UNDERGROUND TANK CLOSURE REPORT

DRAFT

PREPARED FOR:

UNION PACIFIC MOTOR FREIGHT COMPANY 1750 Ferro Street Oakland, California 94607 (415) 874-1156

PREPARED BY:

GREGG & ASSOCIATES, INC. 597 Center Avenue, Suite 350 Martinez, California 94553 (415) 372-3637

JUNE 1988

DRAFT

INTRODUCTION

This project required the removal of three underground tanks from the Union Pacific Motor Freight facility at 1750 Ferro Street, Oakland, California. The site work initially consisted of one tank removal, but this was followed by the removal of several other tanks and sumps. The history of the project and a summary of the laboratory analysis for the soil and water sampling are presented in this report. The documentary information has been included in the appendices.

HISTORY

On 14 November 1987 Hunter Environmental Services, Inc. conducted integrity precision tank tests on four tanks at the Union Pacific Motor Freight Company facility in Oakland (Figure 1). Results of the tank-only test concluded the tanks to be tight in accordance with the standards set by the National Fire Protection Agency. However, results from the full systems test indicated that product lines leading from the 3000 gallon engine oil tank were not tight. The 3000 gal tank, shown in Figure 2, and associated pipes were removed on 17 December 1987 by Environmental Technology, Inc. During the tank removal it was discovered that a large amount of oil was present in the open pit.

On 18 December 1987 approximately 175 to 250 cubic yards of soil exhibiting signs of product and approximately 350 gallons of oil were removed from the vicinity of the 3000 gal tank. Oil was observed entering the pit from seven locations. A majority of the inflow occurred from four points along the sidewall of the excavation (Figure 3). The work was stopped until a method for further investigation could be developed.

On 16 February 1988 Hunter personnel collected samples of the fluid in the excavation for analysis. The samples were analyzed for polychlorinated biphenyls (PCB's), California Administrative Code (CAC) metals, volatile organics (GC/MS method), and total petroleum hydrocarbons (TPH).

The contaminated soils were removed from the Union Pacific Motor Freight Facility by SEMCO, Inc. and transported by rail car to the USPCI facility in Utah.

On 23 May 1988 a 18 inch diameter, 19 foot deep recovery well was installed in the 3000 gallon tank excavation. The well was constructed of steel pipe that is slotted from 19' to 3' below ground surface. The remaining three feet were not slotted. This recovery well is to be used in conjunction with an oil/water separator to remove the oil from the ground.

On 23 May 1988 the 500 and 1,000-gallon waste oil tanks were removed by SEMCO and five soil samples were taken by a Hunter Environmental Services representative. The soil samples were taken to Superior Analytical in San Francisco and analyzed for Total Petroleum Hydrocarbons (TPH) by EPA method 8015 and for oil and grease by EPA method 503E.

The tanks did not appear to have any leaks. These tanks will remain on site until their use for above ground fuel storage in a containment area has been determined.

All closure documents including hazardous material manifests, tank disposal certificates, and well permits are included in the appendix to this report.

APPENDIX A Underground Tank Closure Plans

State of California—Health and Welfare Agency Form Approved OMB No. 2060—0039 (Expires 9:30-88) Department of Health Services Toxic Substances Control Division Please print of type. (Form designed for use on ality (12-pitch typewriter). Bacramento, California UNIFORM HAZARDOUS 1. Generator's US EPA ID No. Manifest 2. Page 1 information in the shaded great Document No. WASTE MANIFEST is not required by Federal law. 3. Generator's Name and Malling Address Manifest Document Number CLNION PACIFIC 1750 FERRE ST CARCINITION (H 94607 E. Generator's Phone (415) 974 8. State Generator C. State Transporter's iD 1-800-852-7550 5. Transporter 1 Company Name US EPA ID Number D. Transporter's Phone EPA ID/Numbe E. State Transporter's 10 F. Transporter's Phone B. Designated Facility Name and Site Address US EPA ID Number G. State Facility's ID CRICKSON INIC 155 PARR BLVO SALL H. Fecility's Phone CALIFORNIA RICHMAND OF THE 215 Total 11. US DOT Description (including Proper Shipping Name, Hazard Class, and iD Number) Quantity Unit Wasie No. No. Турв WIIVo State USED WYGERBRYIND STRAGE TANIC 1-800-424-8802; WITHIN G E EPA/DIN NE Ř A T EPA/Other O State EPA/Other CENTER Siele EPA/Other RESPONSE J. Additional Descriptions for Materials Listed Above K. Handling Codes for Wester Lieted Above 2 BULLY OIL TANK#1 ICED W/ 75 LAS ORY TRE ď. NATIONAL 15. Special Handling Instructions and Additional Information CALL GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping SPILL. 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. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford. 5 EMERGENCY Printed/Typed Name Signature Month 17. Transporter 1 Acknowledgement of Receipt of Meterials Printed/Typed Name ₹ Signature ANSPORT Ö 18. Trensporter 2 Acknowledgement of Receipt of Motorials Printed/Typed Name Signature Month Dav Year 19. Discrepancy indication Space ٨ C 20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19. Printed/Typed Name Signature Month Day Year

