7

1201 East
3rd Ave

RONK

000002

Harding Lawson Associates

January 5, 1990

5502,086.08

MUNICIPALITY OF ANCHORAGE
3630 East Tudor Road
Anchorage, Alaska 99507

Attention: Mr. Mike Krueger

RECEIVED
JAN 11 1990
ANCHORAGE/WESTERN
DISTRICT OFFICE

Gentlemen:

Assessment Report
Removal Of Four Underground Storage Tanks
1201 East Third Avenue
Anchorage, Alaska

This report presents the findings of an assessment conducted during the removal of four underground storage tanks (USTs) at 1201 East Third Avenue, Anchorage, Alaska. This UST removal and assessment was conducted for the Municipality of Anchorage (MOA). The purpose of the investigation was to document the removal of the four USTs and evaluate the potential for contamination of the subsurface soils near the USTs.

The USTs consist of one 3,000-gallon diesel tank, one 1,500-gallon gasoline tank, one 2,000-gallon gasoline tank, and one 1,000-gallon waste oil tank. The USTs were removed by Statewide Petroleum Service (SPS) under the supervision of Harding Lawson Associates (HLA). A HLA field engineer was present throughout the excavation activities to observe the condition of the tanks, perform field screening, and collect soil samples for chemical analysis. In addition, a concrete island pad was demolished and disposed of as backfill on-site.

TANK REMOVAL AND SOIL SAMPLING PROCEDURE

The Century Model 128 OVA, flame ionization detector, was used as a screening device to indicate the presence or absence of volatile organic compounds in the soil immediately surrounding the tanks and in the sides and bottom of the excavation. Composite soil samples were collected periodically from the backhoe bucket and from the soil stockpile and field screened using the OVA. In addition, soil samples for field screening were collected from the excavation walls and floor after the UST had been removed.

Field screening consisted of using the OVA to indicate the presence of volatile organic compounds (VOCs) in the headspace of soil samples collected from the excavation. Soil samples were placed in jars, the soil covered with distilled water, and the jar covered with foil and a lid. The sample was allowed to equilibrate for 15 minutes, then the headspace was analyzed with the OVA.

Four confirmatory samples were collected from the excavation at locations chosen by the field engineer. The soil sample was packed tightly to completely fill a clean glass jar, and the lid was put on tightly. The samples were placed in a cool ice chest, chain-of-custody forms completed, and all of the samples taken to Northern Testing Laboratories (NTL) for chemical analyses. The soil samples were analyzed for total petroleum hydrocarbons (TPH) and aromatic volatile organics using EPA Methods 418.1 and 8020, respectively. Copies of the sample analysis reports obtained from NTL are attached to this report.

DIESEL TANK REMOVAL

The 3,000-gallon diesel tank was removed on November 6, 1989. The tank appeared to be in good condition on removal. The soil was primarily gravelly sand; no discoloration or visible evidence of contamination was observed to a depth of 12 feet below ground surface. Ground water was not encountered in the excavation.

Plate 1 shows the locations and results of the field screening samples collected from the excavation sidewalls and bottom. No VOCs were detected in the headspace of the field screening samples. Four confirmatory soil samples were collected for laboratory analyses. Based on the results of the field screening, the excavation was backfilled with the excavated soil and the broken up remains of the concrete island. The tank was cut up on-site and transported to a scrap metal yard.

Table 1 presents the results of the laboratory analyses. Plate 2 presents the locations of the confirmatory soil samples.

Table 1. Diesel Tank Excavation Analytical Results

Sample	TPH (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylene (mg/kg)
D1-1	420	0.01	0.03	<0.01	<0.04
D1-2	20	<0.01	<0.01	<0.01	<0.04
D1-3	<20	0.01	0.04	<0.01	<0.04
D1-4	68	<0.01	<0.01	<0.01	<0.04

The results of the laboratory analyses indicate VOCs and petroleum hydrocarbons are present in the soil surrounding the excavation. The results show a TPH concentration of 420 milligrams per kilogram (mg/kg) in the

soil beneath the diesel tank (Sample D1). The TPH concentrations in the sidewalls ranged from 68 to less than the detection level of 20 mg/kg. Benzene concentrations in the soil were at or below the 0.01 mg/kg detection level.

GASOLINE TANKS EXCAVATION

The 1,000- and 1,500-gallon gasoline tanks were removed on November 6, 1989. Both tanks appeared to be in good condition upon removal. The depth of excavation was approximately 8 feet. Sandy gravel was encountered to a depth of 5 feet; below 5 feet, the soil became clay. Ground water was encountered at the bottom of the excavation.

Soil field screening indicated the presence of VOCs in the excavated soil. VOC concentrations in soil headspace (Plate 1) ranged from 200 ppm to greater than 1,000 ppm. Four soil samples were obtained from the excavation sidewalls and bottom and analyzed for VOCs and TPH. In addition, a sample of the water encountered during the excavation was collected and analyzed for purgeable aromatic hydrocarbons by EPA Method 602. Analytical results (Table 2) confirm that petroleum hydrocarbons are present in the soil and ground water in the vicinity of the tanks.

Table 2. Gasoline Tank Excavation Analytical Results

Sample	TPH (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylene (mg/kg)
G1-1	5,980	370	2,500	1,000	4,500
G1-2	2,660	62	1,100	440	2,500
G1-3	364	11	360	170	1,200
G1-4	3,770	8.2	37	8.6	72
GSTP-1	4,290	55	590	98	1,100
WAT-1	NA	51,000*	48,000*	2,100*	19,000*

NA = not analyzed
* = water sample, results in μg/l

TPH and benzene concentrations in the soil samples ranged from 364 to 5,980 mg/kg and 8.2 to 370 mg/kg, respectively. Benzene was present in the water sample at a concentration of 51,000 micrograms per liter (μg/l).

The source of the leak appeared to be from loose joints in the fuel piping system between the tanks and the concrete pump island. The excavation was stopped before completely removing all contaminated soil. The volume of soil excavated was limited by the shallow water table which was encountered at a depth of approximately 8 feet, and the building foundation immediately north of the excavation. Contaminated soil was stockpiled on-site on petroleum-resistant plastic and covered.

