✓ RO - 2558

Environmental Restoration Services

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

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

July 17, 2003

Alameda County
JUL 22 2003
Environmental Health

Attn: Ms. Eva Chu, Haz Mat. Specialist for : 15651 Worthley Dr., San Lorenzo

Re: Report of Import Soil Sampling, Excavation Dewatering and Groundwater Recharge Sampling

Dear Ms. Chu ,

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 has applied to discharge the treated groundwater to the sanitary sewer. Once permission has been granted to use the imported soil as backfill, ERS proposes to de-water the excavation one additional time, sample the re-charge, and backfill the excavation using existing and imported soil. Once the discharge permit has been granted, ERS proposes to discharge the affected groundwater to the sanitary sewer.

This Report first reviews the site background, describes the tank removal, sampling protocols and the analytical results and remedial actions.

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.

2.0 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 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 Former Tank Removal, Groundwater and Soil Sampling

On April 30, 2003, permission was given by the Health Inspector Robert Weston of the Alameda County Health Care Services Agency (ACHCSA) 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, ERS recovered (1) soil sample from the excavation sidewall at approximately 4' bgs., and (1) groundwater sample from the excavation as instructed by Inspector Robert Weston. The soil sample was designated West SW@4' and the groundwater sample was designated Pit GW. The soil sample was recovered using a backhoe bucket and driven two inch diameter by six inch long brass sleeve and the groundwater sample was recovered from the excavation using a disposable bailer.

The following analyses were performed by North State Labs (NSL), of South San Francisco, CA, on the soil and groundwater samples recovered from the excavation:

EPA Method CATFH; TPH/diesel
EPA Method 8260B; BTEX, Fuel Oxygenates

The results of the analysis indicated levels BTEX and fuel oxygenates below the varying detection limit for both samples. TPH/d concentrations in soil sample "West SW@4'" were also below the detection limit. TPH/d concentrations in groundwater sample "Pit GW" was 2560 parts per million (ppm).

On April 30, 2003, the pea-gravel backfill material surrounding the tank was sampled, under the direction of Inspector Weston. Four samples were recovered from the approximate 60 cubic yard stockpile and were composited at the lab into one sample (STKPL-A-B-C-D) that was analyzed for TPH/d. The result of the analysis indicated concentration of TPH/d of 36 ppm.

3.0 REMEDIAL SCOPE OF WORK

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.

3.1 Excavation Groundwater Removal and Pending 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 tested per Oro Loma Sanitary District (OLSD) waste discharge requirements. The analytical results were below discharge limits and a discharge permit is being obtained from the OLSD to dispose of the groundwater to the sanitary sewer.

3.2 Groundwater Grab Sample Procedure

On June 5, 2003, as groundwater was recharging into the excavation, a grab water sample was recovered, under the direction of Inspector Weston, from the excavation by submerging the sample containers into the groundwater as it filled the excavation. Subsequent to collection, the sample was immediately stored on ice in an appropriate ice chest. Sample was transported to NSL under proper Chain-of-Custody procedures.

3.3 Laboratory Analyses

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

EPA Method CATFH; TPH/diesel
EPA Method 8020F; BTEX

The analytical results of the groundwater recharge sample indicated no BTEX above the detection limit and 0.52 parts per million of TPH/d.

4.0 IMPORTED SOIL SAMPLING

Approximately 60 cubic yards of used baserock material was imported to the subject site and is stockpiled near the excavation. The material was imported from a property at 42400 Boyce Rd. in Fremont, Ca., leased by Mercedes of Fremont, and was used as a parking surface for new cars. The baserock was generated when Mercedes of Fremont lowered the parking area elevation in order to surface the parking area with asphalt. Per Alameda County requirements, this soil was sampled prior to use as backfill.

4.1 Stockpile Sample Procedure

On June 12, 2003, the import material was sampled. Three discreet samples, Import A, Import-B and Import-C, were recovered from the approximate 60 cubic yard stockpile (one per 20 cubic yards).

From the stockpile, the three samples were recovered from three discrete locations of the stockpile. The samples were recovered by filling 2" by 6" brass tubes completely using a Teflon gloved hand. The brass liners were then and transported on ice to NSL under proper Chain-of-Custody procedures.

