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DEPARTMENT OF TRANSPORTATION

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March 4, 2004

Mr. Amir Gholami Alameda County Environmental Health Service Environmental Protection 1131 Harbor Bay Pkwy; Suite 250 Alameda, California 94502-6577 Alameda County

MAR 0 8 2004

Environmental Health

SUBJECT: Report review for the first quarter 2004 groundwater monitoring report on Caltrans Former Maintenance station at 555 Hegenberger Road, Oakland, California

Dear Mr. Gholami:

Please find attached a copy of the first quarter 2004 groundwater monitoring report for the aforementioned address. Workplan and the Health and Safety Plan for this site have already been submitted. This document summarizes the results found at the site from samples taken from the Five monitoring wells.

If you have any questions or require additional information, please contact Bahram Sazegar at (510) 286-5643.

RAY BÖYER

District Branch Chief

Office of Environmental Engineering

Attachments

Cc: Rboyer, File

Alameda County

MAR 0 8 2004

Environmental Health

FIRST QUARTER 2004 GROUNDWATER MONITORING REPORT

TASK ORDER NUMBER 04-987901-VV CONTRACT NUMBER 43A0078 HEGENBERGER MAINTENANCE STATION OAKLAND, CALIFORNIA

prepared for

California Department of Transportation
District 4
111 Grand Avenue
Oakland, California 94612

Professional Service Industries 4703 Tidewater Avenue, Suite B Oakland, California 94601

> March 2, 2004 575-4G004

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STATEMENT OF LIMITATIONS AND PROFESSIONAL CERTIFICATION

Information provided in Professional Services Industries, Inc., (PSI) report number 575-4G004 is intended exclusively for the California Department of Transportation (Caltrans) for the evaluation of groundwater contamination as it pertains to the subject site. PSI is responsible for the facts and accuracy of the data presented herein. The contents do not necessarily reflect the official view or policies of the State of California or the Federal Highway Administration. This report does not constitute a standard, specification, or regulation. The professional services provided have been performed in accordance with practices generally accepted by other geologists, hydrologists, hydrogeologists, engineers, and environmental scientists practicing in this field. No other warranty, either expressed or implied, is made. As with all subsurface investigations, there is no guarantee that the work conducted will identify any and all sources or locations of contamination.

This report is issued with the understanding that Caltrans is responsible for ensuring that the information contained in this report is brought to the attention of the appropriate regulatory agency. This report has been reviewed by a geologist who is registered in the State of California and whose signature and license number appear below.

Frank R. Poss, R.E.A.

Senior Hydrogeologist

Brand Burfield, RG #6986

Project Geologist

1.0 INTRODUCTION

Professional Service Industries, Inc. (PSI) has been retained by the California Department of Transportation (Caltrans), under Task Order Number 04-987901-VV and Contract Number 43A0078, to perform semi-annual groundwater monitoring at 555 Hegenberger Road in the City of Oakland, California (subject site; Figure 1). The site is the former Hegenberger Maintenance Station.

The scope of work for this investigation includes:

- Semi-annual collection of groundwater samples from five on-site monitoring wells.
- Chemical analysis of the groundwater samples, and
- Preparation of a technical report describing the investigation and interpretation of the data generated.

1.1 PROJECT OBJECTIVE

The objective of the project is to perform semi-annual groundwater monitoring according to established protocol to satisfy regulatory requirements.

1.2 SITE BACKGROUND

In September 1994, four underground storage tanks (USTs) and the associated product piping and pump island were removed. The USTs consisted of two 2,000-gallon diesel USTs and two 6,500-gallon gasoline tanks. Overexcavation was completed to the extent feasible, to remove residual petroleum hydrocarbons impacting the soil. Soil sampling was conducted following the completion of the excavation and indicated elevated concentrations of petroleum hydrocarbons in the remaining soil.

A soil and groundwater investigation was completed in 1995 by Geocon Consultants Inc. to characterize the vertical and lateral extent of petroleum hydrocarbons in soil and groundwater. The investigation included the installation of 5 monitoring wells. The results indicated petroleum hydrocarbons remained in the soil and groundwater.

Subsequent quarterly groundwater monitoring at the site indicated that Total Petroleum Hydrocarbons as Motor Oil (TPH-MO) and TPH as oil and grease (TPH-OG) were not detected, therefore analysis for these constituents was discontinued. TPH as Gasoline (TPH-G) and TPH as Diesel (TPH-D) have been detected in all of the monitoring wells at some point in the history of the site. Benzene has been detected in all of the monitoring wells and methyl tert butyl ether (MTBE) has been detected in all of the wells with the exception of MW-2.

After six years of groundwater monitoring, no consistent attenuation of the contaminant concentrations could be established. As a result, as of the 3rd Quarter 2002, the Alameda County Department of Environmental Health Services (ACEHS) changed the monitoring frequency to semi-annual. The March 30, 2001 monitoring indicated that MTBE was no longer present above laboratory detection limits. As a result, the ACEHS stated that MTBE was no longer a contaminant of concern.

As a result of semi-annual groundwater monitoring, the ACDEHS requested further site characterization to determine the extent of the groundwater plume. Additional soil and groundwater sampling and analyses were performed up gradient, down gradient, and within the former underground storage tank pit area.

There are known Leaking Underground Storage Tank (LUST) sites in the vicinity of the subject site. However, based on the non detect to trace concentrations of petroleum hydrocarbons found in the hydraulically up-gradient monitoring wells, the impact of the offsite LUST sites appears to be minimal in the area of the former underground storage tanks at the Caltrans site

Data obtained from previous investigations are included in Appendix A.

2.0 GROUNDWATER MONITORING ACTIVITIES

2.1 GROUNDWATER ELEVATION AND HYDRAULIC GRADIENT

On January 12, 2004, static groundwater elevations were measured in monitoring wells MW-1 through MW-5 (Figure 2). The groundwater depths were measured in accordance with the field procedures outlined in Section 2.2, using a groundwater interface probe.

A summary of the depth-to-groundwater data collected during this monitoring event is presented in Table 1. The monitoring well top-of-casing elevations have been surveyed with reference to an arbitrary point on the ground surface with an assumed elevation of 100 feet. As such, groundwater level measurements are accurate relative to each other for gradient evaluation but are not reflective of mean sea level. The groundwater elevation data does not support a specific flow direction (Figure 2). Historic groundwater flow data, however, has been toward the northwest. PSI recommends that the site be re-surveyed with respect to mean sea level for submittal to the Geotracker Program as required by the State Water Resources Board.

2.2 GROUNDWATER SAMPLING

Groundwater samples were collected from monitoring wells MW-1 through MW-5. Prior to the collection of groundwater samples, each monitoring well was purged of a minimum of three well volumes of water and until pH, conductivity, and temperature stabilized. The well was allowed to recover to at least 80 percent of their original static groundwater levels prior to sampling, if purged dry.

The following procedures were implemented while performing well monitoring, well purging, and water sampling:

- 1. All non-dedicated equipment was washed prior to entering the well with an Alconox solution, followed by a deionized water rinse.
- 2. Prior to purging the wells, depth-to-water was measured using a Solinst groundwater interface probe to an accuracy of approximately 0.01 foot.
- 3. Monitoring wells at the site were prepared for sampling by purging the well of approximately 3 well volumes of water using a groundwater pump.

- 4. Water samples were collected with a groundwater pump after the well had been purged. If the well was purged dry, a sample was collected after the water in the well had equilibrated to approximately 80 percent of the static water level or 2 hours after well purging, whichever occurred first. The containers were overfilled, capped, labeled, and placed in a chilled cooler prior to delivery to the laboratory for analysis.
- Chain-of-custody procedures, including chain-of-custody forms, were used to document water sample handling and transport from collection to delivery to the laboratory for analyses.
- 6. Groundwater samples were delivered to the State-certified hazardous waste laboratory within approximately 24-hours of collection.
- 7. Purged water was contained in DOT approved 55-gallon drums. The drums were labeled with the contents, date, well number, client name, and project number.

The groundwater monitoring purge logs are presented in Appendix B.

2.3 LABORATORY ANALYSIS AND RESULTS

Five groundwater samples were submitted for analyses to Basic Laboratory of Redding, California, a State of California certified hazardous waste analytical laboratory. The samples were analyzed for the following:

- EPA 8015 modified Total Petroleum Hydrocarbons as Gasoline (TPH-G);
- EPA 8260 Volatile Organic Compounds (VOCs).

A summary of the laboratory results for groundwater samples is presented in Table 1. A copy of the laboratory reports and chain of custody records are presented in Appendix C. The following are the results of the groundwater sampling:

- TPH-G was detected in all of the groundwater samples with the highest concentration detected in MW-3 at 3,320 micrograms per liter (ug/l).
- VOCs were detected in all of the groundwater samples except MW-2. The
 concentrations were compared to each of the compounds' State of California
 Primary Drinking Water Standard (PDWS) with only benzene found to be greater
 than its respective PDWS. Benzene concentrations in all of the monitoring wells,
 with the exception of MW-2, were above the PDWS for benzene of 1 ug/L. The
 highest benzene concentration detected was in MW-3 at 632 ug/L. Benzene
 concentrations are shown in Figure 3. The benzene-impacted groundwater has not
 been defined to the northwest.

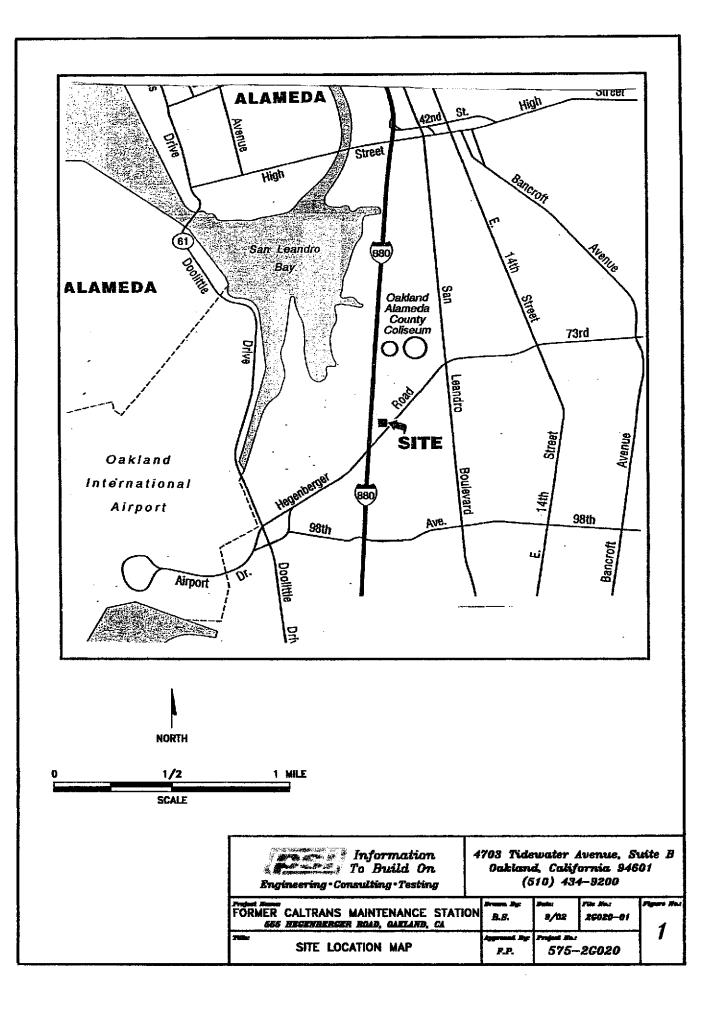
3.0 SUMMARY AND CONCLUSIONS

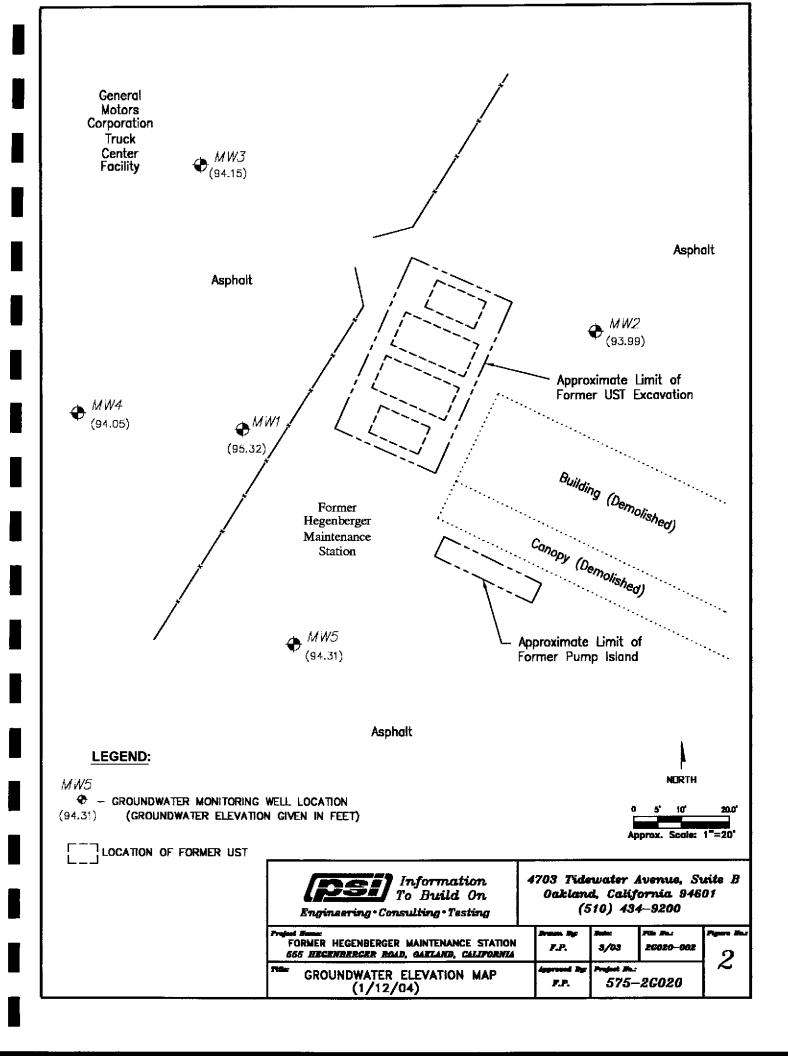
PSI performed groundwater-monitoring activities on January 12, 2004. The results of the monitoring event are summarized below.

