STATE OF CALIFORNIA—BUSINESS, TRANSPORTATION AND HOUSING AGENCY GRAY DAVIS, Governor

DEPARTMENT OF TRANSPORTATION
BOX 23660
OAKLAND, CA 94623-0660
(510) 286-4444
TDD (510) 286-4454

2189 / RO225

Alameda County
DEC 18 2002
Environmental Health

December 13, 2002

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

SUBJECT: Report review for the third quarter 2002 groundwater monitoring report on Caltrans Former Maintenance station at 555 Hegenberger Road , Oakland, California

Dear Mr. Chan:

Please find attached a copy for the third quarter 2002 groundwater monitoring report, Workplan, and the Health and Safety Plan on Caltrans former maintenance station at 555 Hegenberger Road, Oakland California. This document summarizes the results found at the site from samples taken from the Five monitoring wells. Based on the low level of TPH-d in the groundwater and that it does not match a diesel pattern, PSI recommends that TPH-d testing be terminated at the site. Please forward your comments to us regarding the contractor's recommendations.

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

Ray Boyer

RAY BOYER
District Branch Chief
Office of Environmental Engineering

Attachments

Cc: Rboyer, File

Caltrans
CALIFORNIA DEPARTMENT OF TRANSPORTATION

District 4, Office of
Environmental Engineering
Mail Station 6
111 Grand Avenue
94612/Mail: P.O. 23660
Oakland, CA 94623-0660

Bahram Sazegar, P.E.
Transportation Engineer
Hazardous Waste

510.286.5643
Calnet 8.541.5643
Fax 510.286.5728
bahram_sazegar@dot.ca.gov

THIRD QUARTER 2002 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

December 5, 2002
575-2G020

TABLE OF CONTENTS

FIGURES

TABLES

APPENDICES

STATEMENT OF LIMITATIONS AND PROFESSIONAL CERTIFICATION

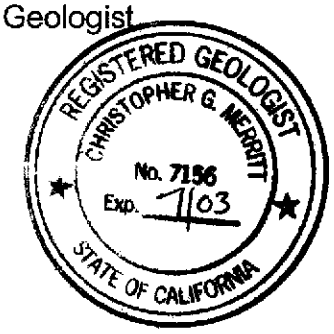
Information provided in Professional Services Industries, Inc., (PSI) report number 575-2G028 is intended exclusively for the California Department of Transportation (Caltrans) for the evaluation of groundwater contamination as it pertains to the subject site. PSI is responsible for the facts and accuracy 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, REA
Senior Hydrogeologist

Chris Merritt

Chris Merritt, RG (7156)
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:

- Redevelopment of Existing Wells, if impaired by sedimentation,
- Collection of groundwater samples from five on-site monitoring wells for three episodes of semi-annual sampling,
- 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. Over excavation was completed to remove, to the extent feasible, residual petroleum hydrocarbons impacting the soil. Soil sampling conducted following the completion of the excavation 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, if present. 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 and were discontinued. TPH as Gasoline (TPH-G) and TPH as Diesel (TPH-D) have been detected in all the monitoring wells at some point in the sampling process. 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.

When no consistent attenuation of the contaminant concentrations was reported, the Alameda County Department of Environmental Health Services (ADEHS) requested semi-annual monitoring. The March 30, 2001 quarterly monitoring indicated that MTBE was no longer present above laboratory detection limits. As a result, the ACDEHS stated that MTBE was no longer a contaminant of concern.

As a result of the 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.

Data obtained from previous investigations is included in Appendix A.

2.0 GROUNDWATER MONITORING ACTIVITIES

2.1 GROUNDWATER ELEVATION AND HYDRAULIC GRADIENT

On September 30, 2002, 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 groundwater data does not support a specific flow direction, as the highest water level is in the middle of the site. Additionally, the site has not been surveyed to a specific datum. **PSI recommends that the site be re-surveyed for submittal to the Geotracker Program with the State Water Resources Board.**

On September 27, 2002, PSI redeveloped the groundwater wells. The wells were initially purged dry in the morning, and then purged dry again in the afternoon. The amount of water purged was between 3 and 9 casing volumes.

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 equipment was washed prior to entering the well with an Alconox solution, followed by two tap water rinses and 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 polyethylene bailer.

4. Water samples were collected with a single-use polyethylene bailer 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.

5. 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 48-hours of collection.

7. Purged water was contained in a DOT approved 55-gallon drum. The drum was 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 8015 modified - Total Petroleum Hydrocarbons as Diesel (TPH-D);
- EPA 8260 - Volatile Organic Compounds (VOCs) including MTBE.

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 exception of MW-2 with the highest concentration being detected in MW-3 at 2,020 micrograms per liter (ug/l).

- TPH-D was detected in samples MW-3 and MW-5 at 568 and 426 ug/l. respectively. The laboratory listed the TPG-D concentration as being a non-typical diesel pattern. The detected TPH-D might be calculated from the heavy hydrocarbon fraction of gasoline.

- Numerous VOC compounds were detected in groundwater samples MW-1, MW-3, and MW-5. The concentrations were compared to each of the compounds State of California Primary Drinking Water Standard with only benzene found to be greater than its respective PDWS. Benzene concentrations in MW-1, MW-3, and MW-5 were above the PDWS for benzene of 1 ug/L. The highest benzene concentration detected was in MW-3 at 775 ug/L. The distribution of benzene is shown in Figure 3. The **benzene-impacted groundwater has not been defined to the northwest.**

- None of the groundwater samples contained detectable concentrations of MTBE.

3.0 SUMMARY AND CONCLUSIONS

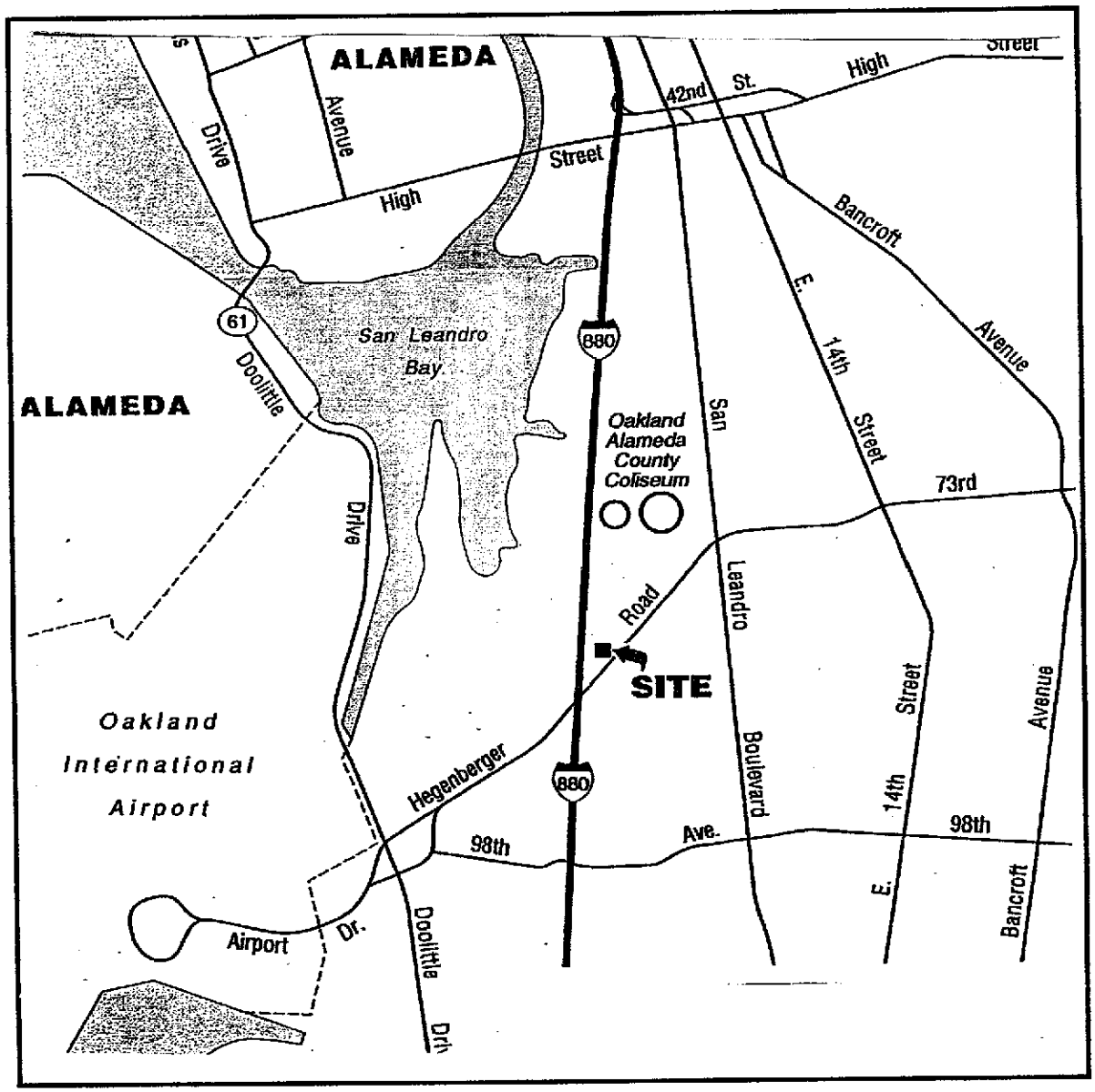
PSI performed groundwater-monitoring activities on September, 2002. The results of the monitoring event are summarized below.

- TPH-G was detected in all of the groundwater samples with the exception of MW-2 with the highest concentration being detected in MW-3 at 2,020.
- TPH-D was detected in samples MW-3 and MW-5 at 568 and 426 ug/l. respectively.
- Benzene is the primary contaminant of concern at the site. Benzene concentrations were detected above the PDWS in 3 groundwater samples. The benzene-impacted groundwater has not been defined to the northwest.

4.0 RECOMMENDATIONS

Based on the benzene concentration being above the PDWS, PSI recommends that additional semi-annual monitoring continue for the site. Based on the low level of TPH-D in the groundwater and that it does not match a diesel pattern, PSI recommends that TPH-D testing be terminated at the site. [redacted]

[redacted]

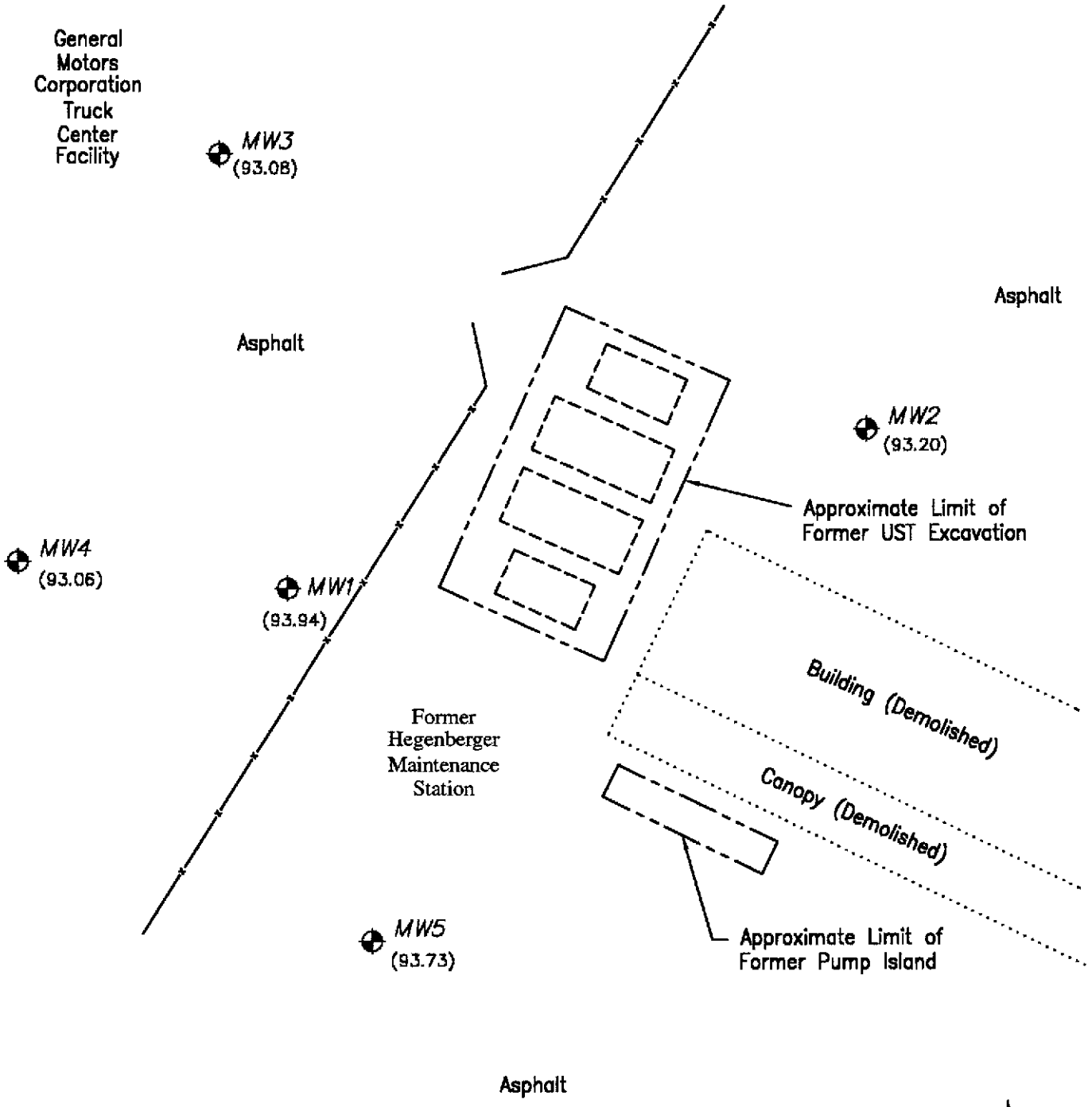


NORTH

0 1/2 1 MILE

SCALE

psi Information To Build On Engineering • Consulting • Testing	4703 Tidewater Avenue, Suite B Oakland, California 94601 (510) 434-9200			
Project Name: FORMER CALTRANS MAINTENANCE STATION 666 HEGENBERGER ROAD, OAKLAND, CA		Drawn By: B.S.	Date: 9/02	File No.: 2G020-01
Title: SITE LOCATION MAP		Approved By: F.P.	Project No.: 575-2G020	Figure No.: 1