4.2 Laboratory Analyses

The following analyses were performed by NSL on the soil samples recovered from the stockpile:

EPA Method CATFH; Total Extractable Petroleum Hydrocarbons (TEPH)
EPA Method 8020F; TPH/g,
EPA Method 6010; LUFT 5 Metals
EPA Method 8260B; BTEX, MTBE

The analytical results of the stockpile soil samples indicated no TEPH, TPH/g, BTEX, MTBE above the detection limit. The LUFT 5 analytical results indicated no concentrations above the SF Bay Regional Water Quality Control Board (SF-RWQCB) Risk-Based Screening Levels (RBSL) for Table A, commercial properties, with the exception of chromium, which all three samples exceeded the RBSL. NSL was then instructed to composite the three sampled into one sample and analyze the composited sample for chromium VI. The analytical result of the composited import soil sample indicated 1.4 ppm chromium VI.

Cr 120 ppm

5.0 PROPOSED EXCAVATION DE-WATERING, RE-CHARGE SAMPLING and BACKFILL

Upon review of this report and verbal authorization by ACHCSA to utilize the on-site imported baserock and existing pea-gravel overburden for backfill, ERS proposes to de-water the excavation and dispose of the excavation groundwater, as well as the groundwater accumulated from the initial excavation de-watering, (currently stored on-site within a 5000 gallon AGT) to the sanitary sewer under a discharge permit from OLSD.

As groundwater is re-charging into the excavation, a groundwater sample will be obtained from the excavation as described in section 3.2 of this Report. The groundwater sample will be analyzed for TPH/diesel.

The excavation will then be backfilled by first using the existing 60 cubic yards of pea-gravel overburden. This will bring the excavation to within approximately 3 feet of the surface. The imported base material will then be compacted into place above the pea-gravel, to sub-grade. The excavation will then be re-surfaced with concrete, matching the existing 6 inch thickness.

All documents, including, chain of custody, laboratory reports, and discharge permit, will be included in a Report to be submitted to the ACHCSA.

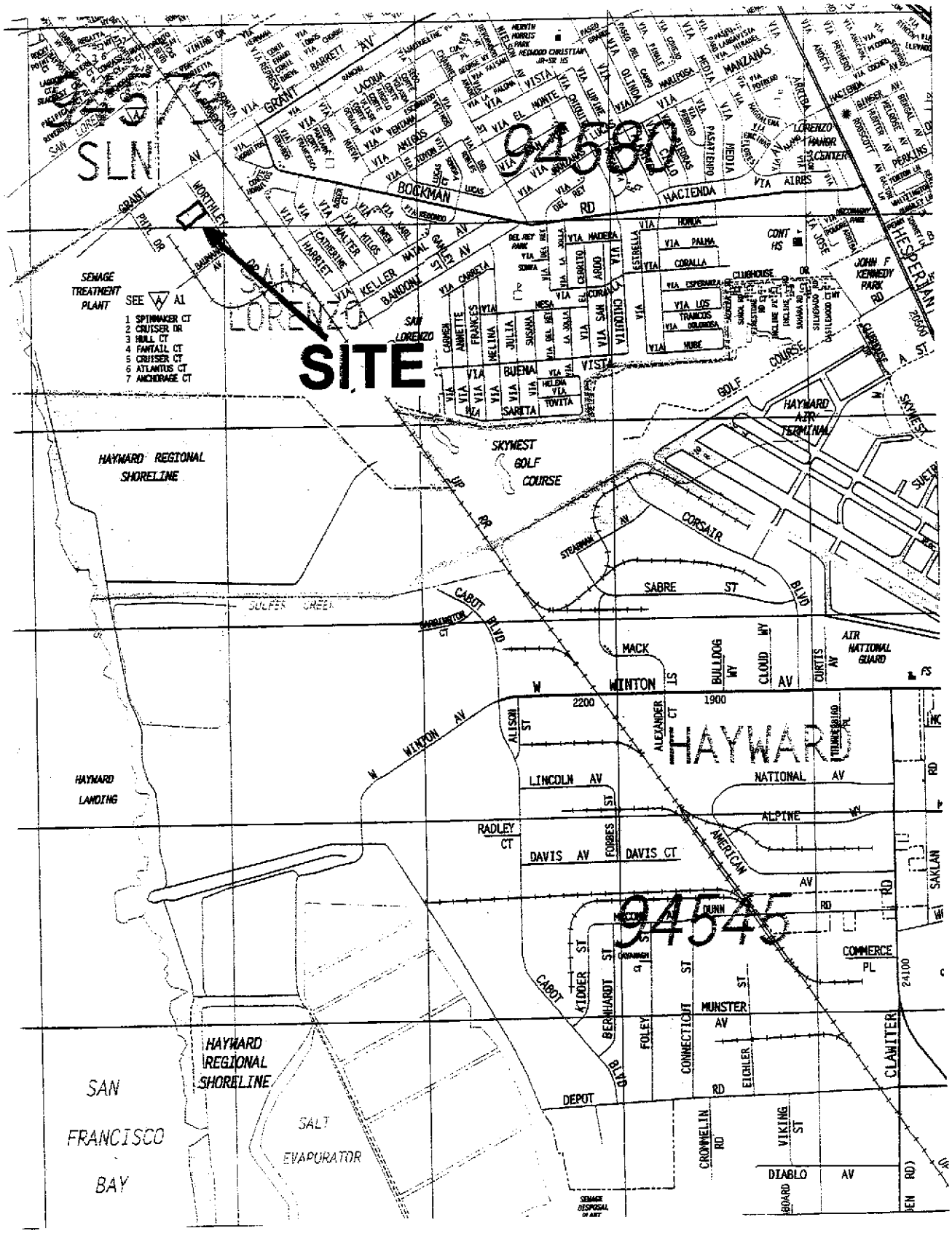
If you have any questions regarding this Report or proposed scope of work, or wish to add to or alter the scope, please do not hesitate to call Ben Halsted at 650-325-3216 so I may resubmit any revisions.