- TPH-G was detected in all of the groundwater samples with the highest concentration detected in MW-3 at 3,320 ug/l.
- Benzene is the primary contaminant of concern at the site. Benzene concentrations were detected above the PDWS in all of the groundwater samples except MW-2. The benzene-impacted groundwater has not been defined to the northwest.
- Benzene and TPH-G concentrations in groundwater samples collected from two monitoring wells increased, while they decreased in three monitoring wells. The variation is typical of seasonal and analytical variations.

4.0 RECOMMENDATIONS

Based on the presence of benzene in groundwater at concentrations above the PDWS, PSI recommends that semi-annual monitoring of groundwater at the site continue.





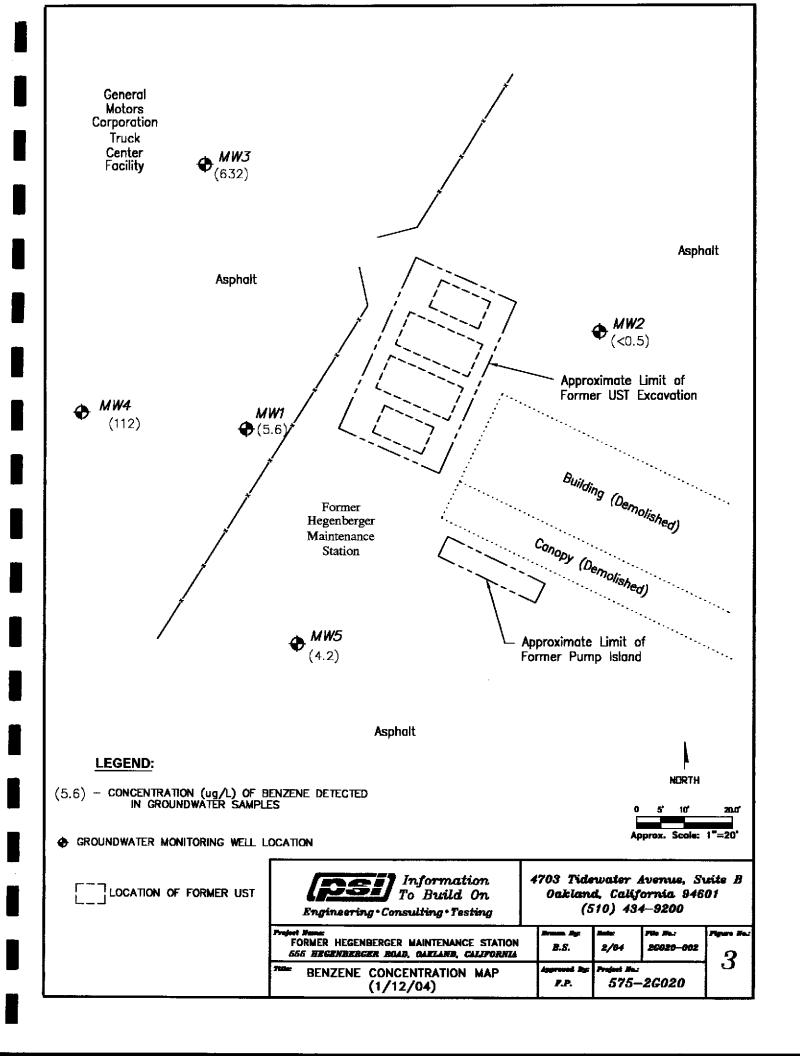


TABLE 1

ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES FORMER HEGENBERGER MAINTENANCE STATION OAKLAND, CALIFORNIA

Sample I.D.	Date	TOC Elevation (feet)	Depth To Ground water (feet)	Ground water Elevation (feet)	TPH-G	TPH-D	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE
MW-1	9/30/2002	99.73	5.79	93.94	592	<50	12	2.7	<0.5	1.6	<0.5
	2/20/2003	99.73	4.49	95.24	2,650		36.9	10.6	7	18.1	<5
	1/12/2004	99.73	4.41	95.32	1,610		5.6	1.8	0.6	1.4	
MW-2	9/30/2002	99.68	6.48	93.20	<50	<50	<0.5	<0.5	<0.5	<1.5	<0.5
	2/20/2003	99.68	5.98	93.70	107		6.6	<0.5	<0.5	<1.0	<0.5
	1/12/2004	99.68	5.69	93.99	66.5		<0.5	<0.5	<0.5	<1.0	
MW-3	9/30/2002	98.92	5.84	93.08	2,020	568	775	17.2	1.0	9.4	<0.5
	2/20/2003	98.92	5.55	93.37	4,010		1120	<50	<50	<100	<50
	1/12/2004	98.92	4.77	94.15	3,320		632	26.9	<25.0	<50.0	
MW-4	9/30/2002	99.46	6.40	93.06	67	<50	<0.5	<0.5	<0.5	<1.5	<0.5
	2/20/2003	99.46	5.83	93.63	573		107	<10	<10	<20	<10
	1/12/2004	99.46	5.41	94.05	699		122	13.5	0.6	8.8	
MW-5	9/30/2002	99.91	6.18	93.73	562	426	1.8	5.2	<0.5	6.5	<0.5
	2/20/2003	99.91	5.8	94.11	1,040		<2.5	8.6	<2.5	11.3	<2.5
	1/12/2004	99.91	5.60	94.31	1,820		4.2	8.0	0.6	12.8	

Notes:

TOC = Top of casing elevation

MTBE = Methyl tert-butyl ether

< = Not detected above laboratory detection limits indicated

TPH-G = Total petroleum hydrocarbons as gasoline

TPH-D = Total petroleum hydrocarbons as diesel

Al results are presented in micrograms per liter (ug/L)

--- = Not Analyzed

555 Hegenberger Road Oakland, California ECCON Proi No. S8100-06-

SITE PLAN

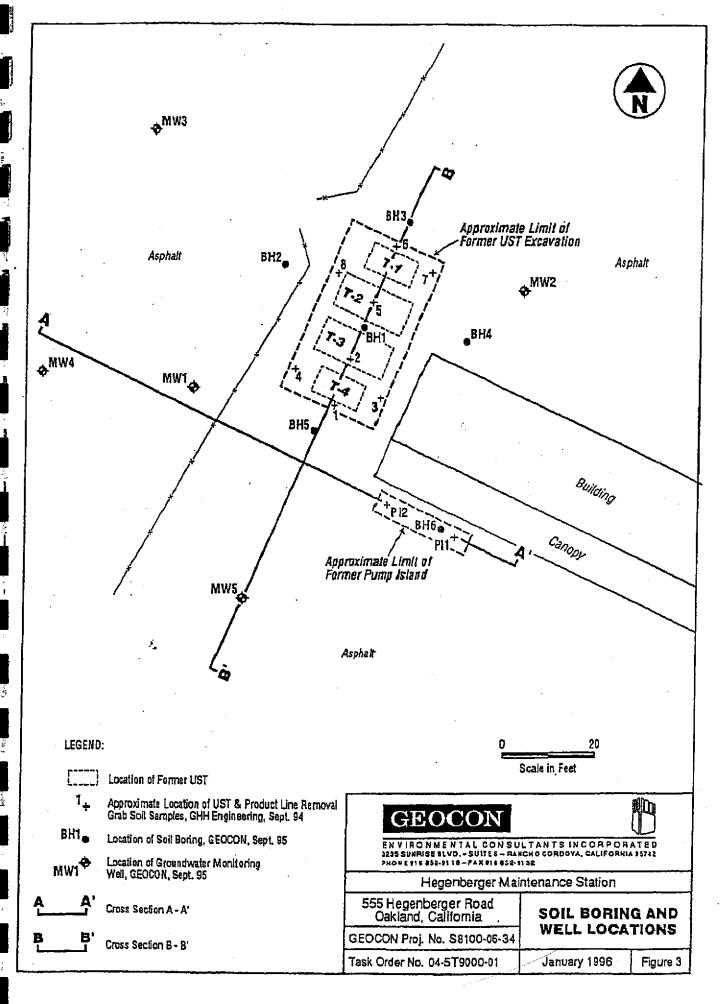
GEOCON Proj. No. S8100-06-34 Task Order No. 04-5T9000-01

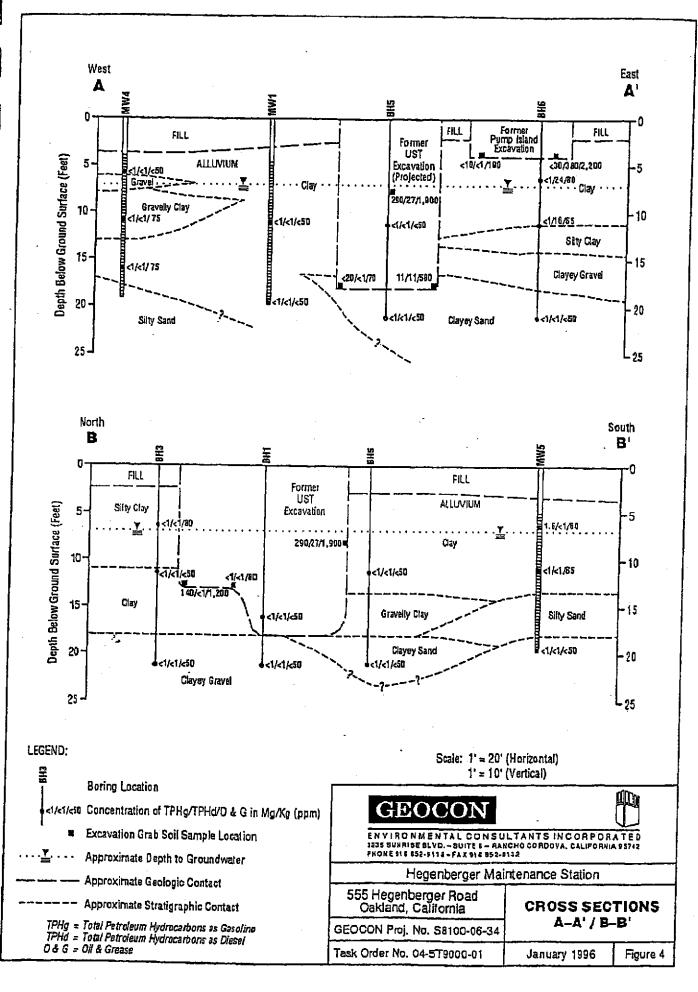
January 1996

Figure 2

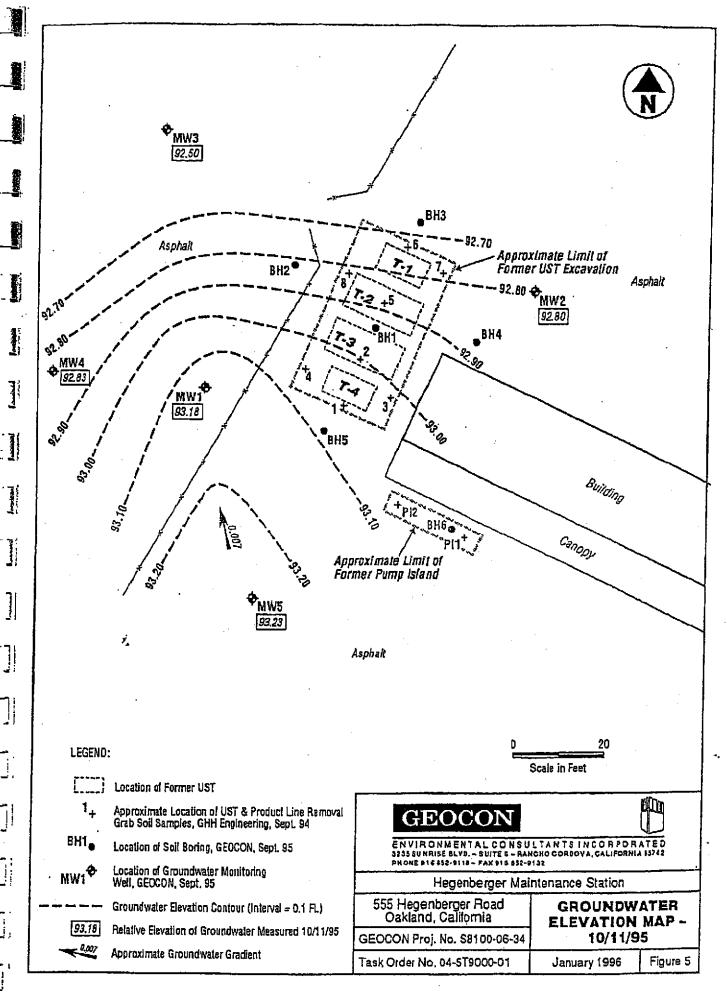
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Task Order No. 04-5T9000-01

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Figure 6

All Concentrations in Micrograms Per Liter (ppb)

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Project No. \$8100-06-34 January 23, 1996

TABLE I SUMMARY OF SOIL ANALYTICAL LABORATORY RESULTS MEGENBERGER MAINTENANCE STATION OAKLAND, CALIFORNIA TASK ORDER, NO. 04-579000-01 PAGE 1 OF 2