LEGEND:

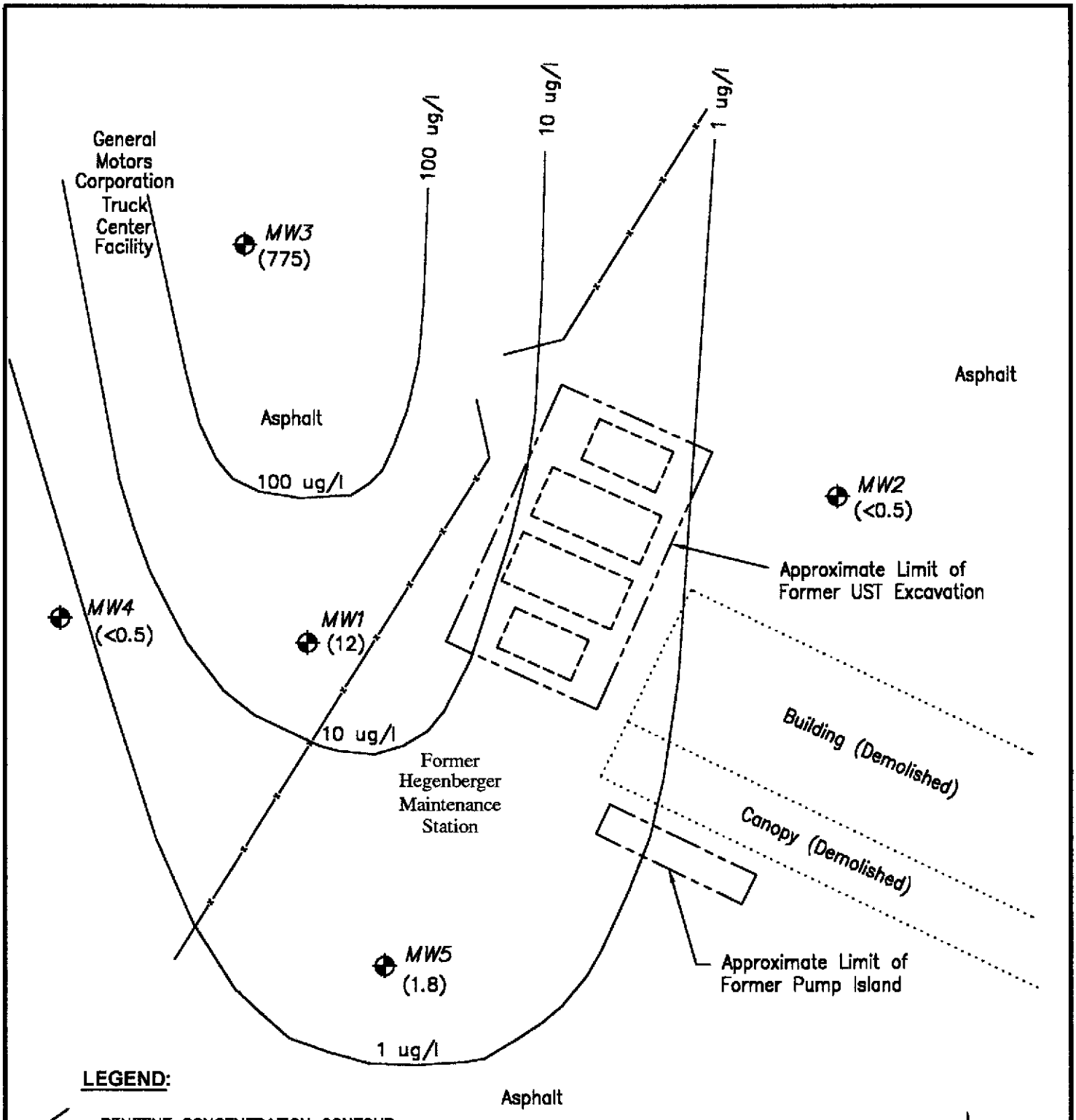
MW5
(93.73) — GROUNDWATER MONITORING WELL LOCATION (GROUNDWATER ELEVATION GIVEN IN FEET MSL)

LOCATION OF FORMER UST

NORTH

0 5' 10' 20.0'
Approx. Scale: 1"=20'

PSI Information To Build On Engineering • Consulting • Testing	4703 Tidewater Avenue, Suite B Oakland, California 94601 (510) 434-9200			
Project Name: FORMER HEGENBERGER MAINTENANCE STATION 666 HEGENBERGER ROAD, OAKLAND, CALIFORNIA	Drawn By: B.S.	Date: 12/02	File No.: 2G020-002	Figure No.: 2
Title: GROUNDWATER ELEVATION MAP (9/30/02)	Approved By: F.P.	Project No.: 575-2G020		



LEGEND:

– BENZENE CONCENTRATION CONTOUR (IN MICROGRAMS PER LITER (ug/l))

(1.8) – CONCENTRATION (ug/L) OF BENZENE DETECTED IN GROUNDWATER SAMPLES

GROUNDWATER MONITORING WELL LOCATION

LOCATION OF FORMER UST

NORTH

0 5' 10' 20.0'

Approx. Scale: 1"=20'

psi Information To Build On
Engineering • Consulting • Testing

4703 Tidewater Avenue, Suite B
Oakland, California 94601
(510) 434-9200

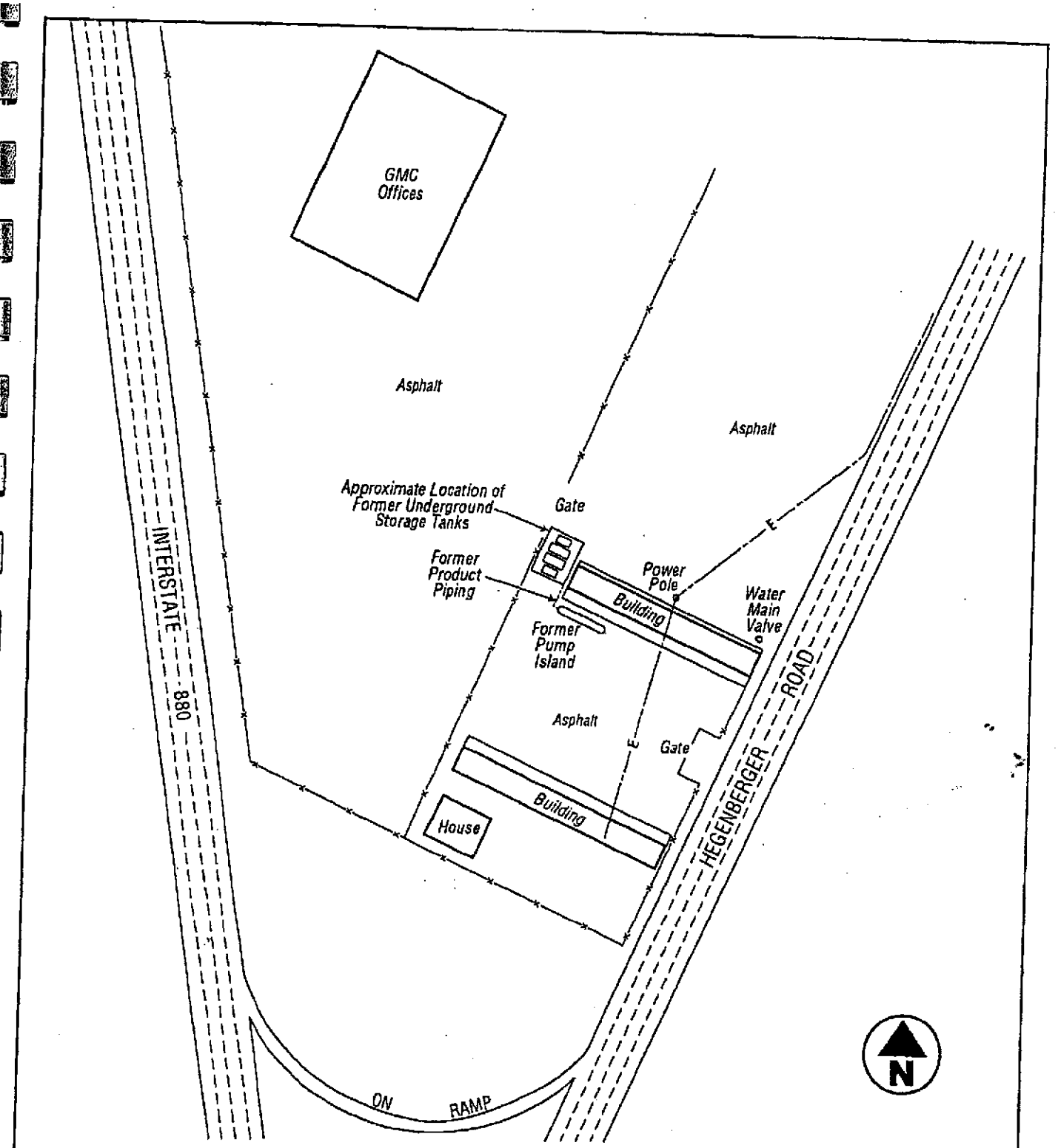
Project Name	Drawn By	Date	File No.	Figure No.
FORMER HEGENBERGER MAINTENANCE STATION 555 HEGENBERGER ROAD, OAKLAND, CALIFORNIA	B.S.	10/02	2C020-002	3
Title: BENZENE CONCENTRATION MAP (9/30/02)	Approved By: F.P.	Project No.: 575-2C020		

TABLE 1

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

Sample I.D.	Date	TOC Elevation (feet msl)	Depth To Ground water (feet)	Ground water Elevation (feet msl)	TPH-G	TPH-D	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE
MW-1	9/30/02	99.73	5.79	93.94	**592**	<50	**12**	**2.7**	<0.5	**1.6**	<0.5
MW-2	9/30/02	99.68	6.48	93.20	<50	<50	<0.5	<0.5	<0.5	<1.5	<0.5
MW-3	9/30/02	98.92	5.84	93.08	**2,020**	**568**	**775**	**17.2**	**1.0**	**9.4**	<0.5
MW-4	9/30/02	99.46	6.4	93.06	**67**	<50	<0.5	<0.5	<0.5	<1.5	<0.5
MW-5	9/30/02	99.91	6.18	93.73	**562**	**426**	**1.8**	**5.2**	<0.5	**6.5**	<0.5

Notes:
TOC = Top of casing elevation
MSL = Mean Sea Level
< = Less than laboratory test method detection limits
MTBE = Methyl tert-butyl ether
TPH-G = Total petroleum hydrocarbons as gasoline
TPH-D = Total petroleum hydrocarbons as diesel
Al results are presented in micrograms per liter (ug/L)