Respectfully submitted this 17th day of July, 2003,

Bennett T Halsted
Project Manager

Samuel H Halsted P.E.
CE 14095

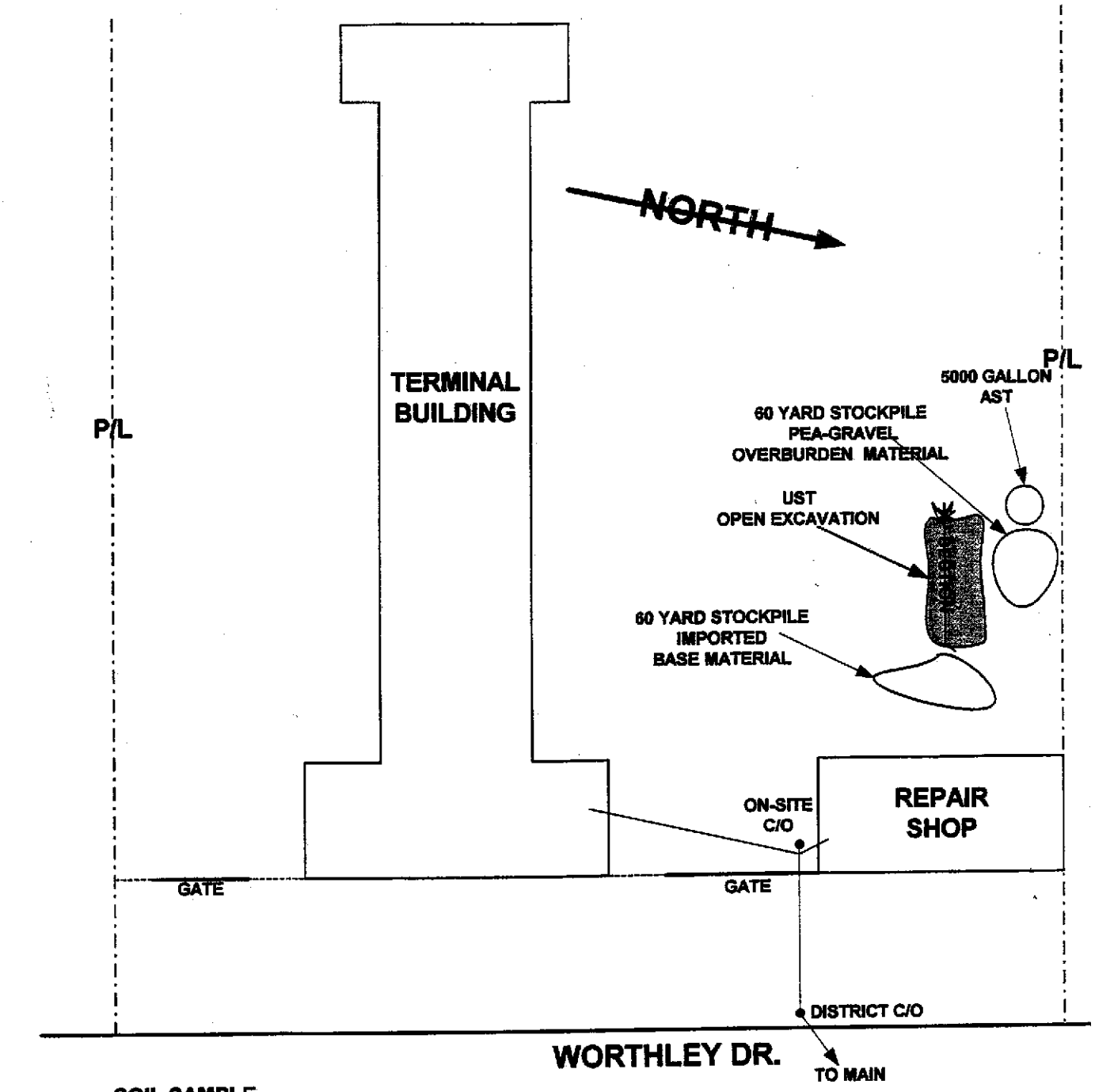
FIGURES

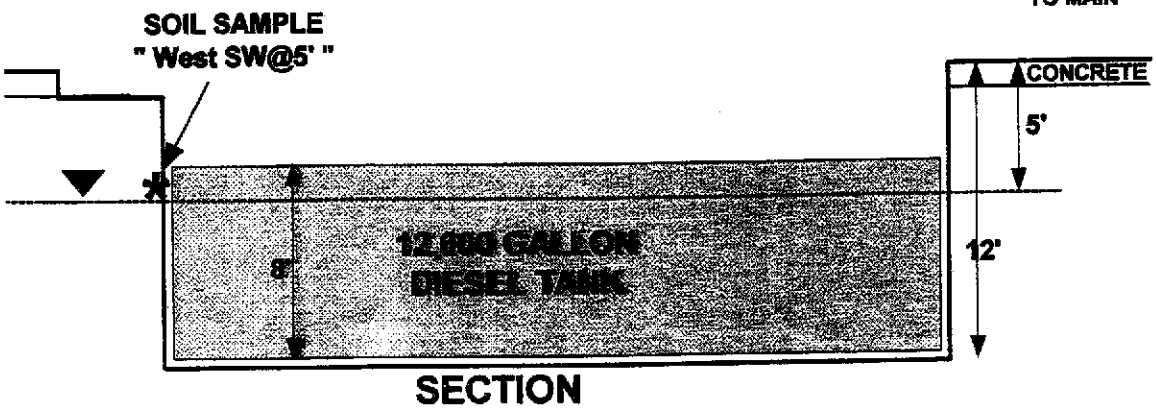


VICINITY MAP

15651Worthley Dr.., San Lorenzo, CA

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





SECTION

SITE PLAN

15651Worthley Dr., San Lorenzo, CA

DATE 6/25/03	SCALE: 1"=40'	BY:

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

FIGURE 2

CHAIN-OF-CUSTODY ANALYTICAL RESULTS

TANK REMOVAL SAMPLING
4/30/03

03-0602

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 ___ of ___

Client: Environmental Protection Svcs	Report to: ERS	Phone: 650-325-3216	Turnaround Time: Normal (except below)
Mailing Address: 500 Santa Cruz Ave, M.P. Ca 94025	Billing to: ERS	Fax: 327-2584	Date: 4/30/03
		email:	Sampler: B. Hecht
		PO#	

Project / Site Address / Global ID: Distivo 1565 Worthley, San Lorenzo

Analysis Requested

	Sample ID	Sample Type	Container No. / Type	Pres.	Sampling Date / Time	TPH/d (Silica Gel)	BTEX + Oxy. 8260	EDF ☐ Field Point ID