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ALAMEDA COUNTY HEALTH CARE SERVICES AGENCY DEPARTMENT OF ENVIRONMENTAL HEALTH HAZARDOUS MATERIALS DIVISION

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UNDERGROUND TANK CLOSURE/MODIFICATION PLANS

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1.	Business Name Union Pacific Rail Brad
	Business Owner Union Pacific Rail Road
2.	Site Address 1750 Ferro ST.
	City Oakland Zip 94607 Phone 874-1187
з.	Mailing Address /750 FERRO ST
	city CAKIGOL (a. 9460) Zip 94607 Phone 874-1187
4.	Land Owner Union Pacific Rain Road
	Address _ 1750 Felko ST City, State CHRIATICA ZIP CITY
5.	EPA I.D. No. <u>CAO 981385438</u>
6.	Contractor Semco
	Address 431 W. HATCH RN
	city McNeSto, CA Phone 209-
	License Type AB CG1 ID# 449864= .
7.	other (Specify) Huntel Envilonmental
	Address 597 Centel Ace
	City Wartine 2 94.553 Phone /415 372-
	"1 –

8. C	contact Person for Investigation Hunter Envisormetal
	Name Norm Welson Title Field Supervisor
	Phone <u>415-3)2-3637</u>
9. T	otal No. of Tanks at facility 4 to be done
	wave permit applications for all tanks been submitted to this office? Yes [] No [><]
11. S	tate Registered Hazardous Waste Transporters/Facilities
	a) Product/Waste Tranporter
	Name allied patroleum EPA I.D. No. CAD98065675128
	Address Po Boy 193 City Hillmer State (a Zip 95324
	Name Allick patroleum EPA I.D. No. CAO 980 65675123 Address Po Rox 193
	city Hilling State C4 Zip 95324
Tanki to ne triple 1 10 haul to	C) Tank Transporter White Name Senco EPA I.D. No. On Site Triple Rinsc Address 431 W. Hatch RD City MODesto State (A Zip 9635)
TS D.	d) Contaminated Soil Transporter
	Name Union Pacific Roilkoad EPA I.D. No. CA 18487 Address 1750 Fello ST (A 15187
	city <u>Cakland</u> State <u>CA</u> Zip <u>94607</u>
12.	Hauleholus. F.C.T. Clive utah 402-271-4078 sample Collector
	Name Norm Welson
	company Hunter Environ mental
	Address 597 Center Ave
	city Martine 2 State (q Zip 94553 Phone 415) 372-3637

13. Sampling Information for each tank or area

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city SAn Flancisco State CA Zip 94184	Name	Superior Analyt.	cal	
	Addres	= 1385 Farrfax	St. Ste D.	· •
State Certification No. 220	City _	SAN FRANCISCO	State <u>CA</u>	zip <u>94124</u>
	State	Certification No	230	

17. Chemical Methods to be used for Analyzing Samples

Contaminant Sought	EPA, DHS, or Other Sample Preparation Method Number	EPA, DHS, or Other Analysis Number
waste oil	18015; modified TOH Chijn bill 418. 1 och è Greese SU846 method 90700 0 9011 3 TOE G	3556 /5056

	18.	Site	Safety	Plan	submitted?	Yes []	No	\square
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19. Workman's Compensation: Yes [✓] No [] on File

Copy of Certificate enclosed? Yes [] No []

Name of Insurer Fairment Insurance Company (R80558)

- 20. Plot Plan submitted? Yes No [] To Ge excess
 21. Deposit enclosed? Yes No []
- 22. Please forward to this office the following information within 60 days after receipt of sample results.
 - a) Chain of Custody Sheets
 - b) Original Signed Laboratory Reports
 - c) TSD to Generator copies of wastes shipped and received
 - d) Attachment A summarizing laboratory results

I declare that to the best of my knowledge and belief 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 an approval from the Department of Environmental Health 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 will notify the Department of Environmental Health at least two (2) working days (48 hours) in advance to schedule any required inspections. I understand that site and worker safety are soley the responsibility of the property owner or his agent and that this responsibility is not shared nor assumed by the County of Alameda.

