RO2558

Environmental Restoration Services

Site Investigations * Fuel Tank Closures and Installations * Site Remediation * Regulatory Reporting

Alameda County

OCT 16 2003

Environmental Health

Alameda County Health Care Services
Department of Environmental Health
1131 Harbor Bay Parkway, Second Floor
Alameda, CA 94502

October 9, 2003

Attn: Mr. Barney Chan, Haz Mat. Specialist for : 15651 Worthley Dr., San Lorenzo

Re: Sampling Report

Dear Mr. Chan ,

Environmental Restoration Services (ERS) is pleased to submit to following Report of for your review.

1.0 INTRODUCTION

On April 30, 2003 , one 12000 gallon underground tank last containing diesel was removed at the subject site (Figure 2) by ERS. Analytical results of a groundwater sample recovered from the excavation showed elevated levels of diesel constituents.

ERS treated the affected groundwater within the open excavation, de-watered the excavation and sampled the re-charge. ERS has also sampled soil imported from off-site for backfilling purposes, and was granted a permit to discharge the treated groundwater, as well as the groundwater within the excavation, to the sanitary sewer. Since permission has been granted by the Alameda County Health Care Services agency (ACHCSA) to use the imported soil as backfill, ERS has de-watered the excavation one additional time, sampled the re-charge groundwater, recovered a sidewall soil sample from the eastern end of the tank pit excavation, and backfilled the excavation using existing and imported soil.

This Report first reviews the site background and then describes recent sampling protocols and the analytical results.

1.1 Site Location

The site is located in a commercial district of San Lorenzo, California on property at 15651 Worthley Dr. (Figure 1).

1.2 Background

On April 30, 2003 , one 12,000 gallon underground tank last containing diesel was removed.

1.3 Site History

1.3.1 Description of Site

The site is occupied by a trucking terminal. About 20% of the site is occupied by the present structures, with the remaining area covered by asphalt and concrete driving surfaces.

SITE DESCRIPTION

2.1 Site Description

The site is located approximately 200 feet southeast of the corner of Grant Ave.. and Worthley Dr.. An approximate 1500 square foot office and trucking terminal is located down the center portion of the parcel with an approximate 2000 square foot truck repair building located in north corner of the parcel. The majority of the remaining property is paved.

2.2 Vicinity Map

A vicinity map is given in Figure 1 which includes the location of any known hydraulic influences. San Lorenzo Creek lies approximately 1600 feet northwest of the site and San Francisco Bay lies approximately 2700 feet northwest of the site . A site map is given in Figure 1 which includes information on adjacent streets.

2.3 Depth to Groundwater

Depth to groundwater based on groundwater elevation within the existing excavation at the site is approximately five feet below ground surface (bgs.)

2.4 Soil Profile

The tank excavation sidewalls show predominantly silty to high plasticity clays starting at the ground surface .

2.5 Waste Removal

One tank has been removed from the site.

2.6 Previous Investigative and Remedial Work

On April 30, 2003, permission was given by the Health Inspector Robert Weston of the ACHSA to remove the tank from the excavation. The pea-gravel backfill material surrounding the tanks did appear to be stained and emit an odor. The tank was transported to the ECI T.S.D. facility in Richmond.

On April 30, 2003, after removal of the UST, ERS recovered one soil sample ("West SW@4'") from the western excavation sidewall at approximately 4' bgs., and one groundwater sample from the excavation ("Pit GW"). The results of the analysis indicated levels of TPH/d, BTEX and fuel oxygenates below the varying detection limit for both samples, with the exception of TPH/d concentrations in groundwater sample "Pit GW" at 2560 parts per million (ppm).

On May 1, 2003 the groundwater within the excavation was inoculated with Solmar L-100 hydrocarbon consuming microbes. The groundwater within the excavation was aerated using a submersible electric pump.

On June 5, 2003, the excavation was dewatered of approximately 5000 gallons and stored on-site within a 5000 gallon aboveground storage tank (AST) and as groundwater was recharging into the excavation, a grab water sample was recovered. The analytical results of the groundwater recharge sample indicated no BTEX above the detection limit and 0.52 parts per million of TPH/d.

