December 14, 1998

12/14/18

PHASE II SUBSURFACE INVESTIGATION

1310 Central Avenue Alameda, California

Project No. 3011

Prepared For

Pritpaul Sappal 13925 San Pablo Avenue San Pablo, CA 94806

Prepared By

All Environmental, Inc. 901 Moraga Road, Suite C Lafayette, CA 94549 (800) 801-3224





PROTECTION

98 DEC 15 PM 4: 08

December 14, 1998

Larry Seto Alameda County Health Care Services Agency 1131 Harbor Bay Parkway, Suite 250 Alameda, CA 94502

Subject:

Phase II Investigation

1310 Central Avenue Alameda, California Project No. 3011

Dear Mr. Seto:

Enclosed is a copy of the Phase II Subsurface Investigation report for the property referenced above.

Please contact me at (925) 283-6000 if you have any questions.

Sincerely,

ALL ENVIRONMENTAL, INC.

Peter McIntyre

Project Geologist

ALL ENVIRONMENTAL, INC.

Environmental Engineering & Construction

December 14, 1998

Pritpaul Sappal 13925 San Pablo Avenue San Pablo, CA 94806

Subject:

Phase II Subsurface Investigation

1310 Central Avenue Alameda, California Project No. 3011

Dear Mr. Sappal:

The following letter report describes the activities and results of the subsurface investigation performed by All Environmental, Inc. (AEI) at the above referenced property (Figure 1: Site Location Map). The investigation included the advancement of 14 soil borings in the location of the former underground storage tank excavation, former dispenser islands and the waste oil tank. This investigation was designed to characterize the soil and groundwater beneath the property and to confirm the remedial activities that took place in 1996.

I Background

The site is a triangular shaped parcel located at the intersection between Encinal Street and Central Avenue in the city of Alameda as shown in Figure 1. The site is occupied by an active gasoline service station.

Three underground storage fuel tanks and one waste oil tank, associated piping and dispensers were removed from the property in May, 1996 by Petrotek. No reports detailing the tank removals or any subsequent remedial work were issued by Petrotek. According to Mr. Sappal, the tanks consisted of one 10,000 gallon, one 7,500 gallon and one 5,000 gallon gasoline fuel tanks formerly located in the western corner of the site. The fuel tanks were located adjacent to one another and one excavation was created from their removal. The bottom of the 10,000 gallon fuel tank was set at a greater depth (approximately 12 feet bgs) than the other fuel tanks and groundwater was observed upon its removal. One 500 gallon waste oil tank was located adjacent to the subject property building. Refer to Figure 2 for locations of the former fuel tanks and dispensers.

Soil samples were collected from beneath the 7,500 gallon and 5,000 gallon fuel tanks and from beneath the waste oil tank. Contaminated soil was reportedly removed from the fuel tank excavation and possibly from beneath the former dispensers. The 7,500 gallon and 5,000 gallon

Corporate Headquarters:

Los Angeles Office:

fuel tanks excavation was extended to groundwater and laterally in the north, south and west directions. Soil samples were also collected from beneath the dispenser islands. Two soil samples were collected from trenches believed to be created when the piping was removed. The exact location of the trench samples is unknown. Refer to Table 5 for a summary of the analytical results and Figure 2 for approximate locations of the soil samples and the lateral limits of the excavation.

The analytical results indicated that elevated levels of petroleum hydrocarbons were present in the soil. Mr. Sappal reports that approximately 600 tons of contaminated soil was removed and disposed of off-site. No confirmation soil samples were collected following the soil removal.

According to Mr. Sappal, free-floating product was observed on the groundwater in the fuel tank excavation. Nevertheless, the previous analytical data indicates that a grab groundwater sample was collected from the fuel tank excavation. Groundwater was also encountered in the waste oil tank excavation and a grab groundwater sample was collected. Refer to Table 6 for a summary of the grab groundwater analytical results.

Approximately 15,000 gallons of water and product were reportedly removed from the fuel tank excavation. The water was treated prior to discharging into the sanitary sewer. Two new underground storage tanks were installed within the same fuel tank excavation. New dispenser islands and associated piping were also installed. Refer to Figure 2 for the present day station configuration.

AEI submitted a work plan on your behalf to the Alameda County Health Care Services Agency (ACHCSA) on October 13, 1998. The work plan, which outlined the collection of soil and groundwater samples from 14 soil borings, was approved on October 21, 1998 by Larry S¢to of the ACHCSA.

II Investigative Efforts

All Environmental, Inc. (AEI) performed a subsurface investigation at the property on November 10 and 11, 1998. A total of 14 soil borings (BH-1 to BH-14) were advanced. The soil borings were advanced in the location of the former underground storage tank excavation, former dispenser islands and the waste oil tank. The locations of the soil borings are shown on Figure 2.

The near surface native soil encountered during the boring advancements consisted generally of silty sand to a depth of approximately 6 feet bgs, below which stiffer clayey sands were encountered. Groundwater was encountered in the borings at between 5 and 7 feet bgs. Refer to Attachment A for detailed logs of the borings. The property is located on Alameda Island, approximately 27 feet above mean sea level. The local topography is very flat, sloping gently to the west. Due to the topography of the island and proximity to the San Francisco Bay, the groundwater beneath the site is expected to be tidally influenced, with a very shallow gradient.

Soil Sample Collection

The borings were advanced with a Geoprobe drilling rig to a depth of 8 feet bgs, with the exception of BH-9 which was drilled to 12 feet bgs. Soil samples were collected at 4 foot intervals beginning at 4 feet bgs in most of the borings. BH-8 was moved 1 foot to the south of its original location due to loose gravel and voids below the pavement, which prevented the collection of soil samples.

Strong hydrocarbon odor was observed during the advancement of many of the soil borings and sample collection. Soil samples were screened in the field using a portable organic vapor meter. Organic vapors were detected in the soil as high as 1,397 ppm. Soil staining was evidenced by a dramatic color change noted at approximately 4 to 6 feet bgs in many of the borings. The native, non-contaminated soil was typically a dusky yellowish brown, while soils with high organic vapor readings were greyish green and olive in color.

The soil screening data is presented on the borings logs (Attachment A). Soil samples were collected in 2"acrylic liners, from which a six inch sample was chosen from the four foot section. The soil samples were sealed with teflon tape and plastic caps and placed in a cooler with wet ice to await transportation to the laboratory.

Groundwater Sample Collection

Groundwater was encountered at approximately 5 feet bgs during the advancement of the soil borings with the exception of during BH-13 in which groundwater was encountered at 7 feet bgs. Boring BH-11 was moved within 2 feet of its original location due to the inability to generate groundwater. Groundwater was obtained from BH-11.1 at 5 feet bgs.

A hydrocarbon sheen was observed on the groundwater samples collected from BH-1, BH-3, BH-4, and BH-7. Floating free product was not observed in the groundwater samples from any of the borings.

A groundwater sample was collected through the direct push rods from all of the borings except BH-1, BH-8.1 and BH-11.1. Water samples were collected through slotted PVC pipe at these three borings due to the very slow generation of groundwater. Samples were collected into 1-Liter amber bottles and 40-mL VOA vials. The groundwater samples were capped so that there was no head space or visible air bubbles within the vials, then placed in a cooler with wet ice to await transportation to the laboratory.

Following sample collection, each boring was backfilled with cement slurry.

Laboratory Analysis

After each day of sample collection, the soil and groundwater samples were transported to SunStar Laboratories, Inc. of Tustin, California (DOHS Certification Number 2250) under chain of custody protocol for analysis. Analytical results and chain of custody documents are included as Attachment B.

A groundwater sample and at least one soil sample was analyzed from each boring. Soil and groundwater samples from all 14 borings were analyzed for total petroleum hydrocarbons (TPH) as gasoline (EPA method 8015M), benzene, toluene, ethylbenzene and xylenes (BTEX) and methyl tertiary butyl ether (MTBE) (EPA method 8020) and TPH as diesel (EPA method 8015M). In addition, the soil and groundwater samples from near the waste oil tank (BH-9 to BH-11) were analyzed for total oil & grease, volatile hydrocarbons (EPA method 8010) and CAM 17 metals. The groundwater samples collected from BH-5 and BH-7 were broken in route to the laboratory. These samples were unable to be analyzed.

The remaining soil samples were placed on hold at the laboratory.

III Findings

Soil samples analyzed contained concentrations of TPH as gasoline generally around the former tank excavation and dispensers with a maximum of 5,900 mg/kg in BH-2. TPH as diesel was only detected in BH-8 at 300 mg/kg. Total Oil & Grease was detected around the former waste oil tank at a maximum of 3,300 mg/kg in BH-9. Concentrations of barium and thallium were also detected near the former waste oil tank. Volatile Halocarbons were not detected above laboratory reporting limits in any of the soil samples. Complete results of the soil samples analyzed are presented in Table 1.

TPH as gasoline and BTEX were detected at significant concentrations in the groundwater around the former tanks, dispensers and waste oil tank. The maximum concentration of TPH as gasoline was detected at $120,000~\mu g/L$ in BH-6. Diesel was detected in the groundwater in all of the borings with a maximum of $6,400~\mu g/L$ in BH-9, near the former waste oil tank. Minor concentrations of thalium and barium were also detected near the former waste oil tank. Total Oil & Grease and Volatile Halocarbons were not detected above laboratory reporting limits in any of the water samples. Complete results of the soil samples analyzed are presented in Table 1.

IV Conclusions

Results of AEI's investigation indicate significant concentrations of petroleum hydrocarbons present in the soil and groundwater beneath the site. Elevated concentrations of TPH as gasoline are present in the soil around the former excavation and dispenser islands. Based on the results

of the soil samples analyzed all of the impacted soil was not removed during the previous extensive excavation activities. The highest concentrations of TPH as gasoline in the soil are located north of the former excavation and dispensers along Central Avenue and south of the excavation and dispensers along Encinal Avenue. However, benzene and MTBE concentrations were only found at elevated concentrations in BH-1 and BH-2. Elevated concentrations of Total Oil & Grease are also present near the former waste oil tank. Minor concentrations of TPH as diesel are present near the former waste oil tank. Elevated concentrations of Chromium are present near the former waste oil tank. No Volatile Halocarbons were detected in any of the soil samples collected from around the former waste oil tank.

Elevated concentrations of TPH as gasoline are present in the groundwater around the former excavation, dispensers and former waste oil tank. Benzene is present at significant concentration around the excavation and dispensers to the north. TPH as diesel is present at elevated levels in all of the water samples analyzed. Elevated concentrations of thallium are present in the groundwater samples analyzed from the vicinity of the former waste oil tank. Total Oil & Grease and Volatile Halocarbons were not detected in any of the groundwater samples collected from around the former waste oil tank. The lateral extent of elevated levels of TPH as gasoline and BTEX appear to be limited to the east and west, however the extent of impacted groundwater has not been defined to the north or south.

V Report Limitation

This report presents a summary of work completed by All Environmental, Inc. (AEI). The completed work includes observations and descriptions of site conditions encountered. Where appropriate, it includes analytical results for samples taken during the course of the work. The number and location of samples are chosen to provide the required information, but it cannot be assumed that they are representative of areas not sampled. All conclusions and/or recommendations are based on these analyses and observations, and the governing regulations. Conclusions beyond those stated and reported herein should not be inferred from this document.

These services were performed in accordance with generally accepted practices, in the environmental engineering and construction field, which existed at the time and location of the work.

If you have any questions regarding our investigation, please do not hesitate to contact me at (510) 283-6000.

Sincerely.

Peter McIntyre Project Geologist

Joseph P. Derhake, PE, CAC

Senior Author

Figures Tables

Attachment A: Soil Boring Logs

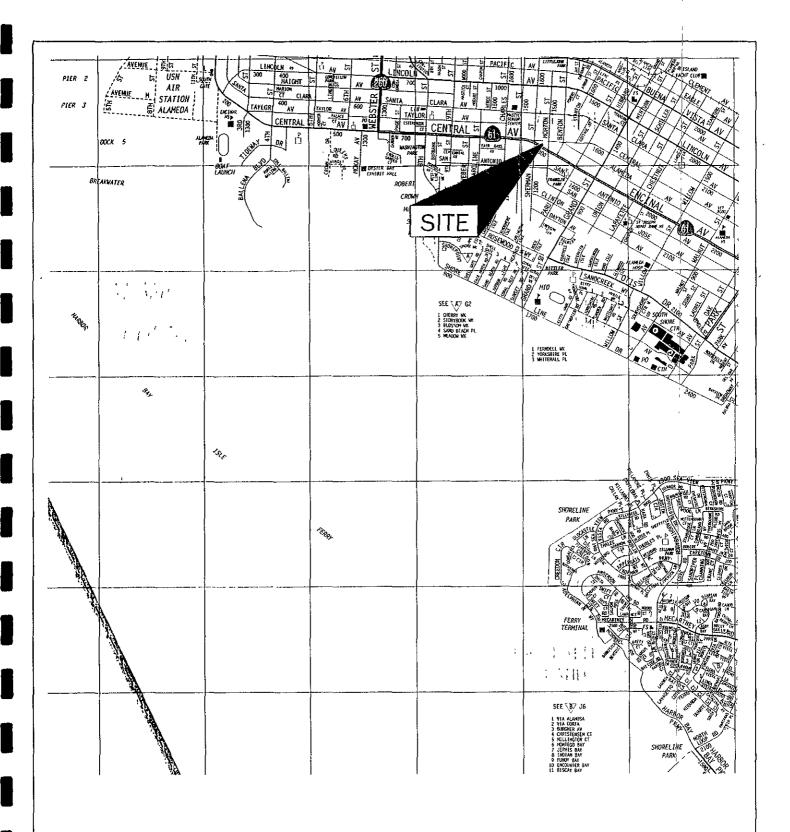
Attachment B: Sample Analytical Documentation

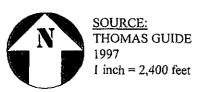
c.c. Larry Seto, Alameda County Health Care Services Agency 1131 Harbor Bay Parkway, Suite 250

