SITE CHARACTERIZATION REPORT TANK #K01 U.S. COAST GUARD COAST GUARD ISLAND

ALAMEDA, CA

RAH Environmental, Inc.

3310 Swetzer Road

Loomis, CA 95650

October 23, 1997

I. INTRODUCTION

RAH Environmental, Inc. was contracted by the United States Coast Guard under contract #DTCG88-97-B-623174 to perform underground storage tank and piping removal operations at Building 51 on Coast Guard Island in Alameda, CA. The project included the removal of one five hundred fifty gallon diesel storage tank and related piping.

II. SITE DESCRIPTION

The project site is on Coast Guard Island, located in Alameda, CA. The underground storage tank was located to the rear of Building 51, and formerly stored diesel fuel to power an emergency generator. The tank had a small 4" thick concrete slab above it, and approximately 20 feet of piping which was connected to a small pump.

III. SOIL SAMPLING AND ANALYSIS

On August 28, 1997, following the removal of the tank, at approximately 1:00 PM, one soil sample was collected from the base of the tank excavation, one sample from beneath the piping next to the pump, and one sample from the soil stockpile. No groundwater was encountered during the tank removal or sampling operations. The sample from the excavation (BLDG. 51 TANK) was collected from 4.5' below ground surface on the east wall using a 2"x6" brass tube and sampling the native soil directly from the backhoe bucket. The sample from beneath the piping (BLDG. 51 PUMP) was collected from 2' below ground surface using a drive sampler with a 2"x6" brass tube. A single sample (BLDG. 51 PILE) was collected from the stockpile, also in a 2"x6" brass tube. The samples were preserved on ice at 4°C and transported under chain of custody to NEI/GTEL for analysis. NEI/GTEL is state certified under #1845 and is located at 4080-C Pike Lane in Concord, CA 94520. The following table summarizes the conditions under which the samples were taken:

Table 1

Sample ID#	Time	Temperature	Weather	Tide
BLDG.51 TANK	1:00 PM	78°	Clear, Sunny	-2.0
BLDG.51 PUMP	1:30 PM	78°	Clear, Sunny	-2.5
BLDG.51 PILE	2:30 PM	78°	Clear, Sunny	-2.6

Results of the soil sampling indicate that the subsurface soil was not impacted by significant concentrations of petroleum hydrocarbons. The sample collected from the base of the excavation contained no detectable levels of TPHdiesel or BTEX. The sample collected from beneath the piping at the pump did contain 31 ppm of TPH-as-diesel, but no benzene, toluene, ethylbenzene, or xylene. The stockpile sample contained 150 ppm of TPH-as-diesel, but also contained no benzene, toluene, ethylbenzene, or xylene. The analytical results are summarized in Table 2 below, and the full laboratory

reports are included as an attachment.

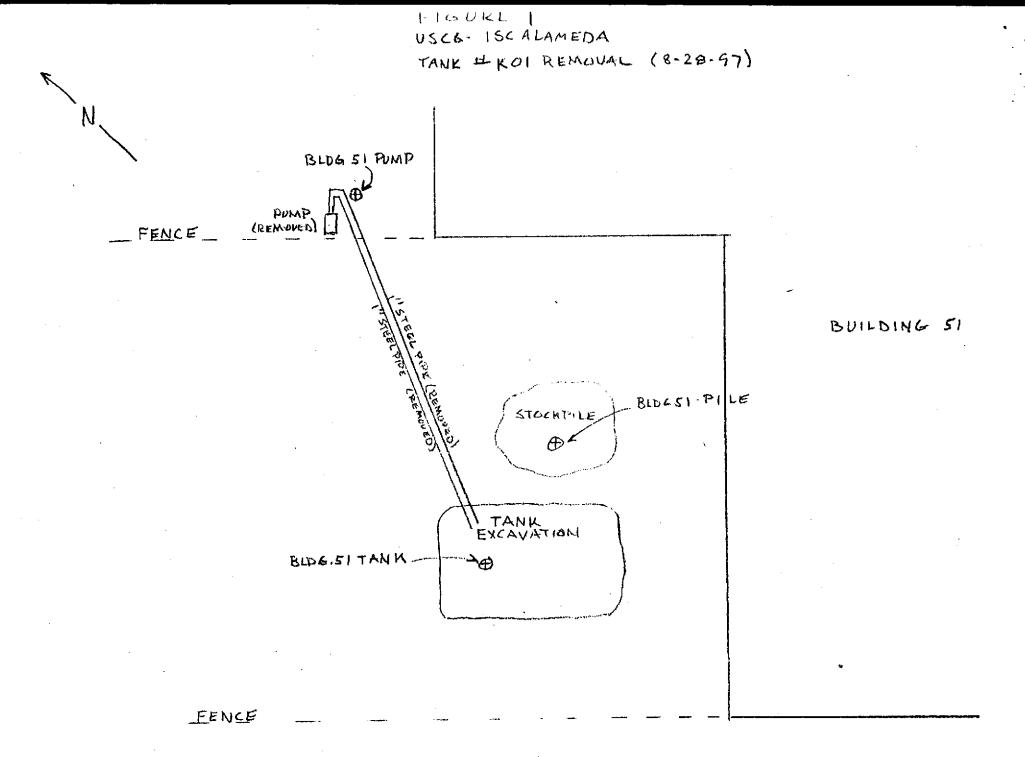
Table 2

Sample ID	TPHdiesel	Benzene	Toluene	Ethylbenzene	Xylene
BLDG. 51 TANK	<10	<0.05	<0.10	<0.10	<0.20
BLDG. 51 PUMP	31	<0.05	<0.10	<0.10	<0.20
BLDG. 19 PILE	150	<0.05	<0.10	<0.10	<0.20

All results reported in parts per million(mg/kg), unless otherwise indicated.

IV. RECOMMENDATIONS

Based on the results of the soil sampling and analysis, there are no significant concentrations of petroleum hydrocarbons in the soil, and the site should be eligible for regulatory closure.





Midwest Region

4211 May Avenue Wichita, KS 67209 (316) 945-2624 (800) 633-7936 (316) 945-0506 (FAX)

September 12, 1997

Scott Vickers RAH Environmental Inc. 3310 Swetzer Road Loomis. CA 95650

RE: NEI/GTEL Client ID:

Login Number:

Project ID (number):

Project ID (name):

RAH01RAH01

W7080571

USCG/ALAMEDA/AFB

Dear Scott Vickers:

Enclosed please find the analytical results for the samples received by NEI/GTEL Environmental Laboratories, Inc. on 08/30/97 under Chain-of-Custody Number(s) 36374.

A formal Quality Assurance/Quality Control (QA/QC) program is maintained by NEI/GTEL, which is designed to meet or exceed the EPA requirements. Analytical work for this project met QA/QC criteria unless otherwise stated in the footnotes. This report is to be reproduced only in full.

NEI/GTEL is certified by the California Department of Health Service under Certification Number 2147.

If you have any questions regarding this analysis, or if we can be of further assistance, please call our Customer Service Representative.

Sincerely,

NEI/GTEL Environmental Laboratories, Inc.

Terry R. Loucks

Laboratory Director

ANALYTICAL RESULTS Metals

NEI/GTEL Client ID: RAHO1RAHO1

Login Number:

W7080571

Project ID (number): RAH01RAH01

Project ID (name):

USCG/ALAMEDA/AFB

Method: EPA 7421

Matrix: Solids

NEI/GTEL Sample Number	per W7080571-04 W7080571-0		W7080571-06	W7080571-07
Client ID	BLDG 19 WEST	BLDG 19 EAST	BLDG 19 PILE	BLDG 15 NORTH
Date Sampled	08/28/97	08/28/97	08/28/97	08/28/97
Date Prepared	09/12/97	09/12/97	09/12/97	09/12/97
Date Analyzed	09/12/97	09/12/97	09/12/97	09/12/97
Dilution Factor	20.0	10.0	10.0	5.00

Reporting

Analyte	Limit	Units	C	oncentration:Wet	Weight	
Lead	0.40	mg/kg	62.	26.	24.	6.5
Percent Solids		%	79.3	78.5	83.2	90.8

Notes:

Oilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

Digestion by EPA Method 3050A. "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846. Third Edition including Update 2.

ANALYTICAL RESULTS Metals

NEI/GTEL Client ID: RAHO1RAHO1 Login Number: W7080571

Project ID (number): RAH01RAH01
Project ID (name): USCG/ALAMEDA/AFB

Method: EPA 7421 Matrix: Solids

	NEI/GTEL Sample Number	W7080571-08	· • •	• •	,
•	Client ID	BLDG 15 SOUTH		• • •	
	Date Sampled	08/28/97	••		**
	Date Prepared	09/12/97	•	-	
	Date Analyzed	09/12/97	••	· •	• • •
	Dilution Factor	10.0			

	Reporting			4			
Analyte	Limit	Units	(Concentration:Wet W	leight		_
Lead	0.40	mg/kg	31.		••		
Percent Solids		***	87.2	a and a see	ons K ery ‱ooo		

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 7421:

Digestion by EPA Method 3050A. "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846. Third Edition including Update 2.

NEI/GTEL Wichita, KS W7080571

Page: 2

ANALYTICAL RESULTS Total Petroleum Hydrocarbons By GC

NEI/GTEL Client ID: RAHO1RAH01

Login Number: Project ID (number): RAH01RAH01

W7080571

Project ID (name):

USCG/ALAMEDA/AFB

Method: GC

Matrix: Solids

NEI/GTEL Sample Number	W7080571-01	W7080571-02	W7080571-03	••
Client ID	BLDG 51 TANK	BLDG 51 PUMP	BLDG 51 PILE	*
Date Sampled	08/28/97	08/28/97	08/28/97	
Date Prepared	09/04/97	09/04/97	09/04/97	
Date Analyzed	09/06/97	09/06/97	09/06/97	••
Dilution Factor	1.00	1.00	1.00	••

por	

Analyte	Limit	Units		Concentration:Wet	Weight	
TPH as Diesel	10,	mg/kg	< 10.	31.	150	
Percent Solids		8	97.5	85.3	100.	

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

GC:

Extraction by EPA Method 3550 (sonication). ASTM Method D3328(modified) is used for qualitative identification of fuel patterns. The method has been modified to include quantitation by applying calibration and quality assurance guidelines outlined in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods". SW-846. Third Edition including promulgated Update 1. This method is equivalent to the California LUFT manual DHS method for diesel fuel.

W7080571-02:

The material present is qualitatively uncertain. Therefore, all material in the C9 to C22 range was quantitated against diesel fuel without respect to pattern. Chromatographic data indicates the presence of material, which is heavier than diesel fuel, in this sample.

W7080571-03:

The material present is qualitatively uncertain. Therefore, all material in the C9 to C22 range was quantitated against diesel fuel without respect to pattern. Chromatographic data indicates the presence of material, which is heavier than diesel fuel, in this sample.

QUALITY CONTROL RESULTS

Login Number:

W7080571

Project ID (number): RAH01RAH01

Total Petroleum Hydrocarbons By GC

Method: Matrix:

Solids

Project ID (name):

USCG/ALAMEDA/AFB

Conformance/Non-Conformance Summary

(X = Requirements Met

* = See Comments

-- = Not Required

NA - Not Applicable)

Conformance Item	Volatile Organics	Semi-Volatile Organics	Inorganics (MT, WC)
**************************************		-	NA.
Initial Calibration			
		*	NA
Surrogate Recovery		Y	
	* *	, X	= -
Method Accuracy Method Precision		X	
Blank Contamination		<u> </u>	

Comments:

QUALITY CONTROL RESULTS

Login Number:

W7080571

Total Petroleum Hydrocarbons By GC GC

Project ID (number): RAH01RAH01

Method: Matrix:

Sol1ds

USCG/ALAMEDA/AFB Project ID (name):

Surrogate Results

QC Batch No.	Reference	Sample ID	ОТР	
Method: GC		Acceptability Limits:	43.7-111%	
090497TPHS-1	BS090497TP	H Method Blank Soil	43.6*	
090497TPHS-2	LS090497TP		69.3	
090497TPHS-3	LSD090497T	PH LCS Soil Duplicate	69.3	
090497TPHS-4	MS08054501	Matrix Spike	73.0	
090497TPHS-5	M008054501	Matrix Spike Dupli	65.7	
	08057101	BLDG 51 TANK	66.1	
	08057102	BLDG 51 PUMP		
••	08057103	BLDG 51 PILE	73.8	

Notes:

^{*:} Indicates values outside of acceptability limits. See Sample Report. Acceptability limits are derived from statistical analysis of laboratory samples.

QUALITY CONTROL RESULTS

Login Number:

W7080571

Total Petroleum Hydrocarbons By GC

Matrix:

Method:

GC Solids

Project ID (number): RAH01RAH01 Project ID (name):

USCG/ALAMEDA/AFB

Method Blank Results

QC Batch No:

090497TPHS-1

Date Analyzed:

05-SEP-97

Method:GC

Concentration: mg/kg

Analyte

Diesel Range Organics

Notes:

090497TPHS-1: Surrogate spike recovery is outside of acceptability limits. The reported concentration for this sample should be considered as an estimate.

QUALITY CONTROL RESULTS NEI/GTEL Client ID: RAHO1RAH01

Login Number:

W7080571 Project ID (number): RAH01RAH01

Total Petroleum Hydrocarbons By GC GC

Method: Matrix:

Solids 5 4 1

USCG/ALAMEDA/AFB Project ID (name):

Matrix Spike(MS) and Matrix Spike Duplicate(MSD) Results

	ID:W7080545-01 te: 06-SEP-97		MS I	05-SEP-97	MSD	ID:MD0805 05-SEF			<u> </u>	
Units: ug/ml	Samole	Spikes	Added	MS	MS	HSD	MSD		Acceptabi	lity Limits
Analyte	Conc.	HS	MSD	Conc.	% Rec.	Conc.	# Rec.	RPD	RPD	#Rec.
WINDOWS TO THE RESERVE TO THE RESERV	conc.		65.3	47.9	71.9	41.0	62.5	14.0	29.2	34.3-121

Notes:

Values in parentheses in the sample concentration column are used for % recovery calculations.

Acceptability limits are derived from statistical analysis of laboratory samples.

QUALITY CONTROL RESULTS

Login Number:

W7080571

Total Petroleum Hydrocarbons By GC

Method:

GC

Project ID (number): RAH01RAH01 Project ID (name):

Matrix:

Solids

USCG/ALAMEDA/AFB

Laboratory Control Sample (LCS) and Laboratory Control Duplicate Results

Spike

LCS Duplicate LCS Duplicate Acceptability Limits

Analyte

Amount Concentration Recovery, I

LCS

Concentration

Recovery & RPO. &

RPO, Z Recovery, X

GC

Units: mg/kg

QC Batch: 090497TPHS-3 Otesel Range Organics 66.7 47.4 72.3 47.8

72 3 0.00 30.4 39.8-115%

Acceptability limits are derived from statistical analysis of laboratory samples.

ANALYTICAL RESULTS Volatile Organics

NEI/GTEL Client ID: RAHO1RAHO1

Login Number:

W7080571

Project ID (number): RAH01RAH01 Project ID (name):

USCG/ALAMEDA/AFB

Method: EPA 8020A

Matrix: Solids

NEI/GTEL Sample Number	W7080571-01	W7080571-02	W7080571-03	W7080571-04
Client ID	BLDG 51 TANK	BLDG 51 PUMP	BLDG 51 PILE	BLDG 19 WEST
Date Sampled	08/28/97	08/28/97	08/28/97	08/28/97
Date Analyzed	09/04/97	09/04/97	09/04/97	09/04/97
Dilution Factor	1.00	1.00	1.00	1.00

	Reporting		•			
Analyte	Limit	Units_	Con	<u>centration:Wet</u>	Weight	
Benzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	0.35
Toluene	0.10	mg/kg	< 0.10	< 0.10	< 0.10	< 0.10
Ethylbenzene	0.10	mg/kg	< 0.10	< 0.10	< 0.10	14,
Xylenes (total)	0.20	mg/kg	< 0.20	< 0.20	< 0.20	11.
TPH as Gasoline	10.	mg/kg				3000
Percent Solids		*	97.5	85.3	100.	79.3

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 8020A:

Gasoline range hydrocarbons (TPH) quantitated by GC/FID with purge and trap and modified EPA Method 8015. "Test Methods for Evaluating Solid Waste. Physical/Chemical Methods", SW-846. Third Edition including promulgated Update II.

ANALYTICAL RESULTS Volatile Organics

NEI/GTEL Client ID: RAHOIRAHOI W7080571

Login Number: Project ID (number): RAH01RAH01

Project ID (name): USCG/ALAMEDA/AFB

Method: EPA 8020A

Matrix: Solids

NEI/GTEL Sample Number Client ID	W7080571-05 BLDG 19 EAST	W7080571-06 BLDG 19 PILE		W7080571-08 -BLDG 15 SOUTH
Date Sampled	08/28/97	08/28/97	08/28/97	08/28/97
Date Analyzed	09/04/97	09/04/97	09/05/97	09/05/97
Dilution Factor	1.00	1.00_	5.00	5.00

	Reporting Limit Units	Concentration	:Wet Weight	
Analyte	<u>Limit Units</u>	A 0.0		7.0
Benzene	0.05 mg/kg	0.10 < 0.05	70	27
Toluene	0.10 mg/kg	< 0.10 , < 0.10		EE
Ethylbenzene	0.10 mg/kg	4.2 1.3	81.	33.
	0.20 mg/kg	2.7 2.5	270	190
Xylenes (total)	10. mg/kg	730 230	6000	4100
TPH as Gasoline	10. mg/kg	700 27	gn A	87.2
Percent Solids	6	/8.5 63.2		

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 8020A:

Gasoline range hydrocarbons (TPH) quantitated by GC/FID with purge and trap and modified EPA Method 8015. "Test Methods for Evaluating Solid Waste. Physical/Chemical Methods", SW-846. Third Edition including promulgated Update II.

