4,500 2,100 - 4,700	180 100 - 350	27 10 - 41	57 9 - 33 -	42 9 - 36 -	<0.5 <0.5 - <0.5	<50 <50 - <50	8 3 - 7	<0.5 <0.5 - <0.5	<0.5 <0.5 - <0.5	<0.5 <0.5 - <0.5	<0.5 <0.5 - <0.5	<0.5 <0.5 - <0.5
C-2 C-2 C-2 C-2	07/13/2010 ¹ 01/12/2011 07/23/2011 ¹ 01/12/2012 ¹ 07/02/2012 ¹	284.37 284.37 284.37 284.37	- 14.10 - 19.84	- 270.27 - 264.53	- 92 - 120 -	- <0.5 - <0.5	- <0.5 - <0.5	- <0.5 - <0.5	- <0.5 - <0.5	- <0.5 - <0.5 -	- <50 - <50	- <2 - <2 -	- <0.5 - <0.5	- <0.5 - <0.5	- <0.5 - <0.5	- <0.5 - <0.5	- <0.5 - <0.5
C-3 C-3 C-3 C-3	07/13/2010 01/12/2011 07/27/2011 01/12/2012 07/02/2012	285.98 285.98 285.98 285.98 285.98	19.52 19.00 21.34 25.69 21.71	266.46 266.98 264.64 260.29 264.27	49,000 44,000 48,000 46,000 44,000	9,300 12,000 11,000 9,000 9,100	400 300 240 390 320	2,400 2,800 3,100	5,200 3,600 2,200 3,100 1,800	<3 <10 <10 <3 <3	<250 <1,000 <1,000 <250 <250	67 <40 80 83 75	<3 <10 <10 <3 <3	<3 <10 <10 <3 <3	<3 <10 <10 <3 <3	<3 <10 <10 <3 <3	<3 <10 <10 3 <3

					HYDROCARBONS			מת	IMADY	YVOCS			4000	TIONAL	VOCC		
			I	l	HYDROCARBONS			PK	IMARY	VOCS			ADDI	TIONAL	VOCS		1
Location	Date	тос	DTW	GWE	TPH-GRO	В	T	E	X	MTBE by SW8260	Ethanol	TBA	DIPE	ETBE	TAME	ЕDВ	1,2-DCA
	Units	ft	ft	ft-amsl	μg/L	μg/L	µg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L
C-5	07/13/2010 ¹	_	-	-	_	_	_	_	_	-	_	_	_	_	_	_	_
C-5	01/12/2011	287.95	19.58	268.37	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<50	<2	1	<0.5	<0.5	<0.5	< 0.5
C-5	07/23/2011	287.95	-	-	-	-	_	-	_	-	-	_	-	-	-	_	_
C-5	01/12/2012	287.95	27.22	260.73	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<50	<2	1	<0.5	<0.5	<0.5	< 0.5
C-5	07/02/2012	287.95	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-6	07/13/2010	275.28	11.40	263.88	25,000	9,500	75	640	140	19	<250	79	<3	<3	<3	<3	<3
C-6	01/12/2011	275.28	11.10	264.18	27,000	12,000	120	960	270	16	<1,000	73	<10	<10	<10	<10	<10
C-6	07/23/2011	275.28	13.19	262.09	30,000	12,000	46	270	62	<25	<2,500	120	<25	<25	<25	<25	<25
C-6	01/12/2012	275.28	17.27	258.01	35,000	15,000	83	690	190	<25	<2,500	200	<25	<25	<25	<25	<25
C-6	07/02/2012	275.28	14.21	261.07	24,000	9,400	82	780	280	15	<250	78	<3	<3	<3	<3	<3
C-7	07/13/2010	270.70	5.22	265.48	120	<0.5	<0.5	<0.5	<0.5	<0.5	<50	<2	0.5	<0.5	<0.5	<0.5	<0.5
C-7	01/12/2011	270.70	3.54	267.16	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<50	<2	0.5	<0.5	<0.5	<0.5	< 0.5
C-7	07/23/2011	270.70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-7	01/12/2012	270.70	10.69	260.01	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<50	<2	< 0.5	<0.5	<0.5	<0.5	<0.5
C-7	07/02/2012	270.70	_	_	<u>-</u>	_	_	_	_	_	_	_	_	_	_	_	_

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					HYDROCARBONS			PR	IMARY	VOCS			ADDI'	TIONAL	VOCS		
Location	Date	тос	DTW	GWE	TPH-GRO	В	T	E	X	MTBE by SW8260	Ethanol	ТВА	ЭЫБ	ETBE	TAME	ЕDВ	1,2-DCA
	Units	ft	ft	ft-amsl	µg∕L	μg/L	µg/L	μg/L	μg/L	μg/L	µg/L	µg/L	μg/L	µg/L	μg/L	μg/L	μg/L
C-8	07/13/2010 ¹	-	_	-	-	-	-	_	-	-	-	-	-	-	-	-	-
C-8	01/12/2011	288.40	5.35	283.05	<50	< 0.5	< 0.5	< 0.5	< 0.5	<0.5	< 50	<2	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
C-8	07/23/2011	288.40	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-8	01/12/2012	288.40	10.71	277.69	<50	<0.5	< 0.5	<0.5	<0.5	<0.5	<50	<2	<0.5	<0.5	<0.5	<0.5	<0.5
C-8	07/02/2012	288.40	-	-	-	-	_	-	_	-	-	-	-	-	-	-	-
C-9	07/13/2010 ³	_	_	_	-	_	_	_	_	-	_	_	_	_	_	_	_
C-9	01/12/2011	_	8.42	-	96	3	<0.5	<0.5	<0.5	<0.5	<50	<2	<0.5	<0.5	<0.5	<0.5	<0.5
C-9	07/23/2011	_	10.40	_	88	0.6	<0.5	<0.5	<0.5	<0.5	<50	<2	<0.5	<0.5	<0.5	<0.5	<0.5
C-9	01/12/2012	_	13.60	_	180	<0.5	<0.5	<0.5	<0.5	<0.5	<50	<2	<0.5	<0.5	<0.5	<0.5	<0.5
C-9	07/02/2012	_	11.43	_	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<50	<2	<0.5	<0.5	<0.5	<0.5	<0.5
C-11	07/13/2010	265.30	17.64	247.66	<50	<0.5		<0.5	<0.5	<0.5	<50	<2	<0.5	<0.5	<0.5	<0.5	<0.5
C-11	01/12/2011	265.30	15.52	249.78	<50	< 0.5	< 0.5	< 0.5	< 0.5	<0.5	<50	<2	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
C-11	07/23/2011	265.30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-11	01/12/2012	265.30	20.18	245.12	<50	< 0.5	< 0.5	< 0.5	< 0.5	<0.5	<50	<2	<0.5	< 0.5	<0.5	<0.5	< 0.5
C-11	07/02/2012	265.30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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_						HYDROCARBONS			PR	IMARY	VOCS			ADDI'	TIONAL	VOCS		
	Location	Date	тос	DTW	GWE	TPH-GRO	В	T	E	X	MTBE by SW8260	Етнапо1	ТВА	DIPE	ETBE	TAME	ЕDВ	1,2-DCA
		Units	ft	ft	ft-amsl	μg/L	μg/L	μg/L	μg/L	µg/L	μg/L	μg/L	µg/L	µg/L	μg/L	µg/L	μg/L	µg/L
	C-12	07/13/2010	269.66	8.72	260.94	700	16	<0.5	0.7	2	0.6	<50	<2	<0.5	<0.5	<0.5	<0.5	<0.5
	C-12	01/12/2011	269.66	8.38	261.28	5,500	98	0.6	9	22	<0.5	<50	<2	< 0.5	< 0.5	< 0.5	0.6	< 0.5
	C-12	07/23/2011	269.66	9.36	260.30	1,400	17	<0.5	2	2	<0.5	<50	<2	<0.5	<0.5	<0.5	<0.5	<0.5
	C-12	01/12/2012	269.66	12.81	256.85	890	26	< 0.5	1	2	<0.5	<50	<2	<0.5	<0.5	< 0.5	<0.5	< 0.5
	C-12	07/02/2012	269.66	10.51	259.15	1,200	10	<0.5	3	0.7	<0.5	< 50	<2	<0.5	<0.5	<0.5	<0.5	<0.5
	C-13 C-13	07/13/2010 01/12/2011	284.32 284.32	8.91 8.41	275.41 275.91	<50 610	<0.5 2	<0.5 <0.5	<0.5 8	<0.5 0.8	<0.5 <0.5	<50 <50	<2 <2	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5
	C-13	07/23/2011	284.32		270.71		-	-0.0	O	0.0					-0.0	-0.0		-0.5
	C-13	01/12/2012	284.32	10.69	273.63	- <50	<0.5	<0.5	<0.5	<0.5	- <0.5	- <50	<2	- <0.5	<0.5	<0.5	- <0.5	<0.5
	C-13	07/02/2012	284.32	-	-	-	-	-	-	-	-	-	_	-	-	-	-	-
	C-14 C-14 C-14	07/13/2010 ² 01/12/2011 ² 07/23/2011 ² 01/12/2012 ²	- 270.74 270.74 270.74	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
	C-14	07/02/2012 ²	270.74	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

r		,				HYDROCARBONS			PR	IMARY	VOCS		ı	ADDI'	TIONAL	VOCS	· ·	
	Location	Date	тос	DTW	GWE	TPH-GRO	В	T	E	X	MTBE by SW8260	Ethanol	TBA	DIPE	ETBE	ТАМЕ	EDB	1,2-DCA
		Units	ft	ft	ft-amsl	μg/L	µg/L	µg/L	µg/L	µg/L	μg/L	µg∕L	µg∕L	μg/L	µg∕L	µg∕L	μg/L	μg/L
	C.14	07/12/2010																
	C-16	07/13/2010 ¹	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	C-16	01/12/2011	246.69	11.47	235.22	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<50	<2	<0.5	<0.5	<0.5	<0.5	<0.5
	C-16	07/23/2011	246.69	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	C-16	01/12/2012	246.69	13.10	233.59	<50	< 0.5	< 0.5	< 0.5	< 0.5	<0.5	< 50	<2	<0.5	< 0.5	< 0.5	< 0.5	< 0.5
	C-16	07/02/2012 ¹	246.69	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	RW-1 RW-1	06/29/2012 07/02/2012	274.52 274.52	14.20 14.15	260.32 260.37	- 17,000	- 6,800	- 58	- 690	- 220	- 12	- <100	- 64	- <1	- <1	- <1	- <1	- <1
	QA	07/13/2010	-	-	-	<50	<0.5		<0.5	<0.5	<0.5	-	-	-	-	-	-	-
	QA	01/12/2011	-	-	-	<50	< 0.5	< 0.5	<0.5	< 0.5	<0.5	-	-	-	-	-	-	-
	QA	07/23/2011	-	-	-	<50	< 0.5	< 0.5	< 0.5	< 0.5	<0.5	-	-	-	-	-	-	-
	QA	07/27/2011	-	-	-	<50	< 0.5	< 0.5	< 0.5	< 0.5	<0.5	-	-	-	-	-	-	-
	QA	01/12/2012	-	-	-	<50	< 0.5	< 0.5	< 0.5	< 0.5	<0.5	-	-	-	-	-	-	-
	QA	07/02/2012	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-

					HYDROCARBONS			PR.	IMARY	(VOCS			ADDI'	ΓΙΟΝΑL	vocs		,
Location	Date	тос	DTW	GWE	TPH-GRO	В	T	E	X	MTBE by SW8260	Ethanol	ТВА	DIPE	ETBE	TAME	ЕDВ	1,2-DCA
	Units	ft	ft	ft-amsl	μg/L	μg/L	μg/L	µg/L	μg/L	μg/L	µg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L

Abbreviations and Notes:

TOC = Top of casing

DTW = Depth to water

GWE = Groundwater elevation

(ft-amsl) = Feet above mean sea level

ft = Feet

 μ g/L = Micrograms per liter

TPH-GRO = Total petroleum hydrocarbons - gasoline range organics

VOCS = Volatile organic compounds

B = Benzene

T = Toluene

E = Ethylbenzene

X = Xylene

MTBE = Methyl tert butyl ether

TBA = Tert-butyl alcohol

DIPE = Diisopropyl ether

ETBE = Tert-butyl ethyl ether

TAME = Tert-amyl methyl ether

EDB = 1,2-Dibromoethane (Ethylene dibromide)

1,2-EDC = 1,2-Dichloroethane

-- = Not available / not applicable

x = Not detected above laboratory method detection limit

* TOC elevations

** GWE was corrected for the presence of LNAPL; correction factor: [(TOC - DTW) + (LNAPLT x 0.80)].

1 Sampled annually

2 Removed from monitoring/sampling schedule

3 Not able to access well due to bee hive 2 feet from well

Table 1 Groundwater Monitoring Data and Analytical Results

DATE (R.) (mst) (R.) (R.) (galloms) (ug/L) (ug/L) (ug/L) (ug/L) (ug/L) (ug/L) (ug/L)						SPH	ТРН-					
C-1 03/26/85	WELL ID/	TOC	GWE	DTW	SPHT	Removed	GRO	В	\mathbf{T}	E	X	MTBE
03/26/85	DATE	(ft.)	(msl)	(ft.)	(ft.)	(gallons)	(µg/L)	$(\mu g/L)$	(µg/L)	(μg/L)	(µg/L)	$(\mu g/L)$
07/03/86	C-1											
03/26/87	03/26/85	283.46	260.63	22.83								
03/28/88	07/03/86	283.46	259.88	23.58								
03/10/89	03/26/87	283.46	262.96	20.50								
04/03/89	03/28/88	283.46	257.46	26.00								
05/08/89	03/10/89	283.46	267.60	15.86								
06/05/89	04/03/89	283.46	266.61	16.85								
07/12/90	05/08/89	283.46	260.78	22.68								
08/10/90	06/05/89	283.46	258.80	24.66								
09/13/89	07/12/90	283.46	257.90	25.56								
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	08/10/90	283.46	257.57	25.89								
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	09/13/89	283.46	256.91	26.55			22,000	3,600	1,100	1,000	3,500	
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	10/04/89	283.46	258.22	25.24								
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	11/03/89	283.46	258.43	25.03								
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	12/04/89	283.46	257.09	26.37			13,000	2,000	550	610	1,600	
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	03/07/90	283.46	260.98	22.48								
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	03/09/90	283.46										
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	06/12/90	283.46	259.11	24.35			21,000	3,500	1,400	840	4,000	
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	09/20/90	283.46	257.19	26.27			23,000	2,100	1,200	860	5,000	
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	12/20/90	283.46	260.87	22.59			8,200	760	410	260	1,100	
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	03/27/91	283.46	264.38	19.08								
01/23/92 283.46 256.81 26.65	06/18/91	283.46	256.35	27.11								
04/13/92 283.46 261.30 22.16 38,000 3,100 1,300 850 3,100 08/03/92 283.46 257.31 26.15 13,000 3,100 1,300 850 3,100 10/22/92 283.46 256.67 26.79 24,000 3,500 1,400 1,500 4,300 01/18/93 283.46 264.86 18.60 370,000 6,900 8,900 3,100 23,000	09/12/91	283.46	255.24	28.22								
08/03/92 283.46 257.31 26.15 13,000 3,100 1,300 850 3,100 10/22/92 283.46 256.67 26.79 24,000 3,500 1,400 1,500 4,300 01/18/93 283.46 264.86 18.60 370,000 6,900 8,900 3,100 23,000	01/23/92	283.46	256.81	26.65								
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	04/13/92	283.46	261.30	22.16			38,000	3,100	1,300	850	3,100	
01/18/93 283.46 264.86 18.60 370,000 6,900 8,900 3,100 23,000	08/03/92	283.46	257.31	26.15			13,000	3,100	1,300	850	3,100	
	10/22/92	283.46	256.67	26.79			24,000	3,500	1,400	1,500	4,300	
04/19/93 283.46 262.34 21.12 51,000 8,000 7,000 1,400 10,000	01/18/93	283.46	264.86	18.60			370,000	6,900	8,900	3,100	23,000	
	04/19/93	283.46	262.34	21.12			51,000	8,000	7,000	1,400	10,000	

Table 1 Groundwater Monitoring Data and Analytical Results

					SPH	ТРН-					
WELL ID/	TOC	GWE	DTW	SPHT	Removed	GRO	В	T	E	X	MTBE
DATE	(ft.)	(msl)	(ft.)	(ft.)	(gallons)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
C-1 (cont)											
07/21-22/93	283.46	260.18	23.28			22,000	3,400	1,000	990	3,100	
10/25/93	283.46	258.80	24.66			14,000	2,000	550	790	2,300	
01/21/94	283.46	262.99	20.47			1,100	350	6.0	3.0	15	
04/18/94	283.46	260.36	23.10			24,000	3,200	1,000	1,000	3,100	
07/06-07/94	283.46	260.56	22.90			65,000	6,500	4,200	1,600	9,300	
10/07/94	283.46	258.75	24.71			27,000	5,100	1,200	1,400	4,300	
01/11/95	283.46	265.16	18.30			29,000	1,300	1,200	930	4,000	
04/24/95	283.46	266.52	16.94			75,000	8,900	5,000	1,700	8,400	
07/31/95	283.46	262.90	20.56			56,000	11,000	2,600	2,500	11,000	
10/02/95	283.46	272.88	10.58			44,000	7,900	1,100	2,100	6,500	
01/16/96	283.46	261.71	21.75			29,000	5,300	460	1,000	2,800	< 500
04/18/96	283.46	264.51	18.95			59,000	7,100	3,000	2,000	7,600	<250
07/22/96	283.46	262.46	21.00			26,000	6,100	610	1,800	4,700	<250
10/10/96	283.46	261.46	22.00			24,000	7,100	600	1,700	3,200	<250
01/09/97	283.46	268.05	15.41			32,000	4,600	820	1,500	4,000	670
04/15/97	283.46	264.12	19.34			100,000	11,000	4,500	3,200	13,000	$1,700/<200^{1}$
07/08/97	283.46	263.68	19.78			42,000	5,500	880	2,000	4,800	920
10/22/97	283.46	265.13	18.33			29,000	5,200	970	1,800	4,200	740
01/12/98	283.46	271.81	11.65			31,000	2,700	960	2,100	5,700	<1000
04/21/98	283.46	271.17	12.29			60,000	3,300	2,100	3,100	10,000	1,400
07/08/98	283.46	264.89	18.57			33,000	4,400	1,500	2,800	8,200	<250
10/13/98	283.46	262.11	21.35			27,000	3,900	580	2,000	4,200	210
01/27/99	283.46	262.91	20.55			1,220	126	21.9	1.6	163	10.3
04/27/99	283.46	265.81	17.65			21,300	1,720	226	1,230	2,060	< 500
07/23/99	283.46	264.00	19.46			17,200	1,440	257	1,070	1,960	< 500
11/01/99	283.46	264.53	18.93			45,700	4,020	1,280	2,690	8,140	1,250
01/20/00	283.46	262.62	20.84			18,000	2,110	354	1,340	2,330	< 500
04/28-29/00	283.46	265.61	17.85	0.00		$8,300^{3}$	1,300	470	370	1,300	<130

Table 1 Groundwater Monitoring Data and Analytical Results

					SPH	TPH-					
WELL ID/	TOC	GWE	DTW	SPHT	Removed	GRO	В	T	E	X	MTBE
DATE	(ft.)	(msl)	(ft.)	(ft.)	(gallons)	(µg/L)	(µg/L)	(µg/L)	(μg/L)	(µg/L)	(µg/L)
C-1 (cont)											
07/21/00	283.46	264.57	18.89	0.00		$18,000^3$	3,100	1,200	1,600	5,700	1,100
10/09-10/00	283.46	263.38	20.08	0.00		$31,800^5$	3,280	< 50.0	2,230	6,800	<250
01/08-09/01	283.46	262.95	20.51	0.00		$43,700^5$	3,160	1,250	2,580	7,140	1,100
04/30/01	283.46	265.37	18.09	0.00		$41,600^3$	3,060	791	2,380	6,260	<1,000
07/09-10/01	283.46	263.78	19.68	0.00		$27,000^3$	2,500	480	1,900	5,100	1,900
10/10/01	283.46	263.49	19.97	0.00		28,000	1,900	320	1,500	4,000	170
01/07/02	283.46	266.91	16.55	0.00		7,100	640	47	570	430	64
04/11/02	283.46	265.94	17.52	0.00		9,000	730	80	720	740	< 50
07/11/02	283.46	265.48	17.98	0.00		12,000	1,000	150	810	930	<25
10/30/02	283.46	263.58	19.88	0.00		26,000	1,800	540	1,900	3,400	<100
01/29/03	283.46	267.03	16.43	0.00		16,000	910	250	1,100	2,200	<20/211
04/18/03	283.46	267.53	15.93	0.00		4,100	190	35	170	380	<10
07/18/03 ¹⁴	283.46	265.89	17.57	0.00		14,000	970	150	83	1,100	2
10/17/03 ¹⁴	283.46	264.14	19.32	0.00		20,000	1,300	270	1,600	1,300	<2
01/20/04 ¹⁴	283.46	266.43	17.03	0.00		3,000	170	20	190	180	< 0.5
04/09/04 ¹⁴	283.46	266.68	16.78	0.00		13,000	1,200	210	910	1,400	2
07/09/04 ¹⁴	283.46	264.76	18.70	0.00		6,500	680	66	450	250	<1
10/29/04 ¹⁴	283.46	265.40	18.06	0.00		830	41	6	55	38	< 0.5
02/25/05 ¹⁴	283.46	267.40	16.06	0.00		1,200	76	14	86	98	< 0.5
05/27/05 ¹⁴	283.46	266.94	16.52	0.00		7,200	440	100	500	560	< 0.5
07/15/05 ¹⁴	283.46	266.47	16.99	0.00		5,700	360	59	320	370	0.7
10/14/05 ¹⁴	283.46	263.20	20.26	0.00		11,000	630	110	680	300	<1
01/12/06 ¹⁴	283.46	267.42	16.04	0.00		860	60	12	110	44	< 0.5
04/20/06 ¹⁴	283.46	268.81	14.65	0.00		7,100	240	71	630	390	< 0.5
07/20/06 ¹⁴	283.46	265.71	17.75	0.00		6,000	600	55	380	180	0.5
10/06/06 ¹⁴	283.46	263.43	20.03	0.00		4,800	280	70	410	170	0.7
01/17/07 ¹⁴	283.46	263.94	19.52	0.00		5,400	280	62	350	150	< 0.5
04/25/07 ¹⁴	283.46	265.35	18.11	0.00		8,400	340	80	620	170	< 0.5

Table 1 Groundwater Monitoring Data and Analytical Results

					SPH	ТРН-					
WELL ID/	TOC	GWE	DTW	SPHT	Removed	GRO	В	Т	E	X	MTBE
DATE	(ft.)	(msl)	(ft.)	(fi.)	(gallons)	(μg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
C-1 (cont)											
07/27/07 ¹⁴	283.46	261.84	21.62	0.00		8,400	610	110	500	260	<1
10/15/07 ¹⁴	283.46	263.02	20.44	0.00		2,300	60	11	53	24	< 0.5
01/07/08 ¹⁴	283.46	264.94	18.52	0.00		1,800	100	17	100	34	< 0.5
04/04/08 ¹⁴	283.46	265.34	18.12	0.00		4,700	370	58	390	130	< 0.5
07/09/08 ¹⁴	283.46	262.23	21.23	0.00		6,800	490	78	430	130	<1
10/31/08 ¹⁴	283.46	260.67	22.79	0.00		5,700	430	61	400	110	<1
01/08/09 ¹⁴	283.46	263.74	19.72	0.00		2,000	88	8	47	9	< 0.5
04/24/09 ¹⁴	283.46	264.90	18.56	0.00		4,000	170	21	140	41	< 0.5
07/15/09 ¹⁴	283.46	261.98	21.48	0.00		8,100	550	65	460	120	0.5
10/20/09	283.46	MONITORED/	SAMPLED SEM	II-ANNUALLY							
01/04/10 ¹⁴	283.46	264.52	18.94	0.00		3,000	160	16	38	19	< 0.5
04/12/10	283.46	MONITORED	SAMPLED SE	MI-ANNUALLY							
C-2											
03/26/85	284.37										
07/03/86	284.37	264.68	19.69								
03/26/87	284.37	268.92	15.45								
03/28/88	284.37	263.45	20.92								
03/10/89	284.37	271.57	12.80								
04/03/89	284.37	270.11	14.26								
05/08/89	284.37	265.95	18.42								
06/05/89	284.37	264.28	20.09								
07/12/90	284.37	263.58	20.79								
08/10/90	284.37	262.97	21.40								
09/13/89	284.37	262.51	21.86			320	62	4.0	10	14	
10/04/89	284.37	264.48	19.89								
11/03/89	284.37	263.61	20.76								

Table 1 Groundwater Monitoring Data and Analytical Results

					SPH	ТРН-					
WELL ID/	TOC	GWE	DTW	SPHT	Removed	GRO	В	T	E	X	MTBE
DATE	(ft.)	(msl)	(ft.)	(ft.)	(gallons)	(μg/L)	$(\mu g/L)$	$(\mu g/L)$	(μg/L)	(μg/L)	(μg/L)
C-2 (cont)											
12/04/89	284.37	263.55	20.82			1,000	240	37	66	130	
03/07/90	284.37	266.54	17.83								
03/09/90	284.37	266.54	17.83			390	280	35	27	50	
06/12/90	284.37	264.48	19.89			700	260	34	28	55	
09/20/90	284.37	262.40	21.97								
12/20/90	284.37	266.64	17.73								
03/27/91	284.37	269.27	15.10								
06/18/91	284.37	261.69	22.68								
09/12/91	284.37	260.45	23.92								
01/23/92	284.37	263.13	21.24								
04/13/92	284.37	266.83	17.54			1,100	120	76	17	72	
08/03/92	284.37	262.32	22.05								
10/22/92	284.37	261.34	23.03								
01/18/93	284.37	269.51	14.86			70	6.4	ND	ND	ND	
04/19/93	284.37	267.57	16.80								
07/21-22/93	284.37	265.12	19.25								
10/25/93	284.37	264.72	19.65								
07/06-07/94	284.37	265.61	18.76								
10/07/94	284.37	264.20	20.17								
01/11/95	284.37	270.33	14.04			780	290	9.1	19	58	
04/24/95	284.37	272.03	12.34			SAMPLED AN	INUALLY				
07/31/95	287.37	266.82	17.55								
10/02/95	284.37	265.39	18.98								
01/16/96	284.37	268.37	16.00			260	29	2.9	5.7	21	6.1
04/18/96	284.37	270.47	13.90								
07/22/96	284.37	266.63	17.74								
10/10/96	284.37	265.46	18.91								
01/09/97	284.37	271.62	12.75			460	25	15	72	24	6.3

Table 1 Groundwater Monitoring Data and Analytical Results

					SPH	ТРН-					
WELL ID/	TOC	GWE	DTW	SPHT	Removed	GRO	В	T	E	X	MTBE
DATE	(ft.)	(msl)	(ft.)	(ft.)	(gallons)	$(\mu g/L)$	(µg/L)	$(\mu g/L)$	$(\mu g/L)$	(µg/L)	$(\mu g/L)$
C-2 (cont)											
04/15/97	284.37	268.32	16.05								
07/08/97	284.37	267.95	16.42								
10/22/97	284.37	268.95	15.42								
01/12/98	284.37	272.85	11.52			280	22	1.4	5.3	1.2	13
04/21/98	284.37	274.22	10.15								
07/08/98	284.37	268.29	16.08								
10/13/98	284.37	265.40	18.97								
01/27/99	284.37	268.52	15.85			153	4.83	0.628	< 0.5	< 0.5	4.73
04/27/99	284.37	270.11	14.26								
07/23/99	284.37	268.99	15.38								
11/01/99	284.37	266.74	17.63								
01/20/00	284.37	266.92	17.45			201	9.68	< 0.5	7.32	4.78	< 5.0
04/28-29/00	284.37	269.86	14.51	0.00		SAMPLED AN	INUALLY				
07/21/00	284.37	269.30	15.07	0.00							
10/09-10/00	284.37	266.54	17.83	0.00							
01/08-09/01	284.37	INACCESSIBLE									
04/30/01	284.37	269.86	14.51	0.00							
07/09-10/01	284.37	268.82	15.55	0.00							
10/10/01	284.37	268.81	15.56	0.00		SAMPLED AN	INUALLY				
01/07/02	284.37	271.30	13.07	0.00		< 50	< 0.50	< 0.50	< 0.50	<1.5	<2.5
04/11/02	284.37	269.77	14.60	0.00							
07/11/02	284.37	MONITORED/SA	AMPLED AN	INUALLY							
10/30/02	284.37	MONITORED/SA	AMPLED AN	INUALLY							
01/29/03	284.37	270.78	13.59	0.00		< 50	< 0.50	< 0.50	< 0.50	<1.5	<2.5/<0.5 ¹¹
04/18/03	284.37	MONITORED/SA	AMPLED AN	NUALLY							
07/18/03	284.37	MONITORED/SA	AMPLED AN	NUALLY							
10/17/03	284.37	MONITORED/SA	AMPLED AN	NUALLY							
01/20/04 ¹⁴	284.37	270.42	13.95	0.00		79	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5

