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MUNICIPALITY OF ANCHORAGE
MUNICIPAL LIGHT & POWER

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1964 FUEL OIL SPILL
GENERATION PLANT No. 1

92-219-049-4

EVALUATION OF SITE CHARACTERIZATION DATA
PLANT 1 1964 OIL SPILL
ANCHORAGE MUNICIPAL LIGHT & POWER

2100.38.326

FEBRUARY 13, 1992

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February 13, 1992

J.O. No. 02500.0105

EVALUATION OF SITE CHARACTERIZATION DATA PLANT 1 1964 OIL SPILL ANCHORAGE MUNICIPAL LIGHT & POWER

Enclosed is a final copy of our report to replace the draft copy sent to you on January 10, 1992. We included the final copy of the RZA-AGRA report you provided as Appendix A of the enclosed report. The Northern Testing Laboratories, Inc. (NTL) test results included in Appendices C and D of the report are the data sheets from our December 16, 1991 draft of the report. We have not received readable, reproducible copies of the data sheets revised to not show estimated concentrations below the method detection limits. However, the NTL test results are the same except for the concentrations of trichloroethene and tetrachloroethylene for sample S-1 from boring B-9. We noted those revised concentrations on the original NTL data sheet for that sample, and placed the fax copy of the revised NTL data sheet for that sample behind the original sheet.

If you have any questions or comments concerning the enclosed report, please contact Steve Unks at (303) 741-7516 or me at (303) 741-7320.


W.L. Zakely

cc. P. Smithson
R. Kuczek
H. Nikkels ✓

Enclosure

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**EVALUATION OF SITE CHARACTERIZATION DATA
PLANT 1 1964 OIL SPILL
ANCHORAGE MUNICIPAL LIGHT & POWER**

1.0 INTRODUCTION

An aboveground tank ruptured during the 1964 Alaskan earthquake, spilling fuel oil across the site of Anchorage Municipal Light & Power (AML&P) Generation Plant 1. This report summarizes information collected at Plant 1 concerning the effects of the spill on soils and groundwater. Included are the results of laboratory analysis on soil samples collected in 1986 in the area now occupied by the warm storage building, and information collected during 1991 field and laboratory studies. In 1991, RZA-AGRA obtained soil and groundwater samples from test borings and temporary monitoring wells. Northern Testing Laboratories, Inc. performed laboratory tests on those samples.

2.0 SPILL HISTORY

The aboveground tank was located southwest of Plant 1 within the area of the current Ingra Street right-of-way (see Figure 1). At the time of the earthquake, the tank contained fuel oil. Records concerning the grade of fuel oil have not been found. However, it was probably No. 2 oil. The earthquake ruptured the tank, spilling about 283,000 gallons of product over the Plant 1 site. Site personnel indicated they reported to work soon after the earthquake by walking down the railroad tracks to the west of the site through fuel oil. After the earthquake, the tank was removed and the site surface restored to allow continued operation of the plant.

AML&P personnel have reported that fuel oil odors have been noticeable from excavations at the site since the oil spill occurred, and that free product could occasionally be observed on the groundwater surface in those excavations. However, no odors or floating product were reported in excavations made during the spring and summer of 1988.

3.0 SITE CONDITIONS

3.1 Existing Facilities

Gas turbine generating units, switchyards and buildings housing office, control and maintenance facilities are located at the site. Several underground utility lines (gas, sewer, diesel, water, etc.) are located throughout the area. The site is bordered on the north by Ship Creek, and on the south by Ingra Street. Locations of the major facilities at Plant 1 are shown on Figure 1.

3.2 Underground Conditions

Geology. The site is underlain by glacial, glaciofluvial and glacial lacustrine sediments. Near surface soils consist of fill associated with plant construction underlain by alluvial sands and gravels deposited by Ship Creek. Those soils are immediately underlain by glacial lacustrine sediments consisting of silty clays and clayey silts. The silt and clay layer, based on nearby well logs, is estimated to be about 160 feet thick. The clay and silts are underlain by layers of sands, gravels, silts and clays. The total thickness of the glacial sediments could be up to about 1500 feet.

Groundwater is found at shallow depths in the Ship Creek alluvium. Groundwater is also reported in the deeper soils beneath the near surface clays and silts. The silts and clays, generally found at depths of about 10 to 20 feet below the ground surface, form a low permeability confining bed and separate the near surface and deeper groundwater.

A more complete description of the area geology and hydrogeology is included in the RZA-AGRA report provided in Appendix A.

Subsoils. RZA-AGRA drilled and sampled 9 test borings at the site to depths between 11.5 and 20.0 feet in September, 1991. The results of their work, including boring locations and boring logs, are provided in Appendix A.

Interbedded clean to silty sands and gravels, with some silt and clay lenses, were logged in the RZA-AGRA test borings. Borings B-2, B-3, B-4, B-7, and B-9 bottomed in blue-gray clays. Although the borings did not penetrate the clays, geologic information concerning the area indicates the clays are thick and form a low permeability confining bed. Figures 5 and 6 in the RZA-AGRA report provide generalized north-south and east-west sections through the site interpreted from the test boring logs.

Groundwater. RZA-AGRA measured groundwater in the borings at depths of from 6 to 8.5 feet during drilling. Slotted PVC pipe was installed in 5 of the borings to convert them to temporary monitoring wells. Groundwater was measured in the temporary monitoring wells several days after the borings were drilled at depths from 4.2 to 5.7 feet below the ground surface.

Water level data from the temporary monitoring wells was used to construct a potentiometric surface map (see Figure 7, Appendix A). The data suggests groundwater flow from the southeastern corner of the site to the north and west. The gradient across the site appears to be about 1 1/2 feet to the north, and about 4 feet to the west. It also appears to increase across the west half of the site.

3.3 Chemical Analysis Results

The results of tests on soil samples AML&P collected in 1986 from the area currently occupied by the warm storage building are provided in Appendix B. The results of tests Northern Testing Laboratories, Inc. performed on soil and water samples RZA-AGRA collected in 1991 are provided in Appendices C and D, respectively, and are summarized in Tables 1 and 2.