QUALITY CONTROL RESULTS

Login Number:

W7080571

Project ID (number): RAH01RAH01

Project ID (name): USCG/ALAMEDA/AFB

Volatile Organics

Method: EPA 8020A Matrix: Solids

Conformance/Non-Conformance Summary

(X = Requirements Met

* = See Comments

-- - Not Required NA - Not Applicable)

Conformance Item	Volatile Organics	Semi-Volatile Organics	Inorganics (MT, WC)
GC/MS Tune			NA
Initial Calibration	• •		
	X		NA
Surrogate Recovery	X		
	λ V		
Method Accuracy	х Х		
Rlank Contamination	X		

Comments:

QUALITY CONTROL RESULTS

NEI/GTEL Client ID: RAH01RAH01 Login Number:

W7080571 Project ID (number): RAH01RAH01

Project ID (name): USCG/ALAMEDA/AFB

Volatile Organics Method: EPA 8020A Matrix: Solids

Surrogate Results

OC Batch No.	Reference	Sample ID	TFT	
Method: EPA 80	020A	Acceptability Limits:	43-136%	
090497GC10-1	CV09049720	10 Calibration Verifi	88.2	
090497GC10-2	BW09049710	Method Blank Water	91.1	
090497GC10-3	BS09049710	Method Blank Soil	107.	
090497GC10-4	MS08057101	Matrix Spike	111.	
090497GC10-5	M008057101	Matrix Spike Dupli	114.	
090497GC10-6	LS09049710	Laboratory control	115.	
	08057101	BLDG 51 TANK	109:	
==	08057102	BLDG 51 PUMP	106.	
	08057103	BLOG 51 PILE	84.6	
**************************************	08057104	BLDG 19 WEST	132.	
	08057105	BLDG 19 EAST	129	
**************************************	08057106	BLDG 19 PILE	66.2	
	08057107	BLDG 15 NORTH	93.2	
	08057108	BLDG 15 SOUTH	73.4	

^{*:} Indicates values outside of acceptability limits. See Sample Report.

QUALITY CONTROL RESULTS

Login Number: Project ID (number): RAH01RAH01

W7080571

Project ID (name):

USCG/ALAMEDA/AFB

Volatile Organics Method: EPA 8020A

Matrix:

Solids |

Method Blank Results

QC Batch No: Date Analyzed:

090497GC10-2

	uate Analyzed: 04.5ch	-9/	
Analyte	Method: EPA	8020A	Concentration: ug/L
Benzene	< 0.		
Toluene		500	
Ethylbenzene	< 0.	400	
Xylenes (Total)	< 0.	800	
TPH as Gasoline	< 5	0.0	

QUALITY CONTROL RESULTS

NEI/GTEL Client ID: RAHOIRAHO1 Login Number:

W7080571 Project ID (number): RAHO1RAHO1

Project ID (name):

USCG/ALAMEDA/AFB

Volatile Organics Method: EPA 8020A

Matrix: Solids

Method Blank Results

QC Batch No:

090497GC10-3

. Da	ate Analyzed: U4-5Er	··9/	
Analyte	Method: EPA	8020A	Concentration: mg/kg
Benzene	< 0.0	1500	
Toluene	< 0.	100	
Ethylbenzene	< 0.	100	
Xylenes (Total)	< 0.	200	
TPH as Gasoline	< 1	0.0	

Notes:

QUALITY CONTROL RESULTS

Login Number: Project ID (number): RAH01RAH01

W7080571

Project ID (name):

USCG/ALAMEDA/AFB

Volatile Organics

Method: EPA 8020A Matrix:

Solids

Calibration Verification Sample Summary

	Spike	Check Sample	QC Percent	Acceptability Limits	,
Analyte	Amount	Concentration	Recovery	Recovery	
EPA 8020A		tch: 090497GC10-1			
Benzene	20.0	16.1	80.5		
Toluene	20.0	16.0	80.0	77.5-122.5%	
Ethylbenzene	20.0	17.1	85.5	63-137%	
Xylenes (Total)	60.0	55.1	91.8	85-115%	
TPH as Gasoline	500.	580.	116	80-12 0%	

Notes:

QC check source: Supelco #LA12389

QUALITY CONTROL RESULTS

Login Number:

W7080571

Project ID (number): RAH01RAH01
Project ID (name): USCG/ALAMET

USCG/ALAMEDA/AFB

Volatile Organics

Method: EPA 8020A

Matrix: Solids

Laboratory Control Sample Summary

	Sp1ke	Check Sample	QC Percent	Acceptability Limits	•
Analyte	Amount	Concentration	Recovery	Recovery	
EPA 8020A	Units:mg/kg QC	Batch: 090497GC10-6			
Benzene	5.0	3 4.06	81_2	39-150%	
Toluene	5.0	4.21	84.2	46-148%	
Ethylbenzene	5.0) 4.25	85.0	32-160%	
Xylenes (Total	15.	13.0	86.7	41-155%	
TPH as Gasolin	ne 100	63.9	63.9*	80-120%	

Nates:

SITE CHARACTERIZATION REPORT

TANK #K05

U.S. COAST GUARD

COAST GUARD ISLAND

ALAMEDA, CA

Prepared By:

Scott Vickers

RAH Environmental, Inc.

3310 Swetzer Road

Loomis, CA 95650

October 23, 1997

I. INTRODUCTION

RAH Environmental, Inc. was contracted by the United States Coast Guard under contract #DTCG88-97-D-623174 to perform underground storage tank assessment and closure operations at Building 15 on Coast Guard Island in Alameda, CA. The project included the closure-in-place of Tank #K05, a one thousand gallon gasoline storage tank.

II. SITE DESCRIPTION

The project site is on Coast Guard Island, located in Alameda, CA. The underground storage tank is located under the floor of the maintenance shop in Building 15, and formerly stored gasoline. The tank is immediately inside of the south wall of the building and the only access to the tank was a four inch fill pipe located outside of the wall, and a one inch pipe inside of the building in a covered 2' X 2' access vault.

III. SOIL SAMPLING AND ANALYSIS

On August 28, 1997, two samples were collected from the soil immediately adjacent to and below tank #K05 as shown in Figure 1. One sample was collected from below the north end of the tank at a depth of 8.5' below ground surface and labeled BLDG. 15 NORTH. The other sample was collected from below the south end of the tank at a depth of 8.0' below ground surface and labeled BLDG. 15 SOUTH. The soil samples were collected by hand augering to the depth indicated and using a drive sampler with 2"x6" brass tubes. The soil at approximately 8.5' below ground surface was saturated, indicating the presence of groundwater. Groundwater could not be sampled, however, due to the small size of the borings. Once collected, the soil samples were capped, preserved on ice at 4°C and transported under chain of custody to NEI/GTEL for analysis. NEI/GTEL is state certified under #1845 and is located at 4080-C Pike Lane in Concord, CA 94520. The following table summarizes the conditions under which the samples were taken:

Table 1

Sample ID#	Time	Temperature	Weather	Tide
BLDG.15 NORTH	3:30 PM	78°	Clear, Sunny	-1.9
BLDG.15 SOUTH	3:45 PM	78°	Clear, Sunny	-1.5

Results of the soil sampling indicate that the subsurface soil has been impacted by petroleum hydrocarbons below the bottom of the tank. The samples both contained detectable concentrations of TPH-as-gas, benzene, toluene, ethylbenzene, and xylene. Concentrations of TPH-as-gas were 6,000 and 4,100 ppm; benzene - 3.2 and 7.0 ppm; toluene - 38 and 23 ppm; ethylbenzene - 81 and 55 ppm; and xylene - 270 and 190 ppm. The analytical results are summarized in Table 2 below, and the full analytical report is included as an attachment.

Table 2

Sample ID	Lead	TPHgas	Benzene	Toluene	Ethylbenzene	Xylene
BLDG. 15 NORTH	6.5	6,000	3.2	38	81	270
BLDG. 15 SOUTH	31	4,100	7.0	23	55	190

All results reported in parts per million(mg/kg), unless otherwise indicated.

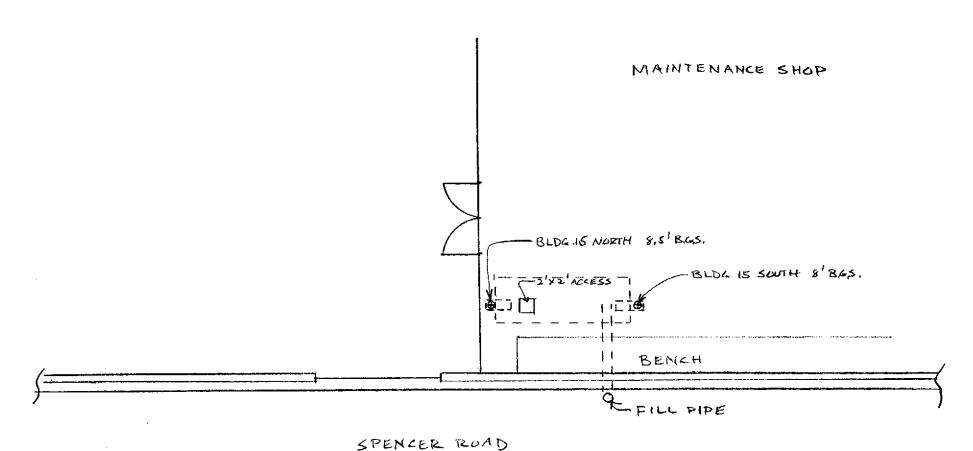
V. RECOMMENDATIONS

Based on the results of the soil sampling and analysis, there are significant concentrations of petroleum hydrocarbons in soil and additional assessment activities may be required before this site can be closed.

U.S. COAST GUARD - ISC ALAMEDA

TANK # KOS BLDG. 15

CLOSURE IN PLACE - 1,000 GALLON GASOLINE



Stelleche (aut.)



Midwest Region

4211 May Avenue Wichita, K\$ 67209 (316) 945-2624 (800) 633-7936 (316) 945-0506 (FAX)

September 12, 1997

Scott Vickers RAH Environmental Inc. 3310 Swetzer Road Loomis, CA 95650

RE: NEI/GTEL Client ID:

Login Number:

Project ID (number):

Project ID (name):

RAHO1RAHO1

W7080571

USCG/ALAMEDA/AFB

Dear Scott Vickers:

Enclosed please find the analytical results for the samples received by NEI/GTEL Environmental Laboratories, Inc. on 08/30/97 under Chain-of-Custody Number(s) 36374.

A formal Quality Assurance/Quality Control (QA/QC) program is maintained by NEI/GTEL, which is designed to meet or exceed the EPA requirements. Analytical work for this project met QA/QC criteria unless otherwise stated in the footnotes. This report is to be reproduced only in full.

NEI/GTEL is certified by the California Department of Health Service under Certification Number 2147.

If you have any questions regarding this analysis, or if we can be of further assistance, please call our Customer Service Representative.

Sincerely,

NEI/GTEL Environmental Laboratories, Inc.

Terry/R. Loucks Laboratory Director

ANALYTICAL RESULTS Metals

NEI/GTEL Client ID: RAHO1RAH01 Login Number:

Project ID (number): RAH01RAH01

W7080571

Project ID (name): USCG/ALAMEDA/AFB

Method: EPA 7421

Matrix: Solids

NEI/GTEL Sample Number	W7080571-04	W7080571-05	W7080571-06	W7080571-07
Client ID	BLDG 19 WEST	BLDG 19 EAST	BLDG 19 PILE	BLDG 15 NORTH
Date Sampled	08/28/97	08/28/97	08/28/97	08/28/97
Date Prepared	09/12/97	09/12/97	09/12/97	09/12/97
Date Analyzed	09/12/97	09/12/97	09/12/97	09/12/97
Dilution Factor	20.0	10.0	10.0	5.00

	Reporting					
Analyte	Limit	Units	Cor	ncentration:Wet	Weight	
	0.40	mg/kg	62.	26.	24,	6.5
Percent Solids		*	79.3	78.5	83.2	90.8

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 7421:

Digestion by EPA Method 3050A. "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846. Third Edition including Update 2.

ANALYTICAL RESULTS Metals

NEI/GTEL Client ID: RAH01RAH01 Login Number:

W7080571

Project ID (number): RAH01RAH01

Project ID (name): USCG/ALAMEDA/AFB

Method: EPA 7421

Matrix: Solids

NEI/GTEL Sample Number	W7080571-08		••	**
Client ID	BLDG 15 SOUTH	••	••	• •
Date Sampled	08/28/97	••	• •	• •
Date Prepared	09/12/97			
Date Analyzed	09/12/97	• •	• •	• •
Dilution Factor	10.0	• •		••

	Keporting					
Analyte	Limit	Units	Co	ncentration:Wet	Weight	
Lead	0.40	mg/kg	31.		••	
Percent Solids		X	87.2			

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

Digestion by EPA Method 3050A. "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846. Third Edition including Update 2.

NEI/GTEL Wichita, KS W7080571

Page: 2

ANALYTICAL RESULTS Total Petroleum Hydrocarbons By GC

NEI/GTEL Client ID: RAH01RAH01

Login Number:

W7080571 Project ID (number): RAH01RAH01

Project ID (name):

USCG/ALAMEDA/AFB

Method: GC

Matrix: Solids

	NEI/GTEL Sample Number	W7080571-01	W7080571-02	W7080571-03	
	Client ID	BLDG 51 TANK	BLDG 51 PUMP	BLDG 51 PILE	••
	Date Sampled	08/28/97	08/28/97	08/28/97	• •
	Date Prepared	09/04/97	09/04/97	09/04/97	
•	Date Analyzed	09/06/97	09/06/97	09/06/97	••
	Dilution Factor	1.00	1.00	1.00	

_			
D.	മനമ	rti	nл

	(156.5.5.5)					
Analyte	Limit	Units	(<u>Concentration:Wet</u>	Weight	
TPH as Diesel	10,	mg/kg	< 10.	31.	150	
Percent Solids		*	97.5	85.3	100.	

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

GC:

Extraction by EPA Method 3550 (sonication). ASTM Method D3328(modified) is used for qualitative identification of fuel patterns. The method has been modified to include quantitation by applying calibration and quality assurance guidelines outlined in "Test Methods for Evaluating Solid Waste. Physical/Chemical Methods", SW-846. Third Edition including promulgated Update 1. This method is equivalent to the California LUFT manual DHS method for diesel fuel.

W7080571-02:

The material present is qualitatively uncertain. Therefore, all material in the C9 to C22 range was quantitated against diesel fuel without respect to pattern. Chromatographic data indicates the presence of material, which is heavier than diesel fuel, in this sample.

W7080571-03:

The material present is qualitatively uncertain. Therefore, all material in the C9 to C22 range was quantitated against diesel fuel without respect to pattern. Chromatographic data indicates the presence of material, which is heavier than diesel fuel, in this sample.

NEI/GTEL Wichita, KS W7080571

Page: 1

QUALITY CONTROL RESULTS

Login Number:

W7080571

Project ID (number): RAH01RAH01

Total Petroleum Hydrocarbons By GC

Method:

Solids |

Project ID (name):

USCG/ALAMEDA/AFB

Matrix:

Conformance/Non-Conformance Summary

(X = Requirements Met

* = See Comments

-- = Not Required

NA = Not Applicable)

Conformance Item	Volatile Organics	Semi-Volatile Organics	Inorganics (MT, WC)
GC/MS Tune	-		
Initial Calibration		••	
		*	NA
Surrogate Recovery		X	
Mathad Assussay		Á	
Method Precision		X	F-F
Blank Contamination		X	·

Comments:

QUALITY CONTROL RESULTS

Login Number:

W7080571 Project ID (number): RAH01RAH01

Project ID (name):

USCG/ALAMEDA/AFB

Total Petroleum Hydrocarbons By GC

Method:

Matrix:

Solids

Surrogate Results

QC Batch No	Reference	Sample ID	OTP	
Method: GC		Acceptability Limit		
090497TPHS-1	BS090497TP	H Method Blank Sof		
090497TPHS-2	LS090497TP		ol 69.3	
090497TPHS-3	LSD090497T	PH ECS Soil Duplica		
090497TPHS-4	MS08054501	Matrix Spike	73.0	
090497TPHS-5	MD08054501	oawa wa waxa a sa a sa a sa a sa a a a a a a a a	****	
••	08057101	BLDG 51 TANK	66.1 78.0	
	08057102	BLDG 51 PUMP		
	08057103	BLDG 51 PILE	73.8	

Notes:

Acceptability limits are derived from statistical analysis of laboratory samples.

^{*:} Indicates values outside of acceptability limits. See Sample Report.

Project ID (name):

QUALITY CONTROL RESULTS

Login Number:

W7080571

Project ID (number): RAH01RAH01

USCG/ALAMEDA/AFB

Total Petroleum Hydrocarbons By GC

Method:

GC

Matrix:

<u>Solids</u>

Method Blank Results

QC Batch No:

090497TPHS-1

Date Analyzed:

05-SEP-97

Analyte

Method:GC

Diesel Range Organics

< 10.0

Concentration: mg/kg

090497TPHS-1: Surrogate spike recovery is outside of acceptability limits. The reported concentration for this sample should be considered as an estimate.

QUALITY CONTROL RESULTS

Login Number:

W7080571

Project ID (number): RAH01RAH01

Total Petroleum Hydrocarbons By GC

Method: Matrix:

GC Solids

Project ID (name):

USCG/ALAMEDA/AFB

Matrix Spike(MS) and Matrix Spike Duplicate(MSD) Results

GTEL Sample Analysis Dat	ID:W7080545-01	······································	MS	ID:MS08054501 05-SEP-97	MSD	ID:MD0805 05-SEP				· · · · · · · · · · · · · · · · · · ·
Units: ug/ml	Sample	Spikes	Added	MS	MS	MSD	MSD		Acceptabi	lity Limits
Analyte	Conc.	MS_	MSD	Conc.	I Rec.	Conc.	I Rec.	RPD	RPO	IRec.
Diesel Range Organic	s < 10 0(0.190)	66_4	65.3	47.9	71.9	41 0	62.5	14.0	29.2	34.3-121

Notes:

Values in parentheses in the sample concentration column are used for \boldsymbol{x} recovery calculations. Acceptability limits are derived from statistical analysis of laboratory samples.

QUALITY CONTROL RESULTS

Login Number:

W7080571

Total Petroleum Hydrocarbons By GC GC

Project ID (number): RAH01RAH01

Method:

Matrix: Solids.