Table 1 Groundwater Monitoring Data and Analytical Results

					SPH	ТРН-					
WELL ID/	TOC	GWE	DTW	SPHT	Removed	GRO	В	T	E	X	MTBE
DATE	(ft.)	(msl)	(ft.)	(ft.)	(gallons)	(μg/L)	$(\mu g/L)$	$(\mu g/L)$	(μg/L)	(μg/L)	(µg/L)
C-2 (cont)											
04/09/04	284.37	MONITORED/S	SAMPLED AN	NUALLY							
07/09/04	284.37	MONITORED/S	SAMPLED AN	NUALLY							
10/29/04	284.37	MONITORED/S	SAMPLED AN	NUALLY							
02/25/05 ¹⁴	284.37	271.33	13.04	0.00		97	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
05/27/05	284.37	MONITORED/S	SAMPLED AN	NUALLY							
07/15/05	284.37	MONITORED/S	SAMPLED AN	NUALLY							
10/14/05	284.37	MONITORED/S	SAMPLED AN	NUALLY							
$01/12/06^{14}$	284.37	271.17	13.20	0.00		160	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
04/20/06	284.37	MONITORED/S	SAMPLED AN	NUALLY							
07/20/06	284.37	MONITORED/S	SAMPLED AN	NUALLY							
10/06/06	284.37	267.38	16.99	0.00							
01/17/07 ¹⁴	284.37	268.16	16.21	0.00		190	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
04/25/07	284.37	MONITORED/S	SAMPLED AN	NUALLY							
07/27/07	284.37	MONITORED/S	SAMPLED AN	NUALLY							
10/15/07	284.37	MONITORED/S	SAMPLED AN	NUALLY							
01/07/08 ¹⁴	284.37	268.85	15.52			2,300	180	2	2	3	< 0.5
04/04/08	284.37	MONITORED/S	SAMPLED AN	NUALLY							
07/09/08	284.37	MONITORED/S	SAMPLED AN	NUALLY							
10/31/08	284.37	MONITORED/S	SAMPLED AN	NUALLY							
01/08/09 ¹⁴	284.37	267.82	16.55	0.00		110	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
04/24/09	284.37	MONITORED/S	SAMPLED AN	NUALLY							
07/15/09	284.37	MONITORED/S	SAMPLED AN	NUALLY							
10/20/09	284.37	MONITORED/S	SAMPLED AN	NUALLY							
01/04/10 ¹⁴	284.37	268.29	16.08	0.00		170	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
04/12/10	284.37	MONITORED	/SAMPLED A	NNUALLY							

Table 1 Groundwater Monitoring Data and Analytical Results

					SPH	ТРН-					
WELL ID/	TOC	GWE	DTW	SPHT	Removed	GRO	В	T	E	X	MTBE
DATE	(ft.)	(msl)	(ft.)	(ft.)	(gallons)	(μg/L)	(μg/L)	(µg/L)	$(\mu g/L)$	(µg/L)	(µg/L)
C-3											
03/26/85	285.98										
07/03/86	285.98	259.94	26.04								
03/26/87	285.98	260.34	25.64								
03/28/88	285.98	257.16	28.82								
03/10/89	285.98	263.20	22.78								
04/03/89	285.98	263.27	22.71								
05/08/89	285.98	260.03	25.95								
06/05/89	285.98	258.36	27.62								
07/12/90	285.98	257.69	28.29								
08/10/90	285.98	257.52	28.46								
09/13/89	285.98	256.65	29.33			60,000	1,400	6,800	2,300	10,000	
10/04/89	285.98	257.01	28.97								
11/03/89	285.98	257.26	28.72								
12/04/89	285.98	256.97	29.01			56,000	1,300	3,300	1,400	2,700	
03/07/90	285.98	258.29	27.69								
03/09/90	285.98	258.29	27.69			42,000	1,100	5,700	1,600	7,900	
06/12/90	285.98	257.89	28.09			160,000	1,400	7,100	3,400	16,000	
09/24/90	285.98	256.80	29.18			53,000	850	7,700	2,000	10,000	
12/20/90	285.98	257.71	28.27			520	1,200	5,400	5,400	33,000	
03/27/91	285.98	261.18	24.80			92,000	1,300	3,100	1,200	11,000	
06/18/91	285.98	255.14	30.84								
09/12/91	285.98	254.34	31.64	0.03							
01/23/92	285.98	255.46	30.52	Sheen							
04/13/92	285.98	259.04	26.94	0.01							
08/03/92	285.98	255.98	30.00			220,000	1,300	2,800	3,100	17,000	
10/22/92	285.98	255.38**	30.62	0.03							
01/18/93	285.98	262.07	23.91			1,000,000	2,400	5,300	10,000	61,000	
04/19/93	285.98	260.98	25.00			94,000	33,000	22,000	1,600	9,200	

Table 1 Groundwater Monitoring Data and Analytical Results

					SPH	ТРН-					
WELL ID/	TOC	GWE	DTW	SPHT	Removed	GRO	В	T	E	X	MTBE
DATE	(ft.)	(msl)	(ft.)	(ft.)	(gallons)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(μg/L)
C-3 (cont)											
07/21-22/93	285.98	259.43	26.55			44,000	2,600	5,500	1,300	6,900	
10/25/93	285.98	257.26	28.72			35,000	3,900	2,400	1,100	6,600	
01/21/94	285.98	256.32	29.66			120,000	4,200	2,200	2,000	11,000	
04/18/94	285.98	259.24	26.74			29,000	1,200	310	520	2,000	
07/06-07/94	285.98	259.62	26.36			84,000	2,700	1,400	1,400	9,700	
10/07/94	285.98	257.49	28.49			40,000	1,600	390	1,200	6,100	
01/11/95	285.98	262.84	23.14			34,000	4,200	910	720	3,800	
04/24/95	285.98	266.10	19.88			210,000	43,000	28,000	2,400	13,000	
07/31/95	285.98	261.30	24.68			110,000	33,000	17,000	2,300	12,000	
10/02/95	285.98	258.84	27.14			69,000	6,700	4,000	2,000	11,000	
01/16/96	285.98	261.60	24.38			40,000	2,400	440	1,200	5,500	< 500
04/18/96	285.98	265.28	20.70			66,000	26,000	17,000	2,200	12,000	1,250
07/22/96	285.98	261.32	24.66			69,000	21,000	8,800	1,800	9,900	<1000
10/10/96	285.98	260.75	25.23			53,000	12,000	2,600	1,900	9,300	< 500
01/09/97	285.98	267.74	18.24			73,000	17,000	6,000	1,700	7,800	<1250
04/15/97	285.98	263.96	22.02			160,000	28,000	17,000	2,600	12,000	<2500
07/08/97	285.98	263.04**	22.96	0.03							
10/22/97	285.98	264.08	21.90			59,000	13,000	5,200	2,100	11,000	1,500
01/12/98	285.98	277.93	8.05			62,000	10,000	4,100	1,700	8,000	1,000
04/21/98	285.98	270.70	15.28			70,000	13,000	5,800	1,600	7,100	<1000
07/08/98	285.98	264.83	21.15			22,000	7,300	2,100	560	2,900	<25
10/13/98	285.98	268.38	17.60			390	32	4.8	26	42	2.9
01/27/99	285.98	262.31	23.67			57,100	18,400	2,440	1,660	8,690	< 200
04/27/99	285.98	265.98	20.00			121,000	22,500	11,500	2,970	14,500	< 2000
07/23/99	285.98	255.45**	31.09	0.70							
11/01/99	285.98	255.45	21.03			138,000	23,900	14,700	3,970	18,400	1,180
01/20/00	285.98	262.72	23.26			135,000	20,700	9,870	2,840	13,600	< 5000
04/28-29/00	285.98	265.63	20.35	0.00		$120,000^3$	24,000	11,000	2,700	14,000	2,100

Table 1 Groundwater Monitoring Data and Analytical Results

					SPH	TPH-					
WELL ID/	TOC	GWE	DTW	SPHT	Removed	GRO	В	T	E	X	MTBE
DATE	(ft.)	(msl)	(ft.)	(ft.)	(gallons)	(µg/L)	(µg/L)	(µg/L)	(μg/L)	(µg/L)	(µg/L)
C-3 (cont)											
07/21/00	285.98	265.34	20.64	0.00		$93,000^3$	24,000	11,000	3,100	15,000	2,000
10/09-10/00	285.98	264.35	21.63	0.00		83,400 ⁵	21,400	7,130	2,160	12,000	<2,500
01/08-09/01	285.98	INACCESSIBLE									
04/30/01	285.98	265.65	20.33	0.00		$104,000^3$	20,800	6,170	2,370	12,800	<2,500
07/09-10/01	285.98	264.53	21.45	0.00		$81,000^3$	19,000	6,200	2,800	14,000	2,600
10/10/01	285.98	264.70	21.28	0.00		90,000	18,000	4,200	1,900	13,000	< 50
01/07/02	285.98	267.25	18.73	0.00		70,000	15,000	1,300	2,400	15,000	200
04/11/02	285.98	265.85	20.13	0.00		71,000	17,000	660	1,600	10,000	< 50
07/11/02	285.98	265.41**	20.67	0.12	0.26^{10}	NOT SAMPLE	D DUE TO THE	E PRESENCE O	F SPH		
10/30/02	285.98	264.46**	21.58	0.07	2.20^{10}	NOT SAMPLE	D DUE TO THE	E PRESENCE O	F SPH		
01/29/03	285.98	267.08**	18.95	0.06	2.63^{10}	NOT SAMPLE	D DUE TO THE	E PRESENCE O	F SPH		
04/18/03	285.98	267.38**	18.65	0.06	1.54^{10}	NOT SAMPLE	D DUE TO THE	E PRESENCE O	F SPH		
07/18/03	285.98	265.80**	20.25	0.09	3.05^{10}	NOT SAMPLE	D DUE TO THE	E PRESENCE O	F SPH		
10/17/03	285.98	264.64**	21.70	0.45	1.68^{10}	NOT SAMPLE	D DUE TO THE	E PRESENCE O	F SPH		
01/20/04	285.98	266.46**	19.55	0.04	0.51^{10}	NOT SAMPLE	D DUE TO THE	E PRESENCE O	F SPH		
04/09/04	285.98	266.53**	19.49	0.05	2.01^{10}	NOT SAMPLE	D DUE TO THE	E PRESENCE O	F SPH		
07/09/04	285.98	264.70**	21.32	0.05	3.02^{10}	NOT SAMPLE	D DUE TO THE	E PRESENCE O	F SPH		
10/29/04	285.98	263.67**	22.34	0.04	2.01^{10}	NOT SAMPLE	D DUE TO THE	E PRESENCE O	F SPH		
02/25/05	285.98	267.47**	18.55	0.05	2.01^{10}	NOT SAMPLE	D DUE TO THE	E PRESENCE O	F SPH		
05/27/05	285.98	267.30**	18.71	0.04	2.01^{10}	NOT SAMPLE	D DUE TO THE	E PRESENCE O	F SPH		
07/15/05	285.98	266.12**	19.90	0.05	2.51^{10}	NOT SAMPLE	D DUE TO THE	E PRESENCE O	F SPH		
10/14/05	285.98	263.50**	22.52	0.05	2.01^{10}	NOT SAMPLE	D DUE TO THE	E PRESENCE O	F SPH		
01/12/06	285.98	266.37**	19.66	0.06	0.35^{10}	NOT SAMPLE	D DUE TO THE	E PRESENCE O	F SPH		
04/20/06	285.98	269.21**	16.83	0.07	0.75^{10}	NOT SAMPLE	D DUE TO THE	E PRESENCE O	F SPH		
07/20/06	285.98	265.46**	20.54	0.03	0.14^{10}	NOT SAMPLE	D DUE TO THE	E PRESENCE O	F SPH		
10/06/06	285.98	263.73**	22.27	0.02	17	NOT SAMPLE	D DUE TO THE	E PRESENCE O	F SPH		
01/17/07	285.98	264.83**	21.17	0.03	0.26^{10}	NOT SAMPLE	D DUE TO THE	E PRESENCE O	F SPH		
04/25/07 ¹⁴	285.98	264.64	21.34	0.00	0.00	27,000	3,800	93	1,400	1,500	7

Table 1 Groundwater Monitoring Data and Analytical Results

					SPH	ТРН-					
WELL ID/	TOC	GWE	DTW	SPHT	Removed	GRO	В	T	E	X	MTBE
DATE	(ft.)	(msl)	(ft.)	(ft.)	(gallons)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
C-3 (cont)											
07/27/07 ¹⁴	285.98	262.22	23.76	0.00	0.00	56,000	9,900	660	2,800	7,300	<10
10/15/07 ¹⁴	285.98	262.80	23.18	0.00	0.00	51,000	9,600	480	2,700	7,300	<5
01/07/08 ¹⁴	285.98	263.87	22.11	0.00	0.00	34,000	7,800	180	2,800	2,400	<10
04/04/08 ¹⁴	285.98	264.78	21.20	0.00	0.00	26,000	5,000	80	1,800	1,100	5
07/09/08 ¹⁴	285.98	262.40	23.58	0.00	0.00	39,000	10,000	510	2,700	5,000	<5
10/31/08 ¹⁴	285.98	261.22	24.76	0.00	0.00	55,000	11,000	600	3,100	7,800	<13
01/08/09 ¹⁴	285.98	263.50	22.48	0.00	0.00	39,000	8,500	200	2,600	3,500	<5
04/24/09 ¹⁴	285.98	264.47	21.51	0.00	0.00	33,000	7,700	130	2,100	1,300	<5
07/15/09 ¹⁴	285.98	262.37	23.61	0.00	0.00	51,000	11,000	600	3,200	6,900	<5
10/20/09	285.98	MONITORED/	SAMPLED SEM	II-ANNUALLY							
01/04/10 ¹⁴	285.98	264.42	21.56	0.00	0.00	42,000	9,600	180	2,500	2,600	<5
04/12/10	285.98	MONITORED	SAMPLED SE	MI-ANNUALLY							
C-5											
03/26/85	287.95	262.62	25.33								
07/03/86	287.95	261.54	26.41						<u></u>		
03/26/87	287.95	262.99	24.96								
03/28/88	287.95	258.15	29.80								
03/10/89	287.95	262.06	25.89								
04/03/89	287.95	263.57	24.38								
05/08/89	287.95	260.15	27.80								
06/05/89	287.95	258.53	29.42								
07/12/90	287.95	258.09	29.86								
08/10/90	287.95	258.18	29.77								
09/13/89	287.95	257.00	30.95			310	ND	ND	ND	ND	
10/04/89	287.95	256.47	31.48								
11/03/89	287.95	256.63	31.32								
11/03/07	201.73	250.05	31.32								

Table 1 Groundwater Monitoring Data and Analytical Results

					SPH	ТРН-					
WELL ID/	TOC	GWE	DTW	SPHT	Removed	GRO	В	\mathbf{T}	E	X	MTBE
DATE	(ft.)	(msl)	(ft.)	(ft.)	(gallons)	(µg/L)	(µg/L)	(μg/L)	(μg/L)	(μg/L)	(μg/L)
C-5 (cont)											
12/04/89	287.95	256.25	31.70			ND	ND	ND	ND	ND	
03/07/90	287.95	257.67	30.28								
03/09/90	287.95	257.67	30.28			ND	ND	ND	ND	ND	
06/12/90	287.95	257.47	30.48			90	ND	ND	ND	ND	
09/24/90	287.95	256.17	31.78			ND	ND	ND	ND	ND	
12/20/90	287.95	254.66	33.29			170	ND	ND	1.0	0.7	
03/27/91	287.95	259.97	27.98								
06/18/91	287.95	255.43	32.52								
09/12/91	287.95	254.58	33.37								
01/23/92	287.95	255.28	32.67								
04/13/92	287.95	259.47	28.48			140	ND	ND	0.7	ND	
08/03/92	287.95	255.45	32.50			ND	ND	ND	ND	ND	
10/22/92	287.95	253.97	33.98								
01/18/93	287.95	260.93	27.02			230	6.6	2.2	3.4	2.2	
04/19/93	287.95	263.14	24.81								
07/21-22/93	287.95	258.89	29.06			130	ND	0.6	ND	ND	
10/25/93	287.95	257.00	30.95								
01/21/94	287.95	256.04	31.91			ND	ND	ND	ND	ND	
04/18/94	287.95	257.80	30.15								
07/06-07/94	287.95	258.91	29.04			ND	ND	ND	ND	ND	
10/07/94	287.95	256.11	31.84								
01/11/95	287.95	262.97	24.98			700	1.1	6.0	1.5	2.1	
04/24/95	287.95	266.17	21.78			SAMPLED SE	MI-ANNUALL	Y			
07/31/95	287.95	INACCESSIBLE									
10/02/95	287.95	257.77	30.18								
01/16/96	287.95	261.23	26.72			200	< 0.5	< 0.5	< 0.5	1.3	< 2.5
04/18/96	287.95	266.15	21.80								
07/22/96	287.95	INACCESSIBLE									

Table 1 Groundwater Monitoring Data and Analytical Results

					SPH	ТРН-					
WELL ID/	TOC	GWE	DTW	SPHT	Removed	GRO	В	T	E	X	MTBE
DATE	(ft.)	(msl)	(ft.)	(ft.)	(gallons)	(µg/L)	(μg/L)	(μg/L)	(µg/L)	(μg/L)	$(\mu g/L)$
C-5 (cont)											
10/10/96	287.95	261.17	26.78								
01/09/97	287.95	268.93	19.02			190	0.630	< 0.5	< 0.5	< 0.5	<2.5
04/15/97	287.95	264.64	23.31								
07/08/97	287.95	INACCESSIBLE									
10/22/97	287.95	INACCESSIBLE									
01/12/98	287.95	269.37	18.58			200	1.10	0.570	1.30	2.5	<2.5
04/21/98	287.95	272.75	15.20								
07/08/98	287.95	264.76	23.19			52^{2}	< 0.5	< 0.5	< 0.5	< 0.5	<2.5
10/13/98	287.95	261.95	26.00								
01/27/99	287.95	263.97	23.98			< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 2.0
04/27/99	287.95	267.29	20.66								
07/23/99	287.95	266.73	21.22			80.7	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0
11/01/99	287.95	268.22	19.73								
01/20/00	287.95	263.93	24.02			82.5	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0
04/28-29/00	287.95	267.84	20.11	0.00		SAMPLED SE	MI-ANNUALL`	Y			
07/21/00	287.95	267.95	20.00	0.00							
07/26/00	287.95	267.86	20.09	0.00		66 ³	< 0.50	< 0.50	< 0.50	< 0.50	3.1
10/09-10/00	287.95	266.19	21.76	0.00							
01/08-09/01	287.95	INACCESSIBLE									
04/30/01	287.95	267.79	20.16	0.00							
07/09-10/01	287.95	267.13	20.82	0.00		< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.5
10/10/01	287.95	268.05	19.90	0.00		SAMPLED SE	MI-ANNUALL`	Y			
01/07/02	287.95	270.55	17.40	0.00		< 50	< 0.50	< 0.50	< 0.50	<1.5	< 2.5
04/11/02	287.95	267.68	20.27	0.00							
07/11/02	287.95	MONITORED/SA	MONITORED/SAMPLED ANNUALLY								
10/30/02	287.95	MONITORED/SA	MONITORED/SAMPLED ANNUALLY								
01/29/03	287.95	268.44	19.51	0.00		< 50	< 0.50	< 0.50	< 0.50	<1.5	<2.5/<0.5 ¹¹
04/18/03	287.95	MONITORED/SA	MPLED AN	INUALLY							

Table 1 Groundwater Monitoring Data and Analytical Results

					SPH	ТРН-					
WELL ID/	TOC	GWE	DTW	SPHT	Removed	GRO	В	Т	E	X	MTBE
DATE	(ft.)	(msl)	(ft.)	(ft.)	(gallons)	$(\mu g/L)$	(μg/L)	(μg/L)	(µg/L)	(μg/L)	(µg/L)
C-5 (cont)											
07/18/03	287.95	MONITORED/	SAMPLED AN	INUALLY							
10/17/03	287.95	MONITORED/	SAMPLED AN	INUALLY							
01/20/04 ¹⁴	287.95	268.59	19.36	0.00		< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
04/09/04	287.95	MONITORED/	SAMPLED AN	NUALLY							
07/09/04	287.95	MONITORED/	SAMPLED AN	INUALLY							
10/29/04	287.95	MONITORED/	SAMPLED AN	INUALLY							
02/25/05 ¹⁴	287.95	270.16	17.79	0.00		< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
05/27/05	287.95	MONITORED/	SAMPLED AN	INUALLY							
07/15/05	287.95	MONITORED/	SAMPLED AN	NUALLY							
10/14/05	287.95	MONITORED/	SAMPLED AN	NUALLY							
01/12/06 ¹⁴	287.95	268.89	19.06	0.00		< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
04/20/06	287.95	MONITORED/	SAMPLED AN	INUALLY							
07/20/06	287.95	MONITORED/	SAMPLED AN	INUALLY							
10/06/06	287.95	264.82	23.13	0.00							
01/17/07 ¹⁴	287.95	264.26	23.69	0.00		< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
04/25/07	287.95	MONITORED/	SAMPLED AN	INUALLY							
07/27/07	287.95	MONITORED/	SAMPLED AN	INUALLY							
10/15/07	287.95	MONITORED/	SAMPLED AN	NUALLY							
$01/07/08^{14}$	287.95	264.88	23.07	0.00		< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
04/04/08	287.95	MONITORED/	SAMPLED AN	INUALLY							
07/09/08	287.95	MONITORED/	SAMPLED AN	INUALLY							
10/31/08	287.95	MONITORED/	SAMPLED AN	INUALLY							
01/08/09 ¹⁴	287.95	264.08	23.87	0.00		< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
04/24/09	287.95	MONITORED/	SAMPLED AN	INUALLY							
07/15/09	287.95	MONITORED/	SAMPLED AN	INUALLY							
10/20/09	287.95	MONITORED/	SAMPLED AN	INUALLY							
01/04/10 ¹⁴	287.95	264.98	22.97	0.00		< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
04/12/10	287.95	MONITORED	SAMPLED A	NNUALLY							

Table 1 Groundwater Monitoring Data and Analytical Results

					SPH	SPH TPH-							
WELL ID/	TOC	GWE	DTW	SPHT	Removed	GRO	В	T	E	X	MTBE		
DATE	(ft.)	(msl)	(ft.)	(ft.)	(gallons)	(µg/L)	(µg/L)	$(\mu g/L)$	(μg/L)	(µg/L)	(µg/L)		
C-6													
03/26/85			16.74										
07/03/86	275.28	257.82	17.46										
03/26/87	275.28	256.91	18.37										
03/28/88	275.28	245.44	29.84										
03/10/89	275.28	260.84	14.44										
04/03/89	275.28	260.84	14.44										
05/08/89	275.28	258.12	17.16										
06/05/89	275.28	256.77	18.51										
07/12/90	275.28	256.57	18.71										
08/10/90	275.28	255.96	19.32										
09/13/89	275.28	255.33	19.95			47	5,600	3,000	2,400	10,000			
10/04/89	275.28	255.41	19.87										
11/03/89	275.28	255.93	19.35										
12/04/89	275.28	255.69	19.59			40,000	8,100	1,800	1,700	7,500			
03/07/90	275.28	256.89	18.39										
03/09/90	275.28	256.89	18.39			73,000	23,000	5,900	3,400	17,000			
06/12/90	275.28	256.41	18.87			85,000	19,000	6,500	3,400	16,000			
09/24/90	275.28	255.29	19.99			72,000	15,000	3,200	2,600	11,000			
12/20/90	275.28	253.71	21.57			100,000	11,000	4,200	3,400	16,000			
03/27/91	275.28	258.96	16.32			100,000	11,000	4,400	2,300	11,000			
06/18/91	275.28	251.95	23.33										
09/12/91	275.28	251.32	23.96										
01/23/92	275.28	263.20	12.08										
04/13/92	275.28	255.43	19.85	Sheen									
08/03/92	275.28	260.56	14.72			120,000	16,000	1,100	2,300	15,000			
10/22/92	275.28	260.37	14.91			63,000	7,400	920	1,800	14,000			
01/18/93	275.28	259.84	15.44			77,000	13,000	1,600	2,700	12,000			
04/19/93	275.28	266.03	9.25			56,000	14,000	1,100	2,400	9,100			

Table 1 Groundwater Monitoring Data and Analytical Results

					SPH	TPH-					
WELL ID/	TOC	GWE	DTW	SPHT	Removed	GRO	В	Т	E	X	MTBE
DATE	(ft.)	(msl)	(ft.)	(ft.)	(gallons)	(μg/L)	(µg/L)	(µg/L)	(µg/L)	(μg/L)	(μg/L)
C-6 (cont)											
07/21-22/93	275.28	257.93	17.35			38,000	6,600	610	1,500	5,800	
10/25/93	275.28	254.25	21.03			42,000	11,000	800	2,200	8,200	
01/21/94	275.28	253.71	21.57			57,000	11,000	940	2,300	9,800	
04/18/94	275.28	257.17	18.11			48,000	9,800	830	1,900	7,500	
07/06-07/94	275.28	258.28	17.00			46,000	6,800	610	900	6,200	
10/07/94	275.28	256.09	19.19			35,000	5,900	410	1,400	3,800	
01/11/95	275.28	256.64	18.64			54,000	1,200	1,100	2,100	9,500	
04/24/95	275.28	262.72	12.56			81,000	12,000	1,500	2,400	9,900	
07/31/95	275.28	259.54	15.74			75,000	12,000	1,200	2,800	11,000	
10/02/95	275.28	257.56	17.72			59,000	13,000	990	2,800	10,000	
01/16/96	275.28	259.81	15.47			63,000	10,000	650	2,200	7,500	< 500
04/18/96	275.28	259.33	15.95			56,000	9,800	590	1,500	5,800	660
07/22/96	275.28	INACCESSIBLE									
10/10/96	275.28	INACCESSIBLE									
01/09/97	275.28	INACCESSIBLE									
04/15/97	275.28	INACCESSIBLE									
07/08/97	275.28	INACCESSIBLE									
07/15/97	275.28	260.95	14.33			64,000	12,000	400	1,500	4,400	<1000
10/22/97	275.28	261.80	13.48			49,000	15,000	570	1,900	5,600	1,500
01/12/98	275.28	265.14	10.14			60,000	16,000	540	1,800	5,400	<1000
04/21/98	275.28	267.73	7.55			51,000	16,000	310	1,400	3,400	<1000
07/08/98	275.28	262.80	12.48			19,000	8,200	150	720	1,100	<250
10/13/98	275.28	259.82	15.46			46,000	12,000	490	1600	3,600	<250
01/27/99	275.28	263.32	11.96			16,000	4,440	132	688	1,290	190
04/27/99	275.28	263.15	12.13			38,800	13,100	403	1,540	3,430	<1250
07/23/99	275.28	261.82	13.46			33,400	9,460	182	1,030	2,040	<1000
11/01/99	275.28	262.01	13.27			23,700	7,250	335	775	882	161
01/20/00	275.28	260.64	14.64			32,300	8,970	181	1,020	1,450	<1000