Alameda, CA 94502



FIGURES





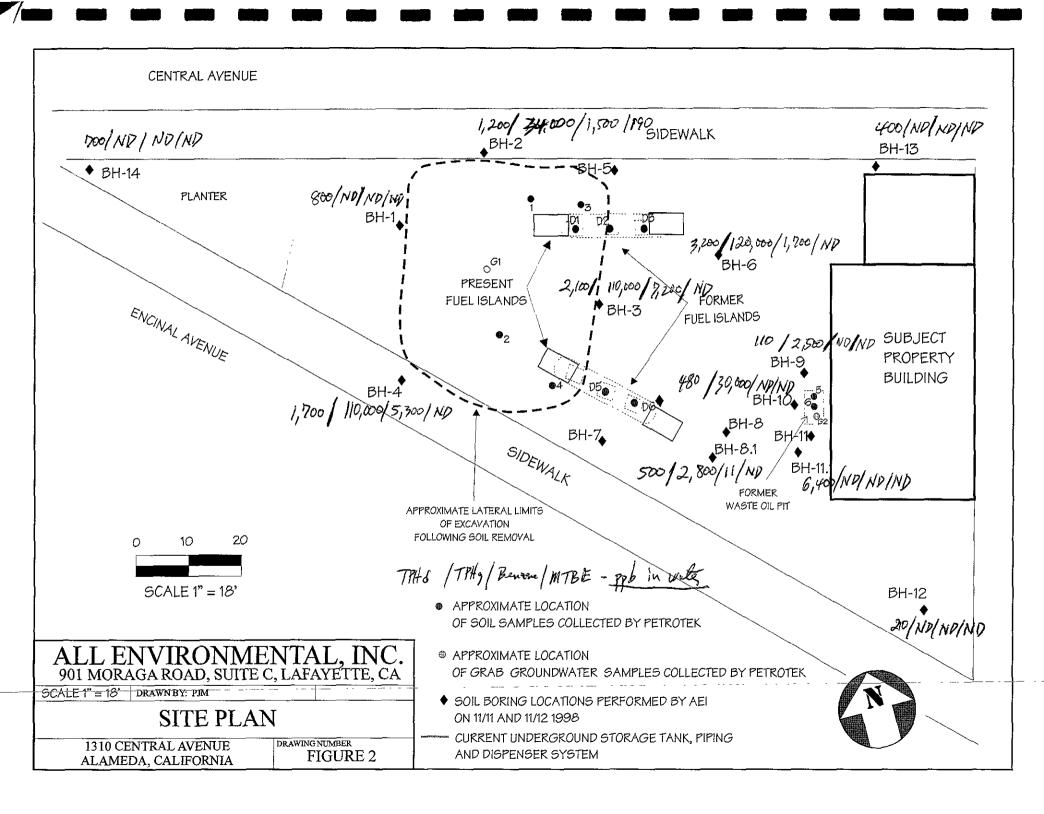
ALL ENVIRONMENTAL, INC.

901 MORAGA ROAD, SUITE C, LAFAYETTE, CA

SITE LOCATION MAP

1310 CENTRAL AVENUE ALAMEDA, CALIFORNIA

FIGURE 1



TABLES

TABLE 1: SOIL SAMPLE ANALYTICAL RESULTS

Sample	Date	TPH as	TPH as	TOG	MTBE	Benzene	Toluene	Ethyl-	Xylenes	VOC's
ID	Sampled	CONT. 114 114 114 114 114 114 114 114 114 11	diesel	mg/kg	mg/kg	mg/kg	mg/kg	benzene	mg/kg	μg/kg
		mg/kg	mg/kg					mg/kg		
BH-1 4'	11/12/98	810	<1	-	<0.02	27	170	110	560	1
BH-1 8'	11/12/98	1,100	<1	-	<0.02	9.8	33	11	64	-
BH-2 4'	11/12/98	5,900	<1	-	1.8	2.9	76	57	410	-
BH-3 4'	11/12/98	570	<1	-	<0.02	<0.005	0.065	0.073	0.38	-
BH-4 3'	11/12/98	4,600	<1	-	<0.02	<0.005	13	47	310	-
BH-5 4'	11/12/98	3,700	<1	-	<0.02	<0.005	3.2	29	190	-
BH-6 4'	11/11/98	<0.05	<1	-	<0.02	<0.005	<0.005	<0.005	<0.015	-
BH-7 4'	11/12/98	2,600	<1	-	<0.02	<0.005	<0.005	6.9	68	- 1
BH-8 6'	11/11/98	270	<1	-	< 0.02	0.18	0.11	0.45	1.2	-
BH-8.1 5'	11/11/98	<0.05	<1	-	<0.02	<0.005	0.008	<0.005	<0.015	-
BH-9 5'	11/11/98	<0.05	<1	3,300	<0.02	<0.005	0.02	<0.005	<0.015	ND
BH-10 8'	11/11/98	250	300	2,100	< 0.02	<0.005	<0.005	0.19	1.4	ND
BH-11 5'	11/11/98	<0.05	<1	70	<0.02	<0.005	<0.005	<0.005	<0.015	ND
BH-11,17	11/11/98	<0.05	<1	16	<0.02	<0.005	<0.005	<0.005	<0.015	ND
BH-12 5'	11/11/98	<0.05	<1	-	<0.02	<0.005	<0.005	< 0.005	<0.015	-
BH-13 5'	11/11/98	<0.05	<1	-	<0.02	<0.005	<0.005	< 0.005	<0.015	-
BH-14 5'	11/11/98	<0.05	<1	_	<0.02	<0.005	<0.005	< 0.005	<0.015	-
MDL		0.05	1	10	0.02	0.005	0.005	0.005	0.015	

^{-&#}x27; = Not Analyzed

ND = Not detected above the Method Detection Limit

μg/kg = micrograms per kilogram (ppb)

mg/kg = milligrams per kilogram (ppm)

VOC's = Volatile Halocarbons

MDL = Method Detection Limit

TABLE 2: SOIL SAMPLE ANALYTICAL RESULTS

Sample ID	Date Sampled	An mg/kg	As mg/kg	Ba mg/kg	453	Cd mg/kg	10 Company (1987)	Co mg/kg	***************************************	Pb mg/kg	Hg mg/kg	l. The state of th	Ni mg/kg	100 C	Ag mg/kg	Th mg/kg	* v * E 28	Zn mg/kg
BH-9 5'	11/11/98	<2	<5	46	<1	3	74	7	6	<1	<0.1	4	30	<5	<2	26	35	21
BH-10 8'	11/11/98	<2	<5	34	<1	2	41	7	5	5	<0.1	3	20	<5	<2	16	21	19
BH-11 5'	11/11/98	<2	<5	63	<1	3	66	6	7	<1	<0.1	4	35	<5	<2	27	32	23
BH-11.1 7'	11/11/98	<2	<5	62	<1	2	37	7	10	37	<0.1	3	24	<5	<2	17	22	140
1						Ì												1
M.D.L.		2	5	1	1	1	1	1	1	1	0.1	1	1	5	2	2	1	1

An = Antimony

As = Arsenic

Ba = Barium

Be = Berilium

Cd = Cadmium

Cr = Cromium

Co = Cobalt

Cu = Copper

Pb = Lead

Hg = Mercury

Mb = Molybdenum

Ni = Nickle

Se = Selenium

Ag = Silver

Th = Thalium

Va = Vanadium

 $Z_n = Z_{inc}$

M.D.L = Method Detection Limit

TABLE 3: GROUNDWATER SAMPLE ANALYTICAL RESULTS

Sample	Date	TPH	TPH	TOG	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	VOCs:
ID.	Sampled	as gasoline	as diesel	μg/L	μg/L	μg/L	μg/L	μ g/L	μg/L	μg/L
Substitutes.	to Total M	μ g/L	μg/L	i imana na mai	- 12 + Barran			Secretary of grant of the		
BH-1	11/12/98	<50	800	-	<20	<0.5	<0.5	<0.5	<1.5	•
BH-2	11/12/98	34,000	1,200	_	190	1,500	2,800	500	2,800	
BH-3	11/12/98	110,000	2,100	-	<20	7,200	11,000	3,300	21,000	-
BH-4	11/12/98	110,000	1,700	-	<20	5,300	13,000	3,100	16,000	-
BH-6	11/11/98	120,000	3,200	-	<20	1,700	4,500	4,900	26,000	-
BH-8.1	11/11/98	2,800	500	-	<20	11	35	10	64	
BH-9	11/11/98	2,500	110	ND	<20	<0.5	4.0	3	23	ND
BH-10	11/11/98	30,000	480	ND	<20	<0.5	ND	13	110	ND
BH-11.1	11/11/98	<50	6,400	ND	<20	<0.5	3.0	<0.5	<1.5	ND
BH-12	11/11/98	<50	210	-	<20	<0.5	1.0	0.7	4.2	-
BH-13	11/11/98	<50	400	- '	<20	<0.5	<0.5	<0.5	<1.5	-
BH-14	11/11/98	<50	700	-	<20	<0.5	<0.5	<0.5	<1.5	-
M.D.L.		50	50	10	20	0.5	0.5	0.5	1.5	

^{-&#}x27; = Not Analyzed

μg/L = micrograms per liter (ppb)

mg/L = milligrams per liter (ppm)

M.D.L. = Method Detection Limit

TABLE 4: GROUNDWATER SAMPLE ANALYSIS

Sample ID	Date Sampled	An μg/L	As μg/L	Ba µg/L	Be µg/L	Câ µg/L	Cr µg/L	Co µg/L	Cu µg/L	Pb μg/L	Hg µg/L	Mb μg/L	Ni μg/L		Ag μg/L	Th µg/L	Va μg/L	Zn µg/L
BH-9	11/11/98	<100	<250	55	<50	<50	<50	<50	<50	<50	<0.5	<50	<50	<250	<100	120	<50	<50
BH-10	11/11/98	<100	<250	62	<50	<50	<50	<50	<50	<50	<0.5	<50	<50	<250	<100	86	<50	<50
BH-11	11/11/98	<100	<250	83	<50	<50	<50	<50	<50	<50	<0.5	<50	<50	<250	<100	110	<50	<50
M.D.L.		100	250	50	50	50	50	50	50	50	0.5	50	50	250	100	100	50	50

An = Antimony

As = Arsenic

Ba = Barium

Be = Berilium

Cd = Cadmium

Cr = Cromium

Co = Cobalt

Cu = Copper

Pb = Lead

Hg = Mercury

Mb = Molybdenum

Ni = Nickle

Se = Selenium

Ag = Silver

Th = Thalium

Va = Vanadium

Zn = Zinc

M.D.L = Method Detection Limit

TABLE 5:
PETROTEK
SOIL SAMPLE ANALYTICAL RESULTS

Sample	Date	Location	TPH as	TPH as	TOG	MTBE	Benzene	Tolucne	Ethyl-	Xylenes	VOC's	Cd		Pb	Ni.	Zi
m	Sampled		gasoline	diesel	mg/kg	mg/kg	mg/kg	mg/kg	benzene	mg/kg	µg/kg	mg/kg			mg/kg	mg/kg
			mg/kg	mg/kg					mg/kg							
1	5/2/96	Fuel Tank Exc.	5000	-	-	<5.0	31	250	74	560	-	-	-	1.8	-	- 1
2	5/2/96	Fuel Tank Exc.	2900	-	-	<5.0	<2.0	16	8.3	190	-	-	-	13.3	-	-
3	5/2/96	Fuel Tank Exc.	4400	-] -	<5.0	25	190	75	400	-	 -	-	1.9	-	1 - 1
4	5/2/96	Fuel Tank Exc.	3600	-	-	<5.0	2.6	34	21	250	-	-	-	8.9	-	- 1
5	5/2/96	N. Waste Oil Tank	<5.0	<200	1400	<0.10	<0.05	<0.05	< 0.05	<0.05	ND	< 0.50	20.8	2.2	13.5	14
6	5/8/96	Waste Oil Tank	470	<1000	3000	<0.50	<0.25	<0.25	0.30	0.85	ND	-	-	-	-	{ - }
D1	5/9/96	Beneath Dispenser	6800	-	-	<40	63	370	120	680	-	-	-	-	-	- 1
D2	5/9/96	Beneath Dispenser	3700	-	-	<20	<10	20	9.7	280	-		-	-	-	-
D3	5/9/96	Beneath Dispenser	1500	-	-	<8.0	<4.0	<4.0	<4.0	20	-	-	-	[-]	-	l - I
D5		Beneath Dispenser	2600	-	-	<16	<8.0	28	12	200	-	-	-	- 1	-	-
D6	5/9/96	Beneath Dispenser	<5.0	-	-	<0.10	<0.05	<0.05	< 0.05	<0.05	-	-	-	-	-	-
T1	5/9/96	Unknown Trench	2100	-	-	<8.0	<4.0	5.7	<4.0	140	-	-	-	-		-
T2	5/9/96	Unknown Trench	1400	-	-	<5.0	<2.0	5.1	<2.0	20	-	-	-	-		- 1
										L						

^{-&#}x27; = Not Analyzed

ND = Not detected above the Method Detection Limit

μg/kg = micrograms per kilogram (ppb)

mg/kg = milligrams per kilogram (ppm)

VOC's = Volatile Halocarbons

Cd = Cadmium

Cr = Chromium

Pb = Lead

Ni = Nickel

Zi = Zinc

TABLE 6: PETROTEK

GRAB GROUNDWATER SAMPLE ANALYTICAL RESULTS

Sample ID	Date Sampled	Location	TPH as gasoline µg/L	TPH as diesel µg/L	TOG µg/E	MTBE µg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	The state of the s	North Market	น์ศัพท์กระดักใช้	1. T. S.	Nickel μg/L	Zinc µg/L
G1	5/20/96	Fuel Tank Excavation	2,800	-	-	66	100	60	<13	560	-			-	┌ -
G2	5/2/96	Waste Oil Excavation	1,300	<5,000	35,000	<1.0	<0.5	<0.5	<0.5	1.6	<5.0	114	453	115	753

-' = Not Analyzed

μg/L = micrograms per liter (ppb)

mg/L = milligrams per liter (ppm)