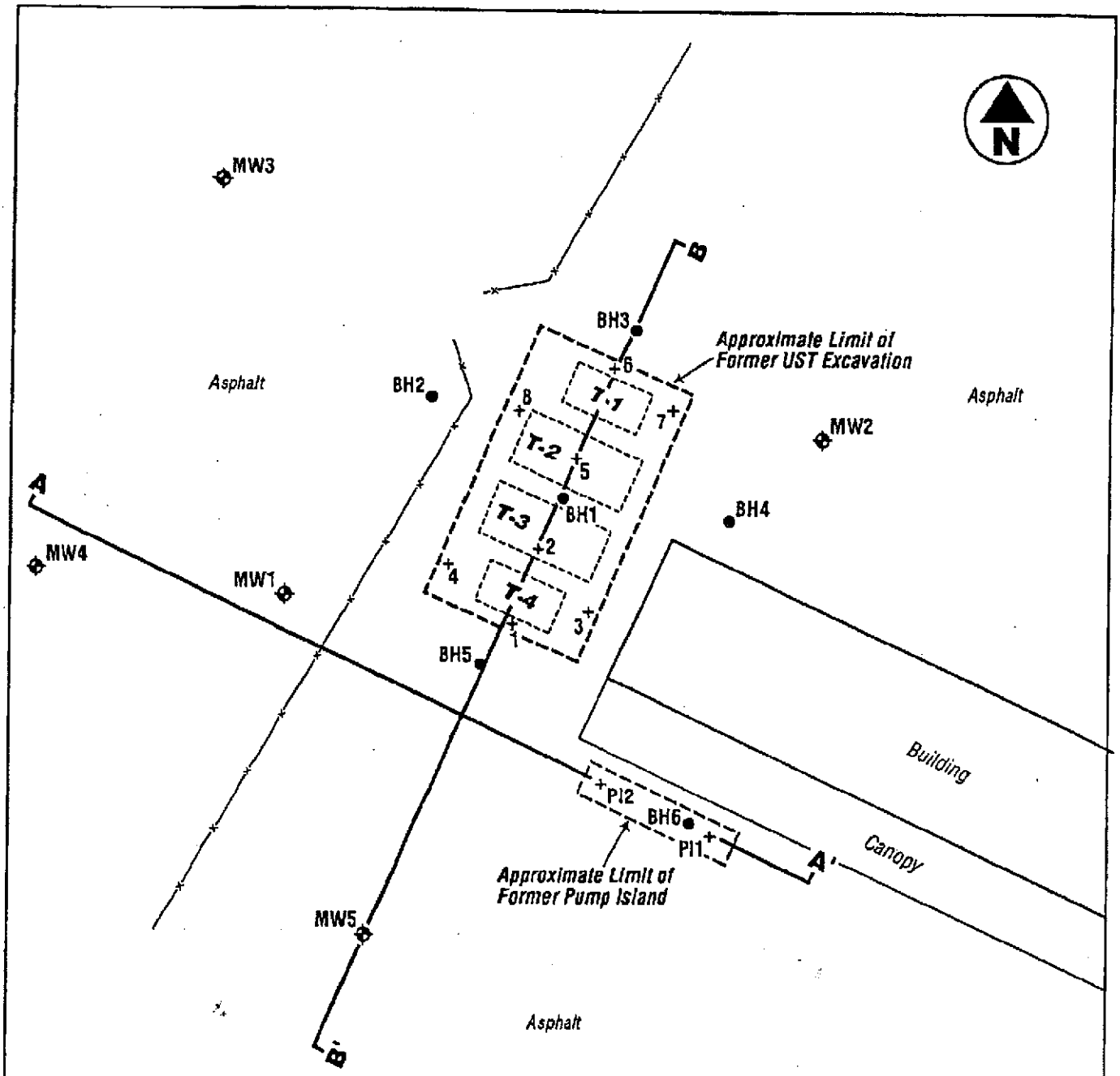


NOT TO SCALE

GEOCON

ENVIRONMENTAL CONSULTANTS INCORPORATED
3235 SUNRISE BLVD. – SUITE G – RANCHO CORDOVA, CALIFORNIA 95742
PHONE 916 852-9118 – FAX 916 852-9132

Hegenberger Maintenance Station		
555 Hegenberger Road Oakland, California	**SITE PLAN**	
GEOCON Proj. No. S8100-06-34		
Task Order No. 04-5T9000-01	January 1996	Figure 2



LEGEND:

- Location of Former UST
- $^{1}+$ Approximate Location of UST & Product Line Removal Grab Soil Samples, GHH Engineering, Sept. 94
- BH1 ● Location of Soil Boring, GEOCON, Sept. 95
- MW1 ◈ Location of Groundwater Monitoring Well, GEOCON, Sept. 95
- A — A' Cross Section A - A'
- B — B' Cross Section B - B'

0 20
Scale in Feet

GEOCON
ENVIRONMENTAL CONSULTANTS INCORPORATED
3295 SUNRISE BLVD. – SUITE 6 – RANCHO CORDOVA, CALIFORNIA 95742
PHONE 916 852-9118 – FAX 916 852-9132

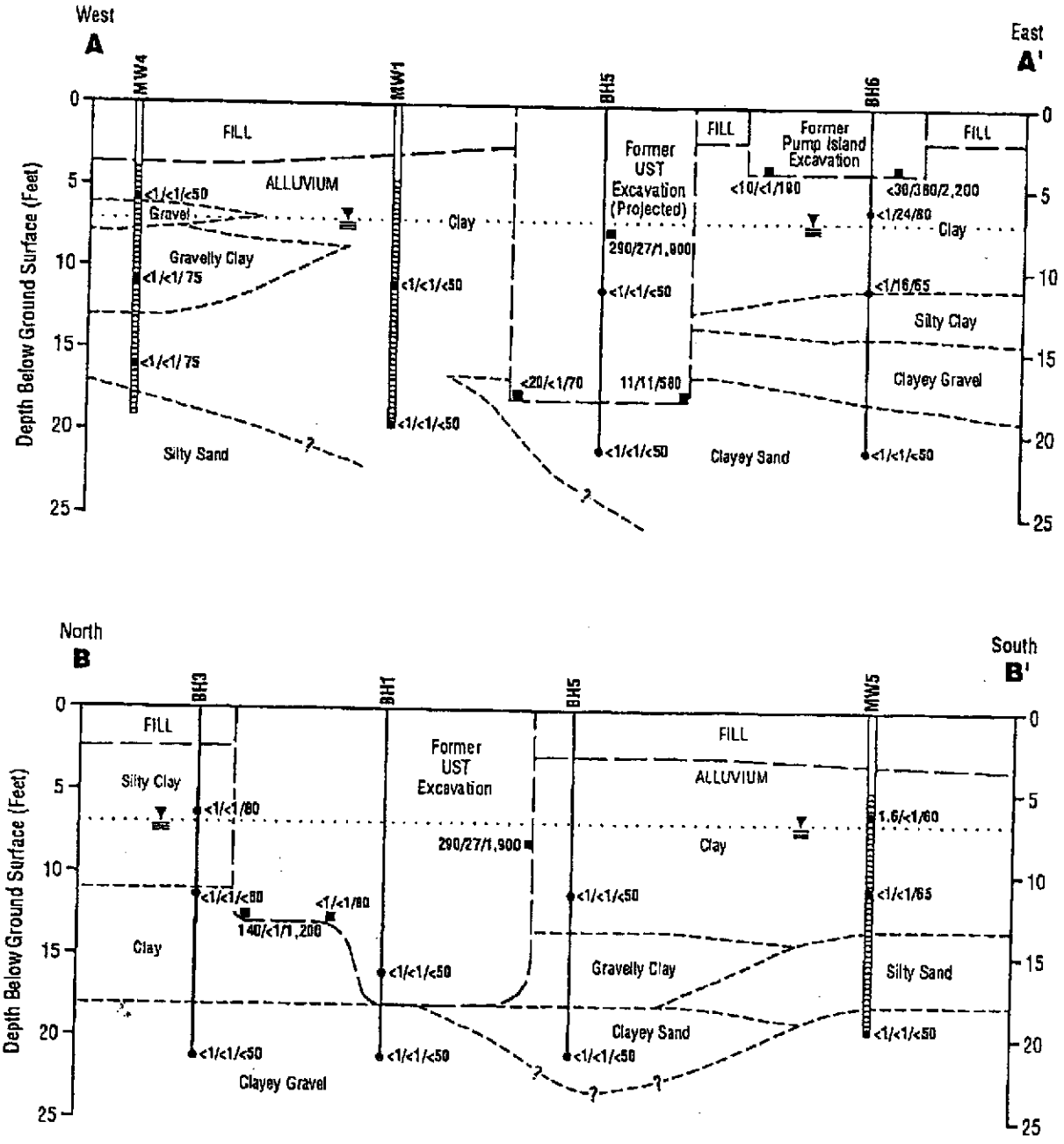
Hegenberger Maintenance Station

555 Hegenberger Road
Oakland, California

SOIL BORING AND WELL LOCATIONS

GEOCON Proj. No. S8100-06-34

Task Order No. 04-5T9000-01 | January 1996 | Figure 3



LEGEND:

- BH3 — Boring Location
- <1/<1/<50 — Concentration of TPHg/TPHd/O & G in Mg/Kg (ppm)
- Excavation Grab Soil Sample Location
- Approximate Depth to Groundwater
- Approximate Geologic Contact
- Approximate Stratigraphic Contact

TPHg = Total Petroleum Hydrocarbons as Gasoline
TPHd = Total Petroleum Hydrocarbons as Diesel
O & G = Oil & Grease

Scale: 1" = 20' (Horizontal)
1" = 10' (Vertical)

GEOCON
ENVIRONMENTAL CONSULTANTS INCORPORATED
3235 SUNRISE BLVD. - SUITE 6 - RANCHO CORDOVA, CALIFORNIA 95742
PHONE 916 852-9118 - FAX 916 852-9132

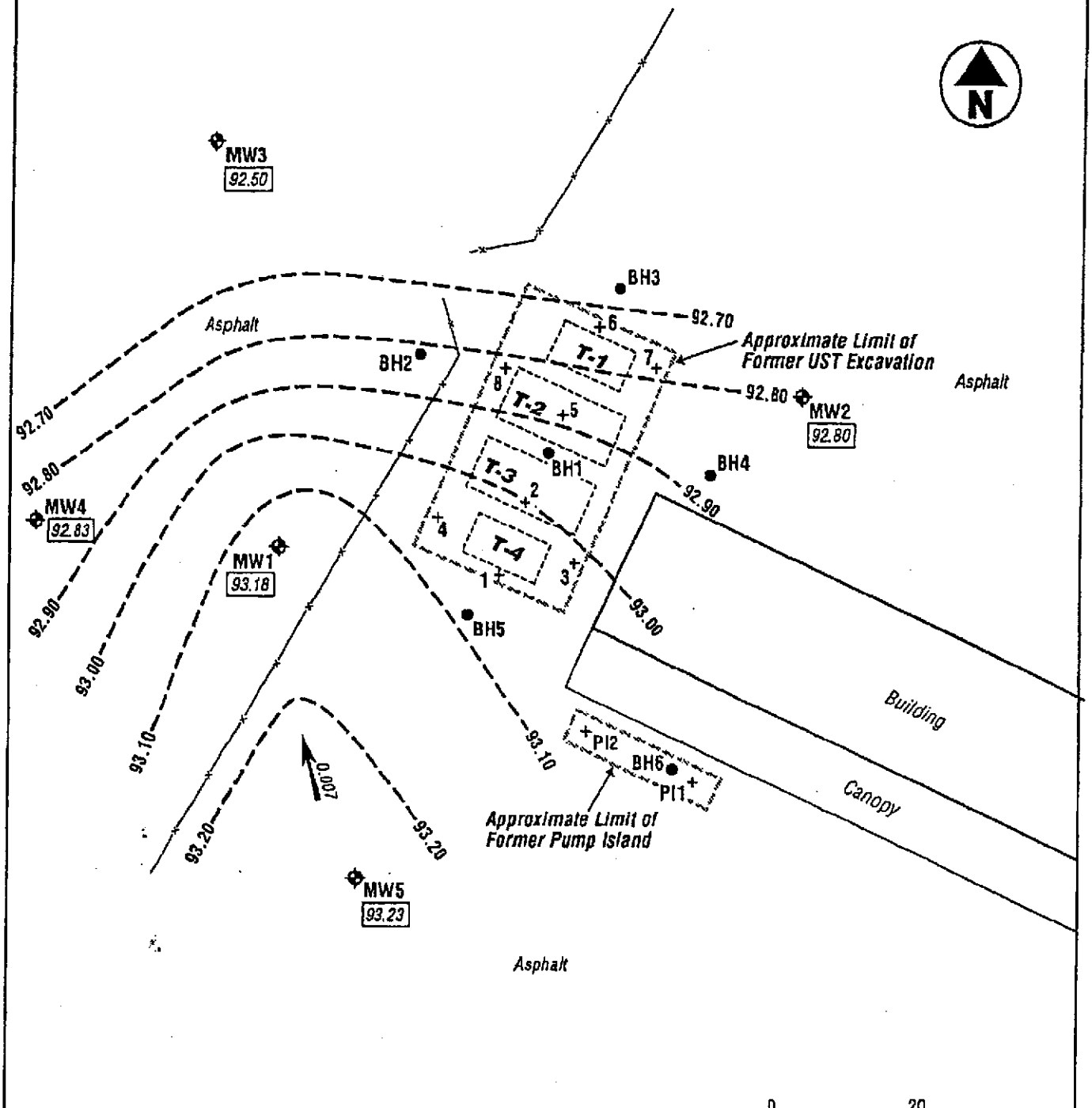
Hegenberger Maintenance Station

555 Hegenberger Road
Oakland, California

CROSS SECTIONS
A-A' / B-B'