Table 1 Groundwater Monitoring Data and Analytical Results

					SPH	ТРН-					
WELL ID/	TOC	GWE	DTW	SPHT	Removed	GRO	В	T	E	X	MTBE
DATE	(ft.)	(msl)	(ft.)	(ft.)	(gallons)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(μg/L)	(μg/L)
C-6 (cont)											
04/28-29/00	275.28	263.21	12.07	0.00		$1,900^3$	3,100	40	51	130	120
07/21/00	275.28	262.88	12.40	0.00		$5,000^3$	4,400	43	50	88	130
10/09-10/00	275.28	261.89	13.39	0.00		$4,810^5$	2,570	<25.0	<25.0	<25.0	<125
01/08-09/01	275.28	261.51	13.77	0.00		110^{5}	16.8	0.827	< 0.500	1.88	< 2.50
04/30/01	275.28	265.16	10.12	0.00		$19,400^3$	5,290	74.0	171	648	< 500
07/09-10/01	275.28	261.77	13.51	0.00		$7,000^3$	5,300	65	200	360	680
10/10/01	275.28	261.54	13.74	0.00		18,000	5,600	51	140	340	< 50
01/07/02	275.28	264.67	10.61	0.00		34,000	12,000	270	960	1,700	160
04/11/02	275.28	263.58	11.70	0.00		31,000	11,000	230	790	2,000	< 50
07/11/02	275.28	263.26	12.02	0.00		41,000	14,000	230	820	1,800	<100
10/30/02	275.28	262.54	12.74	0.00		19,000	7,800	64	150	350	86
01/29/03	275.28	264.55	10.73	0.00		40,000	15,000	310	1,100	2,000	<130/13 ¹¹
04/18/03	275.28	264.82	10.46	0.00		45,000	18,000	410	1,300	3,400	< 50
07/18/03 ¹⁴	275.28	263.64	11.64	0.00		39,000	14,000	170	46	1,300	< 20
10/17/03 ¹⁴	275.28	262.27	13.01	0.00		33,000	12,000	96	260	520	<10
01/20/04 ¹⁴	275.28	264.19	11.09	0.00		38,000	11,000	290	1,100	2,000	16
04/09/04 ¹⁴	275.28	264.19	11.09	0.00		26,000	9,700	150	630	1,100	18
07/09/04 ¹⁴	275.28	262.63	12.65	0.00		28,000	9,300	170	710	970	18
10/29/04 ¹⁴	275.28	263.08	12.20	0.00		51,000	9,300	130	680	730	17
02/25/05 ¹⁴	275.28	265.24	10.04	0.00		4,400	14,000	310	1,300	2,000	12
05/27/05 ¹⁴	275.28	264.73	10.55	0.00		46,000	16,000	300	1,400	2,000	11
07/15/05 ¹⁴	275.28	264.31	10.97	0.00		53,000	17,000	360	1,400	2,000	12
10/14/05 ¹⁴	275.28	261.62	13.66	0.00		31,000	11,000	190	660	1,000	<13
01/12/06 ¹⁴	275.28	265.17	10.11	0.00		2,300	320	4	97	17	< 0.5
$04/20/06^{14}$	275.28	265.33	9.95	0.00		55,000	17,000	460	2,000	2,500	<10
07/20/06 ¹⁴	275.28	264.10	11.18	0.00		60,000	19,000	500	2,600	2,700	<10
10/06/06 ¹⁴	275.28	261.72	13.56	0.00		52,000	12,000	250	1,100	1,400	<10
01/17/07 ¹⁴	275.28	262.12	13.16	0.00		60,000	27,000	500	2,300	2,600	<25

Table 1 Groundwater Monitoring Data and Analytical Results

					SPH	ТРН-					
WELL ID/	TOC	GWE	DTW	SPHT	Removed	GRO	В	T	E	X	MTBE
DATE	(ft.)	(msl)	(ft.)	(ft.)	(gallons)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
C-6 (cont)											
04/25/07 ¹⁴	275.28	262.97	12.31	0.00		53,000	14,000	430	2,100	2,100	<10
07/27/07 ¹⁴	275.28	262.50	12.78	0.00		37,000	12,000	210	1,400	810	<10
10/15/07 ¹⁴	275.28	261.10	14.18	0.00		42,000	16,000	200	2,300	640	<10
01/07/08 ¹⁴	275.28	262.30	12.98	0.00		33,000	13,000	290	2,400	1,100	<13
04/04/08 ¹⁴	275.28	262.94	12.34	0.00		53,000	18,000	450	2,900	1,800	5
07/09/08 ¹⁴	275.28	260.62	14.66	0.00		29,000	11,000	250	1,600	570	7
10/31/08 ¹⁴	275.28	259.37	15.91	0.00		19,000	5,500	53	560	120	13
01/08/09 ¹⁴	275.28	261.71	13.57	0.00		33,000	13,000	220	1,800	540	<10
$04/24/09^{14}$	275.28	262.48	12.80	0.00		27,000	10,000	120	1,000	480	13
07/15/09 ¹⁴	275.28	260.43	14.85	0.00		24,000	8,700	67	670	150	13
10/20/09	275.28	MONITORED/	SAMPLED SEM	I-ANNUALLY							
01/04/10 ¹⁴	275.28	262.46	12.82	0.00		26,000	7,200	70	760	140	15
04/12/10	275.28	MONITORED	SAMPLED SE	MI-ANNUALLY							
C-7											
03/26/85			9.61								
07/03/86	270.70	259.96	10.74								
03/26/87	270.70	260.62	10.08								
03/28/88	270.70	256.91	13.79								
03/10/89	270.70	260.28	10.42								
04/03/89	270.70	261.56	9.14								
05/08/89	270.70	258.79	11.91								
06/05/89	270.70	259.16	11.54								
07/12/90	270.70	257.25	13.45								
08/10/90	270.70	257.33	13.37								
09/13/89	270.70	256.10	14.60			410	1.3	ND	10	ND	
10/04/89	270.70	255.53	15.17								

Table 1 Groundwater Monitoring Data and Analytical Results

						SPH	ТРН-					
WELL ID/		TOC	GWE	DTW	SPHT	Removed	GRO	В	T	E	X	MTBE
DATE		(ft.)	(msl)	(ft.)	(ft.)	(gallons)	(µg/L)	$(\mu g/L)$	(µg/L)	$(\mu g/L)$	(µg/L)	(µg/L)
C-7 (cont)												
12/04/89		270.70	255.00	15.70			1,000	1.0	ND	5.0	ND	
03/07/90		270.70	256.48	14.22								
03/09/90		270.70	256.48	14.22			590	2.8	2.4	3.5	2.0	
06/12/90		270.70	256.52	14.18			1,200	ND	5.0	8.2	3.2	
09/24/90		270.70	255.26	15.44	Sheen		400	1.4	1.9	1.4	2.2	
09/24/90	(D)	270.70	255.26	15.44			580	ND	2.4	1.4	1.5	
12/20/90		270.70	253.62	17.08			2,300	ND	6.5	4.7	9.3	
03/27/91		270.70	258.05	12.65			980	ND	2.4	9.1	3.0	
06/18/91		270.70	254.26	16.44								
09/12/91		270.70	253.65	17.05			1,200	ND	3.1	6.5	2.7	
01/23/92		270.70	253.78	16.92								
04/13/92		270.70	257.70	13.00			830	ND	1.0	7.8	1.2	
08/03/92		270.70										
10/22/92		270.70	UNABLE TO L	OCATE								
01/18/93		270.70	UNABLE TO L	OCATE								
04/19/93		270.70	UNABLE TO L	OCATE								
07/21-22/93		270.70	257.76	12.94			890	0.9	3.0	4.0	4.0	
10/25/93		270.70	255.87	14.83								
01/21/94		270.70	254.76	15.94			660	ND	6.0	1.0	3.0	
04/18/94		270.70	255.72	14.98								
07/06-07/94		270.70	257.76	12.94			960	ND	5.8	4.2	8.2	
10/07/94		270.70	254.87	15.83								
01/11/95		270.70	261.45	9.25			900	< 0.5	< 0.5	2.3	1.3	
04/24/95		270.70	264.00	6.70			SAMPLED SE	MI-ANNUALL	Y			
07/31/95		270.70	259.46	11.24			690	<1.2	<1.2	<1.2	<1.2	
10/02/95		270.70	256.68	14.02								
01/16/96		270.70	259.48	11.22			< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 2.5
04/18/96		270.70	264.05	6.65								

Table 1 Groundwater Monitoring Data and Analytical Results

					SPH	TPH-					
WELL ID/	TOC	GWE	DTW	SPHT	Removed	GRO	В	T	E	X	MTBE
DATE	(ft.)	(msl)	(fi.)	(ft.)	(gallons)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(μg/L)	(µg/L)
C-7 (cont)											
07/22/96	270.70	259.60	11.10			360	4.4	2.0	< 0.5	< 0.5	17
10/10/96	270.70	259.35	11.35								
01/09/97	270.70	266.82	3.88			69	< 0.5	< 0.5	< 0.5	< 0.5	< 2.5
04/15/97	270.70	262.82	7.88								
07/08/97	270.70	261.70	9.00			710	8.0	1.20	< 0.5	< 0.5	22
10/22/97	270.70	262.09	8.61								
01/12/98	270.70	267.03	3.67			400	7.20	<1.0	1.60	1.30	16
04/21/98	270.70	270.19	0.51								
07/08/98	270.70	263.72	6.98			< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 2.5
10/13/98	270.70	261.58	9.12								
01/27/99	270.70	262.15	8.55			< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 2.0
04/27/99	270.70	265.75	4.95								
07/23/99	270.70	265.60	5.10			500	7.84	0.983	1.71	0.658	< 5.0
11/01/99	270.70	263.41	7.29								
01/20/00	270.70	262.94	7.76			503	6.82	0.56	< 0.5	1.35	< 5.0
04/28-29/00	270.70	266.33	4.37	0.00		SAMPLED SE	MI-ANNUALL`	Y			
07/21/00	270.70	266.51	4.19	0.00							
07/26/00	270.70	266.41	4.29	0.00		110^{4}	1.8	1.1	< 0.50	< 0.50	<2.5
10/09-10/00	270.70	265.47	5.23	0.00							
01/08-09/01	270.70	264.00	6.70	0.00		< 50.0	< 0.500	< 0.500	< 0.500	< 0.500	< 2.50
04/30/01	270.70	266.39	4.31	0.00							
07/09-10/01	270.70	265.87	4.83	0.00		150^{3}	1.9	0.83	< 0.50	0.95	4.8
10/10/01	270.70	266.43	4.27	0.00		SAMPLED SE	MI-ANNUALL`	Y			
01/07/02	270.70	268.78	1.92	0.00		< 50	< 0.50	< 0.50	< 0.50	<1.5	<2.5
04/11/02	270.70	266.41	4.29	0.00							
07/11/02	270.70	265.90	4.80	0.00		310	<1.0	0.56	< 0.50	1.9	<2.5
10/30/02	270.70	MONITORED/S	SAMPLED SEMI-	ANNUALLY							
01/29/03	270.70	267.08	3.62	0.00		< 50	< 0.50	< 0.50	< 0.50	<1.5	<2.5/<0.5 ¹¹

Table 1 Groundwater Monitoring Data and Analytical Results

	SPH TPH-												
WELL ID/	TOC	GWE	DTW	SPHT	Removed	GRO	В	T	E	X	MTBE		
DATE	(ft.)	(msl)	(ft.)	(ft.)	(gallons)	(µg/L)	$(\mu g/L)$	(µg/L)	(μg/L)	(µg/L)	(μg/L)		
C-7 (cont)													
04/18/03	270.70	MONITORED/	SAMPLED SEM	II-ANNUALLY									
07/18/03 ¹⁴	270.70	265.55	5.15	0.00		220	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5		
10/17/03	270.70	MONITORED/	SAMPLED SEM	II-ANNUALLY									
01/20/04 ¹⁴	270.70	267.05	3.65	0.00		< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5		
04/09/04	270.70	MONITORED/	SAMPLED SEM	II-ANNUALLY									
07/09/04 ¹⁴	270.70	265.06	5.64	0.00		190	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5		
10/29/04	270.70	MONITORED/	SAMPLED SEM	II-ANNUALLY									
02/25/05 ¹⁴	270.70	268.64	2.06	0.00		< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5		
05/27/05	270.70	MONITORED/	SAMPLED SEM	II-ANNUALLY									
07/15/05 ¹⁴	270.70	266.26	4.44	0.00		130	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5		
10/14/05	270.70	MONITORED/	SAMPLED SEM	II-ANNUALLY									
01/12/06 ¹⁴	270.70	267.68	3.02	0.00		< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5		
04/20/06	270.70	MONITORED/	SAMPLED SEM	II-ANNUALLY									
07/20/06 ¹⁴	270.70	265.36	5.34	0.00		< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5		
10/06/06	270.70	263.88	6.82	0.00									
01/17/07 ¹⁴	270.70	263.35	7.35	0.00		150	1	1	< 0.5	2	< 0.5		
04/25/07	270.70	MONITORED/	SAMPLED SEM	II-ANNUALLY									
07/27/07 ¹⁴	270.70	262.18	8.52	0.00		< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5		
10/15/07	270.70	MONITORED/	SAMPLED SEM	II-ANNUALLY									
01/07/08 ¹⁴	270.70	264.00	6.70	0.00		< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5		
04/04/08	270.70	MONITORED/	SAMPLED SEM	II-ANNUALLY									
07/09/08 ¹⁴	270.70	261.90	8.80	0.00		< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5		
10/31/08	270.70	MONITORED/	SAMPLED SEM	II-ANNUALLY									
01/08/09 ¹⁴	270.70	263.05	7.65	0.00		85	< 0.5	< 0.5	2	< 0.5	< 0.5		
04/24/09	270.70	MONITORED/	SAMPLED SEM	II-ANNUALLY									
07/15/09 ¹⁴	270.70	262.00	8.70	0.00		< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5		

Table 1 Groundwater Monitoring Data and Analytical Results

	SPH TPH-												
WELL ID/	TOC	GWE	DTW	SPHT	Removed	GRO	В	T	E	X	MTBE		
DATE	(ft.)	(msl)	(ft.)	(ft.)	(gallons)	(μg/L)	(µg/L)	(μg/L)	(μg/L)	(μg/L)	(µg/L)		
C-7 (cont)													
10/20/09	270.70	MONITORED/	SAMPLED SEM	II-ANNUALLY									
01/04/10 ¹⁴	270.70	263.97	6.73	0.00		< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5		
04/12/10	270.70	MONITORED)/SAMPLED SE	MI-ANNUALLY									
C-8													
03/26/85			8.68										
07/03/86	288.40	274.51	13.89										
03/26/87	288.40	282.39	6.01										
03/28/88	288.40	277.74	10.66										
03/10/89	288.40	281.79	6.61										
04/03/89	288.40	281.94	6.46										
05/08/89	288.40	279.43	8.97										
06/05/89	288.40	277.52	10.88										
07/12/90	288.40	276.25	12.15										
08/10/90	288.40	275.94	12.46										
09/13/89	288.40	275.62	12.78			ND	ND	ND	ND	ND			
10/04/89	288.40	275.89	12.51										
11/03/89	288.40	273.77	14.63										
12/04/89	288.40	278.81	9.59			64	0.6	0.6	ND	1.0			
03/07/90	288.40	279.60	8.80										
03/09/90	288.40	279.60	8.80			ND	ND	ND	ND	ND			
06/12/90	288.40	279.46	8.94			120	2.5	1.2	1.0	1.4			
09/24/90	288.40	274.86	13.54										
12/20/90	288.40	279.07	9.33										
03/27/91	288.40	282.30	6.10			54	0.7	ND	0.7	1.9			
06/18/91	288.40	276.44	11.96										
09/12/91	288.40	274.80	13.60			ND	ND	ND	ND	ND			

Table 1 Groundwater Monitoring Data and Analytical Results

						SPH	ТРН-					
WELL ID/		TOC	GWE	DTW	SPHT	Removed	GRO	В	T	E	X	MTBE
DATE		(ft.)	(msl)	(ft.)	(ft.)	(gallons)	(μg/L)	(μg/L)	(µg/L)	(μg/L)	(μg/L)	(μg/L)
C-8 (cont)												
09/12/91	(D)	288.40	274.80	13.60			ND	ND	ND	ND	ND	
01/23/92		288.40	264.20	24.20								
04/13/92		288.40	280.05	8.35			ND	ND	ND	ND	ND	
08/03/92		288.40	275.82	12.58			ND	ND	ND	ND	ND	
10/22/92		288.40	275.30	13.10			ND	ND	ND	ND	ND	
01/18/93		288.40	282.28	6.12			ND	ND	ND	ND	ND	
04/19/93		288.40	281.35	7.05			ND	ND	ND	ND	ND	
07/21-22/93		288.40	277.05	11.35			ND	ND	ND	ND	ND	
10/25/93		288.40	275.55	12.85			ND	ND	ND	ND	ND	
01/21/94		288.40	277.85	10.55			ND	ND	ND	ND	ND	
04/18/94		288.40	278.89	9.51			ND	1.2	0.9	ND	1.6	
07/06-07/94		288.40	277.02	11.38			ND	ND	ND	ND	ND	
10/07/94		288.40	275.48	12.92			ND	ND	ND	ND	ND	
01/11/95		288.40	283.04	5.36			< 50	< 0.5	< 0.5	< 0.5	< 0.5	
04/24/95		288.40	281.82	6.58			< 50	< 0.5	0.61	< 0.5	0.51	
07/31/95		288.40	278.94	9.46			< 50	< 0.5	< 0.5	< 0.5	< 0.5	
10/02/95		288.40	276.56	11.84			< 50	< 0.5	< 0.5	< 0.5	< 0.5	
01/16/96		288.40	281.40	7.00			< 50	< 0.5	< 0.5	< 0.5	< 0.5	5.4
04/18/96		288.40	281.77	6.63			< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 2.5
07/22/96		288.40	280.49	7.91			< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 2.5
10/10/96		288.40	279.71	8.69			< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 2.5
01/09/97		288.40	283.11	5.29			< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 2.5
04/15/97		288.40	281.90	6.50			< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 2.5
07/08/97		288.40	281.90	6.50			< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 2.5
10/22/97		288.40	283.00	5.40			< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 2.5
01/12/98		288.40	284.27	4.13			< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 2.5
04/21/98		288.40	283.84	4.56			< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 2.5
07/08/98		288.40	277.81	10.59			< 50	< 0.5	0.57	< 0.5	< 0.5	< 2.5

Table 1 Groundwater Monitoring Data and Analytical Results

					SPH	TPH-					
WELL ID/	TOC	GWE	DTW	SPHT	Removed	GRO	В	T	E	X	MTBE
DATE	(ft.)	(msl)	(ft.)	(ft.)	(gallons)	(µg/L)	(µg/L)	$(\mu g/L)$	$(\mu g/L)$	(µg/L)	(µg/L)
C-8 (cont)											
10/13/98	288.40	276.32	12.08			< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 2.5
01/27/99	288.40	276.89	11.51			< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 2.0
04/27/99	288.40	282.40	6.00			< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0
07/23/99	288.40	282.13	6.27			< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0
11/01/99	288.40	282.30	6.10			< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 2.5
01/20/00	288.40	281.92	6.48			< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0
04/28-29/00	288.40	282.82	5.58	0.00		< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.5
07/21/00	288.40	282.45	5.95	0.00		< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.5
10/09-10/00	288.40	281.82	6.58	0.00		< 50.0	< 0.500	< 0.500	< 0.500	< 0.500	< 2.50
01/08-09/01	288.40	INACCESSIBLI	Е								
04/30/01	288.40	282.44	5.96	0.00		< 50.0	< 0.500	< 0.500	< 0.500	< 0.500	< 5.00
07/09-10/01	288.40	282.81	5.59	0.00		< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.5
10/10/01	288.40	282.88	5.52	0.00		< 50	< 0.50	< 0.50	< 0.50	<1.5	< 2.5
01/07/02	288.40	282.90	5.50	0.00		< 50	< 0.50	< 0.50	< 0.50	<1.5	<2.5
04/11/02	288.40	282.53	5.87	0.00		< 50	< 0.50	< 0.50	< 0.50	<1.5	<2.5
07/11/02	288.40	MONITORED/S	SAMPLED ANN	IUALLY							
10/30/02	288.40	MONITORED/S	SAMPLED ANN	IUALLY							
01/29/03	288.40	282.38	6.02	0.00		< 50	< 0.50	< 0.50	< 0.50	<1.5	<2.5/<0.511
04/18/03	288.40	MONITORED/S	SAMPLED ANN	IUALLY							
07/18/03	288.40	MONITORED/S	SAMPLED ANN	IUALLY							
10/17/03	288.40	MONITORED/S	SAMPLED ANN	IUALLY							
01/20/04 ¹⁴	288.40	282.35	6.05	0.00		< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
04/09/04	288.40	MONITORED/S	SAMPLED ANN	IUALLY							
07/09/04	288.40	MONITORED/S	SAMPLED ANN	IUALLY							
10/29/04	288.40	MONITORED/S	SAMPLED ANN	IUALLY							
02/25/05 ¹⁴	288.40	283.61	4.79	0.00		< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
05/27/05	288.40	MONITORED/S	SAMPLED ANN	IUALLY							
07/15/05	288.40	MONITORED/S	SAMPLED ANN	IUALLY							

Table 1 Groundwater Monitoring Data and Analytical Results

					SPH	ТРН-					
WELL ID/	TOC	GWE	DTW	SPHT	Removed	GRO	В	T	E	X	MTBE
DATE	(ft.)	(msl)	(ft.)	(ft.)	(gallons)	$(\mu g/L)$	$(\mu g/L)$	$(\mu g/L)$	(μg/L)	(µg/L)	(µg/L)
C-8 (cont)											
10/14/05	288.40	MONITORED/S	SAMPLED AN	INUALLY							
01/12/06 ¹⁴	288.40	282.89	5.51	0.00		< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
04/20/06	288.40	MONITORED/S	SAMPLED AN	INUALLY							
07/20/06	288.40	MONITORED/S	SAMPLED AN	INUALLY							
10/06/06	288.40	281.42	6.98	0.00							
01/17/07 ¹⁴	288.40	280.62	7.78	0.00		< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
04/25/07	288.40	MONITORED/S	SAMPLED AN	INUALLY							
07/27/07	289.40	MONITORED/S	SAMPLED AN	INUALLY							
10/15/07	289.40	MONITORED/S	SAMPLED AN	INUALLY							
$01/07/08^{14}$	288.40	283.27	5.13	0.00		< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
04/04/08	288.40	MONITORED/S	SAMPLED AN	INUALLY							
07/09/08	288.40	MONITORED/S	SAMPLED AN	INUALLY							
10/31/08	288.40	MONITORED/S	SAMPLED AN	INUALLY							
01/08/09 ¹⁴	288.40	282.35	6.05	0.00		< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
04/24/09	288.40	MONITORED/S	SAMPLED AN	INUALLY							
07/15/09	288.40	MONITORED/S	SAMPLED AN	INUALLY							
10/20/09	288.40	MONITORED/S	SAMPLED AN	INUALLY							
01/04/10 ¹⁴	288.40	282.67	5.73	0.00		< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
04/12/10	288.40	MONITORED	/SAMPLED A	NNUALLY							
C-9											
07/03/86	268.46	254.57	13.89								
03/26/87	268.46	254.72	13.74								
03/28/88	268.46	253.47	14.99								
03/10/89	268.46	255.07	13.39								
04/03/89	268.46	255.62	12.84								
05/08/89	268.46	254.08	14.38								

Table 1 Groundwater Monitoring Data and Analytical Results

WELL ID/		тос	GWE	DTW	SPHT	SPH Removed	TPH- GRO	В	Т	E	X	MTBE
DATE		(ft.)	(msl)	(ft.)	(ft.)	(gallons)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
C-9 (cont)												
06/05/89		268.46	253.10	15.36								
07/12/90		268.46	252.81	15.65								
08/10/90		268.46	252.66	15.80								
09/13/89		268.46	251.93	16.53			42,000	14,000	1,100	2,800	4,200	
10/04/89		268.46	251.94	16.52								
11/03/89		268.46	251.95	16.51								
12/04/89		268.46	251.67	16.79			36,000	11,000	670	2,500	3,800	
03/07/90		268.46	252.24	16.22								
03/09/90		268.46	252.24	16.22			28,000	12,000	940	3,000	4,700	
06/12/90		268.46	253.58	14.88			39,000	11,000	1,600	2,300	4,800	
09/24/90		268.46	252.16	16.30			120,000	13,000	1,600	3,700	6,800	
12/20/90		268.46	251.23	17.23			51,000	9,300	560	2,800	3,300	
12/20/90	(D)	268.46	251.23	17.23			44,000	12,000	580	2,800	3,500	
03/27/91		268.46	254.68	13.78			56,000	3,400	5,000	1,600	5,600	
06/18/91		268.46	249.82	18.64								
09/12/91		268.46	INACCESSIBLE									
10/24/95		268.46	250.39	18.07			30,000	7,200	440	2,500	1,600	
01/16/96		268.46	252.18	16.28			36,000	8,200	700	2,500	2,100	< 500
01/16/96		268.46	252.18	16.28			36,000	8,200	700	2,500	2,100	< 500
07/08/98		268.46	256.46	12.00			20,000	4,900	880	1,100	2,500	<250
10/13/98		268.46	254.19	14.27			28,000	7,100	1,100	1,300	2,700	<125
01/27/99		268.46	256.92	11.54			12,100	3,490	249	654	1,260	131
04/27/99		268.46	257.46	11.00			42,400	12,500	732	3,060	2,760	1000
07/23/99		268.46	257.16	11.30			28,800	7,420	418	1,900	1,720	<1000
11/01/99		268.46	257.02	11.44			10,100	2,050	227	628	830	933
01/20/00		268.46	255.38	13.08			33,100	7,990	239	1,990	1,030	<1000
04/28-29/00		268.46	257.61	10.85	0.00		$7,400^3$	1,100	< 50	440	280	<250
07/21/00		268.46	256.93	11.53	0.00		$3,900^3$	770	33	270	200	210
10/09-10/00		268.46	254.76	13.70	0.00		$4,190^{5}$	732	32.3	340	200	< 50.0

Table 1 Groundwater Monitoring Data and Analytical Results

					SPH	TPH-					
WELL ID/	TOC	GWE	DTW	SPHT	Removed	GRO	В	T	E	X	MTBE
DATE	(ft.)	(msl)	(ft.)	(ft.)	(gallons)	(µg/L)	(μg/L)	(µg/L)	(µg/L)	(µg/L)	(μg/L)
C-9 (cont)											
01/08-09/01	268.46	254.68	13.78	0.00		$7,430^{5}$	1,740	< 50.0	554	317	297
04/30/019	268.46	255.07	13.39	0.00		$5,040^3$	509	12.2	248	119	<100
07/09-10/019	268.46	255.46	13.00	0.00		$2,800^3$	430	<25	200	91	200
10/10/019	268.46	255.96	12.50	0.00		5,900	920	33	300	240	< 20
01/07/02	268.46	258.75	9.71	0.00		2,800	120	6.3	33	82	62
04/11/029	268.46	258.11	10.35	0.00		6,700	1,200	24	360	140	< 50
07/11/029	268.46	INACCESSIBL	LE - PUMP STUC	K IN WELL							
10/30/029	268.46	INACCESSIBL	LE - PUMP STUC	K IN WELL							
01/29/039	268.46		LE - PUMP STUC	K IN WELL							
04/18/03 ¹²	13	13	8.95	0.00		5,500	920	40	340	140	<13
07/18/03 ^{12,14}	13	13	10.22	0.00		12,000	1,900	110	670	520	<1
10/17/03 ¹⁴	13	13	10.35	0.00		17,000	3,100	80	990	820	<3
01/20/04 ¹⁴	13	13	8.98	0.00		6,200	1,100	18	340	38	<1
04/09/04 ¹⁴	13	13	9.07	0.00		10,000	2,900	37	920	130	<3
07/09/04 ¹⁴	13	13	10.40	0.00		14,000	2,500	120	730	440	<3
10/29/04 ¹⁴	13	13	10.22	0.00		10,000	840	19	310	76	0.5
02/25/05 ¹⁴	13	13	8.08	0.00		2,600	550	4	200	15	0.7
05/27/05 ¹⁴	13	13	8.57	0.00		14,000	2,500	38	940	170	<3
07/15/05 ¹⁴	13	13	8.90	0.00		9,900	2,000	76	710	310	<3
10/14/05 ¹⁴	13	13	10.85	0.00		12,000	2,200	62	690	360	<3
$01/12/06^{14,15}$	13	13	18.60	0.00		< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
04/20/06 ¹⁴	13	13	7.95	0.00		17,000	3,500	78	1,100	440	3
07/20/06 ¹⁴	13	13	9.21	0.00		16,000	3,900	71	1,000	420	<5
10/06/06 ¹⁴	13	13	10.70	0.00		8,900	370	24	170	92	< 0.5
01/17/07 ¹⁴	13	13	10.36	0.00		14,000	3,200	46	880	240	3
04/25/07 ¹⁴	13	13	10.15	0.00		16,000	3,800	46	890	180	<5
07/27/07 ¹⁴	13	13	11.25	0.00		13,000	3,100	32	830	92	3
10/15/07 ¹⁴	13	13	10.92	0.00		2,100	160	4	17	11	< 0.5