On June 5, 2003, one sample was obtained from the water contained in the tank and tested per Oro Loma Sanitary District (OLSD) waste discharge requirements. The analytical results were below discharge limits and a discharge permit was obtained from the OLSD.

3.0 SCOPE OF WORK

On October 1, 2003 approximately 2000 gallons of groundwater within the excavation and 5000 gallons of groundwater stored on-site within the AST was disposed of to the sanitary sewer under permit from the OLSD. On October 1, 2003, as groundwater was recharging into the excavation prior to backfill, a grab water sample was recovered and prior to backfill, one soil sample was also recovered from the eastern excavation sidewall at approximately 4' bgs..

3.1 Stored and Excavation Groundwater Removal and Disposal

On June 5, 2003, the excavation was dewatered of approximately 5000 gallons and stored on-site within a 5000 gallon aboveground storage tank (AST). One sample was obtained from the water contained in the tank and one sample was obtained from the groundwater re-charging into the excavation and both were tested per OLSD waste discharge requirements. The analytical results were below discharge limits and a discharge permit was obtained from the OLSD to dispose of the groundwater to the sanitary sewer. On October 1, 2003 approximately 2000 gallons of groundwater within the excavation and 5000 gallons of groundwater stored on-site within the AST was disposed of to the sanitary sewer via a 4" sewer cleanout located near the southern exterior wall of the repair building (Figure 2).

3.2 Groundwater Grab Sample Procedure

On October 1, 2003, as groundwater was recharging into the excavation, a grab water sample (PIT-GW10/1) was recovered from the excavation by submerging the sample containers into the groundwater as it filled the excavation (Figure 2). Subsequent to collection, the sample was immediately stored on ice in an appropriate ice chest.. The sample was transported to NSL under proper Chain-of-Custody procedures.

3.3 Soil Sample Procedure

The edge of the eastern edge of the tank excavation was located by probing into holes drilled through the concrete slab. At the eastern edge of the tank excavation, a single boring was advanced through the concrete slab and into the native soil to an approximate depth of 4 feet bgs., using a three inch diameter auger.

One sample (EAST- SW@4') was recovered in a two inch diameter by six inch brass sample container within a bullet sampler. At the desired sample depth of four feet bgs., the sleeved, bullet sampler was driven into the undisturbed soil until the sample container had completely filled with soil. Upon removal of the sample container from the bullet sampler, the container ends were sealed with plastic caps. Subsequent to collection, the soil sample was immediately stored on ice in an appropriate ice chest. The sample was transported under Chain-of-Custody procedures to NSL .

3.4 Laboratory Analyses

The following analyses were performed by NSL on the soil and groundwater sample recovered from the excavation:

Total Petroleum Hydrocarbons as diesel (TPH/d) (EPA Method CATFH)

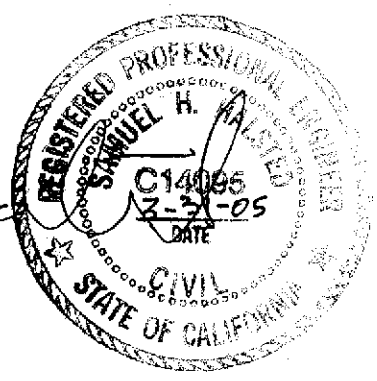
Additionally, soil sample EAST-SW @4' was analyzed for BTEX by EPA Method 8020F

The analytical results of the groundwater recharge sample indicated no TPH/d above the detection limit. The analytical results of the soil sample indicated no TPH/d or BTEX above the detection limit.