Project ID (name):

USCG/ALAMEDA/AFB

Laboratory Control Sample (LCS) and Laboratory Control Duplicate Results

Spike

LCS

LCS Duplicate LCS Duplicate

'Acceptability Limits

Analyte |

LCS Amount Concentration Recovery, % Concentration

Recovery. * RPD. *

RPD. \$

Units: mg/kg

QC Batch:090497TPHS-3

Diesel Range Organics 66.7

47.4 72.3 47.8 <u>72.3 0.00 30.4 39.8-115</u>

Notes:

Acceptability limits are derived from statistical analysis of laboratory samples.

ANALYTICAL RESULTS Volatile Organics

NEI/GTEL Client ID: RAH01RAH01 Login Number:

Project ID (number): RAH01RAH01

W7080571

USCG/ALAMEDA/AFB Project ID (name):

Method: EPA 8020A

Matrix: Solids

NEI/GTEL Sample Number	W7080571-01	W7080571-02	W7080571-03	W7080571-04
Client ID	BLDG 51 TANK	BLDG 51 PUMP	BLDG 51 PILE	BLDG 19 WEST
Date Sampled	08/28/97	08/28/97	08/28/97	08/28/97
Date Sampled Date Analyzed Dilution Factor	09/04/97 1.00	09/04/97 1.00	09/04/97	09/04/97 1.00

	Reporting					
Analyte	Limit	Units_	.(oncentration:Wet W		
Benzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	0.35
Toluene	0.10	mg/kg	< 0.10	< 0.10	< 0.10	< 0.10
Ethylbenzene	0.10	ma/ka	< 0.10	< 0.10	< 0.10	14.
Xylenes (total)	0.20	mg/kg	< 0.20	< 0.20	< 0.20	11.
TPH as Gasoline	10	ma/ka				3000
		····ˈɔː ·›= Y	97.5	85.3	100.	79.3
Percent Solids						

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 8020A:

Gasoline range hydrocarbons (TPH) quantitated by GC/FID with purge and trap and modified EPA Method 8015. "Test Methods for Evaluating Solid Waste. Physical/Chemical Methods", SW-846, Third Edition including promulgated Update II.

ANALYTICAL RESULTS Volatile Organics

NEI/GTEL Client ID: RAHO1RAH01

Login Number:

W7080571

Project ID (number): RAHO1RAHO1

Project ID (name):

USCG/ALAMEDA/AFB

Method: EPA 8020A

Matrix: Solids

NEI/GTEL Sample Number Client ID Date Sampled Date Analyzed	W7080571-05 BLDG 19 EAST 08/28/97 09/04/97	W7080571-06 BLDG 19 PILE 08/28/97 09/04/97	W7080571-07 BLDG 15 NORTH 08/28/97 09/05/97 5.00	W7080571-08 BLDG 15 SOUTH 08/28/97 09/05/97 5.00
Dilution Factor	1.00	1.00	5.00	3.00

Analyte	Reporting Limit	Units	Car	ncentration:Wet W	leight	<u> </u>
Benzene	0.05	mg/kg	0.10	< 0.05	3.2	7.0
Toluene	out a superior de la company de la compa	mg/kg	< 0.10	< 0.10	38.	23.
Ethylbenzene	0.10	mg/kg	4.2	1.3	81.	55.
Xylenes (total)	0.20	mg/kg	2.7	2,5	270	190 4100
TPH as Gasoline	10.	mg/kg	730	230	6000	4100 97.2
Percent Solids		7	78.5	83.2	90.8	O/ .C

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 8020A:

Gasoline range hydrocarbons (TPH) quantitated by GC/FID with purge and trap and modified EPA Method 8015. "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846. Third Edition including promulgated Update II.

QUALITY CONTROL RESULTS

NEI/GTEL Client ID: RAHO1RAHO1 Login Number:

W7080571

Project ID (number): RAH01RAH01

Project ID (name): USCG/ALAMEDA/AFB

Volatile Organics Method: EPA 8020A Solids

Matrix:

Conformance/Non-Conformance Summary

(X = Requirements Met

* - See Comments

-- = Not Required NA = Not Applicable)

Conformance Item	Volatile Organics	Semi-Volatile Organics	Inorganics (MT, WC)
GC/MS Tune			NA
Initial Calibration			
Continuing Calibration	X		NΔ
Surrogate Recovery	X X		44
######################################	A Y		.
Method Accuracy	Y.	÷=	
Blank Contamination	χ	••	

Comments:

QUALITY CONTROL RESULTS

NEI/GTEL Client ID: RAHO1RAH01 Login Number:

W7080571 Project ID (number): RAH01RAH01

Project ID (name):

USCG/ALAMEDA/AFB

Volatile Organics Method: EPA 8020A

Matrix: Solids.

Surrogate Results

QC Batch No.	Reference	Sample ID		TFT	
Method: EPA 80	020A	Acceptability	Limits:	43-136%	
090497GC10-1	CV09049720	10 Calibration		88.2	
090497GC10-2	BW09049710	Method Blank	Annual Contract of the Contract of Contrac	91.1	
090497GC10-3	BS09049710	(10) (British San	and the second of the second o	107.	
090497GC10-4	MS08057101	Matrix Spike		111.	
090497GC10-5	MD08057101	Matrix Spike		114.	
090497GC10-6	LS09049710	Laboratory c	van geraan nierook ee bijde begen 100 on 600 on	115.	
	08057101	BLDG 51 TANK		109.	
	08057102	BLDG 51 PUMP	er andre a construction of the contract of	106.	
•	08057103	BLDG 51 PILE	A March Control Control Control Control	84.6	
	08057104	BLDG 19 WEST	e esta e escapación de la companya d	132.	
	08057105	BLDG 19 EAST	and the second of the second of the second	129	
	08057106	BLDG 19 PILE	CONTRACTOR OF THE STATE OF STATE	66.2	
- -	08057107	BLDG 15 NORT		93.2	
	08057108	BLDG 15 SOUT	H	73.4	

^{*:} Indicates values outside of acceptability limits. See Sample Report.

NEI/GTEL Client ID: RAH01RAH01

QUALITY CONTROL RESULTS

Login Number:

W7080571 Project ID (number): RAH01RAH01

Project ID (name):

USCG/ALAMEDA/AFB

Volatile Organics

Method: EPA 8020A

Matrix: Solids

Method Blank Results

QC Batch No:

090497GC10-2

Data Analyzade

M.SED.07

Date Anai:	yzed: <u>04-366-9/</u>	
Analyte	Method: EPA 8020A	Concentration: ug/L
Benzene	< 0.400	Concerns derions 49: 2
Toluene	< 0.500	
Ethylbenzene	< 0.400	
Xylenes (Total)	< 0.800	
<u> </u>	< 50.0	

Notes:

NEI/GTEL Client ID: RAHO1RAH01

QUALITY CONTROL RESULTS

Login Number:

W7080571 Project ID (number): RAH01RAH01

Project ID (name):

USCG/ALAMEDA/AFB

Volatile Organics Method: EPA 8020A

Solids Matrix:

Method Blank Results

QC Batch No:

090497GC10-3

Date Analyzed:

04-SEP-97

	Date Alla Lyzeu.	U4-361-31	
Analyte	Met	hod: EPA 8020A	Concentration: mg/kg
Benzene		< 0.0500	
Toluene		< 0.100	
EthyTbenzene		< 0.100	
Xylenes (Total)		< 0.200	
TPH as Gasoline		< 10.0	

Notes:

NEI/GTEL Client ID: RAHO1RAH01

Login Number: W7080571 Project ID (number): RAH01RAH01

Project ID (name): USCG/ALAMEDA/AFB

QUALITY CONTROL RESULTS

Volatile Organics Method: EPA 8020A

Matrix: Solids

Calibration Verification Sample Summary

	Spike	Check Sample	QC Percent	Acceptability Limits
Analyte	Amount	Concentration	Recovery	Recovery
EPA 8020A	Units:ug/L QC Bato	h: 090497GC10-1		
Benzene	20.0	16.1	80.5	77-123k
Toluene	20.0	16.0	80.0	77.5-122.5%
Ethylbenzene	20.0	17.1	85.5	63-137%
Xylenes (Total)	60.0	55.1	91.8	85-115%
TPH as Gasoline	<u>△</u> 500.	580.	116.	80-120%

Notes:

QC check source: Supelco #LA12389

QUALITY CONTROL RESULTS NEI/GTEL Client ID: RAHO1RAHO1

W7080571 Login Number:

Project ID (number): RAH01RAH01 Project ID (name): USCG/ALAMEDA/AFB Method: EPA 8020A Matrix:

Solids |

Volatile Organics

Laboratory Control Sample Summary

	Spike	Check Sample	QC Percent	Acceptability Limits
Analyte	Amount	Concentration	Recovery	Recovery
EPA 8020A	Units:mg/kg QC Bato	:h:090497GC10-6		
Benzene	5.00	4.06	81.2	39-150%
Toluene	5.00	4.21	84.2	46-148%
Ethylbenzene	5,00	4.25	85.0	32-160%
Xylenes (Total)	15.0	13.0	86.7	41-155%
TEH as Gasoline		63.9	63.9*	80-120%

Notes:

QUALITY CONTROL RESULTS

NEI/GTEL Client ID: RAH01RAH01 Login Number:

W7080571

Project ID (name):

Project ID (number): RAH01RAH01 USCG/ALAMEDA/AFB Method: EPA 8020A Matrix:

Sol1ds

Volatile Organics

Laboratory Control Sample Summary

	Spike	Check Sample	QC Percent	Acceptability Limits
Analyte	Amount	Concentration	Recovery	Recovery
EPA 8020A	Units:mg/kg QC	Batch: 090497GC10-6		AC 158#
Benzene	5.00	4.06	81.2	39-100A AC 1408
Toluene	5.00	4.21	84.2	46-148%
Ethylbenzene	5.00	4.25	85.0	3Z-108A
Xylenes (Total)	15.0	13.0	86.7	41-155%
TDH ac Gacoline		63.9	63.9*	80-TZ0#

Notes:

NEI/GTEL Client ID: RAHO1RAHO1 Login Number:

W7080571 Project ID (number): RAH01RAH01

Project ID (name):

USCG/ALAMEDA/AFB

QUALITY CONTROL RESULTS

Volatile Organics

Method: EPA 8020A

Matrix:

Solids

Matrix Spike(MS) Results

	: ID:W7080571-01 ite: 04-SEP-97		MS ID:MS08057: 04-SEP-		
Units: mg/kg	Sample	Spike	MS	MS	Acceptability Limits
Analyte	Conc.	Added	Conc.	% Rec.	%Rec.
Benzene	< 0.05(0.000)	4.85	3,95	81.4	39-150
Toluene	< 0.10(0.000)	4.85	4.04	83.3	46-148
Ethylbenzene	< 0.10(0.000)	4.85	4,15	85.6	32-160
Xylenes (Total)	< 0.20(0.000)	14.6	12,9	88.4	41-155

NEI/GTEL Client ID: RAHO1RAHO1 QUALITY CONTROL RESULTS

Login Number: W7080571

Project ID (number): RAH01RAH01 Method: EPA 8020A
Project ID (name): USCG/ALAMEDA/AFB Matrix: Solids

Matrix Spike(MS) and Matrix Spike Duplicate(MSD) Results

Volatile Organics

GTEL Sample II Analysis Date			MS I	D:MS08057101 04-SEP-97	MSD	ID:MD0805 04-SEP				
Units: mg/kg	Sample	Spikes	Added	MS	MS	HSD	MSD		Acceptab	ility Limits
Analyte	Conc.	HS	MSD	Conc.	# Rec.	Conc.	# Rec.	RPO	RPD	#Rec.
Benzene	< 0.05(0.000)	4.85	5.05	1.95	81,4	4.13	81.8	0.500	28.3	39-150
Toluene	< 0.10(0.000)	4.85	5.05	4.04	83.3	4.22	83.6	0.400	30	46-148
Ethylbenzene	< 0.10(0.000)	4.85	5.05	4,15	85.6	4,24	84.0	1.90	30	32-160
Xylenes (Total)	< 0.20(0.000)	14.6	15.2	12.9	88.4	13.4	88.2	0.200	30	41-155

Notes:

Values in parentheses in the sample concentration column are used for % recovery calculations.

GTEL	L	CON (510	NCO 0) 68	IKE L ORD, 85-78	, CA 852	Ξ, S 945	UIT 520	E C								A	INI	D A	NA	LY	/SI	IS R	OD' REG	QUI	ES:	T										(37	
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Scott Vie	e kers						E) \										JE /	Dies		S			1			ٔ اِ	NBS	BS		Ĭ	Š.	֓֞֜֞֞֜֞֜֓֓֓֓֓֓֜֜֜֓֓֓֓֓֓֡֜֜֜֜֓֡֓֡֓֜֜֡֜֜֜֜֡֡֡֜֜֜֡֓֡֡֡֜֜֜֡֓֡֓֡֡֡֡֓֜֜֜֡֡֡֓֜֜֡֡֡֓֜֜֡֓֡֓֡֓֡֡֡֓֜֜֡֡֓֜֡֓֜	_	7 7		leact			
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Sample ID	Lab # (Lab Use) only	# CONTAINERS	WAIEn	AIR	SLUDGE	OTHER	HC	HNO ₃	H ₂ SO ₄	ICE	UNPRE. SERVED	OTHER (Specify)	DATE	 	TIME	BTEX 602 [BTEX/Gas Hydrocarbons PID/FID 🗹 with MTBE	Hydrocarbons GC/FID	Hydrocarbon Profile (SIMDIS) □	Oil and Grease 413.1 □ 413.2 □ SM-503 □	TPH/IR 418.1 □ SM 503 □	EDB by 504 □ DBCP by 504	EPA 503.1 □ EPA 502.2 □	EPA 601 C EPA 8010 C	EPA 602 EPA 8020	EPA 608 ☐ 8080 ☐ PCB only ☐	EPA 624/PPL ☐ 8240/TAL ☐ NBS (+15)	EPA 625/PPL ☐ 8270/TAL ☐ NBS (+25) ☐	EPA 610 □ 8310 □	EP TOX Metats □ Pesticides □ Herbicides □	TCLP Metals ☐ VOA ☐ Semi-VOA ☐ Pest ☐ Herb ☐	EPA Metals - Priority Pollutant TAL RCHA	CAM Metals TTLC ☐ STLC ☐	Lead 239.2 🗆 200.7 🗀 7420 🗀 7421 🗀 6010	Organic Lead	Corrosivity Flash Point Reactivity	1211	1 1	
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SITE ASSESSMENT REPORT TANK #K05 U.S. COAST GUARD COAST GUARD ISLAND ALAMEDA, CA

Prepared By:

Scott Vickers

RAH Environmental, Inc.

3310 Swetzer Road

Loomis, CA 95650

October 23, 1997

EXECUTIVE SUMMARY

RAH Environmental, Inc. was contracted by the United States Coast Guard under contract #DTCG88-97-D-623174 to perform underground storage tank assessment and closure operations at Building 15, on Coast Guard Island in Alameda, CA. The project included the closure-in-place of Tank # K05, a one thousand gallon gasoline storage tank formerly used to fuel motor vehicles on the island. The necessary permits were obtained from the Alameda County Department of Environmental Health and on August 27, two hand auger borings were completed to sample the soil beneath each end of the tank. The soil samples did contain levels of TPHgas and BTEX as summarized in the following report, however, the tank was closed in-place on September 18 by filling it with cement slurry. Since the tank was located beneath the building, County Environmental Health officials agreed that the tank could be closed in-place instead of removed.

I. INTRODUCTION

RAH Environmental, Inc. was contracted by the United States Coast Guard under contract #DTCG88-97-D-623174 to perform underground storage tank assessment and closure operations at Building 15, on Coast Guard Island in Alameda, CA. The project included the closure-in-place of Tank # K05, a one thousand gallon gasoline storage tank.

II. BACKGROUND

The project site is on Coast Guard Island in Alameda, CA. The underground storage tank was formerly used to store gasoline to fuel motor vehicles on the island. A dispenser that was previously located near the tank had been removed as part of a modification to the interior of the building.

III. CONTRACTOR INFORMATION

Prime Contractor:

RAH Environmental, inc.

3310 Swetzer Road Loomis, CA 95650 (916)652-5777 Contact: Ray Henry

Subcontractors:

None

IV. SITE DESCRIPTION

The project site is on Coast Guard Island, located in Alameda, CA. The underground storage tank is located under the floor of the maintenance shop in Building 15, and formerly stored gasoline. The tank is immediately inside of the west wall of the building and the only access to the tank was a four inch fill pipe located outside of the wall, and a one inch pipe inside of the building in a covered 2' X 2' access vault.

V. CLOSURE ACTIVITIES

Notifications and Permits

An Underground Tank Closure Plan was completed and filed with Alameda County Environmental Protection Division of The Department of Environmental Health, in addition to the State of California Form A and Form B. The inspector for the project is Ms. Eva Chu, who was on-site for inspection and sampling of the tank area. Copies of the permits are attached.

Tank Rinsing and Water Removal

On August 27, 1997, the tank was rinsed by introducing approximately 100 gallons of water into the tank from the fill pipe. On August 28, 1997, the rinseate was pumped from the underground tank directly into a vacuum truck and transported under manifest #96700697 to Americlean, Inc. in Silver Springs, NV for recycling.

VI. ANALYTICAL

Soil Sampling and Analysis

On August 28, 1997, RAH Environmental, Inc. performed soil sampling operations in order to assess the tank area and determine if contamination is present in the soil around the tank. Two trenches were cut in the concrete floor in the approximate area of the ends of the tank as shown in Figure 1. The ends of the tank were located by hand augering down approximately four feet until the top of the tank was found. Additional holes were augered until the tank surface was missed and a depth of eight feet below ground surface was reached. The soil at approximately 8.5' below ground surface was saturated, indicating the presence of groundwater. Groundwater could not be sampled, however, due to the small size of the hand auger borings. One soil sample was collected from each end of the tank and labeled BLDG. 15 NORTH and BLDG. 15 SOUTH. Both samples were analyzed for TPHgas, BTEX, and total lead. The results are summarized in Table 1 below.