Cd = Cadmium

Cr = Chromium

ATTACHMENT A SOIL BORING LOGS

Borehole #: BH-1

Date: 11/12/98

Project: ALASKAMART

Total Depth: 8 FEET

Client: PRITPAUL SAPPAL

Logged By: PJM

Location: 1310 CENTRAL AVENUE

Responsible Professional JPD

	S	SUBSURFACE PROFILE	S	AMPLE			
Depth	Symbol	Description	Number	Туре	Blows/ft	Well Data	Remarks
0	9000	Ground Surface ASPHALT					
1 - 2		SILTY SAND					
3		Dusky yellow brown 10YR 3/2 Damp, Strong odor					PID = 1046 ppm
5			BH-1 4'	SS	NA		color change to greenish blue
6		STIFF SANDY CLAY Clay with 15-20% sand, stiff	BH-1 8'	SS	NA	•	PIID = 704 ppm
8		End of Borehole					
9					 		
10 -							
11-				l			
12-							
13							
14-			Ĺ				
15-							

Drilled By: VIRONEX

Hole Size: 2"

Drill Type: GEOPROBE

All Environmental, Inc. 901 Moraga Road, Suite C Lafayette, CA 94549

Drill Method: DIRECT PUSH

Borehole #: BH-2

Date: 11/12/98

Project: ALASKAMART

Total Depth: 6.5 FEET

Client: PRITPAUL SAPPAL

Logged By: PJM

Location: 1310 CENTRAL AVENUE

Responsible Professional JPD

		SUBSURFACE PROFILE	s	AMPLE			
Depth	Symbol	Description	Number	Туре	Blows/ft	Well Data	Remarks
0 -	స్టర్గా	Ground Surface ASPHALT					
1.		ASPHALI			-		
3-		SILTY SAND Dusky yellow brown 10YR 3/2 Damp, Strong odor					PID = 1097 ppm
4			BH-2 4'	SS	NA		
5 -						▼.	
6-		STIFF SANDY CLAY Clay with 15-20% sand, stiff Greyish green					
7		End of Borehole	1				
8							
9							
10-				!	İ		
11.							
12-							
13-							
14-							
15-							

Drilled By: VIRONEX

All Environmental, Inc 901 Moraga Road, Suite C Lafayette, CA 94549

Hole Size: 2"

Drill Type: GEOPROBE

Sheet: 1 of 1

Borehole #: BH-3

Date: 11/11/98

Project: ALASKAMART

Total Depth: 8 FEET

Client: PRITPAUL SAPPAL

Logged By: PJM

Location: 1310 CENTRAL AVENUE

Responsible Professional JPD

	S	SUBSURFACE PROFILE	S	AMPLE			
Depth	Symbol	Description	Number	Type	Blows/ft	Well Data	Remarks
0	9000	Ground Surface		SS			
		ASPHALT AND FILL	-				
2							
3.							PID = 0.0 ppm
5		SILTY SAND Dusky yellowish brown 10YR 3/2					
'			BH-13	SS	NA		
6		color change to greenish				<u> </u>	DID 4400
1		strong odor				<u>+</u>	PID = 1130 ppm sheen on water
8		End of Borehole					
9							
10-							
11							
12-							
13-							
14.					i	:	
15							

Drilled By: VIRONEX

Hole Size: 2"

Drill Type: GEOPROBE

All Environmental, Inc. 901 Moraga Road, Suite C Lafayette, CA 94549

Drill Method: DIRECT PUSH

Borehole #: BH-4

Date: 11/12/98

Project: ALASKAMART

Total Depth: 7 FEET

Client: PRITPAUL SAPPAL

Logged By: PJM

Location: 1310 CENTRAL AVENUE

Responsible Professional JPD

		SUBSURFACE PROFILE	s	AMPLE			
Depth	Symbol	Description	Number	Type	Blows/ft	Well Data	Remarks
0-	MATA MATA	Ground Surface					
1 -	9700	CONCRETE					
3							PID = 1018 ppm
4		SILTY SAND Dark Brown, Damp strong odor	BH-4 3'	SS	NA		
5						T	Sheen on water
6 -		color change to greenish grey					
		End of Borehole					
8-							
9 -							
10-							
11							
12							
13-							
14							
15-							

Drilled By: VIRONEX

Hole Size: 2"

Drill Type: GEOPROBE

All Environmental, Inc. 901 Moraga Road, Suite C Lafayette, CA 94549

Drill Method: DIRECT PUSH

Borehole #: BH-5

Date: 11/12/98

Project: ALASKAMART

Total Depth: 7.5 FEET

Client: PRITPAUL SAPPAL

Logged By: PJM

Location: 1310 CENTRAL AVENUE

Responsible Professional JPD

	S	SUBSURFACE PROFILE	S	AMPLE			
Depth	Symbol	Description	Number	Туре	Blows/ft	Well Data	Remarks
0.	9000	Ground Surface CONCRETE					
1		CONCRETE					
2.							PID = 56 ppm
3.		SILTY SAND					
4 -		Moderate Yellowish Brown 10YR 5/4	BH-5 4'	SS	NA		
5		strong odor	BIT-0 4		IV	¥	
6		Color Change: Dusky yellow green					
7.							PID = 1050 ppm
8		End of Borehole	:				
9.							
10-							
11.					ļ ļ		
12							
13.							
14							
15							

Drilled By: VIRONEX

Hole Size: 2"

Drill Type: GEOPROBE

All Environmental, Inc. 901 Moraga Road, Suite C Lafayette, CA 94549

Drill Method: DIRECT PUSH

Borehole #: BH-6

Date: 11/12/98

Project: ALASKAMART

Total Depth: 8 FEET

Client: PRITPAUL SAPPAL

Logged By: PJM

Location: 1310 CENTRAL AVENUE

Responsible Professional JPD

	5	SUBSURFACE PROFILE	S	AMPLE			
Depth	Symbol	Description	Number	Type	Blows/ft	Well Data	Remarks
0	8222	Ground Surface	_				
	8000 2000	ASHALT AND GRAVEL			1		
1							
2.						Ti.	
3 -							
4.		SILTY SAND Dark Yellowish Brown 10YR 4/2	BH-6 4'	SS	NA	Ī.	
5-		Dark Yellowish Brown 10YR 4/2 Few Fines Strong Odor				T	PID = 1365 ppm
6						ı	
7		Color change to greyish green 10G 4/2					
8-		End of Borehole					
9							
10-							
11.							
12							
13-							
14.	1						
15							

Drilled By: VIRONEX

Hole Size: 2"

Drill Type: GEOPROBE

All Environmental, Inc 901 Moraga Road, Suite C Lafayette, CA 94549

Drill Method: DIRECT PUSH

Borehole #: BH-7

Date: 11/12/98

Project: ALASKAMART

Total Depth: 7 FEET

Client: PRITPAUL SAPPAL

Logged By: PJM

Location: 1310 CENTRAL AVENUE

Responsible Professional JPD

	SUBSURFACE PROFILE			AMPLE			
Depth	Symbol	Description	Number	Туре	Blows/ft	Well Data	Remarks
1 2	9/3/2	Ground Surface CONCRETE					PID = 26 ppm
4.		SILTY SAND Dark Yellowish Brown 10YR 4/2 Strong Odor	BH-7 4'	SS	NA	.	Sheen on Groundwater
6		Greyish Olive 10Y 4/2 End of Borehole					PID = 1390 ppm
8 - 9 -				i			
10				,			
11 -							
12							
13							
14							
15							

Drilled By: VIRONEX

All Environmental, Inc. 901 Moraga Road, Suite C Lafayette, CA 94549

Drill Type: GEOPROBE

Drill Method: DIRECT PUSH

Sheet: 1 of 1

Hole Size: 2"

Borehole #: BH-8

Date: 11/11/98

Project: ALASKAMART

Total Depth: 8 FEET

Client: PRITPAUL SAPPAL

Logged By: PJM

Location: 1310 CENTRAL AVENUE

Responsible Professional JPD

	S	UBSURFACE PROFILE	S	AMPLE			
Depth	Symbol	Description	Number	Туре	Blows/ft	Well Data	Remarks
0 1- 2 3 4 5 6- 7 8- 9- 10- 11- 12 13- 14- 15-		Coose SAND AND GRAVEL Fill material, very loose, recoverable samples color change to greyish olive 10Y 4/ End of Borehole	BH-8 4'	SS	NA	•	PID = 0.0 ppm PID = 265 ppm Groundwater ? no water sample collected boring moved 2 feet to SE

Drilled By: VIRONEX

Hole Size: 2"

Drill Type: GEOPROBE

All Environmental, Inc. 901 Moraga Road, Suite C Lafayette, CA 94549

Drill Method: DIRECT PUSH

Borehole #: BH-8.1

Date: 11/11/98

Project: ALASKAMART

Total Depth: 8 FEET

Client: PRITPAUL SAPPAL

Logged By: PJM

Location: 1310 CENTRAL AVENUE

Responsible Professional JPD

		SUBSURFACE PROFILE	S	AMPLE			
Depth	Symbol	Description	Number	Туре	Blows/ft	Well Data	Remarks
0		Ground Surface					
	900¢	ASPHAULT	1				
2.							PID = 0.0 ppm
3-							
4		SILTY SAND Dry, loose silty sand; dark yellowish brown; no odor			_		
5 -		prown; no odor	BH-8.1	SS	NA	T	
6		Light olive 10YR 5/4					
7							
B			BH-8.1	SS	NA		
-		End of Borehole					
9.0							
10.							
11-							
12							
13				Ì			
14~							
15~							

All Environmental, Inc. 901 Moraga Road, Suite C Lafayette, CA 94549

Drilled By: VIRONEX

Hole Size: 2"

Drill Type: GEOPROBE

Sheet: 1 of 1

Borehole #: BH-9

Date: 11/11/98

Project: ALASKAMART

Total Depth: 10 FEET

Client: PRITPAUL SAPPAL

Logged By: PJM

Location: 1310 CENTRAL AVENUE

Responsible Professional JPD

	5	SUBSURFACE PROFILE	S	AMPLE			
Depth	Symbol	Description	Number	Туре	Blows/ft	Well Data	Remarks
0.	84.22	Ground Surface					
1 · 2 · 3		ASPHAULT SILTY SAND Silt <5%, Dusky yellowish brown 10YR 2/2					•
4-		10YR 2/2					damp @ 1 foot thick
5			BH-9	SS	NA		groundwater?
6							
7.				}		•	PID = 203 ppm
8		SAND Few fines Greyish green, wet, strong odor (diesel ?)					sheen on water
1	, , , ,		BH-9	SS	NA		
10-	0000	End of Borehole					
11-							
12							
13							
14.	-						
15-							

All Environmental, Inc. 901 Moraga Road, Suite C Lafayette, CA 94549

Drilled By: VIRONEX

Sheet: 1 of 1

Hole Size: 2"

Drill Type: GEOPROBE

Borehole #: BH-10

Date: 11/11/98

Project: ALASKAMART

Total Depth: 8 FEET

Client: PRITPAUL SAPPAL

Logged By: PJM

Location: 1310 CENTRAL AVENUE

Responsible Professional JPD

	8	SUBSURFACE PROFILE	S	AMPLE			
Depth	Symbol	Description	Number	Type	Blows/ft	Well Data	Remarks
0-	OoD	Ground Surface ASPHALT					
1-		AOTIALI					
2 -	''.' ' (''.' ''	011 774 0 4 4 10				į.	PID = 0.0 ppm
3		SILTY SAND Silty sand with with gravels up to 20mm Dark yellowish brown 10YR 4/2					
4.			BH-10	SS	NA		
5			-			X	slow water generation
6-						<u> </u>	Ŭ
7		CLAYEY SAND color change to greenish at 6.5 feet stiff					PID = 192 ppm
8		S. I. (Barahala	BH-10	SS	NA		
9.		End of Borehole					
10-							
11-							
12.							
13							
14~							
15_							

Drilled By: VIRONEX

All Environmental, Inc. 901 Moraga Road, Suite C Lafayette, CA 94549

Drill Type: GEOPROBE

Sheet: 1 of 1

Hole Size: 2"

Borehole #: BH-11

Date: 11/11/98

Project: ALASKAMART

Total Depth: 8 FEET

Client: PRITPAUL SAPPAL

Logged By: PJM

Location: 1310 CENTRAL AVENUE

Responsible Professional JPD

	SUBSURFACE PROFILE			AMPLE			
Depth	Symbol	Description	Number	Туре	Blows/ft	Well Data	Remarks
0	ి 00ద	Ground Surface ASPHALT					
1 2		ASPITALI		:			
3-							PID = 0.0 ppm
4		SILTY SAND					
5 -		Dark yellowish brown 10YR 4/2	BH-11	SS	NA		Damp
6							PID = 190 ppm
7							
8		End of Borehole				ļ	No water generated boring moved
9					į		
10-							
11							
12							
13-							
14-							
15-							

Drilled By: VIRONEX

Hole Size: 2"

Drill Type: GEOPROBE

All Environmental, Inc. 901 Moraga Road, Suite C Lafayette, CA 94549

Drill Method: DIRECT PUSH

Borehole #: BH-11.1

Date: 11/11/98

Project: ALASKAMART

Total Depth: 8 FEET

Client: PRITPAUL SAPPAL

Logged By: PJM

Location: 1310 CENTRAL AVENUE

Responsible Professional JPD

	8	SUBSURFACE PROFILE	S	AMPLE			
Depth	Symbol	Description	Number	Туре	Blows/ft	Well Data	Remarks
0-	9700	Ground Surface ASPHALT					
1 - 2		ASPHALI					No odor
							No odol
3-		SILTY SAND Dark yellowish brown 10YR 4/2					PID = 0.0 ppm
4.							
5-			BH-11.1	SS	NA	Y	
6		CLAYEY SAND					
7.		wet clayey sand, slight odor	BH-11.1	SS			
			D31-11.1				
8-	100000	End of Borehole	-				
9							
10-							
11-							
12							
13							
14-							
15-							

Drilled By: VIRONEX

Hole Size: 2"