The soil samples from the warm storage building area were collected to depths of up to 6 feet, and were tested for oil, grease and polychlorinated biphenyls (PCB's). Concentrations of oil and grease ranged from 123 to 8830 parts per million (ppm). PCB's were measured at concentrations of from less than 0.1 ppm to 41 ppm. Only 2 of the samples had PCB

concentrations above 10 ppm, one at a depth of 3 feet showing 11 ppm and the other at a depth of 6 inches showing 41 ppm.

Soil samples from the RZA-AGRA borings were tested for total petroleum hydrocarbons (TPH) (using EPA Method 418.1), purgeable hydrocarbons (using EPA Method 8010) and PCB's (using EPA Method 8080). TPH values of most of the samples tested ranged from 23 to 9080 mg/kg (see Table 1). The largest TPH values tended to be from samples located at or above groundwater levels, although some large values were from samples from below groundwater. Samples from borings located on the west portion of the site (borings B-1, B-2, B-3, B-5, B-8) generally showed the larger values.

Soil samples were also tested for several purgeable hydrocarbon compounds, as detailed in the laboratory test result sheets provided in Appendix C. Most of the samples did not test positive for any of the compounds. Tetrachloroethylene, at concentrations of from 0.02 to 0.38 milligrams per kilogram (mg/kg), was measured from the 4 samples from boring B-7, and at a concentration of 0.02 mg/kg from one sample from boring B-9. Trichloroethylene was measured at a concentration of 0.03 mg/kg from one sample each from borings B-7 and B-9, respectively. A sample from boring B-1 indicated 0.02 mg/kg 1,2-dichlorobenzene and 0.02 mg/kg 1,4-dichlorobenzene. One sample from boring B-7 also contained 1,2-dichlorobenzene at a concentration of 0.03 mg/kg.

Soil samples from 7 of the RZA-AGRA borings (B-1 through B-7) tested positive for PCB's. Most of those samples indicated concentrations of less than 10 mg/kg. One sample from the top of boring B-3, which is near the warm storage building area where the AML&P soil samples were collected in 1986, indicated a PCB concentration of 30 mg/kg, and another from the top of boring B-7 indicated a concentration of 73 mg/kg. The Aroclor indicated by the laboratory was 1260.

Groundwater samples collected from monitoring wells were tested for purgeable aromatics (using EPA Method 602) and PCB's (using EPA Method 608). The analyses (see Table 2) indicated a concentration of ethylbenzene of 5.7 micrograms per liter (ug/l) in one of the 6 samples collected, a concentration of toluene of 0.5 ug/l in one sample, and concentrations

of xylenes of from 1 to 78 ug/l in 4 samples collected from 3 of the borings. Combining the ethylbenzene and xylene values from the one boring (B-3) where both those compounds were measured suggests a maximum BTEX (benzene-toluene-ethylbenzene-xylene) concentration of about 84 ug/l (approximately 0.084 ppm).

PCB concentrations were measured in the water samples from 2 borings. Concentrations of 16 and 23 ug/l were measured from the samples from boring B-3. A concentration of 1.7 ug/l was measured from the sample from boring B-7. As previously noted, PCB's were measured from the soil samples from both those borings. Boring B-3 is located near the warm storage building area where PCB's were measured from soil samples collected in 1986.

Each of the 6 water samples collected was tested for 1,2-dichlorobenzene and 1,4-dichlorobenzene, which were measured in some of the soil samples, as well as other purgeable aromatic compounds (the list of compounds is shown on the laboratory data sheets in Appendix D). None of those compounds were detected. None of the compounds for which tests were made, including those for PCB's, BTEX compounds and purgeable aromatics, were found in the water sample (WS-1) from boring B-9.

4.0 INTERPRETATION OF DATA

4.1 Petroleum Hydrocarbons

Petroleum hydrocarbons were detected in soil samples from all 9 borings recently drilled at the site, as well as in samples collected from the warm storage building area in 1986. The hydrocarbons were found in samples collected from the ground surface to depths of 16.5 feet. Relatively low levels of ethylbenzene, toluene and xylenes were also measured in 4 of 6 groundwater samples collected.

Most, if not all, of the hydrocarbon compounds found at the site are likely the result of the 1964 fuel oil spill. However, the laboratory data appear to indicate that in the 27 years since the spill, the hydrocarbons may have degraded (through biodegradation and water washing)

from the No. 2 fuel oil reportedly spilled to a heavy residual oil. Relatively large TPH concentrations were measured from soil samples collected from below groundwater levels. That indicates at least some of the oil now has a specific gravity greater than water, which is generally not the case with fresh No. 2 fuel oil. In addition, light end hydrocarbons (ethylbenzenes, toluenes and xylenes) generally associated with lighter fuel oils were only measured at relatively low concentrations in only 3 of the 5 water samples collected.

In general, larger concentrations of hydrocarbons were measured in soil samples from borings located on the west half of the site. That generally coincides with steeper groundwater gradients to the west. That distribution of oil may be due to that area receiving more oil than the rest during the spill, or after the spill some of the oil migrated down gradient. The larger concentrations were also generally from soil samples nearer the ground surface.

4.2 PCB's

PCB concentrations measured from soil samples were also generally larger near the ground surface, and generally diminished with depth at most sampling locations. No PCB's were detected in soil or water samples from borings near the north border of the site (borings B-8 and B-9). Positive tests for PCB's in groundwater were only obtained from samples from borings (B-3 and B-7) where the largest PCB concentrations for soil samples were measured. The distribution of PCB's at the site suggest that contamination is not related to the 1964 fuel oil spill.

PCB's were measured in the water samples at concentrations of 1.7, 16 and 23 ug/l. Those measured PCB concentrations may be too large as the solubility of PCB's in water is generally reported to be about 3 ug/l, and may be due to methods used to collect the samples. The samples were collected by quickly removing at least 3 well casing volumes from each well and then sampling the water flowing back into the wells. That creates relatively steep hydraulic gradients into the wells that can cause soil particles, some of which that have PCB's attached to them, to flow into the wells. Under more normal site groundwater gradients, the PCB's should be less mobile (i.e., remain in the soil) and may not be collected in water samples.