Signature of Contractor	1
Name (please type) Chuck Kiper U	lice PResident
Signature C.A. Kepu	
Date <u>5/23/88</u>	
Signature of Site Owner or Operator	4
Name (please type) H. P. PATERSON	Mar Environmental Engineering
Signature # Problem	ario requestion
Date5/23/88	(402) 271-4078

NOTES:

- 1. Any changes in this document must be approved by this Department.
- 2. Any leaks discovered must be submitted to this office on an underground storage tank unauthorized leak/contamination site report form within 5 days of its discovery.
- 3. Three (3) copies of this plan must be submitted to this Department. One copy must be at the construction site at all times.
- 4. A copy of your approved plan must be sent to the landowner.

- 5. Triple rinse means that:
 - a) final rinse must contain less than 100 ppm of Gasoline (EPA method 8020 for soil, or EPA method 602 for water) or Diesel (EPA method 418.1) Other methods for halogenated volatile organics (EPA method 8010 for soil, EPA method 601 for water) may be required. The composition of the final rinse must demonstrated by an original or facsimile report from a laboratory certified for the above analyses.
 - b) tank interior is shown to be free from deposits or residues upon a visual examination of tank interior.
 - c) tank should be labelled as "tripled rinsed; laboratory certified analysis available upon request" with the name and address of the contractor.

If all the above requirements cannot be met, the tank must be transported as a hazardous waste.

6. Any cutting into tanks requires local fire department approval.

UNDERGROUND TANK CLOSURE/MODIFICATION PLANS

ATTACHMENT A

SAMPLING RESULTS

Cank or Area	Contaminant	Location & Depth	Results (specify units)
			·

INSTRUCTIONS

2. SITE ADDRESS

Address at which closure or modification is taking place.

5. EPA I.D. NO.

This number may be obtained from the State Department of Health Services, 916/324-1781.

6. CONTRACTOR

Prime contractor for the project.

7. OTHER

List professional consultants here.

12. SAMPLE COLLECTOR

Persons who are collecting samples.

13. SAMPLING INFORMATION

Historic contents - the principal product(s) used in the last 5 years.

Material sampled - i.e., water, oil, sludge, soil, etc.

16. LABORATORIES

Laboratories used for chemical and geotechnical analyses.

17. CHEMICAL METHODS:

All sample collection methods and analyses should conform to EPA or DHS methods.

Contaminant - Specify the chemical to be analyzed.

<u>Sample Preparation Method Number</u> - The means used to prepare the sample prior to analyses - i.e., digestion techniques, solvent extraction, etc. Specify number of method and reference if not an EPA or DHS method.

Analysis Method Number - The means used to analyze the sample - i.e., GC, GC-MS, AA, etc. Specify number of method and reference if not a DHS or EPA method.

NOTE:

Method Numbers are available from certified laboratories.

18. SITE SAFETY PLAN

A plan outlining protective equipment and additional specialized personnel in the event that significant amount of hazardous materials are found. The plan should consider the availability of respirators, respirator cartridges, self-contained breathing apparatus (SCBA) and industrial hygienists.