A composite sample (Sample GSTP-1) from the stockpiled soil was obtained for laboratory analyses to assess whether the contaminated soil met criteria for disposal at the Anchorage Regional Landfill (ARL). The soil does not meet ARL disposal guidelines as the TPH concentration is greater than 1,000 mg/kg and the total benzene, toluene, ethylbenzene, and xylenes (BTEX) are greater than 100 mg/kg.

WASTE OIL TANK REMOVAL

The 1,000-gallon waste-oil tank was removed on November 7, 1989. This excavation was limited by the proximity of the building foundation and the water table at a depth of approximately 8 feet. The tank appeared in good condition; however, the soil in the area of the fill spout was heavily stained. The field screening results from the excavated soil indicated that elevated concentrations of VOCs were present. Laboratory samples were obtained from the excavation sidewalls and floor. The TPH concentrations range from 343 to 15,800 mg/kg, and the benzene concentration ranges from 0.2 to 3.5 mg/kg. Table 3 presents the results of the laboratory analyses. The soil samples confirm the presence of petroleum hydrocarbons in the soil.

Table 3. Waste Oil Tank Excavation Analytical Results

Sample	TPH (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylene (mg/kg)
WT-1	4,020	3.5	12	18	150
WT-2	343	0.3	1.2	0.4	2.6
WT-3	15,800	3.0	28	66	380
WT-4	2,820	0.2	1.7	3.4	19
WTSTP-1	3,240	0.3	4.6	1.0	72

The soil from the waste-oil tank was stockpiled on-site in a separate location from the gasoline tank soil on petroleum-resistant plastic and covered. A sample (WTSTP-1) of this soil was obtained for laboratory analyses to assess whether the soil meets the guidelines for disposal at the ARL. The soil does not meet the established guidelines as the TPH concentration of the stockpiled soil is greater than 1,000 mg/kg. The waste oil tank was removed from the site and disposed by Alaska Pollution Control.

The gasoline tanks excavation and the waste-oil tank excavation were backfilled by lining the excavation with petroleum-resistant plastic and placing clean, imported backfill in the excavations.

CONCRETE ISLAND REMOVAL

A concrete island where gasoline was previously dispensed was demolished on November 6, 1989. Two soil-screening samples were obtained from a depth of 6 inches in the area which underlies the concrete island. The results of the field screening indicate the presence of petroleum hydrocarbons in the soil (Plate 1). No soil samples were submitted for analysis from this area.

SUMMARY AND CONCLUSIONS

No state or federal regulation exists to date regarding cleanup levels for TPH and BTEX in soil. However in the past, the Alaska Department of Environmental Conservation (ADEC) has suggested using the California LUFT Manual as a guideline. The remediation levels recommended by the LUFT Manual (assuming the source of contamination is diesel) are 100 mg/kg TPH, 0.3 mg/kg benzene, 0.3 mg/kg toluene, 0.3 mg/kg ethylbenzene, and 0.3 mg/kg xylenes.

Assuming the source of contamination is gasoline, the LUFT Manual recommended remediation levels are 10 mg/kg TPH, 0.3 mg/kg benzene, 0.3 mg/kg toluene, 0.3 mg/kg ethylbenzene, and 0.3 mg/kg xylenes. Because the waste oil tank was close to the two gasoline tanks, and field observations indicated that the source of contamination in the soil around the waste oil tank was from the gasoline tanks, the soil near the waste oil tank should be treated as if the source of contamination is gasoline.

<u>Diesel Tank Excavation</u>

TPH was detected in Sample D1-1 from the diesel tank excavation at 420 mg/kg, which is greater than the 100 mg/kg recommended by the LUFT Manual. The soil samples from the diesel tank excavation all had individual

compound concentrations of BTEX less than 0.3 mg/kg. Table 4 presents a comparison of the analytical results with the LUFT Manual remediation recommendations.

Table 4. Diesel Tank Excavation Analytical Results Versus LUFT Manual Recommendations

Sample	TPH (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylene (mg/kg)
D1-1	420	0.01	0.03	<0.01	<0.04
D1-2	20	<0.01	<0.01	<0.01	<0.04
D1-3	<20	0.01	0.04	<0.01	<0.04
D1-4	68	<0.01	<0.01	<0.01	<0.04
LUFT Manual	100	0.3	0.3	0.3	0.3

Gasoline and Waste Oil Tanks Excavation

The gasoline tanks excavation samples all exceeded the 0.3 mg/kg concentration level for individual compound concentrations of BTEX. The samples from the waste oil tank excavation equaled or exceeded the 0.3 mg/kg concentration, with the exception of the benzene concentration of Sample WT-4. TPH in the samples from the gasoline and waste oil tanks all exceed the LUFT Manual recommendations of 10 mg/kg. Table 5 compares the analytical results with the LUFT Manual recommendations.

Table 5. Gasoline Tank Excavation Analytical Results Versus LUFT Manual Recommendations

Sample	TPH (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylene (mg/kg)
G1-1	5,980	370	2,500	1,000	4,500
G1-2	2,660	62	1,100	440	2,500
G1-3	364	11	360	170	1,200
G1-4	3,770	8.2	37	8.6	72
LUFT Manual	10	0.3	0.3	0.3	0.3

The concentrations of benzene, toluene, ethylbenzene, and xylenes in the ground-water sample from the gasoline tanks excavation exceed the established or proposed federal and state drinking water standards. The maximum contaminant levels (MCL) for benzene is 5 μg/l, while the proposed maximum contaminant level goals (PMCLG) for toluene, ethylbenzene, and xylene are 2,000 μg/l, 700 μg/l, and 10,000 μg/l, respectively.* Table 6 compares the water sample analytical results versus MCLs and PMCLGs.

Table 6. Gasoline Tank Excavation Water Sample Versus MCLs and PMCLGs

Sample	Benzene (μg/l)	Toluene (μg/l)	Ethylbenzene (μg/l)	Xylene (μg/l)
WAT-1	51,000	48,000	2,100	19,000
MCL	5	NE	NE	NE
PMCLG	--	2,000	700	19,000

NE = not established

Contaminated Soil Stockpiles

The gasoline tank excavation stockpiled soil and the waste oil tank-excavation stockpiled soil does not meet the criterion for disposal at ARL. Table 7 summarizes the analytical results from the excavated soil stockpiles and the ARL disposal criterion.