1	PIT-GW1	water	1) 1 liter Amb 2) VOA	HCl	4/30/03 / 1035	X	X	24 hr turn on PIT-GW for TPH/d only
2	WKSW04'	soil	2 VOA Brass	Ice	" / 1025	X	X	
3	STKPL-A	soil			" / 1030			composite 4 to 1 for STKPL-ABCD
	STKPL-B							
	STKPL-C							
	STKPL-D							

Relinquished by: [signature]	Date: 05/01/03	Time: 11:10 AM	Received by: [signature]	Lab Comments/ Hazards
Relinquished by:	Date:	Time:	Received by:	
Relinquished by:	Date:	Time:	Received by:	

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

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

Lab Number: 03-0602
Client: Env. Restoration Services
Project: DI SALVO 15651 WORTHLEY SAN LORENZO

Date Reported: 05/02/2003

Diesel Range Hydrocarbons by 8015M with Silica Gel Cleanup

Analyte	Method	Result	Unit	Date Sampled	Date Analyzed
Sample: 03-0602-01	Client ID: PIT-GW			04/30/2003	W
Diesel Fuel #2	CATFH	2560	MG/L		05/02/2003
Sample: 03-0602-02	Client ID: WESTSW@4'			04/30/2003	SO
Diesel Fuel #2	CATFH	ND<1	MG/KG		05/01/2003
Sample: 03-0602-03	Client ID: STKPL-A,B,C,D			04/30/2003	SO
Diesel Fuel #2	CATFH	36	MG/KG		05/01/2003

