ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

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

December 10, 1997

Paul and Edith Rawn
3263 Fernside Blvd.
Alameda CA 94501

RE: **Workplan for Preliminary Soil and Groundwater Investigation**
Former Sinclair Paint Site, 2040 San Pablo Av., Oakland CA 94612(Our site # 6548)

Dear Mr. and Mrs. Rawn:

In October of 1997 I reviewed the workplan submitted by Clearwater Revival which proposed advancement of five soil borings and analysis of soil and groundwater samples from each. I called Patrick Lynch of Clearwater on October 17 and told him the proposal was acceptable to this Office and that work could begin.

Today I discussed the site investigation with Mr. Lynch, who told me that any tanks appear to have been removed some years ago. However, fuel piping remains at the site. Mr. Lynch also told me that some fuel contamination has been detected in groundwater.

If you seek a closure (or "no further action") letter from this Office, please forward a copy of the investigation report to me for review. Please include as much information as possible about tank history and your efforts to locate any tanks.

You may contact me with any questions at (510)567-5770.

Sincerely,

Pamela J. Evans

Pamela J. Evans
Senior Hazardous Materials Specialist

c: Dick Pantages, Environmental Health Services
Patrick Lynch, Clearwater Revival Company, 305 Spruce St., Alameda CA 94501
files

CLEARWATER REVIVAL COMPANY

305 Spruce Street
Alameda, CA 94501

(510) 522-2165
FAX (510) 522-8520
email: ClearH2O.Rev@eworld.com

97-2036-00

September 29, 1997

Ms. Pamela Evans
Alameda County Health Care Services Agency
1131 Harbor Bay Parkway
Alameda, CA 94502

Preliminary Soil and Groundwater Investigation
Former Sinclair Paint Site
2040 San Pablo Avenue
Oakland, California

Dear Ms. Evans:

As a follow-up to our discussion last week, Clearwater Revival Company (CRC) has enclosed a copy of our proposed work plan for a soil and groundwater investigation at the above referenced leaking underground fuel storage tank (LUFT) site. The site location is shown in Figure 1. The site owners are:

Paul and Edith Rawn
3263 Fernside Blvd.
Alameda, CA 94501

Preliminary observations indicate a fuel release at the site. The suspected LUFTs have been inactive for over 20 years, and no information is available to determine if the LUFTs were removed or abandoned in place by the former operators. The site contains a single structure which is vacant. It was most recently occupied by Sinclair Paints.

CRC understands from our discussion that closure of any LUFTs that remain at the site will be required by the County. This would include the removal of the underground fuel piping that is present at the site. The results of the soil and groundwater investigation will be presented in a Summary Report. The Summary Report will include a closure plan for any tanks or buried fuel piping that are identified during this preliminary investigation.

A check to Alameda County's Local Oversight Program in the amount of $936.00 is enclosed as a deposit. This fee is based on the assumption that two LUFTs will require later removal from the site. Unused funds can be refunded to the Site Owners.

The investigation will begin upon receipt of a directive from the County. The work (permitting, field work, lab turnaround, and report preparation) will take about four weeks to complete. CRC is interested in expediting this work to minimize potential weather impacts on the proposed investigation, and on any future site work that is proposed.

CRC appreciates your attention to this matter and looks forward to receiving a directive from the County to perform this work. If you have any questions please call me at (510) 522 -2165.

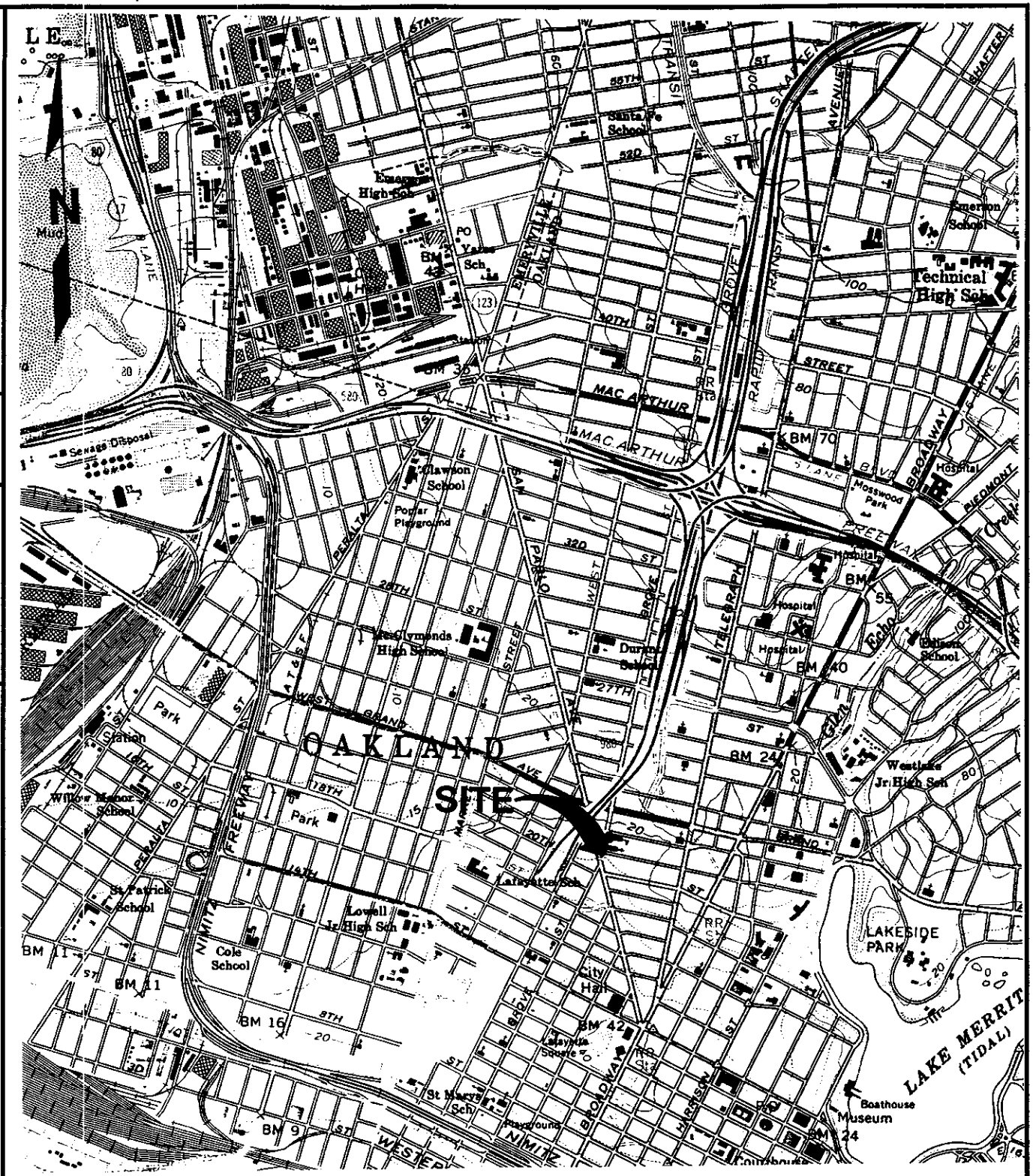
Sincerely,

Patrick G. Lynch, P.E.
Principal Engineer

Enclosures:
Figure 1 - Site Location Map
Attachment 1 - Preliminary Site Assessment Proposal

cc: Paul and Edith Rawn
Thomas Sullivan, Mendelson & Brown, LLP

10/16/97- Called Patrick Lynch + told him that this plan looks OK to me- proceed.
PC



Former Sinclair Paints
2040 San Pablo Avenue
Oakland, California

prepared for
Mendelson & Brown

Source: USGS 7.5 Minute Topographic Map, West Oakland Quadrangle

CLEARWATER REVIVAL COMPANY

Figure 1

REV.	DATE	SCALE			DRAWING NUMBER
1	09-26-97	As Shown	Work Plan	APPROVED BY	97-2036-02
			ISSUE/REVISION	CHECKED BY	

CLEARWATER REVIVAL COMPANY

305 Spruce Street
Alameda, CA 94501

(510) 522-2165
FAX (510) 522-8520
email: ClearH2O.Rev@eworld.com

97-2036-00

September 3, 1997

Mr. Thomas Sullivan
Mendelson & Brown, LLP
1040 Marina Village Parkway, Suite B
Alameda, CA 94501

Proposal
Preliminary Site Assessment
Former Sinclair Paints Site
Oakland, California

Dear Mr. Sullivan:

Clearwater Revival Company appreciates the opportunity to submit this proposal to perform a preliminary assessment of soil and groundwater conditions at an underground fuel tank release site at the Former Sinclair Paints Site at 2040 San Pablo Blvd., Oakland, California.