SAMPLE ID	DATE	DEPTK (feet)	TPHg (mg/kg)	TPHd (mg/kg)	0&G (mg/kg)	B (mg/kg)	T (mg/kg)	£ (mg/kg)	X (mg/kg)	LEAO (mg/kg)	ORGANIC LEAD (mg/kg)	654H424
PI-1	09/22/94	4.0	<20	380	3 540				4.03 1.03	(mg/kg)	(ng/xg)	COMMENT
P1-2	09/22/94	4.0	<10	<1.0	2,200 190	<0.10 0.076	<0.10 <0.05	0.18 <0.05	<0.10 <0.05	13 13		ΡĮ
TE-1	09/22/94	8.0	290	27				•	10103	(.)		PI
TE-2	09/22/94	18.0	<1.0	<1.0	1,900	2.0	<0.5	0.74	1.2	18		HET som
TE-3	09/22/94	18.0	11	11 .	200	<0.005	<0.005	<0.005	<0.005	12		UST/GKI
TE-4	09/22/94	18.0	<20	<1.0	580 70	0.03	0.014	0.020	0.022	8.8		UST/GH
TE-5	09/22/94	13.0	<1.0	<1.0	80	<0.10	<0.10	<0.10	<0.10	7.6		UST/GH
TE-6	09/22/94	13.0	140	<1.0		<0.005	<0.005	<0.005	<0.005	9.5		USI/GHI
TE-7	09/22/94	8.0	400 .	<1.0	1,200 530	0.13	<0.10	0.51	0.30	11		UST/GHI
TE-8	09/22/94	8.0	480	₹1.0		0.83	<0.50	0,62	1.2	14		UST/GKI
	-			~1.0	100	1.6	0.51	7.6	8.7	8.9		UST/GK
BH1-15	09/26/95	16.0	<1.0	<1.0	<50	<0.005	A ABC			=		2017 301
BH1-20	09/26/95	21.0	-1,0	<1.0	<50	<0.005	<0.005	0.006	0.021		<5.0	GEOCON
					*30	70.003	<0.005	<0.005	<0.005		<5.0	GEOCON
BHZ-10	09/26/95	11.0	<1.0	<1.0	<50	<0.005	-0.005					
BH2-20	09/26/95	21.0	<1.0	<1.0	< 50	<0.005	<0.005	<0.005	<0.005		<5.0	GEOCON
DU7 F					-20	~02002	<0.005	<0.005	<0.005		<5.0	GEOCON
BH3-5	09/26/95	6.0	<1.0	<1.0 ⁸	80	<0.005	<0.005					
8H3-10	09/26/95	11.0	<1.0	<1.0	<50	<0.005	<0.005	<0.005	<0.005			GEOCON
BH3-20	09/26/95	21.0	<1.0	<1.0	<50	<0.005		<0.005	<0.005		<5.0	GEOCON
						~0.005	<0,005	<0.005	<0.005		<5.0	GEOCON
BH4-10	09/26/95	11.0	<1.0	<1.0	55	<0.005	<0.005					ar neggi
BH4-20	09/26/95	21.0	<1.0	<1.0	₹50	<0.005		<0.005	<0.005		<5.0	GEOCON
005 40	55.54.00				.50	10.003	<0.005	<0.005	<0.005		<5.0	GEOCON
B115-10	09/26/95	11.0	<1.0	<1.0	<50	<0.005	<0.005					
BH5-20	09/26/95	21.0	<1.0	<1.0	<50	<0.005		<0.005	<0.005		<5.0	GEOCON
					-50	<0.005	<0.005	<0.005	<0.005		<5.0	GEDCON
BH6-5	09/26/95	6.0	<1.0	24 ^b	80	<0.005	40 OOF		•			
BII6-10	09/26/95	11.0	<1.0	24 ^b 16 ^b	65	<0.005	<0.005 <0.005	<0.005	<0.005			GEOCON
BH6-50	09/26/95	21.0	<1.0	<1.0	< 50	<0.005	<0.005	<0.005	<0.005		<5.0	GEOCON
10.0 40	******					-0.003	בטטיטר	<0.005	<0.005		<5.0	GEOCON
MAT-10	09/27/95	11.0	<1.0	<1.0	<50	<0.005	<0.005	-0.000				
MW1-20	09/27/95	19.5	<1.0	<1.0	<50	<0.005		<0.005	<0.005		<5.0	GEOCON
M17. C	00.4074.00					40,000	· <0.005	<0.005	<0.005		<5.0	GEOCON
M42-5	09/27/95	6.D	<1.0	<1.0 ^c	75	<0.005	<0.005					
MW2-20	09/27/95	21.0	<1.0	<1.0	√5σ ·	<0.005	<0.005	<0.005	<0.005		<5.0	GEOCON
1017 0	00.07.00			•		.0.005	כטט.טר	<0.005	<0.005		<5.0	GEOCON
MW3-8	09/27/95	7.5	<1.0	<1.0	<50	0.012	-0 nos	-0.000				
MW3-10	09/27/95	11.0	<1.0	<1.0	<50	<0.005	<0.005 <0.005	<0.005	<0.005	•••		GEOCON
MW3-20	09/27/95	21.0	<1.0	<1.0	<50	0.030	0.028	<0.005	<0.005		<5.0	GEOCON
						V.V30	0.028	0.030	0.058		<5.0	GEOCON

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Project No. S8100-06-34 January 23, 1996

TABLE I SUMMARY OF SOIL ANALYTICAL LABORATORY RESULTS HEGENBERGER MAINTENANCE STATION

OAKLAND, CALIFORNIA TASK ORDER NO. 04-519000-01 PAGE 1 OF 2

		·										
		DEPTK.	Tou.					-				
SAMPLE ID	DATE	(feet)	TPHg (Mg/kg)	1PHd	086	a	Ţ	F			ORGANIC	•
MW4-5	09/27/95	5.5		(Mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	Λ (mg/kg)	LEAD	LEAD	
MH4-10	09/27/95	11.0	<1.D <1.0	<1.09 <1.09	<50 ⁻	<0.005	<0.005	<0.005		(mg/kg)	(mg/kg)	.COMMENTS
MW4-15	09/27/95	16.0	<1.0	<1.0°	. 75	<0.005	<0.005	<0.005	<0.005 <0.005			GEOCON
10 IF F	·		-17.0	~1.0	75	<0.005	<0.005	<0.005	<0.005		<5.0	GEOCON
MV5-5	09/27/95	6.0	1.6	<1.0 ^e	45				-01003		<5.0	GEOCON
MV5-10 MV5-20	09/27/95	11.0	<1.0	<1.0	60 65	<0.005	0.020	0.028	0.088	*		
11WJ-20	09/27/95	19.5	<1.0	<1.0	<50	<0.005	<0.005	<0.005	<0.005			GEOCON
41.4					-70	<0.005	<0.005	<0.005	<0.005		<5.0	GEOCON
Notes: mg/	kg = milligra	ms per kilod	7.FAm								<5.0	GEOCON

Notes: mg/kg = milligrams per kilogram TPHg = total petroleum hydrocarbons as gasoline

TPHd = total petroleum hydrocarbons as diesel O&G = oil and grease BTEX = benzene, toluene, ethylbenzene and total xylenes

< = less than laboratory method detection limit

--- = not tested

PI = pump istand sample

UST/GHH = UST excavation sample collected by CHH Engineering
a = total petroleum hydrocarbons as motor oil (TPHmo) detected at a concentration of 58 mg/kg
c = weathered TPHd

E Weathered 1710

TPHMO detected at a concentration of 41 mg/kg

d TPHMO detected at a concentration of 7.5 mg/kg

e TPHMO detected at a concentration of 20 mg/kg

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Project No. \$8100-06-34 January 23, 1996

TABLE II SUMMARY OF GROUNDWATER ELEVATION AND ANALYTICAL LABORATORY RESULTS HEGENBERGER MAINTENANCE STATION ું જ.

DAKLAND, CALIFORNIA TASK ORDER NO. 04-519000-01 PAGE 1 OF 1

		•										
SAMPLE ID	DATE	TOC ELEVATION	GROUNDUATER DEPTH	GROUNDWATER ELEVATION	TPHg (ug/l)	TPHd (ug/l)	TPHmo (ug/l)	8 (ug/l)	ĭ (ug/l)	E (ug/l))((ug/l)	O&G . (ug/l)
44 h A		99.73	6.55	93.18	720	<50	<50	660	13	4.7	2.8	<5,000
หน-1	10/11/95		6.88	92.80	<50	<50	< 50	<0.3	<0.3	<0.3	<0.3	<5,000
MW-2	10/11/95	99.68		•	1,3001	<50	<50	1.0	<0.3	<0.3	<0.3	<5,000
NW-3	10/11/95	98.92	6.42	92.50	•	<50	<50	17	1.1	<0.3	0.48	<5,000
MW-4	10/11/95	99.46	6.63	92.83	500	-			15	1.9	6.1	<5,000
MW-5	- 10/11/95	99.91	6.68	93.23	1,000	<50	<50	45	כו	1.7		

Notes: TOC = top of casing elevation referenced to arbitrary ensite datum

depths measured in feet

ug/l = micrograms per liter

TPHg = total petroleum hydrocarbon as gasoline IPHS = total petroleum hydrocarbon as gasothe

IPHS = total petroleum hydrocarbon as dissel

IPHSO = total petroleum hydrocarbon as motor oil

BIEX = benzene, toluene, ethylbenzene and total xylenes

O&G = oil and grease

| = laboratory report notation "weathered gas detected"

TABLE 1 SUMMARY OF GROUNDWATER LEVEL MEASUREMENTS FORMER HEGENBERGER MAINTENANCE STATION OAKLAND, CALIFORNIA

Well	Date	TOC Elevation (Feet, REF)	Depth to Water (Feet, BTOC)	Water Elevation (Feet, REF)
		······································		
MW1	10/11/1995	99.73	6.55	93.18
•	1/17/1996	99.73	5.64	94.09
	4/16/1996	99.73	5.46	94.27
	8/26/1996	99.73	5.91	93.82
	11/14/1996	99.73	6.16	93.57
	2/18/1998	99.73	3.82	95.91
	3/30/2001	99.73	6.19	93.54
	12/26/2001	10.26*	4.08	6.18
MW2	10/11/1995	- 99.68	6.88	92.8
•	1/17/1996	99.68	5.32	94.36
	4/16/1996	.99.68	5.81	93.87
•	. 8/26/1996	99.68	5.98	93.7
	11/14/1996	99.68	6.72	92.96
•	2/18/1998	99.68	5.01	94.67
	3/30/2001	99.68	6.54	93.14
	12/26/2001	10.22*	5.53	4.69
MW3	10/11/1995	98.92	6.42	92.5
	1/17/1996	98.92	5.82	93.1
	4/16/1996	98.92	5.85	93.07
\mathcal{I}_{\bullet}	8/26/1996	98.92	5.72	93.2
	11/14/1996	98.92	6.28	92.64
	2/18/1998	98.92	4.65	94.27
	3/30/2001	98.92	5.62	93.30
•	12/26/2001	9.46*	4.66	4.80
MW4	10/11/1995	99.46	6.63	92.83
	1/17/1996	99.46	5.77	93.69
•	4/16/1996	99.46	5.89	93.57
	8/26/1996	99.46	6.14	93.32
	11/14/1996	99.46	6.72	92.74
	2/18/1998	99.46	5.02	94.44
	3/30/2001	99.46	6.21	93.25
	12/26/2001	10.00*	5.37	4.63

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TABLE 1
SUMMARY OF GROUNDWATER LEVEL MEASUREMENTS
FORMER HEGENBERGER MAINTENANCE STATION
OAKLAND, CALIFORNIA

Date	TOC Elevation (Feet, REF)	Depth to Water (Feet, BTOC)	Water Elevation (Feet, REF)
10/11/1005	00.01	6.68	93.23
	99.91	5.74	94.17
4/16/1996	99.91	5.85	94.06
8/26/1996	99.91	5.99	93.92
11/14/1996	99.91	6.70	93.21
11/14/1996	99.91	6.70	93.21
2/18/1998	99.91	5.74	94.17
3/30/2001	99.91	6.73	93.18
12/26/2001	10.34*	5.23	5.11
	10/11/1995 1/17/1996 4/16/1996 8/26/1996 11/14/1996 11/14/1996 2/18/1998 3/30/2001	Date (Feet, REF) 10/11/1995 99.91 1/17/1996 99.91 4/16/1996 99.91 8/26/1996 99.91 11/14/1996 99.91 11/14/1996 99.91 2/18/1998 99.91 3/30/2001 99.91	Date (Feet, REF) (Feet, BTOC) 10/11/1995 99.91 6.68 1/17/1996 99.91 5.74 4/16/1996 99.91 5.85 8/26/1996 99.91 5.99 11/14/1996 99.91 6.70 11/14/1996 99.91 6.70 2/18/1998 99.91 5.74 3/30/2001 99.91 6.73

Notes:

Ŷ,

Feet, BTOC = Feet below top of well casing

TOC = Top of well casing

Feet, REF = Feet, with respect to an arbitrary datum reference

^{* =} elevation data in fect above mean sea level and based on the California State Coordinate System, Zone III (NAD81), (NGVD29)

TABLE 2 SUMMARY OF SOIL ANALYTICAL RESULTS FORMER HEGENBERGER MAINTENANCE STATION

Boring ID	Date	TPHg (mg/kg)	TPHd (mg/kg)	Benzene (ug/kg)	Toluenc (ug/kg)	Ethylbenzene (ug/kg)	Xylenes (ug/kg)	MTBE (ug/kg)	Other VOCs (ug/kg)
BH6-11	12/26/01	<1.0	1.0*	<5.0 (<5.0)	<5.0 (<5.0)	<5.0 (<5.0)	<5.0 (<5.0)	<5.0	<5.0
BH9-6.5	12/26/01	<1.0	1.7*	<5.0 (<5.0)	<5.0 (<5.0)	<5.0 (<5.0)	<5.0 (<5.0)	<5.0	<5.0

Notes:

TPHg = Total Petroleum Hydrocarbons as gasoline following EPA Test Method 8015B

TPHd = Total Petroleum Hydrocarbons as diesel following EPA Test Method 8015B

BTEX = benzene, toluene, ethylbenzene, and total xylenes following EPA Test Method 8020 (8260)

MTBE = methyl tertiary butylether following EPA Test Method 8020

mg/kg = milligrams per kilogram

ug/kg = micrograms per kilogram

(xxx) = BTEX result by EPA Test Method 8260B

ND = Not detected at a concentration greater than the laboratory reporting limit.