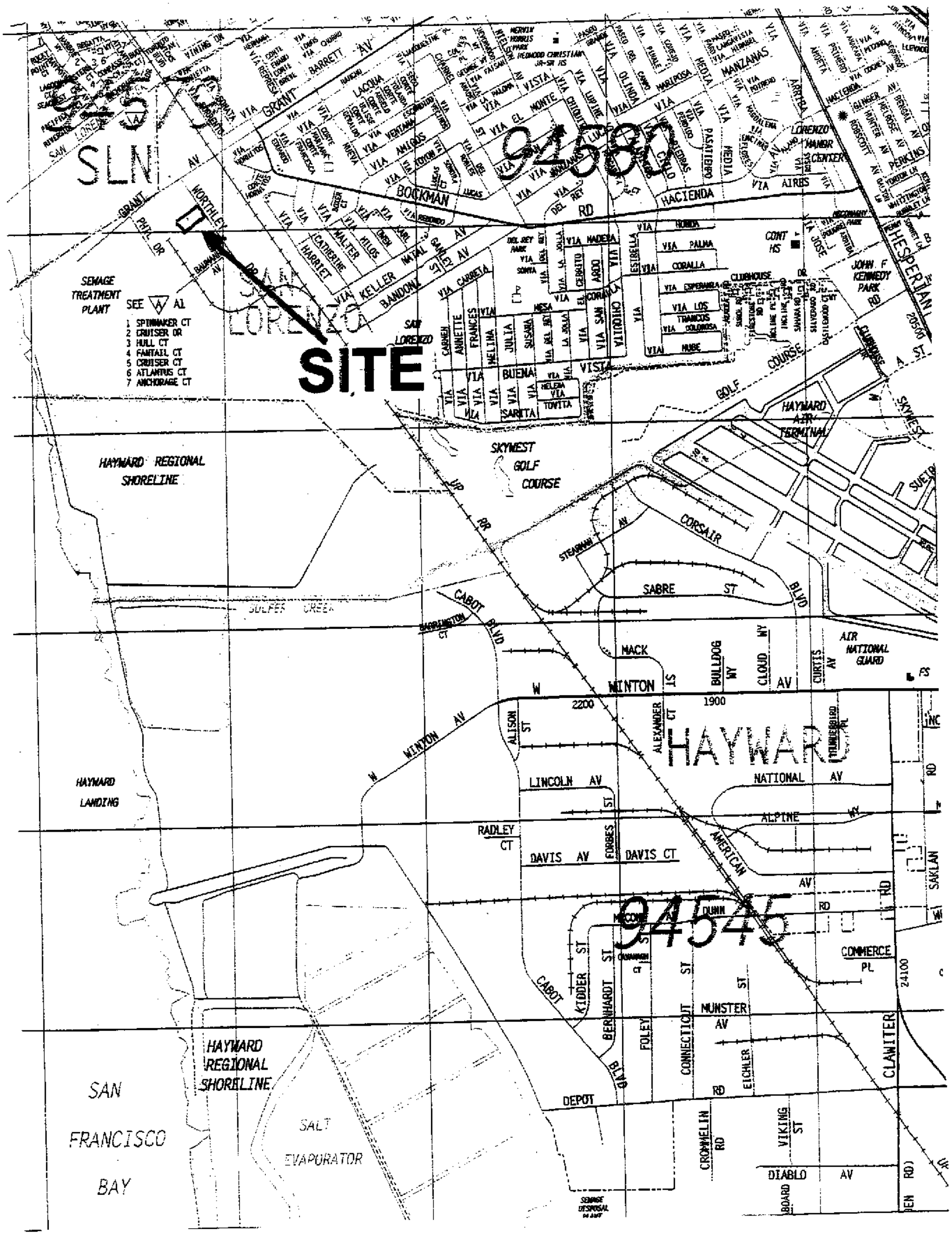
Respectfully submitted this 9th day of October, 2003,