GEOCON Proj. No. S8100-06-34

Task Order No. 04-5T9000-01 | January 1996 | Figure 4



GEOCON

ENVIRONMENTAL CONSULTANTS INCORPORATED
3235 SUNRISE BLVD. - SUITE G - RANCHO CORDOVA, CALIFORNIA 95742
PHONE 916 852-9118 - FAX 916 852-9132

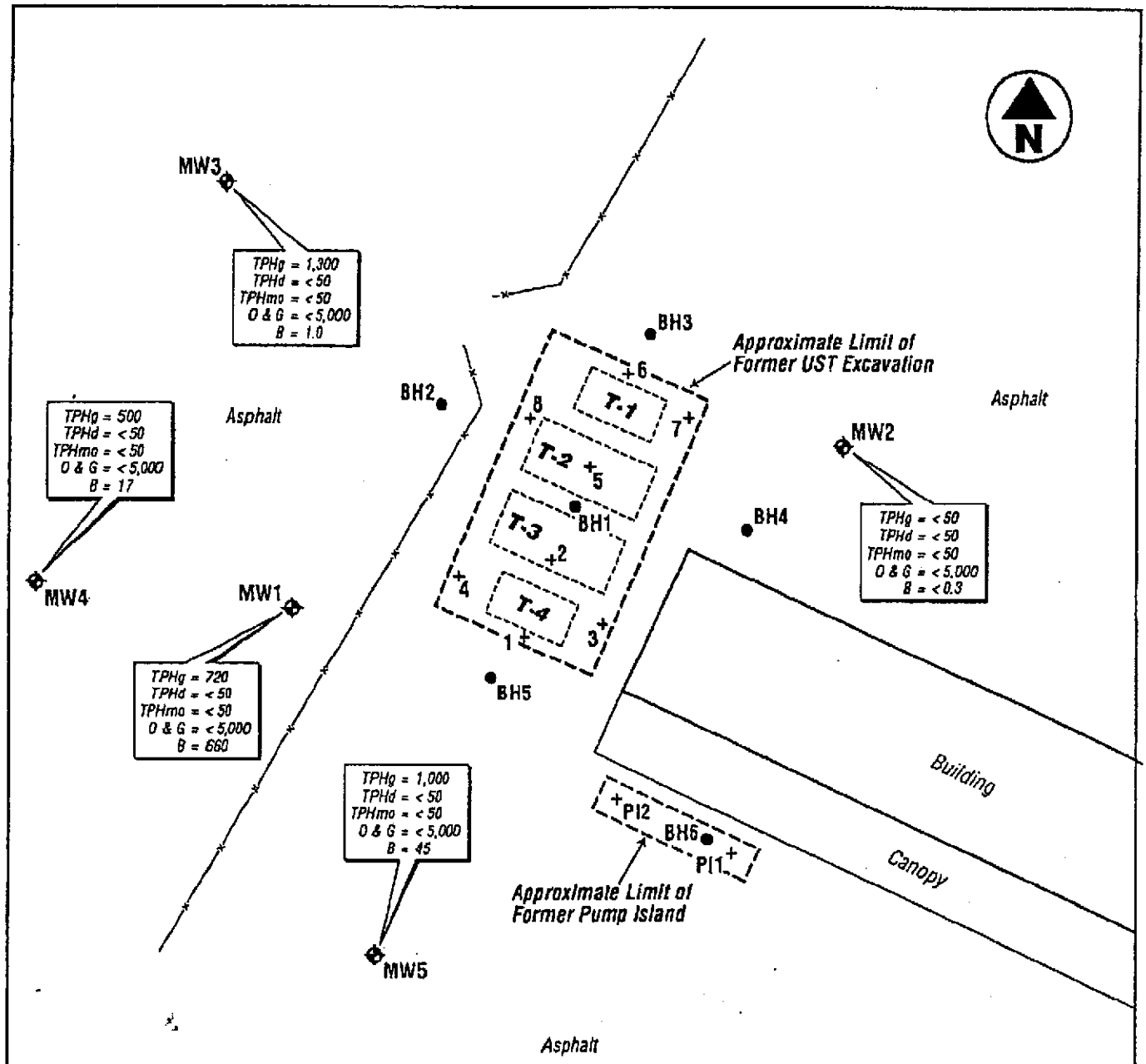
Hegenberger Maintenance Station

555 Hegenberger Road
Oakland, California

GROUNDWATER ELEVATION MAP - 10/11/95

GEOCON Proj. No. S8100-06-34

Task Order No. 04-5T9000-01 | January 1996 | Figure 5



LEGEND:

- Location of Former UST
- 1+ Approximate Location of UST & Product Line Removal Grab Soil Samples, GHK Engineering, Sept. 94
- BH1 ● Location of Soil Boring, GEOCON, Sept. 95
- MW1 ⊕ Location of Groundwater Monitoring Well, GEOCON, Sept. 95

TPHg = Total Petroleum Hydrocarbons as Gasoline
TPHd = Total Petroleum Hydrocarbons as Diesel
TPHmo = Total Petroleum Hydrocarbons as Motor Oil
O & G = Oil & Grease
B = Benzene
All Concentrations in Micrograms Per Liter (ppb)

0 20
Scale in Feet

GEOCON
ENVIRONMENTAL CONSULTANTS INCORPORATED
3235 SUNRISE BLVD. – SUITE 6 – RANCHO CORDOVA, CALIFORNIA 95742
PHONE 916 852-9116 – FAX 916 852-9132

Hegenberger Maintenance Station		
555 Hegenberger Road Oakland, California	PETROLEUM HYDROCARBONS IN GROUNDWATER- 10/11/95	
GEOCON Proj. No. S8100-06-34		
Task Order No. 04-5T9000-01	January 1996	Figure 6

Project No. SB100-06-34
January 23, 1996

TABLE I
SUMMARY OF SOIL ANALYTICAL LABORATORY RESULTS
HEGENBERGER MAINTENANCE STATION
OAKLAND, CALIFORNIA
TASK ORDER NO. 04-5T9000-01
PAGE 1 OF 2

SAMPLE ID	DATE	DEPTH (feet)	TPHg (mg/kg)	TPHd (mg/kg)	O&G (mg/kg)	B (mg/kg)	T (mg/kg)	E (mg/kg)	X (mg/kg)	LEAD (mg/kg)	ORGANIC LEAD (mg/kg)	COMMENTS
PI-1	09/22/94	4.0	<20	380	2,200	<0.10	<0.10	0.18	<0.10	13	---	PI
PI-2	09/22/94	4.0	<10	<1.0	190	0.076	<0.05	<0.05	<0.05	13	---	PI
TE-1	09/22/94	8.0	290	27	1,900	2.0	<0.5	0.74	1.2	18	---	UST/GHH
TE-2	09/22/94	18.0	<1.0	<1.0	200	<0.005	<0.005	<0.005	<0.005	12	---	UST/GHH
TE-3	09/22/94	18.0	11	11	580	0.03	0.014	0.020	0.022	8.8	---	UST/GHH
TE-4	09/22/94	18.0	<20	<1.0	70	<0.10	<0.10	<0.10	<0.10	7.6	---	UST/GHH
TE-5	09/22/94	13.0	<1.0	<1.0	80	<0.005	<0.005	<0.005	<0.005	9.5	---	UST/GHH
TE-6	09/22/94	13.0	140	<1.0	1,200	0.13	<0.10	0.51	0.30	11	---	UST/GHH
TE-7	09/22/94	8.0	400	<1.0	530	0.83	<0.50	0.62	1.2	14	---	UST/GHH
TE-8	09/22/94	8.0	480	<1.0	100	1.8	0.51	7.6	8.7	8.9	---	UST/GHH
BH1-15	09/26/95	16.0	<1.0	<1.0	<50	<0.005	<0.005	0.006	0.021	---	<5.0	GEOCON
BH1-20	09/26/95	21.0	<1.0	<1.0	<50	<0.005	<0.005	<0.005	<0.005	---	<5.0	GEOCON
BH2-10	09/26/95	11.0	<1.0	<1.0	<50	<0.005	<0.005	<0.005	<0.005	---	<5.0	GEOCON
BH2-20	09/26/95	21.0	<1.0	<1.0	<50	<0.005	<0.005	<0.005	<0.005	---	<5.0	GEOCON
BH3-5	09/26/95	6.0	<1.0	<1.0[a]	80	<0.005	<0.005	<0.005	<0.005	---	---	GEOCON
BH3-10	09/26/95	11.0	<1.0	<1.0	<50	<0.005	<0.005	<0.005	<0.005	---	<5.0	GEOCON
BH3-20	09/26/95	21.0	<1.0	<1.0	<50	<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	<0.005	<0.005	---	<5.0	GEOCON
BH4-20	09/26/95	21.0	<1.0	<1.0	<50	<0.005	<0.005	<0.005	<0.005	---	<5.0	GEOCON
BH5-10	09/26/95	11.0	<1.0	<1.0	<50	<0.005	<0.005	<0.005	<0.005	---	<5.0	GEOCON
BH5-20	09/26/95	21.0	<1.0	<1.0	<50	<0.005	<0.005	<0.005	<0.005	---	<5.0	GEOCON
BH6-5	09/26/95	6.0	<1.0	24[b]	80	<0.005	<0.005	<0.005	<0.005	---	---	GEOCON
BH6-10	09/26/95	11.0	<1.0	16[b]	65	<0.005	<0.005	<0.005	<0.005	---	<5.0	GEOCON
BH6-20	09/26/95	21.0	<1.0	<1.0	<50	<0.005	<0.005	<0.005	<0.005	---	<5.0	GEOCON
MW1-10	09/27/95	11.0	<1.0	<1.0	<50	<0.005	<0.005	<0.005	<0.005	---	<5.0	GEOCON
MW1-20	09/27/95	19.5	<1.0	<1.0	<50	<0.005	<0.005	<0.005	<0.005	---	<5.0	GEOCON
MW2-5	09/27/95	6.0	<1.0	<1.0[c]	75	<0.005	<0.005	<0.005	<0.005	---	<5.0	GEOCON
MW2-20	09/27/95	21.0	<1.0	<1.0	<50	<0.005	<0.005	<0.005	<0.005	---	<5.0	GEOCON
MW3-8	09/27/95	7.5	<1.0	<1.0	<50	0.012	<0.005	<0.005	<0.005	---	---	GEOCON
MW3-10	09/27/95	11.0	<1.0	<1.0	<50	<0.005	<0.005	<0.005	<0.005	---	<5.0	GEOCON
MW3-20	09/27/95	21.0	<1.0	<1.0	<50	0.030	0.028	0.030	0.058	---	<5.0	GEOCON

TABLE 1
SUMMARY OF SOIL ANALYTICAL LABORATORY RESULTS
HEGENBERGER MAINTENANCE STATION
OAKLAND, CALIFORNIA
TASK ORDER NO. 04-519000-01
PAGE 1 OF 2

SAMPLE ID	DATE	DEPTH (feet)	TPHg (mg/kg)	TPHd (mg/kg)	O&G (mg/kg)	B (mg/kg)	T (mg/kg)	E (mg/kg)	X (mg/kg)	LEAD (mg/kg)	ORGANIC LEAD (mg/kg)	COMMENTS
MW4-5	09/27/95	5.5	<1.0	<1.0	<50	<0.005	<0.005	<0.005	<0.005	---	---	GEOCON
MW4-10	09/27/95	11.0	<1.0	<1.0[d]	75	<0.005	<0.005	<0.005	<0.005	---	<5.0	GEOCON
MW4-15	09/27/95	16.0	<1.0	<1.0	75	<0.005	<0.005	<0.005	<0.005	---	<5.0	GEOCON
MW5-5	09/27/95	6.0	1.6	<1.0[e]	60	<0.005	0.020	0.028	0.088	---	---	GEOCON
MW5-10	09/27/95	11.0	<1.0	<1.0	65	<0.005	<0.005	<0.005	<0.005	---	<5.0	GEOCON
MW5-20	09/27/95	19.5	<1.0	<1.0	<50	<0.005	<0.005	<0.005	<0.005	---	<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
BTEK = benzene, toluene, ethylbenzene and total xylenes
< = less than laboratory method detection limit
--- = not tested
PI = pump island sample
UST/GHH = UST excavation sample collected by GHH Engineering
[a] = total petroleum hydrocarbons as motor oil (TPHmo) detected at a concentration of 58 mg/kg
[b] = weathered TPHd
[c] = 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

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

TABLE II
SUMMARY OF GROUNDWATER ELEVATION AND ANALYTICAL LABORATORY RESULTS
HEGENBERGER MAINTENANCE STATION
OAKLAND, CALIFORNIA
TASK ORDER NO. 04-5T9000-01
PAGE 1 OF 1

SAMPLE ID	DATE	TOC ELEVATION	GROUNDWATER DEPTH	GROUNDWATER ELEVATION	TPHg (ug/l)	TPHd (ug/l)	TPHmo (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	O&G (ug/l)
MW-1	10/11/95	99.73	6.55	93.18	720	<50	<50	660	13	4.7	2.8	<5,000
MW-2	10/11/95	99.68	6.88	92.80	<50	<50	<50	<0.3	<0.3	<0.3	<0.3	<5,000
MW-3	10/11/95	98.92	6.42	92.50	1,300[1]	<50	<50	1.0	<0.3	<0.3	<0.3	<5,000
MW-4	10/11/95	99.46	6.63	92.83	500	<50	<50	17	1.1	<0.3	0.48	<5,000
MW-5	10/11/95	99.91	6.68	93.23	1,000	<50	<50	45	15	1.9	6.1	<5,000

Notes: TOC = top of casing elevation referenced to arbitrary onsite datum
depths measured in feet
ug/l = micrograms per liter
TPHg = total petroleum hydrocarbon as gasoline
TPHd = total petroleum hydrocarbon as diesel
TPHmo = total petroleum hydrocarbon as motor oil
BTEX = benzene, toluene, ethylbenzene and total xylenes
O&G = oil and grease
[1] = 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
	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

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)
MW5	10/11/1995	99.91	6.68	93.23
	1/17/1996	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

Notes:

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 feet above mean sea level and based on the California State Coordinate System, Zone III (NAD83), (NGVD29)

TABLE 2
SUMMARY OF SOIL ANALYTICAL RESULTS
FORMER HEGENBERGER MAINTENANCE STATION

Boring ID	Date	TPHg (mg/kg)	TPHd (mg/kg)	Benzene (ug/kg)	Toluene (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.