Table 1

Sample ID	Lead	TPHgas	Benzene	Toluene	Ethylbenzene	Xylene
BLDG. 15 NORTH	6.5	6,000	3.2	38	81	270
BLDG. 15 SOUTH	31	4,100	7.0	23	55	190

All results reported in parts per million(mg/kg), unless otherwise indicated.

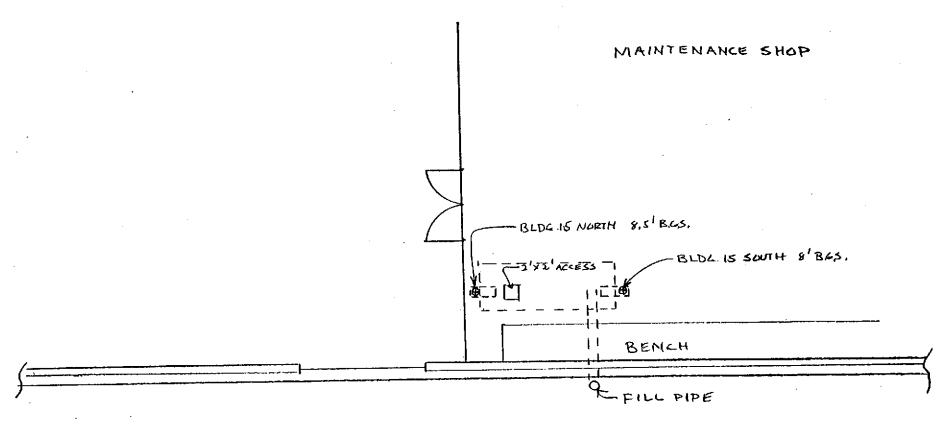
VII. TANK CLOSURE/SITE RESTORATION

On September 17, 1997, the tank was filled with approximately five cubic yards of cement slurry mix by pumping the mix directly into the fill pipe. The sawcut assessment holes and the vault were also filled and patched with concrete.

U.S. COAST GUARD- ISC ALAMEDA

TANK # KOS - BLOG. 15

CLOSURE IN PLACE - 1,000 GALLON GASOLINE



SPENCER RUAD

FIGUREI

Sep. 09 1997 07:22AM P2 PHUNE NO. : 702 577 9199 FRÚM : AMERICLEAN, INC. Department of Truck Sylvatronies Confe See Instructions on back of page 6. Seconsonto, California State of Collanian-Saurannantii Françoia Ayanty Form Approved OMB No. 2050-0010 (Expires 9-10-96)
Please press or type. Form designed for use on oille (12-pich) typeweiter. Information in the shaded areas 2. Page 1 Merilan Document No. is not required by Federal law. 1. Generator's US EPA ID No. UNIFORM HAZARDOUS 1A14619103191010137010161 WASTE MANIFEST CALL 1-800-852-7550 ATTIN. TIMADOEN 4. US EPA ID Number 5. Transporter 1 Company Hamey
Am BEICLEAN, 1 & C. NV 10982: 3: 9816 7. Transporter 2 Company Name CALIFORNIA, 9. personated Focility Hame and Sine Address HMEVIG (RAN DO) 10. US EPA IO Number RAMU1 AR 11WD91841358418 Spires 12. Containers 11. US 0.01 Description (including Proper Shipping Name, Henord Class, and ID Number) WITHIN · NON ROZA HAZARDUS WESTE. LIQUID 00 17700550 G CENTER 1-800-424-8802; E E2:\/\\ E 8 A T ŒΛ PANOTE CONT 15. Special Handling Instructions and Additional Information by declare that the contents of this consignment are fully and accurately described above by proper shipping native and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations. If I am a large quantity generator, I cartify that I have a program in place to reduce the values and toxicity of waste generated to the degree I have determined to be secondarily practicable and that I have relacted the practicable method of treatment, storage, or disposal currently available to me which minimizes the practicable method of treatment, storage, or disposal currently available to me which minimizes the practicable method of treatment, storage, or disposal currently available to me which minimizes the practicable method of treatment. threet to human health and the environment. OR, if I am a mail quantity generator, I have made a good forth effort to minimize my waste generation and solds) the best waste management method that is available to ma and that I can afford. Month 17. Transporter 1 Acknowledgement of Receipt of Materials MCNA <u>0 cul</u> 18. Transporter 2 Acknowledgement of Partial of Materials Day. Mc rh Printed/Typed Name 19. Obserpancy Indication Space 20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in light

DO NOT WRITE BELOW THIS LINE.



December 29, 1997

Ms. Susanne Perkins U.S. Coast Guard CEU-Oakland 2000 Embarcadero, Suite 200 Oakland, CA 94606-5337

RE: Closure Reports

Dear Ms. Perkins:

Attached are the revised reports for Coast Guard Island and Pacific Strike Team. The manifest number for the rinseate was corrected, and a copy included. The rinseate from all three tanks at Alameda was transported under the same manifest, number 96700697, for a total quantity of 550 gallons.

Please call us if you have any questions or require additional information. Thank you very much.

Sincerely,

Scott Vickers

ALAMEDA COUNTY ENVIRONMENTAL HEALTH / HAZARDOUS MATERIALS DIVISION

1131 HARBOR BAY PKWY., RM. 250, ALAMEDA, CA 94502-6577 (510)567-6700 FAX (510) 337-9355

UST Communication HAZARDOUS WASTE GENERATOR INSPECTION REPORT

STID#: FACILITY NAME: US COUST GOOD COUST GOOD FOR 2 OF 2 SUPPLEMENTAL FORM
RULLING 19 - 100 Gal steel USI TA THATE OF GASOLINE
0%1FL 207% Oz
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in tank in springed out No dryico usol
Odor + stand soil in it Taile apported in
and on them the Wiggin a vondtant
completely detrivated
O soil sands colloted from 15.5 bas not the
day - with moderator (Fust)
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wind odor I wast)
Analyze for Tolly BTEX and total bad
10
Pulldan 15. 88/166 20.59002
Harlangeral to 18: los Soil sample to collected from
in that south end of 1-K cicking UST
So the sample mostles and we mode odor rathert at 8,0 bys
12 th sande " 8.5 bys
Analy, for TOHER TOX totale-
PRINT NAME South Hickory INSPECTED BY:
SIGNATURE: A TATALANDA DATE

GEN/SUPP RFT(REV. 7/94) [NS /BCO

Project Specialist

ALAMEDA COUNTY HEALTH CARE SERVICES AGENCY
DEPARTMENT OF ENVIRONMENTAL HEALTH
ENVIRONMENTAL PROTECTION DIVISION
1131 HARBOR BAY PARKWAY, RM 250
ALAMEDA, CA 94502-6577
PHONE # 510/567-6700
FAX # 510/337-9335

UNDERGROUND TANK CLOSURE PLAN

* * * Complete according to attached instructions * * *

	I Interest tool Support Camarach
1. 1	Name of Business Us Coast Guard Integrated Support Command
	Person (PRIMI) 4
	and help and folial Callette and
	21 - 2 - 2 - 2 - 2 - 2 - 2 - 2 - 2 - 2 -
3.	Mailing Address
	Mailing Address 2000 Embarcas Zip 94606-5337Phone (570)535-7260
4.	Property Owner Us Cuest Guard
	Business Name (if applicable)
	Address Same
	City, State Zip
	City, State high tank will be manifested
5.	Generator name under which tank will be manifested
_	EPA ID# under which tank will be manifested CA7690390037

_ up an me u e e	
6.	Contractor PLAH Environ montal, Inc.
	Address 3310 Swetzer Road
	City Loomis CA 95650 Phone 916-652-5777
	License Type A- H62 - ID# 5922/6
	*Effective January 1, 1992, Business and Professional Code Section 7058.7 requires prime contractors to also hold Hazardous Waste Certification issued by the State Contractors License Board.
7.	Consultant (if applicable)
•	Address
	City, State Phone
a	Main Contact Person for Investigation (if applicable)
٥.	Name Ray Henry Title Prosecteut
	Company RA4 Environ mental, lac
٠	Phone <u>(5/6) 652-5777</u>
9.	Number of underground tanks being closed with this plan 3
	Length of piping being removed under this plan
	Total number of underground tanks at this facility (**confirmed with owner or operator) 3
	. State Registered Hazardous Waste Transporters/Facilities (see instructions).
**	Underground storage tanks must be handled as hazardous waste **
	a) Product/Regidual Sludge/Rinsate Transporter
	Name Ashing Environmental Sorv. EPA I.D. No. CALOCO/38484
	Hauler License No. 36455 License Exp. Date
	233-22 100 W 1/6/0/60
	City Tracy State CA Zip 95367
	i
	Name Asbary Environmental Sav EPA ID# CADO26277036
	reserved 2100 N. Algerada St.
	City Compton State C4 Zip 90222
	CITY COMPILE
	\cdot

. c)	Tank and Piping Transporter		
	Name RAH Environ montal, line.	EPA I.D.	No. <u>CANGS3582701</u>
•	Hauler License No. 2965	License E	xp. Date
	Address 3310 Swetzer-Rd	•	
	city Learnis	State <u>C4</u>	zip <u>9.5650</u>
٠.	. ni-in- Bianagal Site	·	•
ď	Name Erickson lac.	EPA I.D.	No. <u>CADOUG 466392</u>
	Address 255 Parr Blud.		
	City Richmond	State KA	Zip <u>94801</u>
	city <u>Rechmand</u>		
11.	Sample Collector		
•	Name	,	
	company PAH Environ mo-tal 1	nc.	
	3310 Swetzer Rugel		
	city <u>Locians</u> state	<u>CA</u> zip <u>956</u> 3	70 Phone (416)652-500)
12.	Laboratory		
	Name NEL Laboratories		
	Address 1030 Matter Lane	State NV	Zip <u>895</u> 02
	City		•
	State Certification No. 1707		
13.	Have tanks or pipes leaked in the	past? Yes[No[] Unknown
	If yes, describe.		
		•	_

	Describe		+- %-	incod.	for	rendering	tank(s	;) ine	<u>:</u> t:
14.	Describe	methods	TO DE	. useu	و خاصا خا				

Prossure	wesh.	and	dry ice			•
	-	• • •		• • •		
<u> </u>						
	•		•		<u>. </u>	

Before tanks are pumped out and inerted, all associated piping must be flushed out into the tanks. All accessible associated piping must then be removed. Inaccessible piping must be permanently plugged.

The Bay Area Air Quality Management District, 415/771-6000, along with local Fire and Building Departments, must also be contacted for tank removal permits. Fire departments typically require the use of a combustible gas indicator to verify tank inertness. It is the contractor's responsibility to bring a working combustible gas indicator on-site to verify that the tank is inert.

15. Tank History and Sampling Information *** (see instructions) ***

,	Tank		Material to be sampled (tank contents, soil,	Location and Depth of Samples	
Capacity	include da	Use History groundwater) Include date last used (estimated)			
	i i			·	
)		
	:.				

One soil sample must be collected for every 20 linear feet of piping that is removed. A ground water sample must be collected if any ground water is present in the excavation.

		-	Exca	vated/St	ockpiled.Soil
Stockpiled	Soil	Volume	(estimated)		Sampling Plan
••					
	.14		•		
	•			· سر	
				·	

Stockpiled soil must be placed on bermed plastic and must be completely covered by plastic sheeting.

Will the excavated soil be returned to the excavation immediately after tank removal? [] yes [] unknown

If yes, explain reasoning ____

If unknown at this point in time, please be aware that excavated soil may not be returned to the excavation without prior approval from Alameda County. This means that the contractor, consultant, or responsible party must communicate with the Specialist IN ADVANCE of backfilling operations.

- 16. Chemical methods and associated detection limits to be used for analyzing samples:

 The Tri-Regional Board recommended minimum verification analyses and practical quantitation reporting limits should be followed. See attached Table 2.
- 17. Submit Site Health and Safety Plan (See Instructions)

Contaminant Sought	EPA or Other Sample Preparation Method Number		Method Detection Limit
Diese.	TPHU BTEX	66 F(0 (3550) 8020	
Gasoline	TPHS ETTER Tital Local	66F(0(5030)	
	12CE (2-20		

8. Submit Worker's Compensation Certificate copy
Name of Insurer State Componsation insurance Frank
9. Submit Plot Plan ***(See Instructions) ***
0. Enclose Deposit (See Instructions)
21. Report any leaks or contamination to this office within 5 days of discovery. The written report shall be made on an Underground Storage Tank Unauthorized Leak/Contamination Site Report (ULR) form.
22. Submit a closure report to this office within 60 days of the tank removal. The report must contain all information listed in item 22 of the instructions.
23. Submit State (Underground Storage Tank Permit Application) Forms A and B (one B form for each UST to be removed) (mark box 8 for "tank removed" in the upper right hand corner)
I declare that to the best of my knowledge and belief that the statements and information provided above are correct and true.
I understand that information, in addition to that provided above, may be needed in order to obtain approval from the Environmental Protection Division and that no work is to begin on this project until this plan is approved.
I understand that any changes in design, materials or equipment will void this plan if prior approval is not obtained.
I understand that all work performed during this project will be done in compliance with all applicable OSHA (Occupational Safety and Health Administration) requirements concerning personnel health and safety. I understand that site and worker safety are solely the responsibility of the understand that site and worker safety are solely the responsibility is not shared nor property owner or his agent and that this responsibility is not shared nor assumed by the County of Alameda.
Once I have received my stamped, accepted closure plan, I will contact the project Hazardous Materials Specialist at least three working days in advance of site work to schedule the required inspections.
CONTRACTOR INFORMATION
Name of Business RAH Environ mental, (w.
Name of Individual Scott Vickeds
Signature feethery Bate
PROPERTY OWNER OR MOST RECENT TANK OPERATOR (Circle one)
Name of Business U.S. Coast Gaard
Name of Individual
Signature Date
t-4

STATE OF CALIFORNIA

STATE WATER RESOURCES CONTROL BOARD





COMPLETE THIS FORM FOR EACH FACILITY/SITE 7 PERMANENTLY CLOSED SITE 5 CHANGE OF INFORMATION 1 NEW PERMIT 3 RENEWAL PERMIT MARK ONLY 6 TEMPORARY SITE CLOSURE 2 INTERIM PERMIT 4 AMENDED PERMIT ONE ITEM L FACILITY/SITE INFORMATION & ADDRESS - (MUST BE COMPLETED) NAME OF OPERATOR DBA OR FACILITY NAME 45. Coast 64 PARCEL # (OPTIONAL) NEAREST CROSS STREET ADDRESS COGS SITE PHONE # WITH AREA CODE STATE ZIP CODE CITY NAME Alam CA STATE-AGENCY* FEDERAL AGENCY. ✓ BOX LOCAL AGENCY COUNTY-AGENCY * INOIVIOUAL PARTNERSHIP CORPORATION TO INDICATE DISTRICTS If owner of UST is a public agency, complete the following: name of Supervisor of division, section, or office which operates the UST J IF INDIAN & OF TANKS AT SITE E. P. A. I.D. # (optional) TYPE OF BUSINESS 1 GAS STATION 2 DISTRIBUTOR RESERVATION S OTHER CA7640350037 4 PROCESSOR OR TRUST LANDS 3 FARM EMERGENCY CONTACT PERSON (SECONDARY) - optional EMERGENCY CONTACT PERSON (PRIMARY) DAYS: NAME (LAST, FIRST) PHONE # WITH AREA CODE PHONE # WITH AREA CODE DAYS: NAME (LAST, FIRST) Henry, Raymone (566)652-577 PHONE # WITH AREA CODE NIGHTS: NAME (LAST, FIRST) NIGHTS: NAME (LAST, FIRST) 56 mg II. PROPERTY OWNER INFORMATION - (MUST BE COMPLETED) CARE OF ACCRESS INFORMATION NAME U.S. Coast Guard STATE-AGENCY ✓ box to indicate INDIVIDUAL LOCAL AGENCY MAILING OR STREET ADDRESS FEDERAL-AGENCY COUNTY-AGENCY PARTNERSHIP 2000 PHONE # WITH AREA CODE STATE ZIP CODE CITY NAME UJS-7280 94606-5337 Ock Cauch III. TANK OWNER INFORMATION - (MUST BE COMPLETED) CARE OF ADDRESS INFORMATION NAME OF OWNER 4.5. Coat Gac STATE AGENCY LOCAL AGENCY MAILING OR STREET ADDRESS INDIVIDUAL FEDERAL AGENCY COUNTY-AGENCY PARTNERSHIP CORPORATION <u>}~200</u> PHONE # WITH AREA CODE ZIP CODE STATE CITY NAME 6510 535-7280 94606-5337 CA OCKlan IV. BOARD OF EQUALIZATION UST STORAGE FEE ACCOUNT NUMBER - Call (916) 322-9669 if questions arise. TY (TK) HQ 444-03 V. PETROLEUM UST FINANCIAL RESPONSIBILITY - (MUST BE COMPLETED) - IDENTIFY THE METHOD(S) USED 4 SURETY BOND 3 INSURANCE 2 GUARANTEE 1 SELF-INSURED 🗸 box to Indicate SO OTHER 8 EXEMPTION S LETTER OF CREDIT Legal notification and billing will be sent to the tank owner unless box I or II is checked. VI. LEGAL NOTIFICATION AND BILLING ADDRESS 正区 CHECK ONE BOX INDICATING WHICH ABOVE ADDRESS SHOULD BE USED FOR LEGAL NOTIFICATIONS AND BILLING: THIS FORM HAS BEEN COMPLETED UNDER PENALTY OF PERJURY, AND TO THE BEST OF MY KNOWLEDGE, IS TRUE AND CORRECT **RABY/YEAR** OWNER'S TITLE OWNERS NAME (PRINTED & SIGNED) Scott Victors LOCAL AGENCY USE ONLY FACILITY # JURISDICTION # COUNTY # SUPVISOR - DISTRICT CODE - OPTIONAL

THIS FORM MUST BE ACCOMPANIED BY AT LEAST (1) OR MORE PERMIT APPLICATION - FORM B, UNLESS THIS IS A CHANGE OF SITE INFORMATION ONLY. OWNER MUST FILE THIS FORM WITH THE LOCAL AGENCY IMPLEMENTING THE UNDERGROUND STORAGE TANK REGULATIONS PORCOSSA-R7

CENSUS TRACT # - OPTIONAL

LOCATION CODE - OPTIONAL

STATE OF CALIFORNIA STATE WATER RESOURCES CONTROL BOARD UNDERGROUND STORAGE TANK PERMIT APPLICATION - FORM B



COMPLETE A SEPARATE FORM FOR EACH TANK SYSTEM.