Drill Type: GEOPROBE

All Environmental, Inc. 901 Moraga Road, Suite C Lafayette, CA 94549

Drill Method: DIRECT PUSH

Borehole #: BH-12

Date: 11/11/98

Project: ALASKAMART

Total Depth: 8 FEET

Client: PRITPAUL SAPPAL

Logged By: PJM

Location: 1310 CENTRAL AVENUE

Responsible Professional JPD

	S	SUBSURFACE PROFILE	S	AMPLE			
Depth	Symbol	Description	Number	Type	Blows/ft	Well Data	Remarks
0	56 / SERVINGO	Ground Surface					
	200	ASPHALT AND FILL		SS		—	
2							
3-							PID = 0.0 ppm
5		SILTY SAND 5-10% silt Dark yellowish orange 10YR 4/6	BH-12	SS	NA		
		wet				▼	
6- 7		stiff/ damp					
8-		End of Borehole					į
9.		4114 61 251 611010					
10							
11							
12.	*						
13-	-						
14-							
15-	-						

Drilled By: VIRONEX

Hole Size: 2"

Drill Type: GEOPROBE

All Environmental, Inc. 901 Moraga Road, Suite C Lafayette, CA 94549

Drill Method: DIRECT PUSH

Borehole #: BH-13

Date: 11/11/98

Project: ALASKAMART

Total Depth: 8 FEET

Client: PRITPAUL SAPPAL

Logged By: PJM

Location: 1310 CENTRAL AVENUE

Responsible Professional JPD

		SUBSURFACE PROFILE	S	AMPLE	•		
Depth	Symbol	Description	Number	Туре	Blows/ft	Well Data	Remarks
0.	900	Ground Surface ASPHALT AND FILL					
1 2- 3-		SILTY SAND 5-10% silt Dusky yellowish brown 10YR 2/2					PID = 0.0 ppm
5.		Dusky yellowish brown 10YR 2/2					ı
			BH-13	SS	NA		
6- 7- 8-						T	
8.		End of Borehole			ı	,	
9							
10	-						
11.			:				
12-							
13-							
14-							
15-							

Drilled By: VIRONEX

All Environmental, Inc. 901 Moraga Road, Suite C Lafayette, CA 94549

Drill Type: GEOPROBE

Hole Size: 2"

Drill Method: DIRECT PUSH

Borehole #: BH-14

Date: 11/11/98

Project: ALASKAMART

Total Depth: 8 FEET

Client: PRITPAUL SAPPAL

Logged By: PJM

Location: 1310 CENTRAL AVENUE

Responsible Professional JPD

	8	SUBSURFACE PROFILE	s	AMPLE			
Depth	Symbol	Description	Number	Туре	Blows/ft	Well Data	Remarks
0	9/10/2	Ground Surface					
1		FILL					
3 -		SILTY SAND Dark yellowish brown 10YR 4/2 Damp					PID = 0.0 ppm
5 - 6			BH-14	SS	NA	T	
7-		CLAYEY SAND 20% Clay					
8 -		End of Borehole	BH-14	SS			
9		End of Borenole					
10					•		
11.							
12							
13							
14							
15							

Drilled By: VIRONEX

All Environmental, Inc. 901 Moraga Road, Suite C Lafayette, CA 94549

Drill Type: GEOPROBE

Sheet: 1 of 1

Hole Size: 2"

ATTACHMENT B SAMPLE ANALYTICAL DOCUMENTATION

Analytical Report EPA 8015M & 8020

Client: All Environmental

Project Manager: Peter McIntyre

Project Name/Number

Pritpaul #3011

Sample ID: BH-1-4'

Date Sampled: 11/12/98 Date Received: 11/16/98 Date Analyzed: 11/17/98

Laboratory ID: T830-10

Matrix: Soil

Surrogate Compounds

Conc.(µg/Kg)

%Rec.

4-Bromofluorobenzene

51.3

103

Compound	Concentration (μg/Kg)	Detection Limit
TPH Gas	810,000	50
MTBE	ND	20
Benzene	27,000	_ 5
Toluene	170,000	5
Ethyl benzene	110,000	5
Xylenes	560,000	15

Result from a 1:200 dilution.

Analytical Report EPA 8015M & 8020

Client: All Environmental

Project Manager: Peter McIntyre

Project Name/Number

Pritpaul #3011

Sample ID: BH-1-8'

Date Sampled: 11/12/98

Date Received: 11/16/98 Date Analyzed: 11/17/98

Laboratory ID: T830-11

Matrix: Soil

Surrogate Compounds 4-Bromofluorobenzene

Conc.(µg/Kg) 48.8

%Rec. 98

Compound	Concentration (µg/Kg)	Detection Limit
TPH Gas	1,100,000	50
MTBE	ND ND	20
Benzene	9,800	5
Toluene	33,000	5
Ethyl benzene	11,000	5
Xylenes	64,000	15

Result from a 1:40 dilution.

Reviewed and Approved by:

Analytical Report EPA 8015M & 8020

Client: All Environmental Project Manager: Peter McIntyre

Project Name/Number

Pritpaul #3011

Sample ID' BH-2-4' Date Sampled: 11/12/98

Date Received: 11/16/98 Date Analyzed: 11/17/98 Laboratory ID: T830-13

Matrix: Soil

Surrogate Compounds 4-Bromofluorobenzene Conc.(µg/Kg) 45.5 <u>%Rec.</u> 91

Compound	Concentration (µg/Kg)	Detection Limit
TPH Gas	5,900,000	50
MTBE	1,800	20
Benzene	2,900	5
Toluene	76,000	5
Ethyl benzene	57,000	5
Xylenes	410,000	15

Result from a 1:40 dilution.

Reviewed and Approved by: 1 July Date: 1/-23-98

Analytical Report EPA 8015M & 8020

Client: All Environmental

Project Manager: Peter McIntyre

Project Name/Number

Pritpaul #3011

Compound

TPH Gas

Benzene

Toluene Ethyl benzene

Xylenes

MTBE

Sample ID: BH-3-4'

Date Sampled: 11/12/98 Date Received: 11/16/98 Date Analyzed: 11/17/98

Laboratory ID: T830-06

Matrix: Soil

Surrogate Compounds

Conc.(µg/Kg)

73

380

Jhn J. Style

%Rec. 100

5

15

4-Bromofluorobenzene

50.0

Concentration (µg/Kg) **Detection Limit** 570,000 50 ND 20 ND 65 5

Result from a 1:40 dilution.

Reviewed and Approved by:

Analytical Report EPA 8015M & 8020

Client: All Environmental

Project Manager: Peter McIntyre

Project Name/Number

Pritpaul #3011

Sample ID: BH-4-3'

Date Sampled: 11/12/98 Date Received: 11/16/98 Date Analyzed: 11/17/98 Laboratory ID: T830-15

Matrix: Soil

Surrogate Compounds

Conc.(µg/Kg)

%Rec. 87

4-Bromofluorobenzene

43.7

Compound	Concentration (μg/Kg)	Detection Limit
TPH Gas	4,600,000	50
МТВЕ	ND ND	20
Benzene	ND	5
Toluene	13,000	5
Ethyl benzene	47,000	5
Xylenes	310,000	15

Result from a 1:40 dilution.

Reviewed and Approved by: _

Analytical Report EPA 8015M & 8020

Client: All Environmental

Project Manager: Peter McIntyre

Project Name/Number

Pritpaul #3011

Sample ID: BH-5-4'

Date Sampled: 11/12/98 Date Received: 11/16/98

Date Analyzed: 11/17/98 Laboratory ID: T830-08

Matrix: Soil

Surrogate Compounds

Conc.(µg/Kg)

%Rec. 92

4-Bromofluorobenzene

46.0

Compound	Concentration (μg/Kg)	Detection Limit
TPH Gas	3,700,000	50
MTBE	ND	20
Benzene	ND	5
Toluene	3,200	5
Ethyl benzene	29,000	5
Xylenes	190,000	15

Result from a 1:40 dilution.

Analytical Report EPA 8015M & 8020

Client: All Environmental Project Manager: Peter McIntyre

Project Number

3011

Sample ID: BH-6-4'
Date Sampled: 11/11/98

Date Received: 11/13/98 Date Analyzed: 11/16/98 Laboratory ID: T825-18

Matrix: Soil

Surrogate Compounds 4-Bromofluorobenzene Conc (µg/Kg) 36.9 %Rec. 74

Compound	Concentration (µg/Kg)	Detection Limit
TPH Gas	ND	50
MTBE	ND	20
Benzene	ND	5
Toluene	ND L	5
Ethyl benzene	ND	5
Xylenes	ND	15

Analytical Report EPA 8015M & 8020

Client: All Environmental

Project Manager: Peter McIntyre

Project Name/Number

Pritpaul #3011

Sample ID: BH-7-4'

Date Sampled: 11/12/98 Date Received: 11/16/98 Date Analyzed: 11/17/98

Laboratory ID: T830-04

Matrix: Soil

Surrogate Compounds

Conc.(µg/Kg)

%Rec. 101

4-Bromofluorobenzene

50.5

Compound	Concentration (µg/Kg)	Detection Limit
TPH Gas	2,600,000	50
MTBE	ND	20
Benzene	ND	5
Toluene	ND	5
Ethyl benzene	6,900	5
Xylenes	68,000	15

Jhr J. Styl

Result from a 1:40 dilution.

Reviewed and Approved by:

Analytical Report EPA 8015M & 8020

Client: All Environmental

Project Manager: Peter McIntyre

Project Number

3011

Sample ID: BH-8-6'

Date Sampled: 11/11/98 Date Received: 11/13/98 Date Analyzed: 11/16/98 Laboratory ID: T825-20

Matrix: Soil

Surrogate Compounds 4-Bromofluorobenzene

Conc.(µg/Kg)

<u>%Rec.</u> 92

46.1

Compound	Concentration (µg/Kg)	Detection Limit	
TPH Gas	270,000	50	
MTBE	ND	20	
Benzene	180	5	
Toluene	110	5	
Ethyl benzene	450	5	
Xylenes	1,200	15	

Analytical Report EPA 8015M & 8020

Client: All Environmental

Project Manager: Peter McIntyre

Project Name/Number

Pritpaul #3011

Sample ID: BH-8.1-5'

Date Sampled: 11/12/98 Date Received: 11/16/98 Date Analyzed: 11/17/98

Laboratory ID: T830-01

Matrix: Soil

Surrogate Compounds

4-Bromofluorobenzene

Conc.(µg/Kg)

33.9

%Rec. 68

Compound	Concentration (µg/Kg)	Detection Limit
TPH Gas	ND	50
MTBE	ND	20
Benzene	ND	5
Taluene	8	5
Ethyl benzene	ND ND	5
Xylenes	ND	15

Analytical Report EPA 8015M & 8020

Client: All Environmental

Project Manager: Peter McIntyre

Project Number

3011

Sample ID: BH-9-5'

Date Sampled: 11/11/98 Date Received: 11/13/98 Date Analyzed: 11/13/98

Laboratory ID. T825-03

Matrix: Soil

Surrogate Compounds

Conc.(µg/Kg)

%Rec. 69

4-Bromofluorobenzene

34.5

Detection Limit

Compound	Concentration (µg/Kg)	Detection Limit
TPH Gas	ND	50
MTBE	ND	20
Benzene	ND ND	5
Toluene	20	5
Ethyl benzene	ND	5
Xylenes	ND	15

Jlan J. Soh Reviewed and Approved by:

Analytical Report EPA 8015M & 8020

Client: All Environmental

Project Manager: Peter McIntyre

Project Number

3011

Sample ID: BH-10-8'

Date Sampled: 11/11/98 Date Received: 11/13/98 Date Analyzed: 11/13/98

Laboratory ID: T825-07

Matrix: Soil

Surrogate Compounds 4-Bromofluorobenzene Conc.(µg/Kg) 60.9 %Rec. 122

Compound	Concentration (µg/Kg)	Detection Limit
TPH Gas	250,000	50
МТВЕ	ND	20
Benzene	ND	5
Toluene	ND	5
Ethyl benzene	190	5
Xylenes	1,400	15

Analytical Report EPA 8015M & 8020

Client All Environmental

Project Manager: Peter McIntyre

Project Number

3011

Sample ID: BH-11-5'

Date Sampled: 11/11/98 Date Received: 11/13/98 Date Analyzed: 11/13/98 Laboratory ID: T825-09

Matrix: Soil

<u>Surrogate Compounds</u> 4-Bromofluorobenzene Conc.(µg/Kg) 38.6 %Rec. 77

Compound	Concentration (μg/Kg)	Detection Limit
TPH Gas	ND	50
МТВЕ	ND	20
Benzene	ND	5
Toluene	ND	5
Ethyl benzene	ND	5
Xvlenes	ND	15

Analytical Report EPA 8015M & 8020

Client: All Environmental

Project Manager: Peter McIntyre

Project Number

3011

Sample ID: BH-11.1-7'

Date Sampled: 11/11/98 Date Received: 11/13/98 Date Analyzed: 11/13/98 Laboratory ID: T825-11

Matrix: Soil

Surrogate Compounds

4-Bromofluorobenzene

Conc.(µg/Kg) 48.9

%Rec. 98

Compound	Concentration (μg/Kg)	Detection Limit
TPH Gas	ND	50
MTBE	ND	20
Benzene	ND ND	5
Toluene	ND	5
Ethyl benzene	ND	5
Xylenes	ND	15

Analytical Report EPA 8015M & 8020

Client: All Environmental

Project Manager: Peter McIntyre

Project Number

3011

Sample ID: BH-12-5'

Date Sampled: 11/11/98 Date Received: 11/13/98 Date Analyzed: 11/16/98 Laboratory ID: T825-12

Matrix. Soil

Surrogate Compounds 4-Bromofluorobenzene

Conc.(µg/Kg)

%Rec. 88

44.1

Compound	Concentration (µg/Kg)	Detection Limit
TPH Gas	ND	50
	ND	20
MTBE Benzene	ND	5
Toluene	ND	5
Ethyl benzene	ND	5
Xylenes	ND	15

Date: 11-18-98 Reviewed and Approved by:

Analytical Report EPA 8015M & 8020

Client: All Environmental

Project Manager; Peter McIntyre

Project Number

3011

Sample ID: BH-13-5'

Date Sampled: 11/11/98 Date Received: 11/13/98

Date Analyzed: 11/13/98 Laboratory ID: T825-01

Matrix: Soil

Surrogate Compounds

4-Bromofluorobenzene

Conc.(µg/Kg)

