3/7/97

LIGHT, AIR & SPACE CONSTRUCTION

ENVIRONMENTAL SERVICES COMPANY

License Number 445403 R.E.A. Number 04072

UNDERGROUND TANK TECHNICAL CLOSURE REPORT

Client name:

Beverly Wirth

Project # 9663

Mailing address:

9 Westminster Place

Lafayette, California 95495

Job Site address:

2607 Mandela Parkway Oakland, California 94612 Neighborny atte

Close-in-Place date:

02-20-97

EPA # CAC 000735536

LA&S supervisor:

David Guthridge

Removal crew:

Bob Giancola

Residual in tanks?:

Yes

Who pumped out tanks:

Americlean Inc.

Product transporter:

Americlean Inc.

EPA # :

CAT080014277

Hauler #:

3493

Mailing address :

P.O. Box 2130

Walnut Creek, CA 94595

Telephone #:

510-934-9197

Product destination:

Artesian Oil Recovery Company

EPA # :

CAD980638449 CAD980638449

TSD#:

2306 Magnolia Street

Address:

Oakland, California 94607

Tel..#:

1-800-771-2105

EPA Manifest #s:

96181082

Tank transporter:

N/A

EPA#:

N/A

Hauler #:

N/A

Mailing address :

N/A

N/A

Telephone:

N/A

Tank #1 (1,000-gallon)

Destination:

Filled-in-place

EPA#:

N/A

TSD# :

Address:

N/A N/A

Manifest #

N/A

March 7, 1997

ENVIRONMENTAL SERVICES COMPANY License Number 445403 R.E.A. Number 04072

Inspector:

Barney Chan - **

Departs 2097"

Agency:

Alameda County

Time: 11:00am

Address:

Health Department 1131 Harbor Bay Parkway Permit # 6251

Alameda, California 94502

Tel.#:

510-567-6700

Inspector:

Steve Crawford City of Oakland Date: 02-20-97

Agency:

Fire Prevention Bureau

Time: 11:00am Permit # 1-97

Address:

421 14th Street

Oakland, California 94612

TeL#:

510-238-3851

Did inspector grant permission to fill tank/s? Did inspector specify soil sample locations?

Did inspector specify analysis required? Tests required:

yes yes

yes

EPA 8020 BTEX

EPA 8015 TPH Gasoline

MTBE Organic Lead

Lab name:

DOHS#:

EnviroChem Analytical, Inc.

E-2186

Address:

1725 Little Orchard Street, Suite A

San Jose, CA 95125 408-287-6792

Telephone #:

Was additional excavation ordered by inspector?

Final excavation dimensions:

14' x 6' x 2.5' deep No

Was all apparent contamination removed? Were samples taken from limits of excavation?

Soil Sample #:

Groundwater Sample #: Analysis requested:

Lab name:

9663-1 9663-2, 9663-3

Yes

TPH Gasoline, BTEX, MTBE, and Organic Lead

EnviroChem Analytical, Inc.

Did Inspector order excavation left open? When was the excavation backfilled? (date)

Backfill material:

Compaction:

02-20-97

Class II baserock

Who was responsible for re-surfacing?

Area re-surfaced:

90% N/A N/A

March 7, 1997

2 × 3,8

ENVIRONMENTAL SERVICES COMPANY License Number 445403 R.E.A. Number 04072

TANK NUMBER 1

Tank location

see attached map.

Tank age

more than 30 years old

Tank material

steel

Depth to tank top

2.5

:

Tank dimensions

144" x 44" diameter

Tank capacity Tank useage

1,000 gallons gasoline

Residual contents

650 gailons

Quantity pumped Dry ice used

650 gallons 200 pounds

LEL reading

0.8%

Oxygen reading

3.0%

Tank coating

none

Candidion of tank- "

Backfill material

native soil

Native soil

sand and clay

Water in excavation product piping

yes none

material Vent piping N/A

material

none N/A

Remote fill material

none N/A

Sample Locations

see attached map

of soil samples

(1)

Container: 3" brass

of water samples:

(2)