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/l)	MTBE (ug/l)	Other VOCs (ug/l)
BH6	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
BH7	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
BH8	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
BH9	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/l)	TPHd (mg/l)	TPHmo (mg/l)	Oil & Grease (mg/l)	Benzene (ug/l)	Toluene (ug/l)	Ethylbenzene (ug/l)	Xylenes (ug/l)	MTBE (ug/l)	Other VOCs (ug/l)
MW1	10/11/95	0.720	< 0.050	< 0.050	< 5	660	13	4.7	2.8	---	---
	1/17/96	4.40	< 0.050	< 0.050	---	1,000	30	21	17	---	---
	4/16/96	6.05	7.45	---	---	914	34.7	34.4	15.8	---	---
	8/26/96	3.8	0.430	---	---	780	23	21	20	---	---
	11/14/96	2.6	0.270	---	---	500	18	14	8.9	---	---
	2/18/98	3.1	0.900	---	---	240	18	7.8	11	20	---
	3/30/01	3.6	0.48*	---	---	150	13	0.69	10.8	ND	< 5.0
	12/26/01	3.0	1.1*	---	---	86 (120)	11 (14)	3.4 (<5.0)	10.5 (11)	5.0	Isopropylbenzene = 7.9 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	ND	< 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	---	---
	1/17/96	0.171	< 0.050	< 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	0.700	---	---	180	4.2	1.0	4.6	---	---
	11/14/96	0.300	0.120	---	---	6.2	1.2	0.7	1.4	---	---
	2/18/98	11.0	2.50	---	---	3,070	50	54	19	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	9.4	1.7	---	---	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)	TPHmo (mg/l)	Oil & Grease (mg/l)	Benzene (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	---	---
	1/17/96	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	15	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	---	---
	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	---	---	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 Petroleum Hydrocarbons as gasoline following EPA Test Method 8015B
TPHd = Total Petroleum Hydrocarbons as diesel following EPA Test Method 8015B
TPHmo = 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: 1 OF 1

DATE: 9/30/02 | PROJECT NAME: Caltrans Hegenberger | PROJECT NO: 575-2G020

WATER LEVEL MEASUREMENT INSTRUMENT: Solinst | SERIAL NO:

PRODUCT DETECTION INSTRUMENT: | SERIAL NO:

EQUIP. DECON: ☐ ALCONOX WASH ☐ DIST/DEION 1 RINSE ☐ ISOPROPANOL ☐ ANALYTE FREE FINAL RINSE ☐ TAP WATER FINAL RINSE

☐ TAP WATER WASH ☐ LIQUINOX WASH ☐ DIST/DEION 2 RINSE ☐ OTHER SOLVENT ☐ DIST/DEION FINAL RINSE ☐ 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
MW-1				5.79'	19.48'			9:13
MW-2				6.48'	19.15'			9:17
MW-3				5.84'	19.50'			9:19
MW-4				6.40'	16.65'			9:23
MW-5				6.18'	19.35'			9:26

REMEMBER TO CORRECT PRODUCT THICKNESS FOR DENSITY BEFORE CALCULATING WATER TABLE ELEVATION

PREPARED BY: BS

PSI
Rev. 12/95

WELL PURGING AND SAMPLING DATA

WELL NO: MW-1

DATE: 9/30/02 | PROJECT NAME: Caltrans Hegenberger | PROJECT NO: 575-26020

WEATHER CONDITIONS: Cloudy, Cool

WELL DIAMETER (IN.) ☐ 1 ☐ 2 ☒ 4 ☐ 6 ☐ OTHER _____

SAMPLE TYPE: ☒ GROUNDWATER ☐ WASTEWATER ☐ SURFACE WATER ☐ OTHER

WELL DEPTH (TOC)	19.48 FT.	DEPTH TO WATER BEFORE PURGING (TOC)	5.79 FT.
LENGTH OF WATER	13.69 FT.	CALCULATED ONE WELL VOLUME[1]:	8.90 GAL.

PURGING DEVICE: ☒ DEDICATED ☐ DISPOSABLE ☐ DECONTAMINATED

SAMPLING DEVICE: ☐ DEDICATED ☐ DISPOSABLE ☒ DECONTAMINATED

EQUIP. DECON. ☐ TAP WATER WASH ☐ ISOPROPANOL ☐ ANALYTE FREE FINAL RINSE
☐ ALCONOX WASH ☐ DIST/DEION 1 RINSE ☐ OTHER SOLVENT ☐ DIST/DEION FINAL RINSE
☐ LIQUINOX WASH ☐ DIST/DEION 2 RINSE ☐ TAP WATER FINAL RINSE ☐ AIR DRY

CONTAINER PRESERVATION: ☒ LAB PRESERVED ☐ FIELD PRESERVED

WATER ANALYZER MODEL & SERIAL NO:

ACTUAL TIME (MIN)	CUMUL. VOLUME PURGED (GAL)	TEMP ☐ °F ☒ °C	SPECIFIC CONDUCT.	pH	DISS. OXYGEN	TURBIDITY (NTUs)	WATER APPEAR CL=CLEAR CO=CLOUDY TU=TURBID	REMARKS (EVIDENT ODOR, COLOR, PID) ORP	TDS
10:08	INITIAL	20.0	1972	7.72			CL	0	1447 odor
10:12	8.90	21.1	1932	7.72			CL	0	1409
10:18	18.00	20.1	1917	7.80			CL	0	1400
10:36	27.00	19.6	1793	7.79			CL	0	1310

DEPTH TO WATER AFTER PURGING (TOC) _____ FT. SAMPLE FILTERED ☐ YES ☐ NO SIZE _____

NOTES:

SAMPLE TIME: 10:40 ID# MW-1

DUPLICATE ☐ TIME: ID#:

EQUIP. BLANK: ☐ TIME: ID#:

PREPARED BY: BS

PSI Rev. 12/95 [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 PIP

WELL PURGING AND SAMPLING DATA

WELL NO: MW-2

DATE: 9/30/02 | PROJECT NAME: Caltrans Hegenberger | PROJECT NO: 575-26020

WEATHER CONDITIONS: Cloudy, cool

WELL DIAMETER (IN.) ☐ 1 ☐ 2 ☒ 4 ☐ 6 ☐ OTHER _____

SAMPLE TYPE: ☒ GROUNDWATER ☐ WASTEWATER ☐ SURFACE WATER ☐ OTHER

WELL DEPTH (TOC) 19.15 FT. | DEPTH TO WATER BEFORE PURGING (TOC) 6.48 FT.

LENGTH OF WATER 12.67 FT. | CALCULATED ONE WELL VOLUME[1]: 8.24 GAL.

PURGING DEVICE: ☒ DEDICATED ☐ DISPOSABLE ☐ DECONTAMINATED

SAMPLING DEVICE: ☐ DEDICATED ☐ DISPOSABLE ☒ DECONTAMINATED

EQUIP. DECON. ☐ TAP WATER WASH ☐ ISOPROPANOL ☐ ANALYTE FREE FINAL RINSE
☐ ALCONOX WASH ☐ DIST/DEION 1 RINSE ☐ OTHER SOLVENT ☐ DIST/DEION FINAL RINSE
☐ LIQUINOX WASH ☐ DIST/DEION 2 RINSE ☐ TAP WATER FINAL RINSE ☐ AIR DRY

CONTAINER PRESERVATION: ☒ LAB PRESERVED ☐ FIELD PRESERVED

WATER ANALYZER MODEL & SERIAL NO:

ACTUAL TIME (MIN)	CUMUL. VOLUME PURGED (GAL)	TEMP ☐ °F ☒ °C	SPECIFIC CONDUCT.	pH	DISS. OXYGEN	TURBIDITY (NTUs)	WATER APPEAR CL=CLEAR CO=CLOUDY TU=TURBID	REMARKS (EVIDENT ODOR, COLOR, PID) ORP TDS
11:00	INITIAL	21.2	3235	7.78			Co/Cl	485 2476
11:05	8.25	22.2	3223	7.81			Cl	0 2456
11:10	16.50	21.6	3065	7.82			Cl	-151 2328
11:23	25.00	21.9	3190	7.81			Cl	0 2344

DEPTH TO WATER AFTER PURGING (TOC) _____ FT. | SAMPLE FILTERED ☐ YES ☐ NO SIZE _____

NOTES:

SAMPLE TIME: 11:25 ID# MW-2

DUPLICATE ☐ TIME: ID#:

EQUIP. BLANK: ☐ TIME: ID#:

PREPARED BY: BS

PSI Rev. 12/95

[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 PIP

WELL PURGING AND SAMPLING DATA

WELL NO: MW-3

DATE: 9/30/02 PROJECT NAME: Caltrans Hegenberger PROJECT NO: 575-2 6020

WEATHER CONDITIONS: Cloudy, Cool

WELL DIAMETER (IN.) ☐ 1 ☐ 2 ☒ 4 ☐ 6 ☐ OTHER _____

SAMPLE TYPE: ☒ GROUNDWATER ☐ WASTEWATER ☐ SURFACE WATER ☐ OTHER

WELL DEPTH (TOC) 19.50 FT. | DEPTH TO WATER BEFORE PURGING (TOC) 5.84 FT.

LENGTH OF WATER 13.66 FT. | CALCULATED ONE WELL VOLUME[1]: 8.88 GAL.

PURGING DEVICE: ☒ DEDICATED ☐ DISPOSABLE ☐ DECONTAMINATED

SAMPLING DEVICE: ☐ DEDICATED ☐ DISPOSABLE ☒ DECONTAMINATED

EQUIP. DECON. ☐ TAP WATER WASH ☐ ISOPROPANOL ☐ ANALYTE FREE FINAL RINSE
☐ ALCONOX WASH ☐ DIST/DEION 1 RINSE ☐ OTHER SOLVENT ☐ DIST/DEION FINAL RINSE
☐ LIQUINOX WASH ☐ DIST/DEION 2 RINSE ☐ TAP WATER FINAL RINSE ☐ AIR DRY

CONTAINER PRESERVATION: ☒ LAB PRESERVED ☐ FIELD PRESERVED

WATER ANALYZER MODEL & SERIAL NO:

ACTUAL TIME (MIN)	CUMUL. VOLUME PURGED (GAL)	TEMP ☐ °F ☒ °C	SPECIFIC CONDUCT.	pH	DISS. OXYGEN	TURBIDITY (NTUs)	WATER APPEAR CL=CLEAR CO=CLOUDY TU=TURBID	REMARKS (EVIDENT ODOR, COLOR, PID) ORP TDS Ref. odor
11:45	INITIAL	21.8	4877	7.82			CL	0 3299 odor
11:50	9.00	24.6	4244	7.80			CL	0 3292
11:55	18.00	22.4	4589	7.79			CL	-156 3598
11:59	27.00	22.1	4470	7.82			CL	-148 3512

DEPTH TO WATER AFTER PURGING (TOC) FT. | SAMPLE FILTERED ☐ YES ☐ NO SIZE _____

NOTES:

SAMPLE TIME: 1203 ID# MW-3

DUPLICATE ☐ TIME: ID#:

EQUIP. BLANK: ☐ TIME: ID#:

PREPARED BY: BS

PSI Rev. 12/95

[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 PIP

WELL PURGING AND SAMPLING DATA

WELL NO: MW-4

DATE: 9/30/02 | PROJECT NAME: Caltrans Hegenberger | PROJECT NO: 575-26020

WEATHER CONDITIONS: Cloudy, Cool

WELL DIAMETER (IN.) ☐ .1 ☐ 2 ☒ 4 ☐ 6 ☐ OTHER _____

SAMPLE TYPE: ☒ GROUNDWATER ☐ WASTEWATER ☐ SURFACE WATER ☐ OTHER

WELL DEPTH (TOC) 16.65 FT. | DEPTH TO WATER BEFORE PURGING (TOC) 6.40 FT.