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

Job Number: 03-0602
Client : Env. Restoration Services
Project : DI SALVO 15651 WORTHLEY SAN LORENZO

Date Sampled : 04/30/2003
Date Analyzed: 05/01/2003
Date Reported: 05/02/2003

Volatile Organics by GC/MS Method 8260

Laboratory Number	03-0602-02
Client ID	WESTSW04
Matrix	SO
Analyte	UG/KG
Methyl tert-butyl ether	ND<5
Ethyl tert-butyl ether	ND<5
tert-Amyl methyl ether	ND<5
Di-Isopropyl ether (DIPE)	ND<5
tert-Butyl alcohol	ND<250
1,2-Dichloroethane	ND<5
1,2-Dibromoethane	ND<5
Ethanol	ND<500
Benzene	ND<5
Toluene	ND<5
Ethylbenzene	ND<5
Xylene Isomers m & p	ND<10
o-xylene	ND<5
SUR-Dibromofluoromethane	89
SUR-Toluene-d8	108
SUR-4-Bromofluorobenzene	107

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CA ELAP# 1753

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

Job Number: 03-0602
Client : Env. Restoration Services
Project : DI SALVO 15651 WORTHLEY SAN LORENZO

Date Sampled : 04/30/2003
Date Analyzed: 05/01/2003
Date Reported: 05/02/2003

Volatile Organics by GC/MS Method 8260
Quality Control/Quality Assurance Summary

Laboratory Number	03-0602	MS/MSD	RPD	Recovery	RPD
Client ID	Blank	Recovery		Limit	Limit
Matrix	W	W			
Analyte	Results UG/L	%Recoveries			
Ethanol	ND<100				
Methyl-tert-butyl ether	ND<1				
Di isopropyl ether (DIPE)	ND<1				
tert-butyl Alcohol	ND<50				
Ethyl tert-butyl ether	ND<1				
tert-Amyl methyl ether	ND<1				
1,2-Dichloroethane	ND<1				
1,2 Dibromoethane	ND<1				
Benzene	ND<1	105/105	0	74-135	21
Ethylbenzene	ND<1				
Toluene	ND<1	105/105	0	61-141	19
o-xylene	ND<1				
Xylene, Isomers m & p	ND<2				
1,1-Dichloroethene	ND<1	95/90	5	61-121	25
Trichloroethene	ND<2	110/110	0	69-129	20
Chlorobenzene	ND<2	110/110	0	70-139	19
SUR-Dibromofluoromethane	102	100/103	3	67-129	21
SUR-Toluene-d8	109	108/110	2	72-119	16
SUR-4-Bromofluorobenzene	114	114/113	1	76-121	19

Reviewed and Approved

John A. Murphy
Laboratory Director

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

Job Number: 03-0602
Client : Env. Restoration Services
Project : DI SALVO 15651 WORTHLEY SAN LORENZO

Date Sampled : 04/30/2003
Date Analyzed: 05/01/2003
Date Reported: 05/02/2003

Volatile Organics by GC/MS Method 8260

Laboratory Number	03-0602-01
Client ID	PYT-GW
Matrix	W
Analyte	UG/L
Methyl-tert-butyl ether	ND<10
Ethyl tert-butyl ether	ND<10
tert-Amyl methyl ether	ND<10
Di-isopropyl ether (DIPE)	ND<10
tert-Butyl alcohol	ND<500
1,2-Dichloroethane	ND<10
1,2-Dibromoethane	ND<10
Ethanol	ND<1000
Benzene	ND<10
Toluene	ND<10
Ethylbenzene	ND<10
Xylene, Isomers m & p	ND<20
o-xylene	ND<10
SUR-Dibromofluoromethane	101
SUR-Toluene-d8	109
SUR-4 Bromofluorobenzene	112

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

Job Number: 03-0602
Client : Env. Restoration Services
Project : DI SALVO 15651 WORTHLEY SAN LORENZO