PROJECT UNDERSTANDING

CRC understands that fuel piping, and a portion of an underground storage tank were observed during exploratory trenching that was recently performed at the site. A strong hydrocarbon odor was also detected during this work.

A preliminary review of Sanborn Fire Insurance maps shows that the site operated as a gasoline service station in 1931 and 1951. The buildings and apparent tank locations differed between the two dates, indicating that underground tanks may have been installed at more than one location at the site.

A preliminary site assessment is proposed to identify potential hydrocarbon source areas and to perform preliminary determination of the extent of hydrocarbons in groundwater within the boundaries of the site.

SCOPE OF WORK

Owner has had a contractor investigate the site with a metal detector, narrowed down possible locations to those shown in site plan. (PE) (Asked that this work be described in the preliminary site assessment report. 10/17/97

TASK 1 - PRELIMINARY WORK

Prior to initiating field work a review of historical aerial photographs will be performed to identify the locations of former buildings, fuel islands, and tank fill ports at the site. Based on the results of the aerial photograph review the proposed hydro-punch borings locations shown on Figure 1 will be refined.

Underground Service Alert and an independent utility locating service will be used to clear boring locations on the site. The utility locating service will also be used to investigate suspected tank locations identified from aerial photographs to make a preliminary determination if buried tanks remain at these locations.

A site specific health and safety plan will also be prepared to address potential health risks to contractor personnel from exposure to petroleum hydrocarbons during sampling activities. As a minimum, the plan will require that all onsite personnel be trained in accordance with Cal-OSHA requirements (8 CCR 5192).

TASK 2 - SITE SAMPLING

Five hydro-punch borings will be advanced to the groundwater surface estimated to be at a depth of 15 feet. The hydro-punch borings will be approximately located as shown in Figure 1. These locations were chosen based on the assumed southwesterly groundwater flow direction.

Soil sampling locations were proposed based on the following rationale:

HP-1 Downgradient of potential fuel pump island
HP-2 Upgradient of potential tank location #1
HP-3 Downgradient of potential tank location #1
HP-4 Downgradient of potential tank location #2
HP-5 Downgradient boundary of site

A soil sample will be collected from a depth of approximately 12 feet. A shallow groundwater sample will also be collected from the hydro-punch at the depth of first encountered groundwater. Following sample collection each hydro-punch boring will be finished to grade with concrete grout.

Soil and groundwater samples will be submitted to a state certified laboratory for analysis. Samples will be analyzed for total petroleum hydrocarbons as gasoline by EPA Method 8015, and for benzene, toluene, ethylbenzene and xylenes by EPA Method 8020.

TASK 3 - SUMMARY REPORT

A technical report will be prepared and submitted to Alameda County Health Care Services Agency (ACHCSA) after review by Brown & Mendelson. The report will document the sampling methodology, sample locations and results of the sample chemical analysis.

Based on the results of the preliminary site assessment the report will make recommendations for case closure, additional sampling, or corrective action as appropriate.

SCHEDULE

The scope of work will take approximately 30 days to complete including two days of field work.

TERMS AND CONDITIONS

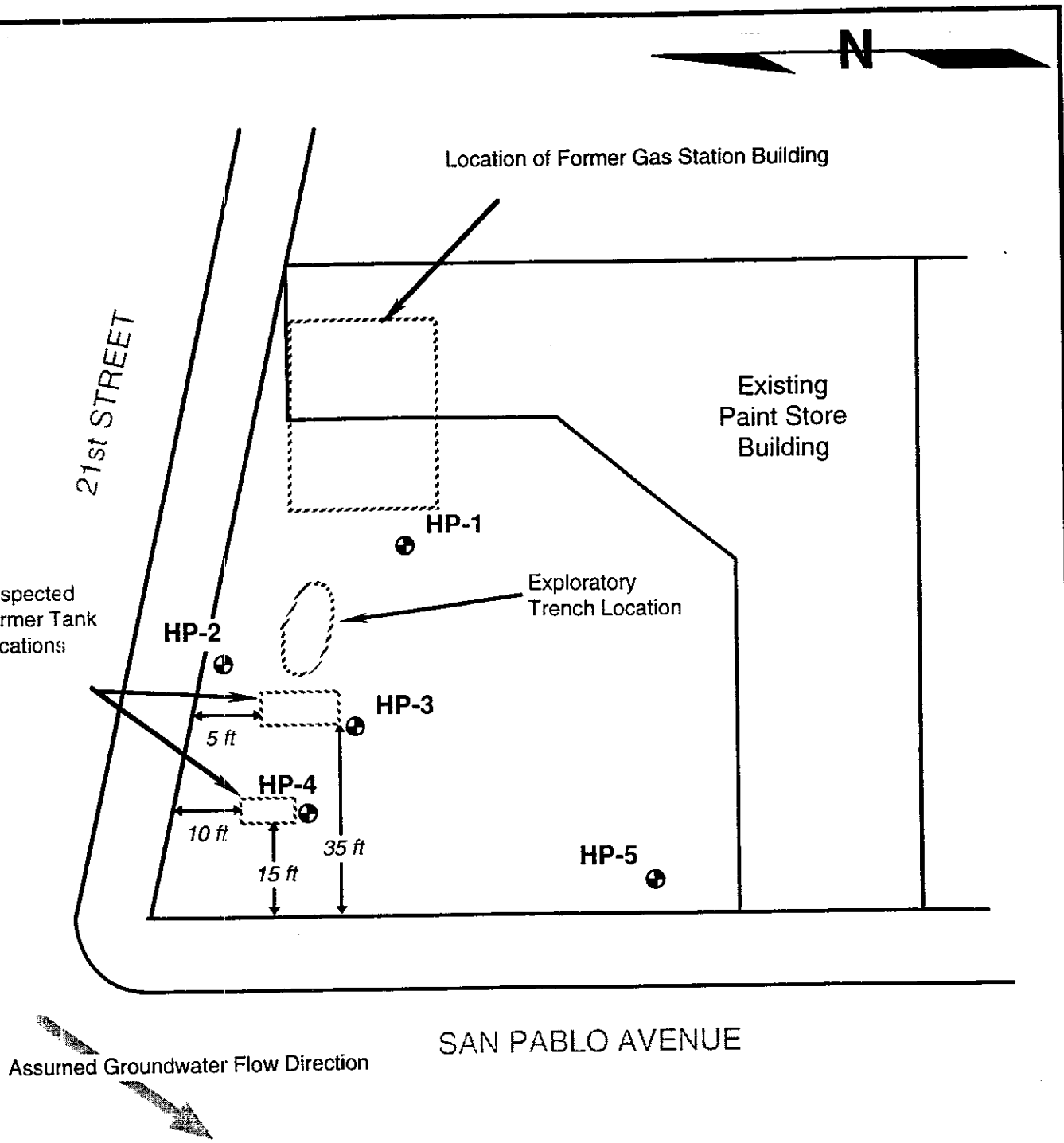
Clearwater Revival Company proposes to complete this project on a time and material basis according to mutually acceptable terms and conditions. The estimated time and material cost to complete the scope of work is $5,145.00. A detailed cost estimate can be found in Attachment A.

We look forward to working with Brown and Mendelson on this project. If you have any questions on this proposal please call me at (510) 522-2165.

Sincerely,
Clearwater Revival Company

Patrick G. Lynch, P.E.
Project Engineer

Attachment A - Detailed Cost Estimate



LEGEND

HP-1 Proposed Hydro-punch Location

Site Plan
2040 San Pablo Avenue
Oakland, California
prepared for
Mendelson and Brown

CLEARWATER REVIVAL COMPANY

Figure 1

REV.	DATE	SCALE	ISSUE/REVISION	CHECKED BY	APPROVED BY	DRAWING NUMBER
1	09-03-97	None	Proposal			97-2034-01

CLEARWATER REVIVAL COMPANY
97-2036-01

305 Spruce Street
Alameda, CA 94501

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FAX (510) 522-8520
email: ClearH2O.Rev@eworld.com

December 15, 1997

Ms. Pamela Evans
Alameda County Health Care Services Agency
1131 Harbor Bay Parkway
Alameda, CA 94502

Report
Preliminary Soil and Groundwater Investigation
Former Sinclair Paint Site
2040 San Pablo Avenue
Oakland, California

Dear Ms. Evans:

Clearwater Revival Company (CRC) has prepared this Investigation Report for the former Sinclair Paint site, 2040 San Pablo Avenue, Oakland, California. This preliminary investigation of soil and groundwater conditions was performed to investigate a suspected leaking underground fuel storage tank location at the property. The investigation workplan was approved by the Alameda County Health Care Services Agency (ACHCSA) on October 17, 1997.