Table 1 Groundwater Monitoring Data and Analytical Results

					SPH	TPH-					
WELL ID/	TOC	GWE	DTW	SPHT	Removed	GRO	В	Т	E	X	MTBE
DATE	(ft.)	(msl)	(ft.)	(ft.)	(gallons)	(µg/L)	(µg/L)	(μg/L)	(μg/L)	(µg/L)	(μg/L)
C-9 (cont)											
01/07/08 ¹⁴	13	13	10.50	0.00		1,100	61	0.7	0.7	1	< 0.5
04/04/08 ¹⁴	13	13	9.87	0.00		16,000	4,100	52	1,000	210	3
07/09/08 ¹⁴	13	13	11.06	0.00		4,500	320	5	150	9	< 0.5
10/31/08 ¹⁴	13	13	12.10	0.00		4,400	1,100	12	160	19	1
01/08/09 ¹⁴	13	13	10.87	0.00		15,000	2,800	50	750	260	3
04/24/09 ¹⁴	13	13	10.12	0.00		4,900	400	5	20	9	0.6
07/15/09 ¹⁴	13	13	11.15	0.00		5,800	510	7	96	14	0.7
10/20/09 ¹⁴	13	13	10.24	0.00		2,400	190	3	2	6	< 0.5
01/04/10 ¹⁴	13	13	9.91	0.00		14,000	2,300	35	600	190	<3
04/12/10 ¹⁴	13	13	7.74	0.00		7,200	880	38	330	280	0.5
C-11											
03/07/90	265.30	242.56	22.74								
03/09/90	265.30					ND	1.2	0.7	ND	1.4	
06/12/90	265.30	243.32	21.98			ND	ND	ND	ND	ND	
09/24/90	265.30	243.42	21.88			ND	ND	ND	ND	ND	
12/20/90	265.30	242.12	23.18			ND	ND	ND	ND	ND	
03/27/91	265.30	243.78	21.52			ND	ND	ND	ND	1.5	
06/18/91	265.30	243.40	21.90								
09/12/91	265.30	242.60	22.70			ND	ND	ND	ND	ND	
01/23/92	265.30	241.84	23.46			ND	ND	ND	ND	ND	
04/13/92	265.30	243.73	21.57			ND	ND	ND	ND	ND	
08/03/92	265.30	242.63	22.67			ND	ND	ND	ND	ND	
10/22/92	265.30	242.01	23.29			ND	ND	ND	ND	ND	
01/18/93	265.30	243.94	21.36			ND	ND	1.2	ND	2.2	
04/19/93	265.30	245.33	19.97			ND	ND	ND	ND	ND	
07/21-22/93	265.30	244.65	20.65			ND	ND	ND	ND	ND	

Table 1 Groundwater Monitoring Data and Analytical Results

					SPH	TPH-					
WELL ID/	TOC	GWE	DTW	SPHT	Removed	GRO	В	T	E	X	MTBE
DATE	(ft.)	(msl)	(ft.)	(ft.)	(gallons)	(µg/L)	$(\mu g/L)$	(µg/L)	(µg/L)	(µg/L)	(µg/L)
C-11 (cont)											
10/25/93	265.30	244.55	20.75			ND	ND	ND	ND	ND	
01/21/94	265.30	243.69	21.61			ND	ND	ND	ND	ND	
04/18/94	265.30	244.52	20.78			ND	ND	ND	ND	ND	
07/06-07/94	265.30	244.88	20.42			ND	ND	ND	ND	ND	
10/07/94	265.30	243.70	21.60			ND	ND	ND	ND	ND	
01/11/95	265.30	245.28	20.02			< 50	< 0.5	< 0.5	< 0.5	< 0.5	
04/24/95	265.30	247.58	17.72			< 50	< 0.5	< 0.5	< 0.5	< 0.5	
07/31/95	265.30	246.12	19.18			< 50	< 0.5	< 0.5	< 0.5	< 0.5	
10/02/95	265.30	244.88	20.42			< 50	< 0.5	< 0.5	< 0.5	< 0.5	
01/16/96	265.30	245.48	19.82			< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 2.5
04/18/96	265.30	248.30	17.00			260	7.9	6.9	5.3	23	11
07/22/96	265.30	248.40	16.90			< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 2.5
10/10/96	265.30	245.74	19.56			130	32	2.70	4.30	14	3.40
01/09/97	265.30	249.28	16.02			75	5.30	6.40	2.0	9.0	< 2.5
04/15/97	265.30	247.35	17.95			< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 2.5
07/08/97	265.30	245.55	19.75			< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 2.5
10/22/97	265.30	245.74	19.56			< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 2.5
01/12/98	265.30	246.97	18.33			< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 2.5
04/21/98	265.30	248.62	16.68			< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 2.5
07/08/98	265.30	246.76	18.54			< 50	< 0.5	0.58	< 0.5	< 0.5	< 2.5
10/13/98	265.30	245.02	20.28			< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 2.5
01/27/99	265.30	245.85	19.45			< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 2.0
04/27/99	265.30	246.90	18.40			< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0
07/23/99	265.30	246.05	19.25			< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0
11/01/99	265.30	247.47	17.83			< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 2.5
01/20/00	265.30	245.06	20.24			< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0
04/28-29/00	265.30	246.35	18.95	0.00		< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.5
07/21/00	265.30	246.07	19.23	0.00		< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.5

Table 1 Groundwater Monitoring Data and Analytical Results

					SPH	ТРН-					
WELL ID/	TOC	GWE	DTW	SPHT	Removed	GRO	В	T	E	X	MTBE
DATE	(ft.)	(msl)	(ft.)	(ft.)	(gallons)	(µg/L)	(µg/L)	(µg/L)	(μg/L)	(μg/L)	(μg/L)
C-11 (cont)											
10/09-10/00	265.30	245.57	19.73	0.00		< 50.0	< 0.500	< 0.500	< 0.500	< 0.500	< 2.50
01/08-09/01	265.30	244.99	20.31	0.00		< 50.0	< 0.500	< 0.500	< 0.500	< 0.500	< 2.50
04/30/01	265.30	246.01	19.29	0.00		< 50.0	< 0.500	< 0.500	< 0.500	< 0.500	< 5.00
07/09-10/01	265.30	245.51	19.79	0.00		< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.5
10/10/01	265.30	245.23	20.07	0.00		< 50	< 0.50	< 0.50	< 0.50	<1.5	< 2.5
01/07/02	265.30	246.85	18.45	0.00		< 50	< 0.50	< 0.50	< 0.50	<1.5	< 2.5
04/11/02	265.30	246.05	19.25	0.00		< 50	< 0.50	< 0.50	< 0.50	<1.5	< 2.5
07/11/02	265.30	MONITORED/	SAMPLED ANN	NUALLY							
10/30/02	265.30	MONITORED/	SAMPLED ANN	NUALLY							
01/29/03	265.30	245.89	19.41	0.00		< 50	< 0.50	< 0.50	< 0.50	<1.5	<2.5/<0.5 ¹¹
04/18/03	265.30	MONITORED/	SAMPLED ANN	NUALLY							
07/18/03	265.30	MONITORED/	SAMPLED ANN	NUALLY							
10/17/03	265.30	MONITORED/	SAMPLED ANN	NUALLY							
01/20/04 ¹⁴	265.30	246.35	18.95	0.00		< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
04/09/04	265.30	MONITORED/	SAMPLED ANN	NUALLY							
07/09/04	265.30	MONITORED/	SAMPLED ANN	NUALLY							
10/29/04	265.30	MONITORED/	SAMPLED ANN	NUALLY							
02/25/05 ¹⁴	265.30	247.17	18.13	0.00		< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
05/27/05	265.30	MONITORED/	SAMPLED AND	NUALLY							
07/15/05	265.30	MONITORED/	SAMPLED AND	NUALLY							
10/14/05	265.30	MONITORED/	SAMPLED AND	NUALLY							
01/12/06 ^{14,15}	265.30	246.70	18.60	0.00		50,000	21,000	680	2,800	3,900	<25
04/20/06	265.30	MONITORED/	SAMPLED AND	NUALLY							
07/20/06 ¹⁴	265.30	246.34	18.96	0.00		< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
10/06/06 ¹⁴	265.30	246.00	19.30	0.00		< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
01/17/07 ¹⁴	265.30	245.70	19.60	0.00		< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
04/25/07 ¹⁴	265.30	245.93	19.37	0.00		< 50	< 0.5	0.8	< 0.5	0.7	< 0.5
07/27/07 ¹⁴	265.30	245.60	19.70	0.00		< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5

Table 1 Groundwater Monitoring Data and Analytical Results

WELL ID/	TOC	GWE	DTW	SPHT	SPH Removed	TPH- GRO	В	T	E	X	MTBE
DATE	(ft.)	(msl)	(ft.)	(ft.)	(gallons)	GRO (μg/L)	μg/L)	1 (μg/L)	Ε (μg/L)	Λ (μg/L)	M11BE (μg/L)
C-11 (cont)	· · · · · · · · · · · · · · · · · · ·			······································	(8		4-0		4 0	1.0	4.6
10/15/07 ¹⁴	265.30	245.65	19.65	0.00		< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
01/07/08 ¹⁴	265.30	245.87	19.03	0.00		<50	<0.5	<0.5	<0.5	<0.5	<0.5
04/04/08 ¹⁴	265.30	247.26	18.04	0.00		<50	<0.5	<0.5	<0.5	<0.5	<0.5
07/09/08 ¹⁴	265.30	246.14	19.16	0.00		<50	<0.5	<0.5	<0.5	<0.5	<0.5
10/31/08 ¹⁴	265.30	245.69	19.10	0.00		<50	<0.5	<0.5	<0.5	<0.5	<0.5
01/08/09 ¹⁴	265.30	246.19	19.01	0.00		<50	<0.5	<0.5	<0.5	<0.5	<0.5
04/24/09 ¹⁴	265.30	246.42	18.88	0.00		<50	<0.5	<0.5	<0.5	<0.5	<0.5
07/15/09 ¹⁴	265.30	246.35	18.95	0.00		<50	<0.5	<0.5	<0.5	<0.5	<0.5
10/20/09	265.30		SAMPLED SEM				<0.5 	<0.5 			<0.5
01/04/10 ¹⁴	265.30	246.81	18.49	0.00		<50	<0.5	<0.5	<0.5	<0.5	< 0.5
04/12/10	265.30			MI-ANNUALLY				~0.5 	~0.5 	~0.5 	~0. 3
C-12											
C-12											
03/07/90	269.66	254.74	14.92								
03/07/90 03/09/90	269.66 269.66	254.74	14.92								
03/09/90	269.66			 		1,400	230	140	33	180	
03/09/90 06/12/90	269.66 269.66	 254.87	 14.79	 		1,400 720	230 190	140 71	33 18	180 73	
03/09/90 06/12/90 09/24/90	269.66 269.66 269.66	 254.87 253.94	 14.79 15.72		 	1,400 720 ND	230 190 1.1	140 71 ND	33 18 ND	180 73 0.6	
03/09/90 06/12/90 09/24/90 12/20/90	269.66 269.66 269.66 269.66	254.87 253.94 254.40	14.79 15.72 15.26	 	 	1,400 720 ND 810	230 190 1.1 210	140 71 ND 26	33 18 ND 8.2	180 73 0.6 23	
03/09/90 06/12/90 09/24/90 12/20/90 03/27/91	269.66 269.66 269.66 269.66 269.66	254.87 253.94 254.40 257.55	14.79 15.72 15.26 12.11	 	 	1,400 720 ND	230 190 1.1	140 71 ND	33 18 ND	180 73 0.6	
03/09/90 06/12/90 09/24/90 12/20/90 03/27/91 06/18/91	269.66 269.66 269.66 269.66	254.87 253.94 254.40 257.55 253.28	14.79 15.72 15.26 12.11 16.38	 	 	1,400 720 ND 810 2,900	230 190 1.1 210 350	140 71 ND 26 220	33 18 ND 8.2 52	180 73 0.6 23 210	
03/09/90 06/12/90 09/24/90 12/20/90 03/27/91 06/18/91	269.66 269.66 269.66 269.66 269.66 269.66	254.87 253.94 254.40 257.55 253.28 252.11	14.79 15.72 15.26 12.11 16.38 17.55	 	 	1,400 720 ND 810 2,900	230 190 1.1 210 350	140 71 ND 26 220 12	33 18 ND 8.2 52 4.5	180 73 0.6 23 210 8.5	
03/09/90 06/12/90 09/24/90 12/20/90 03/27/91 06/18/91 09/12/91 01/23/92	269.66 269.66 269.66 269.66 269.66 269.66 269.66	254.87 253.94 254.40 257.55 253.28 252.11 252.55	14.79 15.72 15.26 12.11 16.38 17.55	 	 	1,400 720 ND 810 2,900 350 450	230 190 1.1 210 350 59 110	140 71 ND 26 220 12 31	33 18 ND 8.2 52 4.5 7.9	180 73 0.6 23 210 8.5 22	
03/09/90 06/12/90 09/24/90 12/20/90 03/27/91	269.66 269.66 269.66 269.66 269.66 269.66	254.87 253.94 254.40 257.55 253.28 252.11 252.55 255.26	14.79 15.72 15.26 12.11 16.38 17.55 17.11	 	 	1,400 720 ND 810 2,900 350 450 5,000	230 190 1.1 210 350 59 110 1,100	140 71 ND 26 220 12 31 76	33 18 ND 8.2 52 4.5 7.9 100	180 73 0.6 23 210 8.5 22 200	
03/09/90 06/12/90 09/24/90 12/20/90 03/27/91 06/18/91 09/12/91 01/23/92 04/13/92	269.66 269.66 269.66 269.66 269.66 269.66 269.66 269.66 269.66	254.87 253.94 254.40 257.55 253.28 252.11 252.55 255.26 253.83	14.79 15.72 15.26 12.11 16.38 17.55 17.11 14.40 15.83	 	 	1,400 720 ND 810 2,900 350 450 5,000 520	230 190 1.1 210 350 59 110	140 71 ND 26 220 12 31 76 21	33 18 ND 8.2 52 4.5 7.9 100	180 73 0.6 23 210 8.5 22 200 25	
03/09/90 06/12/90 09/24/90 12/20/90 03/27/91 06/18/91 09/12/91 01/23/92 04/13/92 08/03/92	269.66 269.66 269.66 269.66 269.66 269.66 269.66 269.66	254.87 253.94 254.40 257.55 253.28 252.11 252.55 255.26	14.79 15.72 15.26 12.11 16.38 17.55 17.11	 	 	1,400 720 ND 810 2,900 350 450 5,000	230 190 1.1 210 350 59 110 1,100 200	140 71 ND 26 220 12 31 76	33 18 ND 8.2 52 4.5 7.9 100	180 73 0.6 23 210 8.5 22 200	

Table 1 Groundwater Monitoring Data and Analytical Results

					SPH	ТРН-					
WELL ID/	TOC	GWE	DTW	SPHT	Removed	GRO	В	T	E	X	MTBE
DATE	(ft.)	(msl)	(ft.)	(ft.)	(gallons)	(µg/L)	(μg/L)	(µg/L)	(μg/L)	(μg/L)	(μg/L)
C-12 (cont)											
07/21-22/93	269.66	256.82	12.84			540	95	36	18	56	
10/25/93	269.66	255.63	14.03			350	90	29	20	50	
01/21/94	269.66	255.51	14.15			450	73	18	14	37	
04/18/94	269.66	256.71	12.95			370	70	21	12	39	
07/06-07/94	269.66	257.35	12.31			840	200	35	28	66	
10/07/94	269.66	256.31	13.35			830	85	29	17	63	
01/11/95	269.66	258.43	11.23			2,100	570	190	98	390	
04/24/95	269.66	259.34	10.32			820	120	28	23	61	
07/31/95	269.66	256.92	12.74			520	79	13	16	42	
10/02/95	269.66	255.26	14.40			400	50	5.3	11	29	
01/16/96	269.66	256.94	12.72			1,900	490	32	60	120	<25
04/18/96	269.66	258.91	10.75			2,900	640	54	100	190	68
07/22/96	269.66	256.46	13.20			730	150	13	26	75	10
10/10/96	269.66	255.95	13.71			270	58	4.40	7.70	31	< 2.5
01/09/97	269.66	260.60	9.06			2,900	550	67	94	300	63
04/15/97	269.66	258.13	11.53			2,500	350	29	92	200	43
07/08/97	269.66	257.92	11.74			1,400	190	17	54	120	21
10/22/97	269.66	258.78	10.88			2,300	490	45	110	340	42
01/12/98	269.66	260.76	8.90			5,000	840	89	220	610	< 50
04/21/98	269.66	262.41	7.25			2,400	410	39	79	270	130
07/08/98	269.66	258.95	10.71			< 50	7.6	< 0.5	2.0	2.9	< 2.5
10/13/98	269.66	257.01	12.65			2,600	460	34	120	240	11
01/27/99	269.66	257.41	12.25			96.9	6.88	< 0.5	< 0.5	< 0.5	< 2.0
04/27/99	269.66	259.46	10.20			2,720	614	32	128	300	< 50
07/23/99	269.66	258.27	11.39			1,230	220	10	45	93.6	<20
11/01/99	269.66	257.13	12.53			70.7	10.7	1.02	< 0.5	1.61	5.55
01/20/00	269.66	257.85	11.81			1,390	301	10.7	29.9	90.8	< 50
04/28-29/00	269.66	259.37	10.29	0.00		310^{3}	57	< 0.50	11	6.8	15

Table 1 Groundwater Monitoring Data and Analytical Results

					SPH	ТРН-					
WELL ID/	TOC	GWE	DTW	SPHT	Removed	GRO	В	T	E	X	MTBE
DATE	(ft.)	(msl)	(ft.)	(ft.)	(gallons)	(μg/L)	$(\mu g/L)$	(µg/L)	$(\mu g/L)$	(μg/L)	$(\mu g/L)$
C-12 (cont)											
07/21/00	269.66	258.67	10.99	0.00		260^{3}	74	1.5	< 0.50	12	5.55
10/09-10/00	269.66	257.63	12.03	0.00		$3,510^{5}$	903	24.0	53.9	200	<100
01/08-09/01	269.66	257.70	11.96	0.00		$1,600^{7}$	319	< 5.00	60.7	55.1	84.8
04/30/01	269.66	259.08	10.58	0.00		985 ³	114	< 2.50	26.4	14.6	<25.0
07/09-10/01	269.66	258.04	11.62	0.00		< 50	6.5	< 0.50	< 0.50	< 0.50	<2.5
10/10/01	269.66	257.60	12.06	0.00		8,700	720	15	430	250	< 50
01/07/02	269.66	261.28	8.38	0.00		2,200	460	8.5	60	73	31
04/11/02	269.66	260.71	8.95	0.00		6,200	610	8.4	420	230	<25
07/11/02	269.66	259.95	9.71	0.00		< 50	< 0.50	< 0.50	< 0.50	<1.5	<2.5
10/30/02	269.66	258.38	11.28	0.00		240	40	0.88	0.58	1.6	<2.5
01/29/03	269.66	261.36	8.30	0.00		8,300	530	9.9	500	350	<50/<0.5 ¹¹
04/18/03	269.66	261.68	7.98	0.00		3,300	200	3.6	200	79	<10
07/18/03 ¹⁴	269.66	260.74	8.92	0.00		1,500	86	0.8	50	17	< 0.5
10/17/03 ¹⁴	269.66	259.18	10.48	0.00		940	56	0.7	37	11	< 0.5
01/20/04 ¹⁴	269.66	260.96	8.70	0.00		6,000	180	3	270	160	< 0.5
04/09/04 ¹⁴	269.66	261.32	8.34	0.00		3,900	240	2	250	55	0.8
07/09/04 ¹⁴	269.66	259.71	9.95	0.00		2,300	80	0.9	99	24	< 0.5
10/29/04 ¹⁴	269.66	259.99	9.67	0.00		200	50	0.5	< 0.5	< 0.5	< 0.5
02/25/05 ¹⁴	269.66	262.17	7.49	0.00		6,600	210	2	260	91	<1
05/27/05 ¹⁴	269.66	261.87	7.79	0.00		1,400	94	0.9	99	25	< 0.5
07/15/05 ¹⁴	269.66	261.53	8.13	0.00		< 50	1	< 0.5	< 0.5	< 0.5	< 0.5
10/14/05 ¹⁴	269.66	259.08	10.58	0.00		2,500	97	1	77	16	< 0.5
01/12/06 ¹⁴	269.66	261.95	7.71	0.00		1,000	30	< 0.5	48	10	< 0.5
04/20/06 ¹⁴	269.66	261.95	7.71	0.00		5,800	350	4	170	120	< 0.5
07/20/06 ¹⁴	269.66	261.12	8.54	0.00		5,100	190	2	240	120	< 0.5
10/06/06 ¹⁴	269.66	259.27	10.39	0.00		4,300	120	3	160	38	< 0.5
01/17/07 ¹⁴	269.66	259.55	10.11	0.00		1,600	73	2	75	22	< 0.5
04/25/07 ¹⁴	269.66	260.77	8.89	0.00		3,700	160	2	190	72	< 0.5

Table 1 Groundwater Monitoring Data and Analytical Results

WELL ID/	тос	GWE	DTW	SPHT	SPH Removed	TPH- GRO	В	Т	E	X	MTBE
DATE	(ft.)	(msl)	(ft.)	(ft.)	(gallons)	GKU (μg/L)	Φ (μg/L)	1 (μg/L)	Ε (μg/L)	Λ (μg/L)	MII DE (μg/L)
C-12 (cont)	•			•							
07/27/07 ¹⁴	269.66	258.48	11.18	0.00		2,600	120	1	69	20	< 0.5
10/15/07 ¹⁴	269.66	259.11	10.55	0.00		2,000	81	0.7	55	10	< 0.5
01/07/08 ¹⁴	269.66	260.80	8.86	0.00		1,800	35	< 0.5	23	5	< 0.5
04/04/08 ¹⁴	269.66	261.20	8.46	0.00		2,100	27	< 0.5	26	8	< 0.5
07/09/08 ¹⁴	269.66	258.65	11.01	0.00		360	11	< 0.5	2	0.8	< 0.5
10/31/08 ¹⁴	269.66	257.45	12.21	0.00		1,000	15	< 0.5	5	2	< 0.5
01/08/09 ¹⁴	269.66	259.29	10.37	0.00		2,400	78	1	54	22	< 0.5
04/24/09 ¹⁴	269.66	260.03	9.63	0.00		600	18	< 0.5	0.7	1	< 0.5
07/15/09 ¹⁴	269.66	258.24	11.42	0.00		3,300	150	3	3	22	0.6
10/20/09	269.66	MONITORED/	SAMPLED SEM	II-ANNUALLY							
01/04/10 ¹⁴	269.66	259.86	9.80	0.00		2,200	57	0.8	25	17	< 0.5
04/12/10	269.66	MONITORED	/SAMPLED SE	MI-ANNUALLY							
C-13											
03/07/90	284.32	273.14	11.18								
03/09/90	284.32					ND	15	3.7	1.0	6.2	
06/12/90	284.32	273.62	10.70			ND	2.6	ND	ND	ND	
09/24/90	284.32	272.72	11.60			ND	2.4	ND	ND	ND	
12/20/90	284.32	274.16	10.16			ND	1.6	ND	ND	ND	
03/27/91	284.32	276.68	7.64								
06/18/91	284.32	273.00	11.32								
09/12/91	284.32	272.48	11.84			ND	ND	ND	ND	ND	
01/23/92	284.32	273.77	10.55								
04/13/92	284.32	273.36	10.96			ND	1.0	ND	ND	ND	
08/03/92	284.32	273.42	10.90			ND	ND	ND	ND	ND	
10/22/92	284.32	273.14	11.18								
01/18/93	284.32	276.92	7.40			290	54	10	5.4	12	

Table 1 Groundwater Monitoring Data and Analytical Results

					SPH	ТРН-					
WELL ID/	TOC	GWE	DTW	SPHT	Removed	GRO	В	T	E	X	MTBE
DATE	(ft.)	(msl)	(ft.)	(ft.)	(gallons)	(μg/L)	(µg/L)	(μg/L)	(μg/L)	(µg/L)	(µg/L)
C-13 (cont)											
04/19/93	284.32	275.39	8.93								
07/21-22/93	284.32	273.57	10.75			ND	ND	ND	ND	ND	
10/25/93	284.32	273.47	10.85								
01/21/94	284.32	273.27	11.05			ND	ND	ND	ND	ND	
04/18/94	284.32	273.61	10.71								
07/06-07/94	284.32	273.67	10.65			ND	0.5	ND	ND	ND	
10/07/94	284.32	273.24	11.08								
01/11/95	284.32	278.94	5.38			120	15	< 0.5	3.1	2.7	
04/24/95	284.32	276.54	7.78			SAMPLED SI	EMI-ANNUALL	Y			
07/31/95	284.32	274.38	9.94			< 50	< 0.5	< 0.5	< 0.5	< 0.5	
10/02/95	284.32	273.74	10.58								
01/16/96	284.32	274.52	9.80			< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 2.5
04/18/96	284.32	276.57	7.75								
07/22/96	284.32	274.82	9.50			59	18	< 0.5	1.0	< 0.5	< 2.5
10/10/96	284.32	273.63	10.69								
01/09/97	284.32	276.95	7.37			< 50	0.60	< 0.5	< 0.5	< 0.5	< 2.5
04/15/97	284.32	275.63	8.69								
07/08/97	284.32	276.12	8.20			SAMPLES LO	OST				
07/15/97	284.32	276.02	8.30			< 50	2.6	< 0.5	< 0.5	1.6	< 2.5
10/22/97	284.32	276.79	7.53								
01/12/98	284.32	278.38	5.94			< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 2.5
04/21/98	284.32	277.35	6.97								
07/08/98	284.32	274.45	9.87			< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 2.5
10/13/98	284.32	273.51	10.81								
01/27/99	284.32	273.06	11.26			< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 2.0
04/27/99	284.32	275.42	8.90								
07/23/99	284.32	275.00	9.32			158	14.9	< 0.5	0.69	0.928	< 5.0
11/01/99	284.32	272.83	11.49								

Table 1 Groundwater Monitoring Data and Analytical Results

					SPH	ТРН-					
WELL ID/	TOC	GWE	DTW	SPHT	Removed	GRO	В	T	E	X	MTBE
DATE	(ft.)	(msl)	(ft.)	(ft.)	(gallons)	(µg/L)	(µg/L)	(µg/L)	(μg/L)	(µg/L)	(µg/L)
C-13 (cont)											
01/20/00	284.32	274.23	10.09			< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0
04/28-29/00	284.32	275.43	8.89	0.00		SAMPLED SE	MI-ANNUALLY	•			
07/21/00	284.32	274.87	9.45	0.00							
07/26/00	284.32	INACCESSIBLE									
10/09-10/00	284.32	274.07	10.25	0.00							
01/08-09/01	284.32	INACCESSIBLE									
04/30/01	284.32	275.17	9.15	0.00		< 50.0	0.925	< 0.500	< 0.500	< 0.500	< 5.00
07/09-10/01	284.32	274.72	9.60	0.00		< 50	0.66	< 0.50	< 0.50	< 0.50	< 2.5
10/10/01	284.32	274.52	9.80	0.00		SAMPLED SE	MI-ANNUALLY	•			
01/07/02	284.32	276.47	7.85	0.00		< 50	< 0.50	< 0.50	< 0.50	<1.5	< 2.5
04/11/02	284.32	276.11	8.21	0.00							
07/11/02	284.32	275.54	8.78	0.00		< 50	1.9	< 0.50	< 0.50	<1.5	< 2.5
10/30/02	284.32	MONITORED/SA	MPLED AN	NUALLY							
01/29/03	284.32	MONITORED/SA	MPLED AN	NUALLY							
04/18/03	284.32	MONITORED/SA	MPLED AN	NUALLY							
07/18/03 ¹⁴	284.32	274.99	9.33	0.00		830	31	2	6	7	< 0.5
10/17/03	284.32	MONITORED/SA	MPLED AN	NUALLY							
01/20/04	284.32	MONITORED/SA	MPLED AN	NUALLY							
04/09/04	284.32	MONITORED/SA	MPLED AN	NUALLY							
07/09/04 ¹⁴	284.32	275.67	8.65	0.00		510	15	0.7	2	2	< 0.5
10/29/04	284.32	MONITORED/SA	MPLED AN	NUALLY							
02/25/05	284.32	MONITORED/SA	MPLED AN	NUALLY							
05/27/05	284.32	MONITORED/SA	MPLED AN	NUALLY							
07/15/05 ¹⁴	284.32	275.84	8.48	0.00		920	24	1	18	3	< 0.5
10/14/05	284.32	MONITORED/SA	MPLED AN	NUALLY							
01/12/06	284.32	MONITORED/SA	MPLED AN	NUALLY							
04/20/06	284.32	272.01	12.31	0.00		920	24	1	18	3	< 0.5
07/20/06 ¹⁴	284.32	272.01	12.31	0.00		1,500	19	1	19	3	< 0.5