19. ATTACH COPY OF WORKMAN'S COMPENSATION

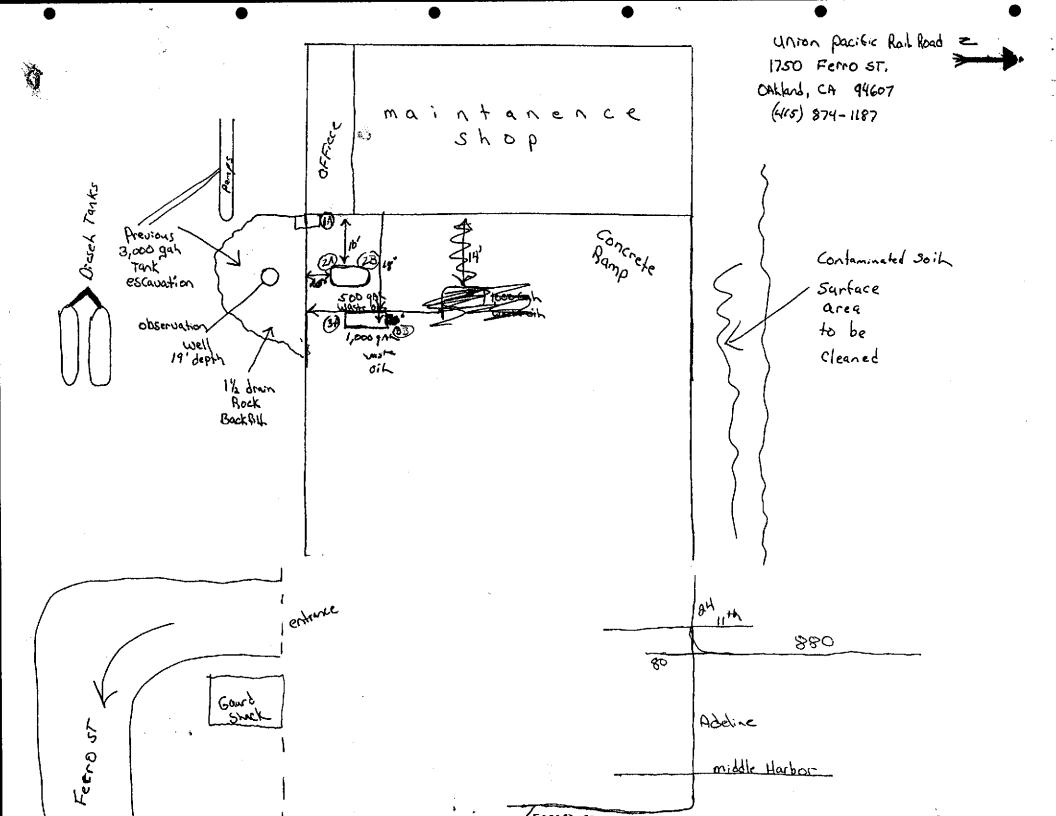
20. PLOT PLAN

The plan should consists of a scaled view of the facility at which the tank(s) are located and should include the following information:

- a) Scale
- b) North Arrow
- c) Property Line
- d) Location of all Structures
- e) Location of all relevant existing equipment including tanks and piping to be removed
- f) Streets
- g) Underground conduits, sewers, water lines, utilities
- h) Existing wells (drinking, monitoring, etc.)
- i) Depth to ground water
- j) All existing tanks in addition to the ones being pulled

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Union Pacific 1750 Ferro St Oakland CA 94607 FERRO Office phins 21 Conerete middle of large ofd.



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CITY OF OAKLAND FIRE MARSHAL'S OFFICE ROOM 201, CITY HALL OAKLAND, CALIFORNIA 94612 273-3851

Permit No	
Copies to	· · · · · · · · · · · · · · · · · · ·
Date Issued	

APPLICATION for PERMIT to INSTALL, REMOVE or REPAIR TANKS

IN THE CITY OF OAKLAND

	Date	5-23-68
Application is hereby made for permit to install repair	tank and excavate, comme	ncing four feet inside the curb line inside the property line
on theside of	Stfeet	of St.
House No. 1750 FREED ST.	StreetAvenue Present storage	
Owner UNIEN PACIFIC Address	1750 FERRO	Phone 874~1187
Applicant Seneu Address	1806 Leslie S. S.M.	Phone 5'72-8033
Remarks		
Sidewalk surface to be disturbed Nonex	Number of Tanks 2	Capacity /-/
	Signature.	y Viet funder
W E \$50.00 Rect)	124	
J S D		538-67 (8/67) (93)

- 5. Triple rinse means that:
 - a) final rinse must contain less than 100 ppm of Gasoline (EPA method 8020 for soil, or EPA method 602 for water) or Diesel (EPA method 418.1) Other methods for halogenated volatile organics (EPA method 8010 for soil, EPA method 601 for water) may be required. The composition of the final rinse must demonstrated by an original or facsimile report from a laboratory certified for the above analyses.
 - b) tank interior is shown to be free from deposits or residues upon a visual examination of tank interior.
 - c) tank should be labelled as "tripled rinsed; laboratory certified analysis available upon request" with the name and address of the contractor.