Based on the results of the preliminary investigation, CRC is recommending no further action at the site. CRC is requesting that ACHCSA concur with our "no further action" recommendation and issue a closure letter to the site owner. The results of the preliminary investigation are discussed in the following sections.

PREVIOUS ACTIVITIES

The site owner previously performed a magnetometer survey which identified a suspected underground tank location in the parking area. An exploratory trench was dug with a back-hoe to investigate this area during August 1997. The trench exposed fuel and vent lines. Concrete debris and a piece of metal suspected to be the end of a former underground tank were encountered in the exploratory trench. Gasoline odors were also noted during this work. No buried tanks were uncovered.

CURRENT ACTIVITIES

CRC prepared a workplan to perform a preliminary soil and groundwater investigation at the site and submitted the workplan to ACHCSA for approval

on September 29, 1997. The preliminary investigation workplan called for a review of historical site information to evaluate potential underground fuel tank locations, and the collection of soil and groundwater samples from five locations for chemical analyses.

Site Description

A review of historical aerial photographs indicates that, prior to 1959, the Sinclair Paint site operated as a gasoline service station. Aerial photos and fire insurance maps show two different service station buildings at the site, one in the 1930's and the second in the 1950's.

The location of the former 1950's service station building, underground fuel storage tank and fuel pump islands are shown on Figure 2. The exploratory trench observations indicate that the underground fuel tank associated with the 1950's service station was removed.

The historical information reviewed did not indicate the location of underground tanks from the 1930's. It is possible that underground fuel tanks associated with this earlier station remain at the site.

California Utility Service was used to clear sampling locations of buried utilities. Locations of buried fuel and vent lines that remain at the site were marked. No potential underground storage tank locations were identified during this subsurface utility search.

Site Vicinity

ACHCSA's Local Oversight Program lists the Oakland Bus Depot, 2103 San Pablo Avenue, as a leaking underground fuel storage tank site. The Oakland Bus Depot is located immediately across the street from the Sinclair Paint site. Since tank removal was completed, a total of 14 groundwater monitoring wells have been installed at the Bus Depot site. The Bus Depot has recently completed operation of a hydrocarbon recovery system and is currently performing groundwater monitoring only.

A south-southeast groundwater flow direction has been consistently observed at the Bus Depot site. The Sinclair Paint site is located downgradient from the Bus Depot, as well as from three former gas stations identified during the historical review. Three service stations in close vicinity to the Sinclair Paints site were removed in the 1970's during construction of the State Highway 980 (see Figure 2).

These three sites include:

1) Floyd L. Begin Plaza, an Oakland Public Park on San Pablo Blvd. immediately northwest of the Sinclair Paint Site that previously operated as a Shell Oil station;
2) Castro Street and San Pablo Avenue immediately north of Bus Depot Castro Street was rerouted over the former gas station site;
3) San Pablo Blvd., beneath northeast side of Highway 980 Overpass.

Soil and Groundwater Sampling

On November 11, 1997, five hydro-punch borings (HP-1 to HP-5) were advanced at the Sinclair Paint site. Drilling was performed by Vironex using a Geoprobe 5400 system. Permits were obtained from the Alameda County Flood Control District Zone 7.

The depths of borings ranged from 22 to 26 feet. The two-inch diameter borings were continuously sampled. Borings logs, prepared by a Clearwater Group, Inc., geologist, are included in Appendix A. An organic vapor meter (OVM) was used to screen each soil sample. OVM measurements are recorded on the boring logs.

Based on the OVM screening, a soil sample was collected from each soil boring, sealed and placed in a ice chest for transportation under chain of custody to Entech Analytical Labs. Entech performed chemical analysis for total petroleum hydrocarbons as gasoline (TPHG) by EPA method 8015 modified and for benzene, toluene, ethylbenzene, and xylenes (BTEX), and methyl t-butyl ether (MTBE), by EPA Method 8020. All compounds were reported as non-detectable. Soil sample results are summarized in Table 1. Certified analytical reports can be found in Appendix B.

Groundwater was encountered at 20 to 23 feet deep. A grab groundwater sample was collected from each hydro-punch boring using a stainless steel bailer. Each groundwater sample was analyzed for TPHG, BTEX and MTBE. Groundwater samples results are summarized in Table 2. Certified analytical reports can be found in Appendix B.

Petroleum hydrocarbons were detected in groundwater samples at four of the five sample locations. Non-detectable levels of TPHG, BTEX, and MTBE were reported in the groundwater sample collected from HP-5. HP-1 was also the only sample to contain MTBE at a concentration of 6.8 µg/L.

TPHG was reported in groundwater samples from four locations. The TPHG concentrations ranged from 780 µg/L in HP-1 to 100 µg/L in HP-2.

BTEX were reported in groundwater samples from three locations. The highest concentration of benzene, 39 µg/L, was found in groundwater samples from HP-1. The groundwater sample collected from HP-3 and H-4 reported benzene concentrations of 1.9 µg/L and 0.77 µg/L, respectively.

RECOMMENDATIONS

The results of the investigation indicate that underground storage tanks were removed from the site over 40 years ago. Despite the time that has passed since the site last operated as a gasoline service station, detectable levels of TPHG and BTEX are still found in groundwater beneath the site. Based on these preliminary investigation results, however, no corrective action at the site is recommended.

This recommendation for no further action is based on:

1) The impacted groundwater aquifer is not currently being used as a source of drinking water. A proposed amendment to the San Francisco Bay Area Water Quality Control Plan would remove municipal supply as a potential beneficial use of groundwater in the site area.

2) A comprehensive California study of contaminant migration from leaking fuel storage tanks sites located in areas of alluvial geology similar to the Sinclair Paint site, shows that contamination is unlikely to migrate beyond a distance of 250 feet from the source area (LLNL, 1996).

3) The City of Oakland is currently developing an Urban Land Renewal ordinance that includes risked-based cleanup standards. This ordinance is anticipated to use a cancer risk threshold of 1-in-100,000. This cancer risk threshold is consistent with the threshold for public notification under Proposition 65.

4) The American Society for Testing and Materials (ASTM) developed a Risk Based Corrective Action (RBCA) methodology and Risk Based Screening Levels (RBSLs) for petroleum release sites. The preliminary investigation results from the Sinclair Paint site were compared with the ASTM Tier One RBSLs Lookup Table to determine if a further investigation, Tier 2, was warranted at the site. For a cancer risk threshold of 1-in-100,000 no commercial/industrial RBSLs were exceeded. The ASTM RBCA screening indicates that further corrective action at the Sinclair Paint site is unnecessary.

5) CRC has developed a California-modified RBSLs Lookup Table that more closely complies with the California Environmental Protection Agency's Preliminary Endangerment Assessment Manual (DTSC, 1994), and uses the more conservative toxicological data developed by the Office of Environmental

Health Hazard Assessment for implementation of Proposition 65 (OEHHA, 1995) then ASTM. For a cancer risk threshold of 1-in-100,000, the maximum benzene concentration in HP-1 of 39µg/L exceeded CRC's California-modified RBSLs for groundwater ingestion, 28.6 µg/L. Since, groundwater ingestion is not an existing or potential exposure pathway, the California-modified RBCA screening also concludes that further corrective action at the Sinclair Paint site is unnecessary.

LIMITATIONS

Work for this project was performed in accordance with generally accepted professional practices for the nature and conditions of the work completed in the same or similar localities, at the time the work was performed. This report has been prepared for specific application to the Former Sinclair Paint Site at 2040 San Pablo Avenue in Oakland, California. This document is not intended to represent a legal opinion. No other warranty, express or implied, is made.

If you have any questions regarding work at this site, call me at (510) 522 -2165.

Sincerely,
Clearwater Revival Company

Patrick G. Lynch, P.E.
Principal Engineer

6/30/98

cc: Paul and Edith Rawn
Thomas Sullivan, Mendelson & Brown, LLP

Enclosures:

Figure 1 - Site Location Map
Figure 2 - Site Vicinity Map
Figure 3 - Boring Locations
Table 1 - Soil Sample Results
Table 2 - Groundwater Sample Results
Appendix A - Boring Logs
Appendix B - Certified Analytical Reports

REFERENCES

American Society for Testing and Materials, 1995, "Standard Guide for Risk-Based Corrective Action Applied at Petroleum Release Sites," E 1739-95, November.

California Regional Water Quality Control Board - San Francisco Bay Region, 1986, "Water Quality Control Plan, San Francisco Bay Basin Region (2)," December.

California Department of Toxic Substances Control, 1994, "Preliminary Endangerment Assessment Guidance Manual," January.

California Office of Environmental Health Hazard Assessment, 1995, "Criteria for Carcinogens," April 4.

Lawrence Livermore National Laboratory, 1995, "California Leaking Underground Fuel Tank (LUFT) Historical Case Analyses," November 16.