Container: voa

Type of soil

sandy clay

Soil Sample #

Depth

Location

Analysis

9663-1

10.0' bgs

west end of tank

TPH Gasoline/BTEX/MTBE/Organic Lead

G-water Smpl #

Depth

Location

Analysis

9663-2

5.0' bgs

east end of tank

TPH Gasoline/BTEX/MTBE/Organic Lead

9663-3

5.0' bgs

west end of tank

TPH Gasoline/BTEX/MTBE/Organic Lead

Odor in samples

Staining in samples

no no

How were soil samples obtained:

slide-hammer sampling device

How were water samples obtained:

March 7, 1997

Page 3 of 13

ENVIRONMENTAL SERVICES COMPANY License Number 445403 R.E.A. Number 04072

PROJECT OVERVIEW

On November 30, 1996, Light, Air, and Space Construction (LA&S) a licensed General, Engineering, and Haz Mat Contractor entered into a Contract with Beverly Wirth to remove (1) underground fuel storage tank at 2607 Mandela Parkway, Oakland, California. The Scope of work included the following items:

- Obtain Tank Removal Permits from the Alameda County Health Department and Oakland Fire Department, notify the BAAQMD, and obtain an EPA number from the State DOHS.
- 2. Provide for the excavation and removal of the tank.
- 3. Inspect the tank and piping for signs of leakage.
- 4. Obtain soil samples at the direction of the Health Inspector. Have the samples analyzed at a State Certified Laboratory.
- 5. Provide for the proper disposal of the tank and related piping.
- 6. Backfill the excavation with native or similar material.
- 7. Preparation and submittal of a Tank Closure Report.

SITE HISTORY AND DESCRIPTION

The tanks were reported to be over 30 years old.. The tanks had not been used for over 20 years, although no date was available for their last useage. The subject property is occupied by a vacant warehouse building.

EXCAVATION AND REMOVAL OF TANK

On Monday, January 13, 1997, an excavation was begun at the location of the tank. The excavation was advanced to a depth of 3.0' below the ground surface (bgs) along two sides of the tank. Groundwater was encountered at a depth of 2.5' below the ground surface. Substantial subsidence of the adjacent excavation sidewalls along both the building and Willow Street was noted. The sandy native soil began flowing into the excavation and an immediate decision was made to discontinue the excavation to prevent a potential failure of the subgrade under both the building and Willow Street.

The client and the regulatory agencies (Alameda County Health Department and Oakland Fire Department) were contacted and made aware of the site conditions. The excavation was immediately backfilled and a re-assessment of the tank removal was undertaken.

March 7, 1997

Page 4 of 13

ENVIRONMENTAL SERVICES COMPANY
License Number 445403
R.E.A. Number 04072

After review of the site conditions by a Certified Engineering Geologist (Christopher M. Palmer, C.E.G. 1262) it was determined that the excavation could proceed only if shoring was placed along the street and the building to prevent subgrade failure. The initial cost estimates for the shoring were in excess of \$40,000.00 which was beyond the financial ability of the property owner. We then applied to the regulatory agencies (ACHD and OFD) for a variance to allow the tank to be abandoned—in-place. The variance was approved on February 3, 1997 by Barney Chan of the (ACHD) and Steve Crawford of the (OFD).

At 8:00 am on February 20, 1997, approximately (650) gallons of residual product and water was removed from the tank by Americlean Inc., (see Hazardous Waste Manifest # 96181082). The residual product was transported to Artesian Oil recovery Company in Oakland, California for disposal. At approximately 10:00am, approximately (200)lbs. of dry ice was placed in the tank. The Fire Department Inspector (Steve Crawford) arrived at 11:00am and LEL and Oxygen readings were obtained by David Guthridge using a Gas-Techtor instrument. The LEL reading for the tank was 0.8% and the Oxygen reading was 3.0%.

The tank was then filled with approximately (6) cubic yards of a cement slurry mix (see RMC Lonestar Ticket # 3244823), while the Health Department Inspector (Barney Chan) witnessed the work.

SAMPLING PROCEDURE

On February 20, 1997, LA&S recovered (1) soil sample (9663-1) from approximately 10.0' below the ground surface at the west end of the tank, and (2) groundwater samples (9663-2 and 9663-3) from approximately 5.0' below the ground surface at the east and west ends of the tank.

Soil sample #9663-1 was recovered using a hand auger and slide-hammer sampling device. A clean brass 2" x 3" brass tube was driven into the soil with the slide-hammer until there was no observable head space in the tube. At this time the ends of the tube were sealed with teflon sheeting and a plastic cap. The tube was then labeled and the information recorded on a Chain-of-Custody, it was then placed on crushed ice in an ice chest for transport to EnviroChem Analytical, Inc. under a legal Chain-of-Custody for analysis.