LENGTH OF WATER 10.25 FT. | CALCULATED ONE WELL VOLUME[1]: 6.66 GAL.

PURGING DEVICE: ☒ DEDICATED ☐ DISPOSABLE ☐ DECONTAMINATED

SAMPLING DEVICE: ☐ DEDICATED ☐ DISPOSABLE ☒ DECONTAMINATED

EQUIP. DECON. ☐ TAP WATER WASH ☐ ISOPROPANOL ☐ ANALYTE FREE FINAL RINSE
☐ ALCONOX WASH ☐ DIST/DEION 1 RINSE ☐ OTHER SOLVENT ☐ DIST/DEION FINAL RINSE
☐ LIQUINOX WASH ☐ DIST/DEION 2 RINSE ☐ TAP WATER FINAL RINSE ☐ AIR DRY

CONTAINER PRESERVATION: ☒ LAB PRESERVED ☐ FIELD PRESERVED

WATER ANALYZER MODEL & SERIAL NO:

ACTUAL TIME (MIN)	CUMUL. VOLUME PURGED (GAL)	TEMP ☐ °F ☒ °C	SPECIFIC CONDUCT.	pH	DISS. OXYGEN	TURBIDITY (NTUs)	WATER APPEAR CL=CLEAR CO=CLOUDY TU=TURBID	REMARKS (EVIDENT ODOR, COLOR, PID) ORP TDS
12:23	INITIAL	21.0	8756	7.81			CL	-168 7365 Post DO
12:26	6.75	22.4	8352	7.84			CL	-154 7001
12:29	13.00	21.3	9039	7.83			CL	-151 7618
12:45	20.00	22.1	8683	7.84			CL	-0 7282

DEPTH TO WATER AFTER PURGING (TOC) FT. | SAMPLE FILTERED ☐ YES ☐ NO SIZE _____

NOTES:

SAMPLE TIME: ID# MW-4

DUPLICATE ☐ TIME: ID#:

EQUIP. BLANK: ☐ TIME: ID#:

PREPARED BY: BS

PSI [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 PIP
Rev. 12/95

WELL PURGING AND SAMPLING DATA

WELL NO: MW-5

DATE: 9/30/02 PROJECT NAME: Caltrans Hgenberger PROJECT NO: 575-26020

WEATHER CONDITIONS: Cloudy, Cool

WELL DIAMETER (IN.) ☐ 1 ☐ 2 ☒ 4 ☐ 6 ☐ OTHER _____

SAMPLE TYPE: ☒ GROUNDWATER ☐ WASTEWATER ☐ SURFACE WATER ☐ OTHER

WELL DEPTH (TOC) 19.35 FT. | DEPTH TO WATER BEFORE PURGING (TOC) 6.18 FT.

LENGTH OF WATER 13.17 FT. | CALCULATED ONE WELL VOLUME[1]: 8.56 GAL.

PURGING DEVICE: ☒ DEDICATED ☐ DISPOSABLE ☐ DECONTAMINATED

SAMPLING DEVICE: ☐ DEDICATED ☐ DISPOSABLE ☒ DECONTAMINATED

EQUIP. DECON. ☐ TAP WATER WASH ☐ ISOPROPANOL ☐ ANALYTE FREE FINAL RINSE
☐ ALCONOX WASH ☐ DIST/DEION 1 RINSE ☐ OTHER SOLVENT ☐ DIST/DEION FINAL RINSE
☐ LIQUINOX WASH ☐ DIST/DEION 2 RINSE ☐ TAP WATER FINAL RINSE ☐ AIR DRY

CONTAINER PRESERVATION: ☐ LAB PRESERVED ☐ FIELD PRESERVED

WATER ANALYZER MODEL & SERIAL NO:

ACTUAL TIME (MIN)	CUMUL. VOLUME PURGED (GAL)	TEMP ☐ °F ☒ °C	SPECIFIC CONDUCT.	pH	DISS. OXYGEN	TURBIDITY (NTUs)	WATER APPEAR CL=CLEAR CO=CLOUDY TU=TURBID	REMARKS (EVIDENT ODOR, COLOR, PID) ORP	TDS
1307	INITIAL	21.0	253	7.81			CL	-167	1877
1329	8.50	22.4	2064	7.85			CL	-167	1508
1314	17.00	21.7	2041	7.86			CL	0	1492
1319	26.00	21.3	2086	7.80			CL	0	1529

DEPTH TO WATER AFTER PURGING (TOC) FT. | SAMPLE FILTERED ☐ YES ☐ NO SIZE _____

NOTES:

SAMPLE TIME: 13:30 ID# MW-5

DUPLICATE ☐ TIME: ID#:

EQUIP. BLANK: ☐ TIME: ID#:

PREPARED BY: BS

PSI [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 PIP
Rev. 12/95

BASIC LABORATORY, INC.

Report To:	P.S.I. 4703 TIDEWATER AVE., STE.B OAKLAND, CA 94601	***Lab No:***	0210050
		Date:	10/16/02
		Phone:	(510) 434-9200
		Date Sampled:	09/30/02
Attention:	FRANK POSS	***Date Received:***	10/01/02
		Project No.:	2G020
Project Name:	CAL TRANS / HEGENBERGER		
Sample Description:	WATER TESTING		***Page 1 of 12***

Test:	***TPH-Gas Range Organics***	***4-Bromofluorobenzene***	***Reporting Limit***	***Date Analyzed***
Method:	8015	*Surrogate*		
Units:	ug/l	%	ug/l	
Control Limit:		43-155		
Sample ID				
MW-1	1	592	78.3	50	10/12/02
MW-2	2	n	92.6	50	10/12/02
MW-3	3	2020	83.0	50	10/12/02
MW-4	4	67	86.4	50	10/14/02
MW-5	5	562	89.5	50	10/12/02

Comments: California D.O.H.S. Cert. #1677.
n - Not detected at the reporting limit.

Reported by:

2218 Railroad Ave. • Redding, CA 96001 • v 530.243.7234 • f 530.243.7494 • www.basiclabinc.com

BASIC LABORATORY, INC.

Report To:	P.S.I. 4703 TIDEWATER AVE., STE.B OAKLAND, CA 94601	***Lab No:***	0210050
		Date:	10/16/02
		Phone:	(510) 434-9200
		Date Sampled:	09/30/02
Attention:	FRANK POSS	***Date Received:***	10/01/02
		Date Extracted:	10/01/02
Project Name:	CAL TRANS / HEGENBERGER	***Project No.:***	2G020
Sample Description:	WATER TESTING	***Page 2 of 12***	

Test:	***TPH-Diesel Range Organics***	***Triphenylphosphate***	***Reporting Limit:***	***Date Analyzed***
Method:	8015	Surrogate		
Units:	ug/l	%	ug/l	
Control Limit:		44-128		

Sample ID

MW-1	1	n	66.9	50	10/16/02
MW-2	2	n	84.8	50	10/16/02
MW-3	3	568*	81.3	50	10/16/02
MW-4	4	n	91.5	50	10/16/02
MW-5	5	426*	76.7	50	10/16/02

Comments: Califomia D.O.H.S. Cert. #1677.
n - Not detected at the reporting limit.
*- Non typical diesel pattern.

Reported by:

2218 Railroad Ave. • Redding, CA 96001 • v 530.243.7234 • f 530.243.7494 • www.basiclabinc.com

EPA METHOD 8260

Report To:	PSI	***Lab Number:***	0210050-1
	4703 TIDEWATER AVE., STE.B	***Phone:***	510-434-9200
	OAKLAND, CA 94601		
		Date Sampled:	09/03/02
Attention:	FRANK POSS	***Date Received:***	10/01/02
Project Name:	CAL TRANS / HEGENBERGER	***Date Analyzed:***	10/12/02
Project Number:	2G020	***Date Reported:***	10/16/02
Sampling Location:			
Sample ID:	MW-1		
Sample Matrix:	WATER		
Sample Collected By:	BRIAN STOZEK		

COMPOUND	RESULT	REPORTING UNITS	QUANTITATION LIMIT
Acetone	n	ug/l	5.0
Acrylonitrile	n	ug/l	5.0
Benzene	12.0	ug/l	0.5
Bromobenzene	n	ug/l	0.5
Bromochloromethane	n	ug/l	0.5
Bromodichloromethane	n	ug/l	0.5
Bromoform	n	ug/l	0.5
Bromomethane	n	ug/l	0.5
2-Butanone (MEK)	n	ug/l	5.0
n-Butylbenzene	3.6	ug/l	0.5
sec-Butylbenzene	n	ug/l	0.5
tert-Butylbenzene	n	ug/l	0.5
Carbon Disulfide	n	ug/l	0.5
Carbon tetrachloride	n	ug/l	0.5
Chlorobenzene	n	ug/l	0.5
Chloroethane	n	ug/l	0.5
2-Chloroethylvinylether	n	ug/l	0.5
Chloroform	n	ug/l	0.5
Chloromethane	n	ug/l	0.5
2-Chlorotoluene	n	ug/l	0.5
4-Chlorotoluene	n	ug/l	0.5
Dibromochloromethane	n	ug/l	0.5
1,2-Dibromo-3-Chloropropane	n	ug/l	0.5
1,2-Dibromoethane	n	ug/l	0.5
Dibromomethane	n	ug/l	0.5
1,2-Dichlorobenzene	n	ug/l	0.5
1,3-Dichlorobenzene	n	ug/l	0.5
1,4-Dichlorobenzene	n	ug/l	0.5
Dichlorodifluoromethane	n	ug/l	0.5
1,1-Dichloroethane	n	ug/l	0.5
1,2-Dichloroethane	n	ug/l	0.5
1,1-Dichloroethene	n	ug/l	0.5
cis-1,2-Dichloroethene	n	ug/l	0.5
trans-1,2-Dichloroethene	n	ug/l	0.5
1,2-Dichloropropane	n	ug/l	0.5

2218 Railroad Ave. • Redding, CA 96001 • v 530.243.7234 • f 530.243.7494 • www.basiclabinc.com

EPA METHOD 8260

Report To: PSI *Lab Number:* 0210050-1

COMPOUND	RESULT	REPORTING UNITS	QUANTITATION LIMIT
1,3-Dichloropropane	n	ug/l	0.5
2,2-Dichloropropane	n	ug/l	0.5
1,1-Dichloropropene	n	ug/l	0.5
cis-1,3-Dichloropropene	n	ug/l	0.5
trans-1,3-Dichloropropene	n	ug/l	0.5
1,4-Dioxane	n	ug/l	25
Ethyl Benzene	n	ug/l	0.5
Ethyl-Tert-Butyl Ether (ETBE)	n	ug/l	0.5
Hexachlorobutadiene	n	ug/l	0.5
2-Hexanone (MBK)	n	ug/l	5.0
Isopropylbenzene	3.6	ug/l	0.5
Di-Isopropyl Ether (DIPE)	n	ug/l	0.5
p-Isopropyltoluene	n	ug/l	0.5
4-Methyl-2-Pentanone (MIBK)	n	ug/l	5.0
Methylene Chloride	n	ug/l	1.0
Methyl Tert-Butyl Ether (MTBE)	n	ug/l	0.5
Napthalene	n	ug/l	0.5
n-Propylbenzene	1.2	ug/l	0.5
Styrene	n	ug/l	0.5
Tert-Amyl Methyl Ether (TAME)	n	ug/l	0.5
1,1,1,2-Tetrachloroethane	n	ug/l	0.5
1,1,2,2-Tetrachloroethane	n	ug/l	0.5
Tetrachloroethene	n	ug/l	0.5
Tetrahydrofuran	n	ug/l	5.0
tert - Butanol (TBA)	n	ug/l	50
Toluene	2.7	ug/l	0.5
1,2,3-Trichlorobenzene	n	ug/l	0.5
1,2,4-Trichlorobenzene	n	ug/l	0.5
1,1,1-Trichloroethane	n	ug/l	0.5
1,1,2-Trichloroethane	n	ug/l	0.5
Trichloroethene	n	ug/l	0.5
1,1,2-Trichlorotrifluoroethane	n	ug/l	0.5
Trichlorofluoromethane	n	ug/l	0.5
1,2,3-Trichloropropane	n	ug/l	0.5
1,2,4-Trimethylbenzene	n	ug/l	0.5
1,3,5-Trimethylbenzene	n	ug/l	0.5
Vinyl Acetate	n	ug/l	0.5
Vinyl Chloride	n	ug/l	0.5
Total Xylenes	1.6	ug/l	1.0
SURROGATES	**RECOVERY**	**%**	**CONTROL LIMITS (%)**
1,2-Dichloroethane-d4	106	%	28-129
Toluene-d8	96.6	%	52-150
4-Bromofluorobenzene	78.3	%	43-155

Comments:
California D.O.H.S Cert # 1677
n - Not detected at the quantitation limit.