RECOMMENDATIONS

Further subsurface investigation is recommended in order to assess the extent of petroleum hydrocarbon in the soil and ground water at the site. An investigative plan for assessing the ground-water contamination and soil contamination at the site will be prepared at your request. This site assessment report was prepared for the MOA to provide supporting information for closure of the USTs in accordance with U.S. EPA UST Regulations 40 CPR 280.72. These regulations require ADEC be notified if

* 40 CFR Parts 141, 142, and 143, May 22, 1989.

Table 7. Summary of Storage Tank Stockpiled Soil Analytical Results

Analyte (EPA Method)	GTSTP-1 (mg/kg)	WTSTP-2 (mg/kg)	ARL Criterion (mg/kg)
TPH (418.1)	4,290	3,240	<1,000
Total BTEX (8020)	1,843	77.9	<100
Lead (7421)	NA	40.7	<1,000
Arsenic (7061)	NA	32.8	<400
Chromium (7191)	NA	28.7	<500
Halogens (8010)	NA	ND (<0.1)	<100
PCBs (8080)	NA	ND (<0.1)	<1

NA = not analyzed
ND = not detected; detection limit in parentheses

contaminated soil, contaminated ground water, or free product is discovered. Because petroleum hydrocarbons were found in the soil and ground water, we recommend ADEC be notified and the results of this investigation be provided to them.

Very truly yours,

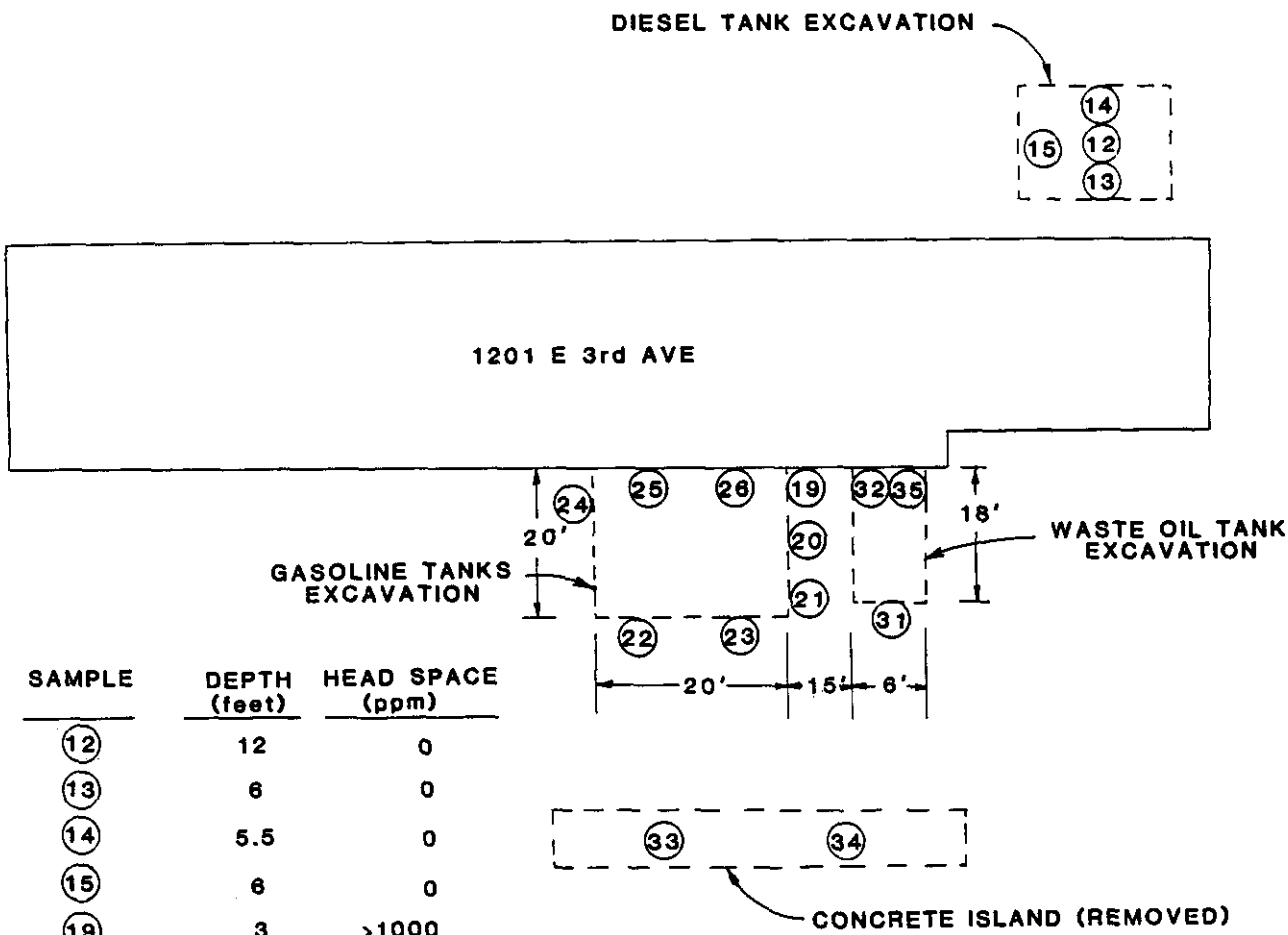
HARDING LAWSON ASSOCIATES

J. Robert Allen
Engineer

Steven A. Johnson
Director of Environmental Services

JRA/SAJ/MAB/sv/0227R

Attachments: - Plate 1 - Headspace Field Screening Results
- Plate 2 - Soil TPH Concentrations in Excavations
- Northern Testing Laboratory Analysis Reports



SAMPLE	DEPTH (feet)	HEAD SPACE (ppm)
12	12	0
13	6	0
14	5.5	0
15	6	0
19	3	>1000
20	2	>1000
21	3	>1000
22	4	200
23	3	500
24	4	>1000
25	4.5	500
26	4.5	400
31	3	600
32	3	20
33	0.5	110
34	0.5	200
35	3.5	40