Barney Chan of the Alameda County Health Department was present to witness the sampling event.

March 7, 1997 Page 5 o

ENVIRONMENTAL SERVICES COMPANY License Number 445403 R.E.A. Number 04072

LABORATORY ANALYSIS OF SOIL SAMPLES

The lab was instructed to run the following EPA tests on all of the samples:

TPH Gasoline BTEX MTBE

Organic Lead

The laboratory analysis result sheet is an attachment to this report.

The soil and groundwater sample results are presented in Table 1 below:

TABLE 1

	SOIL	a) ater	Water	
	9663-1 .	9663-2	9663-3	Detection Limit
Date sampled	02-20-97	02-20-97	02-20-97	Soil/water
TPH Gasoline	N.D.	<r.l.< td=""><td>570 ppb</td><td>1.0 ppm/50 ppb</td></r.l.<>	570 ppb	1.0 ppm/50 ppb
Benzene	N.D.	<r.l.< td=""><td><r.l.< td=""><td>0.005 ppm/0.50 ppb</td></r.l.<></td></r.l.<>	<r.l.< td=""><td>0.005 ppm/0.50 ppb</td></r.l.<>	0.005 ppm/0.50 ppb
Toluene	N.D.	0.61 ppb	3.8 ppb	0.005 ppm/o.50 ppb
Ethylbenzene	0.0083ppm	<r.l.< td=""><td>2.2 ppb</td><td>0.005 ppm/o.50 ppb</td></r.l.<>	2.2 ppb	0.005 ppm/o.50 ppb
Xylene	N.D.	<r.l.< td=""><td>12 ppb</td><td>0.005 ppm/0.50 ppb</td></r.l.<>	12 ppb	0.005 ppm/0.50 ppb
MTBE	N.D.	<r.l.< td=""><td><r.l.< td=""><td>0.05 ppm/5.0 ppb</td></r.l.<></td></r.l.<>	<r.l.< td=""><td>0.05 ppm/5.0 ppb</td></r.l.<>	0.05 ppm/5.0 ppb
Organic Lead	N.D.	N.D.	Not tested	1.0 ppm/ 0.4 ppb
Date received	02-21-97	02-21-97	02-21-97	
Date analyzed	02-25-97	02-25-97	02-25-97	

N.D. = Non-detect

< R.L. = Lower than the Reporting Limit

BACKFILL OF THE EXCAVATION

The excavation was backfilled on February 20, 1997 with imported Class II material. The fill material was placed in lifts and mechanically compacted to a relative 90%.

The area was not re-surfaced.

March 7, 1997

Page 6 of 1.

P.O. Box 36303 * San Jose * Ca * 95158-6303 * 408-979-0661 * 408-979-0621 FAX * 408-322-7325 PAGER GENERAL AND ENGINEERING CONTRACTOR * HAZARDOUS SUBSTANCE REMOVAL CONTRACTOR * SITE ENVIRONMENTAL ASSESSMENTS

ENVIRONMENTAL SERVICES COMPANY License Number 445403 R.E.A. Number 04072

CONCLUSIONS AND RECOMMENDATIONS

Based on the field observations presented and the supporting soil and groundwater sample analysis, it is our opinion that the subject site has been minimally affected by petroleum hydrocarbons previously contained in the former underground storage tank. The low levels of residual contaminants noted in the sample results will continue to naturally degrade and eventually disappear. It is our recommendation that no further work be required at this site and the site should be considered closed by the regulatory agencies.

LIMITATIONS

The conclusions and professional opinions presented herein were developed in accordance with generally accepted practice as outlined in the guidelines of the California Regional Water Control Board for addressing fuel leaks from underground tanks. The chemical analysis results are based on data collected at the sampling locations only, therefore LA&S cannot have complete knowledge of the underlying conditions. Conditions at the project site will change with time due to natural processes or the works of man. Accordingly, the findings of this report apply to the present conditions only; the opinions expressed herein are subject to revisions in light of new information, and no warranties are expressed or implied.