If all the above requirements cannot be met, the tank must be transported as a hazardous waste.

6. Any cutting into tanks requires local fire department approval.

APPENDIX B Underground Storage Tank Unauthorized Release / Contamination Site Report

DHS 8022 A (1/87) EPA 8700-22 Signature

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name

APPENDIX C Chain of Custody

GREGG SO

GREGG & ASSOCIATES, INC. CONSULTING IN ENVIRONMENTAL ENGINEERING AND HYDROGEOLOGY

CHAIN OF CUSTODY AND SAMPLE IDENTIFICATION RECORD

Client: Union Pacific RW Sampler (8): Bailer Date: 25 Feb 88 Weather: Clear / Re	Job Location: Oakland Job No: 01-184-006 No. of Samples Collected: 2
7 7	page/_ of/_

597 CENTER AVENUE, MARTINEZ, CALIFORNIA 94553 / 415-372-3637

A HUNTER COMPANY

Sample ID #	Time	Sample Water/o/ Comp. Grab	Type Soil Comp. Grab	Volume	No. of Contnrs. Contnr. Type	Preser- vative	Iced (Y/N)	Sampling Method	Analyses
	12:18pm			171.	19/925	N4	N)	8080 PC
Z	 -				17655	NA	<u>~</u>	Bailer)	cam mete

Comrents:	Sign	nstody Record nature, Date/Tim shed: Modin. N	le l	Name and Add Receiving La	
	Received Relinqui	le les	25/89-12:20	Superior A	nalytical Inc.
	Received			1000100	fax, Suite D sco, CA 94124
	Relinqui Received				647-2081
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GREGG & ASSOCIATES, INC. A Hunter Company

CHAIN OF CUSTODY RECORD

		597 Cent	er Avenue	Suite 350), Martine	z, CA	9455	3/(4)	15) 37	72-363	37							DATE	200	10	01	PAGE OF
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APPENDIX D Laboratory Results

1385 FAIRFAX St., Ste D • SAN FRANCISCO, CA 94124 • PHONE (415) 647-2081

CERTIFICATE OF ANALYSIS

LABORATORY NO. 50125 CLIENT: Gregg & Associates CLIENT ID: Union Pacific RW

DATE RECEIVED: 2/25/88 DATE REPORTED: 3/4/88

JOB NO. 01-184-006

CAM-17 METALS by SW 846 7000 SERIES

Compound	Results(ppM)
Antimony	ND <.5
Arsenic	ND <.5
Barium	1.6
Beryllium	ND <.01
Cadmium	ND <.5
Chromium (total)	ND <.5
Cobalt	ND <.5
Copper	2.1
Lead	18.
Mercury	ND <1
Molybdenum	ND <1
Nickel	9.1
Selenium	ND <1
Silver	ND <1
Thallium	ND <5
Vanadium	ND <.5
Zinc	140.

Richard F. Srna, Ph.D.

SUPERIOR ANALYTICAL LABORATORY, INC.

1385 FAIRFAX St., Ste D • SAN FRANCISCO, CA 94124 • PHONE (415) 647-2081

CERTIFICATE OF ANALYSIS

LABORATORY NO. 50125

CLIENT: Gregg & Associates CLIENT ID: Union Pacific RW DATE RECEIVED: 2/25/88
DATE REPORTED: 3/4/88
JOB NO. 01-184-006

ANALYSIS FOR TOTAL PETROLEUM HYDROCARBONS by Modified EPA SW-846 Method 8015

Sample Identification	Matrix	Concentration (ppM)
Sample #1 Union Pacific RW 25 Feb 88	011	Gasoline: ND <10 Kerosene: ND <10 Diesel: ND <10

Richard F. Srna, Ph.D.

SUPERIOR ANALYTICAL LABORATORY, INC.