MARK ONLY 1 NEW PERMIT 3 RENEWAL PERMIT ONE ITEM 2 INTERIM PERMIT 4 AMENDED PERMIT	5 CHANGE OF INFORMATION 7 PERMANENTLY CLOSED ON SITE 8 TANK REMOVED 8 TANK REMOVED
DBA OR FACILITY NAME WHERE TANK IS INSTALLED: U.S. Corgist	bus od ISC Command
I. TANK DESCRIPTION COMPLETE ALL ITEMS - SPECIFY IF UNKNOWN	
A OWNER'S TANK 1.0. # Bldg, IS	8. MANUFACTURED BY:
C. DATE INSTALLED (MOJDAYNEAR) LINK CHEN IN	D. TANK CAPACITY IN GALLONS: 1,000 gg/-
II. TANK CONTENTS IF A-1 IS MARKED, COMPLETE ITEM C.	
A 1 MOTOR VEHICLE FUEL 4 OIL 8. 2 PETROLEUM 80 EMPTY 1 PR 3 CHEMICAL PRODUCT 95 UNKNOWN 2 WA	C. 1a REGULAR UNLEADED 4 GASAHOL 7 METHANOL OOUCT 1c MIDGRADE UNLEADED 5 JET FUEL 8 M95 ASTE 2 LEADED 99 OTHER (DESCRIBE IN ITEM O. BELOW)
D. IF (A.1) IS NOT MARKED, ENTER NAME OF SUBSTANCE STORED	C. A. S. #:
III. TANK CONSTRUCTION MARK ONE ITEM ONLY IN BOXES A. B. AND C. AN	ID ALL THAT APPLIES IN SOX D AND E
A. TYPE OF SYSTEM 2 SINGLE WALL 3 SINGLE WALL WITH EXAMPLE B. TANK 1 BARE STEEL 2 STAINLESS STEEL BARE STEEL 5 CONCRETE 5 POLYVINYL CHLORIDE (Primary Tank) 9 BRONZE 10 GALVANIZED STEEL	O OTHER
C. INTERIOR 1 RUBBER UNED 2 ALKYD LINING LINING OR 5 GLASS LINING 6 UNLINED COATING IS UNING MATERIAL COMPATIBLE WITH 100% METHANOL?	3 EPOXY LINING 4 PHENOLIC LINING 95 UNKNOWN 99 OTHER YES NO
D. EXTERIOR 1 POLYETHYLENE WRAP 2 COATING CORROSION 91 NONE PROTECTION 5 CATHODIC PROTECTION 91 NONE SPILL CONTAINMENT INSTALLED (YEAR)	3 VINYL WRAP 4 FIBERGLASS REINFORCED PLASTIC 95 UNKNOWN 99 OTHER OVERFILL PREVENTION EQUIPMENT INSTALLED (YEAR)
E. SPILL AND OVERFILL, etc. OROP TUBE YESNO STRIKER PL	ATE YESNOOISPENSER CONTAINMENT YESNO
IV. PIPING INFORMATION CIRCLE A IF ABOVE GROUND OR U IF UNDE	
A. SYSTEM TYPE A U 1 SUCTION A U 2 PRESSURE P. CONSTRUCTION A U 1 SINGLE WALL A U 2 DOUBLE WALL	A U 3 GRAVITY A U 4 FLEXIBLE PIPING A U 99 OTHER A U 3 UNED TRENCH A U 95 UNKNOWN A U 99 OTHER
C. MATERIAL AND A U 1 BARE STEEL CORROSION A U 5 ALUMINUM A U 8 CONCRETE PROTECTION A U 9 GALVANIZED STEEL A U 10 CATHODIC PROTEC	A U 3 POLYVINYL CHLORIDE (PVC) A U 4 FIBERGLASS PIPE A U 7 STEEL W COATING A U 8 100% METHANOL COMPATIBLE W/FRP CTION A U 99 OTHER US INTERSTITIAL 4 ELECTRONIC UNE 5 ANTOMATIC PUMP 99 OTHER
V. TANK LEAK DETECTION	E 4 AUTOMATIC TANK 5 GROUND WATER 6 ANNUAL TANK
7 CONTINUOUS INTERSTITIAL 7 CIP 9 WEEKL	ORING GAUGING TESTING ORING GAUGING MONTHLY TANK 3 GAUGING TESTING ORING 99 OTHER 3 GAUGING 99 OTHER
VI. TANK CLOSURE INFORMATION (PERMANENT CLOSURE IN-PLACE)	
ESTIMATED DATE LAST USED (MO/DAY/YR) SUBSTANCE REMAINING	
THIS FORM HAS BEEN COMPLETED UNDER PENALTY OF PERJUR TANK OWNER'S NAME (PRINTED & SIGNATURE) SCITT VICEOUS	PY, AND TO THE BEST OF MY KNOWLEDGE, IS TRUE AND CORRECT OATE 7/10/47
LOCAL AGENCY USE ONLY THE STATE LD. NUMBER IS COMPOSED O	FACILITY # TANK #
STATE I.D.# COUNTY # JURISDICTION #	
PERMIT NUMBER PERMIT APPROVED BY/DATE	PERMIT EXPIRATION DATE

THIS FORM MUST BE ACCOMPANIED BY A PERMIT APPLICATION - FORM A. UNLESS A CURRENT FORM A. HAS BEEN FILED. FORM C MUST BE COMPLETED FOR INSTALLATIONS. THIS FORM SHOULD BE ACCOMPANIED BY A PLOT PLAN. FILE THIS FORM WITH THE LOCAL AGENCY IMPLEMENTING THE UNDERGROUND STORAGE TANK REGULATIONS

SITE CHARACTERIZATION REPORT

TANK #K06

U.S. COAST GUARD

COAST GUARD ISLAND

ALAMEDA, CA

Prepared By:

Scott Vickers

RAH Environmental, Inc.

3310 Swetzer Road

Loomis, CA 95650

October 23, 1997

I. INTRODUCTION

RAH Environmental, Inc. was contracted by the United States Coast Guard under contract #DTCG88-97-B-623174 to perform underground storage tank and piping removal operations at Building 19 on Coast Guard Island in Alameda, CA. The project included the removal of one one thousand gallon gasoline storage tank and related piping.

II. SITE DESCRIPTION

The project site is on Coast Guard Island, located in Alameda, CA. The underground storage tank was located to the northwest of Building 19, and formerly stored gasoline to fuel motor vehicles. The tank had a small concrete slab above it, which was surrounded by asphalt. There was no piping to be removed outside of the immediate excavation.

III. SOIL SAMPLING AND ANALYSIS

On August 28, 1997, following the removal of the tank, at approximately 2:30 PM, two soil samples were collected from the base of the tank excavation, and four samples were collected from the soil stockpile to be composited by the laboratory. No groundwater was encountered during the tank removal or samplin operations. The samples from the excavation were collected using a drive sampler with 2"x6" brass tubes, and sampling native soil exposed by the backhoe bucket. The sample labeled BLDG. 19 EAST was collected from approximately 6.5' below ground surface, or 2' below the bottom of the tank. BLDG. 19 WEST was collected from the base of the west sidewall at approximately 4' below ground surface as shown in Figure 1. The samples were preserved on ice at 4°C and transported under chain of custody to NEI/GTEL for analysis. NEI/GTEL is state certified under #1845 and is located at 4080-C Pike Lane in Concord, CA 94520. The following table summarizes the conditions under which the samples were taken:

Table 1

Sample ID#	Time	Temperature	Weather	Tide
BLDG.19 EAST	2:30 PM	76°	Clear, Sunny	-2.6
BLDG.19 WEST	2:45 PM	76°	Clear, Sunny	-2.6
BLDG.19 PILE	3:15 PM	76°	Clear, Sunny	-2.6

Results of the soil sampling indicate that the subsurface soil has been impacted by petroleum hydrocarbons below the bottom of the tank. The samples both contained detectable concentrations of TPH-as-gas, benzene, ethylbenzene, and xylene. Concentrations of TPH-as-gas were 730 and 3,000 ppm; benzene - 0.10 and 0.35 ppm; ethylbenzene - 4.2 and 14 ppm; and xylene - 2.7 and 11 ppm. The analytical results are summarized in Table 2 below, and the full laboratory reports are included as an attachment.

Table 2

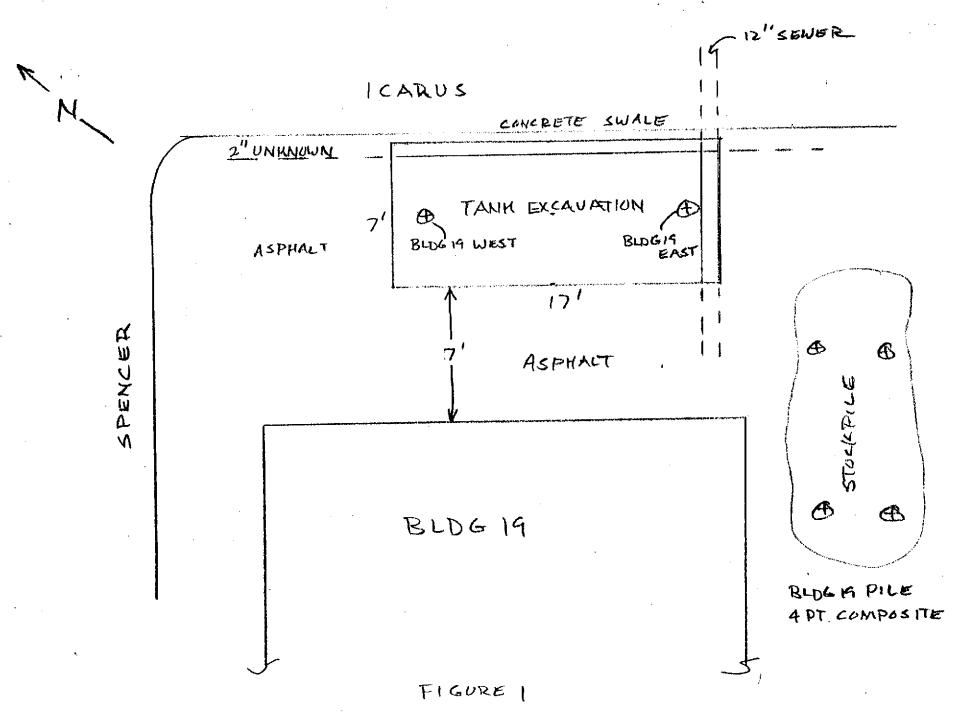
Sample ID	Lead	TPHgas	Benzene	Toluene	Ethylbenzene	Xylene
BLDG. 19 EAST	26	730	0.10	<0.10	4.2	2.7
BLDG. 19 WEST	62	3,000	.35	<0.10	14	11
BLDG. 19 PILE	24	230	<0.05	<0.10	1.3	2.5

All results reported in parts per million(mg/kg), unless otherwise indicated.

V. RECOMMENDATIONS

Based on the results of the soil sampling and analysis, there are significant concentrations of petroleum hydrocarbons in soil and additional assessment activities may be required before this site can be closed.

USCG - ISC ALAMEDA
TANK # KOG REMOVAL (8-28-97)





Midwest Region

4211 May Avenue Wichita, KS 67209 (316) 945-2624 (800) 633-7936 (316) 945-0506 (FAX)

September 12, 1997

Scott Vickers RAH Environmental Inc. 3310 Swetzer Road Loomis, CA 95650

RE: NEI/GTEL Client ID:

Login Number:

Project ID (number):

Project ID (name):

RAH01RAH01

W7080571

USCG/ALAMEDA/AFB

Dear Scott Vickers:

Enclosed please find the analytical results for the samples received by NEI/GTEL Environmental Laboratories, Inc. on 08/30/97 under Chain-of-Custody Number(s) 36374.

A formal Quality Assurance/Quality Control (QA/QC) program is maintained by NEI/GTEL, which is designed to meet or exceed the EPA requirements. Analytical work for this project met QA/QC criteria unless otherwise stated in the footnotes. This report is to be reproduced only in full.

NEI/GTEL is certified by the California Department of Health Service under Certification Number 2147.

If you have any questions regarding this analysis, or if we can be of further assistance, please call our Customer Service Representative.

Sincerely,

NEI/GTEL Environmental Laboratories, Inc.

Terry R. Loucks

Laboratory Director

ANALYTICAL RESULTS Metals

NEI/GTEL Client ID: RAHO1RAHO1

Login Number: Project ID (number): RAH01RAH01

W7080571

Project ID (name): USCG/ALAMEDA/AFB

method:	EPA /421
Matrix:	Solids

NEI/GTEL Sample Number	W7080571-04	W7080571-05	W7080571-06	W7080571-07
Client ID	BLDG 19 WEST	BLDG 19 EAST	BLDG 19 PILE	BLDG 15 NORTH
Date Sampled	08/28/97	08/28/97	08/28/97	08/28/97
Date Prepared	09/12/97	09/12/97	09/12/97	09/12/97
Date Analyzed	09/12/97	09/12/97	09/12/97	09/12/97
Dilution Factor	20.0	10.0	10.0	5.00

Reporting

	Nepot citig					
Analyte	Limit	Units	Co	oncentration:We	et Weight	
Lead	0.40	mg/kg	62.	26.	24.	6.5
Percent Solids		*	79.3	78.5	83.2	90.8

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 7421:

Digestion by EPA Method 3050A. "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition including Update 2.

ANALYTICAL RESULTS Metals

NEI/GTEL Client ID: RAH01RAH01

Login Number:

W7080571

Project ID (name):

Project ID (number): RAH01RAH01

USCG/ALAMEDA/AFB

Method: EPA 7421

Matrix: Solids

NEI/GTEL Sample Number	W7080571-08	• •	• •	<u> </u>
Client ID	BLDG 15 SOUTH	••	••	••
Date Sampled	08/28/97	••		••
Date Prepared	09/12/97			
Date Analyzed	09/12/97			• •
Dilution Factor	10.0			

	Reporting					
Analyte	Limit	Units	Cond	centration:Wet	Weight	
Lead	0.40	mg/kg	31.	* *		
Parcent Salide		. ~ 	87.2	100 miles		oren artista eta eta eta eta eta eta eta eta eta e

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 7421:

Digestion by EPA Method 3050A. "Test Methods for Evaluating Solid Waste. Physical/Chemical Methods". SW-846. Third Edition including Update 2.

ANALYTICAL RESULTS Total Petroleum Hydrocarbons By GC

Login Number:

NEI/GTEL Client ID: RAHO1RAH01

Project ID (number): RAH01RAH01

W7080571

Project ID (name):

USCG/ALAMEDA/AFB

Method: GC

Matrix: Solids

NET /CTEL Sample Number	W7080571-01	W7080571-02	W7080571-03	
NEI/GTEL Sample Number	BLDG 51 TANK	BLDG 51 PUMP	BLDG 51 PILE	
Client ID	08/28/97	08/28/97	08/28/97	••
Date Sampled	09/04/97	09/04/97	09/04/97	
Date Prepared	09/06/97	09/06/97	09/06/97	••
Date Analyzed	1.00	1.00	1.00	••
Dilution Factor	1,00			-

Reporting

	Keboi cing		a line and the blocket
	Limit	Units	Concentration:Wet Weight
Analyte		Ullica	
The second contraction of the second contrac	10	maika <	in 31. 150
	LU.	mg/kg >	100
 Applied the Company of the Company of	Audit general county of the second second second second	Gr I	97.5
Percent Solids			37.5
FEI CEITE SOITUS			

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

Extraction by EPA Method 3550 (sonication). ASTM Method 03328(modified) is used for qualitative identification of fuel patterns. The method has been modified to include quantitation by applying calibration and quality assurance guidelines outlined in "Test Methods for Evaluating Solid Waste. Physical/Chemical Methods". SW-846, Third Edition including promulgated Update 1. This method is equivalent to the California LUFT manual DHS method for diesel fuel.

W7080571-02:

The material present is qualitatively uncertain. Therefore, all material in the C9 to C22 range was quantitated against diesel fuel without respect to pattern. Chromatographic data indicates the presence of material, which is heavier than diesel fuel, in this sample.

W7080571-03:

The material present is qualitatively uncertain. Therefore, all material in the C9 to C22 range was quantitated against diesel fuel without respect to pattern. Chromatographic data indicates the presence of material, which is heavier than diesel fuel, in this sample.

NEI/GTEL Client ID: RAHO1RAH01

Project ID (name):

QUALITY CONTROL RESULTS

Login Number:

W7080571

USCG/ALAMEDA/AFB

Project ID (number): RAH01RAH01

Method:

Total Petroleum Hydrocarbons By GC

GC

Matrix:

Solids

Conformance/Non-Conformance Summary

(X = Requirements Met

* = See Comments

-- = Not Required -- NA = Not Applicable)

Conformance Item	Volatile Organics	Semi-Volatile Organics	Inorganics (MT. WC)
GC/MS Tune		-	NA
Initial Calibration			NA
Surrogate Recovery		χ	
Method Accuracy		V	
Method Precision		Х	
Blank Contamination		X	

Comments:

NEI/GTEL Client ID: RAHO1RAH01

QUALITY CONTROL RESULTS

Login Number: Project ID (number): RAH01RAH01

Project ID (name):

W7080571

USCG/ALAMEDA/AFB

Total Petroleum Hydrocarbons By GC

Method:

GC

Matrix:

Solids

Surrogate Results

QC Batch No	Reference	Sample ID	OTP	
Method: GC		Acceptability Limits	43.7-111%	
090497TPHS-1	BS090497TP	H Method Blank Soil	43.6*	
090497TPHS-2	LS090497TP			
090497TPHS-3	LSD090497T	PH LCS Soil Duplicate	69,3	
090497TPHS-4	MS08054501		/3.0	
090497TPHS-5	MD08054501			
5/pacer 2000/00/00/00/00/00/00/00/00/00/00/00/00	08057101	BLDG 51 TANK	66.1	
	08057102	BLDG 51 PUMP	78.0	
#00 800 d accompany and a service and a	08057103	BLDG 51 PILE	73.8	

Notes:

^{*:} Indicates values outside of acceptability limits. See Sample Report. Acceptability limits are derived from statistical analysis of laboratory samples.