Reported By

2218 Railroad Ave. • Redding, CA 96001 • v 530.243.7234 • f 530.243.7494 • www.basiclabinc.com

EPA METHOD 8260

Report To:	PSI	***Lab Number:***	0210050-2
	4703 TIDEWATER AVE., STE.B	***Phone:***	510-434-9200
	OAKLAND, CA 94601		
		Date Sampled:	09/03/02
Attention:	FRANK POSS	***Date Received:***	10/01/02
Project Name:	CAL TRANS / HEGENBERGER	***Date Analyzed:***	10/12/02
Project Number:	2G020	***Date Reported:***	10/16/02
Sampling Location:			
Sample ID:	MW-2		
Sample Matrix:	WATER		
Sample Collected By:	BRIAN STOZEK		

COMPOUND	RESULT	REPORTING UNITS	QUANTITATION LIMIT
Acetone	n	ug/l	5.0
Acrylonitrile	n	ug/l	5.0
Benzene	n	ug/l	0.5
Bromobenzene	n	ug/l	0.5
Bromochloromethane	n	ug/l	0.5
Bromodichloromethane	n	ug/l	0.5
Bromoform	n	ug/l	0.5
Bromomethane	n	ug/l	0.5
2-Butanone (MEK)	n	ug/l	5.0
n-Butylbenzene	n	ug/l	0.5
sec-Butylbenzene	n	ug/l	0.5
tert-Butylbenzene	n	ug/l	0.5
Carbon Disulfide	n	ug/l	0.5
Carbon tetrachloride	n	ug/l	0.5
Chlorobenzene	n	ug/l	0.5
Chloroethane	n	ug/l	0.5
2-Chloroethylvinylether	n	ug/l	0.5
Chloroform	n	ug/l	0.5
Chloromethane	n	ug/l	0.5
2-Chlorotoluene	n	ug/l	0.5
4-Chlorotoluene	n	ug/l	0.5
Dibromochloromethane	n	ug/l	0.5
1,2-Dibromo-3-Chloropropane	n	ug/l	0.5
1,2-Dibromoethane	n	ug/l	0.5
Dibromomethane	n	ug/l	0.5
1,2-Dichlorobenzene	n	ug/l	0.5
1,3-Dichlorobenzene	n	ug/l	0.5
1,4-Dichlorobenzene	n	ug/l	0.5
Dichlorodifluoromethane	n	ug/l	0.5
1,1-Dichloroethane	n	ug/l	0.5
1,2-Dichloroethane	n	ug/l	0.5
1,1-Dichloroethene	n	ug/l	0.5
cis-1,2-Dichloroethene	n	ug/l	0.5
trans-1,2-Dichloroethene	n	ug/l	0.5
1,2-Dichloropropane	n	ug/l	0.5

2218 Railroad Ave. • Redding, CA 96001 • v 530.243.7234 • f 530.243.7494 • www.basiclabinc.com

EPA METHOD 8260

Report To: PSI ***Lab Number:*** 0210050-2

COMPOUND	RESULT	REPORTING UNITS	QUANTITATION LIMIT
1,3-Dichloropropane	n	ug/l	0.5
2,2-Dichloropropane	n	ug/l	0.5
1,1-Dichloropropene	n	ug/l	0.5
cis-1,3-Dichloropropene	n	ug/l	0.5
trans-1,3-Dichloropropene	n	ug/l	0.5
1,4-Dioxane	n	ug/l	25
Ethyl Benzene	n	ug/l	0.5
Ethyl-Tert-Butyl Ether (ETBE)	n	ug/l	0.5
Hexachlorobutadiene	n	ug/l	0.5
2-Hexanone (MBK)	n	ug/l	5.0
Isopropylbenzene	n	ug/l	0.5
Di-Isopropyl Ether (DIPE)	n	ug/l	0.5
p-Isopropyltoluene	n	ug/l	0.5
4-Methyl-2-Pentanone (MIBK)	n	ug/l	5.0
Methylene Chloride	n	ug/l	1.0
Methyl Tert-Butyl Ether (MTBE)	n	ug/l	0.5
Napthalene	n	ug/l	0.5
n-Propylbenzene	n	ug/l	0.5
Styrene	n	ug/l	0.5
Tert-Amyl Methyl Ether (TAME)	n	ug/l	0.5
1,1,1,2-Tetrachloroethane	n	ug/l	0.5
1,1,2,2-Tetrachloroethane	n	ug/l	0.5
Tetrachloroethene	n	ug/l	0.5
Tetrahydrofuran	n	ug/l	5.0
tert - Butanol (TBA)	n	ug/l	50
Toluene	n	ug/l	0.5
1,2,3-Trichlorobenzene	n	ug/l	0.5
1,2,4-Trichlorobenzene	n	ug/l	0.5
1,1,1-Trichloroethane	n	ug/l	0.5
1,1,2-Trichloroethane	n	ug/l	0.5
Trichloroethene	n	ug/l	0.5
1,1,2-Trichlorotrifluoroethane	n	ug/l	0.5
Trichlorofluoromethane	n	ug/l	0.5
1,2,3-Trichloropropane	n	ug/l	0.5
1,2,4-Trimethylbenzene	n	ug/l	0.5
1,3,5-Trimethylbenzene	n	ug/l	0.5
Vinyl Acetate	n	ug/l	0.5
Vinyl Chloride	n	ug/l	0.5
Total Xylenes	n	ug/l	1.0
SURROGATES	**RECOVERY**	**%**	**CONTROL LIMITS (%)**
1,2-Dichloroethane-d4	95.1	%	28-129
Toluene-d8	109	%	52-150
4-Bromofluorobenzene	92.6	%	43-155

Comments:
California D.O.H.S Cert # 1677
n - Not detected at the quantitation limit.

Reported By

2218 Railroad Ave. • Redding, CA 96001 • v 530.243.7234 • f 530.243.7494 • www.basiclabinc.com

EPA METHOD 8260

Report To:	PSI	***Lab Number:***	0210050-3
	4703 TIDEWATER AVE., STE.B	***Phone:***	510-434-9200
	OAKLAND, CA 94601		
		Date Sampled:	09/03/02
Attention:	FRANK POSS	***Date Received:***	10/01/02
Project Name:	CAL TRANS / HEGENBERGER	***Date Analyzed:***	10/14/02
Project Number:	2G020	***Date Reported:***	10/16/02
Sampling Location:			
Sample ID:	MW-3		
Sample Matrix:	WATER		
Sample Collected By:	BRIAN STOZEK		

COMPOUND	RESULT	REPORTING UNITS	QUANTITATION LIMIT
Acetone	n	ug/l	5.0
Acrylonitrile	n	ug/l	5.0
Benzene	775	ug/l	0.5
Bromobenzene	n	ug/l	0.5
Bromochloromethane	n	ug/l	0.5
Bromodichloromethane	n	ug/l	0.5
Bromoform	n	ug/l	0.5
Bromomethane	n	ug/l	0.5
2-Butanone (MEK)	n	ug/l	5.0
n-Butylbenzene	n	ug/l	0.5
sec-Butylbenzene	4.2	ug/l	0.5
tert-Butylbenzene	n	ug/l	0.5
Carbon Disulfide	n	ug/l	0.5
Carbon tetrachloride	n	ug/l	0.5
Chlorobenzene	n	ug/l	0.5
Chloroethane	n	ug/l	0.5
2-Chloroethylvinylether	n	ug/l	0.5
Chloroform	n	ug/l	0.5
Chloromethane	n	ug/l	0.5
2-Chlorotoluene	n	ug/l	0.5
4-Chlorotoluene	n	ug/l	0.5
Dibromochloromethane	n	ug/l	0.5
1,2-Dibromo-3-Chloropropane	n	ug/l	0.5
1,2-Dibromoethane	n	ug/l	0.5
Dibromomethane	n	ug/l	0.5
1,2-Dichlorobenzene	n	ug/l	0.5
1,3-Dichlorobenzene	n	ug/l	0.5
1,4-Dichlorobenzene	n	ug/l	0.5
Dichlorodifluoromethane	n	ug/l	0.5
1,1-Dichloroethane	n	ug/l	0.5
1,2-Dichloroethane	n	ug/l	0.5
1,1-Dichloroethene	n	ug/l	0.5
cis-1,2-Dichloroethene	n	ug/l	0.5
trans-1,2-Dichloroethene	n	ug/l	0.5
1,2-Dichloropropane	n	ug/l	0.5

2218 Railroad Ave. • Redding, CA 96001 • v 530.243.7234 • f 530.243.7494 • www.basiclabinc.com

EPA METHOD 8260

Report To: PSI ***Lab Number:*** 0210050-3

COMPOUND	RESULT	REPORTING UNITS	QUANTITATION LIMIT
1,3-Dichloropropane	n	ug/l	0.5
2,2-Dichloropropane	n	ug/l	0.5
1,1-Dichloropropene	n	ug/l	0.5
cis-1,3-Dichloropropene	n	ug/l	0.5
trans-1,3-Dichloropropene	n	ug/l	0.5
1,4-Dioxane	n	ug/l	25
Ethyl Benzene	1.0	ug/l	0.5
Ethyl-Tert-Butyl Ether (ETBE)	n	ug/l	0.5
Hexachlorobutadiene	n	ug/l	0.5
2-Hexanone (MBK)	n	ug/l	5.0
Isopropylbenzene	17.1	ug/l	0.5
Di-Isopropyl Ether (DIPE)	n	ug/l	0.5
p-Isopropyltoluene	n	ug/l	0.5
4-Methyl-2-Pentanone (MIBK)	n	ug/l	5.0
Methylene Chloride	n	ug/l	1.0
Methyl Tert-Butyl Ether (MTBE)	n	ug/l	0.5
Napthalene	n	ug/l	0.5
n-Propylbenzene	24.0	ug/l	0.5
Styrene	n	ug/l	0.5
Tert-Amyl Methyl Ether (TAME)	n	ug/l	0.5
1,1,1,2-Tetrachloroethane	n	ug/l	0.5
1,1,2,2-Tetrachloroethane	n	ug/l	0.5
Tetrachloroethene	n	ug/l	0.5
Tetrahydrofuran	n	ug/l	5.0
tert - Butanol (TBA)	n	ug/l	50
Toluene	17.2	ug/l	0.5
1,2,3-Trichlorobenzene	n	ug/l	0.5
1,2,4-Trichlorobenzene	n	ug/l	0.5
1,1,1-Trichloroethane	n	ug/l	0.5
1,1,2-Trichloroethane	n	ug/l	0.5
Trichloroethene	n	ug/l	0.5
1,1,2-Trichlorotrifluoroethane	n	ug/l	0.5
Trichlorofluoromethane	n	ug/l	0.5
1,2,3-Trichloropropane	n	ug/l	0.5
1,2,4-Trimethylbenzene	n	ug/l	0.5
1,3,5-Trimethylbenzene	1.5	ug/l	0.5
Vinyl Acetate	n	ug/l	0.5
Vinyl Chloride	n	ug/l	0.5
Total Xylenes	9.4	ug/l	1.0

SURROGATES	RECOVERY	%	CONTROL LIMITS (%)
1,2-Dichloroethane-d4	92.6	%	28-129
Toluene-d8	108	%	52-150
4-Bromofluorobenzene	83.0	%	43-155

Comments:
California D.O.H.S Cert # 1677
n - Not detected at the quantitation limit.