Light, Air, and Space Construction is pleased to have been of service to you on this project. to comply with State and Local Environmental laws, LA&S recommends a copy of this report be forwarded to the following governmental agencies:

 Alameda County, Department of Environmental Health 1131 Harbor Bay Parkway
 Alameda, California 94502

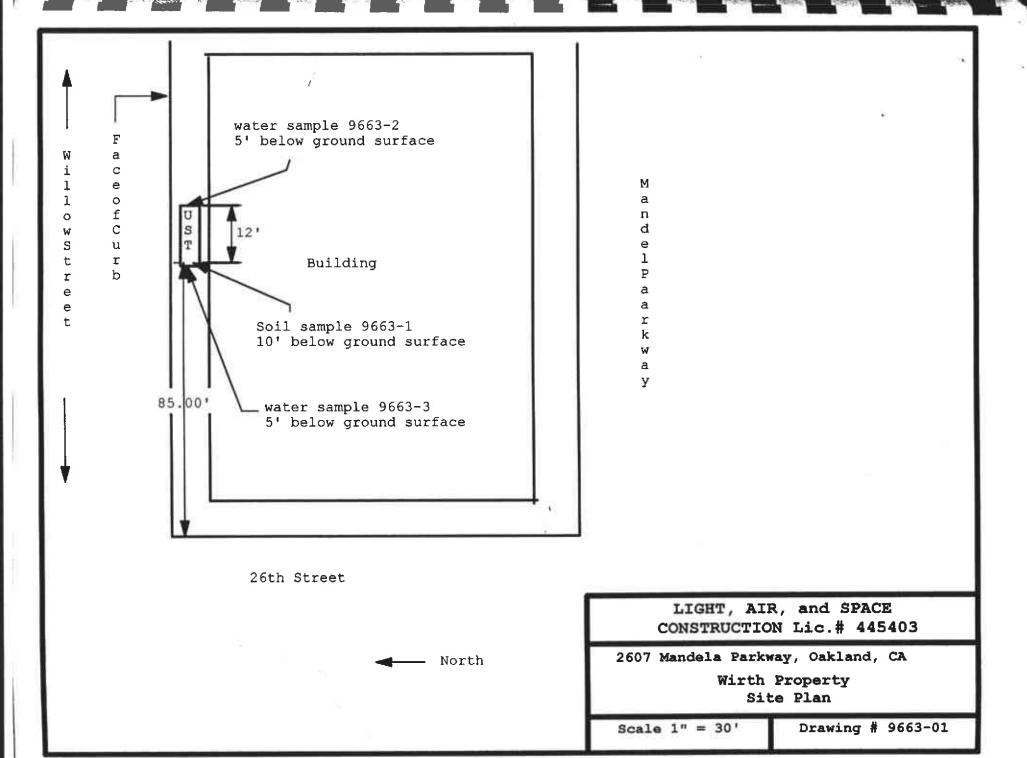
Attn: Barney Chan

Respectfully submitted, LIGHT, AIR, and SHACE CONSTRUCTION

David B. Guthridge

March 7, 1997

Page 7 of 13



1-15-97: Dave Guthridge. Lis sandy Found go at 30" by 5. also soil has max degree stain 4 sides 4, both is 8 by 5. UST full-water (?) W/gas odor. Wants to pumportust, dewater pit. Told him to analyze soil samples for moisture content. Wants to backfill asap. Can't overex below bldg or st anyway. Shoring will cost n 6-7,000. So Footings on bldgs are only 2' deep. PG+E line is ~2' fm edge of U5T. Told him to call OFD re clos in place. 1/29 SpW/ D. Guthridge. requested: 1) wp for soil & Gar golars 2) lette from no professional stating remained of July could fause structural or supely chazard

. 1-3-97 plan review.

Need applated Cert. of Ins. for gen. liablt

Dupdated H+5 refresher

Subscorts? No workmans comp

Subs a backhoe operator, + will

Send me copy of his workman's comp. But he is an owner/operat.