4.3 Purgeable Hydrocarbons

Tetrachloroethylene, trichloroethylene, and 1,2-dichlorobenzene, and 1,4-dichlorobenzene, all "non-petroleum" chemicals, were found in some of the soil samples from 3 of the borings (B-1, B-7, B-9). Two of those borings (B-7, B-9) were converted into temporary monitoring wells, from which water samples were collected and tested. Those tests, which included those for 1,2- and 1,4-dichlorobenzene, as well as the tests on water samples from the other 3 monitoring wells, did not indicate the 1,2- and 1,4-dichlorobenzene compounds.

Tetrachloroethylene, trichloroethylene, 1,2- and 1,4-dichlorobenzene are not naturally occurring compounds and are not likely associated with the 1964 fuel oil spill. The chemicals are usually used as solvents, de-greasers, and in heat transfer media in heating and air conditioning systems.

4.4 Remediation

Decisions concerning methods and levels of remediation will ultimately depend on evaluations of the type and extent of contamination, and existing and potential threats to human health and the environment. Potential methods could vary from no action if it can be demonstrated that the contamination poses no threat to human health and the environment; to cleanup of local concentrations of contaminants; to more extensive cleaning of site soils and groundwater.

Potential environmental damage and health and safety risks associated with remediation activities should be weighted relative to benefits and costs of remediation. Shallow groundwater, cold climate and vertical (surface to below the water table) and horizontal areal extent of the hydrocarbon contamination may complicate some potential remedial measures, as will the presence of the non-hydrocarbon compounds. Different techniques and levels of remediation may be indicated for the different types of chemicals found at the site.

Relatively large concentrations of hydrocarbons were found in soils from borings throughout the site. However, the relatively low concentrations of light end hydrocarbon compounds (benzene, toluene, ethylbenzene and xylenes) measured from the groundwater samples are less than Federal drinking water maximum concentrations limits (40 CFR 141.61) (see Table 3). Therefore, hydrocarbons in the groundwater do not appear to be a problem.

Hydrocarbons in site soils appear to be indicative of heavy residual oils that are relatively immobile and not easily absorbed into groundwater. If so, leaving the hydrocarbons in place may not involve increased risks to the environment or human health. Only 4 of the 31 soil samples (of the total of 45 samples tested) that tested positive for total petroleum hydrocarbons had concentrations larger than 2000 ppm, the threshold value for non-waste residual oil provided in State of Alaska Guidance Document Number 001, Revision No. 1 entitled Interim Guidance For Non-UST Contaminated Soil Cleanup Levels (dated July 17, 1991).

We recommend leachability tests and tests to characterize fuel oil fractions in the diesel and residual oil ranges be made, as discussed in Section 5 of this report. Such data will be useful in further evaluation of the current grade of the oil and its relative mobility through site soils and groundwater.

At least some site soils, and to a lesser extent groundwater, contain PCB's, and some soils contain tetrachloroethylene, trichloroethylene, and 1,2- and 1,4-dichlorobenzene. Those chemicals are (probably not related to the 1964 oil spill.) Based on the test results, tetrachloroethylene and trichloroethylene may have been released locally near boring B-7 at the southeast site corner, and near boring B-9. The chemicals at boring B-9 were only detected in the sample from the ground surface.

In general, the larger concentrations of PCB's were measured in soils near the ground surface. Only one of the soil samples tested in 1986 or in 1991 from below a depth of 6 inches from the ground surface indicated a concentration of greater than 10 ppm. That sample was collected in 1986 from the warm storage building area at a depth of 3 feet and had a concentration of 11 ppm. The maximum concentration measured in any of the near surface

soil samples was 73 ppm, with most of those samples indicating concentrations less than 10 ppm.

Tetrachloroethylene, trichloroethylene 1,2- and 1,4-dichlorobenzene, and PCB,s are relatively insoluble in water. PCB levels measured in recently collected groundwater samples may be artificially large due to sampling procedures, as previously discussed in Section 4.2 PCB's. 1,2- and 1,4- dichlorobenzene were not detected in the groundwater samples. Groundwater samples were not tested for tetrachloroethylene and trichloroethylene. However, due to their low solubility in water, the concentrations of those chemicals that are likely to be measured in groundwater should be less than those measured in soils, and are anticipated to be less than maximum concentrations limits of the Federal drinking water standard.

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As a next step in evaluating the effect PCB's, tetrachloroethylene and trichloroethylene may be having on site groundwater, we recommend additional water samples be obtained and tested for those chemicals. However, the data available to date suggest that most of the non-hydrocarbon contamination at the site could be greatly reduced by locally excavating a few inches of soils from the ground surface, and replacing them with clean soils. Some deeper excavations, or other remediation techniques, may be indicated at locations such as near boring B-7.

5.0 ADDITIONAL WORK

We recommend the following be considered to better characterize site contamination for evaluating the need for and methods of potential remediation:

1. Discuss the results of Plant 1 site assessment studies to date with the Alaska Department of Environmental Conservation (ADEC) to inform them of the status of the work and obtain their comments and input concerning further actions that might be considered.