NOT TO SCALE

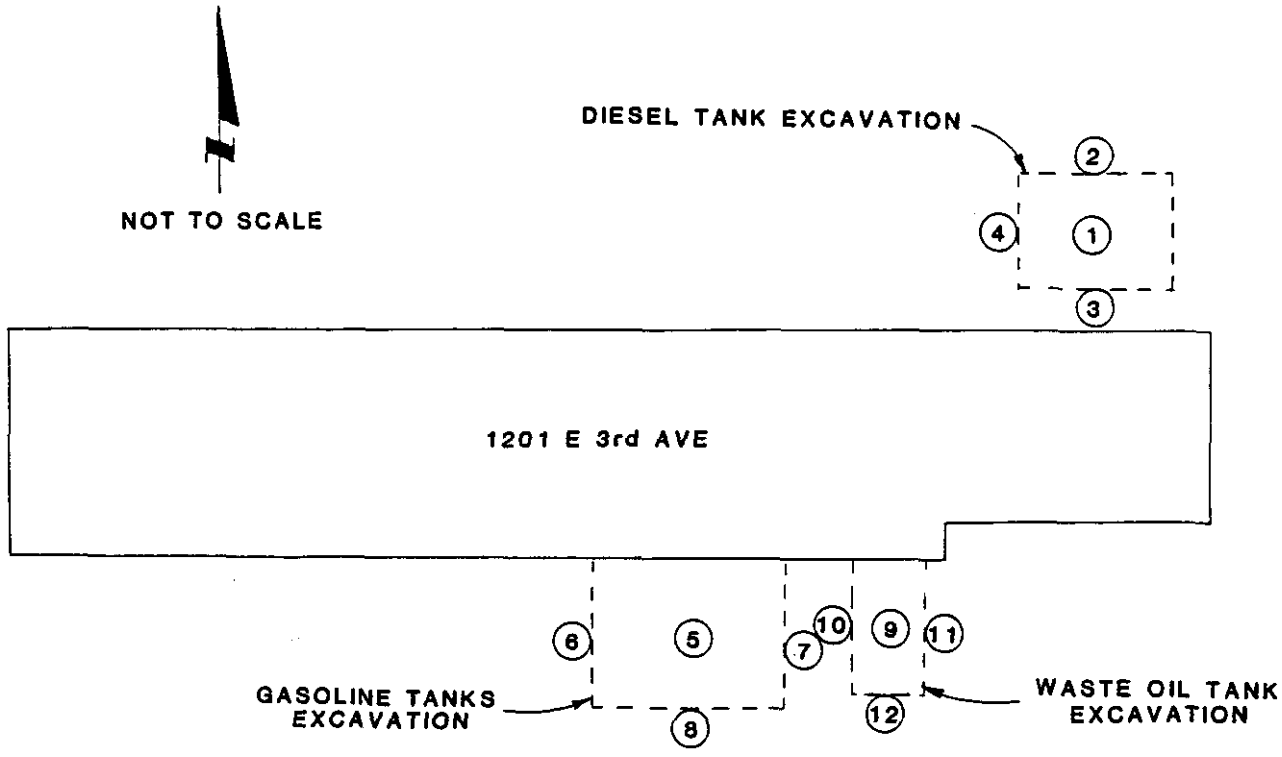
Harding Lawson Associates
Engineering and
Environmental Services

Head Space Field Screening Results

1201 E 3rd Avenue UST Removal
Anchorage, Alaska

PLATE 1

DRAWN	JOB NUMBER	APPROVED	DATE	REVISED	DATE
JP	5502,086.08	JRA	12/89		



SAMPLE		DEPTH (feet)	TPH (mg/kg)	BENZENE (mg/kg)	TOLUENE (mg/kg)	ETHYLBENZENE (mg/kg)	XYLENE (mg/kg)
1	D1-1	12	420	0.01	0.03	<0.01	<0.04
2	D1-2	6	20	<0.01	<0.01	<0.01	<0.04
3	D1-3	5.5	<20	0.01	0.04	<0.01	<0.04
4	D1-4	6	68	<0.01	<0.01	<0.01	<0.04
5	G1-1	8	5980	370	2500	1000	4500
6	G1-2	4	2660	62	1100	440	2500
7	G1-3	3.5	364	11	360	170	1200
8	G1-4	4	3770	8.2	37	8.6	72
9	WT-1	7	4020	3.5	12	18	150
10	WT-2	4	343	0.3	1.2	0.4	2.6
11	WT-3	4	15,800	3.0	28	66	380
12	WT-4	3.5	2820	0.2	1.7	3.4	19

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Engineering and
Environmental Services

Soil TPH Concentrations in Excavations

1201 E 3rd Avenue UST Removal
Anchorage, Alaska

PLATE **2**

DRAWN	JOB NUMBER	APPROVED	DATE	REVISED	DATE
JP	5502,086.08	JRA	12/89		

NORTHERN TESTING LABORATORY
ANALYSIS REPORTS

NORTHERN TESTING LABORATORIES, INC.

600 UNIVERSITY PLAZA WEST, SUITE A — FAIRBANKS, ALASKA 99709 — 907-479-3115
2505 FAIRBANKS STREET — ANCHORAGE, ALASKA 99503 — 907-277-8378

Harding Lawson Associates
601 East 57th Place
Anchorage, AK. 99518

Attn: Bob Allen

Date Arrived: 11/08/89
Time Arrived: 0930
Date Sampled: 11/07/89
Time Sampled: Various
Date Completed: 11/27/89

Source: See Below
Sample ID#: A110889-1 through 14

NTL ID#	Client ID	mg/dry kg	% Solids %
Total Petroleum Hydrocarbons: EPA Method 418.1			
A110889-1	G1-1	5,980	85.0
A110889-2	G1-2	2,660	93.0
A110889-3	G1-3	364	90.2
A110889-4	G1-4	3,770	84.8
A110889-5	GSTP-1	4,290	93.5
A110889-6	WT-1	4,020	86.6
A110889-7	WT-2	343	93.7
A110889-8	WT-3	15,800	92.7
A110889-9	WT-4	2,820	91.2
A110889-10	WTSTP-1	3,240	88.4
A110889-11	D1-1	420	87.4
A110889-12	D1-2	20	94.1
A110889-13	D1-3	<20	91.5
A110889-14	D1-4	68	94.3

Reported By: Date: 12/13/89

Francois Rodigari, Anchorage Operations Manager

NORTHERN TESTING LABORATORIES, INC.