Table 1. Soil Sample Analytical Results Summary
Former Sinclair Paints Site, Oakland, California

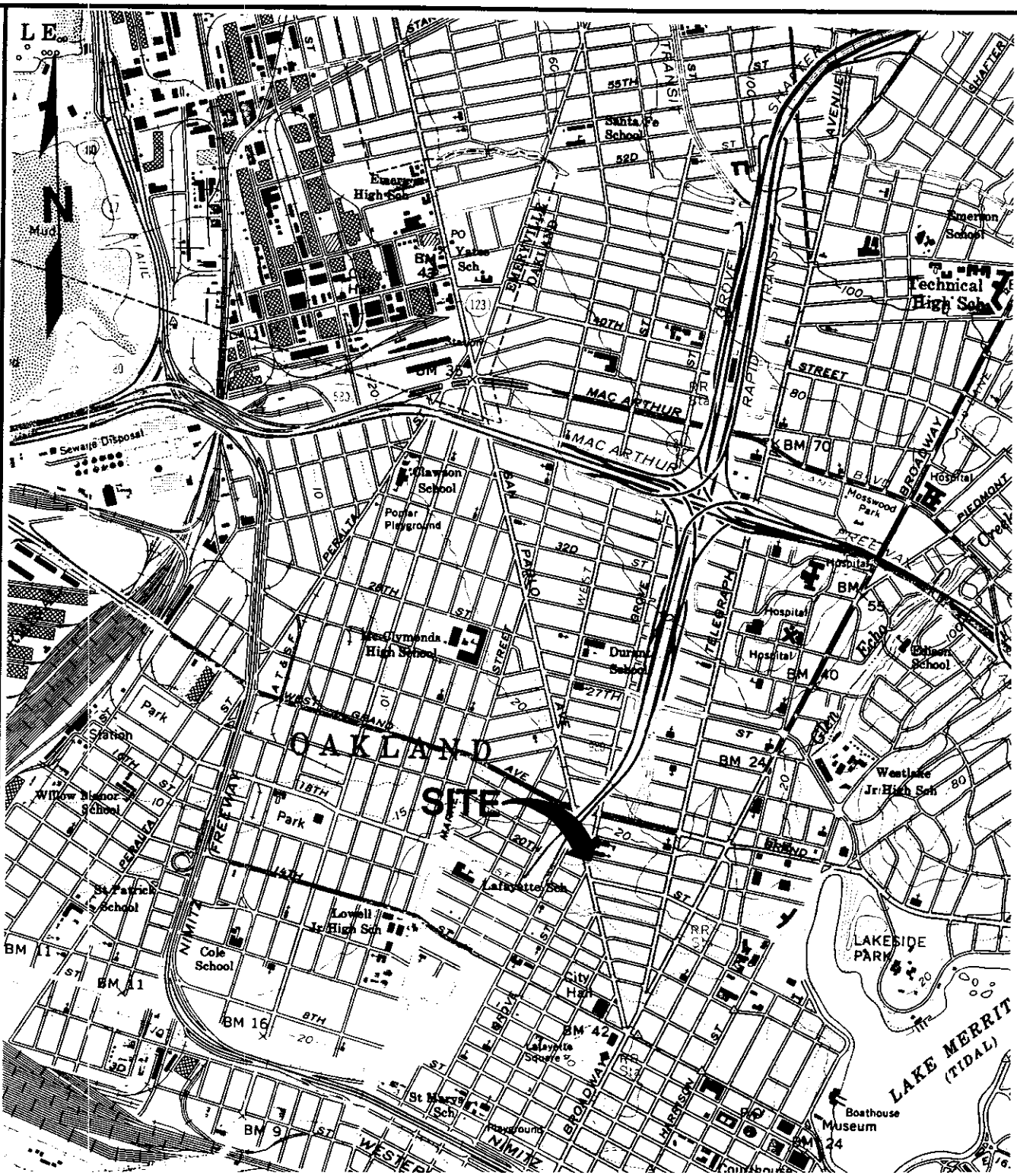
Sample No.	Sample Depth (feet bgs)	TPH as Gasoline (mg/kg)	Methyl t-Butyl Ether (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	Sample Date
HP-1	20.0	ND 1.0	ND 0.05	ND 0.005	ND 0.005	ND 0.005	ND 0.005	11/11/97
HP-2	11.0	ND 1.0	ND 0.05	ND 0.005	ND 0.005	ND 0.005	ND 0.005	11/11/97
HP-3	12.0	ND 1.0	ND 0.05	ND 0.005	ND 0.005	ND 0.005	ND 0.005	11/11/97
HP-4	18.0	ND 1.0	ND 0.05	ND 0.005	ND 0.005	ND 0.005	ND 0.005	11/11/97
HP-5	12.0	ND 1.0	ND 0.05	ND 0.005	ND 0.005	ND 0.005	ND 0.005	11/11/97

NOTES: ND X denotes compound not detected at a concentration of X.

Table 2. Groundwater Sample Analytical Results Summary
Former Sinclair Paints Site, Oakland, California

Sample No.	TPH as Gasoline (µg/L)	Methyl t-Butyl Ether (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	Sample Date
HP-1	780	6.8	39	16	54	43	11/11/97
HP-2	100	ND 5.0	ND 0.5	ND 0.5	ND 0.5	ND 0.5	11/11/97
HP-3	220	ND 5.0	1.9	1.3	ND 0.5	4.3	11/11/97
HP-4	260	ND 5.0	0.73	0.9	ND 0.5	1.1	11/11/97
HP-5	ND 50	ND 5.0	ND 0.5	ND 0.5	ND 0.5	ND 0.5	11/11/97

NOTES: Groundwater samples collected from temporary well points.
ND X denotes compound not detected at a concentration of X.