2. Interview current and former Plant 1 employees to attempt to obtain additional information concerning the 1964 oil spill and information concerning how and where PCB's and the other chemical compounds may have been introduced to the site.
3. Collect water samples from the temporary monitoring wells in borings B-2, B-3, B-4, B-7 and B-9 and analyze them for PCB's, (EPA Method 608), and tetrachloroethylene and trichloroethylene (EPA Method 601). To reduce chances of steep hydraulic gradients around the wells affecting test results, we recommend the following procedure for sample collection:
 - a. Measure the depth to water in the well, lowering the water level probe below the water surface no further than necessary to obtain the measurement so as to disturb water in the well as little as possible.
 - b. Slowly lower a clear bailer a few inches below the measured groundwater surface to collect a sample of the water and any product that may be floating on it. After retrieving the bailer, let it stand for a few minutes to observe if free product collects on the water surface. If so, record its thickness and describe it (i.e., color, odor, viscosity, etc.).
 - c. Slowly purge standing water from the well casing using a small surface pump or a bailer. If a surface pump is used, the end of its intake tubing should be lowered to the midpoint of the well screened interval and water pumped into a purge water container. If a bailer is used, it should be slowly lowered into the water, and after filling, slowly extracted from the well casing. Purge discharge water should be tested periodically for pH, conductivity and temperature using field equipment. Purging should continue until the measurements indicate no significant changes in the measured parameters. At no time shall purging draw the water inside the well casing to a depth exceeding 20 percent of the total height of the static column of water, calculated from the water level measurement prior to starting purging and the depth of the well.

- d. After completing the purging, collect the water samples, again taking care to reduce disturbance of water in the well.
 - e. Filter the samples through a 2 to 4 micron filter before testing.
4. Drill and sample a series of borings around the locations of existing borings B-7 and B-9 to provide data that can be used to better evaluate the extent of the tetrachloroethylene and trichloroethylene. The number of new borings will depend on conditions that may indicate the chemicals as the borings are drilled. However, for initial planning we recommend at least three borings be drilled and sampled to depths of about 5 feet at each previous boring location. The 3 new borings initially drilled at each location should be spaced equidistantly around and about 10 feet from the existing boring. Soil samples from the borings should be tested for tetrachlorobenzene and trichlorobenzene using EPA Method 8010.
5. Obtain at least 2 "fresh" samples of petroleum contaminated soils and test them to determine gasoline and diesel fractions, total petroleum hydrocarbons, and for leachability. We recommend the samples be collected from near borings B-5 and B-8, and from depths of about 11 and 9 feet, respectively.

The gasoline fraction tests should be performed using EPA Method 8015, the diesel fraction tests using EPA Method 8100, and the total petroleum hydrocarbon tests using EPA Method 418.1. EPA Method 5030 and 3550 extraction procedures should be used for the Method 8015 and 8100 tests, respectively. The residual oil fraction can then be calculated by subtracting the gasoline and diesel fractions from the total petroleum hydrocarbons.

The leachability tests should be performed using the Toxic Characteristic Leaching Procedure (TCLP) (EPA Method 1311) to extract a sample for testing for gasoline, diesel and total petroleum hydrocarbons. Those tests on the extractant should be made using EPA Methods 8015, 8100 and 418.1, respectively.

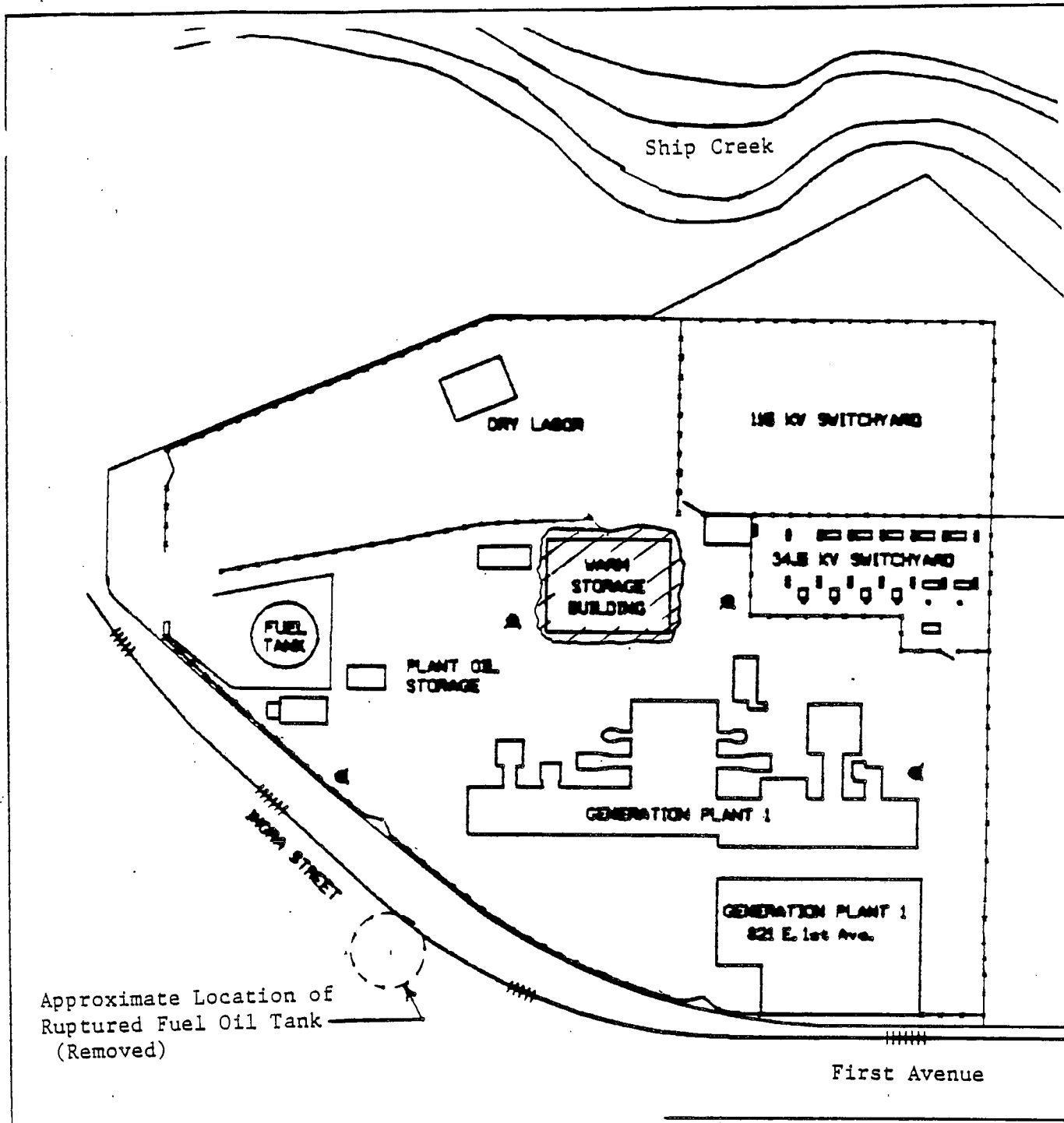
Specific work plans, quality assurance (QA) plans and quality control (QC) plans should be prepared for the field and laboratory work. The plans should be submitted to the ADEC for review and comment prior to starting the work.