1385 FAIRFAX St., Ste D • SAN FRANCISCO, CA 94124 • PHONE (415) 647-2081

CERTIFICATE OF ANALYSIS

LABORATORY NO. 50125

CLIENT: Gregg & Associates

CLIENT ID: Union RW #1

DATE RECEIVED: 2/25/88

DATE REPORTED: 3/31/88

JOB NO. 01-184-006

EPA SW - 846 METHOD 8240 - VOLATILE ORGANICS by Gas Chromatography/ Mass Spectrometry

Analyte	(ppm)	Analyte	(ppm)
Acetone	ND<100	trans-1,2-Dichloroethene	ND<5
Acrolein	ND<5	1,2-Dichloropropane	ND<5
Acrylonitrile	ND<5	cis-1,3-Dichloropropene	ND<5
Benzene	ND<5	trans-1,3-Dichloropropene	ND<5
Bromodichloromethane	ND<5	Ethanol	ND<5
Bromoform	ND<5	Ethylbenzene	ND<5
Bromomethane	ND<10	Ethyl methacrylate	ND<5
2-butanone	ND<100	2-Hexanone	ND<50
Carbon disulfide	ND<5	Iodomethane	ND<5
Carbon tetrachloride	ND<5	Methylene chloride	ND<5
Chlorobenzene	ND<5	4-Methyl-2-pentanone	ND<50
Chlorodibromomethane	ND<5	Styrene	ND<5
Chloroethane	ND<10	1,1,2,2-tetrachloroethane	ND<5
Chloroform	ND<5	Tetrachloroethylene	ND<5
2-chloroethylvinylether	ND<5	Toluene	ND<5
Chloromethane	ND<10	1,1,1-Trichloroethane	ND<5
Dibromomethane	ND<5	1,1,2-Trichloroethane	ND<5
1,4-Dichloro-2-butane	ND<5	Trichloroethene	ND<5
1,1-Dichloroethane	ND<5	Trichlorofluoromethane	ND<5
Dichlorodifluoromethane	ND<5	1,2,3-Trichloropropane	ND<5
1,2-Dichloroethane	ND<5	Vinyl acetate	ND<50
1,1-Dichloroethene	ND<5	Vinyl chloride	ND<10
•		Xylene	ND<5

Sample Matrix: Oil

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CERTIFICATE OF ANALYSIS

LABORATORY NO. 50125

CLIENT: Gregg & Associates CLIENT ID: Union Pacific RW DATE RECEIVED: 2/25/88 DATE REPORTED: 3/4/88
JOB NO. 01-184-006

ANALYSIS FOR PCB by Modified EPA SW-846 Method 8080

Sample Identification	Matrix	Concentration (ppM)
Sample #1 Union Pacific RW 25 Feb 88	011	ND < 1

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1385 FAIRFAX St., Ste D • SAN FRANCISCO, CA 94124 • PHONE (415) 647-2081

CERTIFICATE OF ANALYSIS

LABORATORY NO. 50181

CLIENT: Gregg & Associates

CLIENT ID: Union Pacific RR

DATE RECEIVED: 5/25/88
DATE REPORTED: 5/31/88

JOB NO.: N/A

ANALYSIS FOR OIL & GREASE by Standard Methods Method 503E

Sample Identification	Concentration (mg/kg)			
1A Union Pacific Oakland	5910			
2A Union Pacific Oakland	2285			
2B Union Pacific Oakland	18050 👐			
3A 1000gal Tank Union Pacific	69			
3B Union Pacific Oakland	8120			

QA/QC Summary: Sample 2A Duplicate RPD = 0.5% mg/kg = part per million (ppm)

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Richard F. Srna, Ph.D.

SUPERIC 1385 FAIR TORY, INC.

ICISCO, CA 94124 • PHONE (415) 647-2081

TIFICATE OF ANALYSIS

LABORATORY NO. 50181

CLIENT: Gregg & Associates

CLIENT ID: Union Pacific RR

DATE RECEIVED: 5/25/88
DATE REPORTED: 5/31/88

JOB NO.: N/A

ANALYSIS FOR TOTAL PETROLEUM HYDROCARBONS by Modified EPA SW-846 Method 8015

Sample Identification	Concentration (mg/kg)					
1A Union Pacific Oakland	ND < 100					
2A Union Pacific Oakland	ND < 100					
2B Union Pacific Oakland	ND < 100					
3A 1000gal Tank Union Pacific	ND < 100					
3B Union Pacific Oakland	ND < 100					

mg/kg = part per million (ppm)

Note: Detection limits lower than 100 mg/kg could not be achieved because of interference from the large oil content of the samples.