<= less than indicated reporting limit

* = The sample contains hydrocarbons that fall within the diesel range but do not match the diesel pattern. Quantitation is based on the diesel standard.

915102865642

TABLE 3 SUMMARY OF GRAB GROUNDWATER ANALYTICAL RESULTS FORMER HEGENBERGER MAINTENANCE STATION

Boring ID	. Date	TPHg (mg/l)	TPHd (mg/l)	Benzene (ug/l)	Toluene (ug/l)	Ethylbenzene (ug/l)	Xylenes (ug/i)	MTBE (ug/l)	Other VOCs (ug/l)
вне	12/26/01	0.065	0.17*	<0.50 (<5.0)	<0.50 (<5.0)	<0.50 (<5.0)	<0.50 (<5.0)	<0.50	<5.0
B117	12/26/01	0.078	0.098*	<0.50 (<5.0)	<0.50 (<5.0)	<0.50 (<5.0)	<0.50 (<5.0)	<0.50	1,1,2-Trichloroethane = 10 1,1-Dichloroethane = 99 1,1-Dichloroethene = 54
вн8	12/26/01	0.089		<0.50 (<5.0)	0.74 (<5.0)	<0.50 (<5.0)	1.5 (<5.0)	<0.50	<5.0
ВН9	12/26/01	0.060	0.3*	<0.50 (<5.0)	<0.50 (<5.0)	<0.50(<5.0)	0.76 (<5.0)	<0.50	<5.0

Notes:

TPHg = Total Petroleum Hydrocarbons as gasoline following EPA Test Method 8015B

TPHd = Total Petroleum Hydrocarbons as diesel following EPA Test Method 8015B

BTEX = benzene, toluene, ethylbenzene, and total xylenes following EPA Test Method 8020 (8260)

MTBE = methyl tertiary butylether following EPA Test Method 8020/8260B

mg/l = milligrams per liter

ug/l = micrograms per liter

--- = Analysis not performed

(xxx) = BTEX result by EPA Test Method 8260B

ND = Not detected at a concentration greater than the laboratory reporting limit.

<= less than indicated reporting limit

* = The sample contains hydrocarbons that fall within the diesel range but do not match the diesel pattern. Quantitation is based on the diesel standard.

TABLE 4
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
FORMER HEGENBERGER MAINTENANCE STATION

Well	Date	TPHg (mg/i)	TPHd (mg/l)	TPHmo' (mg/l)	Oil & Grense · (nig/l)	Benzene (ug/l)	Toluene (ug/i)	Ethylbenzene (ug/l)	Xylenes (ug/l)	MTBE (ug/l)	Other VOCs (ug/l)
	10111105	0.700	-0.060	< 0.050	< 5	660	13	4.7	2.8		,
MWI	10/11/95		< 0.050			1,000	30	21	17		
	1/17/96	4.40	< 0.050			914	34.7	34.4	15.8		
	4/16/96	6.05	7.45			780	23	21	20		
	8/26/96	3.8	0.430			500	18	14	8.9		
	11/14/96	2.6	0.270			240	18	7.8	11	20	جيمونو
	2/18/98	3.1	0.900			150	13	0.69	10.8	ND	< 5.0
	3/30/01	3.6	0.48*			מכז	13	0.03	10.0		Isopropylbenzene = 7.9
	12/26/01	3.0	1.1*.		-	86 (120)	11 (14)	3.4 (<5.0)	. 10.5 (11)	5.0	n-butylbenzene = 5.1 n-propylbenzene = 5.3
								-			
MW2	10/11/95	< 0.050	< 0.050	< 0.050	< 5	<0.3	<0.3	<0.3	<0.5		
	1/17/96	4.90	< 0.050	< 0.050		2,100	<15	<15	<15		
	4/16/96	< 0.050	< 0.050			1.02	<0.5	<0.5	<0.5		
	8/26/96	< 0.050	< 0.050			<0.5	<0.5	<0.5	<0.5		
	11/14/96	< 0.050	0.056			<0.5	<0.5	<0.5	<0.5		
	2/18/98	< 0.050	0.260			<0.5	<0.5	<0.5	<0.5	<0.5	
	3/30/01	< 0.20	0.37*			2.7	0.82	< 0.50	0.84	ИD	< 5.0
	12/26/01	0.085	0.14			<0.50 (<5.0)	<0.50 (<5.0)	<0.50 (<5.0)	<0.50 (<5.0)	<0.50	<5.0
MW3	10/11/95	1.30	< 0.050	0.050	< 5	1. 0	<0.3	<0.3	<0.3		
111113	1/17/96	0.171	< 0.050			64	<0.3	1.0	<0.3		
	4/16/96	6.74	0.565			2,770	31	13.9	21.9		
	8/26/96	0.700				180	4.2	1.0	4.6		
	11/14/96					6.2	1.2	0.7	1.4	=	
	2/18/98	11.0	2.50		-45	3,070	50	54	L9	25	
	3/30/01	9.9	0.49*			2000 (2,800)	48 (71)	39 (52)	39 (49)	ND	Isopropylbenzene = 92 n-Butylbenzene = 36 n-Propylbenzene = 280 sec-Butylbenzene = 13
	12/26/01	1 9.4	1.7	gaments.		1,500(2,200)	46 (52)	33 (37)	28 (<25)	12	Isopropylbenzene = 85 n-Butylbenzene = 39 n-Propylbenzene = 250

TABLE 4
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
FORMER HEGENBERGER MAINTENANCE STATION

Well	Date	TPHg (mg/l)	TPHd (mg/l)	TPHnið (mg/l)	Oil & Grease (mg/l)	Benzenc (ug/l)	Toluene (ug/l)	Ethylbenzene (ug/l)	Xylenes (ug/l)	MTBE (ug/l)	Other VOCs (ug/l)
	_										
MW4	10/11/95	0.500	< 0.050	< 0.050	< 5	17	1.1	<0.3	0.48		
	1/1.7/96	0.459	< 0.050	< 0.050		72	4.1	<0.3	1.7		-
	4/16/96	2.20	< 0.050		****	851	7.67	1.41	5.72		
	8/26/96	0.300	0.110	-		55	4.9	1.2	<0.5		
	11/14/96	0.200	0.200			3.4	<0.5	<0.5	<0.5		
	2/18/98	1.60	0.280			320	9.1	1.0	0.59	1.7	
	3/30/01	2.7	0.35*			320 (430)	16 (22)	5.3	13.6 (13)	ND	Isopropylbenzene = 6.4
•	12/26/01	0.55	0.20			33 (36)	3.0 (<5.0)	<0.50(<5.0)	1.7 (<5.0)	0.76	<5.0
MW5	10/11/95	1.00	< 0.050	< 0.050	< 5	. 45	1.5	1.9	6.1		, ****
	1/17/96	< 0.050	< 0.050	< 0.050		2	<0.3	<0.3	<0.3		
	4/16/96	1.74	0.855			157	20.1	3.92	22.4		2-45
	8/26/96	0.900	0.270			55	6.4	0.9	3.7		***
	11/14/96	0.700	0.320			31	5.7	0.7	3.6		
	2/18/98	1.20	0.580	200		14	5.2	0.76	5.5	9.5	~~~
	3/30/01	1.5	0.48*			7.2 (9.5)	6.5 (9.6)	< 0.50	10.7 (11)	ND	n-Propylbenzene = 5.1
	12/26/01	1.4	0.76*			5.0 (5.1)	7.2 (8.1)	0.84 (<5.0)	10.5 (9.8)	3.6	isopropylbenzene = 6.0

Notes:

- TPHg = Total Petroloum Hydrocarbons as gasoline following EPA Test Method 8015B
- TPHd = Total Petroleum Hydrocarbons as diesel following EPA Test Method.8015B
- TPHino = Total Petroleum Hydrocarbons as motor oil following EPA Test Method 8015B
- BTEX = benzene, toluene, ethylbenzene, and total xylenes following EPA Test Method 8020 (8260)
- FOCs = Fuel Oxygenate Compounds (tert-butanol, methyl tertiary butylether [MTBE], di-isopropyl ether, ethyl tertiary butylether [ETBE], and tertiary amyl methylether[TAME]) following EPA Test Method 8020/8260B
- mg/l = milligrams per liter
- ug/l = micrograms per liter
- --- Analysis not performed
- (xxx) = BTEX result by EPA Test Method 8260B
- ND = Not detected at a concentration greater than the laboratory reporting limit.
 - <= less than indicated reporting limit
 - * = The sample contains hydrocarbons that fall within the diesel range but do not match the diesel pattern. Quantitation is based on the diesel standard.

FLUID MEASUREMENT FIELD DATA

							SHEET: /	OF /
	2/04	PROJECT NAME:	Hegen	berger		PROJECT NO:	46-004	
	MEASUREMENT INS		<u>solinst</u>			SERIAL NO:	 	· · · · · · · · · · · · · · · · · · ·
PRODUCT DETE	CTION INSTRUME					SERIAL NO:		
EQUIP. DECON:	☐ ALCONOX	WASH DIST	/DEION 1 RINSE	☐ ISOPROPANOL		FREE FINAL RINSE	TAP WATER F	
☐ TAP WA	TER WASH] LIQUINOX WASH	DIST/DEIC		OTHER SOLVENT	☐ DIST/DEION		☐ AIR DRY
WELL NUMBER	GROUND SURFACE ELEVATION	TOP OF CASING ELEVATION	DEPTH TO PRODUCT BELOW TOC	DEPTH TO WATER BELOW TOC	WELL DEPTH BELOW TOC	PRODUCT THICKNESS	WATER TABLE ELEVATION	ACTUAL TIME
101.1-1	LLLVIIII			4.41	19.48			9:37
MW-2				5,69	19.15			9:18
MW-1 MW-2 MW-3 MW-4 MW-5			·	4.77	19.50	4.5		9.44
MW-4				5.41	16.65			9:26
MW-5				5,GO	19.35			9:33
							- <u></u>	
	,						<u> </u>	
					· · · · · · · · · · · · · · · · · · ·		<u> </u>	
							i	
				•			<u> </u>	
						,		
						14		
				Í				
REMEMBER TO CO	DRRECT PRODUCT T	HICKNESS FOR DEN	SITY BEFORE CALC	ULATING WATER TAI	BLE ELEVATION	PREPARED BY:	B5	

, ,,,,,							WELL N	0: /	MW-1
DATE:	/12/04	PROJECT	NAME:	Hege	n bergre	<u>ر</u>	PROJEC		6-004
WEATHE	RCONDITI	ONS:	c/	oudv. c					
WELL DIA	METER (IN	i.)	1	☐ 2	A	☐ 6	OTHER		
SAMPLE	TYPE: [∑ GROUNI	OWATER	WAST	EWATER	SURI	FACE WATE	R 🗌 OT	HER
WELL DE	РТН (ТОС)	1	9.48	FT	DEPTH	TO WATER	R BEFORE F	PURGING (T	OC) 4,41 FT.
LENGTH (OF WATER		15.0	7 FT.	CALCUL	ATED ON	E WELL VO	LUME¹:	9.8 GAL.
PURGING	DEVICE:	· · · · · · · · · · · · · · · · · · ·			DEDIC	ATED [DISPOSA	BLE XOE	CONTAMINATED
SAMPLIN	G DEVICE:			4	DEDIC	ATED [DISPOSA	BLE ØDE	CONTAMINATED
EQUIP. DI			P WATER V		=	ISOPROPA	_		REE FINAL RINSE
	CONOX WA		<u> </u>	ION 1 RINS					I FINAL RINSE
	CO COESE			ION 2 RINS		· · · · · · · · · · · · · · · · · · ·	R FINAL RIN	ASE LI	AIR DRY
	ER PRESE		SERIAL NO	PRESERVE		PRESERV	, En -	' .	
MIKI EN A		MODEL &		'•					
ACTUAL TIME (MIN)	CUMUL. VOLUME PURGED (GAL)	TEMP □ °F SØ °C	SPECIFIC CONDUCT.	pН	DISS. OXYGEN	TURBIDITY (NTUs)	WATER APPEAR CL=CLEAR CO=CLOUDY TU=TURBID		REMARKS ODOR, COLOR, PID)
li:(3	INITIAL	190	859.5	830			Co	Odor	
11:17	10	18.0	2417	820			a		
1123	20	18.8	9843	8,3		,	.Cl	·	
11:29	36	19.0	1000	4 05			CI		
 				0 1 =-					
	,								
		-,-		:	 •				-
									
	·				_				
	<u> </u>								
DEPTH T	O WATER	AFTER PU	IRGING (TO	DC)	FT.	SAMPLE	FILTERED	YES [NO SIZE
NOTES:			<u></u>	<u></u>	SAMPLET	<u> </u>	11:30	· ID#	MW-1
ļ					DUPLICAT	TE []	TIME:	ID#:	
					EQUIP. BI	LANK: □	TIME:	. ID#:	
L	 				PREPARE	D BY:	Bs		

¹ A 1 FOOT LENGTH OF WATER = 0.05 GAL IN 1" DIA. PIPE 0.17 GAL IN 2" DIA PIPE 0.65 GAL IN 4" DIA PIPE 1.5 GAL IN 6" DIA PIPE