Site Location Map

Former Sinclair Paints
2040 San Pablo Avenue
Oakland, California

SCALE

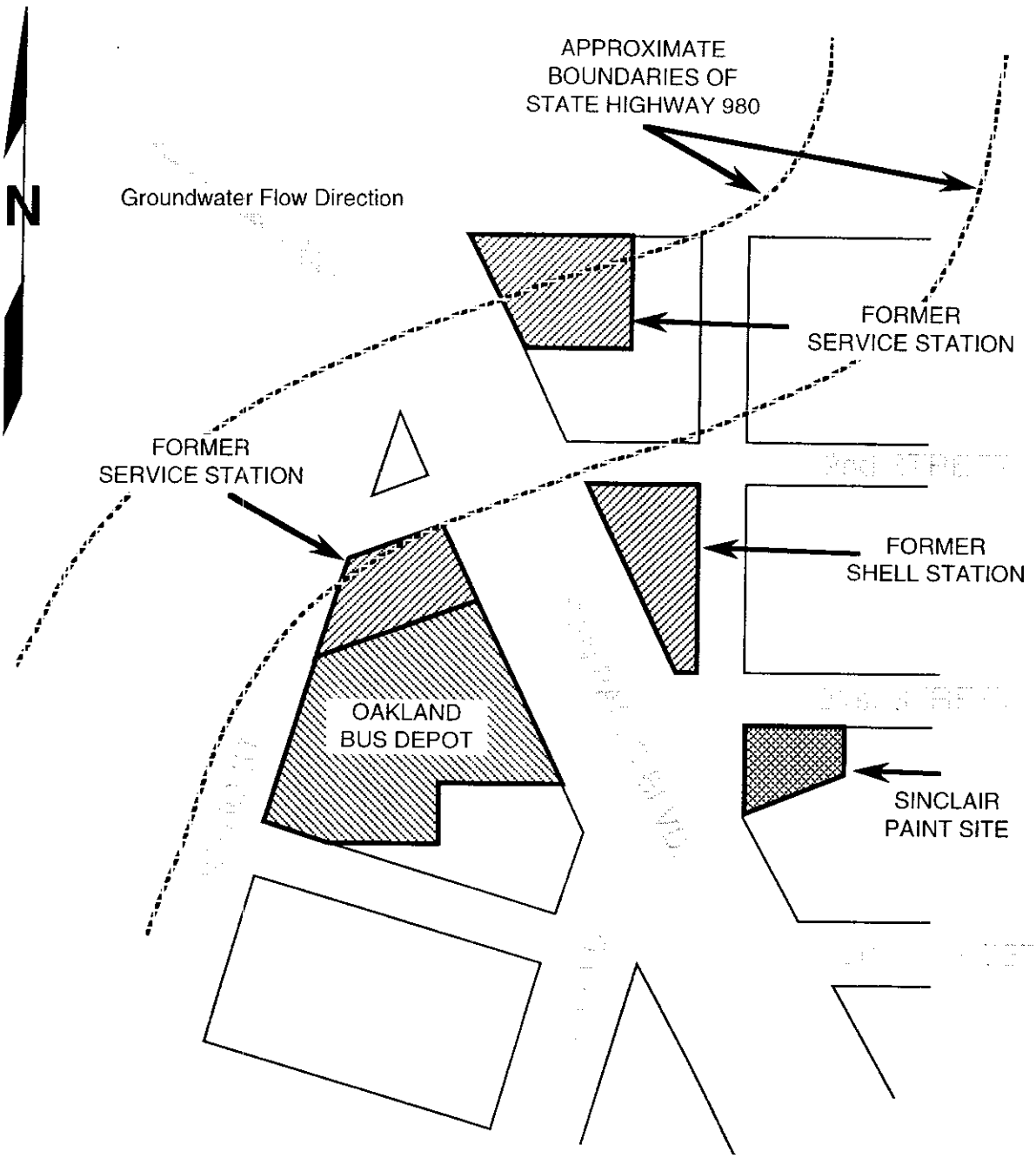
2000 0 2000 feet

Source: USGS 7.5 Minute Topographic Map, West Oakland Quadrangle

CLEARWATER REVIVAL COMPANY

Figure 1

REV.	DATE	SCALE	ISSUE/REVISION	APPROVED BY	CHECKED BY	DRAWING NUMBER
1	09-26-97	As Shown	Final Report			97-2036-02



REV.	DATE	SCALE	DRAWING NUMBER
1	12-03-97	None	97-2036-03

APPROVED BY	CHECKED BY	ISSUE/REVISION
		Final Report

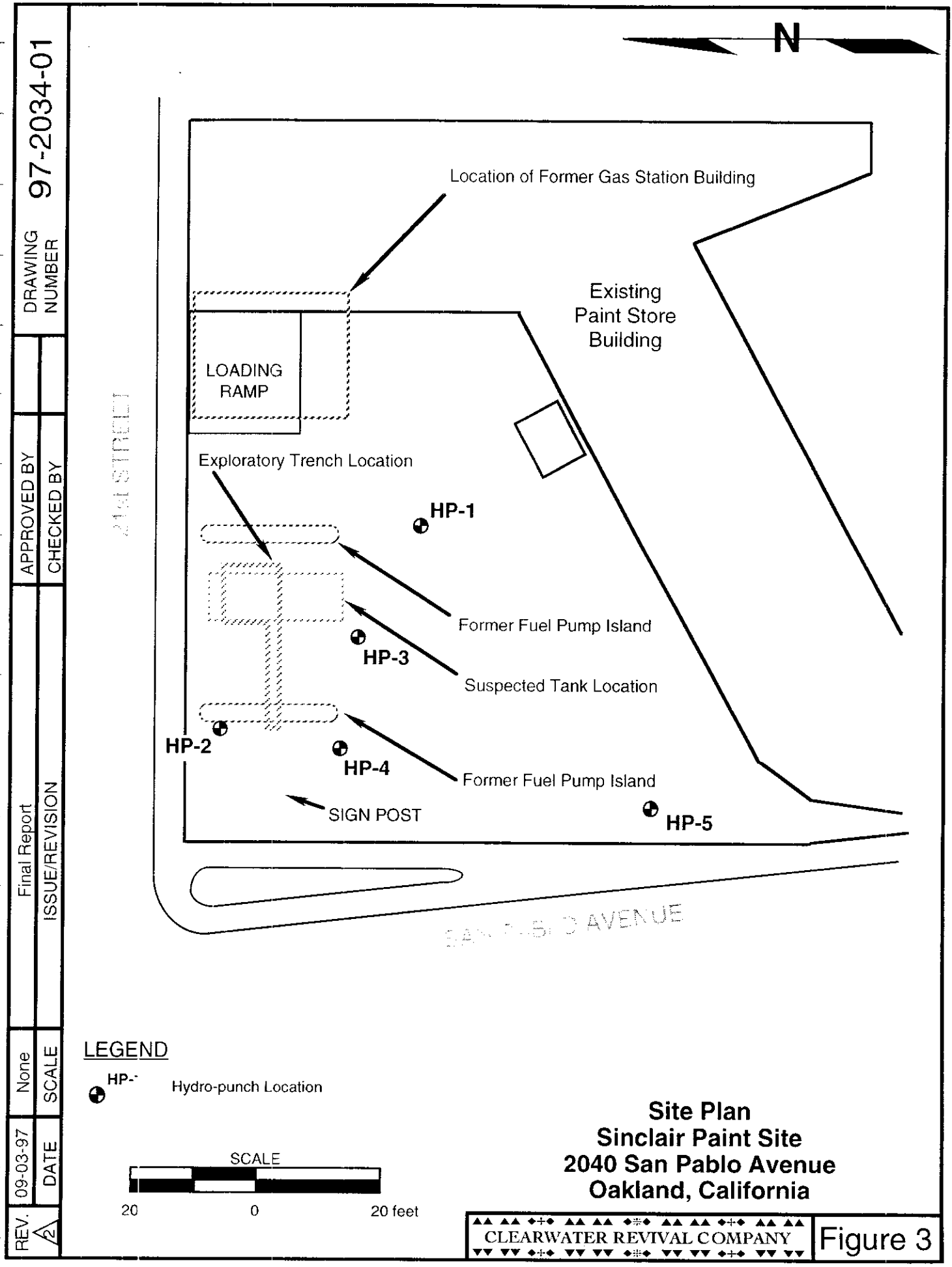
NOTES:
1. Service Stations identified from Sanborn Fire Insurance Maps and Aerial Photographs.
2. Groundwater flow direction from Oakland Bus Depot leaking fuel tank cleanup program monitoring.

Site Vicinity Map

Former Sinclair Paints
2040 San Pablo Avenue
Oakland, California

CLEARWATER REVIVAL COMPANY

Figure 2


N
Location of Former Gas Station Building
Existing
Paint Store
Building
LOADING
RAMP
Exploratory Trench Location
HP-1
Former Fuel Pump Island
HP-3
Suspected Tank Location
HP-2
HP-4
Former Fuel Pump Island
SIGN POST
HP-5
21st STREET
SAN PABLO AVENUE
LEGEND
HP-
Hydro-punch Location
SCALE
20
0
20 feet
Site Plan
Sinclair Paint Site
2040 San Pablo Avenue
Oakland, California
CLEARWATER REVIVAL COMPANY
Figure 3
DRAWING NUMBER 97-2034-01
APPROVED BY
CHECKED BY
Final Report
ISSUE/REVISION
None
SCALE
09-03-97
DATE
REV. 2

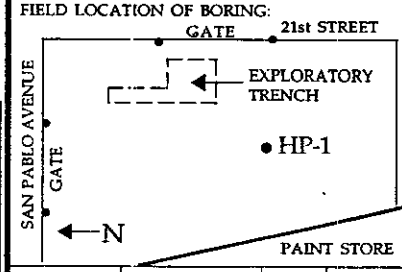
SOIL BORING AND WELL CONSTRUCTION LOG:

CLEARWATER GROUP INC.

Project No. C-215

Sheet 1 of 1

FIELD LOCATION OF BORING:



CLIENT/LOCATION: Sinclair Paint, San Pablo Ave, Oakland	PLANNED USE: Exploratory	BORING DEPTH: 26 feet	BORING/WELL NO.: HP-1
DRILLING CONTRACTOR: Vironex	DRILL RIG TYPE: Geoprobe 5400	WELL DEPTH: N/A	BORING DIAMETER: 2 inches
DRILL RIG OPERATOR: Paul White/Scott Souza	WELL MATERIAL: N/A	WELL DIAMETER: N/A	SCREEN SLOT SIZE: N/A
WELL/BOREHOLE SEAL: None - boring grouted to surface			FILTER PACK: N/A

DRILLING START: 11/11/97 FINISH: 11/11/97 - 1300 - 1020

LOGGED BY: Ruary Allan

APPROVED BY:

SAMPLING METHOD: Continuous core

MONITORING INSTRUMENT: Thermo 580B - OVM

FIRST ENCOUNTERED WATER DEPTH: 23' bgs

STATIC WATER DEPTH - DATE: N/A

DEPTH (FEET)	OVM READING (PPM)	ESTIMATED PERCENT GRAVEL	SAND	FINES	GRAPHIC LOG	
1					?	SILT: dark brown (fill)
2						
3						
4	0					Clayey SILT (ML): grey/red-brown, firm, moderate plasticity
5				100		
6						
7	0			100		Silty CLAY (CL): greenish-grey/light red-brown, firm, low to moderate plasticity, trace organics, damp
8						
9			5	95		Clayey SILT (ML): yellow-brown, firm to hard, trace fine grained, angular sand, trace organic matter
10						
11						
12	0		30	70		Clayey sandy SILT (ML): as above, increased sand content
13						
14						
15						
16	0		50	50		Sandy, clayey SILT (SM-ML): blue-grey/yellow, firm, semi-loose
17					?	
18						Silty SAND (SM): as above, damp
19						
20	45					
21				100		Poorly Graded SAND (SP): blue-grey, fine grained, subrounded, moist
22						
23	4					
24					?	No returns
25						
26						
27						
28						
29						
30						

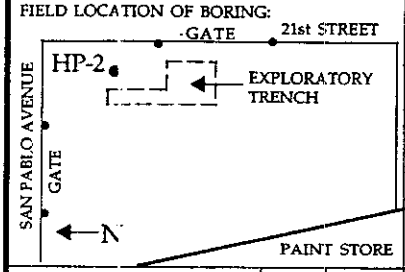
SOIL BORING AND WELL CONSTRUCTION LOG:

CLEARWATER GROUP INC.