RECEIVED JUN 0 6 1988

Richard F. Srng, Ph.D

APPENDIX E Well Permit

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ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

5997 PARKSIDE DRIVE

PLEASANTON, CALIFORNIA 94566

(415) 484-2600

GROUNDWATER PROTECTION ORDINANCE PERMIT APPLICATION

FOR APPLICANT TO COMPLETE	FOR OFFICE USE
(1) LOCATION OF PROJECT 1750 Fevro, Oakland C4	PERMIT NUMBER 88205 LOCATION NUMBER
(2) CLIENT Nome Union Pacific Address 1750 Fevro Phone (415) 874-1187 City Dukland Zip 94607	Approved Craig & Mayfield Date 23 May 88 Craig A. Mayfield
(3) APPLICANT Nome Hunter Environmental Services, fire Gregg & Associatis Fire. Address 597 Center/350 Phone (415) 372-3637 City Martinez C4 Zip 94553	Circled Permit Requirements Apply
(4) DESCRIPTION OF PROJECT Water Well Construction Geotechnical X Pathodic Protection Well Destruction (5) PROPOSED WATER WELL USE Domestic Industrial Irrigation Municipal Monitoring X Other Product (6) PROPOSED CONSTRUCTION See Attachment Drilling Method: Mud Rotary Air Rotary Auger Cable Other Back-hoe	 A permit application should be submitted so as to arrive at the Zone 7 office five days prior to proposed starting date. Notify this office (484-2600) at least one day prior to starting work on permitted work and before placing well seals. Submit to Zone 7 within 60 days after completion of permitted work the original Department of Water Resources Water Well Drillers Report or equivalent for well projects, or bore hole logs and location sketch for geotechnical projects. Permitted work is completed when the last surface seal is placed or the last boring is completed.
WELL PROJECTS Drill Hole Diameter In. Depth(s) ft. Casing Diameter In. Number Surface Seal Depth ft. of Wells Driller's License No.	 Permit is void if project not begun within 90 days of approval date. WATER WELLS, INCLUDING PIEZOMETERS Minimum surface seal thickness is two inches of cement grout placed by tremie, or equivalent. Minimum seal depth is 50 feet for municipal and industrial wells or 20 feet for domestic, Irrigation.
GEOTECHNICAL PROJECTS Number Diameter In. Maximum Depth 20 ft. (7) ESTIMATED STARTING DATE SSIMATED COMPLETION CATE I hereby agree to comply with all requirements of this permit and Alameda County Ordinance No. 73-68.	tion, and monitoring wells unless a lesser depth is specially approved. C. GEOTECHNICAL. Backfill hore hole with compacted cuttings or heavy bentonite and upper two feet with compacted material. D. CATHODIC. Fill hole above anode zone with concrete placed by tremie, or equivalent. E. WELL DESTRUCTION. See attached.
APPLICANT'S SIGNATURE WWW. Melon Date 23 May 88	See Attached Description

APPENDIX F Hazardous Waste Manifests

EPA 8700-22 (Rev. 9-66) Previous editions are obsolets.

DMS 8022 A (1/67)