6.0 CONCLUSIONS

Based on our examination of the site assessment information presented in this report, we conclude:

1. The 1964 oil spill has resulted in hydrocarbon contamination of Plant 1 soils to depths of at least 10 to 16.5 feet below the ground surface. Hydrocarbons (toluene, ethylbenzene, xylenes) in site groundwater appear to be at levels below Federal drinking water maximum concentration limits.
2. Most of the fuel oil spilled across the site appears to have degraded to a heavy residual oil in the 27 years since the spill. If so, leaving the hydrocarbons in place may not involve increased risks to the environment or human health.
3. At least some soils at Plant 1, and to a lesser extent groundwater, contain PCB's, and some soils contain tetrachloroethylene, trichloroethylene, and 1,2- and 1,4-dichlorobenzene. Those chemicals are probably not related to the 1964 oil spill.
4. The data available to date suggest that most of the PCB, tetrachloroethylene, trichloroethylene, 1,2- and 1,4- dichlorobenzene contamination at the site could be greatly reduced by locally excavating a few inches of soils from the ground surface, and replacing them with clean soils. Some deeper excavations, or other remediation techniques, may be indicated at locations where the chemicals extend to deeper depths. *OK ✓*

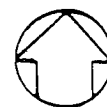
5. Additional field and laboratory work, as discussed in Section 5.0 of this report should be performed to better characterize site contamination for evaluating the need for and methods of potential remediation.



LEGEND



Fire Hydrant



Approximate Location of 1986 Fuel Oil and PCB Soil Tests

Scale: 1" = 100'

TABLE 1
SUMMARY OF LABORATORY TEST RESULTS
SOIL SAMPLES
ANCHORAGE MUNICIPAL LIGHT & POWER
PLANT No. 1

| Boring | Depth (feet) | Sample | TPH (mg/kg) | PCB (ng/kg) | Tetrachloroethylene (mg/kg) | 1,2-Dichlorobenzene (mg/kg) | 1,4-Dichlorobenzene (mg/kg) | Trichloroethylene (mg/kg) |
|--------|-----------------|--------|----------------|----------------|--------------------------------|--------------------------------|--------------------------------|------------------------------|
| B-1 | 0-0.5 | S1 | 247 | 0.4 | | | | |
| | 1.5-3.0 | S2 | 224 | 0.4 | | | | |
| | 5.0-6.5 | S3 | 1520 | | | | | |
| | 10.0-11.5 | S4 | 124 | 0.1 | 0.02 | | 0.02 | |
| B-2 | 5.0-6.5 | S3 | 9080 | | | | | |
| | 10.0-11.5 | S4 | 110 | 7.1 | | | | |
| | 15.0-16.5 | S5 | 521 | | | | | |
| B-3 | 0-0.5 | S1 | 1520 | 30 | | | | |
| | 5.0-6.5 | S3 | 4570 | 2.5 | | | | |
| | 8.5-10.0 | S4 | 1710 | 0.4 | | | | |
| | 13.5-15.0 | S5 | 57 | 0.1 | | | | |
| B-4 | 0-0.5 | S1 | 922 | 11 | | | | |
| | 1.0-2.5 | S2 | 283 | 0.2 | | | | |
| | 10.0-11.5 | S4 | 32 | 0.1 | | | | |
| B-5 | 0-0.5 | S1 | 816 | 7.9 | | | | |
| | 1.0-2.5 | S2 | 570 | 0.5 | | | | |
| | 3.5-5.0 | S3 | 88 | 0.1 | | | | |
| | 6.0-7.5 | S4 | 949 | | | | | |
| | 10.0-11.5 | S5 | 3990 | | | | | |
| B-6 | 0-0.5 | S1 | 1330 | 0.2 | | | | |
| | 10.0-11.5 | S4 | 28 | | | | | |
| B-7 | 0-0.5 | S1 | 860 | 73 | 0.2 | | | |
| | 2.5-4.0 | S2 | 227 | 8 | 0.38 | 0.03 | | 0.03 |
| | 5.0-6.5 | S3 | | 0.6 | 0.04 | | | |
| | 10.0-11.5 | S4 | | 0.3 | 0.02 | | | |
| B-8 | 0-0.5 | S1 | 75 | | | | | |
| | 5.0-6.5 | S3 | 132 | | | | | |
| | 9.0-10.5 | S4 | 1100 | | | | | |
| | 12.0-13.5 | S5 | 137 | | | | | |
| B-9 | 0-1.0 | S1 | 518 | | 0.02 | | | 0.03 |
| | 5.0-7.0 | S3 | 71 | | | | | |
| | 7.5-9.0 | S4 | 23 | | | | | |
| | 10.0-12.0 | S5 | 171 | | | | | |

NOTES:

1. Only samples with measured chemical concentrations above the method detection limit for the particular analysis are included in this table.
2. The PCB Aroclor indentified by the laboratory was 1260.
3. Samples were obtained by RZA-AGRA and tested by Northern Testing Laboratories, Inc. See Appendicies A, C and D for details.