	·						WELL N		w-2
DATE:	12/04	PROJECT	NAME:	Hea	enberge	24	PROJEC	TNO: 4	16-004
WEATHE	R CONDITI	ONS:	Cloud	y, Coo					
WELL DIA	METER (II	N.)	□ 1	☐ 2	☑ 4	□ 6	OTHER		
SAMPLE	TYPE:	⊠ GROUN	DWATER	☐ was	EWATER	SURF	ACE WATE	R ∏OT	HER
WELL DE	РТН (ТОС)	1	9.15	FT	. DEPTH	TO WATER	BEFORE	PURGING (1	roc) 5.69 FT.
LENGTH	OF WATER	\	\$ 13	.46 FT			WELL VO		8.7 GAL
PURGING	DEVICE:					ATED [] DISPOSA	BLE ØDE	CONTAMINATED
SAMPLIN	G DEVICE:			•		ATED] DISPOSA	BLE 🗓 DE	CONTAMINATED
EQUIP. D			P WATER V		=	ISOPROPA			REE FINAL RINSE
	CONOX W		=	ION 1 RINS	_				I FINAL RINSE
<u> </u>	DUINOX WA		· · · · · · · · · · · · · · · · · · ·	ION 2 RINS			R FINAL RI		AIR DRY
			SERIAL NO		D []FIELD	PRESERV	ED	· .	
\ \ \ \ \				•	•				
ACTUAL TIME (MIN)	CUMUL. VOLUME PURGED (GAL)	TEMP □°F □ °C	SPECIFIC CONDUCT.	ρΗ	DISS. OXYGEN	TURBIDITY (NTUs)	WATER APPEAR CL=CLEAR CO=CLOUDY TU=TURBID		REMARKS ODOR, COLOR, PID)
9:55	INITIAL	20,3	2218	8.63			Co		
9:58	10	20.0	(986				CO		
10:03	20	20.5	2066	,			.cj		
0:06	30		2080.				Cl		
		-							
	•								
		-							
		,							
									
DEPTH T	O WATER.	AFTER PU	RGING (TO	C)	FT.	SAMPLE F	ILTERED	☐YES ☐	NO SIZE
NOTES:	·		 	·	SAMPLET	IME:	80:01	ID#	MW-2
					DUPLICAT	E	TIME:	ID#:	
					EQUIP. BL	ANK: 🔲	TIME:	. ID#:	
			· · · · · · · · · · · · · · · · · · ·		PREPARE	D BY:	B	2	

TALEGOT LENGTH OF WATER = 0.05 CALIM 12 DIA PIPE 0.17 GALIN 2" DIA PIPE 0.65 GALIN 4" DIA PIPE 1.5 GALIN 6" DIA PIPE

		,	· · · · · · · · · · · · · · · · · · ·				WELL N	0:	MW-3
DATE:	11204	PROJECT	NAME:	Hege	stege		PROJEC	T NO:	45004
WEATHE	R CONDITI	ONS:	5 m	~ , co	(U				
WELL DIA	AMETER (IN	i.)	□ 1	/☐ 2	□ 4	☐ 6	OTHER		
SAMPLE	TYPE: [GROUN	DWATER	☐ wası	TEWATER	SUR	FACE WATE	R 🔲	OTHER
WELL DE	ртн (тос)		19.50	T FT	. DEPTH	TO WATER	R BEFORE F	URGING	(TOC)4.77 FT.
LENGTH	OF WATER		14.	73 FT			E WELL VOI		9.6 GAL.
PURGING	DEVICE:				⊠ oedic	ATED [] DISPOSAI	BLE 🔯	DECONTAMINATED
SAMPLIN	G DEVICE:	•		•		ATED [DISPOSAL	BLE 🔀	DECONTAMINATED
EQUIP. D			P WATER V	VASH ·		ISOPROP/			FREE FINAL RINSE
	CONOX WA			ION 1 RINS				_	ON FINAL RINSE
	NO NIU	<u></u>		ION 2 RINS			R FINAL RIN	ISE L	AIR DRY
	ER PRESE			PRESERVE	D FIELD	PRESERV	'ED ·	٠.	
WAIERA	MALYZER	MODEL &	SERIAL NO):			·		
ACTUAL TIME (MIN)	CUMUL. VOLUME PURGED (GAL)	M.c □.t LEWb	SPECIFIC CONDUCT.	рΗ	DISS. OXYGEN	TURBIDITY (NTUs)	WATER APPEAR CL=CLEAR CO=CLOUDY TU=TURBID	(EVIDE	REMARKS NT ODOR, COLOR, PID)
11:42	INITIAL	19.7	4542	7.57			10-10/10/10		
11:46	10	193	1992	7.91	*	· · · · · · · · · · · · · · · · · · ·	a		
11:52	20	19.4	2233	7.82		,	10		
11-58	30	19.8	2307	7.84			U		
									
				-					
			·						
		,							
				·					
DEPTH T	O WATER	AFTER PU	IRGING (TO)C)	FT.	SAMPLE	FILTERED	YES	□NO SIZE
NOTES:					SAMPLET	IME:	12:02	ID	# Mw-3
<u></u>					DUPLICAT	E 🗌	TIME:	· ID:	# :
		*:			EQUIP. BI	ANK: 🗆	TIME:	. ID:	# :
L					PREPARE	D BY:	B5		

¹A 1 FOOT LENGTH OF WATER = 0.05 GAL IN 1" DIA. PIPE 0.17 GAL IN 2" DIA PIPE 0.65 GAL IN 4" DIA PIPE 1.5 GAL IN 6" DIA PIPE

	,	, 					WELL N	0:	MW-4
DATE:	112/04	PROJECT	NAME:	1tege	, berge,	~	PROJEC		46-004
WEATHE	R CONDITI	ONS:	Cĺ	oudy, c	ool				
WELL DIA	METER (IN	٧.}	□ 1	☐ 2	X 4	□ 6	OTHER		
SAMPLE	TYPE: [⊠ GROUN	DWATER	☐ was	TEWATER	SURF	FACE WATE	R 🗌	OTHER
WELL DE	РТН (ТОС)	·	16.6	5 FT	DEPTH	TO WATER	R BEFORE F	PURGIN	G (TOC) 541 FT.
LENGTH	OF WATER	}	11.2				E WELL VO		7,3 GAL.
PURGING	DEVICE:				₹ DEDIC	ATED [] disposa	BLE 💆	DECONTÂMINATED
	G DEVICE:			•		ATED [DISPOSA	BLE 🛛	DECONTAMINATED
EQUIP. D			P WATER V		. =	ISOPROPA			E FREE FINAL RINSE
	CONOX WA			ION 1 RINS ION 2 RINS					ION FINAL RINSE
	ER PRESE				· · · · · · · · · · · · · · · · · · ·	PRESERV	R FINAL RIN	ASE I	AIR DRY
			SERIAL NO			FILEGERY			1,000,000
`	• •				•				
ACTUAL TIME (MIN)	CUMUL. VOLUME PURGED (GAL)	TEMP □°F √□°C	SPECIFIC CONDUCT.	рН	DISS. OXYGEN	TURBIDITY (NTUs)	WATER APPEAR CL=CLEAR CO=CLOUDY TU=TURBID	(EVIDI	REMARKS ENT ODOR, COLOR, PID)
(0,2)	INITIAL	19.0	2888	8,03			Со	odar	
18,24	7	19.1	2905	8,00			co		
1670]	14	19.4	.3362	7.90	•	j.	#CI	,	.*.
10:30	るし	5	3296	7.79			4		
	•								
		*,,						,	
								-	
	-	_							
				•					
DEPTH T	O WATER	AFTER PU	RGING (TC	OC)	FT.	SAMPLE F	ILTERED	YES	□NO SIZE
NOTES:				-tn	SAMPLE T	TIME:	10:32	: ID	# M&-4
					DUPLICAT	re 🗆	TIME:	ID)#:
				•	EQUIP. BL	ANK: 🔲	TIME:	. ID)#:
·					PREPARE	D BY:	1	35	

A 1 FOOT LENGTH OF WATER = 0.05 GAL IN 1" DIA, PIPE 0.17 GAL IN 2" DIA PIPE 0.65 GAL IN 4" DIA PIPE 1.5 GAL IN 6" DIA PIPE

	, ,						WELL N	0: /	MW-5	
DATE:	12/04	PROJECT	NAME:	Itea.	enberg	<i>در</i>	PROJEC			
WEATHER	R CONDITION	ONS:	Cloud	ly, co	, ,		· · · · · · · · · · · · · · · · · · ·			
WELL DIA	METER (IN	i.)	<u> </u>	´□ 2	≱ 4	<u></u> 6	OTHER			
SAMPLE 7	TYPE: [GROUN	OWATER	WAST	EWATER	SURF	ACE WATE	R 🗆 o	THER	
WELL DEF	тн (тос)		19.35	5 FT	. DEPTH	TO WATER	BEFORE	PURGING	(TOC) 5.	ê FT.
LENGTH (OF WATER		13-	75 FT	CALCU	LATED ONE	EWELL VO	LUME1:	8.9	GAL.
PURGING DEVICE:						ATED [] DISPOSA	Bre 🗆 D	ECONTAMIN	ATED
SAMPLING	G DEVICE:	•			DEDIC	ATED [DISPOSA	BLE 🔲 D	ECONTAMIN	AŢED
EQUIP. DE			P WATER V			ISOPROPA			FREE FINAL	
===	CONOX WA		_	ION 1 RINS ION 2 RINS	_		R FINAL RI	_	ON FINAL RIN	SE
	ER PRESE					PRESERV		49E _	AIR DRY	
			SERIAL NO			PRESERV		•		
×					•			·		
ACTUAL TIME (MIN)	CUMUL. VOLUME PURGED (GAL)	TEMP □ *F ☑ *C	SPECIFIC CONDUCT.	ρΗ	DISS. OXYGEN	TURBIDITY (NTUs)	WATER APPEAR CL=CLEAR CO=CLOUGY TU=TURBID	(EVIDE)	REMARKS NT ODOR, COLOR	R, PID)
10:45	INITIAL	195	140)	8.38			CI	Oder		
10:47	9	9.5	1140	8,28			Ci			
10:49	18	19.1	.\136	8,17			.a			
0:54	M	197	1305	7.98			C			
		- [
	•									

	•									
				·						
DEPTH TO	O WATER	AFTER PU	RGING (TO	DC)	FT.	SAMPLE I	FILTERED	YES	□ NO SIZE	
NOTES:					SAMPLE 1	TIME:	10:55	ID#	: /NW-	5
					DUPLICAT	TE 🔲	TIME:	ID#	<u> </u>	
					EQUIP. BI	LANK: □	TIME:	ID#	f:	·
I					PREPARE	D BY:	35)		<u> </u>

¹ A 1 FOOT LENGTH OF WATER = 0.05 GAL IN 1" DIA. PIPE 0.17 GAL IN 2" DIA PIPE 0.65 GAL IN 4" DIA PIPE 1.5 GAL IN 6" DIA PIPE



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voice 530.243.7234 2218 Railroad Avenue fax 530.243.7494

Redding, California 96001

January 28, 2004

Lab ID: 4010344

FRANK POSS PROFESSIONAL SERVICE INDUSTRIES 4703 TIDEWATER AVENUE SUITE B OAKLAND, CA 94601

RE: General Testing HEGENBERGER - 4G004

Dear FRANK POSS,

Enclosed are the analysis results for Work Order number 4010344. All analysis were performed under strict adherence to our established Quality Assurance Plan. Any abnormalities are listed in the qualifier section of this report.

If you have any questions regarding these results, please feel free to contact us at any time. We appreciate the opportunity to service your environmental testing needs.