Table 1 Groundwater Monitoring Data and Analytical Results

C-13 (cont)							SPH	ТРН-					
C-13 (com) 100606 284.32 275.17 9.15 0.00	WELL ID/		TOC	GWE	DTW	SPHT	Removed	GRO	В	T	E	X	MTBE
1006/06 284.32 275.17 9.15 0.00	DATE		(ft.)	(msl)	(ft.)	(ft.)	(gallons)	$(\mu g/L)$	$(\mu g/L)$	(µg/L)	$(\mu g/L)$	(µg/L)	$(\mu g/L)$
01/17/07 284.32 MONITORED/SAMPLED ANNUALLY	C-13 (cont)												
04/25/07	10/06/06		284.32	275.17	9.15	0.00							
07/27/07 ¹⁴ 284.32 274.05 10.27 0.00 1,100 10 0.7 10 2 <0.5 1015/07 284.32 MONITORED/SAMPLED ANNUALLY 04/04/08 284.32 MONITORED/SAMPLED ANNUALLY 04/04/08 284.32 MONITORED/SAMPLED ANNUALLY 07/09/08 ¹⁴ 284.32 MONITORED/SAMPLED ANNUALLY 1,200 13 1 188 3 <0.5 10/31/08 284.32 MONITORED/SAMPLED ANNUALLY	01/17/07		284.32	MONITORED/	SAMPLED AN	NUALLY							
10/15/07 284.32 MONITORED/SAMPLED ANNUALLY	04/25/07		284.32	MONITORED/	SAMPLED AN	NUALLY							
01/07/08 284.32 MONITORED/SAMPLED ANNUALLY	07/27/07 ¹⁴		284.32	274.05	10.27	0.00		1,100	10	0.7	10	2	< 0.5
04/04/08 284.32 MONITORED/SAMPLED ANNUALLY	10/15/07		284.32	MONITORED/	SAMPLED AN	NUALLY							
07/09/08	01/07/08		284.32	MONITORED/	SAMPLED AN	NUALLY							
10/31/08 284.32 MONITORED/SAMPLED ANNUALLY	04/04/08		284.32	MONITORED/	SAMPLED AN	NUALLY							
01/08/09	07/09/08 ¹⁴		284.32	274.77	9.55	0.00		1,200	13	1	18	3	< 0.5
04/24/09	10/31/08		284.32	MONITORED/	SAMPLED AN	NUALLY							
07/15/09 ¹⁴ 284.32 274.15 10.17 0.00 2,400 21 1 40 8 <0.5 10/20/09 284.32 MONITORED/SAMPLED ANNUALLY	01/08/09		284.32	MONITORED/	SAMPLED AN	NUALLY							
10/20/09	04/24/09		284.32	MONITORED/	SAMPLED AN	NUALLY							
10/20/09	07/15/09 ¹⁴		284.32	274.15	10.17	0.00		2,400	21	1	40	8	< 0.5
C-16 C-46 246.69 228.19 18.50 ND ND			284.32	MONITORED/	SAMPLED AN	NUALLY							
C-16 03/07/90	01/04/10		284.32	MONITORED/	SAMPLED AN	NUALLY							
03/07/90 246.69 228.19 18.50 ND ND ND ND ND ND ND ND ND ND ND ND ND ND ND ND ND	04/12/10		284.32	MONITORED	/SAMPLED A	NNUALLY							
03/07/90 246.69 228.19 18.50 ND ND ND ND ND ND ND ND ND ND ND ND ND ND ND ND ND													
03/09/90 246.69 ND ND ND ND ND 06/12/90 246.69 235.27 11.42 ND <	C-16												
06/12/90 246.69 235.27 11.42 ND ND ND ND ND ND 09/24/90 246.69 235.30 11.39 ND	03/07/90		246.69	228.19	18.50								
09/24/90 246.69 235.30 11.39 ND ND ND ND ND ND 12/20/90 246.69 235.12 11.57 ND ND ND ND ND 0.7 03/27/91 246.69 237.93 8.76 ND ND ND ND ND 1.2 06/18/91 246.69 235.51 11.18 ND ND ND ND ND ND ND ND 09/12/91 246.69 234.74 11.95 ND ND <td< td=""><td>03/09/90</td><td></td><td>246.69</td><td></td><td></td><td></td><td></td><td>ND</td><td>ND</td><td>ND</td><td>ND</td><td>ND</td><td></td></td<>	03/09/90		246.69					ND	ND	ND	ND	ND	
12/20/90 246.69 235.12 11.57 ND ND ND ND 0.7 03/27/91 246.69 237.93 8.76 ND ND ND ND ND 1.3 06/18/91 246.69 235.51 11.18 ND ND ND ND ND ND ND 09/12/91 246.69 234.74 11.95 ND ND <td< td=""><td>06/12/90</td><td></td><td>246.69</td><td>235.27</td><td>11.42</td><td></td><td></td><td>ND</td><td>ND</td><td>ND</td><td>ND</td><td>ND</td><td></td></td<>	06/12/90		246.69	235.27	11.42			ND	ND	ND	ND	ND	
03/27/91 246.69 237.93 8.76 ND ND ND ND ND 1.3 03/27/91 (D) 246.69 237.93 8.76 ND ND ND ND ND 1.2 06/18/91 246.69 235.51 11.18 ND ND ND ND ND ND ND 09/12/91 246.69 234.74 11.95 ND	09/24/90		246.69	235.30	11.39			ND	ND	ND	ND	ND	
03/27/91 (D) 246.69 237.93 8.76 ND ND ND ND 1.2 06/18/91 246.69 235.51 11.18 ND ND ND ND ND ND 09/12/91 246.69 234.74 11.95 ND 01/23/92 246.69 234.28 12.41 ND ND ND ND ND ND ND ND	12/20/90		246.69	235.12	11.57			ND	ND	ND	ND	0.7	
06/18/91 246.69 235.51 11.18 ND ND ND ND ND 09/12/91 246.69 234.74 11.95 ND ND ND ND ND ND 01/23/92 246.69 234.28 12.41 ND ND ND ND ND ND	03/27/91		246.69	237.93	8.76			ND	ND	ND	ND	1.3	
09/12/91 246.69 234.74 11.95 ND ND ND ND ND ND 01/23/92 246.69 234.28 12.41 ND ND ND ND ND ND ND	03/27/91	(D)	246.69	237.93	8.76			ND	ND	ND	ND	1.2	
01/23/92 246.69 234.28 12.41 ND ND ND ND ND ND	06/18/91		246.69	235.51	11.18			ND	ND	ND	ND	ND	
	09/12/91		246.69	234.74	11.95			ND	ND	ND	ND	ND	
04/13/92 246.69 236.00 10.69 ND ND ND ND ND	01/23/92		246.69	234.28	12.41			ND	ND	ND	ND	ND	
	04/13/92		246.69	236.00	10.69			ND	ND	ND	ND	ND	

Table 1 Groundwater Monitoring Data and Analytical Results

WELL ID/	TOC	GWE	DTW	SPHT	Removed	GRO	В	T	E	X	MTBE
DATE	(ft.)	(msl)	(ft.)	(ft.)	(gallons)	(µg/L)	(μg/L)	(µg/L)	(μg/L)	(µg/L)	(μg/L)
C-16 (cont)											
08/03/92	246.69	234.49	12.20			ND	ND	ND	ND	ND	
10/22/92	246.69	234.09	12.60			ND	ND	ND	ND	ND	
01/18/93	246.69	237.69	9.00			ND	ND	ND	ND	ND	
04/19/93	246.69	236.80	9.89			ND	ND	ND	ND	ND	
07/21-22/93	246.69	236.44	10.25			ND	ND	ND	ND	ND	
10/25/93	246.69	235.73	10.96			ND	ND	ND	ND	ND	
01/21/94	246.69	234.93	11.76			ND	ND	0.7	ND	1.0	
04/18/94	246.69	235.47	11.22			ND	ND	ND	ND	ND	
07/06-07/94	246.69	235.32	11.37			ND	ND	ND	ND	ND	
10/07/94	246.69	234.30	12.39			ND	ND	ND	ND	ND	
01/11/95	246.69	237.73	8.96			< 50	< 0.5	< 0.5	< 0.5	< 0.5	
04/24/95	246.69	236.31	10.38			< 50	< 0.5	< 0.5	< 0.5	< 0.5	
07/31/95	246.69	235.37	11.32			< 50	< 0.5	< 0.5	< 0.5	< 0.5	
10/02/95	246.69	234.29	12.40			< 50	< 0.5	< 0.5	< 0.5	< 0.5	
01/16/96	246.69	235.15	11.54			< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 2.5
04/18/96	246.69	236.09	10.60			< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 2.5
07/22/96	246.69	235.12	11.57			< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 2.5
10/10/96	246.69	234.25	12.44			< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 2.5
01/09/97	246.69	237.16	9.53			< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 2.5
04/15/97	246.69	234.66	12.03			< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 2.5
01/12/98	246.69	234.51	12.18			< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 2.5
10/22/97	246.69	233.94	12.75			< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 2.5
01/12/98	246.69	236.34	10.35			< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 2.5
04/21/98	246.69	236.06	10.63			< 50	< 0.5	< 0.5	< 0.5	< 0.5	<2.5
07/08/98	246.69	234.62	12.07			< 50	< 0.5	0.51	< 0.5	< 0.5	<2.5
10/13/98	246.69	233.94	12.75			< 50	< 0.5	< 0.5	< 0.5	< 0.5	<2.5
01/27/99	246.69	234.58	12.11			< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 2.0
04/27/99	246.69	235.56	11.13			< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0

Table 1 Groundwater Monitoring Data and Analytical Results

						SPH	TPH-					
WELL ID/		TOC	GWE	DTW	SPHT	Removed	GRO	В	T	E	X	MTBE
DATE		(ft.)	(msl)	(ft.)	(ft.)	(gallons)	$(\mu g/L)$	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
C-16 (cont)												
07/23/99		246.69	234.35	12.34			< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0
11/01/99		246.69	233.57	13.12			< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 2.5
01/20/00		246.69	233.84	12.85			< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0
04/28-29/00		246.69	234.49	12.20	0.00		< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.5
07/21/00		246.69	234.03	12.66	0.00		< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.5
10/09-10/00		246.69	233.80	12.89	0.00		< 50.0	< 0.500	< 0.500	< 0.500	< 0.500	< 2.50
01/08-09/01		246.69	233.73	12.96	0.00		< 50.0	< 0.500	< 0.500	< 0.500	< 0.500	< 2.50
04/30/01		246.69	235.95	10.74	0.00		724^{8}	<1.00	<1.00	<1.00	<1.00	<10.0
07/09-10/01		246.69	233.90	12.79	0.00		< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.5
10/10/01		246.69	233.62	13.07	0.00		< 50	< 0.50	< 0.50	< 0.50	<1.5	< 2.5
01/07/02		246.69	235.73	10.96	0.00		< 50	< 0.50	< 0.50	< 0.50	<1.5	< 2.5
04/11/02		246.69	234.87	11.82	0.00		< 50	< 0.50	< 0.50	< 0.50	<1.5	< 2.5
07/11/02		246.69	MONITORED/S	SAMPLED ANN	NUALLY							
10/30/02		246.69	MONITORED/S	SAMPLED ANN	NUALLY							
01/29/03		246.69	MONITORED/S	SAMPLED ANN	NUALLY							
04/18/03		246.69	235.04	11.65	0.00		< 50	< 0.5	< 0.5	< 0.5	<1.5	< 2.5
07/18/03		246.69	MONITORED/S	SAMPLED ANN	NUALLY							
10/17/03		246.69	MONITORED/S	SAMPLED ANN	NUALLY							
01/20/04		246.69	MONITORED/S	SAMPLED ANN	NUALLY							
04/09/04 ¹⁴		246.69	234.47	12.22	0.00		< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
07/09/04		246.69	MONITORED/S	SAMPLED ANN	NUALLY							
10/29/04		246.69	MONITORED/S	SAMPLED ANN	NUALLY							
02/25/05		246.69	MONITORED/S	SAMPLED ANN	NUALLY							
05/27/05 ¹⁴		246.69	234.63	12.06	0.00		< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
07/15/05		246.69	MONITORED/S	SAMPLED ANN	NUALLY							
10/14/05		246.69	MONITORED/S	SAMPLED ANN	NUALLY							
01/12/06		246.69	MONITORED/S	SAMPLED ANN	NUALLY							
$04/20/06^{14}$	NP^{16}	246.69	235.91	10.78	0.00		< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5

Table 1 Groundwater Monitoring Data and Analytical Results

						SPH	ТРН-					
WELL ID/		TOC	GWE	DTW	SPHT	Removed	GRO	В	Т	E	X	MTBE
DATE		(ft.)	(msl)	(ft.)	(ft.)	(gallons)	(µg/L)	$(\mu g/L)$	(µg/L)	(μg/L)	(µg/L)	(μg/L)
C-16 (cont)												
07/20/06		246.69	MONITORED/S	SAMPLED ANN	NUALLY							
10/06/06		246.69	233.84	12.85	0.00							
01/17/07		246.69	MONITORED/S	SAMPLED ANN	NUALLY							
04/25/07 ¹⁴		246.69	234.00	12.69	0.00		< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
07/27/07		246.69	MONITORED/S	SAMPLED ANN	NUALLY							
10/15/07		246.69	MONITORED/S	SAMPLED ANN	NUALLY							
01/07/08		246.69	MONITORED/S	SAMPLED ANN	NUALLY							
04/04/08 ¹⁴	NP^{16}	246.69	234.74	11.95			< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
07/09/08		246.69	MONITORED/S	SAMPLED ANN	NUALLY							
10/31/08		246.69	MONITORED/S	SAMPLED ANN	NUALLY							
01/08/09		246.69	MONITORED/S	SAMPLED ANN	NUALLY							
04/24/09 ¹⁴		246.69	234.47	12.22			< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
07/15/09		246.69	MONITORED/S	SAMPLED ANN	NUALLY							
10/20/09		246.69	MONITORED/S	SAMPLED ANN	NUALLY							
01/04/10		246.69	MONITORED/S	SAMPLED ANN	NUALLY							
04/12/10 ¹⁴		246.69	236.33	10.36			<50	<0.5	<0.5	<0.5	<0.5	<0.5
C 4												
C-4 03/26/85		273.01	257.87	15.14								
03/20/83		273.01	257.64	15.14								
03/26/87		273.01										
03/20/87		273.01	254.97	18.04								
03/20/80		273.01	234.97	10.04								
04/03/89		273.01	259.67	13.34								
05/08/89		273.01	257.41	15.60								
06/05/89		273.01	256.50	16.51								
09/13/89		273.01	254.85	18.16			57,000	21,000	3,100	3,200	11,000	

Table 1 Groundwater Monitoring Data and Analytical Results

					SPH	TPH-					
WELL ID/	TOC	GWE	DTW	SPHT	Removed	GRO	В	T	E	X	MTBE
DATE	(ft.)	(msl)	(ft.)	(ft.)	(gallons)	(µg/L)	(μg/L)	(μg/L)	(μg/L)	(μg/L)	(µg/L)
C-4 (cont)											
10/04/89	273.01	254.77	18.24								
11/03/89	273.01	254.84	18.17								
12/04/89	273.01	254.56	18.45			48,000	17,000	2,200	2,800	9,800	
03/07/90	273.01	255.81	17.20								
03/09/90	273.01	255.81	17.20			43,000	20,000	2,300	2,800	11,000	
06/12/90	273.01	256.35	16.66			82,000	21,000	2,400	4,000	16,000	
07/12/90	273.01	256.02	16.99								
08/10/90	273.01	255.74	17.27								
09/24/90	273.01	254.90	18.11								
ABANDONED											
C-10A											
03/07/90	264.84	244.63	20.21								
03/09/90	264.84					ND	1.6	0.7	0.8	3.5	
06/12/90	264.84	245.14	19.70			ND	ND	ND	ND	ND	
09/24/90	264.84	245.30	19.54			ND	ND	ND	ND	ND	
12/20/90	264.84	245.00	19.84			ND	ND	ND	ND	ND	
03/27/91	264.84	246.83	18.01								
06/18/91	264.84	244.68	20.16			ND	ND	ND	ND	ND	
09/12/91	264.84	244.27	20.57			ND	ND	ND	ND	ND	
01/23/92	264.84	244.17	20.67			ND	ND	ND	ND	ND	
04/13/92	264.84	245.44	19.40			53	0.9	1.3	ND	1.0	
08/03/92	264.84	245.03	19.81			ND	ND	ND	ND	ND	
10/22/92	264.84	245.01	19.83			ND	ND	ND	ND	0.5	
01/18/93	264.84	247.80	17.04			ND	ND	ND	ND	ND	
04/19/93	264.84	247.07	17.77			ND	ND	ND	ND	ND	
04/19/93	264.84	247.28	17.56			ND	ND	ND	ND	ND	
10/25/93	264.84	247.07	17.77			ND	ND	ND	ND	ND	
01/21/94	264.84	246.93	17.91			ND	ND	ND	ND	ND	

Table 1 Groundwater Monitoring Data and Analytical Results

					SPH	TPH-					
WELL ID/	TOC	GWE	DTW	SPHT	Removed	GRO	В	T	E	X	MTBE
DATE	(ft.)	(msl)	(ft.)	(ft.)	(gallons)	(µg/L)	$(\mu g/L)$	(µg/L)	(µg/L)	(µg/L)	(µg/L)
C-10A (cont)											
04/18/94	264.84	247.81	17.03			ND	3.0	3.0	1.4	5.5	
07/06-07/94	264.84	248.06	16.78			ND	ND	ND	ND	ND	
10/07/94	264.84	247.63	17.21			ND	ND	ND	ND	ND	
01/11/95	264.84	248.78	16.06			< 50	< 0.5	< 0.5	< 0.5	< 0.5	
04/24/95	264.84	248.32	16.52			< 50	< 0.5	< 0.5	< 0.5	< 0.5	
07/31/95	264.84	245.82	19.02			< 50	< 0.5	< 0.5	< 0.5	< 0.5	
10/02/95	264.84	245.14	19.70			< 50	< 0.5	< 0.5	< 0.5	< 0.5	
01/16/96	264.84	246.21	18.63			< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 2.5
04/18/96	264.84	247.19	17.65			< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 2.5
07/22/96	264.84	245.99	18.85			< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 2.5
10/10/96	264.84	245.40	19.44			< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 2.5
01/09/97	264.84	248.00	16.84			< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 2.5
04/15/97	264.84	246.47	18.37			< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 2.5
07/08/97	264.84	246.33	18.51			< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 2.5
10/22/97	264.84	246.64	18.20			< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 2.5
01/12/98	264.84	248.00	16.84			< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 2.5
04/21/98	264.84	248.04	16.80			< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 2.5
07/08/98	264.84	246.89	17.95			< 50	< 0.5	0.57	< 0.5	< 0.5	< 2.5
10/13/98	264.84	246.16	18.68			< 50	1.3	< 0.5	0.67	1.5	< 2.5
01/27/99	264.84	246.96	17.88			79.2	< 0.5	< 0.5	< 0.5	< 0.5	< 2.0
04/27/99	264.84	247.53	17.31			< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0
07/23/99	264.84	246.27	18.57			< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0
11/01/99	264.84	246.75	18.09			< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 2.5
01/20/00	264.84	246.85	17.99			< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0
04/28-29/00	264.84	247.53	17.31	0.00		< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.5
07/21/00	264.84	247.26	17.58	0.00		< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.5
10/09-10/00	264.84	246.80	18.04	0.00		< 50.0	< 0.500	< 0.500	< 0.500	< 0.500	< 2.50

Table 1 Groundwater Monitoring Data and Analytical Results

					SPH	TPH-					
WELL ID/	TOC	GWE	DTW	SPHT	Removed	GRO	В	Т	E	X	MTBE
DATE	(ft.)	(msl)	(ft.)	(ft.)	(gallons)	(µg/L)	(μg/L)	(μg/L)	(µg/L)	(µg/L)	(µg/L)
C-10A (cont)											
01/08-09/01	264.84	246.94	17.90	0.00		< 50.0	< 0.500	< 0.500	< 0.500	< 0.500	< 2.50
04/30/01	264.84	247.53	17.31	0.00		< 50.0	< 0.500	< 0.500	< 0.500	< 0.500	< 5.00
07/09-10/01	264.84	247.02	17.82	0.00		< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.5
DESTROYED 07/2	2001										
C-10B											
03/07/90	264.85	243.41	21.44								
06/12/90	264.85	244.91	19.94			ND	ND	ND	ND	ND	
09/24/90	264.85	245.08	19.77			ND	ND	ND	ND	ND	
12/20/90	264.85	244.85	20.00			ND	ND	ND	ND	ND	
03/27/91	264.85	246.62	18.23								
06/18/91	264.85	244.41	20.44								
09/12/91	264.85	244.03	20.82			ND	ND	ND	ND	ND	
01/23/92	264.85	243.93	20.92			ND	ND	ND	ND	ND	
04/13/92	264.85	245.17	19.68			ND	ND	ND	ND	ND	
08/03/92	264.85	244.78	20.07			ND	ND	ND	ND	ND	
10/22/92	264.85	244.73	20.12			ND	ND	ND	ND	ND	
01/18/93	264.85	247.49	17.36			60	3.3	11	2.1	8.9	
04/19/93	264.85	246.95	17.90			ND	ND	ND	ND	ND	
07/21-22/93	264.85	246.99	17.86			ND	ND	ND	ND	ND	
10/25/93	264.85	246.75	18.10			ND	ND	ND	ND	ND	
01/21/94	264.85	246.62	18.23			ND	ND	ND	ND	ND	
04/18/94	264.85	247.49	17.36			ND	ND	ND	ND	0.5	
07/06-07/94	264.85	247.80	17.05			ND	ND	ND	ND	ND	
10/07/94	264.85	247.31	17.54			ND	ND	ND	ND	ND	
01/11/95	264.85	248.61	16.24			< 50	< 0.5	< 0.5	< 0.5	< 0.5	
04/24/95	264.85	247.95	16.90			< 50	< 0.5	< 0.5	< 0.5	< 0.5	
07/31/95	264.85	245.57	19.28			< 50	< 0.5	< 0.5	< 0.5	< 0.5	
10/02/95	264.85	244.91	19.94			<50	<0.5	< 0.5	< 0.5	<0.5	

Table 1 Groundwater Monitoring Data and Analytical Results

					SPH	TPH-					
WELL ID/	TOC	GWE	DTW	SPHT	Removed	GRO	В	T	E	X	MTBE
DATE	(ft,)	(msl)	(ft.)	(ft.)	(gallons)	(µg/L)	(μg/L)	(µg/L)	$(\mu g/L)$	(μg/L)	(µg/L)
C-10B (cont)											
01/16/96	264.85	246.25	18.60			< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 2.5
04/18/96	264.85	246.87	17.98			< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 2.5
07/22/96	264.85	245.75	19.10			< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 2.5
10/10/96	264.85	245.14	19.71			< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 2.5
01/09/97	264.85	247.65	17.20			< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 2.5
04/15/97	264.85	246.11	18.74			< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 2.5
07/08/97	264.85	246.10	18.75			< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 2.5
10/22/97	264.85	246.35	18.50			< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 2.5
01/12/98	264.85	247.71	17.14			< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 2.5
04/21/98	264.85	247.69	17.16			< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 2.5
07/08/98	264.85	246.61	18.24			< 50	< 0.5	0.62	< 0.5	< 0.5	< 2.5
10/13/98	264.85	245.93	18.92			< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 2.5
01/27/99	264.85	246.74	18.11			< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 2.0
04/27/99	264.85	247.26	17.59			< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0
07/23/99	264.85	246.70	18.15			< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0
11/01/99	264.85	247.16	17.69			< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 2.5
01/20/00	264.85	246.62	18.23			< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0
04/28-29/00	264.85	247.34	17.51	0.00		< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.5
07/21/00	264.85	247.03	17.82	0.00		< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.5
10/09-10/00	264.85	246.62	18.23	0.00		< 50.0	< 0.500	< 0.500	< 0.500	< 0.500	< 2.50
01/08-09/01	264.85	246.72	18.13	0.00		< 50.0	< 0.500	< 0.500	< 0.500	< 0.500	< 2.50
04/30/01	264.85	247.31	17.54	0.00		< 50.0	< 0.500	< 0.500	< 0.500	< 0.500	< 5.00
07/09-10/01	264.85	246.80	18.05	0.00		< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.5
DESTROYED 07/2	2001										
C-14											
03/07/90	270.74	255.56	15.18								
03/09/90	270.74					ND	ND	ND	ND	ND	
06/12/90	270.74	257.32	13.42			ND	ND	ND	ND	ND	

Table 1 Groundwater Monitoring Data and Analytical Results

					SPH	ТРН-					
WELL ID/	TOC	GWE	DTW	SPHT	Removed	GRO	В	T	E	X	MTBE
DATE	(ft.)	(msl)	(ft.)	(ft.)	(gallons)	(μg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(μg/L)
C-14 (cont)											
09/24/90	270.74	257.90	12.84			ND	ND	ND	ND	ND	
12/20/90	270.74	254.02	16.72			ND	1.7	0.7	ND	0.7	
03/27/91	270.74	262.74	8.00			ND	ND	ND	ND	1.3	
06/18/91	270.74	255.53	15.21								
09/12/91	270.74	255.13	15.61			ND	ND	ND	ND	ND	
01/23/92	270.74	246.10	24.64								
04/13/92	270.74	258.53	12.21			ND	ND	ND	ND	ND	
08/03/92	270.74	256.10	14.64			ND	ND	ND	ND	ND	
10/22/92	270.74	253.80	16.94								
01/18/93	270.74	265.64	5.10			ND	ND	ND	ND	ND	
04/19/93	270.74	263.86	6.88								
07/21-22/93	270.74	259.58	11.16			ND	ND	ND	ND	ND	
10/25/93	270.74	256.87	13.87								
01/21/94	270.74	255.42	15.32			ND	ND	ND	ND	ND	
04/18/94	270.74	254.85	15.89								
07/06-07/94	270.74	258.66	12.08			ND	ND	ND	ND	ND	
10/07/94	270.74	255.45	15.29								
01/11/95	270.74	266.94	3.80			< 50	< 0.5	< 0.5	< 0.5	< 0.5	
04/24/95	270.74	265.68	5.06				MI-ANNUALL`	Y			
07/31/95	270.74	260.34	10.40			< 50	< 0.5	< 0.5	< 0.5	< 0.5	
10/02/95	270.74	257.20	13.54								
01/16/96	270.74	259.62	11.12			< 50	< 0.5	< 0.5	< 0.5	< 0.5	<2.5
04/18/96	270.74	265.78	4.96								
07/22/96	270.74	259.89	10.85			< 50	< 0.5	< 0.5	< 0.5	< 0.5	<2.5
10/10/96	270.74	261.44	9.30								
01/09/97	270.74	269.80	0.94			56	3.80	4.20	1.10	5.0	< 2.5
04/15/97	270.74	263.59	7.15								
07/08/97	270.74	261.44	9.30			< 50	< 0.5	< 0.5	< 0.5	< 0.5	<2.5
10/22/97	270.74	261.17	9.57								

Table 1 Groundwater Monitoring Data and Analytical Results

					SPH	TPH-					
WELL ID/	TOC	GWE	DTW	SPHT	Removed	GRO	В	T	E	X	MTBE
DATE	(ft.)	(msl)	(ft.)	(ft.)	(gallons)	(µg/L)	$(\mu g/L)$	(μg/L)	(μg/L)	(µg/L)	(μg/L)
C-14 (cont)											
01/12/98	270.74	268.45	2.29			< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 2.5
04/21/98	270.74	270.70	0.04								
07/08/98	270.74	264.85	5.89			< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 2.5
10/13/98	270.74	260.38	10.36								
01/27/99	270.74	263.42	7.32			< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 2.0
04/27/99	270.74	267.98	2.76								
07/23/99	270.74	269.59	1.15			< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0
11/01/99	270.74	267.11	3.63								
01/20/00	270.74	266.77	3.97			< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0
04/28-29/00	270.74	269.13	1.61	0.00		SAMPLED SE	MI-ANNUALL	Y			
07/21/00	270.74	268.72	2.02	0.00							
07/26/00	270.74	268.45	2.29	0.00		< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.5
10/09-10/00	270.74	267.39	3.35	0.00							
01/08-09/01	270.74	266.72	4.02	0.00		< 50.0	< 0.500	< 0.500	< 0.500	< 0.500	< 2.50
04/30/01	270.74	268.19	2.55	0.00							
07/09-10/01	270.74	267.56	3.18	0.00		< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.5
10/10/01	270.74	267.69	3.05	0.00		SAMPLED SE	MI-ANNUALL	Y			
01/07/02	270.74	270.71	0.03	0.00		< 50	< 0.50	< 0.50	< 0.50	<1.5	< 2.5
04/11/02	270.74	267.49	3.25	0.00							
NOT MONITORE	D/SAMPLED										
C-15											
03/07/90	246.15	235.05	11.10								
03/09/90	246.15					410	ND	1.4	0.5	0.6	
06/12/90	246.15	235.37	10.78			420	11	ND	ND	ND	
09/24/90	246.15	235.22	10.93			430	ND	1.5	ND	ND	
12/20/90	246.15	235.07	11.08			300	1.3	1.1	0.6	1.5	
03/27/91	246.15	237.65	8.50			520	4.6	1.1	ND	1.0	
06/18/91	246.15	235.32	10.83			290	ND	1.1	ND	ND	