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



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 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				
DBA OR FACILITY NAME WHERE TANK IS INSTALLED:					
1. TANK DESCRIPTION COMPLETE ALL ITEMS - SPECIFY IF UNKNOWN	N. Committee of the com				
A, OWNER'S TANK I.D. # \	8. MANUFACTURED BY: Upleadocup				
C. DATE INSTALLED (MO/DAY/YEAR) UNIC NOLLA	D. TANK CAPACITY IN GALLONS: 4000 750				
II. TANK CONTENTS IF A-1 IS MARKED, COMPLETE ITEM C.	, b 1				
A 1 MOTOR VEHICLE FUEL 4 OIL 8. 2 PETROLEUM B0 EMPTY 1 PF 3 CHEMICAL PRODUCT 95 UNKNOWN 2 WA	C. 1a REGULAR UNLEADED 3 DIESEL 6 AVIATION GAS 1b PREMIUM UNLEADED 4 GASAHOL 7 METHANOL 1c MIDGRADE UNLEADED 5 JET FUEL 8 M85 ASTE 2 LEADED 99 OTHER (DESCRIBE IN STEM D. BELOW)				
D. IF (A.1) IS NOT MARKED, ENTER NAME OF SUBSTANCE STORED					
III. TANK CONSTRUCTION MARK ONE ITEM ONLY IN BOXES A, B, AND C, A	ND ALL THAT APPLIES IN BOX D AND E				
A. TYPE OF 1 DOUBLE WALL 3 SINGLE WALL WITH E SYSTEM 2 SINGLE WALL 4 SINGLE WALL IN A VA					
B. TANK 1 BARE STEEL 2 STAINLESS STEEL MATERIAL 5 CONCRETE 6 POLYVINYL CHLORIDE (Primary Tank) 9 BRONZE 10 GALVANIZED STEEL	3 FIBERGLASS 4 STEEL CLAD W/FIBERGLASS REINFORCED PLASTIC 7 ALUMINUM 8 100% METHANOL COMPATIBLE W/FRP 95 UNKNOWN 99 OTHER				
C. INTERIOR 1 RUBBER LINED 2 ALKYD LINING LINING OR 5 GLASS LINING 6 UNLINED COATING IS LINING MATERIAL COMPATIBLE WITH 100% METHANOL?	3 EPOXY LINING 4 PHENOLIC LINING 95 UNKNOWN 99 OTHER YES NO				
D. EXTERIOR CORROSION PROTECTION 1 POLYETHYLENE WRAP 2 COATING 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. DAOP TUBE YES NO STRIKER PL					
IV. PIPING INFORMATION CIRCLE A IF ABOVE GROUND OR U IF UNDER					
A. SYSTEM TYPE A/U 1 SUCTION A U 2 PRESSURE B. 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 CORROSION A U 5 ALUMINUM A U 6 CONCRETE PROTECTION A U 9 GALVANIZED STEEL A U 10 CATHODIC PROTECT	A U 3 POLYVINYE CHLORIDE (PVC) A U 4 FIBERGLASS PIPE A U 7 STEEL W/ COATING A U 8 100% METHANOL COMPATIBLE W/FRP CTION A U 95 UNKNOWN A U 99 OTHER IS MITERSTITUL 4 BLECTRONIC LINE 5 UTOMATIC PURP				
V. TANK LEAK DETECTION					
VI. TANK CLOSURE INFORMATION (PERMANENT CLOSURE IN-PLACE)					
1. ESTIMATED DATE LAST USED (MO/DAYYR) 2. ESTIMATED QUANTITY OF SUBSTANCE REMAINING					
TANK OWNER'S NAME (PRINTED & SIGNATURE) DOVID GOT RIDGE	AND TO THE BEST OF MY KNOWLEDGE, IS TRUE AND CORRECT				
LOCAL AGENCY USE ONLY THE STATE LD. NUMBER IS COMPOSED OF THE FOUR NUMBERS BELOW COUNTY # JURISDICTION # FACILITY # TANK #					
STATE I.D.# COUNTY # JURISDICTION #	00062511 0000001				
PERMIT NUMBER PERMIT APPROVED BY/DATE	PERMIT EXPIRATION DATE				



LIGHT AIR & SPACE CONSTRUCTION AND ENVIRONMENTAL SERVICES COMPANY

AND ENVIRONMENTAL
POBOX 8503
SAN POBE CA 95168 - 8303
ISON 979 - 9641
IAM 979 - 9621 FAX
ISON 932 - 7325 PAGER
PAVE OUTHRIDGE

License Number 445403
R.E.A. Number 04072
H.G. 246 CEG 1252
Gen. and Engr. Contractor
Hazardous Substance
Removal Contractor
Site Environmental Assessments
Certified Engineering Geologist
Registered Hydrogeologist