Date Sampled : 04/30/2003
Date Analyzed: 05/01/2003
Date Reported: 05/02/2003

Volatile Organics by GC/MS Method 8260
Quality Control/Quality Assurance Summary

Laboratory Number	03-0603	MS/MSD	RPD	Recovery	RPD
Client ID	Blank	Recovery		Limit	Limit
Matrix	SO	SO			
Analyte	Results UG/KG	%Recoveries			
Methyl-tert-butyl ether	ND<5				
Ethyl tert-butyl ether	ND<5				
tert-Amyl methyl ether	ND<5				
Di-isopropyl ether (DIPE)	ND<5				
tert-Butyl alcohol	ND<250				
1,2-Dichloroethane	ND<5				
1,2-Dibromoethane	ND<5				
Ethanol	ND<500				
Benzene	ND<5	117/118	1	72-122	22
Toluene	ND<5	114/114	0	73-125	31
Ethylbenzene	ND<5				
Xylene, Isomers m & p	ND<10				
o-xylene	ND<5				
Chlorobenzene	ND<5	123/124	1	80-135	21
1,1-Dichloroethene	ND<10	116/119	3	54-155	27
Trichloroethene	ND<5	110/111	1	68-122	20
SUR-Dibromofluoromethane	102	103/106	3	94-145	23
SUR-Toluene-d8	96	97/94	3	81-108	14
SUR-4-Bromofluorobenzene	96	95/92	3	82-118	18

Reviewed/And Approved

John A. Murphy
Laboratory Director

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

Quality Control/Quality Assurance

Lab Number: 03-0602
Client: Env. Restoration Services
Project: DI SALVO 15651 WORTHLEY SAN LORENZO

Date Reported: 05/02/2003
Diesel Range Hydrocarbons by 8015M with Silica Gel Cleanup

Analyte	Method	Reporting Limit	Unit	Blank	Avg MS/MSD Recovery	RPD
Diesel Fuel #2	CATFH	1	MG/KG	ND	72/76	5
Diesel Fuel #2	CATFH	0.05	MG/L	ND	82/76	8

ELAP Certificate NO:1753
Reviewed and Approved

John A. Murphy, Laboratory Director

CHAIN-OF-CUSTODY ANALYTICAL RESULTS

GROUNDWATER RE-CHARGE SAMPLING
6/5/03

03-0796

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 Restoration Dept.	Report to: ERS	Phone: 650-325-3216	Turnaround Time: Normal
Mailing Address: 500 Santa Cruz Ave Menlo Park Ca 94025	Billing to: ERS	Fax: 327-2984	Date: 6/5/03
		email:	Sampler: B. Halsted
		PO#	

Project / Site Address / Global ID: DiSalvo
15651 Worthley Dr. San Lorenzo

Analysis Requested: TPH/d BTEX; Ph

EDF ☐

Sample ID	Sample Type	Container No. / Type	Pres.	Sampling Date / Time	TPH/d	BTEX	Ph	Field Point ID
1 TANK-GW	water		ice HCl	6/5/03 10:15	XX		X	Silica Gel Cleanup
2 R-CART-GW	"	1 Liter Amber 40ml VOA	ice HCl	10:05	XX			Silica Gel Cleanup
Import-A	Soil	2x6 Brass	on ice	9:30	Hold			
Import-B	↓	"		9:35	Hold			
Import-C		"		9:40	Hold			
Import-D	↓	"		9:45	Hold			

Relinquished by: [signature]	Date: 6-9-03	Time: 2:45	Received by: [signature]	Lab Comments/ Hazards
Relinquished by:	Date:	Time:	Received by:	
Relinquished by:	Date:	Time:	Received by:	

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

Lab Number: 03-0796
Client: Env. Restoration Services
Project: DI SALVO 15651 WORTHLEY DR. SAN LORENZO

Date Reported: 06/16/2003

Diesel Range Hydrocarbons by 8015M with Silica Gel Cleanup
Benzene,Toluene,Ethylbenzene and Xylenes by SW8020F
pH of water by Method 9045

Analyte	Method	Result	Unit	Date Sampled	Date Analyzed
Sample: 03-0796-01 Client ID: TANK-GW				06/05/2003	W
Benzene	SW8020F	0.7	UG/L		06/10/2003
Ethylbenzene	SW8020F	ND<0.5	UG/L		06/10/2003
Toluene	SW8020F	ND<0.5	UG/L		06/10/2003
Xylenes	SW8020F	ND<1.0	UG/L		06/10/2003
pH	SW9045B	7.20	PH UNITS		06/11/2003
Diesel Fuel #2	CATFH	ND<0.05	MG/L		06/11/2003
Sample: 03-0796-02 Client ID: R-CHRG-GW				06/05/2003	W
Benzene	SW8020F	ND<0.5	UG/L		06/10/2003
Ethylbenzene	SW8020F	ND<0.5	UG/L		06/10/2003
Toluene	SW8020F	ND<0.5	UG/L		06/10/2003
Xylenes	SW8020F	ND<1.0	UG/L		06/10/2003
Diesel Fuel #2	CATFH	0.52	MG/L		06/11/2003