43.6

%Rec. 87

Compound	Concentration (µg/Kg)	Detection Limit
TPH Gas	ND	50
MTBE	ND	20
Benzene	, ND	5
Toluene	ND	5
Ethyl benzene	ND	5
Xylenes	ND	15

Analytical Report EPA 8015M & 8020

Client: All Environmental

Project Manager: Peter McIntyre

Project Number

3011

Sample ID: BH-14-5'

Date Sampled: 11/11/98 Date Received: 11/13/98 Date Analyzed: 11/13/98

Laboratory ID: T825-15

Matrix, Soil

Surrogate Compounds 4-Bromofluorobenzene Conc.(µg/Kg) 41.1 %Rec. 82

Compound	Concentration (µg/Kg)	Detection Limit
TPH Gas	ND	50
MTBE	ND -	20
Benzene	ND	5
Toluene	ND	5
Ethyl benzene	ND	5
Xvienes	ND	15

Analytical Report EPA 8015

Client: All Environmental

Project Manager: Peter McIntyre

Project Name/Number

Pritpaul #3011

Sample ID: BH-1-4'

Date Sampled: 11/12/98 Date Received: 11/16/98 Date Extracted: 11/17/98 Date Analyzed: 11/17/98

Laboratory ID: T830-10 Matrix: Soil

Compound	Concentration (mg/Kg)	Detection Limit
TPH Diesel	ND	1

Analytical Report EPA 8015

Client: All Environmental

Project Manager: Peter McIntyre

Project Name/Number

Pritpaul #3011

Sample ID: BH-1-4'

Date Sampled: 11/12/98

Date Received: 11/16/98

Date Extracted: 11/17/98 Date Analyzed: 11/17/98

Laboratory ID: T830-11

Matrix: Soil

Compound	Concentration (mg/Kg)	Detection Limit
TPH Diesel	ND	1

Analytical Report EPA 8015

Client: All Environmental

Project Manager: Peter McIntyre

Project Name/Number

Pritpaul #3011

Sample ID: BH-2-4'

Date Sampled: 11/12/98 Date Received: 11/16/98 Date Extracted: 11/17/98 Date Analyzed: 11/17/98 Laboratory ID: T830-13

Matrix: Soil

Compound	Concentration (mg/Kg)	Detection Limit
TPH Diesel	ND	1

Reviewed and Approved by: Jh. J. Hah. Date: 11-23-88

Analytical Report EPA 8015

Client: All Environmental

Project Manager: Peter McIntyre

Project Name/Number

Pritpaul #3011

Sample ID: BH-3-4'

Date Sampled: 11/12/98 Date Received: 11/16/98

Date Extracted: 11/17/98 Date Analyzed: 11/17/98

Laboratory ID: T830-06 Matrix: Soil

Compound	Concentration (mg/Kg)	Detection Limit
TPH Diesel	ND	1

Analytical Report EPA 8015

Client: All Environmental

Project Manager: Peter McIntyre

Project Name/Number

Pritpaul #3011

Sample ID: BH-4-3'

Date Sampled: 11/12/98 Date Received: 11/16/98 Date Extracted: 11/17/98 Date Analyzed: 11/17/98

Laboratory ID: T830-15

Matrix: Soil

Compound	Concentration (mg/Kg)	Detection Limit
TPH Diesel	ND	1

Reviewed and Approved by: A. A. M. Date: 11-23-88

Analytical Report EPA 8015

Client: All Environmental

Project Manager: Peter McIntyre

Project Name/Number

Pritpaul #3011

Sample ID: BH-5-4'

Date Sampled: 11/12/98

Date Received: 11/16/98 Date Extracted: 11/17/98

Date Analyzed: 11/17/98

Laboratory ID: T830-08

Matrix: Soil

Compound	Concentration (mg/Kg)	Detection Limit
TPH Diesel	ND	1

Reviewed and Approved by:

Date: //- 23-88

Analytical Report EPA 8015

Client: All Environmental

Project Manager: Peter McIntyre

Project Number

3011

Sample ID: BH-6-4'

Date Sampled: 11/11/98 Date Received: 11/13/98 Date Extracted: 11/16/98 Date Analyzed: 11/16/98

Laboratory ID: T825-18

Matrix: Soil

Compound	Concentration (mg/Kg)	Detection Limit
TPH Diesel	ND	1

Reviewed and Approved by: 16 Date: 1/-20-98

Analytical Report EPA 8015

Client: All Environmental

Project Manager: Peter McIntyre

Project Name/Number

Pritpaul #3011

Sample ID: BH-7-4'

Date Sampled: 11/12/98 Date Received: 11/16/98 Date Extracted: 11/17/98 Date Analyzed: 11/17/98 Laboratory ID: T830-04

Matrix: Soil

Compound	Concentration (mg/Kg)	Detection Limit
TPH Diesel	ND	1

Analytical Report EPA 8015

Client: All Environmental

Project Manager: Peter McIntyre

Project Number

3011

Sample ID: BH-8-6'

Date Sampled: 11/11/98 Date Received: 11/13/98 Date Extracted: 11/16/98 Date Analyzed: 11/16/98

Laboratory ID: T825-20

Matrix: Soil

Compound	Concentration (mg/Kg)	Detection Limit
TPH Diesel	300	1

Analytical Report EPA 8015

Client: All Environmental

Project Manager: Peter McIntyre

Project Name/Number

Pritpaul #3011

Sample ID: BH-8.1-5'
Date Sampled: 11/12/98
Date Received: 11/16/98
Date Extracted: 11/17/98

Date Analyzed: 11/17/98 Laboratory ID: T830-01

Matrix: Soil

Compound	Concentration (mg/Kg)	Detection Limit
TPH Diesel	ND	1

Analytical Report EPA 8015

Client: All Environmental

Project Manager: Peter McIntyre

Project Number

3011

Sample ID: BH-9-5'

Date Sampled: 11/11/98 Date Received: 11/13/98 Date Extracted: 11/13/98

Date Analyzed: 11/13/98 Laboratory ID: T825-03

Matrix: Soil

Compound	Concentration (mg/Kg)	Detection Limit
TPH Diesel	ND	1

Analytical Report EPA 8015

Client: All Environmental

Project Manager: Peter McIntyre

Project Number

3011

Sample ID: BH-10-8'

Date Sampled: 11/11/98

Date Received. 11/13/98
Date Extracted: 11/13/98

Date Analyzed: 11/13/98

Laboratory ID: T825-07 Matrix: Soil

Compound	Concentration (mg/Kg)	Detection Limit
TPH Diesel	ND	1

Analytical Report EPA 8015

Client: All Environmental

Project Manager: Peter McIntyre

Project Number

3011

Sample ID: BH-11-5'

Date Sampled: 11/11/98 Date Received: 11/13/98 Date Extracted: 11/13/98

Date Analyzed: 11/13/98 Laboratory ID: T825-09

Matrix: Soil

Compound	Concentration (mg/Kg)	Detection Limit
TPH Diesel	ND	1

Reviewed and Approved by:

| July | Date: | 1/- 24-95

Analytical Report EPA 8015

Client: All Environmental

Project Manager: Peter McIntyre

Project Number

3011

Sample ID: BH-11.1-7'

Date Sampled: 11/11/98 Date Received: 11/13/98 Date Extracted: 11/13/98 Date Analyzed: 11/13/98 Laboratory ID: T825-11

Matrix: Soil

Compound	Concentration (mg/Kg)	Detection Limit
TPH Diesel	ND	1

Reviewed and Approved by: 11-20-88

Analytical Report EPA 8015

Client: All Environmental

Project Manager: Peter McIntyre

Project Number

3011

Sample ID: BH-12-5'

Date Sampled: 11/11/98 Date Received: 11/13/98 Date Extracted: 11/16/98 Date Analyzed: 11/16/98

Laboratory ID: T825-12

Matrix: Soil

Compound	Concentration (mg/Kg)	Detection Limit
TPH Diesel	ND	1

Reviewed and Approved by: Act Date: 11-2c-98

Analytical Report EPA 8015

Client: All Environmental

Project Manager: Peter McIntyre

Project Number

3011

Sample ID: BH-13-5'

Date Sampled: 11/11/98 Date Received: 11/13/98 Date Extracted: 11/16/98 Date Analyzed: 11/16/98 Laboratory ID: T825-01

Matrix: Soil

Compound	Concentration (mg/Kg)	Detection Limit
TPH Diesel	ND	1

Analytical Report EPA 8015

Client: All Environmental

Project Manager: Peter McIntyre

Project Number

3011

Sample ID: BH-14-5'

Date Sampled: 11/11/98 Date Received: 11/13/98 Date Extracted: 11/16/98 Date Analyzed: 11/16/98

Laboratory ID: T825-15

Matrix: Soil

Compound	Concentration (mg/Kg)	Detection Limit
TPH Diesel	ND	1

Analytical Report EPA 418.1

Client All Environmental

Project Manager: Peter McIntyre

Project Number

3011

Sample ID: BH-9-5' Date Sampled: 11/11/98

Date Received. 11/13/98 Date Analyzed: 11/16/98

Laboratory ID T825-03

Matrix: Soil

Compound	Concentration (mg/Kg)	Detection Limit
TRPH 418.1	3,300	10

This result is the 418.1 result with the 8015m Gas and Diesel subtracted out to give total oil and grease.

Reviewed and Approved by:	Mon	1.	BI	Date: 11-18-98	
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TTLC Metal Analysis

Client: All Environmental

Project Manager: Peter McIntyre

Project Number

3011

Sample I.D.: BH-9-5'

Date Sampled: 11/11/98 Date Received: 11/13/98 Date Extracted: 11/16/98 Date Analyzed: 11/16/98

Laboratory ID: T825-03

Matrix: Soil Conc. Unit: mg/Kg

Metal Analysis by I.C.P.

Element	Results	R.L.
Antimony	ND	2
Arsenic	ND	5
Barium	46	1
Beryllium	ND	1
Cadmium	3	1
Chromium	74	1
Cobalt	7	1
Copper	6	1
Lead	ND ND	1
Mercury	ND ND	0.1
Molybdenum	4	1
Nickel	30	1
Selenium	ND	5
Silver	ND ND	2
Thallium	26	2
Vanadium	35	11
Zinc	21	1

TTLC= Total Threshold Limit Concentration.

Analytical Report EPA 8260

Client: All Environmental

Project Manager: Peter McIntyre

Project Number

3011

Sample ID: BH-9-5'

Date Sampled: 11/11/98 Date Received: 11/13/98 Date Analyzed: 11/13/98 Laboratory ID: T825-03

Matrix: Soil

Surrogate Compounds Dibromofluoromethane	<u>Conc.(µg/Kg)</u> 41.5	<u>%Rec</u> 104
Toluene-d8	39.4	99
4-Bromofluorobenzene	36.7	92

Compound	Concentration (µg/Kg)	MDL(µg/Kg)
Chloromethane	ND	10
Vinyl Chloride	ND	10
Bromomethane	ND	10
Chloroethane	ND	10
1,1-Dichloroethene	ND	10
Methylene chloride	ND	10
trans-1,2-Dichloroethene	ND	10
1,1-Dichloroethane	ND	10
cis-1,2-Dichloroethene	ND ND	5
Chloroform	ND	5
1,1,1-Trichloroethane	ND	5
1,2-Dichloroethane	ND ND	5
Carbon Tetrachloride	ND	5
Trichloroethene	ND	5
1,2-Dichloropropane	ND	5
Bromodichloromethane	ND	5
cis-1,3-Dichloropropene	ND ND	5
trans-1,3-Dichloropropene	ND	5
1,1,2-Trichloroethane	ND	5
Dibromochloromethane	ND	5
Tetrachloroethene	ND ND	5
Chlorobenzene	ND	5
Styrene	ND	5
Bromoform	ND ND	5
1,1,2,2-Tetrachloroethane	ND	5
1,3-DCB	ND	5
1,4-DCB	ND	5
1,2-DCB	ND	5

Analytical Report EPA 418.1

Client: All Environmental

Project Manager: Peter McIntyre

Project Number

3011

Sample ID: BH-10-8'

Date Sampled: 11/11/98 Date Received: 11/13/98 Date Analyzed: 11/16/98 Laboratory ID: T825-07

Matrix: Soil

Compound	Concentration (mg/Kg)	Detection Limit	
TRPH 418.1	2,100	10	

This result is the 418.1 result with the 8015m Gas and Diesel subtracted out to give total oil and grease.

Reviewed and Approved by: July Date: 11-18-98

Analytical Report EPA 8260

Client: All Environmental

Project Manager: Peter McIntyre

Project Number

3011

Sample ID: BH-10-8'

Date Sampled: 11/11/98 Date Received: 11/13/98 Date Analyzed: 11/13/98

Laboratory ID: T825-07

Matrix: Soil

Surrogate Compounds	<u>Conc.(µg/Kg)</u>	%Rec.
Dibromofluoromethane	41.5	104
Toluene-d8	40.7	102
4-Bromofluorobenzene	41.0	102

Compound	Concentration (µg/Kg)	MDL(µg/Kg)
Chloromethane	ND	10
Vinyl Chloride	ND	10
Bromomethane	ND	10
Chloroethane	ND	10
1,1-Dichloroethene	ND	10
Methylene chloride	ND	10
trans-1,2-Dichloroethene	ND	10
1,1-Dichloroethane	ND	10
cis-1,2-Dichloroethene	ND	5
Chloroform	ND	5
1,1,1-Trichloroethane	ND	5
1,2-Dichloroethane	ND	5
Carbon Tetrachloride	ND	5
Trichloroethene	ND	5
1,2-Dichloropropane	ND	5
Bromodichloromethane	ND	5
cis-1,3-Dichloropropene	ND	5
trans-1,3-Dichloropropene	ND	5
1,1,2-Trichloroethane	ND	5
Dibromochloromethane	ND	5
Tetrachloroethene	ND	5
Chlorobenzene	ND ND	5
Styrene	ND	5
Bromoform	ND	5
1,1,2,2-Tetrachloroethane	ND ND	5
1,3-DCB	ND	5
1,4-DCB	ND	5
1,2-DCB	ND	5

TTLC Metal Analysis

Client: All Environmental

Project Manager: Peter McIntyre

Project Number

3011

Sample I.D.: BH-10-8' Date Sampled: 11/11/98 Date Received: 11/13/98 Date Extracted: 11/16/98 Date Analyzed: 11/16/98

Laboratory ID: T825-07 Matrix: Soil

Conc. Unit: mg/Kg

Metal Analysis by I.C.P.

lement Results		R.L.
Antimony	ND	2
Arsenic	ND	5
Barium	34	1
Beryllium	ND ND	1
Cadmium	2	1
Chromium	41	11
Cobalt	7	1
Copper	5	1
Lead	5	11
Mercury	ND	0.1
Molybdenum	3	11
Nickel	20	1
Selenium	ND	5
Silver	ND ND	2
Thallium	16	2
Vanadium	21	1
Zinc	19	11

TTLC= Total Threshold Limit Concentration.