Sincerely,

James E. Hawley

Laboratory Director

California ELAP Certification Number 1677



www.basiclab.com

laboratory

voice 530.243.7234 2218 Railroad Avenue fax **530.243.7494** Redding, California 96001

Report To: PROFESSIONAL SERVICE INDUSTRIES

4703 TIDEWATER AVENUE SUITE B

OAKLAND, CA 94601

Attention: FRANK POSS

Project: General Testing HEGENBERGER - 4G004

Description: MW-1 **Lab ID:** 4010344-01

Matrix: Water **Sampled:** 01/12/04 11:30

Received: 01/13/04 11:25

Lab No:

Phone:

P.O. #

Reported:

4010344

01/28/04

510-434-9200

Volatile Organic Compounds

Analyte	<u>Units</u>	<u>Results</u>	Qualifier	MDL	RL	<u>Method</u>	<u>Analyzed</u>		<u>Batch</u>
Acetone	ug/l	- ND			5.0	EPA 8260	01/16/04	01/15/04	B4A0243
crylonitrile	ır	ND			5.0	п	4	н	Ħ
enzene	at	5.6	QM-4X		0.5	н	II	н	
bromobenzene	41	ND			0.5	H	Ħ	II .	FI
Bromochloromethane	#I	ND			0.5		н	п	н
Promodichloromethane	ii	ND			0.5		н	н	U
romoform	n	ND			0.5	li*	И	u	19
romomethane	n	ND			0.5	п	п	II .	ш
2-Butanone	II	ND			5.0	н	H	10	19
<u>n</u> -Butylbenzene	11	6.0			0.5	11		17	10
ec-Butylbenzene	10	3.1			0.5	11	ıı	er	10
ert-Butylbenzene	II	ND			0.5	19	II.	er	IF.
Carbon disulfide	10	ND			0.5		. 11	n	12
Carbon tetrachloride	10	NÐ			0.5	D	ø	и	17
S hlorobenzene	D	ND			0.5	**	**	•	67
hloroethane	er e	ND			0.5	н			×
Chloroethylvinyl ether	•	ND			1.0	н	п	16	
Chloroform		ND			0.5	II	10	n	н
Chloromethane	m.	ND			0.5	п	ıı	IF.	JE
-Chlorotoluene	10	ND			0.5	ij	16		12
Chlorotoluene	**	ND			0.5	н	W.	H	**
Dibromochloromethane	n n	ND			0.5	19	u	н	н
1,2-Dibromo-3-chloropropane (DBCP)	н	ND			0.5	U	n	п	ri
2-Dibromoethane (EDB)	н	ND		•	0.5	4	81	н	a
bromomethane	н	ND			0.5	Hr.	н	и	п
2-Dichiorobenzene	n	ND			0.5	H.	п	и	11
1,3-Dichlorobenzene	n	ND			0.5	**	п	и	п
1.4-Dichlorobenzene	19	ND			0.5	п	н	10	H
chlorodifluoromethane	п	ND			0.5	**	_m ·	11	
1-Dichloroethane	**	ND			0.5	9		17	11
1,2-Dichloroethane	10	ND			0.5		10		
1.1-Dichloroethene	n	ND			0.5		п	п	п
-1,2-Dichloroethene	et .	ND			0.5	**	10	Ħ	70
ans-1,2-Dichloroethene	п	ND			0.5	Ħ	11		u
chloromethane	Ħ	ND			1.0	n	19	P	
1,2-Dichloropropane	Ħ					11	et		н
	n	ND			0.5				
1 3-Dichloropropane	11	ND			0.5			11	
2-Dichloropropane	**	ND			0.5	"			P
1-Dichloropropene		ND			0.5		-	 m	-
cis-1,3-Dichloropropene		ND			0.5				
trans-1,3-Dichloropropene	11	ND			0.5				
4-Dioxane		ND			25.0	"	-	0	
:hylbenzene		0.6			0.5	"	-	. "	,
Ethyl tert-butyl ether					Λ E		-	17	",
	h	ND			0.5				14
	п 	ND			0.5	"	•	*	и.
Hexachlorobutadiene	97 97 97					и и		n u	IF .

Approved By

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Page 2 of 16



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fax 530.243.7494

Redding, California 96001

Report To:

PROFESSIONAL SERVICE INDUSTRIES

4703 TIDEWATER AVENUE SUITE B

OAKLAND, CA 94601

Attention: Project:

Matrix:

FRANK POSS

General Testing HEGENBERGER - 4G004

Description:

Water

Lab ID: 4010344-01

Sampled: 01/12/04 11:30

Phone:

P.O. #

Reported:

Received: 01/13/04 11:25

Lab No: 4010344

01/28/04

510-434-9200

Yolatile Organic Compounds

Analyte	<u>Units</u>	<u>Results</u>	<u>Oualifier</u>	MDL	RL	<u>Method</u>	Analyzed	<u>Prepared</u>	Batch
_DI-isopropyl ether	•	- ND	-		0.5	lt.	н	01/15/04	•
Isopropyltoluene	Ħ	ND			0.5	n	u	' u'	н
Methyl-2-pentanone	п	ND			5.0	н	11	н	н
Methyl tert-butyl ether	u u	ND			1.0	11	II	н	II
Naphthalene	11	ND			0.5	**	1f	H	. н
Propylbenzene	11	8.2			0.5	"	#1	н	ii
yrene	a	ND			0.5	u	u	n	n
ert-amyl methyl ether	e	ND			0.5			Ħ	il
1,1,1,2-Tetrachloroethane	п	ND			0.5	n	a	и	H
11,2,2-Tetrachloroethane	a	ND			0.5	n	er er	н	н
etrachloroethene	н	ND			0.5	H		н	н
etrahydrofuran	н	ND			5.0	tt.		н	11
Tert-butyl alcohol	я	ND			50.0	Ħ	a	п	11
Toluene	н	1.8			0.5	11			10
2,3-Trichlorobenzene	и	ND			0.5	n n	н	19	"
2,4-Trichlorobenzene	н	ND			0.5	rt	ri	19	91
1,1-Trichloroethane	п	ND			0.5	ц	ti		**
1,1,2-Trichloroethane	n	ND			0.5	n n	п	10	11
<u> Trichloroethene</u>	н	ND			0.5	n n	н	II .	U
ichlorotrifluoroethane	и	ND			0.5	n n	n	10	
Ichlorofluoromethane	It.	ND			0.5	n n	н	10	ti
1,2,3-Trichloropropane	lt .	ND			0.5	II .	н	**	Ħ
1,2,4-Trimethylbenzene	n n	ND			0.5	н	10	n	H
3,5-Trimethylbenzene	и	1.1		,	0.5	н	II.	ur .	п
nyl acetate	17	ND			0.5	н		Ħ	11
Thyl chloride		ND			0.5	Н	n	п	19
Xylenes (total)	11	1.4			1.0	11	II	W	- 11
Surrogate: 1,2-Dichloroethane-d4		75.9 %		28	129	#	*	"	"
rrogate: Toluene-d8		<i>100 %</i>		<i>52-</i> .	150	я	#	ĸ	#
rrogate: 4-Bromofluorobenzene		108 %		43-	155	H	11	H	Ħ



voice 530.243.7234 fax 530.243.7494

2218 Railroad Avenue Redding, California 96001

Report To:

PROFESSIONAL SERVICE INDUSTRIES

4703 TIDEWATER AVENUE SUITE B

OAKLAND, CA 94601

Attention:

FRANK POSS

Project:

General Testing HEGENBERGER - 4G004

Description:

MW-1

Lab ID: 4010344-01

Sampled: 01/12/04 11:30 Received: 01/13/04 11:25

Lab No:

Phone:

P.O. #

Reported:

4010344

01/28/04

510-434-9200

Matrix:

Water

EPA 8015/8260 - Gasoline

<u>Analyte</u>

Gasoline

Surrogate: 4-Bromofluorobenzene

<u>Units</u> ug/l

Results 1610 108 %

Qualifier R-06

MDL

43-155

RL 500

Method Analyzed Prepared

EPA 8015/8260 01/22/04

01/15/04 01/16/04

Batch B4A0243

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Page 4 of 16



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Report To: PROFESSIONAL SERVICE INDUSTRIES

4703 TIDEWATER AVENUE SUITE B

OAKLAND, CA 94601

Attention: FRANK POSS

Project: General Testing HEGENBERGER - 4G004

Description:

Lab ID: 4010344-02

Matrix: Water

Reported: 01/28/04 Phone: 510-434-9200

P.O. #

Lab No:

Sampled: 01/12/04 10:08

4010344

Received: 01/13/04 11:25

Volatile Organic Compounds

Analyte	<u>Units</u>	Results	<u>Qualifier</u>	MDL	RL	Method	Analyzed	Prepared	Batch
Acetone	ug/l	- ND	- 		5.0	EPA 8260	01/21/04	01/16/04	B4A0243
Crylonitrile	-3/-	ND			5.0	#	01/21/04	01/10/07	11
enzene	и	ND	QM-4X		0.5	H			
romobenzene	н	ND	Qi i ix		0.5	11	п	н	
Bromochloromethane	11	ND			0.5	61	H	H	rr ·
Bromodichloromethane		ND			0.5	17	п	19	п
romoform	rr	ND			0.5		91	s (п
romomethane	w	ND			0.5	17			п
2-Butanone	II	ND			5.0	H		#	п
n-Butylbenzene	n	ND			0.5	If		n	н
ec-Butylbenzene	U	ND			0.5	n n	н	4)1
ert-Butylbenzene	II	ND			0.5	n n	н	п	11
arbon disulfide	11	ND			0.5	ti	n	n	11
Carbon tetrachloride	14	ND			0.5	л	u	н	
_Chlorobenzene	19	ND			0.5	n	n	н	a
hloroethane	II	ND			0.5	*1	ıt	H	
-Chloroethylvinyl ether	10	ND			1.0	41	и .	и	n
Chloroform	40	ND			0.5	*1	16		
Chloromethane	*	ND			0.5	н	16	10	1+
Chlorotoluene	П	ND			0.5		17	II.	11
Chlorotoluene	н	ND			0.5	н	10	#	a
bromochloromethane	10	ND			0.5	11	er e	tr	
1,2-Dibromo-3-chloropropane (DBCP)	II.	ND			0.5	17		н	
12-Dibromoethane (EDB)	16	ND		9	0.5	ti ti		n	n
bromomethane	H	ND			0.5	н		m	н
2-Dichlorobenzene	н	ND			0.5		11	н	a a
1,3-Dichlorobenzene	н	ND			0.5	te .		n	ш
1.4-Dichlorobenzene	н	ND			0.5	н		ur .	п
chlorodifluoromethane	н	ND			0.5	ur	m .		
1-Dichloroethane	11	ND			0.5	II	il		Ħ
1,2-Dichloroethane	и	ND			0.5	п	n	n	11
1,1-Dichloroethene	10	ND	•		0.5	н	Ħ	¢Į.	11
cis-1,2-Dichloroethene	11	ND			0.5	н	п	н	10
ans-1,2-Dichloroethene	TI TI	ND			0.5	71	п	н	a
chloromethane	at .	ND			1.0	11	н	14	77
1,2-Dichloropropane	n	ND			0.5	"	и	н	*
1,3-Dichloropropane	tr .	ND			0.5	•	10	н	F
2-Dichloropropane	Ħ	ND			0.5	п	II	n	н
1-Dichloropropene	n	ND			0.5		19	ta .	п
us-1,3-Dichloropropene	n	ND			0.5	п		II.	
trans-1,3-Dichloropropene	π	ND			0.5	n	11	II.	H
4-Dioxane	n	ND			25.0	"	'n	и	н
hylbenzene	п	ND			0.5	n	10	li .	18
hyi tert-butyl ether	n-	ND			0.5	н	n	11	ы
Hexachlorobutadiene		ND			0.5	H	11	10	н
2-Hexanone	19	ND			5.0	n	ju ju	10	ŧ
propylbenzene		ND			0.5	íT .	π	le .	и
		110			0.5				

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Page 5 of 16



fax 530.243.7494

voice 530.243.7234 2218 Railroad Avenue Redding, California 96001

Report To:

PROFESSIONAL SERVICE INDUSTRIES

4703 TIDEWATER AVENUE SUITE B

OAKLAND, CA 94601

Attention: Project:

FRANK POSS

General Testing HEGENBERGER - 4G004

Description: Matrix: Water

MW-2

Lab ID: 4010344-02

Sampled: 01/12/04 10:08

P.O. #

4010344

01/28/04

510-434-9200

Received: 01/13/04 11:25

Lab No:

Phone:

Reported:

Volatile Organic Compounds

Analyte	<u>Units</u>	<u>Results</u>	<u>Qualifier</u>	MDL	RL	<u>Method</u>	Analyzed	Prepared	<u>Batch</u>
Di-Isopropyl ether	n	ND ND			0.5	**	11	01/16/04	н
- Isopropyltoluene	Ħ	ND			0.5	71	ш	, D	11
1-Methyl-2-pentanone	Ħ	ND			5.0	19	11	R	11
Methyl tert-butyl ether	17	ND			1.0	10		Ħ	**
Naphthalene	at	ND			0.5		n	n	Ħ
	11	ND			0.5	я	ы	II .	n
Styrene	н	ND			0.5	fr	Ħ	11	19
ert-amyl methyl ether	n	ND			0.5	н	•	H	11
1,1,1,2-Tetrachloroethane	R	ND			0.5	II .	IF .	11	u
1,1,2,2-Tetrachloroethane	H	ND			0.5	н	ŧr	ŧI	н
etrachloroethene	и	ND			0.5	п .	н	શ	ŧí
etrahydrofuran	u ·	ND			5.0	#1	H	п	11
ert-butyl alcohol	n	ND			50.0	11	н	O O	11
Toluene	11	ND			0.5	n	n	В	и
2,3-Trichlorobenzene	ø	ND			0.5	11	н	lá .	11
,2,4-Trichlorobenzene	п	ND			0.5		II	11	и
,1,1-Trichloroethane	н	ND			0.5	11	н	ш	и
1,1,2-Trichloroethane	и	ND			0.5		н	H	и
_Trichloroethene	T	ND			0.5	T\$	II .	IF	II.
richlorotrifluoroethane	ti.	NĐ			0.5	et	II .	III	
richlorofluoromethane		ND			0.5	H	10	n	
1,2,3-Trichloropropane	11	ND			0.5	u		ır	17
1,2,4-Trimethylbenzene	W	ND			0.5	11	· ·	'n	#
3,5-Trimethylbenzene	ų	ND		*	0.5	10	n	н	tt
inyl acetate	н	ND			0.5	H	N	H	G.
Inyl chloride	n	ND			0.5	H	н	Ħ	n
Xylenes (total)	O O	ND			1.0	IF	n		U
Surrogate: 1,2-Dichloroethane-d4		95.7 %		28-1	129	п	п	tr .	н
urrogate: Toluene-d8		106 %		52-1	150	н	"	n	n
urrogate: 4-Bromofluorobenzene		<i>106</i> %		43-1	155	и	n	σ	"



vaice **530.243.7234**

fax **530.243.7494**

2218 Railroad Avenue Redding, California 96001

Report To: PROFESSIONAL SERVICE INDUSTRIES

4703 TIDEWATER AVENUE SUITE B

OAKLAND, CA 94601

Attention: FRANK POSS

Project: General Testing HEGENBERGER - 4G004

Description: MW-2

Matrix: Water Lab ID: 4010344-02

Sampled: 01/12/04 10:08

Lab No:

Phone:

P.O. #

Reported:

4010344

01/28/04

510-434-9200

Received: 01/13/04 11:25

EPA 8015/8260 - Gasoline

Analyte

Gasoline Furrogate: 4-Bromofluorobenzene **Units** ug/l

<u>Results</u> 66.5 106 %

Qualifier

MDL

RL

50.0

43-155

Method Analyzed Prepared

EPA 8015/8260 01/21/04

<u>Batch</u> 01/16/04

B4A0243

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Page 7 of 16



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Redding, California 96001

Report To:

PROFESSIONAL SERVICE INDUSTRIES

4703 TIDEWATER AVENUE SUITE B

OAKLAND, CA 94601

Attention: Project:

FRANK POSS

General Testing HEGENBERGER - 4G004

Description:

MW-3

Matrix: Water **Lab ID:** 4010344-03

4010344

01/28/04

510-434-9200

Sampled: 01/12/04 12:02 Received: 01/13/04 11:25

Lab No:

Phone:

P.O. #

Reported:

Volatile Organic Compounds

Analyte	<u>Units</u>	Results	<u>Qualifier</u>	MDL.	RL	<u>Method</u>		<u>Prepared</u>	Batch
Acetone	ug/l	- ND			250	EPA 8260	01/16/04	01/15/04	B4A0243
krylonitrile	lf	ND			250	u	n	н	
enzene	*	632	QM -4 X		25.0	v	17	. н	Ħ
Bromobenzene		ND			25.0	n	**	II	
Bromochloromethane	rt	ND			25.0	"	п	и	18
romodichloromethane	11	ND			25.0	"	н	10	H
romoform	*1	ND			25.0	rr rr	н	u	u
romomethane	et	ND			25.0	ŧı	и	10	11
2-Butanone	н	ND			250	u	14		п
<u>n</u> -Butylbenzene	н	ND			25.0	II .	u	10	н
ec-Butylbenzene	и	ND			25.0	II .	IF	31	17
ert-Butylbenzene	19	ND			25.0	11	n	11	11
Carbon disulfide	II .	ND			25.0	11		N	
Carbon tetrachloride	10	ND			25.0	**	п	н	W
hlorobenzene	n	ND			25.0	н	4	Ħ	n
hloroethane	π	ND			25.0		n	Ħ	н
Chloroethylvinyl ether	ii	ND			50.0	41	n	n	11
Chloroform	и	ND			25.0	11	**	e	#
Chloromethane	n	ND			25.0	17	u	13	n
Chlorotoluene	u	ND			25.0	"	#I	18	**
Chlorotoluene	U	ND			25.0	"	н	и	H
Dibromochloromethane	u	ND			25.0	h	н	lę.	**
1,2-Dibromo-3-chloropropane (DBCP)	п	ND			25.0	н	н	n	
2-Dibromoethane (EDB)	н	ND ND			25.0	п	n	11	Ħ
bromomethane	H	ND			25.0	п	и		O
2-Dichlorobenzene	п	ND			25.0	п	19	7	n
1,3-Dichlorobenzene	n	ND			25.0	п	и		н
1.4-Dichlorobenzene	n	ND			25.0	11	JI.	n	19
chlorodifluoromethane	н	ND			25.0	#1	at .	A	· 10
1-Dichioroethane	и	ND			25.0	"	11	11	**
1,2-Dichloroethane	lu .	ND			25.0	11	и	ď	
1,1-Dichloroethene	0	ND	•		25.0	11	N	п	n
-1,2-Dichloroethene	u u	ND			25.0 25.0	17		q	11
ans-1,2-Dichloroethene	n	ND			25.0		ı,		
chloromethane		ND					11	и	,,
1,2-Dichloropropane	π				50.0		,	н	
1,2-bichloropropane	4	ND ND			25.0 25.0	,,			
2-Dichloropropane	,,					"			
1-Dichloropropene	47	ND			25.0	H	н		
cis-1,3-Dichloropropene		ND		•	25.0		"		
	n	ND			25.0			 n	"
trans-1,3-Dichloropropene	н	ND			25.0	"			
4-Dioxane		ND			1250	"	"	,, II	" "
hylbenzene	"	ND			25.0	н			 H
Law objects to the control of the co	. "	ND			25.0	,	"	11	"
Hexachlorobutadiene	и	ND			25.0	"		_	"
2-Hexanone		ND			250	"	"	•	,
opropylbenzene	17	51.6			25.0	12		•	

Approved By

Basic Laboratory, Inc. alifornia D.O.H.S. Cert #1677

Page 8 of 16



fax **530.243.7494**

voice 530.243.7234 2218 Railroad Avenue Redding, California 96001

Report To:

PROFESSIONAL SERVICE INDUSTRIES

4703 TIDEWATER AVENUE SUITE B

OAKLAND, CA 94601

Attention:

Matrix:

FRANK POSS

Project:

General Testing HEGENBERGER - 4G004

Description:

Water

Lab ID: 4010344-03

Sampled: 01/12/04 12:02

Lab No:

Phone:

P.O. #

Reported:

Received: 01/13/04 11:25

4010344

01/28/04

510-434-9200

Volatile Organic Compounds

<u>Analyte</u>	<u>Units</u>	<u>Results</u>	Qualifier	MDL	RL.	Method	Analyze	i Prepared	<u>Batch</u>
_Di-isopropyl ether	н	ND	-		25.0	н	ar .	01/15/04	11
-Isopropyltoluene	п	ND			25.0	n	a	ıı.	19
-Methyl-2-pentanone	18	ND			250	tr.	п	II	II
Methyl tert-butyl ether	D	ND			50.0	Ħ	41	И	10
Naphthalene	16	ND			25.0	u	ti))	II
-Propylbenzene	Œ	150			25.0	71	н	п	st.
tyrene	*1	ND			25.0	u u	н	II.	a
Fert-amyl methyl ether	al .	ND			25.0	*	н	и .	#I
1,1,1,2-Tetrachloroethane	Ħ	ND		•	25.0	11	н	Œ	11
1,2,2-Tetrachloroethane	H	ND			25.0	**	14		
etrachloroethene	п	ND			25.0	Ħ	19	•	n
etrahydrofuran	H	ND			250	u	10	u	n
Tert-butyl alcohol	II	ND			2500	ц	. •	n	D
Toluene	II	26.9			25.0	II	11	II.	11
2,3-Trichlorobenzene	u	ND			25.0	u		ii .	**
2,4-Trichlorobenzene	II	ND			25.0	. п	ø	п	11
1,1-Trichloroethane	II	ND			25.0	п	π	T\$	19
1,1,2-Trichloroethane	10	ND			25.0	u	n	e e	41
 —richloroethene	U	ND			25.0	п	ur	H	**
richlorotrifluoroethane	10	ND			25.0	п	Ħ	11	11
richlorofluoromethane	ir	ND			25.0	н	я	tt.	11
1,2,3-Trichloropropane	10	ND			25.0	II	H	17	11
1,2,4-Trimethylbenzene	II	ND			25.0	п	n	47	"
3,5-Trimethylbenzene	T	ND			25.0	н	н	e e	
nyl acetate)+	ND			25.0	II	н	Ti .	et e
vinyl chloride	r	ND			25.0	11	n	**	Ħ
Xylenes (total)	U U	ND			50.0	11	п	II.	н
Eurrogate: 1,2-Dichloroethane-d4		101 %		28-	129	n	н	#	a
urrogate: Toluene-d8		97.1 %		52-	150	H	H	er .	17
urrogate: 4-Bromofluorobenzene		<i>99.9</i> %		43-	155	n	"	n	N

Approved By

Basic Laboratory, Inc. California D.O.H.S. Cert #1677



Voice 530.243.7234

2218 Railroad Avenue

laboratory fax 530.243.7494 Redding, California 96001

Report To: PROFESSIONAL SERVICE INDUSTRIES

4703 TIDEWATER AVENUE SUITE B

OAKLAND, CA 94601

Attention: FRANK POSS

Project: General Testing HEGENBERGER - 4G004

Description: MW-3

Lab ID: 4010344-03

Matrix: Water Sampled: 01/12/04 12:02

Received: 01/13/04 11:25

Lab No:

Phone:

P.O. #

Reported:

EPA 8015/8260 - Gasoline

<u>Analyte</u> Gasoline Surrogate: 4-Bromofluorobenzene <u>Units</u> ug/i

Results 3320 99.9%

Qualifier R-06

MDL

43-155

RL 2500

Method Analyzed Prepared

EPA 8015/8260 01/16/04

01/15/04

4010344

01/28/04

510-434-9200

Batch B4A0243

Approved By

Basic Laboratory, Inc. California D.O.H.S. Cert #1677

Page 10 of 16



voice 530.243.7234 2218 Railroad Avenue fax 530.243.7494 Redding, California 96001

Report To: PROFESSIONAL SERVICE INDUSTRIES

4703 TIDEWATER AVENUE SUITE B

OAKLAND, CA 94601

Attention: FRANK POSS

Project: General Testing HEGENBERGER - 4G004

Description:

Matrix: Water Lab ID: 4010344-04

Sampled: 01/12/04 10:32 Received: 01/13/04 11:25

Reported:

Phone:

P.O. #

Lab No: 4010344

01/28/04

510-434-9200

Volatile Organic Compounds

Analyte	<u>Units</u>	Results	Qualifier	MDL	RL	<u>Method</u>		<u>Prepared</u>	Batch
Acetone	ug/i	- ND			5.0	EPA 8260	01/16/04	01/15/04	B4A0243
crylonitrile	-	ND			5.0	"	10	и	н
enzene	" -	122	QM-4X, R-06		2.0	11	01/21/04	II.	II
Bromobenzene	-	ND			0.5	11	01/16/04	11	11
Bromochloromethane		ND			0.5		"	,	
romodichloromethane		ND			0.5	n			11
romoform	11	ND			0.5	n	u u	н	w
-Bromomethane	11	ND			0.5	17	11	d	п
2-Butanone	ęi	ND			5.0	11	Nr.	11	11
-n-Butylbenzene	H	ND			0.5	"		11	R
ec-Butylbenzene	II .	ND			0.5	•	H	ч	**
ert-Butylbenzene	II	ND			0.5	н	н	H	
Carbon disulfide	14	ND			. 0.5	n	. 0	н	**
_Carbon tetrachloride	19	ND			0.5	н	п	н	11
hlorobenzene	u	МD			0.5	li	h	Ħ	**
hloroethane	U	ND			0.5	u	19	Н	н
-Chloroethylvinyl ether)t	ND			1.0	н	n	I7	11
Chloroform	10	ND			0.5	ш	19	10	н
 hloromethane	TP .	ND			0.5	ш	И	19	н
-Chlorotoluene	a	ND			0.5	н	14	18	11
-Chlorotoluene	ű	ND			0.5	н			4
Dibromochloromethane	u	ND			0.5	11			п
1,2-Dibromo-3-chloropropane (DBCP)	Ħ	ND		_	0.5	11	n	II	п
2-Dibromoethane (EDB)	Ħ	ND			0.5	Я	ar .) e	н
ibromomethane	H	ND			0.5	11	11*)te	н
7,2-Dichlorobenzene	H	ND			0.5	71	11	π	19
1,3-Dichlorobenzene	91	ND			0.5		н	in .	"
4-Dichlorobenzene	Ħ	ND			0.5	11	н		10
ichlorodifluoromethane	•	ND			0.5	PF .	n	"	4
1-Dichloroethane	II II	ND			0.5	M	н		**
1,2-Dichloroethane	ŧI	4.4			0.5	п	n		**
1,1-Dichloroethene	Ħ	ND			0.5	11	н		*
s-1,2-Dichloroethene	π	ND			0.5	11	n	*	*
ans-1,2-Dichloroethene	Ħ	ND			0.5	11		н	17
Dichloromethane	II	ND			1.0	11	ď	10	19
1,2-Dichloropropane	U	ND			0.5	•	11	17	
3-Dichloropropane	n	ND			0.5	n	31	. и	4
2-Dichloropropane	. 10	ND			0.5	"	**	đ	U
1-Dichloropropene	н	ND	•		0.5	Ħ	н .	4	
cis-1,3-Dichloropropene	n n	ND			0.5	H	Ħ	u	*
trans-1,3-Dichloropropene	11	ND			0.5	II .	п	**	
4-Dioxane	III	ND			25.0	II .	н	н	**
thylbenzene	11	0.6			0.5	U	n	**	"
Ethyl tert-butyl ether	41	ND			0.5	н	н	n	H
Hexachlorobutadiene	11	ND	•		0.5	tt	н	e 1	ır
Hexanone	11	ND			5.0	II .	н	н	**
opropylbenzene	37	4.5			0.5	II.	н	н	· 11
		710			4.4				

Approved By

Basic Laboratory, Inc.