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

Quality Control/Quality Assurance

Lab Number: 03-0796
Client: Env. Restoration Services
Project: DI SALVO 15651 WORTHLEY DR. SAN LORENZO

Date Reported: 06/16/2003

Diesel Range Hydrocarbons by 8015M with Silica Gel Cleanup
Benzene, Toluene, Ethylbenzene and Xylenes by SW8020F
pH of water by Method 9045

Analyte	Method	Reporting Limit	Unit	Blank	Avg MS/MSD Recovery	RPD
Benzene	SW8020F	0.5	UG/L	ND	113/112	1
Toluene	SW8020F	0.5	UG/L	ND	111/110	1
Ethylbenzene	SW8020F	0.5	UG/L	ND	95/94	1
Xylenes	SW8020F	1.0	UG/L	ND	116/116	0
pH	SW9045B	0.05	PH	ND	NA	NA
Diesel Fuel #2	CATFH	0.05	MG/L	ND	90/91	1

ELAP Certificate NO:1753
Reviewed and Approved

John A.Murphy, Laboratory Director

CHAIN-OF-CUSTODY ANALYTICAL RESULTS

IMPORT SOIL SAMPLING
6/12/03

03-0812

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 Restoration Services	Report to: ERS	Phone: 650-325-3216	Turnaround Time: Normal
Mailing Address: 500 Santa Cruz Ave Menlo Park CA 94025	Billing to: ERS	Fax: " 327-2984	Date: 6-12-03
		email:	
		PO#	Sampler: B. Halsted

Project / Site Address / Global ID: DiSalvo

Analysis Requested

EDF ☐

Sample ID	Sample Type	Container No. / Type	Pres.	Sampling Date / Time	8260B for BTEX ~~~~ MTBE	LUFT 5 metals	TRPH (TEPH)	TPHG by 8015M			Cr VI BTA 7/2/03	Field Point ID
	Soil				X	X	X	X				Please composite
Import-A	↓	2x6	ice	6/12/03 @ 10:05	X	X	X	X			Comp 3 to 1	samples and run for Chromium 6
Import-B	↓	"	↓	↓ @ 10:10	X	X	X	X				
Import-C	↓	"	↓	↓ @ 10:12	X	X	X	X				

Relinquished by: B. Halsted	Date: 6-12-03	Time: 2:37 pm	Received by: [signature]	Lab Comments/ Hazards
Relinquished by:	Date:	Time:	Received by:	
Relinquished by:	Date:	Time:	Received by:	

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

Lab Number: 03-0812
Client: Env. Restoration Services
Project: DiSALVO

Date Reported: 06/20/2003

Total Cd, Cr, Ni, Pb and Zn by 6010B ICAP
Silica Gel Treated Hexane extractable material by E1664
Gasoline Range Hydrocarbons by Method 8015 M
Hexavalent Chromium by Method 7196

Analyte	Method	Result	Unit	Date Sampled	Date Analyzed
Sample: 03-0812-01 Client ID: IMPORT-A				06/12/2003	SO
Cadmium	SW6010B	ND<2.0	MG/KG		06/20/2003
Chromium	SW6010B	46.7	MG/KG		06/20/2003
Lead	SW6010B	22.2	MG/KG		06/20/2003
Nickel	SW6010B	60.4	MG/KG		06/20/2003
Zinc	SW6010B	59.9	MG/KG		06/20/2003
SGT-HEM	E1664	ND<50	MG/KG		06/17/2003
Gasoline Range Organics	SW8020F	ND<500	UG/KG		06/18/2003
Sample: 03-0812-02 Client ID: IMPORT-B				06/12/2003	SO
Cadmium	SW6010B	ND<2.0	MG/KG		06/20/2003
Chromium	SW6010B	54.7	MG/KG		06/20/2003
Lead	SW6010B	25.3	MG/KG		06/20/2003
Nickel	SW6010B	67.9	MG/KG		06/20/2003
Zinc	SW6010B	64.8	MG/KG		06/20/2003
SGT-HEM	E1664	ND<50	MG/KG		06/17/2003
Gasoline Range Organics	SW8020F	ND<500	UG/KG		06/18/2003
Sample: 03-0812-03 Client ID: IMPORT-C				06/12/2003	SO
Cadmium	SW6010B	ND<2.0	MG/KG		06/20/2003
Chromium	SW6010B	51.4	MG/KG		06/20/2003
Lead	SW6010B	21.9	MG/KG		06/20/2003
Nickel	SW6010B	63.1	MG/KG		06/20/2003
Zinc	SW6010B	65.5	MG/KG		06/20/2003