Reviewed and Approved by:	1	lu o	1.1	1	Date: <u>//-/8-98</u>	
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Analytical Report EPA 418.1

Client: All Environmental

Project Manager: Peter McIntyre

Project Number

3011

Sample ID: BH-11-5'

Date Sampled: 11/11/98 Date Received: 11/13/98

Date Analyzed: 11/16/98 Laboratory ID: T825-09

Matrix: Soil

Compound	Concentration (mg/Kg)	Detection Limit	
TRPH 418.1	70	10	

This result is the 418.1 result with the 8015m Gas and Diesel subtracted out to give total oil and grease.

Analytical Report EPA 8260

Client: All Environmental

Project Manager: Peter McIntyre

Project Number

3011

Sample ID: BH-11-5'

Date Sampled: 11/11/98 Date Received: 11/13/98 Date Analyzed: 11/13/98

Laboratory ID: T825-09

Matrix: Soil

Surrogate Compounds	Conc.(µg/Kg)	<u>%Rec.</u>
Dibromofluoromethane	39.9	100
Toluene-d8	40.1	100
4-Bromofluorobenzene	41.2	103

Compound	Concentration (µg/Kg)	MDL(µg/Kg)
Chloromethane	ND	10
Vinyl Chloride	ND	10
Bromomethane	ND	10
Chloroethane	ND ND	10
1,1-Dichloroethene	ND ND	10
Methylene chloride	ND	10
trans-1,2-Dichloroethene	ND	10
1,1-Dichloroethane	ND	10
cis-1,2-Dichloroethene	ND L	5
Chloroform	ND L	5
1,1,1-Trichloroethane	ND ND	5
1,2-Dichloroethane	ND	5
Carbon Tetrachloride	ND	5
Trichloroethene	ND	5
1,2-Dichloropropane	ND	5
Bromodichloromethane	ND ND	5
cis-1,3-Dichloropropene	ND ND	5
trans-1,3-Dichloropropene	ND	5
1,1,2-Trichloroethane	ND	5
Dibromochloromethane	ND	5
Tetrachloroethene	ND	5
Chlorobenzene	ND	5
Styrene	ND	5
Bromoform	ND	5
1,1,2,2-Tetrachloroethane	ND L	5
1,3-DCB	ND	5
1,4-DCB	ND ND	5
1,2-DCB	ND ND	5

TTLC Metal Analysis

Client: All Environmental

Project Manager: Peter McIntyre

Project Number

3011

Sample I.D.: BH-11-5'

Date Sampled: 11/11/98 Date Received: 11/13/98 Date Extracted: 11/16/98 Date Analyzed: 11/16/98 Laboratory ID: T825-09

Matrix: Soil Conc. Unit: mg/Kg

Metal Analysis by I.C.P.

Element	Results	R.L.
Antimony	ND	2
Arsenic	ND	5
Barium	63	1
Beryllium	ND	1
Cadmium	3	1
Chromium	66	1
Cobalt	6	1
Copper	7	1
Lead	ND	1
Mercury	ND_	0.1
Molybdenum	4	1
Nickel	35	1
Selenium	ND ND	5
Silver	ND	2
Thallium	27	2
Vanadium	32	1
Zinc	23	1

TTLC= Total Threshold Limit Concentration.

Reviewed and Approved by:	ffe	1.	ISK.	Date:_	11-18-98
			<i>y</i>		

Analytical Report EPA 418.1

Client: All Environmental

Project Manager: Peter McIntyre

Project Number

3011

Sample ID: BH-11.1-7'

Date Sampled: 11/11/98 Date Received: 11/13/98 Date Analyzed: 11/16/98

Laboratory ID: T825-11 Matrix: Soil

Compound	Concentration (mg/Kg)	Detection Limit
TRPH 418.1	16	10

This result is the 418.1 result with the 8015m Gas and Diesel subtracted out to give total oil and grease.

Analytical Report EPA 8260

Client: All Environmental Project Manager: Peter McIntyre

Project Number

3011

Sample ID: BH-11.1-7'
Date Sampled: 11/11/98
Date Received: 11/13/98
Date Analyzed: 11/13/98
Laboratory ID: T825-11

Matrix: Soil

Surrogate Compounds Dibromofluoromethane Toluene-d8	<u>Conc.(µa/Ka)</u> 41.4 40.1	<u>%Rec.</u> 103 100
4-Bromofluorobenzene	41.2	103

Compound	Concentration (µg/Kg)	MDL(µg/Kg)
Chloromethane	ND	10
Vinyl Chloride	ND	10
Bromomethane	ND	10
Chloroethane	ND ND	10
1,1-Dichloroethene	ND	10
Methylene chloride	ND	10
trans-1,2-Dichloroethene	ND	10
1,1-Dichloroethane	ND	10
cis-1,2-Dichloroethene	ND	5
Chloroform	ND	5
1,1,1-Trichloroethane	ND	5
1,2-Dichloroethane	ND	5
Carbon Tetrachloride	ND	5
Trichloroethene	ND	5
1,2-Dichloropropane	ND	5
Bromodichloromethane	ND	5
cis-1,3-Dichloropropene	ND	5
trans-1,3-Dichloropropene	ND	5
1,1,2-Trichloroethane	ND	5
Dibromochloromethane	ND	5
Tetrachloroethene	ND	5
Chlorobenzene	ND	5
Styrene	ND	5
Bromoform	ND	5
1,1,2,2-Tetrachloroethane	ND	5
1,3-DCB	ND	5
1,4-DCB	ND	5
1,2-DCB	ND	5

Reviewed and Approved by:	Mu	1.	ell	Da	ite:/	1-18-18
Reviewed and Approved by	1			· · · · · · · · · · · · · · · · · · ·		

TTLC Metal Analysis

Client: All Environmental

Project Manager: Peter McIntyre

Project Number

3011

Sample I.D.; BH-11.1-7' Date Sampled: 11/11/98

Date Sampled: 11/11/98 Date Received: 11/13/98 Date Extracted: 11/16/98 Date Analyzed: 11/16/98

Laboratory ID: T825-11

Matrix: Soil Conc. Unit: mg/Kg

Metal Analysis by I.C.P.

Element	Results	R.L.
Antimony	ND	2
Arsenic	ND	5
Barium	62	1
Beryllium	ND	1
Cadmium	2	1
Chromium	37	1
Cobalt	7	1
Copper	10	1
Lead	37	1
Mercury	ND	0.1
Molybdenum	3	1
Nickel	24	1
Selenium	ND	5
Silver	ND	2
Thallium	17	2
Vanadium	22	1
Zinc	140	1

TTLC= Total Threshold Limit Concentration.

Reviewed and Approved by: _	 Un /	1. 24	Date: //-/8-/8
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Analytical Report EPA 8015M & 8020

Client: All Environmental

Project Manager: Peter McIntyre

Project Name/Number

Pritpaul #3011

Sample ID: BH-1W

Date Sampled: 11/12/98 Date Received: 11/16/98 Date Analyzed: 11/17/98

Laboratory ID: T830-12

Matrix: Water

Surrogate Compounds 4-Bromofluorobenzene

Conc.(ua/L)

%Rec. 98

49.1

Compound	Concentration (μg/L)	Detection Limit
TPH Gas	ND	50
мтве	ND	20
Benzene	ND	0.5
Toluene	ND	0.5
Ethyl benzene	ND	0.5
Xvlenes	ND	1.5

Reviewed and Approved by: _

Analytical Report EPA 8015M & 8020

Client: All Environmental

Project Manager: Peter McIntyre

Project Name/Number

Pritpaul #3011

Sample ID: BH-2W

Date Sampled: 11/12/98 Date Received: 11/16/98

Date Analyzed: 11/17/98 Laboratory ID: T830-14

Matrix: Water

Surrogate Compounds

4-Bromofluorobenzene

Conc.(µg/L) 51.5

%Rec. 103

Compound	Concentration (µg/L)	Detection Limit
TPH Gas	34,000	50
MTBE	190	20
Benzene	1,500	0.5
Toluene	2,800	0.5
Ethyl benzene	500	0.5
Xylenes	2,800	1.5

Reviewed and Approved by:

Date: 11-23-98

Analytical Report EPA 8015M & 8020

Client: All Environmental

Project Manager: Peter McIntyre

Project Name/Number

Pritpaul #3011

Sample ID: BH-3W

Date Sampled: 11/12/98 Date Received: 11/16/98 Date Analyzed: 11/18/98

Laboratory ID: T830-07

Matrix: Water

 Surrogate Compounds
 Conc.(μg/L)
 %Rec.

 4-Bromofluorobenzene
 50.2
 100

Compound	Concentration (µg/L)	Detection Limit	
TPH Gas	110,000	50	
МТВЕ	ND	20	
Benzene	7,200	0.5	
Toluene	11,000	0.5	
Ethyl benzene	3,300	0.5	
Xylenes	21,000	1.5	

Results from a 1:50 dilution.

Analytical Report EPA 8015M & 8020

Client: All Environmental

Project Manager: Peter McIntyre

Project Name/Number

Pritpaul #3011

Sample ID: BH-4W

Date Sampled: 11/12/98 Date Received: 11/16/98

Date Analyzed: 11/18/98

Laboratory ID: T830-16 Matrix: Water

Surrogate Compounds

Conc.(µg/L)

%Rec. 99

4-Bromofluorobenzene

49.3

Compound	Concentration (µg/L)	Detection Limit
TPH Gas_	110,000	50
MTBE	ND	20
Benzene	5,300	0.5
Toluene	13,000	0.5
Ethyl benzene	3,100	0.5
Xylenes	16,000	1.5

Results from a 1:10 dilution.

Reviewed and Approved by:

Analytical Report EPA 8015M & 8020

Client. All Environmental

Project Manager: Peter McIntyre

Project Number

3011

Sample ID: BH-6 W

Date Sampled: 11/11/98 Date Received: 11/13/98 Date Analyzed: 11/16/98

Laboratory ID: T825-19

Matrix: Water

Surrogate Compounds

4-Bromofluorobenzene

Conc.(µg/L.) 51.0 %Rec 102

Compound	Concentration (µg/L)	Detection Limit
TPH Gas	120,000	50
MTBE	ND	20
Benzene	1,700	0.5
Toluene	4,500	0.5
Ethyl benzene	4,900	0.5
Xylenes	26,000	1.5

^{*-}Results from a 1:100 dilutuion.

Reviewed and Approved by: Jun J. April Date: 11-18-98

Analytical Report EPA 8015M & 8020

Client: All Environmental

Project Manager: Peter McIntyre

Project Name/Number

Pritpaul #3011

Sample ID: BH-8.1W

Date Sampled: 11/12/98

Date Received: 11/16/98 Date Analyzed: 11/18/98

Laboratory ID: T830-03

Matrix: Water

Surrogate Compounds 4-Bromofluorobenzene Conc.(µg/L) 51.5 %Rec. 103

Compound	Concentration (μg/L)	Detection Limit
TPH Gas	2,800	50
TPH Gas MTBE	ND	20
Benzene	11	0.5
Toluene	35	0.5
Ethyl benzene	10	0.5
Xylenes	64	1.5

Reviewed and Approved by: ______/

Jh J. M.

Date: 1/-23-98

Analytical Report EPA 8015M & 8020

Client, All Environmental

Project Manager: Peter McIntyre

Project Number

3011

Sample ID, BH-9 W

Date Sampled: 11/11/98 Date Received: 11/13/98 Date Analyzed: 11/13/98 Laboratory ID: T825-05

Matrix Water

Surrogate Compounds 4-Bromofluorobenzene Conc.(µg/Kg) 52 1 %Rec. 104

Detection Limit Concentration (µg/L) Compound 2,500 50 TPH Gas ND 20 MTBE 0.5 ND Benzene 4 0.5 Toluene 3 0.5 Ethyl benzene 1.5 23 Xylenes

Analytical Report EPA 8015M & 8020

Client: All Environmental

Project Manager: Peter McIntyre

Project Number

3011

Sample ID: BH-10 W

Date Sampled: 11/11/98 Date Received: 11/13/98 Date Analyzed: 11/13/98

Laboratory ID: T825-08

Matrix: Water

Surrogate Compounds 4-Bromofluorobenzene Conc.(µg/Kg) 51.3 %Rec. 103

Compound	Concentration (μg/L)	Detection Limit
TPH Gas	30,000	50
MTBE	ND	20
Benzene	ND	0.5
Toluene	ND	0.5
Ethyl benzene	13	0.5
Xylenes	110	1.5

Analytical Report EPA 8015M & 8020

Client: All Environmental

Project Manager: Peter McIntyre

Project Number

3011

Sample ID: BH-11.1 W

Date Sampled: 11/11/98 Date Received: 11/13/98 Date Analyzed⁻ 11/13/98 Laboratory ID: T825-13

Matrix: Water

Surrogate Compounds

4-Bromofluorobenzene

Conc.(µg/Kg)

48.4

%Rec. 97

Compound	Concentration (µg/L)	Detection Limit
TPH Gas	ND	50
МТВЕ	ND	20
Benzene	ND	0.5
Toluene	3	0.5
Ethyl benzene	ND	0.5
Xylenes	ND	1.5

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Reviewed and Approved by:

Date

Analytical Report EPA 8015M & 8020

Client: All Environmental

Project Manager: Peter McIntyre

Project Number

3011

Sample ID: BH-12 W

Date Sampled: 11/11/98 Date Received: 11/13/98 Date Analyzed: 11/13/98 Laboratory ID: T825-14

Matrix: Water

<u>Surrogate Compounds</u> 4-Bromofluorobenzene Conc.(µg/Kg) 52.6 %Rec. 105

Compound	Concentration (μg/L)	Detection Limit
TPH Gas	ND	50
MTBE	ND	20
Benzene	ND	0.5
Toluene	1.0	0.5
Ethyl benzene	0.7	0.5
Xylenes	4.2	1,5

Reviewed and Approved by:

.