Reported By

2218 Railroad Ave. • Redding, CA 96001 • v 530.243.7234 • f 530.243.7494 • www.basiclabinc.com

EPA METHOD 8260

Report To:	PSI	***Lab Number:***	0210050-4
	4703 TIDEWATER AVE., STE.B	***Phone:***	510-434-9200
	OAKLAND, CA 94601		
		Date Sampled:	09/03/02
Attention:	FRANK POSS	***Date Received:***	10/01/02
Project Name:	CAL TRANS / HEGENBERGER	***Date Analyzed:***	10/14/02
Project Number:	2G020	***Date Reported:***	10/16/02
Sampling Location:			
Sample ID:	MW-4		
Sample Matrix:	WATER		
Sample Collected By:	BRIAN STOZEK		

COMPOUND	RESULT	REPORTING UNITS	QUANTITATION LIMIT
Acetone	n	ug/l	5.0
Acrylonitrile	n	ug/l	5.0
Benzene	n	ug/l	0.5
Bromobenzene	n	ug/l	0.5
Bromochloromethane	n	ug/l	0.5
Bromodichloromethane	n	ug/l	0.5
Bromoform	n	ug/l	0.5
Bromomethane	n	ug/l	0.5
2-Butanone (MEK)	n	ug/l	5.0
n-Butylbenzene	n	ug/l	0.5
sec-Butylbenzene	n	ug/l	0.5
tert-Butylbenzene	n	ug/l	0.5
Carbon Disulfide	n	ug/l	0.5
Carbon tetrachloride	n	ug/l	0.5
Chlorobenzene	n	ug/l	0.5
Chloroethane	n	ug/l	0.5
2-Chloroethylvinylether	n	ug/l	0.5
Chloroform	n	ug/l	0.5
Chloromethane	n	ug/l	0.5
2-Chlorotoluene	n	ug/l	0.5
4-Chlorotoluene	n	ug/l	0.5
Dibromochloromethane	n	ug/l	0.5
1,2-Dibromo-3-Chloropropane	n	ug/l	0.5
1,2-Dibromoethane	n	ug/l	0.5
Dibromomethane	n	ug/l	0.5
1,2-Dichlorobenzene	n	ug/l	0.5
1,3-Dichlorobenzene	n	ug/l	0.5
1,4-Dichlorobenzene	n	ug/l	0.5
Dichlorodifluoromethane	n	ug/l	0.5
1,1-Dichloroethane	n	ug/l	0.5
1,2-Dichloroethane	n	ug/l	0.5
1,1-Dichloroethene	n	ug/l	0.5
cis-1,2-Dichloroethene	n	ug/l	0.5
trans-1,2-Dichloroethene	n	ug/l	0.5
1,2-Dichloropropane	n	ug/l	0.5

2218 Railroad Ave. • Redding, CA 96001 • v 530.243.7234 • f 530.243.7494 • www.basiclabinc.com

EPA METHOD 8260

Report To: PSI ***Lab Number:*** 0210050-4

COMPOUND	RESULT	REPORTING UNITS	QUANTITATION LIMIT
1,3-Dichloropropane	n	ug/l	0.5
2,2-Dichloropropane	n	ug/l	0.5
1,1-Dichloropropene	n	ug/l	0.5
cis-1,3-Dichloropropene	n	ug/l	0.5
trans-1,3-Dichloropropene	n	ug/l	0.5
1,4-Dioxane	n	ug/l	25
Ethyl Benzene	n	ug/l	0.5
Ethyl-Tert-Butyl Ether (ETBE)	n	ug/l	0.5
Hexachlorobutadiene	n	ug/l	0.5
2-Hexanone (MBK)	n	ug/l	5.0
Isopropylbenzene	n	ug/l	0.5
Di-Isopropyl Ether (DIPE)	n	ug/l	0.5
p-Isopropyltoluene	n	ug/l	0.5
4-Methyl-2-Pentanone (MIBK)	n	ug/l	5.0
Methylene Chloride	n	ug/l	1.0
Methyl Tert-Butyl Ether (MTBE)	n	ug/l	0.5
Napthalene	n	ug/l	0.5
n-Propylbenzene	n	ug/l	0.5
Styrene	n	ug/l	0.5
Tert-Amyl Methyl Ether (TAME)	n	ug/l	0.5
1,1,1,2-Tetrachloroethane	n	ug/l	0.5
1,1,2,2-Tetrachloroethane	n	ug/l	0.5
Tetrachloroethene	n	ug/l	0.5
Tetrahydrofuran	n	ug/l	5.0
tert - Butanol (TBA)	n	ug/l	50
Toluene	n	ug/l	0.5
1,2,3-Trichlorobenzene	n	ug/l	0.5
1,2,4-Trichlorobenzene	n	ug/l	0.5
1,1,1-Trichloroethane	n	ug/l	0.5
1,1,2-Trichloroethane	n	ug/l	0.5
Trichloroethene	n	ug/l	0.5
1,1,2-Trichlorotrifluoroethane	n	ug/l	0.5
Trichlorofluoromethane	n	ug/l	0.5
1,2,3-Trichloropropane	n	ug/l	0.5
1,2,4-Trimethylbenzene	n	ug/l	0.5
1,3,5-Trimethylbenzene	n	ug/l	0.5
Vinyl Acetate	n	ug/l	0.5
Vinyl Chloride	n	ug/l	0.5
Total Xylenes	n	ug/l	1.0
SURROGATES	**RECOVERY**	**%**	**CONTROL LIMITS (%)**
1,2-Dichloroethane-d4	93.0	%	28-129
Toluene-d8	108	%	52-150
4-Bromofluorobenzene	86.4	%	43-155

Comments:
Caifornia D.O.H.S Cert # 1677
n - Not detected at the quantitation limit.

Reported By

2218 Railroad Ave. • Redding, CA 96001 • v 530.243.7234 • f 530.243.7494 • www.basiclabinc.com

EPA METHOD 8260

Report To:	PSI	***Lab Number:***	0210050-5
	4703 TIDEWATER AVE., STE.B	***Phone:***	510-434-9200
	OAKLAND, CA 94601		
		Date Sampled:	09/03/02
Attention:	FRANK POSS	***Date Received:***	10/01/02
Project Name:	CAL TRANS / HEGENBERGER	***Date Analyzed:***	10/12/02
Project Number:	2G020	***Date Reported:***	10/16/02
Sampling Location:			
Sample ID:	MW-5		
Sample Matrix:	WATER		
Sample Collected By:	BRIAN STOZEK		

COMPOUND	RESULT	REPORTING UNITS	QUANTITATION LIMIT
Acetone	n	ug/l	5.0
Acrylonitrile	n	ug/l	5.0
Benzene	1.8	ug/l	0.5
Bromobenzene	n	ug/l	0.5
Bromochloromethane	n	ug/l	0.5
Bromodichloromethane	n	ug/l	0.5
Bromoform	n	ug/l	0.5
Bromomethane	n	ug/l	0.5
2-Butanone (MEK)	n	ug/l	5.0
n-Butylbenzene	1.9	ug/l	0.5
sec-Butylbenzene	n	ug/l	0.5
tert-Butylbenzene	n	ug/l	0.5
Carbon Disulfide	n	ug/l	0.5
Carbon tetrachloride	n	ug/l	0.5
Chlorobenzene	n	ug/l	0.5
Chloroethane	n	ug/l	0.5
2-Chloroethylvinylether	n	ug/l	0.5
Chloroform	n	ug/l	0.5
Chloromethane	n	ug/l	0.5
2-Chlorotoluene	n	ug/l	0.5
4-Chlorotoluene	n	ug/l	0.5
Dibromochloromethane	n	ug/l	0.5
1,2-Dibromo-3-Chloropropane	n	ug/l	0.5
1,2-Dibromoethane	n	ug/l	0.5
Dibromomethane	n	ug/l	0.5
1,2-Dichlorobenzene	n	ug/l	0.5
1,3-Dichlorobenzene	n	ug/l	0.5
1,4-Dichlorobenzene	n	ug/l	0.5
Dichlorodifluoromethane	n	ug/l	0.5
1,1-Dichloroethane	n	ug/l	0.5
1,2-Dichloroethane	n	ug/l	0.5
1,1-Dichloroethene	n	ug/l	0.5
cis-1,2-Dichloroethene	n	ug/l	0.5
trans-1,2-Dichloroethene	n	ug/l	0.5
1,2-Dichloropropane	n	ug/l	0.5

2218 Railroad Ave. • Redding, CA 96001 • v 530.243.7234 • f 530.243.7494 • www.basiclabinc.com

EPA METHOD 8260

Report To: PSI ***Lab Number:*** 0210050-5

COMPOUND	RESULT	REPORTING UNITS	QUANTITATION LIMIT
1,3-Dichloropropane	n	ug/l	0.5
2,2-Dichloropropane	n	ug/l	0.5
1,1-Dichloropropene	n	ug/l	0.5
cis-1,3-Dichloropropene	n	ug/l	0.5
trans-1,3-Dichloropropene	n	ug/l	0.5
1,4-Dioxane	n	ug/l	25
Ethyl Benzene	n	ug/l	0.5
Ethyl-Tert-Butyl Ether (ETBE)	n	ug/l	0.5
Hexachlorobutadiene	n	ug/l	0.5
2-Hexanone (MBK)	n	ug/l	5.0
Isopropylbenzene	6.1	ug/l	0.5
Di-Isopropyl Ether (DIPE)	n	ug/l	0.5
p-Isopropyltoluene	0.6	ug/l	0.5
4-Methyl-2-Pentanone (MIBK)	n	ug/l	5.0
Methylene Chloride	n	ug/l	1.0
Methyl Tert-Butyl Ether (MTBE)	n	ug/l	0.5
Napthalene	n	ug/l	0.5
n-Propylbenzene	6.0	ug/l	0.5
Styrene	n	ug/l	0.5
Tert-Amyl Methyl Ether (TAME)	n	ug/l	0.5
1,1,1,2-Tetrachloroethane	n	ug/l	0.5
1,1,2,2-Tetrachloroethane	n	ug/l	0.5
Tetrachloroethene	n	ug/l	0.5
Tetrahydrofuran	n	ug/l	5.0
tert - Butanol (TBA)	n	ug/l	50
Toluene	5.2	ug/l	0.5
1,2,3-Trichlorobenzene	n	ug/l	0.5
1,2,4-Trichlorobenzene	n	ug/l	0.5
1,1,1-Trichloroethane	n	ug/l	0.5
1,1,2-Trichloroethane	n	ug/l	0.5
Trichloroethene	n	ug/l	0.5
1,1,2-Trichlorotrifluoroethane	n	ug/l	0.5
Trichlorofluoromethane	n	ug/l	0.5
1,2,3-Trichloropropane	n	ug/l	0.5
1,2,4-Trimethylbenzene	n	ug/l	0.5
1,3,5-Trimethylbenzene	0.7	ug/l	0.5
Vinyl Acetate	n	ug/l	0.5
Vinyl Chloride	n	ug/l	0.5
Total Xylenes	6.5	ug/l	1.0

SURROGATES	RECOVERY	%	CONTROL LIMITS (%)
1,2-Dichloroethane-d4	96.3	%	28-129
Toluene-d8	114	%	52-150
4-Bromofluorobenzene	89.5	%	43-155

Comments:
Caifornia D.O.H.S Cert # 1677
n - Not detected at the quantitation limit.

Reported By

2218 Railroad Ave. • Redding, CA 96001 • v 530.243.7234 • f 530.243.7494 • www.basiclabinc.com

BASIC LABORATORY CHAIN OF CUSTODY RECORD

2218 Railroad Ave., Redding, CA 96001 (530) 243-7234 FAX (530) 243-7494

LAB #: 02/0250

CLIENT NAME: PSI

PROJECT NAME: Caltrans Hegenberger

PROJECT #: 26020

SAMPLE TYPE: W

ADDRESS: on File

REQUESTED COMP. DATE: 10-15-02

STATE FORMS? ☐

OF SAMPLES: 5

TURN AROUND TIME: STD ▨ RUSH ☐

PAGE 1 OF 1

PROJECT MANAGER: Frank Poss

PHONE: (510) 434-9200 FAX: E-MAIL:

INVOICE TO: Same PO#:

SPECIAL MAIL ☐ E-MAIL ▨ FAX ▨ EDT ☐

ANALYSIS REQUESTED

DATE	TIME	WATER	COMP	SOIL	SAMPLE DESCRIPTION	# OF BOTTLES	TPH-G/8260 w/oxy	TPH-D (see note*)	LAB ID	REMARKS
9/30/02	10:40	X			MW-1	5	X	X	1	
	11:25	X			MW-2	5	X	X	2	
	12:03	X			MW-3	5	X	X	3	
	12:50	X			MW-4	5	X	X	4	
↓	13:30	X			MW-5	5	X	X	5	
	* note:	Use the Silica Gel cleanup method (method 3630C) for the TPH-D analysis *								

REP:

ID#:

SYSTEM#:

GLOBAL ID #:

QC = 1 2 3 4

PRESERVED WITH: HNO_3 ☐ H_2SO_4 ☐ NaOH ☐ ZnAce/NaOH ☐ HCL ☐ NaThio ☐ OTHER

SAMPLED BY:	DATE/TIME:	RELINQUISHED BY:	DATE/TIME:
Brian Stozek	9/30/02 10:40 13:30	Brian Stozek	9/30/02 17:30
RECEIVED BY:	DATE/TIME:	RELINQUISHED BY:	DATE/TIME:
RECEIVED BY: (SAMPLES UNVERIFIED)	DATE/TIME:	RELINQUISHED BY:	DATE/TIME:
RECEIVED BY LAB: (VERIFIED)	DATE/TIME:	SAMPLES SHIPPED VIA: UPS FEDEX POST BUS OTHER	
[signature]	10/1/02 11AM		

INSTRUCTIONS, TERMS AND CONDITIONS ON BACK.