Project No. C-215

Sheet 1 of 1

FIELD LOCATION OF BORING:



CLIENT/LOCATION: Sinclair Paint, San Pablo Ave, Oakland	PLANNED USE: Exploratory	BORING DEPTH: 23 feet	BORING/WELL NO.: HP-2
DRILLING CONTRACTOR: Vironex	DRILL RIG TYPE: Geoprobe 5400	WELL DEPTH: N/A	BORING DIAMETER: 2 inches
DRILL RIG OPERATOR: Paul White/Scott Souza	WELL MATERIAL: N/A	WELL DIAMETER: N/A	SCREEN SLOT SIZE: N/A
WELL/BOREHOLE SEAL: None - boring grouted to surface			FILTER PACK: N/A

SAMPLING METHOD: Continuous core

MONITORING INSTRUMENT: Thermo 580B - OVM

FIRST ENCOUNTERED WATER DEPTH: 20' bgs

STATIC WATER DEPTH - DATE: N/A

DRILLING START: 11/11/97 - 1100

FINISH: 11/11/97 - 1230

LOGGED BY: Ruary Allan

APPROVED BY:

DEPTH (FEET)	OVM READING (PPM)	ESTIMATED PERCENT GRAVEL	SAND	FINES	GRAPHIC LOG	
1					?	SILT with sand: dark brown/grey; red-brown elastic silt in places (fill)
2			20	70		
3		10				
4						
5			80	20		Silty SAND (SM): blue-grey, fine grained, semi-loose
6						
7	0					
8					?	
9			tr	100		SILT (ML): greenish-grey, firm, low plasticity, slightly crumbly; some clay; occasional trace dark grey, coarse grained, rounded sand; damp
10						
11						
12	0		50	50		Silty SAND (SM)
13	2.5		20	80		Sandy SILT (ML): blue-grey/red-brown, low plasticity, crumbly; fine grained and trace coarse grained, subrounded sand; damp. Grades to:
14						
15	0					
16			95	5		Poorly graded SAND (SP); light grey, fine grained, loose, trace silt, damp
17						
18						
19						
20	0		60	40		Silty SAND (SM); olive-brown, fine grained, wet
21						
22			95	5		Poorly graded SAND (SP): olive-brown, fine grained, wet
23						
24						
25						
26						
27						
28						
29						
30						

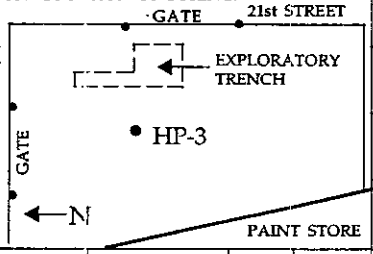
SOIL BORING AND WELL CONSTRUCTION LOG:

Project No. C-215

CLEARWATER GROUP INC.

Sheet 1 of 1

FIELD LOCATION OF BORING:



CLIENT/LOCATION: Sinclair Paint, San Pablo Ave, Oakland	PLANNED USE: Exploratory	BORING DEPTH: 23 feet	BORING/WELL NO.: HP-3
DRILLING CONTRACTOR: Vironex	DRILL RIG TYPE: Geoprobe 5400	WELL DEPTH: N/A	BORING DIAMETER: 2 inches
DRILL RIG OPERATOR: Paul White/Scott Souza	WELL MATERIAL: N/A	WELL DIAMETER: N/A	SCREEN SLOT SIZE: N/A
WELL/BOREHOLE SEAL: None - boring grouted to surface			FILTER PACK: N/A

DRILLING START: 11/11/97 - 0830 FINISH: 11/11/97 - 0940

LOGGED BY: Ruary Allan

APPROVED BY:

SAMPLING METHOD: Continuous core

MONITORING INSTRUMENT: Thermo 580B - OVM

FIRST ENCOUNTERED WATER DEPTH: 22' bgs

STATIC WATER DEPTH - DATE: N/A

DEPTH (FEET)	OVM READING (PPM)	ESTIMATED PERCENT GRAVEL	SAND	FINES	GRAPHIC LOG	
1					?	SILT: dark brown with fine sand and coarse grained gravel (fill)
2						
3	0					
4						
5						Poorly graded SAND (SP): dark-brown, predominantly fine grained, some coarse grained, subangular sand and fine grained gravel, damp
6		5	95			
7					?	
8	2.0					
9		5	95			
10						
11						Silty CLAY (CL-ML): dark beige, soft - firm, high plasticity, trace fine grained sand, damp
12	0		5	95		
13					?	
14						
15	0		75	25		Silty SAND (SM): blue-grey, fine grained, trace medium grained, some silt, damp
16					?	
17						
18						
19			75	25		Silty SAND (SM): as above
20	0					
21						
22						
23			95	5		Poorly graded SAND (SP): yellow-brown, fine grained, little silt, wet
24						
25						
26						
27						
28						
29						
30						

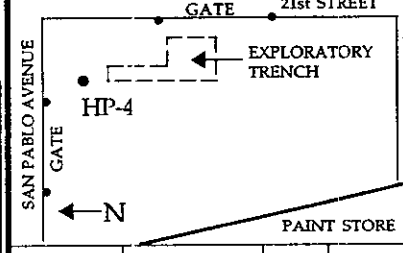
SOIL BORING AND WELL CONSTRUCTION LOG:

Project No. C-215

CLEARWATER GROUP INC.

Sheet 1 of 1

FIELD LOCATION OF BORING:



CLIENT/LOCATION: Sinclair Paint, San Pablo Ave, Oakland	PLANNED USE: Exploratory	BORING DEPTH: 24 feet	BORING/WELL NO.: HP-4
DRILLING CONTRACTOR: Vironex	DRILL RIG TYPE: Geoprobe 5400	WELL DEPTH: N/A	BORING DIAMETER: 2 inches
DRILL RIG OPERATOR: Paul White/Scott Souza	WELL MATERIAL: N/A	WELL DIAMETER: N/A	SCREEN SLOT SIZE: N/A
WELL/BOREHOLE SEAL: None - boring grouted to surface			FILTER PACK: N/A

SAMPLING METHOD: Continuous core

MONITORING INSTRUMENT: Thermo 580B - OVM

FIRST ENCOUNTERED WATER DEPTH: 21' bgs

STATIC WATER DEPTH - DATE: N/A

DRILLING START: 11/11/97 - 0950 FINISH: 11/11/97 - 1045

LOGGED BY: Ruary Allan

APPROVED BY:

DEPTH (FEET)	WELL CONSTRUCTION DETAIL	SAMPLING: BLOWS/6" INTERVAL	SAMPLING: INTERVAL	SAMPLING: RECOVERY	SAMPLING: ANALYTICAL	WATER LEVEL	OVM READING (PPM)	ESTIMATED PERCENT: GRAVEL	ESTIMATED PERCENT: SAND	ESTIMATED PERCENT: FINES	GRAPHIC LOG	
1												Sandy SILT: dark brown with fine sand and coarse grained gravel, elastic, moist (fill)
2								10	20	70		
3							0					
4												
5							0		80	20		Silty SAND (SM): blue-grey, predominantly fine grained, some silt, firm, damp
6												
7												
8							0					
9									30	70		Sandy SILT(ML): blue-grey, fine grained sand, damp
10												
11												
12												Sandy SILT(ML): brown, fine grained sand, soft, damp
13												Sandy SILT (ML): blue grey/brown, wet
14							0					
15									70	30		Silty clayey SAND (SM): blue-grey, fine grained, subrounded, clayey/silty at top, no fines at base, damp
16												
17												
18							0		100			Sandy SILT(ML): grey, fine grained sand, firm, moderate plasticity
19									25	75		
20												Silty SAND (SM): olive-grey, predominantly fine grained, trace medium grained, subangular, loose, trace clay, wet
21						▽	18					
22									75	25		
23							0					Sandy SILT (ML): olive-grey/brown, fine grained sand, little clay
24									25	75		
25												
26												
27												
28												
29												
30												

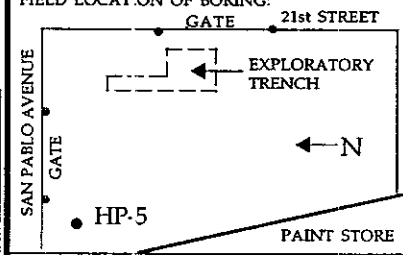
SOIL BORING AND WELL CONSTRUCTION LOG:

CLEARWATER GROUP INC.