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

Lab Number: 03-0812
Client: Env. Restoration Services
Project: DiSALVO

Date Reported: 06/20/2003

Total Cd, Cr, Ni, Pb and Zn by 6010B ICAP
Silica Gel Treated Hexane extractable material by E1664
Gasoline Range Hydrocarbons by Method 8015 M
Hexavalent Chromium by Method 7196

Analyte	Method	Result	Unit	Date Sampled	Date Analyzed
Sample: 03-0812-03	Client ID: IMPORT-C			06/12/2003	SO
SGT-HEM	E1664	ND<50	MG/KG		06/17/2003
Gasoline Range Organics	SW8020F	ND<500	UG/KG		06/18/2003
Sample: 03-0812-04	Client ID: IMPORT-A,B,C			06/12/2003	SO
Chromium(VI)	SW7196A	1.40	MG/KG		07/14/2003

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

Quality Control/Quality Assurance

Lab Number: 03-0812
Client: Env. Restoration Services
Project: DiSALVO

Date Reported: 06/20/2003
Total Cd, Cr, Ni, Pb and Zn by 6010B ICAP
Silica Gel Treated Hexane extractable material by E1664
Gasoline Range Hydrocarbons by Method 8015 M
Hexavalent Chromium by Method 7196

Analyte	Method	Reporting Limit	Unit	Blank	Avg MS/MSD Recovery	RPD
SGT-HEM	E1664	50	MG/KG	ND<50	86/85	1
Gasoline Range Organics	SW8020F	500	UG/KG	ND	101/96	5
Cadmium	SW6010B	2.0	MG/KG	ND<2.0	103/104	1
Chromium	SW6010B	1.0	MG/KG	ND<1.0	107/108	1
Lead	SW6010B	1.0	MG/KG	ND<1.0	103/103	0
Nickel	SW6010B	1.0	MG/KG	ND<1.0	106/107	1
Zinc	SW6010B	1.0	MG/KG	ND<1.0	105/106	1
Chromium(VI)	SW7196A	0.4	MG/KG	ND<0.4	77/78	1

ELAP Certificate NO:1753
Reviewed and Approved

John A.Murphy, Laboratory Director

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

Job Number: 03-0812
Client : Env. Restoration Services
Project : DiSALVO

Date Sampled : 06/12/2003
Date Analyzed: 06/19/2003
Date Reported: 06/20/2003

Volatile Organics by GC/MS Method 8260

Laboratory Number	03-0812-01	03-0812-02	03-0812-03
Client ID	IMPORT-A	IMPORT-B	IMPORT-C
Matrix	SO	SO	SO
Analyte	UG/KG	UG/KG	UG/KG
Benzene	ND<5	ND<5	ND<5
Toluene	ND<5	ND<5	ND<5
Ethylbenzene	ND<5	ND<5	ND<5
Xylene, Isomers m & p	ND<10	ND<10	ND<10
o-Xylene	ND<5	ND<5	ND<5
Methyl-tert-butyl ether	ND<5	ND<5	ND<5
SUR-Dibromofluoromethane	88	85	89
SUR-Toluene-d8	93	87	92
SUR-4-Bromofluorobenzene	87	88	86

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

Job Number: 03-0812
Client : Env. Restoration Services
Project : DiSALVO

Date Sampled : 06/12/2003
Date Analyzed: 06/19/2003
Date Reported: 06/20/2003

Volatile Organics by GC/MS Method 8260
Quality Control/Quality Assurance Summary

Laboratory Number	03-0812	MS/MSD	RPD	Recovery	RPD
Client ID	Blank	Recovery		Limit	Limit
Matrix	SO	SO			
Analyte	Results UG/KG	%Recoveries			
Benzene	ND<5	86/90	0	72-122	22
Toluene	ND<5	90/90	0	73-125	21
Ethylbenzene	ND<5				
Xylene, Isomers m & p	ND<10				
o-Xylene	ND<5				
Methyl-tert-butyl ether	ND<5				
SUR-Dibromofluoromethane	76	84/79	6	54-145	23
SUR-Toluene-d8	100	96/94	2	81-108	14
SUR-4-Bromofluorobenzene	102	98/107	9	82-118	18

Reviewed and Approved

John A. Murphy
Laboratory Director