TABLE 2
SUMMARY OF LABORATORY TEST RESULTS
WATER SAMPLES
ANCHORAGE MUNICIPAL LIGHT & POWER
PLANT No. 1

| <u>Boring</u> | <u>Sample</u> | <u>Ethylbenzene</u> <u>(ug/l)</u> | <u>Toluene</u> <u>(ug/l)</u> | <u>Xylenes</u> <u>(ug/l)</u> | <u>PCB</u> <u>(ug/l)</u> |
|---------------|---------------|--------------------------------------|---------------------------------|---------------------------------|-----------------------------|
| B-2 | WS-5 | | | 8.9 | |
| B-3 | WS-4 | 5.7 | | 78 | 16 |
| | WS-6 | | | 17 | 23 |
| B-4 | WS-3 | | 0.5 | 1 | |
| B-7 | WS-2 | | | | 1.7 |

NOTES:

1. Only samples with measured chemical concentrations above the method detection limit for the particular analysis are included in this table.
2. The PCB Aroclor indentified by the laboratory was 1260.
3. All water samples were tested for 1,2-dichlorobenzene and 1,4-dichlorobenzene (EPA Method 602). All results were below method detection limits.
4. Samples were obtained by RZA-AGRA and tested by Northern Testing Laboratories, Inc. See Appenedicies A, C and D for details.

TABLE 3
MAXIMUM CONCENTRATION LIMITS
NATIONAL DRINKING WATER STANDARDS
(40 CFR 141.61)

| <u>Compound</u> | <u>Maximum Concentration Limit</u> <u>(ug/l)</u> |
|---------------------------|---|
| Benzene | 5 |
| Toluene | 1,000 |
| Ethylbenzene | 700 |
| Xylene | 10,000 |
| Tetrachloroethylene | 5 |
| Trichloroethylene | 5 |
| 1,2-Dichlorobenzene | 600 |
| 1,4-Dichlorobenzene | 75 |
| Polychlorinated Biphenyls | 0.5 |

APPENDIX A

RZA-AGRA REPORT

MUNICIPAL LIGHT AND POWER PLANT NO.1
SOIL AND GROUNDWATER INVESTIGATION
ANCHORAGE, ALASKA

Prepared for

Municipal Light and Power
1200 East 1st Avenue
Anchorage, Alaska 99501

Prepared by

RZA-AGRA
711 "H" Street, Suite 450
Anchorage, Alaska 99501

January, 1992

A-1271

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1. SUMMARY

RZA-AGRA performed a soil and groundwater contamination investigation at the Municipal Light and Power (ML&P) Plant No.1 in Anchorage, Alaska. This investigation provided information regarding the extent and magnitude of contamination from fuel leakage from ML&P above ground fuel storage tanks. RZA-AGRA performed the field exploration program from September 26 to October 7, 1991. Field exploration included: 1) drilling and sampling 9 soil borings; and 2) installation and sampling of 5 monitoring wells.

2.0 PROJECT BACKGROUND

Prior to the 1964 earthquake, Municipal Light and Power had an above ground fuel tank storage facility south and uphill from the present Plant No.1 site near Ship Creek. Possible slope failure during the earthquake caused the ML&P fuel tanks to rupture. The resulting contamination plume extended down-gradient to the ML&P Plant No.1 site. ML&P requested that RZA-AGRA conduct an soil and groundwater investigation to assess the site contamination.

The following sections present information regarding the Municipal Light and Power (ML&P) Plant No.1 site, its surroundings and hydrogeologic conditions in a regional context. Sections 3.0 and 4.0 present information regarding site specific findings.

2.1 Project Scope

The current scope of this work was to investigate soil and groundwater conditions at the ML&P site to determine contaminated areas. For this project RZA-AGRA, investigated soil and groundwater conditions in the area of the Municipal Light and Power Plant No.1 by:

- * Preparation of site specific Quality Assurance/Quality Control Plan and Health & Safety Plan for the project. RZA-AGRA submitted the plans to ML&P prior to beginning field work.
- * Drilling and sampling soil borings in the vicinity of the ML&P Plant No.1.
- * Field screening soil samples using an OVM, to provide a semi-quantitative measurement of headspace vapors in a 1-liter closed jar.
- * Installation and sampling of five groundwater monitoring wells around the ML&P Plant No.1 site.
- * Complete sample custody documentation for all soil and water samples taken at the site and transfer to ML&P's custody for laboratory analysis.

- * Review of regional reference data and well logs to analyze the findings in a regional text.
- * Preparation of this report.

2.2 Site Description

The ML&P Plant No.1 is located just north of downtown Anchorage, at 1200 East 1st Avenue in the Ship Creek lowlands (see Figure 1). The Ship Creek lowlands are located at the northern-most perimeter of the Anchorage bowl which lies between the Chugach Mountains to the east and the Cook Inlet to the west. Ground surface at the ML&P site has been leveled for construction to an approximate elevation of 32-feet, relative to mean sea level.

Surface water bodies in the vicinity of the ML&P site include Ship Creek approximately 200-feet north and the Cook Inlet approximately 1/2-mile to the west. Ship Creek drains west-southwest to the Cook Inlet. Ship Creek is considered a tidal tributary near the ML&P site with an average discharge of 162-cubic feet per second, and has drainage area of approximately 117-square miles (United States Geological Survey, 1987).

The ML&P Plant No.1 has been in operation in approximately its present configuration since the early 1960's. The ML&P site consists of gas turbine power plants, switch yards, and buildings housing an office, control and maintenance facilities. The ML&P Plant No.1 site facilities expanded with the addition of a 4,800 square foot (sqf), warm storage building in 1985. Figure 1 shows the location of ML&P site and its surroundings.

The present investigation has focused on soil and groundwater conditions at the ML&P site, located along the Ship Creek lowlands.

2.3 Regional Geology

Anchorage lies within the Cook Inlet-Susitna lowland physiographic subprovince in south-central Alaska. This lowland subprovince is a structural depression that is bounded on all sides, except the southwest, by mountain ranges. These mountains consist of bedrock with a relatively thin mantle of glacial sediments. The lowland generally is filled with glacial and glaciofluvial sediments up to 1,500-feet thick, overlying deeper tertiary strata. Figure 3 indicates a typical geologic cross-section through the Anchorage Bowl. The map indicates the approximate location of the ML&P Plant No.1 site, and the general stratigraphic variability which alternates from alluvial sand and gravels to marine or lacustrine clayey soils.