Project No. C-215

Sheet 1 of 1

FIELD LOCATION OF BORING:



CLIENT/LOCATION: Sinclair Paint, San Pablo Ave, Oakland	PLANNED USE: Exploratory	BORING DEPTH: 22 feet	BORING/WELL NO.: HP-5
DRILLING CONTRACTOR: Vironex	DRILL RIG TYPE: Geoprobe 5400	WELL DEPTH: N/A	BORING DIAMETER: 2 inches
DRILL RIG OPERATOR: Paul White/Scott Souza	WELL MATERIAL: N/A	WELL DIAMETER: N/A	SCREEN SLOT SIZE: N/A
WELL/BOREHOLE SEAL: None - boring grouted to surface			FILTER PACK: N/A

DRILLING START: 11/11/97 - 0830 FINISH: 11/11/97 - 1000

LOGGED BY: Ruary Allan

APPROVED BY:

SAMPLING METHOD: Continuous core

MONITORING INSTRUMENT: Thermo 580B - OVM

FIRST ENCOUNTERED WATER DEPTH: 20' bgs

STATIC WATER DEPTH - DATE: N/A

DEPTH (FEET)	OVM READING (PPM)	ESTIMATED PERCENT GRAVEL	SAND	FINES	GRAPHIC LOG	
1						
2		5	10	85		SILT: dark brown with fine sand and dark grey angular gravel, weathered rusty nodules (fill)
3	0					
4					?	
5				100		SILT (ML): cream brown/orange, firm, moderate plasticity, some clay, trace organic matter
6						
7	0			100		
8					?	
9						
10						
11	0			100		
12					?	
13						
14						
15	0		20	80		SILT with sand (ML): cream brown/orange, loose, no clay, trace organic matter, damp
16						
17	0		20	80		
18				100		Silty CLAY(CL): brown, soft, moderate plasticity, trace organic matter
19						Silty SAND (SM): light greenish-brown, fine grained, subangular, loose, little silt, trace medium grained sand, damp to wet
20						
21			80	20		
22	0					
23						
24						
25						
26						
27						
28						
29						
30						

Entech Analytical Labs, Inc.

CA ELAP# 2224

525 Del Rey Avenue, Suite E • Sunnyvale, CA 94086 • (408) 735-1550 • Fax (408) 735-1554

Attn: Henry Hurkmans
Clearwater Group, Inc.
520 Third Street, Suite 104
Oakland, CA 94607

Date:	11/18/97
Date Received:	11/11/97
Date Analyzed:	11/14/97
Project:	C-215
Sampled By:	Client

Certified Analytical Report

Soil Sample Analysis:

Test	*HP-2, 11'*	*HP-1, 20'*	*HP-3, 12'*	*HP-4, 18'*	*Units*	*PQL*	*EPA Method #*
Sample Matrix	Soil	Soil	Soil	Soil			
Sample Date	11/11/97	11/11/97	11/11/97	11/11/97			
Sample Time	1130	1100	0900	1030			
Lab #	D17337	D17338	D17339	D17340			
DF-Gas/ BTEX	1	1	1	1			
TPH Gas	**ND**	**ND**	**ND**	**ND**	mg/kg	1.0 mg/kg	8015M
MTBE	**ND**	**ND**	**ND**	**ND**	mg/kg	0.05 mg/kg	8020
Benzene	**ND**	**ND**	**ND**	**ND**	mg/kg	0.005 mg/kg	8020
Toluene	**ND**	**ND**	**ND**	**ND**	mg/kg	0.005 mg/kg	8020
Ethyl Benzene	**ND**	**ND**	**ND**	**ND**	mg/kg	0.005 mg/kg	8020
Xylenes	**ND**	**ND**	**ND**	**ND**	mg/kg	0.005 mg/kg	8020

1. DLR=DF x PQL
2. Analysis performed by Entech Analytical Labs, Inc. (CAELAP #2224)

Michael N. Golden, Lab Director

DF=Dilution Factor
DLR=Detection Reporting Limit

PQL=Practical Quantitation Limit
ND=None Detected at or above DLR

Entech Analytical Labs, Inc.

CA ELAP# 2224

525 Del Rey Avenue, Suite E • Sunnyvale, CA 94086 • (408) 735-1550 • Fax (408) 735-1554

Attn: Henry Hurkmans
Clearwater Group, Inc.
520 Third Street, Suite 104
Oakland, CA 94607

Date:	11/18/97
Date Received:	11/11/97
Date Analyzed:	11/14/97
Project:	C-215
Sampled By:	Client

Certified Analytical Report

Soil Sample Analysis:

Test	*HP-5, 12'*	*Units*	*PQL*	*EPA Method #*
Sample Matrix	Soil			
Sample Date	11/11/97			
Sample Time	0930			
Lab #	D17341			
DF-Gas/ BTEX	1			
TPH Gas	**ND**	mg/kg	1.0 mg/kg	8015M
MTBE	**ND**	mg/kg	0.05 mg/kg	8020
Benzene	**ND**	mg/kg	0.005 mg/kg	8020
Toluene	**ND**	mg/kg	0.005 mg/kg	8020
Ethyl Benzene	**ND**	mg/kg	0.005 mg/kg	8020
Xylenes	**ND**	mg/kg	0.005 mg/kg	8020

1. DLR=DF x PQL
2. Analysis performed by Entech Analytical Labs, Inc. (CAELAP #2224)

Michael N. Golden, Lab Director

DF=Dilution Factor
DLR=Detection Reporting Limit

PQL=Practical Quantitation Limit
ND=None Detected at or above DLR

Entech Analytical Labs, Inc.

525 Del Rey Avenue, Suite E
Sunnyvale, CA 94086

QUALITY CONTROL RESULTS SUMMARY

METHOD: Gas Chromatography

QC Batch #: GBG5971114
Matrix: Water
Units: µg/L

Date Analyzed: 11/14/97
Quality Control Sample: Blank Spike

PARAMETER	Method #	MB µg/L	SA µg/L	SR µg/L	SP µg/L	**SP % R**	SPD µg/L	**SPD %R**	RPD	QC LIMITS (ADVISORY) RPD	QC LIMITS (ADVISORY) %R
Benzene	8020	<0.50	10.0	ND	11.6	**116**	12.0	**120**	3.8	25	50-150
Toluene	8020	<0.50	10.0	ND	11.4	**114**	11.7	**117**	1.8	25	50-150
Ethyl Benzene	8020	<0.50	10.0	ND	11.1	**111**	11.2	**112**	0.9	25	50-150
Xylenes	8020	<0.50	30	ND	36	**119**	35	**117**	1.4	25	50-150
Gasoline	8015	<50.0	625	ND	593	**95**	620	**99**	4.5	25	50-150

Definition of Terms:

- na: Not Analyzed in QC batch
- MB: Method Blank
- SA: Spike Added
- SR: Sample Result
- RPD(%): Duplicate Analysis - Relative Percent Difference
- SP: Spike Result
- SP (%R): Spike % Recovery
- SPD: Spike Duplicate Result
- SPD (%R): Spike % Recovery
- NC: Not Calculated

Entech Analytical Labs, Inc.

525 Del Rey Avenue, Suite E • Sunnyvale, CA 94086 • Telephone: (408) 735-1550 (800) 287-1799 • Fax: (408) 735-1554

Chain of Custody/Analysis Work Order

Client: Clearwater Group Inc.
Address: 520 3rd St # 104
Oakland CA 94607
Contact: Henry Huckmanas
Telephone #: (510) 8935160
Date Received:
Turn Around:

Project ID: C-215
Purchase Order #:

Sampler/Company: Ruary Allan, CGI. Telephone #: (510) 8935160

Special Instructions/Comments

LAB USE ONLY

Samples arrived chilled and intact: Yes No

Notes:

Sample Information								Requested Analysis							
Lab #	Sample ID	Grab/ Composite	Matrix	Date Collected	Time Collected	Pres.	Sample Container	TPHg	BTEX	MTBE					
D17337	HP-2, 11'	Grab	Soil	11-11-97	11.30	None	1.5" plastic	X	X	X					
D17338	HP-1, 20'	↓	↓	↓	1100	↓	sleeve	↓	↓	↓					
D17339	HP-3, 12'				0900										
D17340	HP-4, 18'				1030										
D17341	HP-5, 12'				0930										

Relinq. By:	Received By:	Date	Time
Ruary Allan CGI	[signature] WMC	11-11-97	3:25
[signature] WMC	VTRAN	11/11/97	9:20 pm
Relinq/ By:	Received By:	Date	Time

Entech Analytical Labs, Inc.