Table 1 Groundwater Monitoring Data and Analytical Results

						SPH	ТРН-					
WELL ID/		TOC	GWE	DTW	SPHT	Removed	GRO	В	T	E	X	MTBE
DATE		(ft.)	(msl)	(ft.)	(ft.)	(gallons)	(μg/L)	(µg/L)	(μg/L)	$(\mu g/L)$	(μg/L)	$(\mu g/L)$
C-15 (cont)												
06/18/91	(D)	246.15	235.32	10.83			320	ND	1.3	ND	ND	
09/12/91		246.15	235.10	11.05			330	ND	0.9	ND	ND	
01/23/92		246.15	235.35	10.80			210	ND	0.6	ND	ND	
01/23/92	(D)	246.15	235.35	10.80			190	1.2	0.8	ND	ND	
04/13/92		246.15	236.57	9.58			430	1.8	ND	ND	ND	
08/03/92		246.15	234.94	11.21			640	ND	2.1	0.7	1.3	
10/22/92		246.15	234.50	11.65			420	ND	ND	ND	0.8	
01/18/93		246.15	239.03	7.12			640	7.0	3.0	2.9	6.7	
04/19/93		246.15	237.22	8.93			260	6.0	2.0	0.7	ND	
07/21-22/93		246.15	236.37	9.78			580	ND	8.0	ND	0.6	
10/25/93		246.15	236.41	9.74			240	ND	12	ND	0.6	
01/21/94		246.15	235.78	10.37			420	0.6	ND	0.6	ND	
04/18/94		246.15	236.19	9.96			550	1.0	4.6	0.6	ND	
07/06-07/94		246.15	235.92	10.23			660	0.7	ND	ND	0.7	
10/07/94		246.15	235.47	10.68			440	13	0.8	ND	1.2	
01/11/95		246.15	238.84	7.31			750	2.5	< 0.5	< 0.5	0.6	
04/24/95		246.15	237.41	8.74			850	< 0.5	< 0.5	< 0.5	< 0.5	
07/31/95		246.15	235.41	10.74			640	< 0.5	1.6	< 0.5	< 0.5	
10/02/95		246.15	234.83	11.32			560	< 0.5	< 0.5	< 0.5	< 0.5	
01/16/96		246.15	235.58	10.57			740	< 0.5	< 0.5	< 0.5	< 0.5	< 2.5
04/18/96		246.15	237.55	8.60			760	< 0.5	< 0.5	< 0.5	< 0.5	< 2.5
07/22/96		246.15	235.57	10.58			690	< 0.5	1.60	< 0.5	< 0.5	7.90
10/10/96		246.15	234.97	11.18			870	7.0	2.10	< 0.5	< 0.5	11
01/09/97		246.15	238.83	7.32			370	2.60	1.10	< 0.5	< 0.5	4.60
04/15/97		246.15	235.76	10.39			510	22	< 0.5	< 0.5	< 0.5	<2.5
07/08/97		246.15	235.68	10.47			490	71	6.80	22	48	7.0
10/22/97		246.15	235.01	11.14			790	2.30	1.80	< 0.5	< 0.5	5.10
01/12/98		246.15	238.17	7.98			400	13	<1.0	<1.0	<1.0	< 5.0

Table 1 Groundwater Monitoring Data and Analytical Results

					SPH	ТРН-					
WELL ID/	TOC	GWE	DTW	SPHT	Removed	GRO	В	Т	E	X	MTBE
DATE	(ft.)	(msl)	(ft.)	(ft.)	(gallons)	(μg/L)	$(\mu g/L)$	$(\mu g/L)$	(μg/L)	(µg/L)	(µg/L)
C-15 (cont)											
04/21/98	246.15	238.05	8.10			770	< 0.5	0.6	0.82	0.51	< 2.5
07/08/98	246.15	235.65	10.50			540	13	< 0.5	< 0.5	< 0.5	< 2.5
10/13/98	246.15	234.95	11.20			< 50	< 0.5	< 0.5	< 0.5	0.54	< 2.5
01/27/99	246.15	235.53	10.62			769	< 0.5	1.88	0.675	< 0.5	4.35
04/27/99	246.15	236.91	9.24			612	2.57	1.79	< 0.5	< 0.5	< 5.0
07/23/99	246.15	235.11	11.04			626	13.6	< 0.5	< 0.5	< 0.5	< 5.0
11/01/99	246.15	235.25	10.90			739	21.9	4.54	1.45	1.28	17.3
$01/20/00^6$	246.15	235.06	11.09			465	1.43	0.815	< 0.5	< 0.5	< 5.0
04/28-29/00	246.15	235.85	10.30	0.00		470^{3}	2.9	3.2	< 0.50	< 0.50	8.0
07/21/00	246.15	235.19	10.96	0.00		610^{3}	2.1	3.5	< 0.50	1.7	7.9
10/09-10/00	246.15	235.01	11.14	0.00		527 ⁵	< 0.500	< 0.500	< 0.500	< 0.500	10.3
01/08-09/01	246.15	235.07	11.08	0.00		677 ⁷	3.86	0.862	< 0.500	< 0.500	12.1
04/30/01	246.15	235.38	10.77	0.00		690^{8}	<1.00	<1.00	<1.00	<1.00	11.0
07/09-10/01	246.15	234.93	11.22	0.00		510^{3}	30	1.6	< 0.50	1.2	11
10/10/01	246.15	234.83	11.32	0.00		780	1.7	<1.0	< 0.50	<1.5	7.0
01/07/02	246.15	238.04	8.11	0.00		260	2.0	< 0.50	< 0.50	<1.5	4.4
04/11/02	246.15	236.86	9.29	0.00		470	1.9	<1.0	< 0.50	<1.5	4.9
07/11/02	246.15	235.34	10.81	0.00		1,000	< 2.0	4.6	< 0.50	<1.5	6.3
10/30/02	246.15	235.03	11.12	0.00		580	1.9	<1.0	< 0.50	<1.5	8.2
01/29/03	246.15	237.44	8.71	0.00		250	0.88	0.95	< 0.50	<1.5	$2.7/2^{11}$
04/18/03	246.15	240.09	6.06	0.00		360	1.2	1.4	< 0.5	<1.5	4.9
07/18/03 ¹⁴	246.15	235.46	10.69	0.00		350	< 0.5	< 0.5	< 0.5	< 0.5	5
10/17/03 ¹⁴	246.15	235.39	10.76	0.00		690	< 0.5	< 0.5	< 0.5	< 0.5	5
01/20/04 ¹⁴	246.15	236.78	9.37	0.00		310	< 0.5	< 0.5	< 0.5	< 0.5	3
04/09/04 ¹⁴	246.15	236.34	9.81	0.00		610	< 0.5	< 0.5	< 0.5	< 0.5	3
07/09/04 ¹⁴	246.15	235.31	10.84	0.00		640	< 0.5	< 0.5	< 0.5	< 0.5	5
02/25/05 ¹⁴	246.15	239.07	7.08	0.00		53	< 0.5	< 0.5	< 0.5	< 0.5	1
05/27/05 ¹⁴	246.15	238.21	7.94	0.00		500	< 0.5	< 0.5	< 0.5	< 0.5	4

Table 1 Groundwater Monitoring Data and Analytical Results

WELL ID/ DATE		TOC (ft.)	GWE (msl)	DTW (ft.)	SPHT (ft.)	SPH Removed (gallons)	TPH- GRO (µg/L)	Β (μg/L)	Τ (μg/L)	Ε (μg/L)	Χ (μg/L)	MTBE (μg/L)
C-15 (cont)												
07/15/05 ¹⁴		246.15	235.77	10.38	0.00		570	< 0.5	< 0.5	< 0.5	< 0.5	5
10/14/05 ¹⁴		246.15	235.33	10.82	0.00		380	< 0.5	< 0.5	< 0.5	0.6	5
01/12/06 ¹⁴		246.15	240.28	5.87	0.00		400	< 0.5	< 0.5	< 0.5	< 0.5	5
07/20/06 ¹⁴	NP^{16}	246.15	233.74	12.41	0.00		760	< 0.5	< 0.5	< 0.5	< 0.5	4
10/06/06 ¹⁴		246.15	235.52	10.63	0.00		780	< 0.5	< 0.5	< 0.5	< 0.5	4
01/17/07 ¹⁴	NP^{16}	246.15	235.64	10.51	0.00		670	< 0.5	< 0.5	< 0.5	< 0.5	4
04/25/07 ¹⁴		246.15	235.86	10.29	0.00		420	< 0.5	< 0.5	< 0.5	< 0.5	4
07/27/07 ¹⁴		246.15	235.20	10.95	0.00		870	< 0.5	< 0.5	< 0.5	< 0.5	5
10/15/07 ¹⁴		246.15	235.47	10.68	0.00		790	< 0.5	< 0.5	< 0.5	< 0.5	5
01/07/08 ¹⁴	NP^{16}	246.15	236.09	10.06	0.00		810	< 0.5	< 0.5	< 0.5	< 0.5	5
04/04/08 ¹⁴	NP^{16}	246.15	236.57	9.58	0.00		400^{19}	< 0.5	< 0.5	< 0.5	< 0.5	3
07/09/08 ¹⁴ DESTROYE	NP^{16}	246.15	235.17	10.98	0.00		520	<0.5	1	<0.5	1	6
RW												
12/04/89							62,000	29,000	1,700	1,800	8,800	
03/07/90		274.52	256.02	18.50								
06/12/90		274.52	256.03	18.49			31,000	15,000	2,000	560	3,100	
09/24/90		274.52										
12/20/90		274.52					ND	0.5	ND	ND	1.2	
03/27/91		274.52										
06/18/91		274.52										
09/12/91		274.52	INSUFFICIEN'	Γ WATER								
01/23/92		274.52	INSUFFICIEN'	Γ WATER								
04/13/92		274.52	INSUFFICIEN'	Γ WATER								
08/03/92		274.52	INSUFFICIEN'	Γ WATER								
10/22/92		274.52	INSUFFICIEN'	Γ WATER								
01/18/93		274.52	INSUFFICIEN'	Γ WATER								
04/19/93		274.52	INSUFFICIEN'	Γ WATER								

Table 1 Groundwater Monitoring Data and Analytical Results

WELL ID/	тос	GWE	DTW	SPHT	SPH Removed	TPH- GRO	В	Т	E	X	МТВЕ
DATE	(ft.)	(msl)	(ft.)	(ft.)	(gallons)	(µg/L)	(µg/L)	(µg/L)	(μg/L)	(µg/L)	(µg/L)
RW (cont)											
07/21-22/93	274.52	INSUFFICIEN'	ΓWATER								
10/25/93	274.52										
01/21/94	274.52										
04/18/94	274.52										
07/06-07/94	274.52										
10/07/94	274.52										
10/24/95	274.52	256.63	17.89			37,000	11,000	380	1,100	3,000	
01/16/96	274.52	259.09	15.43			59,000	17,000	660	1,600	5,400	<1000
NOT MONITORED)/SAMPLED										
TRIP BLANK											
01/11/95						< 50	< 0.5	< 0.5	< 0.5	< 0.5	
04/24/95						< 50	< 0.5	< 0.5	< 0.5	< 0.5	
07/31/95						< 50	< 0.5	< 0.5	< 0.5	< 0.5	
10/02/95						< 50	< 0.5	< 0.5	< 0.5	< 0.5	
01/16/96						< 50	< 0.5	< 0.5	< 0.5	< 0.5	
04/18/96						< 50	< 0.5	< 0.5	< 0.5	< 0.5	
07/22/96						< 50	< 0.5	< 0.5	< 0.5	< 0.5	
10/10/96						< 50	< 0.5	< 0.5	< 0.5	< 0.5	
01/09/97						< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 2.5
04/15/97						< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 2.5
07/08/97						< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 2.5
07/15/97						< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 2.5
10/22/97						< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 2.5
01/12/98						< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 2.5
04/21/98						< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 2.5
07/08/98						< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 2.5

Table 1 Groundwater Monitoring Data and Analytical Results

					SPH	ТРН-					
WELL ID/	TOC	GWE	DTW	SPHT	Removed	GRO	В	Т	E	X	MTBE
DATE	(ft.)	(msl)	(ft.)	(ft.)	(gallons)	(µg/L)	(μg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
TRIP BLANK (cont	t)										
10/13/98						< 50	< 0.5	< 0.5	< 0.5	< 0.5	<2.5
01/27/99						< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 2.0
04/27/99						< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0
07/23/99						< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0
11/01/99						< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 2.5
01/20/00						< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0
04/28-29/00						< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.5
07/21/00						< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.5
07/26/00						< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.5
10/09-10/00						< 50.0	< 0.500	< 0.500	< 0.500	< 0.500	< 2.50
01/08-09/01						< 50.0	< 0.500	< 0.500	< 0.500	< 0.500	< 2.50
04/30/01						< 50.0	< 0.500	< 0.500	< 0.500	< 0.500	< 5.00
07/09-10/01						< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.5
QA											
10/10/01						< 50	< 0.50	< 0.50	< 0.50	<1.5	< 2.5
01/07/02						< 50	< 0.50	< 0.50	< 0.50	<1.5	< 2.5
04/11/02						< 50	< 0.50	< 0.50	< 0.50	<1.5	< 2.5
07/11/02						< 50	< 0.50	< 0.50	< 0.50	<1.5	< 2.5
10/30/02						< 50	< 0.50	< 0.50	< 0.50	<1.5	< 2.5
01/29/03						< 50	< 0.50	< 0.50	< 0.50	<1.5	< 2.5
04/18/03						< 50	< 0.5	< 0.5	< 0.5	<1.5	< 2.5
07/18/03 ¹⁴						< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
10/17/03 ¹⁴						< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
01/20/04 ¹⁴						< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
04/09/04 ¹⁴						< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
07/09/04 ¹⁴						< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
10/29/04 ¹⁴						< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
02/25/05 ¹⁴						< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5

Table 1 Groundwater Monitoring Data and Analytical Results

				SPH TPH-								
WELL ID/	TOC	GWE	DTW	SPHT	Removed	GRO	В	T	E	X	MTBE	
DATE	(ft.)	(msl)	(ft.)	(ft.)	(gallons)	(μg/L)	(μg/L)	(μg/L)	(μg/L)	(µg/L)	(μg/L)	
QA (cont)												
05/27/05 ¹⁴						< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	
07/15/05 ¹⁴						< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	
10/14/05 ¹⁴						< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	
01/12/06 ¹⁴						< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	
04/20/06 ¹⁴						< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	
07/20/06 ¹⁴						< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	
10/06/06 ¹⁴						< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	
01/17/07 ¹⁴						< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	
04/25/07 ¹⁴						< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	
07/27/07 ¹⁴						< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	
10/15/07 ¹⁴						< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	
01/07/08 ¹⁴						< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	
04/04/08 ¹⁴						< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	
07/09/08 ¹⁴						< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	
10/31/08 ¹⁴						< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	
01/08/09 ¹⁴						< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	
04/24/09 ¹⁴						< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	
07/15/09 ¹⁴						< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	
10/20/09 ¹⁴						< 50	< 0.5	1 ²⁰	< 0.5	< 0.5	< 0.5	
01/04/10 ¹⁴						< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	
04/12/10 ¹⁴						< 50	<0.5	<0.5	<0.5	<0.5	<0.5	

Table 1

Groundwater Monitoring Data and Analytical Results

Chevron Service Station #9-5607 5269 Crow Canyon Road Castro Valley, California

EXPLANATIONS:

Groundwater monitoring data and laboratory analytical results prior to April 28, 2000, were compiled from reports prepared by Blaine Tech Services, Inc.

TOC = Top of Casing TPH = Total Petroleum Hydrocarbons $(\mu g/L) = Micrograms \text{ per liter}$

(ft.) = Feet GRO = Gasoline Range Organics (D) = Duplicate

 $GWE = Groundwater \ Elevation \\ B = Benzene \\ -- = Not \ Measured/Not \ Analyzed$

(msl) = Mean sea level T = Toluene ND = Not Detected

DTW = Depth to Water E = Ethylbenzene QA = Quality Assurance/Trip Blank

SPHT = Separate Phase Hydrocarbon Thickness X = Xylenes

SPH = Separate Phase Hydrocarbons MTBE = Methyl Tertiary Butyl Ether

- GWE corrected for the presence of SPH, correction factor: [(TOC DTW) + (SPHT x 0.80)].
- Confirmation run.
- ² Chromatogram pattern indicates an unidentified hydrocarbon.
- ³ Laboratory report indicates gasoline C6-C12.
- ⁴ Laboratory report indicates gasoline C6-C12 + unidentified hydrocarbons C6-C12.
- ⁵ Laboratory report indicates weathered gasoline C6-C12.
- Insufficient Preservative to reduce sample pH to less than 2. Sample was analyzed within 14 days, but beyond the seventh day recommended for Benzene, Toluene, Xylenes, and Ethylbenzene.
- Laboratory report indicates weathered gasoline C6-C12 + unidentified hydrocarbons C6-C12.
- 8 Laboratory report indicates unidentified hydrocarbons C6-C12.
- ⁹ Pump in well.
- Product + water removed.
- MTBE by EPA Method 8260
- Pump removed from well.
- 13 TOC altered; unable to determine GWE.
- ¹⁴ BTEX and MTBE by EPA Method 8260.
- 15 Current laboratory analytical results do not coincide with historical data, and although the laboratory results were confirmed; it appears that the samples may have been switched.
- Unable to purge well; well located on a steep hill.
- 10 milliliters of SPH and 0.5 gallons of water removed from well.
- No Purge sample taken; well inaccessible with truck.
- Laboratory report indicates the sample was analyzed 12 days outside the method hold time.
- The Laboratory report indicates the result reported for toluene in this trip blank may be attributed to trace amounts of toluene recently found in HCl preserved vials from the manufacturer. Please refer to the letter accompanying the lab report for further explanation.

Table 2
Groundwater Analytical Results - Oxygenate Compounds

WELL ID/	ETHANOL	ТВА	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB
DATE	(μg/L)	(μg/L)	(μg/L)	(μg/L)	(μg/L)	(μg/L)	(µg/L)	(μg/L)
C-1								
10/13/98	<10,000	<2,000	<40	<40	<40	<40		
01/29/03		110	2	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
07/18/03	< 50	26	2	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
10/17/03	<200	27	<2	<2	<2	<2	<2	<2
01/20/04	< 50	13	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
04/09/04	<100	31	2	<1	<1	<1	<1	<1
07/09/04	<100	<10	<1	<1	<1	<1	<1	<1
10/29/04	< 50	<5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
02/25/05	< 50	<5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
05/27/05	< 50	<5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
07/15/05	< 50	14	0.7	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
10/14/05	<130	13	<1	<1	<1	<1	<1	<1
01/12/06	< 50	7	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
04/20/06	< 50	12	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
07/20/06	< 50	11	0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
10/06/06	< 50	8	0.7	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
01/17/07	< 50	7	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
04/25/07	< 50	16	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
07/27/07	<100	12	<1	<1	<1	<1	<1	<1
10/15/07	< 50	10	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
01/07/08	< 50	6	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
04/04/08	< 50	11	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
07/09/08	<100	11	<1	<1	<1	<1	<1	<1
10/31/08	<100	9	<1	<1	<1	<1	<1	<1
01/08/09	< 50	<2	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
04/24/09	< 50	8	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
07/15/09	< 50	10	0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
10/20/09	SAMPLED SEMI-AN	NNUALLY						
01/04/10	<50	7	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5

Table 2
Groundwater Analytical Results - Oxygenate Compounds

WELL ID/ DATE	ETHANOL (µg/L)	TBA (µg/L)	MTBE (μg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	1,2-DCA (μg/L)	EDB (µg/L)
C-2	(F-Ø:-=/	(F-0)/	(f0.—)	(F-9·)	(F-6) =-/	V-9:/	(f-Ø·)	(F-8) —/
01/29/03		<5	< 0.5	< 0.5	< 0.5	<0.5	< 0.5	< 0.5
07/18/03	SAMPLED ANNUAL		<0.5	<0.5 	<0.5	<0.5	<0.5	<0.5
01/20/04	SAMPLED ANNUAL	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
02/25/05	<50 <50	<5	<0.5	<0.5	<0.5 <0.5	<0.5 <0.5	<0.5	<0.5 <0.5
	<50 <50			<0.5	<0.5 <0.5	<0.5	<0.5	<0.5 <0.5
01/12/06		<5	<0.5					<0.5 <0.5
01/17/07 01/07/08	<50	<2 3	<0.5	< 0.5	<0.5	<0.5 <0.5	<0.5	
	<50		<0.5	< 0.5	<0.5		<0.5	<0.5
01/08/09	<50	<2	<0.5	< 0.5	<0.5	< 0.5	<0.5	<0.5
01/04/10	<50	<2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
C-3								
01/29/03	NOT SAMPLED DU	E TO THE PRESEN	CE OF SPH					
07/18/03	NOT SAMPLED DU							
10/17/03	NOT SAMPLED DU							
01/20/04	NOT SAMPLED DU							
04/09/04	NOT SAMPLED DU	E TO THE PRESEN	CE OF SPH					
10/29/04	NOT SAMPLED DU							
02/25/05	NOT SAMPLED DU							
05/27/05	NOT SAMPLED DU							
07/15/05	NOT SAMPLED DU	E TO THE PRESEN	CE OF SPH					
10/14/05	NOT SAMPLED DU	E TO THE PRESEN	CE OF SPH					
01/12/06	NOT SAMPLED DU	E TO THE PRESEN	CE OF SPH					
04/20/06	NOT SAMPLED DU	E TO THE PRESEN	CE OF SPH					
10/06/06	NOT SAMPLED DU	E TO THE PRESEN	CE OF SPH					
01/17/07	NOT SAMPLED DU	E TO THE PRESEN	CE OF SPH					
04/25/07	<250	22	7	<3	<3	<3	<3	<3
07/27/07	<1,000	<40	<10	<10	<10	<10	<10	<10
10/15/07	<500	54	<5	<5	<5	<5	<5	<5
01/07/08	<1,000	<40	<10	<10	<10	<10	<10	<10
04/04/08	<250	48	5	<3	<3	<3	<3	<3

Table 2
Groundwater Analytical Results - Oxygenate Compounds

WELL ID/	ETHANOL	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB
DATE	$(\mu g/L)$	(µg/L)	(μg/L)	(μg/L)	(μg/L)	(µg/L)	(μg/L)	(μg/L)
C-3 (cont)								
07/09/08	< 500	77	<5	<5	<5	<5	<5	<5
10/31/08	<1,300	67	<13	<13	<13	<13	<13	<13
01/08/09	< 500	76	<5	<5	<5	<5	<5	<5
04/24/09	< 500	85	<5	<5	<5	<5	<5	<5
07/15/09	< 500	85	<5	<5	<5	<5	<5	<5
10/20/09	SAMPLED SEMI-AN	NUALLY						
01/04/10	<500	95	<5	<5	<5	<5	<5	<5
C-5								
01/29/03		<5	< 0.5	3	< 0.5	< 0.5	< 0.5	< 0.5
07/18/03	SAMPLED ANNUAL	LLY						
01/20/04	< 50	<5	< 0.5	3	< 0.5	< 0.5	< 0.5	< 0.5
02/25/05	< 50	<5	< 0.5	2	< 0.5	< 0.5	< 0.5	< 0.5
01/12/06	< 50	<5	< 0.5	1	< 0.5	< 0.5	< 0.5	< 0.5
01/17/07	< 50	<2	< 0.5	1	< 0.5	< 0.5	< 0.5	< 0.5
01/07/08	< 50	<2	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
01/08/09	< 50	<2	< 0.5	1	< 0.5	< 0.5	< 0.5	< 0.5
01/04/10	<50	<2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
C-6								
01/29/03		150	13	<5	<5	<5	<5	<5
07/18/03	<2,000	<200	<20	<20	<20	<20	<20	<20
10/17/03	<1,000	140	<10	<10	<10	<10	<10	<10
01/20/04	< 500	100	16	<5	<5	<5	<5	<5
04/09/04	<1,000	<100	18	<10	<10	<10	<10	<10
07/09/04	<100	74	18	<1	<1	<1	1	<1
10/29/04	<1,000	<100	17	<10	<10	<10	<10	<10
02/25/05	<1,000	110	12	<10	<10	<10	<10	<10
05/27/05	< 500	92	11	<5	<5	<5	<5	<5

Table 2
Groundwater Analytical Results - Oxygenate Compounds

WELL ID/	ETHANOL	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB
DATE	(μg/L)	(µg/L)	(µg/L)	(μg/L)	(μg/L)	(μg/L)	(μg/L)	(µg/L)
C-6 (cont)								
07/15/05	<1,000	<100	12	<10	<10	<10	<10	<10
10/14/05	<1,300	<130	<13	<13	<13	<13	<13	<13
01/12/06	< 50	11	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
04/20/06	<1,000	<100	<10	<10	<10	<10	<10	<10
07/20/06	<1,000	<100	<10	<10	<10	<10	<10	<10
10/06/06	<1,000	<100	<10	<10	<10	<10	<10	<10
01/17/07	<2,500	<100	<25	<25	<25	<25	<25	<25
04/25/07	<1,000	69	<10	<10	<10	<10	<10	<10
07/27/07	<1,000	61	<10	<10	<10	<10	<10	<10
10/15/07	<1,000	180	10	<10	<10	<10	<10	<10
01/07/08	<1,300	< 50	<13	<13	<13	<13	<13	<13
04/04/08	<100	78	5	<1	<1	<1	<1	<1
07/09/08	< 500	70	7	<5	<5	<5	<5	<5
10/31/08	<1,000	340	13	<10	<10	<10	<10	<10
01/08/09	<1,000	310	<10	<10	<10	<10	<10	<10
04/24/09	<1,000	100	13	<10	<10	<10	<10	<10
07/15/09	<250	120	13	<3	<3	<3	<3	<3
10/20/09	SAMPLED SEMI-AN	INUALLY						
01/04/10	<250	92	15	<3	<3	<3	<3	<3
C-7								
01/29/03		<5	< 0.5	0.9	< 0.5	< 0.5	< 0.5	< 0.5
07/18/03	< 50	<5	< 0.5	2	< 0.5	< 0.5	< 0.5	< 0.5
10/17/03	SAMPLED SEMI-AN	INUALLY						
01/20/04	< 50	<5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
07/09/04	< 50	<5	< 0.5	2	< 0.5	< 0.5	< 0.5	< 0.5
02/25/05	< 50	<5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
07/15/05	< 50	<5	< 0.5	0.5	< 0.5	< 0.5	< 0.5	< 0.5
01/12/06	< 50	<5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
07/20/06	< 50	<5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5

Table 2
Groundwater Analytical Results - Oxygenate Compounds

WELL ID/ DATE	ETHANOL (μg/L)	TBA (µg/L)	MTBE (μg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	1,2-DCA (μg/L)	EDB (µg/L)
C-7 (cont)								
01/17/07	< 50	<2	< 0.5	0.7	< 0.5	< 0.5	< 0.5	< 0.5
07/27/07	< 50	<2	< 0.5	0.6	< 0.5	< 0.5	< 0.5	< 0.5
01/07/08	< 50	<2	< 0.5	0.9	< 0.5	< 0.5	< 0.5	< 0.5
07/09/08	< 50	<2	< 0.5	0.9	< 0.5	< 0.5	< 0.5	< 0.5
01/08/09	< 50	<2	< 0.5	2	< 0.5	< 0.5	< 0.5	< 0.5
07/15/09	< 50	<2	< 0.5	1	< 0.5	< 0.5	< 0.5	< 0.5
10/20/09	SAMPLED SEMI-AN	NNUALLY						
01/04/10	<50	<2	<0.5	<0.5	<0.5	<0.5	< 0.5	<0.5
C-8								
01/29/03		<5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
07/18/03	SAMPLED ANNUA							
01/20/04	< 50	<5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
02/25/05	< 50	<5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
01/12/06	< 50	<5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
01/17/07	< 50	<2	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
01/07/08	< 50	<2	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
01/08/09	< 50	<2	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
01/04/10	<50	<2	<0.5	<0.5	< 0.5	<0.5	<0.5	<0.5
C-9								
01/29/03	INACCESSIBLE - PI	UMP STUCK IN WEL	L					
07/18/03	<130	29	<1	<1	<1	<1	<1	<1
10/17/03	<250	<25	<3	<3	<3	<3	<3	<3
01/20/04	<100	66	<1	<1	<1	<1	<1	<1
04/09/04	<250	66	<3	<3	<3	<3	<3	<3
07/09/04	<250	<25	<3	<3	<3	<3	<3	<3
10/29/04	< 50	<5	0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
02/25/05	< 50	79	0.7	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5