California D.O.H.S. Cert #1677 Page 11 of 16



fax 530.243.7494

value 530.243.7234 2218 Railroad Avenue Redding, California 96001

Report To:

PROFESSIONAL SERVICE INDUSTRIES

4703 TIDEWATER AVENUE SUITE B

OAKLAND, CA 94601

Attention:

FRANK POSS

Project: General Testing HEGENBERGER - 4G004

Description:

Lab ID: 4010344-04

Sampled: 01/12/04 10:32 Received: 01/13/04 11:25

Phone:

P.O. #

Reported:

Lab No: 4010344

01/28/04

510-434-9200

Matrix: Water

/olatile Organic Compounds

<u>Analyte</u>	<u>Units</u>	Results	Qualifier	MDL	RL	<u>Method</u>	Analyzed	l Prepared	<u>Batch</u>
i-Isopropyl ether	11	- ND	•		0.5	u	u u	01/15/04	ŧi
-Isopropyltoluene	ęi .	ND			0.5	"	и	n'	n
-Methyl-2-pentanone	B	ND			5.0	n	10	п	н
Methyl tert-butyl ether	n	ND			1.0	н	II.	11	11
Naphthalene	18	ND			0.5	Ħ	10	н	14
-Propylbenzene	π	ND			0.5	II .	n	17	19
tyrene	Ħ	ND			0.5	п	¥	R	10
Tert-amyl methyl ether	u	ND			0.5	ji ji	Ħ	11	II.
1,1,1,2-Tetrachloroethane	#I	ND			0.5	ш	ធ	n	
1,2,2-Tetrachloroethane	H	ND			0.5	H		ч	IT
etrachloroethene	TI .	ND			0.5	н	Ħ	n) (
etrahydrofuran	Ħ	ND			5.0	n	14	Ħ	**
Tert-butyl alcohol	н	ND			50.0	н	, n	M	11
Toluene	Ħ	13.5			0.5		11	H	n
,2,3-Trichlorobenzene	ш	ND			0.5	**	n	ff	11
,2,4-Trichlorobenzene	н	ND			0.5	"	11		п
1,1,1-Trichloroethane	N	ND			0.5	н	11	11	•
1,1,2-Trichloroethane	n	ND			0.5		ıt	n	
richloroethene	и	ND			0.5	•	1f	111	*1
richlorotrifluoroethane	и	ND			0.5	и	11	π	P
richlorofluoromethane	и ,	ND			0.5	"	Ħ	11	H
1,2,3-Trichloropropane	10	ND			0.5		II.	11	
_1,2,4-Trimethylbenzene	II.	ND		,	0.5		17	1(2
,3,5-Trimethylbenzene	10	7.2			0.5	м	1(n	п
inyl acetate	10	ND			0.5	п	11	π	
Vinyi chloride	10	ND			0.5	Ð	11	16	n
Xylenes (total)	10	8.8			1.0	H	11	11-	
urrogate: 1,2-Dichloroethane-d4		80.3 %		28	129	n	•	. 11	и
urrogate: Toluene-d8		98.7 %		<i>52</i>	150	M	. "	ır	n
urrogate: 4-Bromofluorobenzene		104 %		43	155	n	π	"	



voice 530.243.7234 2218 Railroad Avenue fax 530.243.7494

Redding, California 96001

Report To:

PROFESSIONAL SERVICE INDUSTRIES

4703 TIDEWATER AVENUE SUITE B

OAKLAND, CA 94601

Attention: FRANK POSS

Project: General Testing HEGENBERGER - 4G004

Description:

Matrix: Water Lab ID: 4010344-04

Sampled: 01/12/04 10:32 Received: 01/13/04 11:25

Lab No:

Phone:

P.O. #

Reported:

PA 8015/8260 - Gasoline

Analyte

<u>Results</u> 699

Qualifier

MDL

RL

Method Analyzed Prepared

EPA 8015/8260 01/21/04

01/15/04

4010344

01/28/04

510-434-9200

Batch B4A0243

asoline urrogate: 4-Bromofluorobenzene <u>Units</u> ug/l

104 %

D-06

200 43-155

01/16/04

Approved By

Basic Laboratory, Inc. California D.O.H.S. Cert #1677

Page 13 of 16



DASIC voice to be a fax 53

voice 530.243.7234 2218 Railroad Avenue fax 530.243.7494 Redding, California 96001

Report To: PROFESSIONAL SERVICE INDUSTRIES

4703 TIDEWATER AVENUE SUITE B

OAKLAND, CA 94601

Attention: FRANK POSS

Project: General Testing HEGENBERGER - 4G004

Description: MW-5

Matrix: Water

Lab No:

4010344 01/28/04

Reported: Phone:

510-434-9200

P.O. #

Sampled: 01/12/04 10:55

Received: 01/13/04 11:25

Yolatile Organic Compounds

<u>Analyte</u>	<u>Units</u>	<u>Results</u>	<u>Qualifier</u>	MDL	RL	Method		Prepared	<u>Batch</u>
Acetone	ug/l	- ND			5.0	EPA 8260	01/16/04	01/15/04	B4A0243
crylonitrile	•	ND			5.0	II .	II.	ч	
enzene	¥f	4.2	QM -4 X		0.5	II	H	п	н
Bromobenzene	н	ND			0.5	II			ų.
Bromochloromethane	п	ND			0.5	#1	It	π	e
romodichloromethane	н	ND			0.5	и	et .	ď	**
romoform	и	ND			0.5	11	п	н	н
romomethane	17	ND			0.5	er		Ü	11
2-Butanone	•	ND			5.0	n	It	п	н
n-Butylbenzene	π	6.8			0.5	**	4	и	14
ec-Butylbenzene	n	3.6			0.5	17	m m	и	10
rt-Butylbenzene	10	ND			0.5	п	Ħ	lF .	HT .
Carbon disulfide	e	ND			0.5	II	n .	10	ŧr
Carbon tetrachloride		ND			0.5	11	n n		п
hlorobenzene	· ·	ND			0.5	41	11		
hloroethane	ti	ND			0.5	11	n	н	8
Chloroethylvinyl ether	11	ND			1.0	H	14		e
Chloroform	п	ND			0.5	и	19	II .	
Chloromethane	4	ND			0.5	Ħ	11	11	rt
Chlorotoluene	н	ND			0.5	11	10	at .	Ħ
Chlorotoluene	и	ND			0.5	47	п	41	u
Dibromochloromethane	u	ND			0.5		er e	н	п
1,2-Dibromo-3-chloropropane (DBCP)	н	ND			0.5		n		п
2-Dibromoethane (EDB)	tr	ND		•	0.5	tı		ti	IJ
bromomethane	π	ND			0.5	н	н	H	н
2-Dichlorobenzene	Ħ	ND			0.5	11	19	в	14
1,3-Dichlorobenzene	п	ND			0.5	17	19	ш	п
1.4-Dichlorobenzene	H	ND			0.5	n	18	u)s
chlorodifluoromethane	D	ND			0.5	II .	11	ш	a
1-Dichloroethane	11	ND			0.5	II .	п	н	
1,2-Dichloroethane	78	ND			0.5 0.5		**		
1,1-Dichloroethene		ND ND	•		0.5		 11		er.
1,1-Dichloroethene	n n					"		b	ur
ins-1,2-Dichloroethene	 N	ND			0.5	**			n
Achioromethane	н	ND			0.5		,,	 D	
	 H	ND			1.0		"		
l,2-Dichloropropane	п	ND			0.5		"		
3-Dichloropropane		ND			0.5		"		
2-Dichloropropane		ND			0.5		и		
1-Dichloropropene		ND			0.5	_		-	**
:ls-1,3-Dichloropropene	"	ND			0.5				
rans-1,3-Dichloropropene		ND			0.5	ıt.		**	"
4-Dioxane		ND			25.0	11	i t	# 	"
hylbenzene		0.6			0.5	"	#1		н
thyl tert-butyl ether	11	ND			0.5	•	п	**	н
lexachlorobutadiene	11	ND			0.5	n			н
Hexanone		ND			5.0	"	п	н	19
opropylbenzene	a	16.6			0.5	P	•	н	И

Lab ID: 4010344-05

Approved By

Basic Laboratory, Inc. alifornia D.O.H.S. Cert #1677

Page 14 of 16



mod.da.bisad.www.

voice 530.243.7234 2218 Railroad Avenue

fax 530,243,7494

Redding, California 96001

Report To:

PROFESSIONAL SERVICE INDUSTRIES

4703 TIDEWATER AVENUE SUITE B

OAKLAND, CA 94601

Attention:

Project:

Matrix:

FRANK POSS

Description:

Water

General Testing HEGENBERGER - 4G004

Lab ID: 4010344-05

Sampled: 01/12/04 10:55

Received: 01/13/04 11:25

Lab No:

Phone:

P.O. #

Reported:

4010344

01/28/04

510-434-9200

olatile Organic Compounds

Analyte	<u>Units</u>	Results	Qualifier	MDL	DI	Motherd	Amalumad	Duamanad	Dabak
	<u> 711172</u>		Qualiner	PIDL	RL	Method	Analyzeg	Prepared	<u>Batch</u>
Di-isopropyl ether Isopropyltoluene		- ND			0.5	и		01/15/04	
Methyl-2-pentanone	1f	ND			0.5				
Methyl tert-butyl ether	#	ND			5.0		"		н
Naphthalene	t i	ND			1.0			#1	
Propylbenzene		ND			0.5			" "	.,
vrene	11	17.0 ND			0.5	"		"	
Tert-amyl methyl ether	ıı.	ND DND			0.5		,, H	"	
1,1,1,2-Tetrachloroethane	II				0.5			"	"
1,1,1,2-Tetrachloroethane	Ħ	ND ND			0.5			,	"
etrachioroethene	н	ND ND			0.5	 a	ur		
etrahydrofuran	II	ND ND			0.5				.,
Tert-butyl alcohol	19	ND ND			5.0				
Toluene	19	8.0			50.0	 H			
2,3-Trichlorobenzene	11	8.U ND			0.5				 D
2,4-Trichlorobenzene	11	ND ND			0.5				
1,1,1-Trichloroethane	ır.	ND ND			0.5		11	,,	 N
1,1,2-Trichloroethane	v	ND ND			0.5 0.5	H	4	u	11
Tichloroethene	и	ND ND			0.5	,,	a		
ichlorotrifluoroethane	n	ND ND			0.5	H	rt	n	
ichlorofluoromethane	11	ND ND			0.5		н	н	n
1,2,3-Trichloropropane	11	ND ND			0.5 0.5	н	н	н	tt
1,2,4-Trimethylbenzene	at .	ND			0.5	п	ø	н	tt
3,5-Trimethylbenzene	II .	16.8			0.5		н		H
hyl acetate	ч	ND			0.5 0.5		п	н	n
Vinyl chloride	н	ND			0.5				н
Xylenes (total)	п	12.8			1.0	n			n
murogate: 1,2-Dichloroethane-d4		66.9 %		30	1.0 129		 	ıi	n
urogate: Toluene-d8		96.9 %			129 150	н		u	u
urrogate: 4-Bromofluorobenzene		90.9 % 91.7 %				 #	,,	,,	p
rugate, Turumundonducizene		71./ 70		4 3•.	155		-		



laboratory

voice 530,243,7234

fax 530.243.7494

2218 Railroad Avenue Redding, California 96001

Report To:

PROFESSIONAL SERVICE INDUSTRIES

4703 TIDEWATER AVENUE SUITE B

OAKLAND, CA 94601

Attention:

FRANK POSS

Project:

Matrix:

General Testing HEGENBERGER - 4G004

Description:

MW-5 Water

Lab ID: 4010344-05

Sampled: 01/12/04 10:55

4010344

01/28/04

510-434-9200

Received: 01/13/04 11:25

Lab No:

Phone:

P.O. #

Reported:

FPA 8015/8260 - Gasoline

Analyte

asoline

<u>Units</u> ug/l

Results 1820 91.7%

<u>Oualifier</u> R-06

MDL

RL 500

Method EPA 8015/8260

Analyzed Prepared 01/16/04 01/16/04

01/15/04

B4A0243

urrogate: 4-Bromofluorobenzene

43-155

Batch

Notes and Definitions

D-06

The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

QM-4X

The spike recovery was outside of QC acceptance limits for the MS and/or MSD due to the analyte concentration being greater than 4 times the spike concentration. The QC batch was accepted based on LCS and/or LCSD

recoveries within the acceptance limits. Quantitation limit raised; dilution required.

R-06 DET

Analyte DETECTED

ND Analyte NOT DETECTED at or above the detection limit

Not Reported

NR Sample results reported on a dry weight basis ďγ

RPD Relative Percent Difference

Less than reporting limit

Less than or equal to reporting limit

Greater than reporting limit

Greater than or equal to reporting limit

MDL

Method Detection Limit

RL/ML MCL/AŁ Minimum Level of Quantitation

mg/kg

Maxium Contaminant Level/Action Level Results reported as wet weight

TLC

Total Threshold Limit Concentration

STLC

Soluble Threshold Limit Concentration Toxicity Characteristic Leachate Procedure

Basic Laboratory, Inc. alifornia D.O.H.S. Cert #1677

Page 16 of 16

BASIC LABORATORY CHAIN OF CUSTODY RECORD									LAB #	¥:		
2218 Railroad Ave., Redding, CA 96001 (5		243-7234 FAX (530) 243-7494							40	4010344 SAMPLE TYPE:		
CLIENT NAME:		ECT NAM	-			4 .	JECT #			PLE TYPE:		
PSI ADDRESS: On File		tege	<u>~</u> be	rge				04				
ADDRESS:		ESTED (<u>:</u>	STA	TE FOR	RMS?	# OF SAMPLES:			
ON FILE	/	1-27	- () t	† _		<u> </u>		<u> </u>		_5		
	TURN	AROUN	D TIME	E: STI		R	ush [PA	GEOF		
			Al	VALYS	IS REQI	JESTE	D					
ROJECT MANAGER:		19								REP:		
Frank Poss THONE: FAX: E-MAIL:	#	MTB							į	ID#:		
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INVOICE TO: PO#:		4/2								SYSTEM#:		
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DATE TIME R P L SAMPLE DESCRIPTION		(ථ							LAB ID	REMARKS		
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PRESERVED WITH: HNO ₃ H ₂ SO ₄ NaOH ZnAce/	NaOH	HCL [<u>~</u>	NaThi		UTI	l <u>l</u> IER		1			
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Brian Stozek DATE/TIME: 1/12/04 de	y 3	rida	Sto	zek					1/1	2/04 / 200		
RECEIVED BY: DATE/TIME:	REĽIN	IQUISHE	O BY:						DATE	/TIME:		
ECEIVED BY: (SAMPLES UNVERIFIED) DATE/TIME:	RELIN	QUISHE	D BY:					<u>-</u>	DATE	/TIME:		
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RECEIVED BY LAB: (VERIFIED) OATESTIME: 11.25	SAMP	LES SHIF	PED	VIA: (JPS F	EDE>	(PO	ST BL	IS O	THER		
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