NEI/GTEL Client ID: RAH01RAH01

QUALITY CONTROL RESULTS

Login Number:

W7080571

Project ID (number): RAH01RAH01 Project ID (name):

USCG/ALAMEDA/AFB

Total Petroleum Hydrocarbons By GC

Method:

GC

Matrix:

Solids

Method Blank Results

QC Batch No:

090497TPHS-1

Method:GC

Date Analyzed:

05-SEP-97

Concentration: mg/kg

Analyte Diesel Range Organics

090497TPHS-1: Surrogate spike recovery is outside of acceptability limits. The reported concentration for this sample should be considered as an estimate.

QUALITY CONTROL RESULTS NEI/GTEL Client ID: RAH01RAH01

W7080571 Login Number:

Project ID (number): RAH01RAH01

USCG/ALAMEDA/AFB Project ID (name):

Total Petroleum Hydrocarbons By GC

Method:

GC

Matrix: Solids

Matrix Spike(MS) and Matrix Spike Duplicate(MSD) Results

GTEL Sample I Analysis Date	[D:W7080545-01	· · · · ·	MS	8054501 SEP-97	MSD	ID:MD0805 05-SEP				
Units: ug/ml	Sample	Spikes	Added	M\$	MS	MSO	MSD	000	Acceptabi RPD	lity Limits %Rec.
Analyte	Conc	24	MSO	Conc.	% Rec.	Conc.	* Rec.	RPD 14.0	79.2	7.075.078.000000000000000000000000000000
Diesel Rance Organics	< 10.0(0.190)	66.4	65.3	47.9	71.9	41 0	62:5	E-RE-U	())))))	ALICE STREET, SERVICE STREET, SERVICE STREET, SERVICE STREET, SERVICE STREET, SERVICE STREET, SERVICE STREET,

Notes:

Values in parentheses in the sample concentration column are used for % recovery calculations. Acceptability limits are derived from statistical analysis of laboratory samples.

NEI/GTEL Client ID: RAHO1RAHO1

QUALITY CONTROL RESULTS

Login Number:

W7080571

Project ID (number): RAH01RAH01

Project ID (name):

USCG/ALAMEDA/AFB

Total Petroleum Hydrocarbons By GC

Method:

GC

Matrix:

Solids

Laboratory Control Sample (LCS) and Laboratory Control Duplicate Results

Spike

LCS

LCS Duplicate LCS Duplicate

- Acceptability Limits

Amount Concentration Recovery, & Concentration

Recovery, % RPD, %

Analyte

Units: mg/kg

QC Batch: 090497TPHS-3

Recovery, I RPO, \$

GC

Diesel Range Organics 66.7

47.4 72.3

Notes:

Acceptability limits are derived from statistical analysis of laboratory samples.

ANALYTICAL RESULTS Volatile Organics

Login Number:

NEI/GTEL Client ID: RAHO1RAHO1

Project ID (number): RAH01RAH01

W7080571

Project ID (name):

USCG/ALAMEDA/AFB

Method: EPA 8020A

Matrix: Solids

NEI/GTEL Sample Number Client ID	W7080571-01 BLDG 51 TANK	W7080571-02 BLDG 51 PUMP 08/28/97	W7080571-03 BLDG 51 PILE 08/28/97	W7080571-04 BLDG 19 WEST 08/28/97
Date Sampled Date Analyzed Dilution Factor	08/28/97 09/04/97 1.00	09/04/97 1.00	09/04/97 1.00	09/04/97 1.00

Reporting Analyte Limit Units Concentration:Wet Weight	
Benzene 0.05 mg/kg < 0.05 < 0.05 < 0.05	< 0.10
Toluene 0.10 mg/kg < 0.10 < 0.10 < 0.10 Ethylbenzene 0.10 mg/kg < 0.10 < 0.10	14.
Xylenes (total) 0.20 mg/kg < 0.20 < 0.20 < 0.20	11. 3000
TPH as Gasoline 10. mg/kg 7. 97.5 85.3 100.	79.3

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 8020A:

Gasoline range hydrocarbons (TPH) quantitated by GC/FIO with purge and trap and modified EPA Method 8015. "Test Methods for Evaluating Solid Waste. Physical/Chemical Methods". SW-846. Third Edition including promulgated Update II.

ANALYTICAL RESULTS Volatile Organics

NEI/GTEL Client ID: RAHO1RAH01

Login Number:

W7080571

Project ID (name):

Project IO (number): RAH01RAH01 USCG/ALAMEDA/AFB Method: EPA 8020A

Matrix: Solids

NEI/GTEL Sample Number Client ID Date Sampled Date Analyzed	W7080571-05 BLDG 19 EAST 08/28/97 09/04/97 1.00	W7080571-06 BLDG 19 PILE 08/28/97 09/04/97 1.00	W7080571-07 BLDG 15 NORTH 08/28/97 09/05/97 5.00	W7080571-08 BLDG 15 SOUTH 08/28/97 09/05/97 5.00	_
Dilution Factor	1,00				

	Reporting		,	Concentration:Wet W	le i cht	
Analyte	<u>Limit</u>	<u>Units</u>			3.2	7.0
Benzene	0.05	mg/kg	0.10	< 0.05 < 0.10	30	23.
Toluene	0.10	mg/kg	< 0.10	< 0.Tn	81.	55.
Ethylbenzene	0.10	mg/kg	4.2	1.3	01. 970	190
Xylenes (total)	0.20	mg/kg	2.7	2.5	- 2/V 	4100
TPH as Gasoline	10.	mg/kg	730	230	6000	87 2
Percent Solids	- -	2	78.5	83.2	90.8	Ot al

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 8020A:

Gasoline range hydrocarbons (TPH) quantitated by GC/FID with purge and trap and modified EPA Method 8015. "Test Methods for Evaluating Solid Waste. Physical/Chemical Methods". SW-846. Third Edition including promulgated Update II.

NEI/GTEL Client ID: RAH01RAH01

QUALITY CONTROL RESULTS

Login Number:

W7080571

Project ID (name):

Project ID (number): RAH01RAH01 USCG/ALAMEDA/AFB

Volatile Organics Method: EPA 8020A

Matrix:

Solids |

Conformance/Non-Conformance Summary

(X = Requirements Met

* = See Comments

-- = Not Required

NA = Not Applicable)

Conformance Item	Volatile Organics	Semi-Volatile Organics	Inorganics (MT, WC)
GC/MS Time	•		NA
Initial Calibration			MA
Continuing Calibration			
Currogate Recovery	λ		
Holding Time	Y		
Method Accuracy Method Precision	X		
Rlank Contamination	χ		

Comments:

QUALITY CONTROL RESULTS

NEI/GTEL Client ID: RAH01RAH01 Login Number:

W7080571

Project ID (number): RAH01RAH01 Project ID (name):

USCG/ALAMEDA/AFB

Volatile Organics Method: EPA 8020A Matrix: Solids |

Surrogate Results

QC Batch No.	Reference	Sample_ID	TFT	
Method: EPA 8		Acceptability Limits:	43-136%	
090497GC10-1		10 Calibration Verifi	88.2	
090497GC10-2	BW09049710		91.1	
090497GC10-3	BS09049710	200000000000000000000000000000000000000	107.	
090497GC10-4	MS08057101		111.	
090497GC10-5	MD08057101		114.	
090497GC10-6	LS09049710		115. 109.	
	08057101	BLDG 51 TANK	10 9 106.	
	08057102	BLDG 51 PUMP	84.6	
	08057103	BLDG 51 PILE BLDG 19 WEST	132.	
 saann Caronalii	08057104 08057105	BLDG 19 WCST	129	
	08057105	BLDG 19 PILE	66.2	
	08057107	BLDG 15 NORTH	93.2	
7.00	08057108	BLOG 15 SOUTH	73.4	000000000000000000000000000000000000000
	0003/100	DEGG TO DOCTI		

^{*:} Indicates values outside of acceptability limits. See Sample Report.

NEI/GTEL Client ID: RAH01RAH01 Login Number: '

W7080571

Project ID (number): RAH01RAH01 Project ID (name):

USCG/ALAMEDA/AFB

QUALITY CONTROL RESULTS

Volatile Organics

Method: EPA 8020A Solids

Matrix:

Method Blank Results

QC Batch No:

090497GC10-2

Date Analyzed:	04-2 <u>EP-9/</u>	
Analyte	Method:EPA 8020A	Concentration: ug/L
Benzene	< 0.400	Concentration: 4975
Toluene	< 0.500	
Ethy benzene	< 0.400	
Xylenes (Total)	< 0.800	
TDN ac Gacoline	< 50.0	

NEI/GTEL Client ID: RAH01RAH01

QUALITY CONTROL RESULTS

Login Number:

W7080571

Project ID (name):

Project ID (number): RAH01RAH01

USCG/ALAMEDA/AFB

Volatile Organics Method: EPA 8020A

Matrix:

So11ds

Method Blank Results

QC Batch No:

090497GC10-3

04 SED-07

Date Analyzed:	04-2EP-9/	
Analyte	Method:EPA 8020A	Concentration: mg/kg
	< 0.0500	Concentration: mg/kg
Toluene	< 0.100	
Ethylbenzene		
Xylenes (Total)	< 0.200	
TDH as Gasoline	< 10.0	

NEI/GTEL Client ID: RAH01RAH01

W7080571

Project ID (name):

Login Number:

Project ID (number): RAH01RAH01

USCG/ALAMEDA/AFB

QUALITY CONTROL RESULTS

Volatile Organics

Method: EPA 8020A Solids

Matrix:

Calibration Verification Sample Summary

	Spike	Check Sample	QC Percent	Acceptability Limits Recovery
Analyte	Amount	Concentration	Recovery	(COVER)
EPA 8020A Units:ug/L	QC Batcl	n:090497GC10-1		77 1739
Benzene	20.0	16.1	80.5	77 E 100 EV
Toluene	20.0	16.0	80.0	77.5-122.5%
EthyThonzona	20.0	17.1	85.5	63-137%
Xvlenes (Total)	60.0	55.1	91.8	85-115%
Xylenes (lotal)	50 0 .	580	116.	80-120%

Notes:

QC check source: Supelco #LA12389

QUALITY CONTROL RESULTS

NEI/GTEL Client ID: RAHO1RAH01 Login Number:

W7080571

Project ID (number): RAH01RAH01

Project ID (name):

USCG/ALAMEDA/AFB

Volatile Organics Method: EPA 8020A

Solids

Matrix:

Laboratory Control Sample Summary

	Spike	Check Sample	QC Percent	Acceptability Limits
Analyte	Amount	Concentration	Recovery	Recovery
		:090497GC10-6		AA 1509
Benzene	5.00	4.06	81.2	39-150%
Toluene	5.00	4.21	84.2	46-148%
Fthylbenzene	5.00	4.25	85.0	32-160%
Xylenes (Total)	15.0	13.0	86.7	41-155%
TPH as Gasoline	10 <u>0</u> .	63.9	63.9*	80-120%

NEI/GTEL Client ID: RAH01RAH01

Login Number:

W7080571

Project ID (number): RAH01RAH01

QUALITY CONTROL RESULTS

Volatile Organics Method: EPA 8020A

Matrix:___ Solids

Project ID (name): USCG/ALAMEDA/AFB

Matrix Spike(MS) Results

	ID:W7080571-01 te: 04-SEP-97		MS ID:MS08057 - 04-SEP		
Units: mg/kg	Sample	Spike	MS	MS	Acceptability Limits %Rec.
Analyte	Conc.	Added	Conc.	% Rec.	
Benzene	< 0.05(0.000)	4:85	3.95	81.4	39-150
Toluene	< 0.10(0.000)	4:85	4.04	83.3	46-148
Ethylbenzene	< 0.10(0.000)	4,85	4.15	85.6	32-160
Yylenes (Total)	< 0.20(0.000)	14,6	12.9	88.4	41-155

NEI/GTEL Client ID: RAHO1RAHO1 QUALITY CONTROL RESULTS

Login Number: W7080571
Project ID (number): RAH01RAH01

Project ID (name): USCG/ALAMEDA/AFB

Volatile Organics

Method: EPA 8020A

Matrix: Solids

Matrix Spike(MS) and Matrix Spike Duplicate(MSD) Results

GTEL Sample ID: Analysis Date:			MS]	D:MS08057101 04-SEP-97	MSD	ID:MD0805 04-SEP			. <u>. </u>	
Units: mg/kg	Sample	Spikes	Added	MS	MS	MSD	MSD		Acceptab	ility Limits
Analyte	Conc.	HS	MSD	Conc.	% Rec.	Conc.	# Rec.	RPD	RPD	#Rec.
Benzene	< 0.05(0.00 0)	4.85	5.05	3.95	81.4	4.13	81.8	0.500	28.3	39-150
Toluene	< 0.10(0.000)	4.85	5.05	4,04	83.3	4.22	83.6	0.400	30	46-148
Ethylbenzene	< 0.10(0.000)	4.85	5.05	4.15	85.6	4.24	84.0	1.90	30	32-160
Xylenes (Total)	< 0.20(0.000)	14.6	15.2	12.9	88.4	13.4	88.2	0.200	30	41-155

Notes:

Values in parentheses in the sample concentration column are used for % recovery calculations.

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GTEL		CO	NC	ORI	D. (CA.	=, S 945	UIT 20	E C									ANI) A	NA	LY	SI:	SF	OD REC	UI	ES	Τ										(3		
CHAILDHMENEAL CARDATORIES INC	,	(80	0) 4	685- 423-	-71			•										13.	3 17.		3. j.				W	LY	\$ 5	ĦĒ	dUl	S									OTH	Ei	
Company Name:							hone					-					****	*****	T. G. W.									231222				O									
RAH Ehvir	ann onta	4	í na	_		F/	AX #	! : :	91	<u>l., .</u>	6	<u>.</u>	. ;	10	1		ł			1													A	•	ln						
Company Address: 3310 Sw Project Manager:	letzer 1	RD	Ĺ	-Øn∠	إنط	Si C	te L رئ lient	oca Ge	tion Jec	: ID:) // (#)	: <u>/-\</u>	<u> 19</u>	Cen				with MTBE	Hydrocarbons GC/FID Gas ☐ Dieset 🗹 Screen 🗆		Oil and Grease 413.1 ☐ 413.2 ☐ SM-503 ☐							(+15)	EPA 625/PPL ☐ 8270/TAL ☐ NBS (+25) ☐		EP TOX Metals 🗀 Pesticides 🗀 Herbicides 🗀	TCLP Metals 🗇 VOA 🗇 Semi-VOA 🖰 Pest 🗀 Herb 🖰	EPA Metals - Priority Pollutant 🗆 TAL 🗆 RCRA 🗀		Lead 239.2 🗆 200.7 🗔 7420 🗀 7421 🗀 6010 🗀		Corrosivity Flash Point Reactivity	 			
Scott Vie 1		e e							, 10	C.	(··/							123	ese		S C			Ì		Ì	ln	lΩ	88		릙	ΛÓΑ	È		1742		eacti				
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SITE ASSESSMENT REPORT

TANK #K06

U.S. COAST GUARD

COAST GUARD ISLAND

ALAMEDA, CA

Prepared By:

Scott Vickers

RAH Environmental, Inc.

3310 Swetzer Road

Loomis, CA 95650

October 23, 1997

EXECUTIVE SUMMARY

RAH Environmental, Inc. was contracted by the United States Coast Guard under contract #DTCG88-97-D-623174 to perform underground storage tank and piping removal operations at Building 19 on Coast Guard Island in Alameda, CA. The project included the removal of Tank #K06, a one thousand gallon gasoline storage tank and related piping, that were formerly used to fuel motor vehicles on the island. The necessary permits were obtained from the Alameda County Department of Environmental Health, and on August 27 and 28, the tank and related piping were rinsed and removed. Three soil samples were collected from the tank excavation and soil stockpile. The tank removal operations and the analytical results are described in detail in the following report.

I. INTRODUCTION

RAH Environmental, Inc. was contracted by the United States Coast Guard under contract #DTCG88-97-D-623174 to perform underground storage tank and piping removal operations at Building 19 on Coast Guard Island in Alameda, CA. The project included the removal of Tank #K06, a one thousand gallon gasoline storage tank and related piping.

II. BACKGROUND

The project site is on Coast Guard Island in Alameda, CA. The underground storage tank was located outside of Building 19 and was formerly used to store gasoline for fueling motor vehicles.

III. CONTRACTOR INFORMATION

Prime Contractor:

RAH Environmental, inc.

3310 Swetzer Road Loomis, CA 95650 (916)652-5777 Contact: Ray Henry

Subcontractors:

None

IV. SITE DESCRIPTION

The project site is on Coast Guard Island, located in Alameda, CA. The underground storage tank was located to the northwest of Building 19, a former auto shop building. The tank had a small concrete slab above it, which was surrounded by asphalt. There was no piping to be removed outside of the immediate excavation.

V. REMOVAL ACTIVITIES

Notifications and Permits

An Underground Tank Closure Plan was completed and filed with Alameda County Environmental Protection Division of the Department of Environmental Health, in addition to the State of California Form A and Form B. The inspector for the project is Ms. Eva Chu, who was on-site for inspection and removal of the tank. Copies of permits are attached.

Tank Preparation

On August 27, 1997, RAH Environmental, Inc. prepared to remove the underground tank by breaking up and removing the tank slab and excavating above the tank. The tank contained approximately 300 gallons of rainwater, and was pressure washed with and additional 50 gallons of water.