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2505 FAIRBANKS STREET — ANCHORAGE, ALASKA 99503 — 907-277-8378

Harding Lawson Associates
601 East 57th Place
Anchorage, AK. 99518

Attn: Bob Allen

Date Arrived: 11/08/89
Time Arrived: 0930
Date Sampled: 11/07/89
Time Sampled: Various
Date Completed: 11/28/89

Source: See Below
Sample ID#: A110889-1,2,3,4,5

Parameter	Unit	A110889-1 G1-1	A110889-2 G1-2	A110889-3 G1-3	A110889-4 G1-4	A110889-5 GSTP-1
Aromatic Volatile Organics: EPA Method 8020						
Benzene	mg/dry kg	370	62/93	11	8.2	55
Chlorobenzene	mg/dry kg	<10	<2.0	<2.0	<0.5	<2.0
1,2-Dichlorobenzene	mg/dry kg	<20	<4.0	<4.0	<1.0	<4.0
1,3-Dichlorobenzene	mg/dry kg	<20	<4.0	<4.0	<1.0	<4.0
1,4-Dichlorobenzene	mg/dry kg	<20	<4.0	<4.0	<1.0	<4.0
Toluene	mg/dry kg	2500	1100/1100	360	37	590
Ethylbenzene	mg/dry kg	1000	440/640	170	8.6	98
Xylenes	mg/dry kg	4500	2500/2200	1200	72	1100
% Solids	%	85.0	93.0	90.2	84.8	93.5

Reported By: Date: 12/13/89

Francois Rodigari, Anchorage Operations Manager

NORTHERN TESTING LABORATORIES, INC.

600 UNIVERSITY PLAZA WEST, SUITE A — FAIRBANKS, ALASKA 99709 — 907-479-3115
2505 FAIRBANKS STREET — ANCHORAGE, ALASKA 99503 — 907-277-8378

Harding Lawson Associates
601 East 57th Place
Anchorage, AK. 99518

Attn: Bob Allen

Date Arrived: 11/08/89
Time Arrived: 0930
Date Sampled: 11/07/89
Time Sampled: Various
Date Completed: 11/27/89

Source: See Below
Sample ID#: A110889-6,7,8,9,10

Parameter	Unit	A110889-6 WT-1	A110889-7 WT-2	A110889-8 WT-3	A110889-9 WT-4	A110889-10 WTSTP-1	Standard Detection Limits
Aromatic Volatile Organics: EPA Method 8020							
Benzene	mg/dry kg	3.5	0.3	3.0	0.2	0.3	0.01
Chlorobenzene	mg/dry kg	<1.0	<0.1	<0.5	<0.1	<0.1	0.01
1,2-Dichlorobenzene	mg/dry kg	<2.0	<0.2	<1.0	<0.2	<0.2	0.02
1,3-Dichlorobenzene	mg/dry kg	<2.0	<0.2	<1.0	<0.2	<0.2	0.02
1,4-Dichlorobenzene	mg/dry kg	<2.0	<0.2	<1.0	<0.2	<0.2	0.02
Toluene	mg/dry kg	12	1.2	28	1.7	4.6	0.01
Ethylbenzene	mg/dry kg	18	0.4	66	3.4	1.0	0.01
Xylenes	mg/dry kg	150	2.6	380	19	72	0.04
% Solids	%	86.6	93.7	92.7	91.2	88.4	-

Reported By: Date: 12/13/89

Francois Rodigari, Anchorage Operations Manager

NORTHERN TESTING LABORATORIES, INC.

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FAIRBANKS, ALASKA 99709
ANCHORAGE, ALASKA 99503
907-479-3115
907-277-8378

Harding Lawson Associates
601 East 57th Place
Anchorage, AK. 99518

Attn: Bob Allen

Date Arrived: 11/08/89
Time Arrived: 0930
Date Sampled: 11/07/89
Time Sampled: Various
Date Completed: 11/21/89

Source: See Below
Sample ID#: A110889-11,12,13,14

Parameter	Unit	A110889-11 D1-1	A110889-12 D1-2	A110889-13 D1-3	A110889-14 D1-4	Standard Detection Limits
Aromatic Volatile Organics: EPA Method 8020						
Benzene	mg/dry kg	0.01	<DL	0.01	<DL/<DL	0.01
Chlorobenzene	mg/dry kg	<DL	<DL	<DL	<DL/<DL	0.01
1,2-Dichlorobenzene	mg/dry kg	<DL	<DL	<DL	<DL/<DL	0.02
1,3-Dichlorobenzene	mg/dry kg	<DL	<DL	<DL	<DL/<DL	0.02
1,4-Dichlorobenzene	mg/dry kg	<DL	<DL	<DL	<DL/<DL	0.02
Toluene	mg/dry kg	0.03	<DL	0.04	<DL/<DL	0.01
Ethylbenzene	mg/dry kg	<DL	<DL	<DL	<DL/<DL	0.01
Xylenes	mg/dry kg	<DL	<DL	<DL	<DL/<DL	0.04
% Solids	%	87.4	94.1	91.5	92.3	-

Reported By: Date: 12/13/89

Francois Rodigari, Anchorage Operations Manager

NORTHERN TESTING LABORATORIES, INC.