Bennett T Halsted
Project Manager

Samuel H Halsted P.E.
CE 14095



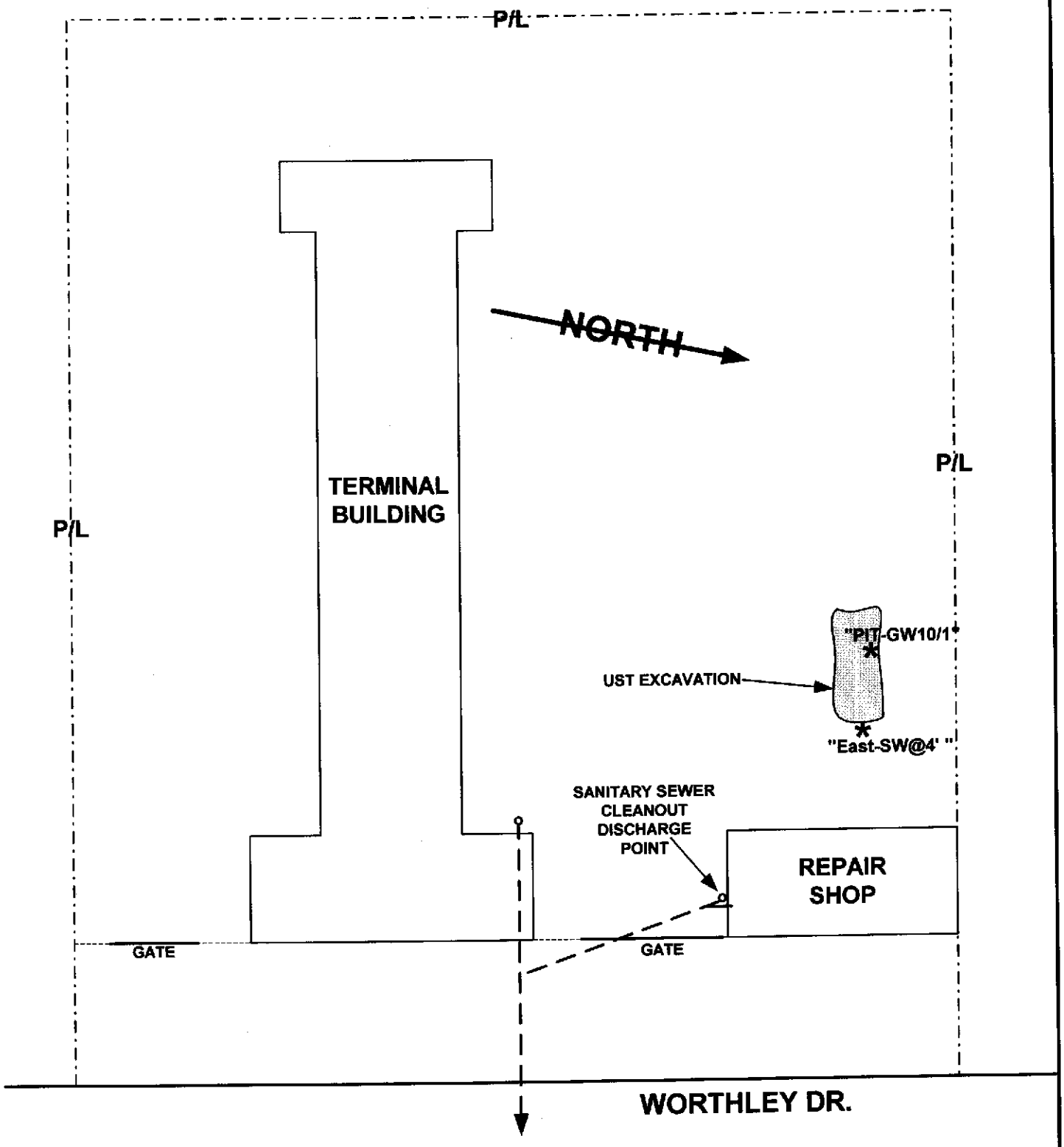
FIGURES



VICINITY MAP

15651Worthley Dr.., San Lorenzo, CA

DATE 6/25/03	SCALE: 1"=1900'	BY:
Environmental Restoration Services *500 Santa Cruz Ave., Menlo Park, CA 94025*		FIGURE 1



* 10/1/03 SAMPLE LOCATIONS

SITE PLAN

15651 Worthley Dr., San Lorenzo, CA

DATE 10/7/03	SCALE: 1"=40'	BY:

Environmental Restoration Services
500 Santa Cruz Ave., Menlo Park, CA 94025

FIGURE 2

CHAIN-OF-CUSTODY
ANALYTICAL RESULTS

03-1399

North State Labs

90 South Spruce Avenue, Suite W, South San Francisco, CA 94080
Phone: (650) 266-4563 Fax: (650) 266-4560

Chain of Custody / Request for Analysis
Lab Job No.:_____ Page 1 of 1

Client: Environmental Protection Services (ERS)	Report to: ERS	Phone: 650-325-3216	Turnaround Time: Normal
Mailing Address: 500 Santa Cruz Ave M.P. Ca 94025	Billing to: ERS	Fax: 650-327-2914	
		email:	Date: 10-1-03
		PO#	Sampler: B. Halsted

Project / Site Address / Global ID: 15651 Worthley San Lorenzo

Analysis Requested: TPH(d) / BTEX

EDF ☐

	Sample ID	Sample Type	Container No. / Type	Pres.	Sampling Date / Time	TPH(d)	BTEX	Field Point ID
1	East Sweet	Soil	1 Brass	Ice	10/1/03 10:15	X	X	
2	Pit-Gwater	water	1 Liter Amber	Ice	" 10:45	X		

Relinquished by: [signature] Date: 10/1/03 Time: 3:35 pm Received by: [signature]

Relinquished by: Date: Time: Received by:

Relinquished by: Date: Time: Received by:

Lab Comments/ Hazards

Oct-14 03 12:27p North State Environmental 6502664560 p.2

North State Labs
90 South Spruce Avenue, Suite V • South San Francisco, CA 94080 • (650) 266-4563 • FAX (650) 266-4560
CA ELAP# 1753

C E R T I F I C A T E O F A N A L Y S I S

Lab Number: 03-1399
Client: Env. Restoration Services
Project: 15651 WORTHLEY SAN LORENZO

Date Reported: 10/08/2003

Diesel Range Hydrocarbons by Method 8015M
Benzene,Toluene,Ethylbenzene and Xylenes by 8015M/8021B

Analyte	Method	Result	Unit	Date Sampled	Date Analyzed
Sample: 03-1399-01 Client ID: EAST-SW@4'				10/01/2003	SO
Benzene	SW8020F	ND<5	UG/KG		10/07/2003
Ethylbenzene	SW8020F	ND<5	UG/KG		10/07/2003
Toluene	SW8020F	ND<5	UG/KG		10/07/2003
Xylenes	SW8020F	ND<10	UG/KG		10/07/2003
Diesel Fuel #2	CATFH	ND<1	MG/KG		10/07/2003
Sample: 03-1399-02 Client ID: PIT-GW10/1				10/01/2003	W
Diesel Fuel #2	CATFH	ND<0.05	MG/L		10/02/2003

North State Labs
90 South Spruce Avenue, Suite V • South San Francisco, CA 94080 • (650) 266-4563 • FAX (650) 266-4560
CA ELAP# 1753

CERTIFICATE OF ANALYSIS

Quality Control/Quality Assurance

Lab Number: 03-1399
Client: Env. Restoration Services
Project: 15651 WORTHLEY SAN LORENZO

Date Reported: 10/08/2003

Diesel Range Hydrocarbons by Method 8015M
Benzene,Toluene,Ethylbenzene and Xylenes by 8015M/8C21B

Analyte	Method	Reporting Limit	Unit	Blank	Avg MS/MSD Recovery	RPD
Diesel Fuel #2	CATFH	0.05	MG/L	ND	64/61	5
Benzene	SW8020F	5	UG/KG	ND	104/103	1
Toluene	SW8020F	5	UG/KG	ND	102/102	0
Ethylbenzene	SW8020F	5	UG/KG	ND	101/102	1
Xylenes	SW8020F	10	UG/KG	ND	104/106	2
Diesel Fuel #2	CATFH	1	MG/KG	ND	70/70	0

ELAP Certificate NO:1753
Reviewed and Approved

John A. Murphy, Laboratory Director