Table 2
Groundwater Analytical Results - Oxygenate Compounds

WELL ID/	ETHANOL	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB
DATE	(μg/L)	(µg/L)	(µg/L)	(µg/L)	(μg/L)	(µg/L)	(μg/L)	(µg/L)
C-9 (cont)								
05/27/05	<250	<25	<3	<3	<3	<3	<3	<3
07/15/05	<250	<25	<3	<3	<3	<3	<3	<3
10/14/05	<250	<25	<3	<3	<3	<3	<3	<3
01/12/06	< 50	<5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
04/20/06	<100	45	3	<1	<1	<1	<1	<1
07/20/06	< 500	< 50	<5	<5	<5	<5	<5	<5
10/06/06	< 50	12	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
01/17/07	<250	43	3	<3	<3	<3	<3	<3
04/25/07	< 500	46	<5	<5	<5	<5	<5	<5
07/27/07	<250	42	3	<3	<3	<3	<3	<3
10/15/07	< 50	8	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
01/07/08	< 50	5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
04/04/08	<250	41	3	<3	<3	<3	<3	<3
07/09/08	< 50	13	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
10/31/08	<130	16	1	<1	<1	<1	<1	<1
01/08/09	<250	34	3	<3	<3	<3	<3	<3
04/24/09	< 50	5	0.6	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
07/15/09	< 50	9	0.7	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
10/20/09	< 50	<2	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
01/04/10	<250	28	<3	<3	<3	<3	<3	<3
04/12/10	<50	10	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
C-11								
01/29/03		<5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
07/18/03	SAMPLED ANNUAI							
01/20/04	SAMPLED ANNUAL <50	<5	 <0.5	 <0.5	 <0.5	 <0.5	 <0.5	 <0.5
01/20/04	<2,500	<250	<25	<25	<25	<25	<25	<25
07/20/06	<2,300 <50	<230 <5	<2.5 <0.5	<0.5	<0.5	<0.5	<2.5 <0.5	<2.5 <0.5
10/06/06	<50 <50	<5	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5	<0.5	<0.5 <0.5
01/17/07	<50 <50	<2	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5
01/1//0/	<30	< 2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Table 2
Groundwater Analytical Results - Oxygenate Compounds

WELL ID/ DATE	ETHANOL (ug/L)	TBA (µg/L)	MTBE	DIPE	ETBE	TAME	1,2-DCA (μg/L)	EDB
	(μg/L)	(μg/L)	(µg/L)	(μg/L)	(μg/L)	(μg/L)	(μg/L)	(μg/L)
C-11 (cont)								
04/25/07	< 50	<2	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
07/27/07	< 50	<2	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
10/15/07	< 50	<2	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
01/07/08	< 50	<2	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
04/04/08	< 50	<2	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
07/09/08	< 50	<2	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
10/31/08	< 50	<2	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
01/08/09	< 50	<2	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
04/24/09	< 50	<2	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
07/15/09	< 50	<2	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
10/20/09	SAMPLED SEMI-AN	NUALLY						
01/04/10	<50	<2	< 0.5	< 0.5	<0.5	<0.5	<0.5	< 0.5
C-12								
02/25/05	< 50	<5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
01/29/03		7	< 0.5	< 0.5	< 0.5	< 0.5	<0.5	<0.5
07/18/03	< 50	<5	< 0.5	< 0.5	<0.5	< 0.5	< 0.5	< 0.5
10/17/03	<50	<5	< 0.5	< 0.5	< 0.5	< 0.5	<0.5	<0.5
01/20/04	<50	<5	< 0.5	< 0.5	<0.5	< 0.5	< 0.5	< 0.5
04/09/04	<50	<5	0.8	< 0.5	<0.5	< 0.5	< 0.5	< 0.5
07/09/04	<50	<5	< 0.5	<0.5	< 0.5	< 0.5	<0.5	<0.5
10/29/04	<50	<5	< 0.5	<0.5	<0.5	<0.5	< 0.5	< 0.5
02/25/05	<100	<10	<1	<1	<1	<1	<1	<1
05/27/05	<50	<5	<0.5	< 0.5	<0.5	< 0.5	< 0.5	<0.5
07/15/05	<50	<5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
10/14/05	<50	<5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
01/12/06	<50	<5	< 0.5	<0.5	<0.5	< 0.5	< 0.5	< 0.5
04/20/06	<50	<5	< 0.5	< 0.5	<0.5	< 0.5	< 0.5	< 0.5
07/20/06	<50	<5	< 0.5	< 0.5	< 0.5	< 0.5	<0.5	<0.5
10/06/06	<50	<5	< 0.5	< 0.5	<0.5	< 0.5	<0.5	<0.5

Table 2
Groundwater Analytical Results - Oxygenate Compounds

WELL ID/	ETHANOL	TBA	MTBE	DIPE	ЕТВЕ	TAME	1,2-DCA	EDB
DATE	(μg/L)	(µg/L)	(μg/L)	(μg/L)	(µg/L)	(μg/L)	(µg/L)	(μg/L)
C-12 (cont)								
01/17/07	< 50	<2	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
04/25/07	< 50	<2	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
07/27/07	< 50	<2	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
10/15/07	< 50	<2	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
01/07/08	< 50	<2	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
04/04/08	< 50	<2	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
07/09/08	< 50	<2	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
10/31/08	< 50	<2	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
01/08/09	< 50	<2	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
04/24/09	< 50	<2	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
07/15/09	< 50	<2	0.6	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
10/20/09	SAMPLED SEMI-AN							
01/04/10	<50	<2	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
C-13								
07/18/03	< 50	<5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
10/17/03	SAMPLED ANNUAL	LLY						
07/09/04	< 50	<5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
07/15/05	< 50	<5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
07/20/06	< 50	<5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
07/27/07	< 50	<2	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
07/09/08	< 50	<2	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
07/15/09	<50	<2	<0.5	< 0.5	< 0.5	<0.5	< 0.5	< 0.5
C-16								
04/09/04	< 50	<5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
05/27/05	< 50	<5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
07/15/05	SAMPLED ANNUAL							
04/20/06	< 50	<5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5

Table 2
Groundwater Analytical Results - Oxygenate Compounds

WELL ID/	ETHANOL	TBA	MTBE	DIPE	ЕТВЕ	TAME	1,2-DCA	EDB
DATE	(μg/L)	(μg/L)	(µg/L)	(μg/L)	(μg/L)	(µg/L)	(μg/L)	(µg/L)
C-16 (cont)								
04/25/07	< 50	<2	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
04/04/08	< 50	<2	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
04/24/09	< 50	<2	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
04/12/10	<50	<2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
C-15								
01/29/03		8	2	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
07/18/03	< 50	28	5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
10/17/03	< 50	29	5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
01/20/04	< 50	17	3	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
04/09/04	< 50	17	3	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
07/09/04	< 50	23	5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
10/29/04	< 50	31	5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
02/25/05	< 50	8	1	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
05/27/05	< 50	32	4	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
07/15/05	< 50	33	5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
10/14/05	< 50	30	5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
01/12/06	< 50	30	5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
04/20/06	< 50	<5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
07/20/06	< 50	36	4	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
10/06/06	< 50	27	4	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
01/17/07	< 50	33	4	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
04/25/07	< 50	32	4	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
07/27/07	< 50	40	5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
10/15/07	< 50	35	5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
01/07/08	< 50	40	5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5

Table 2 Groundwater Analytical Results - Oxygenate Compounds

WELL ID/	EIHANOL	1 D/A	MTBE	DIFE		1 ANVIE		EDB
DATE	(μg/L)	(μg/L)	(μg/L)	(µg/L)	(µg/L)	(µg/L)		(μg/L)
C-15 (cont)								
C- 15 (cont) 04/04/08	< 50	30	3	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
07/09/08 DESTROYED	<50	39	6	<0.5	<0.5	<0.5	<0.5	<0.5

Table 2

Groundwater Analytical Results - Oxygenate Compounds

Chevron Service Station #9-5607 5269 Crow Canyon Road Castro Valley, California

EXPLANATIONS:

Groundwater laboratory analytical results prior to January 29, 2003, were compiled from reports prepared by Blaine Tech Services, Inc.

 $TBA = t\text{-Butyl alcohol} \\ MTBE = Methyl Tertiary Butyl Ether \\ DIPE = di\text{-Isopropyl ether} \\ 1,2\text{-DCA} = 1,2\text{-Dichloroethane} \\ EDB = Ethylene dibromide \\ (\mu g/L) = Micrograms per liter$

ETBE = Ethyl t-butyl ether --= Not Analyzed

TAME = t-Amyl methyl ether SPH = Separate Phase Hydrocarbons

ANALYTICAL METHOD:

EPA Method 8260 for Oxygenate Compounds

APPENDIX E
NORCAL'S GEOPHYSICAL REPORT AND ALAMEDA COUNTY PUBLIC WORKS' SEWER MAP



July 31, 2012

Ms. Margareta Wolf Conestoga-Rovers & Associates 5900 Hollis Street, Suite A Emeryville, CA 94608

Subject:

Geophysical Survey

Former Chevron #95607, 5269 Crow Canyon Road, Castro Valley, CA

NORCAL Job No. 12-462.126

Dear Ms. Wolf:

This report presents the findings of a geophysical survey performed by NORCAL Geophysical Consultants, Inc. on a portion of the subject property in Castro Valley, CA. The field survey was conducted on July 18, 2012 by NORCAL California Professional Geophysicist Donald J. Kirker and geophysical technician Anna G. Brody. Site information and logistical support were provided by Margareta Wolf of Conestoga-Rovers & Associates (CRA).

1.0 SITE DESCRIPTION AND PURPOSE

The former Chevron service station is located on the southeast comer of Crow Canyon Road and Waterford Place in Castro Valley. The station building is still intact. However, the pump islands and fuel dispensers, canopy, and underground storage tanks have been removed. The property is currently being used as an auto repair facility. Down slope and west of this facility is Waterford Place, a private drive that accesses a condominium complex. This complex comprises two story buildings and various parking lots.

The geophysical investigation, as specified by CRA, was conducted in a 17,000 square foot area that includes the sidewalk in front of the subject property, a small (966 square foot) area within the west portion of the property, and a larger portion of the adjacent condominium complex. This includes Waterford Place and an adjacent parking lot. The limits of the survey area are shown as a green dashed line on Plate 1. With exception to various planters, the survey area is primarily covered with asphalt paving. The survey area is generally free of above ground cultural features, except for two vehicles within the small area on the station property.

As part of ongoing work at the property, CRA is gathering information to assess potential groundwater movement beneath the site. Therefore, the purpose of the geophysical investigation is to investigate the survey area for detectable underground utilities and other features that may act as preferential pathways for this movement.

2.0 FIELD INVESTIGATIONS

2.1 EQUIPMENT

We investigated the designated survey area using the electromagnetic line locating/metal detection (EMLL) and ground penetrating radar (GPR) methods. The EMLL method was used in the electromagnetic conduction, ambient, and metal detection (MD) modes. The conduction



Conestoga-Rovers & Associates July 31, 2012 Page 2

mode was used to locate metal utilities that are accessible from the surface in at least one location. This is typically done by applying a current to a line by directly connecting the transmitter to the exposed utility through a vault or a hose bib. The ambient procedure was used to locate utilities that exhibit currents already flowing on the line (passive signals). The most common passive signals are generated by live electric lines, water lines acting as electrical grounds, and metal pipes re-radiating radio signals.

The MD mode was used to locate metal utilities that are not accessible at the surface, and isolated buried objects such as USTs, utility vaults, and other debris. This is done by holding the transmitter-receiver unit above the ground and continuously scanning over the surface. Metallic utilities and isolated objects will produce a response indicating when the unit is directly over the metal object.

The GPR method was used to confirm the location of the utilities detected with the EMLL, and to locate possible non-metallic utilities. Since GPR depth of detection is based on site specific soil conditions, not all subsurface features are detectable. Descriptions of the MD, EMLL, and GPR methods are provided in Appendix A.

2.2 FIELD PROCEDURES

We investigated the designated survey area for detectable underground utilities and other potential subsurface features. A brief description of our field procedures are presented below:

- A. <u>Site Reconnaissance</u>: We visually inspected the area to locate visible utility vaults, valves, clean-outs, meters, and hose bibs.
- B. <u>EMLL Direct Connect and Induction Survey</u>: We traced accessible utilities using the EMLL direct connect and induction methods, as described above.
- C. <u>EMLL Ambient Survey</u>: We used the EMLL ambient procedure to investigate the survey area for non-accessible utilities emitting a passive signal, as described above.
- D. <u>EMLL Metal Detection (MD) Survey</u>: We scanned the survey area with the MD along both south-north and west-east traverses spaced approximately 5- to 20-ft apart to investigate for metal utilities that were not accessible at the surface. Since the specific type of utility (i.e. water, gas, etc.) cannot be determined by this method, they are referred to as undifferentiated utilities.
- E. <u>GPR Survey</u>: We obtained GPR data along south-north and/or west-east trending traverses spaced every 2.5-ft apart over accessible portions of the survey area. We examined the GPR records for reflection patterns characteristic of underground utilities and other potential subsurface objects.



Conestoga-Rovers & Associates July 31, 2012 Page 3

F. <u>Field Documentation</u>: Upon completion of the area survey, we drafted a scaled site diagram showing the limits of the designated survey area, structures or above ground cultural features that are in close proximity to the site, and the locations of detected subsurface objects and utility alignments.

3.0 LIMITATIONS

3.1 ELECTROMAGNETIC LINE LOCATING

The detection of underground utilities is dependent upon the composition and construction of the line of interest, as well as depth. Utilities detectable with standard line location techniques include any continuously connected metal pipes, cables/wires or utilities with tracer wires. Unless carrying a passive current these utilities must be exposed at the surface or accessible in utility vaults. These generally include water, electric, natural gas, telephone, and other conduits related to facility operations. Utilities that may not be detectable using standard electromagnetic line location techniques may include certain abandoned utilities, utilities not exposed at the ground surface, or those made of non-electrically conductive materials such as PVC, fiberglass, vitrified clay, and metal pipes with insulating joints. Also, pipes generally deeper than about five to seven feet may not be detected.

3.2 GROUND PENETRATING RADAR

The ability to detect subsurface targets is dependent on site specific conditions. These conditions include depth of burial, the size or diameter of the target, the condition of the specific target in question, the type of backfill material associated with the target, and the surface conditions over the target. Under ideal conditions, the GPR can generally detect objects buried to approximately 4- to 6-ft. However, as the clay content in the subsurface increases, the GPR depth of detection decreases. Therefore, it is possible that on-site soil conditions and target features may limit the depth of detection to the upper 1- to 3-ft below ground surface.

4.0 RESULTS

The results of the geophysical survey are presented on the Geophysical Survey Map, Plate 1. This map shows the limits of the designated survey areas, structures or above ground cultural features that are in close proximity, and the locations of the detected utility alignments and subsurface features.

The results of the EMLL, MD, and GPR surveys defined the location of numerous utility alignments. As shown on Plate 1, electric, telecommunications, natural gas, water, storm drain, and sanitary sewer lines were defined. In general, most of the electric, telecommunications, and natural gas lines are located within a common trench that trends down Waterford Place and into the adjacent parking area. There are also isolated electric and telecommunication lines that cross Waterford Place and the drive entering the parking lot, as well as the small area within the station property. The water line trends down the center of Waterford Place and tees into the parking area where it feeds the individual condominium units.



Conestoga-Rovers & Associates July 31, 2012 Page 4

The storm drain and sanitary sewer lines generally trend south onto Waterford Place from the condominiums. It should be noted that the storm drain and sanitary sewer lines were buried deeper than the detection capabilities of the GPR (greater than about 3- to 4-ft). Therefore, their locations are based on line-of-site between man-way covers and catch basins.

5.0 STANDARD CARE AND WARRANTY

The scope of NORCAL's services for this project consisted of using geophysical methods to explore the area of investigation for underground utilities. The accuracy of our findings is subject to specific site conditions and limitations inherent to the techniques used. We performed our services in a manner consistent with the level of skill ordinarily exercised by members of the profession currently employing similar methods. No warranty, with respect to the performance of services or products delivered under this agreement, expressed or implied, is made by NORCAL.

We appreciate having the opportunity to provide our geophysical services to Conestoga-Rovers & Associates. If you have any questions, or require additional geophysical services, please do not hesitate to call.

Respectfully,

NORCAL Geophysical Consultants, Inc.

Donald J. Kirker

Geophysicist, PGp-997

DJK/KGB/tt

Enclosure:

Plate 1

Appendix A: GEOPHYSICAL METHODOLOGY



Appendix A GEOPHYSICAL METHODOLOGY



Appendix A

ELECTROMAGNETIC LINE LOCATION/METAL DETECTION (EMLL/MD)

METHODOLOGY

Electromagnetic line location techniques (EMLL) are used to locate the magnetic field resulting from an electric current flowing on a line. These magnetic fields can arise from currents already on the line (passive) or currents applied to a line with a transmitter (active). The most common passive signals are generated by live electric lines and re-radiated radio signals. Active signals can be introduced by connecting the transmitter to the line at accessible locations or by induction.

The detection of underground utilities is affected by the composition and construction of the line in question. Utilities detectable with standard line location techniques include any continuously connected metal pipes, cables/wires or utilities with tracer wires. Unless the utilities carry a passive current, they must be exposed at the surface or in accessible utility vaults. These generally include water, electric, natural gas, telephone, and other conduits related to facility operations. Utilities that are not detectable using standard electromagnetic line location techniques include those made of non-electrically conductive materials such as PVC, fiberglass, vitrified clay, and pipes with insulated connections.

Buried objects can also be detected, without direct contact, by using the metal detection technique (MD). This is used to detect buried near surface metal objects such as rebar, manhole covers, USTs, and various metallic debris. The MD transmitter-receiver unit is held above the ground and continuously scanned over the surface. The unit utilizes two orthogonal coils that are separated by a specified distance. One of the coils transmits an electromagnetic signal (primary magnetic field) which in turn produces a secondary magnetic field about the subsurface metal object. Since the receiver coil is orthogonal to the transmitter coil, it is unaffected by the primary field. Therefore, the secondary magnetic fields produced by buried metal object will generate an audible response from the unit. The peak of this response indicates when the unit is directly over the metal object.

The instrumentation we used for the EMLL and MD survey consists of a Radio Detection RD-400 and a Fisher TW-6 inductive pipe and cable locator.

DATA ANALYSIS

The EMLL/MD instrumentation indicates the presence of buried metal by emitting an audible tone; there are no recorded data to analyze. Therefore, the locations of buried objects detected with these methods are marked on the ground surface during the survey.

LIMITATION

The detection of underground utilities is dependent upon the composition and construction of the line of interest, as well as depth. Utilities detectable with standard line location techniques include any continuously connected metal pipes, cables/wires or utilities with tracer wires. Unless carrying a passive current these utilities must be exposed at the surface or accessible in utility vaults. These generally include water, electric, natural gas, telephone, and other conduits



related to facility operations. Utilities that may not be detectable using standard electromagnetic line location techniques include certain abandoned utilities, utilities not exposed at the ground surface, or those made of non-electrically conductive materials such as PVC, fiberglass, vitrified clay, and metal pipes with insulating joints. Pipes generally deeper than about five to seven feet may not be detected.

GROUND PENETRATING RADAR (GPR)

METHODOLOGY

Ground penetrating radar is a method that provides a continuous, high resolution cross-section depicting variations in the electrical properties of the shallow subsurface. The method is particularly sensitive to variations in electrical conductivity and electrical permittivity (the ability of a material to hold a charge when an electrical field is applied).

The GPR system operates by radiating electromagnetic pulses into the ground from a transducer (antenna) as it is moved along a traverse. Since most earth materials are transparent to electromagnetic energy, the signal spreads downward into the subsurface. However, when the signal encounters a variation in electrical permittivity, a portion of the electromagnetic energy is reflected back to the surface. When the signal encounters a metal object, all of the incident energy is reflected. The reflected signals are received by the same transducer and are printed in cross-section form on a graphical recorder. Changes in subsurface reflection character on the GPR records can provide information regarding the location of USTs, sumps, buried debris, underground utilities, and variations in the shallow stratigraphy.

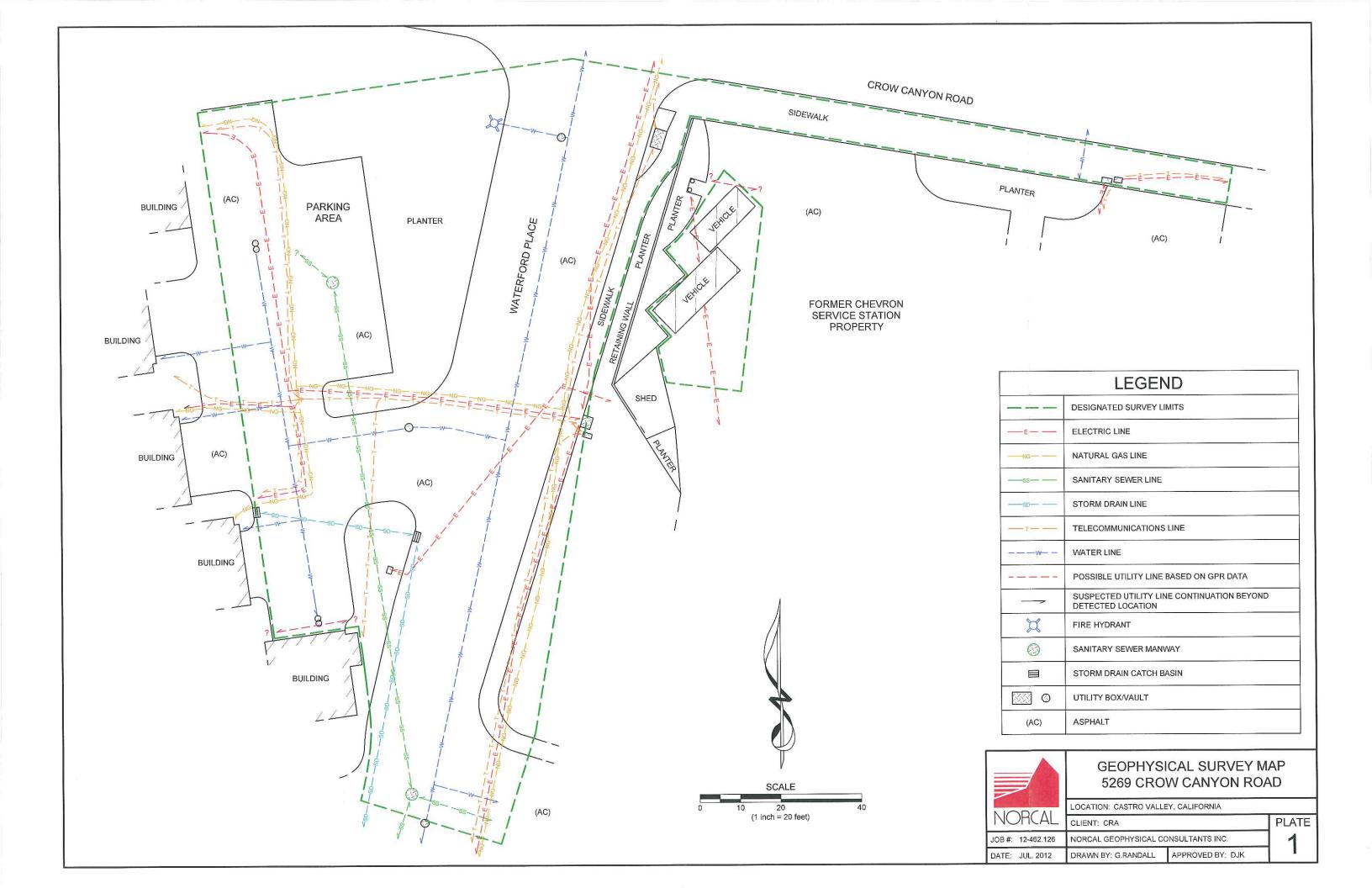
The GPR system used was a Geophysical Survey Systems, Inc. SIR-3000 Subsurface Interface Radar Systems equipped with a 400 megahertz (MHz) transducer, respectively. This transducer is used to provide high resolution at shallow depths.

DATA ANALYSIS

GPR records are examined to identify reflection patterns characteristic of USTs, utilities, septic tanks, and other buried debris. Typically, USTs are manifested by broad localized hyperbolic (upside-down "U" shape) reflection patterns that vary in intensity. The intensity of a reflection pattern is usually dependent upon the condition of the respective UST, its burial depth, and the type of fill over the UST. Utilities and other buried debris are typically manifested by narrow localized hyperbolic reflections that also vary in intensity.

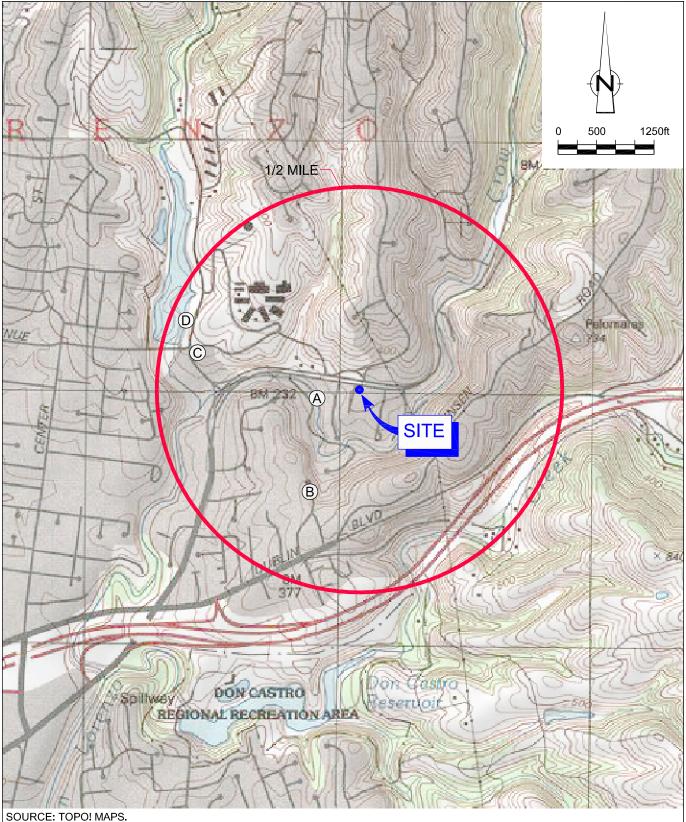
LIMITATIONS

The ability to detect subsurface targets is dependent on site specific conditions. These conditions include depth of burial, the size or diameter of the target, the condition of the specific target in question, the type of backfill material associated with the target, and the surface conditions over the target. Under ideal conditions, the GPR can generally detect objects buried to approximately six feet. However, as the clay content in the subsurface increases, the GPR depth of detection decreases. Therefore, it is possible that on-site soil conditions and target features may limit the depth of detection to the upper one to two feet below ground surface.