600 UNIVERSITY PLAZA WEST, SUITE A FAIRBANKS, ALASKA 99709 907-479-3115
2505 FAIRBANKS STREET ANCHORAGE, ALASKA 99503 907-277-8378

Harding Lawson Associates
601 East 57th Place
Anchorage, AK. 99518

Attn: Bob Allen

Date Arrived: 11/08/89
Time Arrived: 0930
Date Sampled: 11/07/89
Time Sampled: Various
Date Completed: 11/27/89

Source: See Below
Sample ID#: A110889-10

Parameter	Units	A110889-10 WTSTP-1	Standard Detection Limits
Halogenated Volatile Organics: EPA Method 8010			
Bromodichloromethane	mg/dry kg	<DL	0.2
Bromoform	mg/dry kg	<DL	0.6
Bromomethane	mg/dry kg	<DL	1.2
Carbon tetrachloride	mg/dry kg	<DL	0.2
Chlorobenzene	mg/dry kg	<DL	0.1
Chloroethane	mg/dry kg	<DL	1.2
2-Chloroethylvinyl ether	mg/dry kg	<DL	0.6
Chloroform	mg/dry kg	<DL	0.1
Chloromethane	mg/dry kg	<DL	3.0
Dibromochloromethane	mg/dry kg	<DL	0.3
1,2-Dichlorobenzene	mg/dry kg	<DL	0.1
1,3-Dichlorobenzene	mg/dry kg	<DL	0.1
1,4-Dichlorobenzene	mg/dry kg	<DL	0.1
1,1-Dichloroethane	mg/dry kg	<DL	0.2
1,2-Dichloroethane	mg/dry kg	<DL	0.1
1,1-Dichloroethene	mg/dry kg	<DL	0.3
trans-1,2-Dichloroethene	mg/dry kg	<DL	0.1
1,2-Dichloropropane	mg/dry kg	<DL	0.1
cis-1,3-Dichloropropene	mg/dry kg	<DL	0.1
trans-1,3-Dichloropropene	mg/dry kg	<DL	0.1
Methylene chloride	mg/dry kg	<DL	0.6
1,1,2,2-Tetrachloroethane	mg/dry kg	<DL	0.1
Tetrachloroethene	mg/dry kg	<DL	0.1
1,1,1-Trichloroethane	mg/dry kg	<DL	0.1
1,1,2-Trichloroethane	mg/dry kg	<DL	0.1
Trichloroethene	mg/dry kg	<DL	0.1
Trichlorofluoromethane	mg/dry kg	<DL	0.3
Vinyl chloride	mg/dry kg	<DL	3.0
% Solids	%	88.4	-

Reported By: Date: 12/13/89

Francois Rodigari, Anchorage Operations Manager

NORTHERN TESTING LABORATORIES, INC.

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2505 FAIRBANKS STREET — ANCHORAGE, ALASKA 99503 — 907-277-8378

Harding Lawson Associates
201 East 57th Place, Suite 200
Anchorage, AK. 99518

Attn: Bob Allen

Date Arrived: 11/08/89
Time Arrived: 0930
Date Sampled: 11/07/89
Time Sampled: Various
Date Completed: 11/30/89

Source: See Below
Sample ID#: A110889-10

Parameter	Units	A110889-10 WTSTP-1	Standard Detection Limit
ORGANOCHLORINE PESTICIDES AND PCBs: EPA Method 8080			
Aroclor 1016	mg/dry kg	<DL	0.1
Aroclor 1221	mg/dry kg	<DL	0.1
Aroclor 1232	mg/dry kg	<DL	0.1
Aroclor 1242	mg/dry kg	<DL	0.1
Aroclor 1248	mg/dry kg	<DL	0.1
Aroclor 1254	mg/dry kg	<DL	0.1
Aroclor 1260	mg/dry kg	<DL	0.1
% Solids	%	88.4	-

Reported By: Date: 12/13/89

Francois Rodigari, Anchorage Operations Manager

NORTHERN TESTING LABORATORIES, INC.

800 UNIVERSITY PLAZA WEST, SUITE A FAIRBANKS, ALASKA 99709 907-479-3115
2505 FAIRBANKS STREET ANCHORAGE, ALASKA 99503 907-277-8378

Harding Lawson Associates
201 East 57th Place, Suite 200
Anchorage, AK. 99518

Attn: Bob Alllen

Date Arrived: 11/08/89
Time Arrived: 0930
Date Sampled: 11/07/89
Time Sampled: Various
Date Completed: 12/13/89

Source: See Below
Sample ID#: A110889-10

Parameter	Unit	A110889-10 WTSTP-1	Std. Dev.
Total Arsenic	mg/dry kg	32.8	0.9
Total Chromium	mg/dry kg	28.7	0.6
Total Lead	mg/dry kg	40.7	1.0
% Solids	%	88.4	-

Reported By: Date: 12/13/89

Francois Rodigari, Anchorage Operations Manager

NORTHERN TESTING LABORATORIES, INC.

600 UNIVERSITY PLAZA WEST, SUITE A FAIRBANKS, ALASKA 99709 907-479-3115
2505 FAIRBANKS STREET ANCHORAGE, ALASKA 99503 907-277-8378

Harding Lawson Associates
201 East 57th Place, Suite 200
Anchorage, AK. 99518

Attn: Bob Allen

Date Arrived: 11/08/89
Time Arrived: 0930
Date Sampled: 11/07/89
Time Sampled: Various
Date Completed: 12/13/89

Source: See Below
Sample ID#: A110889-15

Parameter	Units	A110889-15 WAT-1	Standard Detection Limit
Purgeable Aromatics: EPA Method 602			
Benzene	ug/l	51,000	0.2
Chlorobenzene	ug/l	<100	0.2
1,2-Dichlorobenzene	ug/l	<100	0.2
1,3-Dichlorobenzene	ug/l	<100	0.2
1,4-Dichlorobenzene	ug/l	<100	0.2
Toluene	ug/l	48,000	0.2
Ethylbenzene	ug/l	2,100	0.2
Xylenes	ug/l	19,000	0.6

Reported By: Date: 12/13/89

Francois Rodigari, Anchorage Operations Manager

NORTHERN TESTING LABORATORIES, INC.
600 UNIVERSITY PLAZA WEST, SUITE A FAIRBANKS, ALASKA 99709 907-479-3115
2505 FAIRBANKS STREET ANCHORAGE, ALASKA 99503 907-277-8378

Quality Control Report

Client: Harding Lawson
ID#: A110889-1 through 15

Listed below are quality control assurance reference samples with a known concentration prior to analysis. The acceptable limits represent a 95% confidence interval established by the Environmental Protection Agency or by our laboratory through repetitive analyses of the reference sample. The reference samples indicated below were analyzed at the same time as your sample, ensuring the accuracy of your results.