Fuel and Water Removal

On August 28, 1997, approximately 350 gallons of rainwater and rinseate were pumped from the underground tank directly into a vacuum truck and transported under manifest #96700697 to Americlean, Inc. in Silver Springs, NV for recycling.

Tank Removal Operations

The underground tank was removed on August 28 utilizing a backhoe and placing the tank directly on the Dexanna truck for transportation to Erickson Incorporated in Richmond under manifest #96412557 for destruction/recycling.

Piping Removal Operations

The tank was situated directly below the 4" thick concrete slab and did not have any associated piping.

VI. ANALYTICAL

Soil Sampling and Analysis

On August 28, soil sampling operations were conducted at the site. One sample, labeled BLDG. 19 WEST was collected from the base of the west end of the tank excavation, and one sample, labeled BLDG. 19 EAST was collected from the base of the east end of the excavation as shown in Figure 1. One four point composite sample was also collected from the excavated soil stockpile and labeled BLDG. 19 PILE. All samples were analyzed for TPH as gas, BTEX, and total lead. The results are summarized in Table 1 below.

Table 1

Sample ID	Lead	TPHgas	Benzene	Toluene	Ethylbenzene	Xylene
BLDG. 19 EAST	26	730	0.10	<0.10	4.2	2.7
BLDG. 19 WEST	62	3,000	.35	<0.10	14	11
BLDG. 19 PILE	24	230	<0.05	<0.10	1.3	2.5

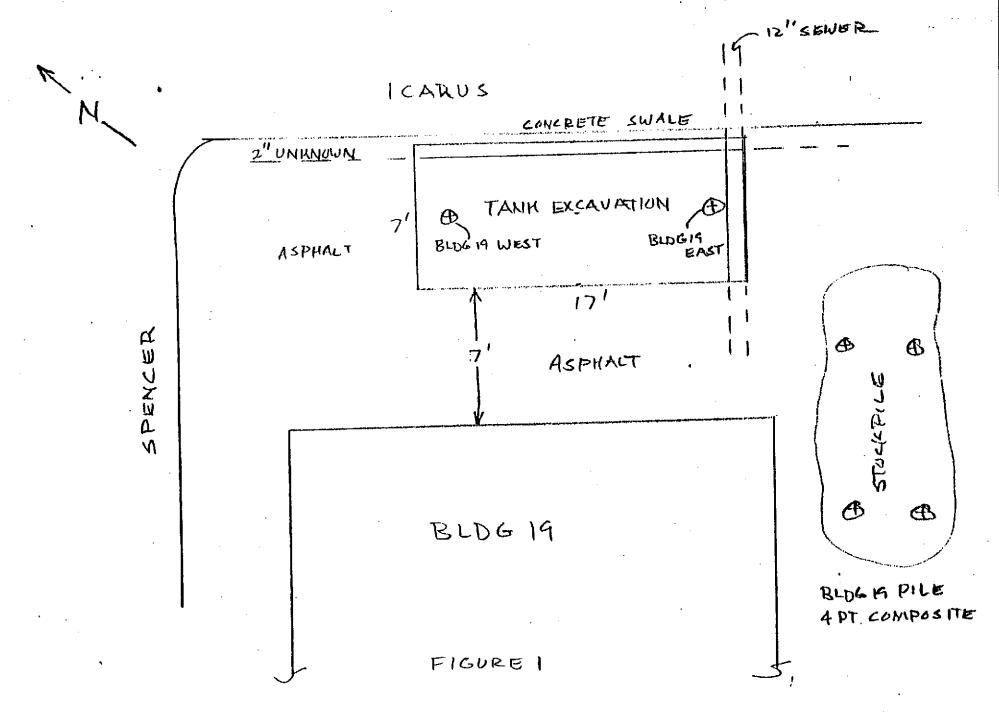
All results reported in parts per million(mg/kg), unless otherwise indicated.

VII. SITE RESTORATION

On August 29, all scrap material was removed from the site, and the excavation was left open pending analysis and remobilization to the site. The stockpile was covered with 6 mil visqueen. On September 17, the tank excavation was backfilled using pea gravel and Class II aggregate base rock. Prior to backfilling, the native soil in the base of the excavation was compacted with a vibratory plate, and Geotex filter fabric was used to line the excavation. Approximately 10 tons of pea gravel was used to fill the excavation to within 12" of the surface, and 9" of compacted Class II aggregate base rock was installed under 3" of asphalt.

14.31 tons of contaminated soil and debris were transported to Forward, Inc., a Class II nonhazardous landfill on September 17 under manifest #10862 for disposal. A copy of the manifest is included with this report.

USCG - ISC ALAMEDA
TANK # KOG REMOVAL (8-28-97)



Sep. 09 1997 07:22AM P2 PHUNE NO. : 702 577 9199 FROM : AMERICLEAN, INC. Department of Toxic Substances Cosh See Instructions on back of page 6. Sacramenta, Collfornia singramental Marganes Agency Form Approved OMB No. 2010-2019 (Expires 9-10-96). Information in the shaded areas Please print or type. Form designed for use on olife (12 with) symmitter. 2. Page I Marilant Document No. is not required by federal law. 1. Generaler's US EPA ID No. UNIFORM HAZARDOUS CIA14161910319101013191010161 WASTE MANIFEST Generator's Name and Mailling Address
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2000 Em burcadara, Suite 200.
Alamon CA 2250
Generator's Phone (50 535-7280 ATTS) 1-800-852-7550 ATTA: TIMADEEN 4. Generator's Phone (5/0) 535 5. Treasporter I Company Homes
Am Beicken, I & C. MU10982 3: 5849 3 ქ ჯ 7. Transporter 2 Company Name CALIFORNIA, 10. US EPA IO Number 9 Designated Fooling Name and Sine Address
AMENIC LEAST Dr. RP / UMPR 1WD91891328485 14. Unit SMUC 13, Torqi 11. US 001 Description (including Proper Shipping Name, Hazord Class, and ID Number) Quantity Type WITHIN NON ROZA HAZARDOUS WESTE LIQUE 00550 1-800-424-8802: Some. (2 dai) EPA/OH R T HA a CENTER CALL THE NATIONAL RESPONSE 15. Special Handling Instructions and Additional Informat nent are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations. 14. GENERATOR'S CERTIFICATION: Thereby declare that the constitut of this consigner If I am a large quantity generator, I cartify that I have a program in place to reduce the volume and raxialty of waste generated to the depress I have determined to be economically practicable and that I have released the practicable method of treatment, trongge, or disposal currently available to me which minimizes the procticable method of treatment, trongge, or disposal currently available to me which minimizes the procticable method of treatment, trongge, or disposal currently available to me which minimizes the procticable method of treatment. IN CASE OF EMERGENCY OR SPILL. threat to kumon health and the invironment, OR, IS I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management matrical that is available to me and that I can afford. Marsh 9 17. Transporter 1 Acknowledgement of Receipt of Manufals 100 Prince / Street 18. Triginsporter 2 Acknowledgement of Receipt of Materials Month Day Printed/Typed Name 19. Discrepancy Indication Space ç 20. Facility Owner or Operator Certification of receipt of hozordous materials covered by this manifest except as noting in light 19 Month Siam reed/Nove Name

DO NOT WRITE BELOW THIS LINE.



December 29, 1997

Ms. Susanne Perkins U.S. Coast Guard CEU-Oakland 2000 Embarcadero, Suite 200 Oakland, CA 94606-5337

RE: Closure Reports

Dear Ms. Perkins:

Attached are the revised reports for Coast Guard Island and Pacific Strike Team. The manifest number for the rinseate was corrected, and a copy included. The rinseate from all three tanks at Alameda was transported under the same manifest, number 96700697, for a total quantity of 550 gallons.

Please call us if you have any questions or require additional information. Thank you very much.

Sincerely,

Scott Vickers

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999 South Austin Road/WEIGHING LOCATION
Manteca, CA 95336

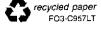
andfill: (209) 982-4298 / WEIGHING LOCATION Resource Recovery: (209) 982-4936 P.O. Box 6336 Stockton, CA 95206 Main Office: (209) 466-4482 Fax: (209) 465-0631

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DÁY OR ŃIGHT TELEPHONE (510) 235-1393

necessary by the inspector.

CERTIFICATE

CERTIFIED SERVICES COMPANY

255 Parr Boulevard . Richmond, California 94801

NO. 25516

CUSTOMER
RAH ENVIRONMEN
JOBNO.
170902

FOR: ERICKSON, INC. TANK NO. 20866
LOCATION: RICHMOND DATE: 97/09/17 TIME: 14:17
ST METHOD VISUAL GASTECH/1314 SMPN LAST PRODUCT LG
This is to certify that I have personally determined that this tank is in accordance with the American Petroleum Institute and have found the condition to be in accordance with its assigned designation. This certificate is based on conditions existing at the time the inspection herein set forth was completed and is issued subject to compliance with all qualifications and instructions.
TANK SIZE 1.00 GALLON TANK CONDITION - FAVOR FOR FIRE
REMARKS: OKYGEN 20.00 LOWER EXPLOSIVE DIMIT BESS THAN 0.10 ERITKSON, INC. HEREBY CERTIFIES THAT THE ABOVE NUMBERED TANK HAS BEEN OUT OPEN, PROCESSED, AND THEREFORE DESTROYED AT OUR PERMITTED HAZARDOUS WASTE FACILITY. ERICKSON, INC. HAS THE APPROPRIATE PERMITS FOR, AND HAS ACCEPTED THE TANK SHIPPED TO US FOR PROCESSING.
In the event of any physical or atmospheric changes affecting the gas-free conditions of the above tanks, or if in any doubt, immediately stop all hot work and contact the undersigned. This permit is valid for 24 hours if no physical or atmospheric changes occur.
STANDARD SAFETY DESIGNATION SAFE FOR MEN: Means that in the compartment or space so designated (a) The oxygen content of the atmosphere is at least 19.5 percent by volume; and that (b) Toxic materials in the atmosphere are within permissable concentrations; and (c) In the judgment of the Inspector, the residues are not capable of producing toxic materials under existing atmospheric conditions while maintained as directed on the Inspector's certificate.

The condersigned representative acknowledges receipt of this certificate and understands the conditions and limitations under which was issued.

REPRESENTATIVE

TITLE

INSPECTOR

SAFE FOR FIRE: Means that in the compartment so designated (a) The concentration of flammable materials in the atmosphere is below 10 percent of the lower explosive limit; and that (b) In the judgment of the Inspector, the residues are not capable of producing a higher concentration that permitted under existing atmospheric conditions in the presence of fire and while maintained as directed on the Inspector's certificate, and further, (c) All adjacent spaces have either been cleaned sufficiently to prevent the spread of fire, are satisfactorily inerted, or in the case of fuel tanks, have been treated as deemed

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ollect On Delivery and remit to:			C. O. D. charge Shipper Consignee C
Street	City	Sta	Subject to Section 7 of conditions, if this shipment is to be delivered to the consignee without recourse on the consigner, the consigner shall sign the fol-
No. Rages Description of Articles, Special Marks, and Exceptions	Weight (Sub. to Cor.)	Class Chec or Rate Colur	lowing statements: The carrier shall not make delivery of this shipment without payment of freight
Waste Empty Storage Tank NON-RCRA Hazardous Waste Solid. Manifest # 96412557 Tank # 30865 # 30866 Loading Time: 13.00 to 15:15 = 2 1-1000 51-01 1-550 F. bergloss	Λ	Where the rate is clock	(Signature of Consignor.) If charges are to be prepaid, write or stamp here. "TO BE PREPAID." Received S
age, strates are required to state sometimenty in our - une adjust a community of the property is hereby	per ·		s
AHENVI rom rotter Shipper, Per		vi a	Agent, Per
(This Sill of Lading is to be signed by the	shipper and agent of the carrier iss	uing same.)	

· : - - -

ALAMEDA COUNTY ENVIRONMENTAL HEALTH / HAZARDOUS MATERIALS DIVISION 1131 HARBOR BAY PKWY., RM. 250, ALAMEDA, CA 94502-6577 (510)567-6700 FAX (510) 337-9355

HAZARDOUS WASTE GENERATOR INSPECTION REPORT

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SIGNATUR		1. 4 /1/210	•	1 ,			

Project Specialist

ALAMEDA COUNTY HEALTH CARE SERVICES AGENCY

DEPARTMENT OF ENVIRONMENTAL HEALTH
ENVIRONMENTAL PROTECTION DIVISION
1131 HARBOR BAY PARKWAY, RM 250
ALAMEDA, CA 94502-6577
PHONE # 510/567-6700
FAX # 510/337-9335

UNDERGROUND TANK CLOSURE PLAN

* * * Complete according to attached instructions * * *

	Integrated Snopert Chuncus
1. Name of Business US Coast Gue	vel Integrated Support Command
Person	(PRIMI) Carallel
Ter Alamana	COUST GUEVE XSUNG
2. Site Address	Zip 9450/ Phone 510 437-3272
city <u>Mameda</u>	less Site 200
3. Mailing Address _ Juoc Emba	1500 1500
city. Oakland	Zip 94606-5337Phone (510)535-7260
4. Property Owner <u>us Carit 6</u>	eard
4. Property Owner	
Business Name (if applicable)	
Address Same	
City, State	Zip
5. Generator name under which tank	will be manifested
Us coast Gaard	7/6/39 4037
EPA ID# under which tank will !	oe manifested C A 7690390037

б.	Contractor PAH Environ montal, Inc.
	Address 3310 Swetzer Road
•	City Loomis CA 95650 Phone 916-652-5777
	License Type A- H42 - ID# 5922/6
	*Effective January 1, 1992, Business and Professional Code Section 7058.7 requires prime contractors to also hold Hazardous Waste Cartification issued by the State Contractors License Board.
7 . ·	Consultant (if applicable)
•	Address
	P 1
	City, State
8.	Main Contact Person for Investigation (if applicable)
	Name Ray Henry Title President
	Company RAH Environ montal, luc
	Phone (514) 652-5777
9	Number of underground tanks being closed with this plan 3
	Length of piping being removed under this plan
	Total number of underground tanks at this facility (**confirmed with owner or operator) 3
10.	State Registered Hazardous Waste Transporters/Facilities (see instructions).
* *	Underground storage tanks must be handled as hazardous waste **
	a) Product/Residual Sludge/Rinsate Transporter
	Name Asbury Environmental Sono. EPA I.D. No. CALOCO138484
	Hauler License No. 36455 License Exp. Date
c.	
	Address 100 W. Valpico City Tracy State CA Zip 95367
	City / rac4
	b) Product/Residual Sludge/Rinsate Disposal Site
	Name As bary Environ monted SAN EPA ID# . CADO26 277036
	radrass 2100 N. A (a consider OC.
	city Compton State C4 Zip 90222

1.1

. c) Tank and Piping Transporter
Name RAH Environ montal, [nc. EPA I.D. No. CANGESSE2)01
Hauler License No. 2565 License Exp. Date
Address 3310 Swetzer-Pd
city Learnis state CA zip 9.5650
d) Tank and Piping Disposal Site
Name Erickson Inc. EPA I.D. No. CADOUG 466392
Address 255 Parr Blud.
city Richmond State 4 Zip 94801
11. Sample Collector
Name
Company RAH Environ monter line.
Address 3310 Swetzer Read
city Loimis State CA Zip 95650 Phone (816)652-500
12. Laboratory
Name NEL Laboratories
Address 1030 Matter Lane
city Rong State NV Zip 89502
State Certification No
13. Have tanks or pipes leaked in the past? Yes[] No[] Unknown
If yes, describe.

14. Describe methods to be used for rendering tank(s) inert:

Pressure wash and dry ice

Before tanks are pumped out and inerted, all associated piping must be flushed out into the tanks. All accessible associated piping must then be removed. Inaccessible piping must be permanently plugged.

The Bay Area Air Quality Management District, 415/771-6000, along with local Fire and Building Departments, must also be contacted for tank removal permits. Fire departments typically require the use of a combustible gas indicator to verify tank inertness. It is the contractor's responsibility to bring a working combustible gas indicator on-site to verify that the tank is inert.

15. Tank History and Sampling Information *** (see instructions) ***

Tank		Material to be sampled (tank contents, soil,	Location and Depth of Samples	
Capacity	Use History include date last used (estimated)	groundwater)		
		7		

One soil sample must be collected for every 20 linear feet of piping that is removed. A ground water sample must be collected if any ground water is present in the excavation.

	. Excavated/Stoc			ockpiled Soil
Stockpile	ed Soil	Volume	(estimated)	Sampling Plan:
	<i>I</i>		سر	
			•	

Stockpiled soil must be placed on bermed plastic and must be completely covered by plastic sheeting.

Will the excavated soil be returned to the excavation immediately after tank removal? [] yes [no [] unknown

If yes, explain reasoning _

If unknown at this point in time, please be aware that excavated soil may not be returned to the excavation without prior approval from Alameda County. This means that the contractor, consultant, or responsible party must communicate with the Specialist IN ADVANCE of backfilling operations.