The near-surface stratigraphy of the Anchorage area is the product of alternating Quaternary glaciations and interglacial periods (Schmoll & Dobrolovny, 1972). It is generally accepted that Anchorage and adjacent areas have been subjected to at least five major Pleistocene glaciations. Sediments associated with the two youngest glaciations are generally present at or near surface in the Anchorage area. During the warm interglacial period between these two glaciations, the sea level rose and apparently created marine or estuarine conditions in the area. Radiocarbon dating suggest that this interglacial period occurred more than 47,000 years ago. The complex history is recorded in glaciofluvial, glacial-lacustrine, glacial-marine and eolian sediments that are associated with specific landforms such as the Elmendorf Moraine which is approximately 2-miles north-northeast of ML&P site. This moraine marks the northern maximum extent of the most recent Naptowne Glaciation in the Anchorage Bowl (see Figure 3). In the northern part of the Anchorage Bowl, glacial reworking and subsequent marine and fluvial processes formed the present Ship Creek lowlands.

2.4 Regional Hydrogeology

Groundwater in the Anchorage metropolitan area comes from unconfined and deeper confined aquifers. Unconfined aquifers are present in shallow alluvium in the west-northwestern lowlands of Anchorage and in Tertiary and Mesozoic metamorphic rocks exposed in the eastern foothills. Groundwater flow in the unconfined aquifers generally follows topographic and surface drainage patterns. Recharge to the water table occurs throughout the area by deep percolation, inflow from streams and by upward flow from the confined aquifers. Wells in surficial Holocene sand and gravel aquifers of the west-northwestern lowlands yield from 50 to 1,000- gallons per minute (gpm). Discharge occurs by outflow to streams, seeps, pumping, evapotranspiration, and downward flow to confined aquifers.

The Upper and Lower Confined Aquifers utilized by Anchorage are restricted to the central lowland areas in thick deposits of Pleistocene glacial outwash and marine sediments. The extent of the confined aquifer system is controlled primarily by the distribution of the principle confining unit, the Bootlegger Cove Formation, overlying the Upper Confined Aquifer. Another, deeper clayey confining bed separates the Upper and Lower Confined Aquifers at a depth ranging from approximately 150 to 200-feet. The majority of the groundwater utilized by Anchorage comes from the confined aquifers.

Natural groundwater flow in the confined aquifers of the west-northwestern lowlands is generally from the east to the west toward Cook Inlet. Pumping alters this natural flow during periods of heavy withdrawal. Recharges occur primarily in the east where the Bootlegger Cove Formation is absent or permeable and the aquifers are exposed to the surface at relatively high elevations. This allows recharge from

stream infiltration and deep percolation. Discharge occurs in the west-northwest, where the Bootlegger Cove Formation is eroded or more permeable, by outflow to estuaries, coastal springs, and the upward flow to the unconfined aquifers. Pumping is also a significant discharge mechanism.

Exchange between the unconfined and confined aquifers is controlled primarily by the Bootlegger Cove Formation and vertical hydraulic difference between the two aquifer systems. The Bootlegger Cove Formation is composed of clay, silt, poorly sorted clayey gravel, and till. The formation is relatively thick (approximately 100 to 120-feet), and impermeable, restricting vertical groundwater flow in the Ship Creek lowlands and in the central lowlands to the south. A typical well log of soil conditions from the Anchorage Bowl is presented in Figure 3.

3.0 FIELD WORK PREPARATIONS

Prior to commencing field operations RZA-AGRA and ML&P representatives discussed the scope of work and procedures for this study. A work plan for the project was prepared by ML&P, dated November 1, 1990. As required, RZA-AGRA prepared and submitted a site specific Quality Assurance/Quality Control Plan and Health & Safety Plan to ML&P on September 23, 1991, prior to commencing field operations. All field personnel were provided copies and were aware of the provisions of the plans. All field personnel and vehicles obtained security clearances for entry into restricted access areas of the ML&P Plant No.1 site.

Proposed boring locations were selected based on locations requested by AML&P, accessibility to drilling sites, and approximate locations of utilities from blueprints provided from ML&P. RZA-AGRA contacted all utilities and located them in the field prior to drilling. Several borings were moved from the proposed locations to avoid utility lines.

Prior to mobilization, the drill rig, augers, and all sampling tools were thoroughly decontaminated by high-pressure washing and steam-cleaning. A storage area for equipment, supplies, and drill cuttings in 55-gallon drums was established inside the Plant fencing, directly behind the main gate guard house at the southwest entrance (see Figure 4).

3.1 Subsurface Exploration

Field drilling began on September 26, 1991. Drilling times and locations were coordinated with ML&P representatives to avoid conflicts with maintenance activities. Ambler drilled nine borings. Ambler and RZA-AGRA installed five monitoring wells around the gas turbine generator building and at upper and lower site gradients (see Figure 4). Drilling was completed on September 30, 1991.

Figure 4 displays locations of soil borings, monitoring wells, maintenance and control buildings, and switchyards. Surveyed elevations of the ground surface of each boring relative to an on site datum of 33.50-feet above mean sea level are shown on the boring logs and Table 3. This elevation was taken from a temporary benchmark on a water utility cover south of the 34 kv switchyard.

Borings were designated by a boring number (i.e. B-1 or B1). All bore logs indicated that the soil types based on the unified ASTM:D 2488 classification, the type of sampling performed, and the results of field OVM screening. Table 2 summarizes this data. The boring logs also detailed the construction of the five monitoring wells.

Soil Borings were drilled by a truck mounted, Mobile B-61 drill rig, equipped with 3'3/8" inside diameter, continuous flight hollow stem auger. Drilling tools and augers were steam cleaned off-site prior to drilling each boring. Drill cuttings were bagged and transported to the on-site storage area. There, they were placed in 55 gallon drums on pallets for ML&P to handle at their discretion. Borings were drilled to depths ranging from 11.5 to 20-feet below ground surface. This depended on the soil and groundwater conditions encountered. Borings B-2, B-3, B-4, B-7, and B-9 were drilled into the top of the confining silt and clay. Borings B-1, B-5, B-6, and B-8 were drilled to at least 4-feet below the groundwater table.