Sample #	Parameter	Unit	Result	Acceptable Limit
EPA 379-1	Oil & Grease	mg/l	18.4	16.6 - 23.4
NTL CCC5	Benzene	ug/l	7.7	6.5 - 9.8
	Toluene	ug/l	7.5	6.2 - 9.3
	Ethylbenzene	ug/l	7.1	6.3 - 9.5
	p,m-Xylene	ug/l	12.2	9.0 - 13.6
	o-Xylene	ug/l	6.4	5.4 - 8.1
	Chloroform	ug/l	8.1	6.2 - 9.4
	1,1,1-Trichloroethane	ug/l	7.2	5.7 - 8.5
	Trichloroethene	ug/l	12.2	9.4 - 14.0
	Bromodichloromethane	ug/l	9.6	7.1 - 10.7
	Tetrachloroethene	ug/l	8.0	6.4 - 9.6
	Dibromochloromethane	ug/l	9.9	7.5 - 11.3
	Chlorobenzene	ug/l	9.1	7.2 - 10.8
	Bromoform	ug/l	12.3	9.3 - 13.9
	1,3-Dichlorobenzene	ug/l	10.4	8.4 - 12.6
	1,4-Dichlorobenzene	ug/l	10.6	7.8 - 11.6
	1,2-Dichlorobenzene	ug/l	11.1	8.6 - 12.8
ERA-3	Arsenic	mg/l	1.02	0.85 - 1.15
	Chromium	mg/l	1.09	0.85 - 1.15
	Lead	mg/l	0.97	0.85 - 1.15

Reported By: Date: 12/13/89

Francois Rodigari, Anchorage Operations Manager

STATE OF ALASKA
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Oil and Hazardous Materials Incident Report 000022

Person Reporting Spill: Mike Krueger
Title: MOA / ML & P
Address: 3630 East Tudor Road
Date Spill Reported Time: 1-11-90
Date Spill Occurred Time:

Notifications
- USCG — Date Time — Other
- USF & WS — Date Time — Other
- State
- Environmental Protection — Date Time — Other

Weather at Site:

Disposal:

Comments:

Spill Number: 90211012

Responsible Party: Municipal Light & Power
Phone:
Address: 1201 East Third Avenue

Cause: UST removal revelled contamination
2 gasoline tanks (1000, & 1500); 1 waste oil (1,000); 1 diesel (3,000 gallon)

Location of Incident: 1201 East Third Avenue

Product Type: Gasoline, diesel; waste oil
Quantity Spilled: unkn
Quantity Recovered: unkn

Personal Injuries Damage or Area Affected:

Containment Cleanup and Restoration Actions: assessment & remedial actions ongoing

Enforcement Actions:

Enforcement Dates:
Total Cost:

Prepared By: [signature]
Date: 2-7-90

Manufacturer of Hazardous Material UN / ID Number:
Prepared by:
Date:

pubic file

DEPARTMENT OF ENVIRONMENTAL CONSERVATION

L69.07

Oil and Hazardous Materials Incident pc U00023

Person Reporting Spill: Mike Krueger

Title: MOA / ML&P

Address: 3630 East Tudor Road

Date Spill Reported Time: 1-11-90

Date Spill Occurred Time:

Notifications
- USCG — Date Time — Other
- USF & WS — Date Time — USF&WS
- State
- Environmentalist — Date Time — Other

Weather at Site

Discussion

Comments

Spill Number: 9 0 2 1 1 0 1 1 2

Responsible Party: Municipal Light & Power

Address: 1201 East Third Avenue

Cause: UST removal revealed contamination

2 gasoline tanks (1000, & 1500); 1 waste oil (1,000); 1 diesel (3,000 gallon)

Location of Incident: 1201 East Third Avenue

Product Type: Gasoline, diesel; waste oil

Quantity Spilled: unkn

Quantity Recovered: unkn

Personal Injuries Damage or Area Affected

Containment Cleanup and Restoration Actions: assessment & remedial actions ongoing

Enforcement Actions

Enforcement Dates

Total Cost

Prepared By: J. Roberts

Date: 2-7-90

Manufacturer of Hazardous Material or UN ID Number

Prepared by

Date

ALASKA DEPARTMENT OF ENVIRONMENTAL CONSERVATION
☐437 E Street, Suite 200, Anchorage, AK 99501
☐P. O. Box 871064, Wasilla, AK 99687-9998
☐P. O. Box 1207, Soldotna, AK 99669
☐P. O. Box 1709, Valdez, AK 99686

DATE: 1/18 000024
BY: SMBailey
SUBJECT: M L&P 3rd. Ave 69.07

	MEMO	to: 3:47 pm
X	TELEPHONE CONVERSATION	with: Larry Frick
	SITE VISIT NOTES	location: present:
	MEETING NOTES	purpose: Followup
	REVIEW COMMENTS	

Not Hauled → Frozen there

Will be hauled after thaw.

LUST TRUST

SPILL STATUS REPORT

DATE: 2-7-90

LUST # 90-2-1-0-011-2

SPILL NAME: 1201 E 3rd MLP ID # _____

I. SITE FUND ELIGIBILITY 4 fuel storage tanks removed gas, diesel & waste oil contamination found Tanks: 3,000 gal diesel, 1000 & 1500 gal gas & 6,000 gal waste oil used By Utility Company Maintance yard.

II. PHASE I (SFY ___): $ _____

A. ESTIMATED LUST COST (COST TO DATE): $ _____

B. STATUS: A short paragraph explaining:

(Contract - Funds Used - Completion - Accomplishments)

Responsible Party

C. COST RECOVERY STATUS:

1. Unknown Owner/Operator (O/O) State Lead. ____

2. Known Responsible Party (RP) Lead. X

III. PHASE II (SFY ___)

A. ESTIMATED COST FOR NEXT PHASE: $ _____

B. FOR: (Explanation - Include Estimated Completion Date)

BY: J Roberts REGION: AWDC

000026

To Robert

Date 4/30

While You Were Out

Time 8:05 ~~a.m.~~ p.m.