- 16. Chemical methods and associated detection limits to be used for analyzing samples:
 The Tri-Regional Board recommended minimum verification analyses and practical quantitation reporting limits should be followed.
 See attached Table 2.
- 17. Submit Site Health and Safety Plan (See Instructions)

Contaminant Sought	EPA or Other Sample Preparation Method Number	EPA or Other Analysis Method Method Number Detection Limit
Diesel	TPHU BTEX	66 F10 (350) 8020
Gasaline	TPH3.	6CF(0(5030)
	Tetal Local	

Name of Insurer	
20. Enclose Deposit (See Instructions) 21. Report any leaks or contamination to this office within 5 days of discovery. The written report shall be made on an Underground Storage Tank Unauthorized Leak/Contamination Site Report (ULR) form. 22. Submit a closure report to this office within 60 days of the tank removal. The report must contain all information listed in item 22 of the instructions. 23. Submit State (Underground Storage Tank Permit Application) Forms A and B (one B form for each UST to be removed) (mark box 8 for "tank removed" in the upper right hand corner) I declare that to the best of my knowledge and belief that the statements and information provided above are correct and true. I understand that information, in addition to that provided above, may be needed in order to obtain approval from the Environmental Protection Division and that no work is to begin on this project until this plan is approved. I understand that any changes in design, materials or equipment will void this plan if prior approval is not obtained. I understand that all work performed during this project will be done in compliance with all applicable OSHA (Occupational Safety and Health administration) requirements concerning personnel health and safety. I Administration) requirements concerning personnel health and safety of the property owner or his agent and that this responsibility is not shared nor assumed by the County of Alameda. Once I have received my stamped, accepted closure plan, I will contact the project Hazardous Materials Specialist at least three working days in advance of site work to schedule the required inspections. CONTRACTOR INFORMATION Name of Individual Sect. Vick.eds. PROPERTY OWNER OR MOST RECENT TANK OPERATOR (circle one) Name of Eusiness Name of Individual	18: Submit Worker's Compensation Certificate copy
20. Enclose Deposit (See Instructions) 21. Report any leaks or contamination to this office within 5 days of discovery. The written report shall be made on an Underground Storage Tank Unauthorized Leak/Contamination Site Report (UIR) form. 22. Submit a closure report to this office within 60 days of the tank removal. The report must contain all information listed in item 22 of the instructions. 23. Submit State (Underground Storage Tank Permit Application) Forms A and B (one B form for each UST to be removed) (mark box 8 for "tank removed" in the upper right hand corner) I declare that to the best of my knowledge and belief that the statements and information provided above are correct and true. I understand that information, in addition to that provided above, may be needed in order to obtain approval from the Environmental Protection Division and that no work is to begin on this project until this plan is approval. I understand that any changes in design, materials or equipment will void this plan if prior approval is not obtained. I understand that all work performed during this project will be done in compliance with all applicable OSHA (Occupational Safety and Health Administration) requirements concerning personnel health and safety. I Administration) requirements concerning personnel health and safety of the property owner or his agent and that this responsibility is not shared nor assumed by the County of Alameda. Once I have received my stamped, accepted closure plan, I will contact the project Hazandous Materials Specialist at least three working days in advance of site work to schedule the required inspections. CONVERCION INFORMATION Name of Business PAN Enurum metal bear PROPERTY OWNER OR MOST RECENT TANK OPERATOR (circle one) Name of Individual	Name of Insurer State Componsation Insurance France
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discovery. The written report shall be made on an Underground Storage Tank Unauthorized Leak/Contamination Site Report (ULR) form. 22. Submit a closure report to this office within 60 days of the tank removal. The report must contain all information listed in item 22 of the instructions. 23. Submit State (Underground Storage Tank Permit Application) Forms A and B (one B form for each UST to be removed) (mark box 8 for "tank removed" in the upper right hand corner) I declare that to the best of my knowledge and belief that the statements and information provided above are correct and true. I understand that information, in addition to that provided above, may be needed in order to obtain approval from the Environmental Protection Division and that no work is to begin on this project until this plan is approved. I understand that any changes in design, materials or equipment will void this plan if prior approval is not obtained. I understand that all work performed during this project will be done in compliance with all applicable OSHA (Occupational Safety and Health Administration) requirements concerning personnel health and safety. I understand that site and worker safety are solely the responsibility of the property owner or his agent and that this responsibility is not shared nor assumed by the County of Alameda. Once I have received my stumped, accepted closure plan, I will contact the project Hazardous Materials Specialist at least three working days in advance of site work to schedule the required inspections. CONTRACTOR INFORMATION Name of Business RAH Emuren medical Least three working days in advance of site work to schedule the Tank Operator (Circle one) Name of Individual Scott Vickeas Name of Individual	20. Enclose Deposit (See Instructions)
Unauthorized Leak/Contamination Site Report (UMA) to the contamination of the soffice within 60 days of the tank removal. The report must contain all information listed in item 22 of the instructions. 23. Submit State (Underground Storage Tank Permit Application) Forms A and B (one B form for each UST to be removed) (mark box 8 for "tank removed" in the upper right hand corner) I declare that to the best of my knowledge and belief that the statements and information provided above are correct and true. I understand that information, in addition to that provided above, may be needed in order to obtain approval from the Environmental Protection Division and that no work is to begin on this project until this plan is approved. I understand that any changes in design, materials or equipment will void this plan if prior approval is not obtained. I understand that all work performed during this project will be done in compliance with all applicable OSEA (Occupational Safety and Health Administration) requirements concerning personnel health and safety. I understand that site and worker safety are solely the responsibility of the property owner or his agent and that this responsibility is not shared nor assumed by the County of Alameda. Once I have received my stamped, accepted closure plan, I will contact the project Hazardous Materials Specialist at least three working days in advance of site work to schedule the required inspections. CONTRACTOR INFORMATION Name of Business RAM Emuring mental (Mar. Property Owner or MOST RECENT TANK OPERATOR (Circle one) Name of Individual Section Tank Operator (Circle one)	discovery.
removel. The report must contain all information. 23. Submit State (Underground Storage Tank Permit Application) Forms A and B (one B form for each UST to be removed) (mark box 8 for "tank removed" in the upper right hand corner) I declare that to the best of my knowledge and belief that the statements and information provided above are correct and true. I understand that information, in addition to that provided above, may be needed in order to obtain approval from the Environmental Protection Division and that no work is to begin on this project until this plan is approved. I understand that any changes in design, materials or equipment will void this plan if prior approval is not obtained. I understand that all work performed during this project will be done in compliance with all applicable OSHA (Occupational Safety and Health administration) requirements concerning personnel health and safety. I understand that site and worker safety are solely the responsibility of the property owner or his agent and that this responsibility is not shared nor assumed by the County of Alameda. Once I have received my stamped, accepted closure plan, I will contact the project Hazardous Materials Specialist at least three working days in advance of site work to schedule the required inspections. CONTRACTOR INFORMATION Name of Individual Scott Vickeas Signature PROPERTY OWNER OR MOST RECENT TANK OPERATOR (Circle one) Name of Individual	
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project Hazardous Materials Specialist dispections. of site work to schedule the required inspections. CONTRACTOR INFORMATION Name of Business RAH Environ mental (htt.) Name of Individual Scott Vickeas Signature Statisty Date 7/1/97 PROPERTY OWNER OR MOST RECENT TANK OPERATOR (Circle one) Name of Business U.S. Coast Guard Name of Individual	compliance with all applicable Usha (Cocceptance of the Administration) requirements concerning personnel health and safety. I Administration) requirements concerning personnel health and safety. I understand that site and worker safety are solely the responsibility of the property owner or his agent and that this responsibility is not shared nor assumed by the County of Alameda.
Name of Business RAH Environ mental (w. Name of Individual Scott Vickers Signature Section Date 7/7/97 PROPERTY OWNER OR MOST RECENT TANK OPERATOR (Circle one) Name of Business U.S. Coast Gaard Name of Individual	
Name of Individual Scott Vickers Signature Structure Date 7/7/47 PROPERTY OWNER OR MOST RECENT TANK OPERATOR (Circle one) Name of Business U.S. Coast Gaard Name of Individual	
Signature	Name of Business RAH Environ mental (Inc.
Signature	Name of Individual Scott Vickeas
Name of Individual	Signature Date Date
Name of Individual	PROPERTY OWNER OR MOST RECENT TANK OPERATOR (Circle one)
Signature Date	
	Signature Date

STATE OF CALIFORNIA

STATE WATER RESOURCES CONTROL BOARD

UNDERGROUND STORAGE TANK PERMIT APPLICATION - FORM A



COMPLETE THIS FORM FOR EACH FACILITY/SITE

MARK ONLY 1 NEW PERMIT 1 RENEWAL PERMIT ONE ITEM 2 INTERIM PERMIT 4 AMENDED PERMIT	5 CHANGE OF INFORMATION 7 PERMANENTLY CLOSED SITE 6 TEMPORARY SITE CLOSURE
1. FACILITY/SITE INFORMATION & ADDRESS - (MUST BE COMPLE	TED)
OCA OR FACILITY MALE	NAME OF OPERATOR
US. Coast Guard Integrated Support Comme	NEAREST CROSS STREET PARCEL # (OPTIONAL)
Loast Guard Island	
CITY NAME Alameda	STATE ZIP CODE SITE PHONE & WITH AREA CODE CA
✓ 90X CORPORATION DIMONIDIAN PARTNERSHIP	OCAL AGENCY COUNTY AGENCY STATE AGENCY FEDERAL AGENCY of office which operates the UST
TYPE OF BUSINESS 1 GAS STATION 2 DISTRIBUTOR	Findian a of tanks at site E. P. A. I.U. * (optional)
3 FARM 4 PROCESSOR 5 OTHER	OR TRUST LANDS 3 CA7650350037
EMERGENCY CONTACT PERSON (PRIMARY)	EMERGENCY CONTACT PERSON (SECONDARY) - optional
DAYS: NAME (LAST, FIRST) PHONE # WITH AREA CODE	DAYS: NAME (LAST, FIRST) PHONE # WITH AREA CODE
Henry Raymonel (416)652-5777	NIGHTS: NAME / AST FIRST PHONE # WITH AREA CODE
NIGHTS: NAME (LAST, FIRST) PHONE & WITH AREA CODE	NIGHTS: NAME (LAST, FIRST) PHONE # WITH AREA CODE
Shul	1
II. PROPERTY OWNER INFORMATION - (MUST BE COMPLETED)	CARE OF ADDRESS INFORMATION
NAME	CARE OF ADDRESS IN COMMENTAL
MAILING OR STREET ADDRESS	✓ box to indicate
2000 Embarcedaro, Suite 200	CORPORATION CONTRACTOR AND A CODE
CITY NAME	STATE ZIP CODE PHONE WITH AREA CODE CA 9:4606-5337 (50)535-72-50
Ock (and	
III. TANK OWNER INFORMATION - (MUST BE COMPLETED)	CARE OF ADDRESS INFORMATION
NAME OF OWNER	
MAILING OR STREET ADDRESS	✓ box to indicate
DECO Embarcadero Site Dec	CORPORATION PARTNERSHIP COUNTY-AGENCY STATE ZIP CODE PHONE # WITH AREA CODE
CIT HAME	CA 94606-5337 6510) 535-7280
IV. BOARD OF EQUALIZATION UST STORAGE FEE ACCOUNT NU	
TY (TK) HQ 44-032063	
V. PETROLEUM UST FINANCIAL RESPONSIBILITY - (MUST BE CO	OMPLETED) - IDENTIFY THE METHOD(S) USED 2 GUARANTEE
/ box printfeate	2 GUARANTEE 3 INSURANCE 4 SUREIT BOND 5 EXEMPTION 99 OTHER
C. 3 Ellar of disease	tion and billing will be sent to the tank owner unless box 1 or 11 is checked.
CHECK ONE BOX INDICATING WHICH ABOVE ADDRESS SHOULD BE USED FOR LEGAL NO	
THIS FORM HAS BEEN COMPLETED UNDER PENALTY OF PERJURY,	AND TO THE BEST OF MY KNOWLEDGE, IS TRUE AND CORRECT
	ERSTITLE DATE MONTHUDAY/YEAR
Scott Victor Scott relies A	tt Ren 17/2/97
LOCAL AGENCY USE ONLY Don Moore	
COUNTY# JURISDICTION	# FACILITY#
LOCATION CODE - OPTIONAL CENSUS TRACT # - OPTIONAL	SUPVISOR - DISTRICT CODE - OPTIONAL
LOCATION CODE - OPTIONAL CENSUS TRACT # - OPTIONAL	

THIS FORM MUST BE ACCOMPANIED BY AT LEAST (1) OR MORE PERMIT APPLICATION - FORM B, UNLESS THIS IS A CHANGE OF SITE INFORMATION ONLY. OWNER MUST FILE THIS FORM WITH THE LOCAL AGENCY IMPLEMENTING THE UNDERGROUND STORAGE TANK REGULATIONS

STATE OF CAUFORNIA

STATE WATER RESOURCES CONTROL BOARD UNDERGROUND STORAGE TANK PERMIT APPLICATION - FORM B



COMPLETE A SEPARATE FORM FOR EACH TANK SYSTEM.

MARK ONLY 1 NEW PERMIT 3 RENEWAL PERMIT 5 CHANGE OF INFORMATION 7 PERMANENTLY CLOSED ON SITE ONE ITEM 2 INTERIM PERMIT 4 AMENDED PERMIT 5 TEMPORARY TANK CLOSURE 54 8 TANK REMOVED
DBA OR FACILITY NAME WHERE TANK IS INSTALLED: U.S. Cost baged 150 command
I. TANK DESCRIPTION COMPLETE ALL ITEMS - SPECIFY IF UNKNOWN
A OWNER'S TANK I.D. # Bldg ig B. MANUFACTURED BY:
C. DATE INSTALLED (MO/DAY/YEAR) LIA & CHOREN D. TANK CAPACITY IN GALLONS: 500.
II. TANK CONTENTS IF A-1 IS MARKED, COMPLETE ITEM C.
A PETROLEUM 90 EMPTY 1 PRODUCT 16 MIDGRADE UNLEADED 5 JET FUEL 6 AVIATION GAS 3 CHEMICAL PRODUCT 95 UNKNOWN 2 WASTE 2 LEADED 99 OTHER (DESCRIBE IN ITEM D. BELOW)
D. IF (A.1) IS NOT MARKED, ENTER NAME OF SUBSTANCE STORED C. A. S. #:
III. TANK CONSTRUCTION MARK ONE ITEM ONLY IN BOXES A, B, AND C, AND ALL THAT APPLIES IN BOX D AND E
A. TYPE OF 1 DOUBLE WALL 3 SINGLE WALL WITH EXTERIOR LINER 5 INTERNAL BLADDER SYSTEM 5 UNKNOWN SYSTEM 2 SINGLE WALL 4 SINGLE WALL IN A VAULT 99 OTHER
B. TANK 1 BARE STEEL 2 STAINLESS STEEL 3 FIBERGLASS 4 STEEL CLAD W/ FIBERGLASS REINFORCED PLASTIC MATERIAL 5 CONCRETE 6 POLYVINYL CHLORIDE 7 ALUMINUM 8 100% METHANOL COMPATIBLE W/FRP (Primary Tank) 9 SHONZE 10 GALVANIZED STEEL 95 UNKNOWN 99 OTHER
C. INTERIOR 1 RUBBER LINED 2 ALKYD LINING 3 EPOXY LINING 4 PHENOLIC LINING LINING OR 5 GLASS LINING 6 UNLINED 5 95 UNKNOWN 99 OTHER COATING IS LINING MATERIAL COMPATIBLE WITH 100% METHANOL? YES NO
D. EXTERIOR 1 POLYETHYLENE WRAP 2 COATING 3 VINYL WRAP 4 FIBERGLASS REINFORCED PLASTIC CORROSION 5 CATHODIC PROTECTION 91 NONE 95 UNKNOWN 99 OTHER PROTECTION SPUL CONTAINMENT INSTALLED (YEAR) OVERFILL PREVENTION EQUIPMENT INSTALLED (YEAR)
E. SPILL AND OVERFILL, etc. OROP TUBE YES NO STRIKER PLATE YES NO DISPENSER CONTAINMENT YES NO DISPENSE
IV. PIPING INFORMATION CIRCLE A IF ABOVE GROUND OR U IF UNDERGROUND, BOTH IF APPLICABLE
A. SYSTEM TYPE A U 1 SUCTION A U 2 PRESSURE A U 3 GRAVITY A U 4 FLEXIBLE PIPING A U 99 OTHER
B. CONSTRUCTION A U : SINGLE WALL A U 2 COUBLE WALL A U 3 UNED TRENCH A U 95 UNKNOWN A U 99 OTHER
C. MATERIAL AND A U 1 BARE STEEL A U 2 STAINLESS STEEL A U 3 POLYVINYL CHLORIDE (PVC) A U 4 FIBERGLASS PIPE CORROSION A U 5 ALUMINUM A U 6 CONCRETE A U 7 STEEL W COATING A U 8 100% METHANOL COMPATIBLE W/FRP PROTECTION A U 9 GALVANIZED STEEL A U 10 CATHODIC PROTECTION A U 99 OTHER
D. LEAK DETECTION 1 MECHANICAL LINE LEAK 2 LIME TIGHTNESS 3 CONTINUOUS INTERSTITIAL 4 ELECTRONIC LINE 5 AUTOMATIC PUMP 99 OTHER 99 OTHER
V. TANK LEAK DETECTION
1 VISUAL CHECK 2 MANUAL INVENTORY 3 VADOZE 4 AUTOMATIC TANK 5 GROUND WATER 5 ANNUAL TANK MONITORING 5 GAUGING MONITORING TESTING 7 CONTINUOUS INTERSTITIAL 8 SIR TANK GAUGING 10 MONTHLY TANK SOUGHNG 10 MONTHLY TANK MONITORING 99 OTHER
VI. TANK CLOSURE INFORMATION (PERMANENT CLOSURE IN-PLACE)
1. ESTIMATED DATE LAST USED (MO/DAY/YR) 2. ESTIMATED QUANTITY OF SUBSTANCE REMAINING /O GALLONS 3. WAS TANK FILLED WITH INERT MATERIAL?
THIS FORM HAS BEEN COMPLETED UNDER PENALTY OF PERJURY, AND TO THE BEST OF MY KNOWLEDGE, IS TRUE AND CORRECT TANK OWNER'S NAME (PRINTED & SKINATURE) Scitt Vickors Scottlicion TANK OWNER'S NAME (PRINTED & SKINATURE) Scitt Vickors Scottlicion TOTAL (9)
LOCAL AGENCY USE ONLY THE STATE I.D. NUMBER IS COMPOSED OF THE FOUR NUMBERS BELOW
STATE I.D.# COUNTY # JURISDICTION # FACILITY # TANK #
PERMIT NUMBER PERMIT APPROVED BY/DATE PERMIT EXPIRATION DATE

THIS FORM MUST BE ACCOMPANIED BY A PERMIT APPLICATION - FORM A, UNLESS A CURRENT FORM A HAS BEEN FILED. FORM C MUST BE COMPLETED FOR INSTALLATIONS. THIS FORM SHOULD BE ACCOMPANIED BY A PLOT PLAN. FILE THIS FORM WITH THE LOCAL AGENCY IMPLEMENTING THE UNDERGROUND STORAGE TANK REGULATIONS