APPENDIX F SENSITIVE RECEPTOR SURVEY TABLE AND MAP





SENSITIVE RECEPTOR MAP FORMER CHEVRON STATION 95607 5269 CROW CANYON ROAD Castro Valley, California

Screen

Total Depth

TABLE F-1

AREA WELL SURVEY FORMER CHEVRON SERVICE STATION 95607 5269 CROW CANYON ROAD CASTRO VALLEY, CALIFORNIA

State Well No.	Well ID	Well Owner	Approximate Well Location, Castro Valley	Installation Date	Well Type	(Feet Below Grade)	Interval(Feet Below Grade)
2S/2W 33L	NR	R.K. Miller	3736 Seven Hills Road	12/08/86	Domestic (Destroyed)	100	Delow Grune)
,				,,			35-55
2S/2W 36N1	NR	Norman Luengo	6630 Crow Canyon	11/24/86	Domestic	375	115-215
		Ç	•				295-375
							120-136
							164-180
							196-200
20. (214.2.02	NID		5045 J. D. 1	40 /00 /50	D	200	212-220
2S/2W 36Q3	NR	Charles Yergelevic	5915 Jensen Road	12/20/76*	Domestic	288	238-232 240-248
							256-260
							268-272
							280-284
2S/2W 36C1	NR	Rudy Grasseschi	6495 Crow Canyon Road	06/06/75	Domestic	182	158-178
2S/2W 35F01M	CUL	USGS Menlo Park	Cull Canyon Road at Columbia Drive	09/25/91	Test Well	540	No screen
2S/2W 36Q2	NR	Moury Cox	Jensen Road	03/09/76	Domestic	208	90-204
2S/2W 36Q4	NR	Ray Napper	5755 Jensen Road	08/10/76	Domestic (Destroyed)	85	
2S/2W 36Q12	NR	Norman Clark	5814 Jensen Road	11/1977	Domestic	188	100-180
2S/2W 36Q15	NR	Bob Tucknott	5777 Jensen Road	04/12/77	Domestic	272	80-268
							128-328
2S/2W 1C1	NR	H. James Knuppe	5601 Jensen Road	09/23/85	Irrigation	528	348-388
,		7 11	,	, ,	O		408-428
00/014/101	NID		F(01 I P 1	00 /10 /07	I : (: (D :)	705	468-528
2S/2W 1C1	NR	H. James Knuppe	5601 Jensen Road	08/19/87	Irrigation (Deepening)	705	425-705
2S/2W 36Q16	NR	H. James Knuppe	5601 Jensen Road	02/10/88	Irrigation (Deepening)	682	522-682
2S/2W 36Q80	NR	Michel Cambra	1.7 acre parcel south of 5895 Jensen Road	01/14/74	Domestic	191	55-185
2S/2W 36	1	G.E. Sloat	Crow Canyon Road	11/23/54	Domestic	28	none
2S/2W 1B1	NR	Nick Keener	5895 Jensen Road	09/15/69	Domestic	254	76-104 150-248
2S/2W	NR	Tom Jensen	Crow Canyon Road	11/24/54	Domestic (Destroyed)	48	
3S/2W 1H3	NR	John Maciel, Jr.	6475 Sunnyslope Avenue	03/01/88	Irrigation	135	75-135
2S/2W 1H1	NR	Tim Cacy	Map# 85A-1550-4-17 (Sunnyslope Farm)	05/13/75	Domestic / Irrigation	128	76-120
3S/2W 1H4	NR	Beverly J. Lindsay	6700 Sunnyslope Avenue	08/16/90	Domestic	143	83-143
3S/2W 2E6	MW-1	Anthony's Auto Service	19592 Center Street	02/01/91	Test Well	49.5	29.5-49.5

Total Depth

TABLE F-1

AREA WELL SURVEY FORMER CHEVRON SERVICE STATION 95607 5269 CROW CANYON ROAD CASTRO VALLEY, CALIFORNIA

				Installation		(Feet Below	Interval(Feet
State Well No.	Well ID	Well Owner	Approximate Well Location, Castro Valley	Date	Well Type	Grade)	Below Grade)
2S/2W 2E5	MW-2	Anthony's Auto Service	19592 Center Street	02/01/91	Test Well	39.5	24.5-39.5
2S/2W 2E5	MW-3	Anthony's Auto Service	19592 Center Street	01/31/91	Test Well	49.5	29.5-49.5
3S/2W 1R1	7847	Harold W. Myers	413 Lloyd Avenue	NR	Irrigation	30	10-30
3S/2W 2F1	1	ACFC & WCD Zone 2	Cull Dam (Heyer Road at Cull Canyon Road)	07/10/80	Observation	27	17-27
3S/2W 2F2	2	ACFC & WCD Zone 2	Cull Dam (Heyer Road at Cull Canyon Road)	07/11/80	Piezometer	19	16-19
3S/2W 2H9	RW-1	Chevron USA	5269 Crow Canyon Road	05/31/85	Monitoring	36	10-35
3S/2W 2H10	9	Chevron USA	5269 Crow Canyon Road	06/24/85	Monitoring	30	5-30
3S/2W 2H24	MW-4	Mr. Frank Ramos	5293 Crow Canyon	05/10/91	Monitoring	28	18-28
3S/2W 2H25	MW-5	Mr. Frank Ramos	5293 Crow Canyon	05/06/91	Monitoring	25	17-25
3S/2W 2N1 NR	Edith Sprague	4267 Veronica	06/03/83	NR	120	40-80	
					120	100-120	
3S/2W 2F1	NR	H. J. Knuppe	Crow Canyon Place	07/05/89	Irrigation	245	25-245
3S/2S	NR	Dorthy L. Nixon	9263 Edwards Lane	7/21/1953	Irrigation	53	20-53

Notes:

NR - Not Recorded.

* - Well report date, drilling date not recorded.

____ - Numbers not legible.

One additional well on Crow Canyon Road: document illegible.

TABLE F-2 SENSITIVE RECEPTOR SURVEY DATA FORMER CHEVRON SERVICE STATION 95607 5269 CROW CANYON ROAD CASTRO VALLEY, CALIFORNIA

Map ID	Facility ID/ Surface Water Body/ Well ID	Approximate Location/ Street Address	Location Relative to Site Groundwater Flow*	Approximate Distance From Former USTs	
				(feet)	
		Surface Water Bodies			
A	Crow Creek	NA	Southwest (downgradient)	380	
D	Cull Canyon Lake	NA	Northwest (crossgradient)	2,245	
		Schools and Daycare Facilities			
В	Independent Elementary School	21201 Independent School Road	South-southwest (crossgradient)	1,230	
C	Canyon Middle Scholl	19600 Cull Canyon Road	Northwest (crossgradient)	1,380	

Notes:

NA = Not applicable/ not available.

APPENDIX G	
GETTLER-RYAN'S 1990 UST REMOVAL AND EXCAVATION SOIL SAMPLING MAP	S

TANK REMOVAL DIAGRAM

DIAGRAM ONE

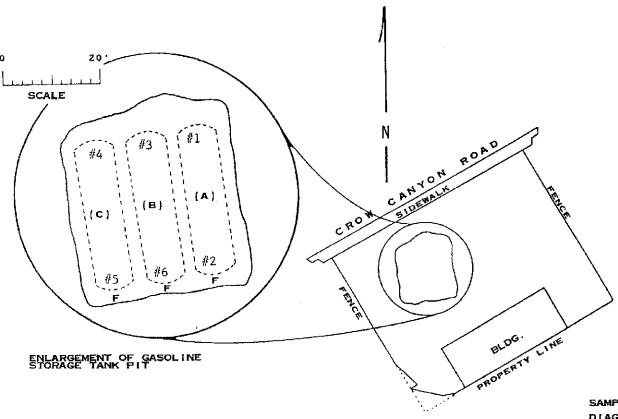
October 2, 1990 / 901002-V-1

SCALE:

75'

MAP REF: THOMAS BROS.

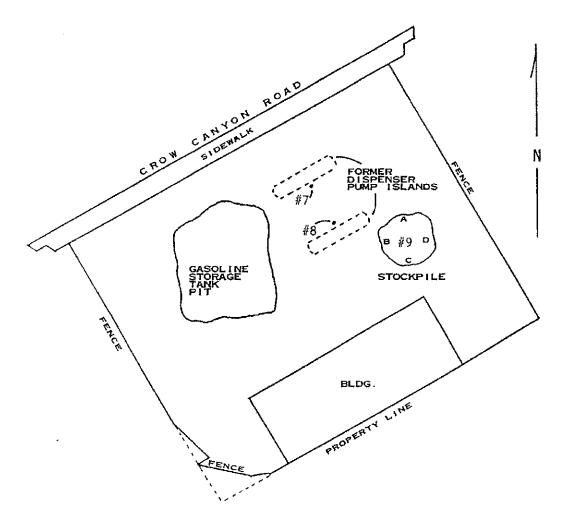
LEGEND: F = FILL END OP = OPPOSITE THE



SAMPLING PERFORMED BY FRED VAN DEN BROECK DIAGRAM PREPARED BY LEAH MORRIS

TANK REMOVAL DIAGRAM

October 2, 1990 / 901002-V-1



Blaine Tech Services, Inc. Report No. 901022-V-2

Chevron Station 95607

DIAGRAM TWO

SCALE: 25' 50' 75'

MAP REF: THOMAS BROS, ALAMEDA COUNTY P. 31 B-3

SAMPLING PERFORMED BY FRED VAN DEN BROECK DIAGRAM PREPARED BY LEAH MORRIS

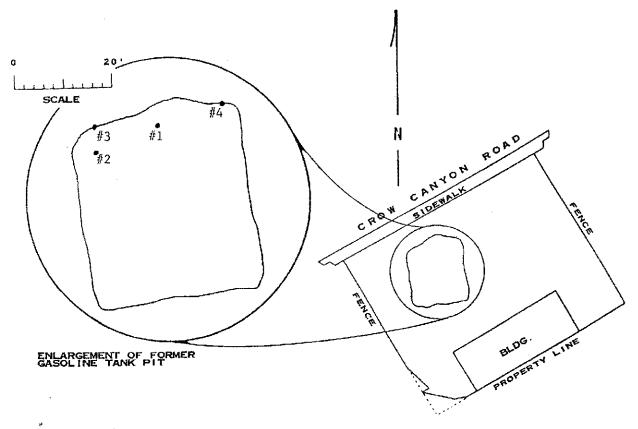
page 8

ADDITIONAL EXCAVATION DIAGRAM

October 5, 1990 / 901005-H-5

0 75.

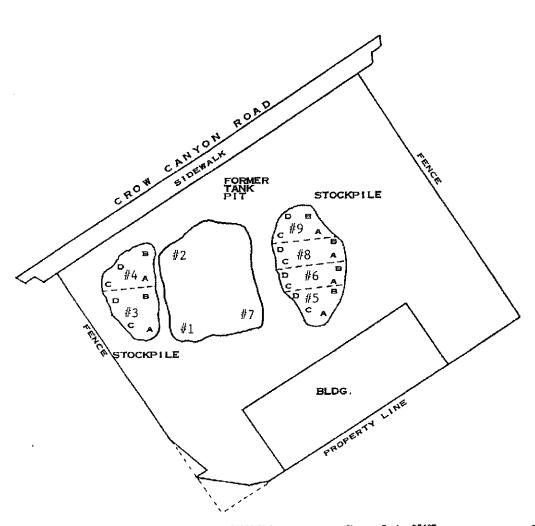
MAP REF: THOMAS BROS.



SAMPLING PERFORMED BY BEN RAPP . DIAGRAM PREPARED BY LEAH MORRIS

ADDITIONAL EXCAVATION DIAGRAM

October 11, 1990 / 901011-V-1



0 75' SCALE:

MAP REF: THOMAS BROS. ALAMEDA COUNTY P. 31 B.3

SAMPLING PERFORMED BY FRED VAN DEN BROECK DIAGRAM PREPARED BY LEAH MORRIS

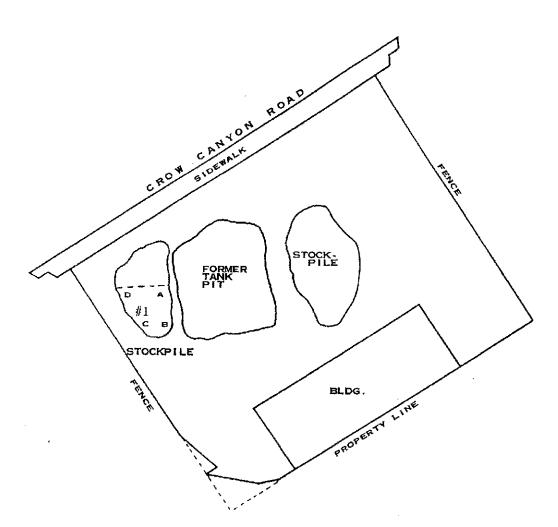
Blaine Tech Services, Inc. Report No. 901022-V-2

Chevron Station 95607

page 14

STOCKPILE DIAGRAM

October 22, 1990 / 901022-V-2



0 75'
SCALE:

MAP REF: THOMAS BROS. ALAMEDA COUNTY

SAMPLING PERFORMED BY FRED VAN DEN BROECK DIAGRAM PREPARED BY LEAH MORRIS

Blaine Tech Services, Inc. Report No. 901022-V-2

Chevron Station 95607

page 16

APPENDIX H DEGRADATION TREND GRAPHS AND CALCULATIONS

TABLE A SUMMARY OF DEGRADATION CALCULATIONS FORMER CHEVRON SERVICE STATION 95607 5269 CROW CANYON ROAD, CASTRO VALLEY, CALIFORNIA

Well	Analyte	Maximum Concentration (ug/L)	Current Concentration (ug/L)	Half-Life (years)	Date to Reach ESL	Years to reach ESL
C-1	TPHg	437,005	4,700	2.49	Jun 2021	9
	Benzene	11,000	350	2.56	Feb 2028	16
C-3	TPHg	1,000,000	44,000	19.68	Dec 2181	169
	Benzene	43,000	9,100	25.16	May 2341	329
C-6	TPHg	120,000	24,000	21.53	Jan 2179	167
	Benzene	27,000	9,400	8.89	Jul 2129	117
C-9	TPHg	120,000	<50	3.58	Jul 2025	13
	Benzene	14,000	<0.5	2.79	Aug 2030	18
C-12	TPHg	8,700	1,200	42.01	Sep 2176	164
	Benzene	1,200	10	6.35	Dec 2043	31

Notes:

TPHg = Total petroleum hydrocarbons as gasoline

ug/L = Micrograms per liter

ESL = Environmental Screening Level

<x = Indicates chemical not detected at or above reporting limit x

NA = Not applicable

PREDICTED TIME TO REACH ENVIRONMENTAL SCREENING LEVELS (ESLs) FORMER CHEVRON SERVICE STATION 95607 5269 CROW CANYON ROAD, CASTRO VALLEY, CALIFORNIA

 $y = b e^{ax}$ $x = \ln(y/b) / a$ where: $y = concentration in \mu g/L$ a = decay constant b = concentration at time (x)x = time(x) in days

> **Total Petroleum** Hydrocarbons as

Constituent Gasoline (TPHg) Benzene Given

> ESL: Constant: b Constant: Starting date for current trend:

5.02E+16 1.11E+15 -7.63E-04 -7.40E-04 1/9/2001 7/31/1995

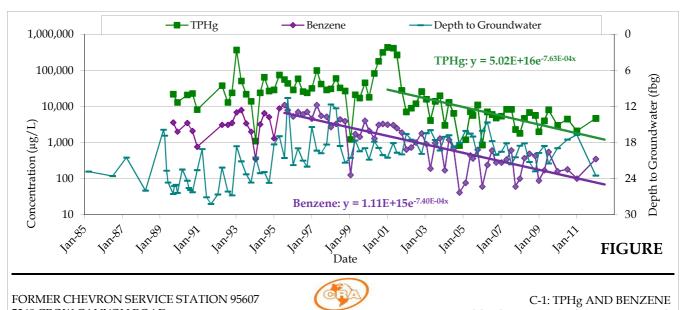
Calculate

Attenuation Half Life (years): $(-\ln(2)/a)/365.25$ 2.49

2.56

Feb 2028

Estimated Date to Reach ESL: $(x = \ln(y/b) / a)$ Jun 2021



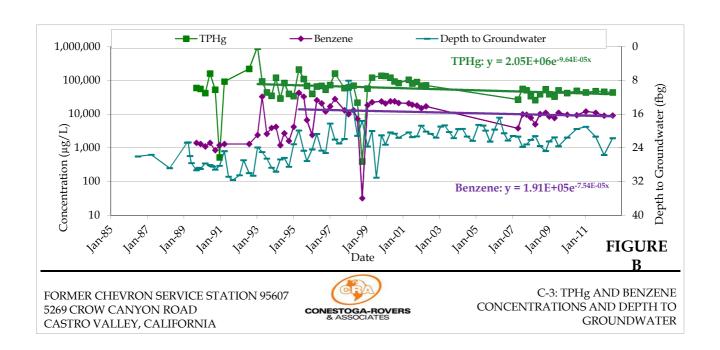
5269 CROW CANYON ROAD CASTRO VALLEY, CALIFORNIA

CONCENTRATIONS AND DEPTH TO

PREDICTED TIME TO REACH ENVIRONMENTAL SCREENING LEVELS (ESL) FORMER CHEVRON SERVICE STATION 95607 5269 CROW CANYON ROAD, CASTRO VALLEY, CALIFORNIA

 $y = b e^{ax}$ ===> $x = \ln(y/b) / a$ where: $y = \text{concentration in } \mu g/L$ a = decay constantb = concentration at time (x) x = time (x) in days

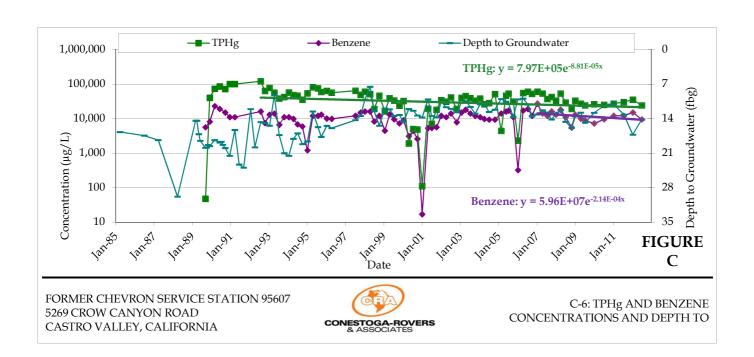
Total Petroleum Hydrocarbons as Constituent Gasoline (TPHg) Benzene Given ESL: 100 y Constant: b 1.91E+05 Constant: -9.64E-05 -7.54E-05 Starting date for current trend: 1/18/1993 4/24/1995 Calculate Attenuation Half Life (years): $(-\ln(2)/a)/365.25$ 19.68 25.16 Estimated Date to Reach ESL: $(x = \ln(y/b) / a)$ Dec 2181 May 2341



PREDICTED TIME TO REACH ENVIRONMENTAL SCREENING LEVELS (ESL) FORMER CHEVRON SERVICE STATION 95607 5269 CROW CANYON ROAD, CASTRO VALLEY, CALIFORNIA

 $y = b e^{ax}$ ===> x = ln(y/b) / awhere: $y = concentration in \mu g/L$ a = decay constantb = concentration at time (x) x = time (x) in days

Total Petroleum Hydrocarbons as Constituent Gasoline (TPHg) Benzene Given ESL: 100 y b Constant: 5.96E+07 Constant: -8.81E-05 -2.14E-04 Starting date for current trend: 8/3/1992 1/17/2007 Calculate Attenuation Half Life (years): $(-\ln(2)/a)/365.25$ 21.53 8.89 Estimated Date to Reach ESL: $(x = \ln(y/b) / a)$ Jan 2179 Jul 2129



PREDICTED TIME TO REACH ENVIRONMENTAL SCREENING LEVELS (ESL) FORMER CHEVRON SERVICE STATION 95607 5269 CROW CANYON ROAD, CASTRO VALLEY, CALIFORNIA

 $y = b e^{ax}$ ===> x = ln(y/b) / awhere: $y = concentration in \mu g/L$ a = decay constantb = concentration at time (x) x = time (x) in days

Total Petroleum
Hydrocarbons as
Constituent Gasoline (TPHg)

Given Constituent

ESL: y
Constant: b
Constant: a

Starting date for current trend:

Estimated Date to Reach ESL:

Gasoline (TPHg)	Benzene
100	1
3.53E+12	1.30E+14
-5.29E-04	-6.81E-04
	- / /

Calculate

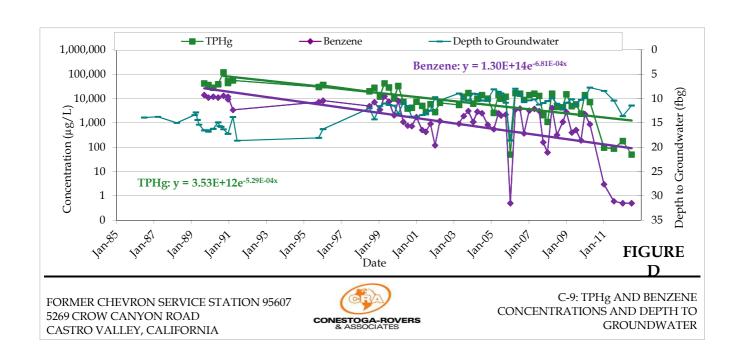
Attenuation Half Life (years): $(-\ln(2)/a)/365.25$

-ln(2)/a)/365.25 3.58

 $(x = \ln(y/b) / a)$

Jul 2025 Aug 2030

2.79

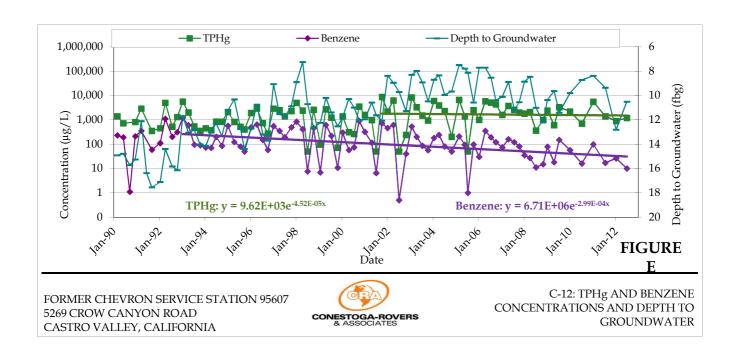


C-12

PREDICTED TIME TO REACH ENVIRONMENTAL SCREENING LEVELS (ESL) FORMER CHEVRON SERVICE STATION 95607 5269 CROW CANYON ROAD, CASTRO VALLEY, CALIFORNIA

 $y = b e^{ax}$ ===> x = ln(y/b) / awhere: $y = concentration in \mu g/L$ a = decay constantb = concentration at time (x) x = time (x) in days

Total Petroleum Hydrocarbons as Constituent Gasoline (TPHg) Benzene Given ESL: 100 y b Constant: 6.71E+06 Constant: -2.99E-04 Starting date for current trend: 10/10/2001 1/18/1993 Calculate Attenuation Half Life (years): $(-\ln(2)/a)/365.25$ 42.01 6.35 Estimated Date to Reach ESL: $(x = \ln(y/b) / a)$ Sep 2176 Dec 2043



APPENDIX I

STANDARD FIELD PROCEDURES FOR SOIL BORING AND MONITORING WELL INSTALLATION

STANDARD FIELD PROCEDURES FOR SOIL BORING AND MONITORING WELL INSTALLATION

This document presents standard field methods for drilling and sampling soil borings and installing, developing and sampling groundwater monitoring wells. These procedures are designed to comply with Federal, State and local regulatory guidelines. Specific field procedures are summarized below.

SOIL BORINGS

Objectives

Soil samples are collected to characterize subsurface lithology, assess whether the soils exhibit obvious hydrocarbon or other compound vapor or staining, and to collect samples for analysis at a State-certified laboratory. All borings are logged using the ASTM D2488-06 Unified Soil Classification System by a trained geologist working under the supervision of a California Professional Geologist (PG).

Soil Boring and Sampling

Prior to drilling, the first 8 feet of the boring are cleared using an air or water knife and vacuum extraction or hand auger. This minimizes the potential for impacting utilities. Soil borings are typically drilled using hollow-stem augers or direct-push technologies such as the Geoprobe®. Soil samples are collected at least every five ft to characterize the subsurface sediments and for possible chemical analysis. Additional soil samples are collected near the water table and at lithologic changes. Samples are collected using lined split-barrel or equivalent samplers driven into undisturbed sediments at the bottom of the borehole.

Drilling and sampling equipment is steam-cleaned prior to drilling and between borings to prevent cross-contamination. Sampling equipment is washed between samples with trisodium phosphate or an equivalent EPA-approved detergent.

Sample Analysis

Sampling tubes chosen for analysis are trimmed of excess soil and capped with Teflon tape and plastic end caps. Soil samples are labeled and stored at or below 4° C on either crushed or dry ice, depending upon local regulations. Samples are transported under chain-of-custody to a State-certified analytic laboratory.

Field Screening

One of the remaining tubes is partially emptied leaving about one-third of the soil in the tube. The tube is capped with plastic end caps and set aside to allow hydrocarbons to volatilize from the soil. After ten to fifteen minutes, a portable volatile vapor analyzer measures volatile hydrocarbon vapor concentrations in the tube headspace, extracting the vapor through a slit in the cap. Volatile vapor analyzer measurements are used along with the field observations, odors, stratigraphy and groundwater depth to select soil samples for analysis.

Water Sampling

Water samples, if they are collected from the boring, are either collected using a driven Hydropunch® type sampler or are collected from the open borehole using bailers. The groundwater samples are decanted into the appropriate containers supplied by the analytic laboratory. Samples are labeled, placed in protective foam sleeves, stored on crushed ice at or below 4°C, and transported under chain-of-custody to the laboratory. Laboratory-supplied trip blanks accompany the samples and are analyzed to check for cross-contamination. An equipment blank may be analyzed if non-dedicated sampling equipment is used.

Grouting

If the borings are not completed as wells, the borings are filled to the ground surface with cement grout poured or pumped through a tremie pipe.

MONITORING WELL INSTALLATION, DEVELOPMENT AND SAMPLING

Well Construction and Surveying

Groundwater monitoring wells are installed to monitor groundwater quality and determine the groundwater elevation, flow direction and gradient. Well depths and screen lengths are based on groundwater depth, occurrence of hydrocarbons or other compounds in the borehole, stratigraphy and State and local regulatory guidelines. Well screens typically extend 10 to 15 feet below and 5 feet above the static water level at the time of drilling. However, the well screen will generally not extend into or through a clay layer that is at least three feet thick.

Well casing and screen are flush-threaded, Schedule 40 PVC. Screen slot size varies according to the sediments screened, but slots are generally 0.010 or 0.020 inches wide. A rinsed and graded sand occupies the annular space between the boring and the well screen to about one to two feet above the well screen. A two feet thick hydrated bentonite seal separates the sand from the overlying sanitary surface seal composed of Portland type I, II cement.

Well-heads are secured by locking well-caps inside traffic-rated vaults finished flush with the ground surface. A stovepipe may be installed between the well-head and the vault cap for additional security.

The well top-of-casing elevation is surveyed with respect to mean sea level and the well is surveyed for horizontal location with respect to an onsite or nearby offsite landmark.

Well Development

Wells are generally developed using a combination of groundwater surging and extraction. Surging agitates the groundwater and dislodges fine sediments from the sand pack. After about ten minutes of surging, groundwater is extracted from the well using bailing, pumping and/or reverse air-lifting through an eductor pipe to remove the sediments from the well. Surging and extraction continue until at least ten well-casing volumes of groundwater are extracted and the sediment volume in the groundwater is negligible. This process usually occurs prior to installing the sanitary surface seal to ensure sand pack stabilization. If development occurs after surface seal installation, then development occurs 24 to 72 hours after seal installation to ensure that the Portland cement has set up correctly.

All equipment is steam-cleaned prior to use and air used for air-lifting is filtered to prevent oil entrained in the compressed air from entering the well. Wells that are developed using air-lift evacuation are not sampled until at least 24 hours after they are developed.

Groundwater Sampling

Depending on local regulatory guidelines, three to four well-casing volumes of groundwater are purged prior to sampling. Purging continues until groundwater pH, conductivity, and temperature have stabilized. Groundwater samples are collected using bailers or pumps and are decanted into the appropriate containers supplied by the analytic laboratory. Samples are labeled, placed in protective foam sleeves, stored on crushed ice at or below 4°C, and transported under chain-of-custody to the laboratory. Laboratory-supplied trip blanks accompany the samples and are analyzed to check for cross-contamination. An equipment blank may be analyzed if non-dedicated sampling equipment is used.

Waste Handling and Disposal

Soil cuttings from drilling activities are usually stockpiled onsite and covered by plastic sheeting. At least three individual soil samples are collected from the stockpiles and composited at the analytic laboratory. The composite sample is analyzed for the same constituents analyzed in the borehole samples in addition to any analytes required by the receiving disposal facility. Soil cuttings are transported by licensed waste haulers and disposed in secure, licensed facilities based on the composite analytic results.

Groundwater removed during development and sampling is typically stored onsite in sealed 55-gallon drums. Each drum is labeled with the drum number, date of generation, suspected contents, generator identification and consultant contact. Upon receipt of analytic results, the water is either pumped out using a vacuum truck for transport to a licensed waste treatment/disposal facility or the individual drums are picked up and transported to the waste facility where the drum contents are removed and appropriately disposed.