CA ELAP# 2224

525 Del Rey Avenue, Suite E • Sunnyvale, CA 94086 • (408) 735-1550 • Fax (408) 735-1554

RECEIVED NOV 2 0 1997

Attn: Henry Hurkmans
Clearwater Group, Inc.
520 Third Street, Suite 104
Oakland, CA 94607

Date:	11/18/97
Date Received:	11/11/97
Date Analyzed:	11/12/97
Project:	C-215
Sampled By:	Client

Certified Analytical Report

Water Sample Analysis:

Test	*HP-1*	*HP-2*	*HP-3*	*HP-4*	*Units*	*PQL*	*EPA Method #*
Sample Matrix	Water	Water	Water	Water			
Sample Date	11/11/97	11/11/97	11/11/97	11/11/97			
Sample Time	1315	1230	1040	1245			
Lab #	D17342	D17343	D17344	D17345			
DF-Gas/BTEX	1	1	1	1			
TPH-Gas	**780**	**100[2]**	**220**	**260**	µg/liter	50.0 µg/l	8015M
MTBE	**6.8**	**ND**	**ND**	**ND**	µg/liter	5.0 µg/l	8020
Benzene	**39**	**ND**	**1.9**	**0.73**	µg/liter	0.5 µg/l	8020
Toluene	**16**	**ND**	**1.3**	**0.90**	µg/liter	0.5 µg/l	8020
Ethyl Benzene	**54**	**ND**	**ND**	**ND**	µg/liter	0.5 µg/l	8020
Xylenes	**43**	**ND**	**4.3**	**1.1**	µg/liter	0.5 µg/l	8020

1. DLR=DF x PQL
2. TPH-Gas chromatogram for Lab #D17343, although within the reporting range, does not match the typical Gas pattern
3. Analysis performed by Entech Analytical Labs, Inc. (CAELAP #2224)

Michael N. Golden, Lab Director

DF=Dilution Factor
DLR=Detection Reporting Limit

PQL=Practical Quantitation Limit
ND=None Detected at or above DLR

Entech Analytical Labs, Inc.

CA ELAP# 2224

525 Del Rey Avenue, Suite E • Sunnyvale, CA 94086 • (408) 735-1550 • Fax (408) 735-1554

Attn: Henry Hurkmans
Clearwater Group, Inc.
520 Third Street, Suite 104
Oakland, CA 94607

Date:	11/18/97
Date Received:	11/11/97
Date Analyzed:	11/12/97
Project:	C-215
Sampled By:	Client

Certified Analytical Report

Water Sample Analysis:

Test	*HP-5*	*Units*	*PQL*	*EPA Method #*
Sample Matrix	Water			
Sample Date	11/11/97			
Sample Time	0940			
Lab #	D17346			
DF-Gas/BTEX	1			
TPH-Gas	**ND**	µg/liter	50.0 µg/l	8015M
MTBE	**ND**	µg/liter	5.0 µg/l	8020
Benzene	**ND**	µg/liter	0.5 µg/l	8020
Toluene	**ND**	µg/liter	0.5 µg/l	8020
Ethyl Benzene	**ND**	µg/liter	0.5 µg/l	8020
Xylenes	**ND**	µg/liter	0.5 µg/l	8020

1. DLR=DF x PQL
2. Analysis performed by Entech Analytical Labs, Inc. (CAELAP #2224)

Michael N. Golden, Lab Director

DF=Dilution Factor
DLR=Detection Reporting Limit

PQL=Practical Quantitation Limit
ND=None Detected at or above DLR

Entech Analytical Labs, Inc.

525 Del Rey Avenue, Suite E
Sunnyvale, CA 94086

QUALITY CONTROL RESULTS SUMMARY

METHOD: Gas Chromatography

QC Batch #: GBG5971111
Matrix: Water
Units: µg/L

Date Analyzed: 11/11/97
Quality Control Sample: Blank Spike

PARAMETER	Method #	MB µg/L	SA µg/L	SR µg/L	SP µg/L	**SP % R**	SPD µg/L	**SPD %R**	RPD	QC LIMITS (ADVISORY) RPD	QC LIMITS (ADVISORY) %R
Benzene	8020	<0.50	10.0	ND	9.7	**97**	10.0	**100**	3.3	25	50-150
Toluene	8020	<0.50	10.0	ND	10.1	**101**	9.4	**94**	6.4	25	50-150
Ethyl Benzene	8020	<0.50	10.0	ND	9.7	**97**	9.5	**95**	2.3	25	50-150
Xylenes	8020	<0.50	30	ND	30	**99**	29	**98**	1.7	25	50-150
Gasoline	8015	<50.0	625	ND	587	**94**	577	**92**	1.7	25	50-150

Definition of Terms:

- na: Not Analyzed in QC batch
- MB: Method Blank
- SA: Spike Added
- SR: Sample Result
- RPD(%): Duplicate Analysis - Relative Percent Difference
- SP: Spike Result
- SP (%R): Spike % Recovery
- SPD: Spike Duplicate Result
- SPD (%R): Spike % Recovery
- NC: Not Calculated

Entech Analytical Labs, Inc.

525 Del Rey Avenue, Suite E
Sunnyvale, CA 94086

QUALITY CONTROL RESULTS SUMMARY

METHOD: Gas Chromatography

QC Batch #: GBG5971112
Matrix: Water
Units: µg/L

Date Analyzed: 11/12/97
Quality Control Sample: Blank Spike

PARAMETER	Method #	MB µg/L	SA µg/L	SR µg/L	SP µg/L	**SP % R**	SPD µg/L	**SPD %R**	RPD	QC LIMITS (ADVISORY) RPD	QC LIMITS (ADVISORY) %R
Benzene	8020	<0.50	10.0	ND	9.6	**96**	9.3	**93**	3.7	25	50-150
Toluene	8020	<0.50	10.0	ND	9.7	**97**	9.4	**94**	3.2	25	50-150
Ethyl Benzene	8020	<0.50	10.0	ND	9.5	**95**	9.2	**92**	4.2	25	50-150
Xylenes	8020	<0.50	30	ND	30	**100**	29	**97**	3.4	25	50-150
Gasoline	8015	<50.0	625	ND	601	**96**	588	**94**	2.2	25	50-150

Definition of Terms:

- na: Not Analyzed in QC batch
- MB: Method Blank
- SA: Spike Added
- SR: Sample Result
- RPD(%): Duplicate Analysis - Relative Percent Difference
- SP: Spike Result
- SP (%R): Spike % Recovery
- SPD: Spike Duplicate Result
- SPD (%R): Spike % Recovery
- NC: Not Calculated

Entech Analytical Labs, Inc.

525 Del Rey Avenue, Suite E • Sunnyvale, CA 94086 • Telephone: (408) 735-1550 (800) 287-1799 • Fax: (408) 735-1554

Chain of Custody/Analysis Work Order

Client: Clearwater Group Inc
Address: 520 3rd St, #104
Oakland CA 94607
Contact: Henry Heikkinen
Telephone #: (510) 893 5160
Date Received:
Turn Around:

Project ID: C-215
Purchase Order #:

Sampler/Company: Ruary Allen Telephone #: (510) 893 5160

Special Instructions/Comments

LAB USE ONLY

Samples arrived chilled and intact: Yes No

Notes:

Sample Information								Requested Analysis							
Lab #	Sample ID	Grab/ Composite	Matrix	Date Collected	Time Collected	Pres.	Sample Container	TPHG	BTEX	MTBE					
D17342	HP-1	Grab	H2O	11-11-97	1315	HCl	3 VOAS	X	X	X					
D17343	HP-2	"	"	"	1230	HCl	3 VOAs	"	"	"					
D17344	HP-3	"	"	"	1040	HCl	2 VOAS	"	"	"					
D17345	HP-4	"	"	"	1245	HCl	3 VOAS	"	"	"					
D17346	HP-5	"	"	"	0940	HCl	3 VOAS	"	"	"					

Relinq. By: Ruary Allen CGI	Received By: Ron Kinnetta WMC	Date 11-11-97	Time 3:25
Relinq. By: Ron Kinnetta WMC	Received By: VTRAN	Date 11/11/97	Time 4:20p
Relinq/ By:	Received By:	Date	Time