M. Angelia Vassar

Of J Harting Lawson

Phone 563-8102
Area Code Number Extension

~~Message~~ ML + P Investigation

She will call Tues

~~Fax 561-4574~~

Need to approval letter

Change sampling

Signed P

- [x] Please Call
- [ ] URGENT
- [ ] Telephoned
- [ ] Wants to See You
- [ ] Will Call Again
- [ ] Returned Your Call

WilsonJones. 4/5/92 She will make changes.
Gave OK to do work, with changes. (RW)

We are looking for your response to the question: "Why have you designated each of your Lust Trust sites "LUST Trust fund eligible?" For each site where LUST Trust $ has been, or will be, used for State lead cleanups, please provide a written response incorporating each of the following questions.

1. Is the source of contamination unknown, or is the source a "regulated" tank ("regulated" as defined in the September 23, 1988, Federal Register, containing the technical requirements for underground storage tanks)?

2. Is the contaminant "petroleum" (definition of petroleum contained in the September 23, 1988 Federal Register).

3. Is the Owner of the leaking tank:

A. Unidentifiable?; OR

B. Identifiable and insolvent?; OR

C. Identifiable and solvent? If so, is there an imminent threat to human health and the environment?

You must be able to answer "yes" to each of the three questions above to designate a site "LUST Trust Fund eligible." If you have answered "no" to any of the three questions above for a particular site, please provide justification for why LUST Trust monies have been spent on that site.

We developed the form, below, to enable you to respond to our request for this information quickly and easily. Please feel free to copy this form, and complete one in for each LUST site you have.

Site name: _____

Site address: _____

_____

Please Circle ONE answer for each of the following 3 questions:

Is the source of contamination: A. unknown, OR B. a "regulated" tank? __A__ or __B__

Is the contaminant "petroleum"? Yes OR No __Y__ or __N__

Is the Owner: A. identifiable; OR B. identifiable and insolvent; OR C. identifiable, solvent, and an imminent threat exists? __A__ or B or C_

Mail

New LUST file L75.03

~~Municipal~~

1201 East 3rd Ave

Municipal Light & Power

90-2-1-1-011-2

Thanks

Jennifer

0028

MLP 1201 E 3rd

~~U00028~~

LUST TRUST

SPILL STATUS REPORT

DATE: 2-7-90

LUST # ~~90-2-1-0-011-2~~

SPILL NAME: 1201 E 3rd ML & P ID # 90-2-1-1-011-2

I. SITE FUND ELIGIBILITY 4 fuel storage tanks removed gas, diesel & waste oil contamination found Tanks: 3,000 gal diesel, 1000 & 1500 gal gas & 1,000 gal waste oil used By Utility Company Maintance yard.

II. PHASE I (SFY): $

A. ESTIMATED LUST COST (COST TO DATE): $

B. STATUS: A short paragraph explaining:

(Contract - Funds Used - Completion - Accomplishments)

Responsible Party

C. COST RECOVERY STATUS:

1. Unknown Owner/Operator (O/O) State Lead. ____

2. Known Responsible Party (RP) Lead. X

III. PHASE II (SFY)

A. ESTIMATED COST FOR NEXT PHASE: $

B. FOR: (Explanation - Include Estimated Completion Date)

BY: J. Roberts REGION: AWDC

Rm Cen 2-8-90

000029

We are looking for your response to the question: "Why have you designated each of your Lust Trust sites "LUST Trust fund eligible?" For each site where LUST Trust $ has been, or will be, used for State lead cleanups, please provide a written response incorporating each of the following questions.

1. Is the source of contamination unknown, or is the source a "regulated" tank ("regulated" as defined in the September 23, 1988, Federal Register, containing the technical requirements for underground storage tanks)?

2. Is the contaminant "petroleum" (definition of petroleum contained in the September 23, 1988 Federal Register).

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C. Identifiable and solvent? If so, is there an imminent threat to human health and the environment?

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Site name: _____

Site address: _____

_____

Please Circle ONE answer for each of the following 3 questions:

Is the source of contamination: A. unknown, OR B. a "regulated" tank? __A__ or __B__

Is the contaminant "petroleum"? Yes OR No __Y__ or __N__

Is the Owner: A. identifiable; OR B. identifiable and insolvent; OR C. identifiable, solvent, and an imminent threat exists? __A__ or B or C_

12-23 PR

ck

000031 #2 4-17-90

Enclosure C

Contaminated Site Data Entry Form, page 1 of 2

Spill Number (please include zeros): 91
Year 9 0 Region 2 1 Workplan 0 0 Julian 0 1 1 Sequence 0 2

File Number: L 6 9 . 0 7 0 0 Coastal Zone(Y or N)

Election District(eg. HD 05): HD 12 Severity(1-10):

Drinking Water(Yes, No, **Unknown**, Not applicable):

Permit(type of permit, max of 20 characters):

Staff Assigned(Last name(s) only, 35 characters):

Roberts

Company Name (30 characters):

Generic Facility Name: LUST at 1201 E. 3rd Ave.

Facility Name (FAC2): Municipal Light & Power

Street 1 (25 characters): 1201 East 3rd Ave

Street 2 (25 characters):

City (15 characters):

Zip Code(10 characters):

Phone Number (12 characters):

Longitude (7 characters):

Latitude (7 characters):

Legal Description (300 characters):

Contaminated Site Data Entry Form, page 2 of 2

Operator (35 characters): _

Operator Street 1 (25 characters): _

Operator Street 2 (25 characters): _

City (15 characters): _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _

State (2 characters): _ _

Zip Code (10 characters): _ _ _ _ _ _ _ _ _ _

Op. Phone Num. (12 characters): _ _ _ _ _ _ _ _ _ _ _ _

Problem (300 characters, the following items must be addressed or unknown must be stated: amount and type of contaminant, when spill occurred or discovered, human health impact, extent of contamination, other relevant information.):

UST removal indicates gas, diesel & waste oil contamination extent, amount & human risk unknown. Assessment & remediation on going

ACTIONS

	Act #1	Act #2	Act #3	Act #4
Action Code(up to four characters):	XDD LH			
Action By(up to five characters):				
Date of Action:				
Date Action Due:				
Date Action Complete:				
Funding Source(5 characters):				

Status Action #1: _____

Status Action #2: _____

Status Action #3: _____

Status Action #4: _____