Date: //-/8-98

Analytical Report EPA 8015M & 8020

Client: All Environmental

Project Manager: Peter McIntyre

Project Number

3011

Sample ID: BH-13 W

Date Sampled: 11/11/98 Date Received: 11/13/98 Date Analyzed 11/13/98

Laboratory ID: T825-02

%Rec.

97

Matrix: Water

 Surrogate Compounds
 Conc.(µg/Kg)

 4-Bromofluorobenzene
 48.3

Compound	Concentration (µg/L)	Detection Limit
TPH Gas	ND	50
MTBE	ND	20
Benzene	ND	0.5
Toluene	ND	0.5
Ethyl benzene	ND	0.5
Xylenes	ND ND	1.5

Reviewed and Approved by:

| July | Date: 11-18-48

Analytical Report EPA 8015M & 8020

Client: All Environmental

Project Manager: Peter McIntyre

Project Number

3011

Sample ID: BH-14 W

Date Sampled: 11/11/98 Date Received: 11/13/98

Date Analyzed: 11/16/98 Laboratory ID: T825-17

Matrix: Water

Surrogate Compounds
4-Bromofluorobenzene

Conc.(µg/Kg) 54.3 %Rec.

Compound	Concentration (μg/L)	Detection Limit
TPH Gas	ND	50
MTBE	ND	20
Benzene	ND	0,5
Toluene	ND	0.5
Ethyl benzene	ND	0.5
Xylenes	ND	1.5

Analytical Report EPA 8015

Client: All Environmental

Project Manager: Peter McIntyre

Project Name/Number

Pritpaul #3011

Sample ID: BH-1W

Date Sampled: 11/12/98 Date Received: 11/16/98 Date Extracted: 11/19/98 Date Analyzed: 11/19/98 Laboratory ID: T830-12

Matrix: Water

Compound	Concentration (µg/L)	Detection Limit
TPH Diesel	800	50

Analytical Report EPA 8015

Client: All Environmental

Project Manager: Peter McIntyre

Project Name/Number

Pritpaul #3011

Sample ID: BH-2W

Date Sampled: 11/12/98

Date Received: 11/16/98

Date Extracted: 11/19/98 Date Analyzed: 11/19/98

Laboratory ID: T830-14

Matrix: Water

Compound	Concentration (µg/L)	Detection Limit
TPH Diesel	1200	50

Analytical Report EPA 8015

Client: All Environmental

Project Manager: Peter McIntyre

Project Name/Number

Pritpaul #3011

Sample ID[,] BH-3W

Date Sampled: 11/12/98 Date Received: 11/16/98 Date Extracted: 11/19/98

Date Analyzed: 11/19/98 Laboratory ID: T830-07

Matrix: Water

Compound	Concentration (µg/L)	Detection Limit
TPH Diesel	2100	50

Analytical Report EPA 8015

Client: All Environmental

Project Manager: Peter McIntyre

Project Name/Number

Pritpaul #3011

Sample ID: BH-4W

Date Sampled: 11/12/98 Date Received: 11/16/98 Date Extracted: 11/19/98 Date Analyzed: 11/19/98

Laboratory ID: T830-16 Matrix: Water

Compound	Concentration (µg/L)	Detection Limit
TPH Diesel	1700	50

Analytical Report EPA 8015

Client: All Environmental Project Manager: Peter McIntyre

Project Number

3011

Sample ID: BH-6 W

Date Sampled: 11/11/98

Date Received: 11/13/98

Date Extracted: 11/16/98 Date Analyzed: 11/16/98

Laboratory ID: T825-19

Matrix: Water

Compound	Concentration (µg/L)	Detection Limit
TPH Diesel	3200	50

Analytical Report EPA 8015

Client: All Environmental

Project Manager: Peter McIntyre

Project Name/Number

Pritpaul #3011

Sample ID: BH-8.1W

Date Sampled: 11/12/98 Date Received: 11/16/98

Date Extracted: 11/19/98 Date Analyzed: 11/19/98

Laboratory ID: T830-03

Matrix: Water

Compound	Concentration (µg/L)	Detection Limit
TPH Diesel	500	50

Analytical Report EPA 8015

Client. All Environmental

Project Manager: Peter McIntyre

Project Number

3011

Sample ID: BH-9 W

Date Sampled: 11/11/98 Date Received: 11/13/98 Date Extracted 11/13/98

Date Analyzed: 11/16/98 Laboratory ID: T825-05

Matrix: Water

Compound	Concentration (µg/L)	Detection Limit
TPH Diesel	110	50

Analytical Report EPA 8015

Client: All Environmental

Project Manager: Peter McIntyre

Project Number

3011

Sample ID: BH-10 W Date Sampled: 11/11/98 Date Received: 11/13/98 Date Extracted: 11/13/98 Date Analyzed: 11/16/98

Laboratory ID: T825-08

Matrix: Water

Compound	Concentration (µg/L)	Detection Limit
TPH Diesel	480	50

Analytical Report EPA 8015

Client: All Environmental

Project Manager, Peter McIntyre

Project Number

3011

Sample ID: BH-11.1 W

Date Sampled: 11/11/98 Date Received: 11/13/98 Date Extracted: 11/13/98 Date Analyzed: 11/16/98

Laboratory ID: T825-13

Matrix: Water

Compound	Concentration (μg/L)	Detection Limit
TPH Diesel	6400	50

Analytical Report EPA 8015

Client: All Environmental

Project Manager: Peter McIntyre

Project Number

3011

Sample ID: BH-12 W

Date Sampled: 11/11/98 Date Received: 11/13/98 Date Extracted: 11/16/98

Date Analyzed: 11/16/98 Laboratory ID: T825-14

Matrix: Water

Compound	Concentration (µg/L)	Detection Limit
TPH Diesel	210	50

Analytical Report EPA 8015

Client: All Environmental

Project Manager: Peter McIntyre

Project Number

3011

Sample ID: BH-13 W Date Sampled: 11/11/98 Date Received: 11/13/98

Date Extracted: 11/16/98 Date Analyzed: 11/16/98 Laboratory ID: T825-02

Matrix: Water

Compound	Concentration (µg/L)	Detection Limit
TPH Diesel	400	50

Reviewed and Approved by: 1. M. Date: 11-18-88

Analytical Report EPA 8015

Client: All Environmental

Project Manager: Peter McIntyre

Project Number

3011

Sample ID: BH-14 W

Date Sampled: 11/11/98 Date Received: 11/13/98 Date Extracted: 11/16/98

Date Analyzed: 11/16/98 Laboratory ID: T825-17

Matrix: Water

Compound	Concentration (µg/L)	Detection Limit
TPH Diesel	700	50

Analytical Report EPA 418.1

Client: All Environmental

Project Manager: Peter McIntyre

Project Number

3011

Sample ID: BH-9 W

Date Sampled: 11/11/98

Date Received: 11/13/98 Date Analyzed: 11/16/98

Laboratory ID: T825-05

Matrix: Water

Compound	Concentration (µg/L)	Detection Limit
TRPH 418.1	ND	10

This result is the 418.1 result with the 8015m Gas and Diesel subtracted out to give total oil and grease.

Analytical Report EPA 8260

Client: All Environmental

Project Manager: Peter McIntyre

Project Number

3011

Sample ID: BH-9 W

Date Sampled: 11/11/98 Date Received: 11/13/98 Date Analyzed: 11/16/98 Laboratory ID: T825-05

Matrix: Water

Surrogate Compounds	Conc.(µg/L)	%Rec.
Dibromofluoromethane	40.0	100
Toluene-d8	38.8	97
4-Bromofluorobenzene	38.5	96

Compound	Concentration (µg/L)	MDL(μg/L)
Chloromethane	ND	10
Vinyl Chloride	ND	10
Bromomethane	ND ND	10
Chloroethane	ND	10
1,1-Dichloroethene	ND ND	10
Methylene chloride	ND	10
trans-1,2-Dichloroethene	ND	10
1,1-Dichloroethane	ND ND	10
cis-1,2-Dichloroethene	ND	5
Chloroform	ND	5
1,1,1-Trichloroethane	ND	5
1,2-Dichloroethane	ND	5
Carbon Tetrachloride	ND	5
Trichloroethene	ND	5
1,2-Dichloropropane	ND	5
Bromodichloromethane	ND	5
cis-1,3-Dichloropropene	ND ND	5
trans-1,3-Dichloropropene	ND	5
1,1,2-Trichloroethane	ND	5
Dibromochloromethane	ND	5
Tetrachloroethene	ND	5
Chlorobenzene	ND ND	5
Styrene	ND	5
Bromoform	ND	5
1,1,2,2-Tetrachloroethane	ND ND	5
1,3-DCB	ND	5
1,4-DCB	ND	5
1,2-DCB	ND	5

TTLC Metal Analysis

Client: All Environmental Project Manager: Peter McIntyre

Project Number

3011

Sample I.D.: BH-9 W Date Sampled: 11/11/98 Date Received: 11/13/98 Date Extracted: 11/16/98 Date Analyzed: 11/16/98 Laboratory ID: T825-05

Matrix: Water Conc. Unit: μg/L

Metal Analysis by I.C.P.

Element	Results	R.L.	
Antimony	ND	100	
Arsenic	ND	250	
Barium	55	50	
Beryllium	ND	50	
Cadmium	ND	50	
Chromium	ND ND	50	
Cobalt	ND ND	50	
Copper	ND	50	
Lead	ND	50	
Mercury	ND	0.5	
Molybdenum	ND ND	50	
Nickel	ND	50	
Selenium	ND ND	250	
Silver	ND	100	
Thallium	120	100	
Vanadium	ND	50	
Zinc	ND 50		

TTLC= Total Threshold Limit Concentration.

Reviewed and Approved by:	1	lu 1.	M	Date: //-/8-95
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Analytical Report EPA 418.1

Client: All Environmental

Project Manager: Peter McIntyre

Project Number

3011

Sample ID: BH-10 W

Date Sampled: 11/11/98 Date Received: 11/13/98 Date Analyzed: 11/16/98

Laboratory ID: T825-08

Matrix: Water

Compound	Concentration (µg/L)	Detection Limit
TRPH 418.1	ND	10

This result is the 418.1 result with the 8015m Gas and Diesel subtracted out to give total oil and grease.

Analytical Report EPA 8260

Client: All Environmental

Project Manager: Peter McIntyre

Project Number

3011

Sample ID: BH-10 W Date Sampled: 11/11/98

Date Sampled: 11/11/96 Date Received: 11/13/98 Date Analyzed: 11/16/98 Laboratory ID: T825-08

Matrix: Water

 Surrogate Compounds
 Conc.(µg/L)
 %Rec.

 Dibromofluoromethane
 40.0
 100

 Toluene-d8
 39.5
 99

 4-Bromofluorobenzene
 41.1
 103

Compound	Concentration (μg/L)	MDL(µg/L)
Chloromethane	ND	10
Vinyl Chloride	ND	10
Bromomethane	ND	10
Chloroethane	ND	10
1,1-Dichloroethene	ND	10
Methylene chloride	ND	10
trans-1,2-Dichloroethene	ND	10
1,1-Dichloroethane	ND	10
cis-1,2-Dichloroethene	ND	5
Chloroform	ND	5
1,1,1-Trichloroethane	ND	5
1,2-Dichloroethane	ND ND	5
Carbon Tetrachloride	ND	5
Trichloroethene	ND	5
1,2-Dichloropropane	ND	5
Bromodichloromethane	ND	5
cis-1,3-Dichloropropene	ND	5
trans-1,3-Dichloropropene	ND	5
1,1,2-Trichloroethane	ND	5
Dibromochloromethane	ND	5
Tetrachloroethene	ND	5
Chlorobenzene	ND	5
Styrene	ND	5
Bromoform	ND	5
1,1,2,2-Tetrachloroethane	ND	5
1,3-DCB	ND	5
1,4-DCB	ND	5
1,2-DCB	ND	5

TTLC Metal Analysis

Client: All Environmental

Project Manager: Peter McIntyre

Project Number

3011

Sample I.D.: BH-10 W Date Sampled: 11/11/98 Date Received: 11/13/98 Date Extracted: 11/16/98 Date Analyzed: 11/16/98 Laboratory ID: T825-08

Matrix: Water Conc. Unit: µg/L

Metal Analysis by I.C.P.

Element	Results	R.L.
Antimony	ND	100
Arsenic	ND ND	250
Barium	62	50
Beryllium	ND	50
Cadmium	ND	50
Chromium	ND	50
Cobalt	ND	50
Copper	ND	50
Lead	ND	50
Mercury	ND	0.5
Molybdenum	ND	50
Nickel	ND ND	50
Selenium	ND	250
Silver	ND	100
Thallium	86	100
Vanadium	ND	50
Zinc	ND	50

TTLC= Total Threshold Limit Concentration.

Reviewed and Approved by:	 lu !	1. 24	′r	Date:/	11-18-	98
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Analytical Report EPA 418.1

Client: All Environmental

Project Manager: Peter McIntyre

Project Number

3011

Sample ID: BH-11.1 W

Date Sampled: 11/11/98 Date Received: 11/13/98 Date Analyzed: 11/16/98 Laboratory ID: T825-13

Matrix: Water

Compound	Concentration (µg/L)	Detection Limit
TRPH 418.1	ND	10

This result is the 418.1 result with the 8015m Gas and Diesel subtracted out to give total oil and grease.