To: P.O. Box 2000, Secremento, CA 95812

APPENDIX G Tank Disposal Certificates

No 563 Environmental Train 4102

CERTIFICATE

Certified Services Company 255 Parr Boulevard Richmond, California 94801

Day or Night Telephone (415) 235-1393

	•		(415) 235 -1393
For: Erickson Inc Tank No.(s.) 56		Product: 19-21-8) ~,
Test Method: 1/1500/ /mordech 16	[ast	Product: 10 to lower the	/ Time: /// 1048
		The state of the	yarantan
This is to certify that I have			
This is to certify that I have personally determined to of each to be in accordance with its assigned desired is issued subject to compliance with all qualifications.	tat the tank(s) in the following list are in	accordance with the American Petrole	Non-E-Charles
is issued subject to compliance with all qualificati	mation. This certificate is based on col	nditions existing at the time the inspe	ection herein set forth was completed
	The state of the s		Total was completed ar
Tank(s)		0 1	
1 200-		Condition	
1-2000 gal Fibergisse Tonk	Safe for Eve		
			70
		1666	17
	_ 1		
emarks:	4		
Have the exchaquel.	er or side 111	le Herlayming	1 1
	The Miles	e fellorming	hot work
the event of one physical		, , ,	
the event of any physical or atmospheric change e undersigned. This permit is valid for 24 hours if	s affecting the gas-free condition of the	A shove tanks or if in any day to	
portrat is valid for 24 hours if	no physical or atmospheric changes i	occur.	nediately stop all hot work and contact
andard Safety Designation:			
Sale for Man: Moone that in the	nane en doriente de l'en		
iterials in the atmosphere are within permissable	Concentrations: and (a) In the oxygen con	itent of the atmosphere is at least 19.	5 gercent by volumes and a series
terials in the atmosphere are within permissable to determine the atmospheric conditions while maintain are for Fire: Means that in the compartment so determine the compartment so determine the determined to determine the determined the determined to determine the determined to determine the determined the determine	ned as directed on the Inspectaria	t of the Inspector, the residues are n	ot capable of producing their material
iate for Fire: Means that in the compartment so de it; and that (b) in the judgment of the inspector, the he presence of fire and while maintained as direct	signated (a) The concentration of flame	Micate.	or producing toxic materials
he presence of fire and white maintain a	residues are not capable of producing	nable materials in the atmosphere is t	below 10 per cent of the lower explosive
spread of fire, are satisfactorily inerted, or in the	case of fuel tanks, have been treated	ther, (c) All adjacent spaces have eith	her been cleaned sufficiently to prevent
he undersigned representative acknowledges rec	PiOt of this confile	of the hispe	GUOT. つ∵
	The state and understands	s the conditions and limitations unde	If which it was issued
presentative Oitle		المحمورية المستسير	
		يعن فم المستعمد	

APPENDI X H Correspondence

GREGG & ASSOCIATES, INC. 597 CENTER AVENUE, SUITE 350 MARTINEZ, CA 94553 (415) 372-3637

June 1, 1988

Storm Goranson Alameda County Health Agency Dept. of Environmental Health 80 Swan Way #200 Oakland, CA 94621 (415) 271-4320

Subject: Union Pacific Railroads's Underground Tanks

Dear Mr. Goranson:

Thank you for your letter of May 20, 1988 regarding the work at Union Pacific Railroad, 1750 Ferro, Oakland. We are attempting to gather the necessary documents for the preparation of the final closure report for the underground tank that was removed from the site several months ago. The project was not under our direction at that time. On May 19, 1988, we received a contract from Union Pacific Railroad to proceed with the work. We will try to expedite the work in a timely manner.

The site remediation work and additional site work was started on May 23, 1988. Two more underground tanks, a collection basin, and an oil/water separators were removed. One collection basin and on oil/water separator remained on the site to become part of the site modifications. We will prepare a report on the removal of all three underground tanks at the site. This report should be completed by June 20, 1988.

Plans are being prepared for a new oil/water separator, an extraction well pump, a pump tank, a product tank, and a new 45 by 75 foot concrete steam cleaning area for equipment. The cleaning area will be tied to the oil/water separator system. Four alternatives are also being prepared for the removal or monitoring of the other two tanks at the facility.

We would like to visit with you early next week to discuss our proposed plans for the site. On June 10th we are planning to submit our proposal to Union Pacific in Omaha for funding approval. It is expected that they will require about 10 working days for their review. This would indicated that the work can be undertaken early in July.

Storm Goranson, Page 2

Please contact me or Noel Nelson if you have any questions.

Very truly yours,

Stanley L. Klemetson, Ph.D., P.E. Chief Engineer

GREGG & ASSOCIATES, INC. 597 CENTER AVENUE, SUITE 350 MARTINEZ, CA 94553 (415) 372-3637

June 1, 1988

Mr. Bob Whitman Environmental Technology 260 Cristich Lane Campbell, California 95124 (408) 559-1220

Subject: Union Pacific Railroad's Underground Tank

Dear Mr. Whitman:

On May 20, 1988 we received a letter from Rafat Shahid, Chief, Hazardous Materials Division, Alameda County Health Care Services, regarding the final closure report for the tank removal last fall at Union Pacific Railroad, 1750 Ferro, Oakland. To complete the requirements of this project we would appreciate copies of the following documents.

Tank Removal Permit Application Hazardous Waste Manifest Certificate of Disposal for Tank

Thank you for your assistance.

Very truly yours,

Stanley L. Klemetson, Ph.D., P.E.

Chief Engineer

cc: Storm Goranson, Alameda County