Reviewed and Approved by:	M	1.	Sel	 Date:	11-18-98
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Analytical Report EPA 8260

Client: All Environmental

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Project Number 3011

Project Manager: Peter McIntyre

Sample ID: BH-11.1 W Date Sampled: 11/11/98 Date Received: 11/13/98 Date Analyzed: 11/13/98 Laboratory ID: T825-13

Matrix: Water

Surrogate Compounds	Conc.(µg/L)	<u>%Rec.</u>
Dibromofluoromethane	43.2	108
Toluene-d8	39.7	99
4-Bromofluorobenzene	40.8	102

Compound	Concentration (µg/L)	MDL(µg/L)
Chloromethane	ND	10
Vinyl Chloride	ND	10
Bromomethane	ND	10
Chloroethane	ND	10
1,1-Dichloroethene	ND	10
Methylene chloride	ND	10
trans-1,2-Dichloroethene	ND	10
1,1-Dichloroethane	ND	10
cis-1,2-Dichloroethene	ND	5
Chloroform	ND	5
1,1,1-Trichloroethane	ND	5
1,2-Dichloroethane	ND	5
Carbon Tetrachloride	ND	5
Trichloroethene	ND	5
1,2-Dichloropropane	ND	5
Bromodichloromethane	ND	5_
cis-1,3-Dichloropropene	ND	5
trans-1,3-Dichloropropene	ND	5
1,1,2-Trichloroethane	ND	5
Dibromochloromethane	ND	5
Tetrachloroethene	ND	5
Chlorobenzene	ND	5
Styrene	ND	5
Bromoform	ND	5
1,1,2,2-Tetrachloroethane	ND	5
1,3-DCB	ND	5
1,4-DCB	ND	5_
1,2-DCB	ND	5

Reviewed and Approved by:		Un.	1. Il	L	_ Date://-/8-98
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TTLC Metal Analysis

Client: All Environmental

Project Manager: Peter McIntyre

Project Number

3011

Sample I.D.: BH-11.1 W Date Sampled: 11/11/98 Date Received: 11/13/98 Date Extracted: 11/16/98 Date Analyzed: 11/16/98 Laboratory ID: T825-13

Matrix: Water Conc. Unit: µg/L

Metal Analysis by I.C.P.

Element	Results	R.L.
Antimony	ND	100
Arsenic	ND	250
Barium	83	50
Beryllium	ND	50
Cadmium	ND	50
Chromium	ND	50
Cobalt	ND	50
Copper	ND	50
Lead	ND	50
Mercury	ND	0.5
Molybdenum	ND	50
Nickel	ND	50
Selenium	ND	250
Silver	ND	100
Thallium	110	100
Vanadium	ND	50
Zinc	ND	50

TTLC= Total Threshold Limit Concentration.

Reviewed and Approved by.	Nh.	1. 1	llsh	Date: //-/8-98
		/		

Analytical Report EPA 8015M & 8020

Client: All Environmental

Project Manager: Peter McIntyre

Project Name/Number

Pritpaul #3011

Sample ID: Method Blank

Date Sampled: NA Date Received: NA Date Analyzed: 11/17/98 Laboratory ID: T830-MB

Matrix: Soil

Surrogate Compounds

4-Bromofiuorobenzene

Conc.(µg/Kg)

51.4

%Rec. 103

Compound	Concentration (µg/Kg)	Detection Limit		
TPH Gas	ND	50		
MTBE	ND	20		
Benzene	ND ND	5		
Toluene	ND	5		
Ethyl benzene	ND	5		
Xylenes	ND	15		

Date: //-23-98

Analytical Report EPA 8015

Client: All Environmental

Project Manager: Peter McIntyre

Project Name/Number

Pritpaul #3011

Sample ID: Method Blank

Date Sampled: NA Date Received: NA Date Extracted: 11/17/98

Date Analyzed: 11/17/98 Laboratory ID: T830-MB

Matrix: Soil

Compound	Concentration (mg/Kg)	Detection Limit		
TPH Diesel	ND	1		

Analytical Report EPA 8015M & 8020

Client: All Environmental

Project Manager: Peter McIntyre

Project Number

3011

Xylenes

Sample ID: Method Blank Date Sampled: NA Date Received: NA

Date Analyzed: 11/13/98 Laboratory ID: T825-MB

Matrix: Soil

Surrogate Compounds 4-Bromofluorobenzene Conc.(µg/Kg) 52,8 %Rec. 106

15

Compound Concentration (µg/Kg) **Detection Limit** TPH Gas ND 50 MTBE ND 20 Benzene ND 5 Toluene ND 5 Ethyl benzene ND 5

ND

Quality Control Analysis EPA 8260

Client: All Environmental Project Manager: Peter McIntyre

anager: Peter McIntyre

Project Number 3011 Date Analyzed: 11/13/98

Batch: T-825 Matrix: Soil

Sample Spiked 825-09

Matrix Spike and Matrix Spike Duplicate Analysis

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Compound	Conc.Spike Added(µg/Kg)	Sample Result	Conc. MS	% Rec.	Conc. MSD	% Rec.	RPD	RPD	Percent Recovery			
1.1 Dichloroethene	25	0.0	26	103	27	109	5,1	20	75-125			
Benzene	25	0.0	27	108	27	108	0.6	20	75-125			
Trichloroethene	25	0.0	20	79	20	80	0.3	20	75-125			
Toluene	25	0.0	27	108	27	109	1.0	20	75-125			
Chlorobenzene	25	0.0	28	114	28	112	1.4	20	75-125			

Reviewed and Approved by: _	16	1. 05/	Date: //-/8-98
Reviewed and Approved by: _		7: - 7	

TTLC Metal Analysis

Client: All Environmental

Project Manager: Peter McIntyre

Project Number

3011

Sample I.D.: Method Blank

Date Sampled: NA Date Received: NA

Date Extracted: 11/16/98 Date Analyzed: 11/16/98

Laboratory ID: T825-MB

Matrix: Soil Conc. Unit: mg/Kg

Metal Analysis by I.C.P.

Element	Results	R.L.
Antimony	ND	2
Arsenic	ND	5
Barium	ND	1
Beryllium	ND	1
Cadmium	ND	1
Chromium	ND	1
Cobalt	ND	1
Copper	ND	1
Lead	ND	1
Mercury	ND	0.1
Molybdenum	ND	1
Nickel	ND	1
Selenium	ND	5
Silver	ND	2
Thallium	ND	2
Vanadium	ND	1
Zinc	ND	1

TTLC= Total Threshold Limit Concentration.

Reviewed and Approved by:

Date: 1/-18-95

TTLC Metal Analysis

MS/MSD Report

Client: All Environmental Project Manager: Peter McIntyre

Project Manager: Peter McIntyr

Project Number 3011 Date Extracted: 11/16/98 Date Analyzed: 11/16/98

Batch: T-825 Matrix: Soil Sample Spiked: Ics

Metal Analysis by I.C.P.

Element	Amt Spiked	MS rec.	MS %	MSD rec.	MSD %	RPD	RPD	%Rec.	
Arsenic	1	1.35	135	1.33	133	1.5	30	40-150	
Cadmium	1	1.27	127	1.22	122	4.0	30	40-150	
Chromium	1	1.27	127	1.23	123	3.2	30	40-150	
Lead	1	1.27	127	1.23	123	3.2	30	40-150	

TTLC= Total Threshold Limit Concentration.

Reviewed and Approved by:	_ Nin	1.	Rel	Date: //-/8-98
		//		

Analytical Report EPA 8015

Client: All Environmental

Project Manager: Peter McIntyre

Project Number

3011

Sample ID: Method Blank Date Sampled: NA Date Received: NA Date Extracted: 11/13/98 Date Analyzed: 11/13/98

Laboratory ID: T825-MB

Matrix: Soil

Compound	Concentration (mg/Kg)	Detection Limit
TPH Diesel	ND	1

Reviewed and Approved by:	Nh	1	Plik	Date	11-26-98
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Analytical Report EPA 8260

Client: All Environmental

Project Manager: Peter McIntyre

Project Number

3011

Sample ID: Method Blank Date Sampled: NA Date Received: NA

Date Analyzed: 11/13/98 Laboratory ID: T825-MB

Matrix: Soil

 Surrogate Compounds
 Conc. (µg/Kg)
 %Rec.

 Dibromofluoromethane
 40.0
 100

 Toluene-d8
 39.7
 99

 4-Bromofluorobenzene
 41.4
 104

Compound	Concentration (µg/Kg)	MDL(μg/Kg)
Chloromethane	ND	10
Vinyl Chloride	ND	10
Bromomethane	ND	10
Chloroethane	ND	10
1,1-Dichloroethene	ND	10
Methylene chloride	ND	10
trans-1,2-Dichloroethene	ND	10
1,1-Dichloroethane	ND	10
cis-1,2-Dichloroethene	ND	5
Chloroform	ND	5
1,1,1-Trichloroethane	ND	5
1,2-Dichloroethane	ND	5
Carbon Tetrachloride	ND	5
Trichloroethene	ND	5
1,2-Dichloropropane	ND	5
Bromodichloromethane	ND	5
cis-1,3-Dichloropropene	ND	5
trans-1,3-Dichloropropene	ND	5
1,1,2-Trichloroethane	ND	5
Dibromochloromethane	ND	5
Tetrachloroethene	ND	5
Chlorobenzene	ND	5
Styrene	ND	5
Bromoform	ND	5
1,1,2,2-Tetrachloroethane	ND	5
1,3-DCB	ND	5
1,4-DCB	ND	5
1,2-DCB	ND	5

Quality Control Analysis EPA 418.1

Client: All Environmental Project Manager: Peter McIntyre

Project Number

3011

Date Analyzed: 11/16/98

Batch: T-825 Matrix: Soil

Sample Spiked. 825-11

Matrix Spike and Matrix Spike Duplicate Analysis

									_imits
Compound	Conc.Spike Added(mg/Kg)	Sample Result	Conc. MS	% Rec.	Conc. MSD	% Rec.	RPD	RPD	Percent Recovery
TRPH 418.1	26.2	3.1	26	89	26	86	3.1	20	70-130

Quality Control Analysis EPA 8015

Client: All Environmental Project Manager: Peter McIntyre Date Analyzed: 11/13/98

Batch: T-825 Matrix: Soil

Sample Spiked 825-3

Project Number

3011

Matrix Spike and Matrix Spike Duplicate Analysis

Compound	Conc. Spike Added(mg/Kg)	Sample Result	Conc. MS	% Rec.	Conc. MSD	% Rec.	RPD	RPD	Percent Recovery						
8015M TPH	500	0	491	98	531	106	7.8	20	70-130						

Analytical Report EPA 418.1

Client: All Environmental

Project Manager: Peter Mcintyre

Project Number

3011

Sample ID: Method Blank Date Sampled: NA Date Received: NA

Date Analyzed: 11/16/98 Laboratory ID: T825-MB

Matrix: Soil

Compound	Concentration (mg/Kg)	Detection Limit
TRPH 418.1	ND	10

SunStar Laboratories, Inc. 3002 Dow Ave, Ste. 406 Tustin, CA 92780 Phone (714) 505-4010 Fax (714) 505-4028

Chain of Custody Record

Client All Since in weight Time Date Sample Date Sample Date Time Type			()																						
Sample Date Sample Container Type	Client: <u>AII & u</u> Address: 901 140	UI VO H	Ad	tal j	Tn = .	-			Dat Loc	te:	<i>]/</i> n:/	/11	ρ.	v 5	ر 1 ₄		ژد ا		Pag	je: <u>/</u>	Of _	2			
Sample Date Sample Container Type	Phone: 925 233 6	6000	Fax: 9	29 Z	3361	Collector:																			
Sample ID Sample Time Type	Project Manager: Pere	L M	c = -+y	- ،		• •	Batch #: 625																		
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BH-13 5/ 11/1/ 7 cw 3 S S S S S S S S S		Date		Sample	Container	A 8010	A 8020	4 8260	A 8270	4 8015M (gasoline)	4 8015M (diesel)	٩ 8015M (gas & diesel)	A 7420 Total Lead	4 6010/7000 RCRA (8) Metals	4 6010/7000 CAM Metals 4 6010/7000 CAM Metals 5 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	34		oratory ID #	servative		,				
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Pickup ____

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SunStar Laboratories, Inc. 3002 Dow Ave, Ste. 406 Tustin, CA 92780

Chain of Custody Record

Tustin, CA 92780	
Phone (714) 505-4010	Fax (714) 505-4028

Client: # / /											//		//	/9	8			Page:Of					
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Phone: Project Manager:					<u>-</u>			Coll Bate				8)	5					Client Project #:					
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Sample disposal Instructions: Di	sposal @ \$2 00 (each	Return t	o client		Pick	<up _<="" td=""><td></td><td></td><td>1</td><td>1 41</td><td>ıı alt</td><td>Juil</td><td>e U11)</td><td></td><td>#</td><td><u> 7</u></td><td>ファ</td><td>z h</td><td>1/</td><td></td><td></td><td></td></up>			1	1 41	ıı alt	Juil	e U11)		#	<u> 7</u>	ファ	z h	1/			

Chain of Custody Record

estered in Yellow refrigerator (NH)

SunStar Laboratories, I	nc.
 3002 Dow Ave, Ste. 400	6
 Tustin, CA 92780	
Phone (714) 505-4010	Fax (714) 505-4028

Client: A ! C Address: 90 / Mo Phone: 925 293	- - -1			Date Loca Colle	atio	_	//	//	12 10	<u> </u>	24	04	11	Pag Clier		Of_						
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Sample disposal Instructions	Pick	kup									`											

Chain of Custody Record

Sunstar Laboratories, Inc.	
3002 Dow Ave, Ste. 406	
Tustin, CA 92780	
Phone (714) 505-4010 Fa	ax (714) 505-4028

Client:								Dat Loc Coll Bat	atio	or:	1	<i>],</i> ==			- <i>)</i>		u /	Clien	e: t Project #:_ 5 F 9811	30/		- -
Sample ID BH - 4 3 BH-4w	Date Sampled パ/フェ	Time 250 300	Sample Type 5 W	Container Type	EPA 8010	K K EPA 8020	EPA 8260	EPA 8270	×× EPA 8015M (gasoline)	K EPA 8015M (diesel)	EPA 8015M (gas & diesel)	EPA 7420 Total Lead	EPA 6010/7000 RCRA (8) Metals	EPA 6010/7000 CAM Metals			DE Laboratory ID #	Preservative	C	comment	S	\\
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