Grab samples were obtained at the surface. Split spoon (2-inch diameter) samples conforming to ASTM:D 1586 were then taken at 5-foot intervals. At least two samples from each boring were collected between the ground surface and the groundwater. One sample was always taken at the groundwater table. Split spoon samples were also taken at 5-foot intervals below the groundwater table to the bottom of the borings. The sampling interval between borings was staggered, so that samples were not obtained from the same elevations (see Table 2).

3.1.1 Soil Sample Handling

Split spoon samplers were decontaminated prior to each use following procedures outlined in the QA/QC plan prepared for this project. Upon sample retrieval, portions of each sample were bottled in laboratory prepared jars for analysis. A second portion of the sample was placed in a clean quart jar with a sealed lid for field screening. All laboratory samples were held in chilled coolers under RZA-AGRA's custody. Samples were then logged into Chain-of-Custody documentation and transferred to ML&P custody for laboratory analyses at their discretion.

3.1.2 Soil Sample Field Screening

All soil samples were screened by headspace analysis using the OVM to detect organic vapor concentrations. Field headspace screening procedures were outlined in the project QA/QC plan. This screening technique proved relatively consistent.

3.2 Monitoring Well Installations

Five monitoring wells were installed at locations selected to determine the direction and gradient of groundwater migration. The wells allowed sampling of the groundwater. Monitoring wells were installed in borings B-2, B-3, B-4, B-7, and B-9. The soil boring logs in Appendix A provide details of the monitoring well construction..

Well depths range from approximately 14.6 to 18.5-feet below the ground surface. Monitoring wells were constructed of two-inch diameter, schedule 40 PVC casing. The casing had 10 to 15-feet of 0.0125-inch slotted well screen installed near the groundwater table. Approximately 3 to 5-feet of the well screen was extended above the groundwater table to allow observation of any free product.

The well screen sections were surrounded by a sand filter pack from 1-foot above the screen to 1/2-foot below the casing bottom. Bentonite seals were placed above the screen section. Flush mounted protective covers were installed in concrete at the ground surface. The top of the well casings were equipped with water-tight locking plugs. The protective casings are clearly labeled "Monitoring Well" to avoid confusion with other plant utilities.

Monitoring wells were developed by bailing to remove silt and increase communication with the surrounding formation. Five well volumes of approximately 20 to 25-gallons were removed with adequate groundwater recharge. Elevations were surveyed for both the ground surface and top of well casing, so accurate water level measurements can be taken. Top of casing elevations are indicated on the boring logs.

3.3 Monitoring Well Sampling

On October 7, 1991, groundwater samples were obtained from the five monitoring wells for laboratory analyses. Prior to disturbing the wells, stabilized groundwater measurements were taken with an electronic water level indicator (0.01-foot accuracy). The standing water was then purged using disposable polyethylene bailers attached to new nylon rope to prevent cross-contamination of samples. Monitoring wells B-2, B-3, and B-9 recharged readily while wells B-4 and B-7 recharged at a slower rate. All wells were developed by removing at least three well volumes before sampling. All water samples plus a duplicate were kept chilled until logged into Chain-of-Custody documentation and transferred to ML&P custody for laboratory analyses at their discretion.

4.0 SITE CONDITIONS

4.1 Soil Conditions

Soil conditions encountered by our subsurface exploration were primarily interlayered strata of sandy gravels and gravelly sands with intermitten fine silts and sands, and sandy clay with gravel. Soil strata was generally observed to have gradational transitions between soil types rather than distinct contacts. Detailed descriptions of the soils (conforming to ASTM: D 2488) encountered at each boring location are provided on the soil boring logs in Appendix A. Two generalized cross-sections indicating major soil transitions and groundwater elevations are shown on Figures 5 and 6.

At all of the boring locations, the ground surface was either paved with asphalt of 3 to 6-inch thickness with approximately 6-inches of sandy gravel fill or solely the 6-inch gravel fill. The transition to native, gravelly sand soils was not distinct at most boring locations.

The shallow native soil conditions were characterized as medium dense to dense, brown, sandy gravel to gravelly sand with intermitten fine silty sand overlying sandy clay with gravel. In borings on the west-northwest section of the site (B-1, B-2, B-3, B-5, and B-8), the shallow silt was grey in color and intermixed with fine gradational sand-pea gravel lenses of a possible fluvial- sand bar deposition. In borings on the east-northeast section of the site (B-4, B-6, B-7, and B-9), the shallow silt was brown in color and intermixed with coarse gradational sand-gravel-cobble lenses of a possible fluvial channel deposition.

Five of the nine borings drilled on the ML&P site intercepted the upper confining clay strata at 14.5 to 18-feet below ground surface (B-2, B-3, B-4, B-7, and B-9). The clay unit was generally stiff, moist, grey to blue-grey, sandy clay with gravel with moderate to high plasticity.

4.2 Groundwater Conditions

Groundwater was encountered in all of the borings. Shallow perched groundwater was noted to be associated with intermitten clayey silt lenses. Soil conditions were generally moderately moist to wet. It is likely that moderate to good surface water infiltration occurs in this area due to limited paved surfaces and structures.

Groundwater was encountered in the following borings at the noted depths and approximate elevations:

TABLE 1: GROUNDWATER AT TIME OF DRILLING

| <u>Boring Number</u> | <u>Depth (feet)</u> | <u>Approximate Elevation(ft)</u> |
|----------------------|---------------------|----------------------------------|
| B-1 | 6.0 | 25.72 |
| B-2 | 6.0 | 23.19 |
| B-3 | 6.0 | 26.85 |
| B-4 | 6.0 | 27.51 |
| B-5 | 6.0 | 25.84 |
| B-6 | 6.5 | 26.72 |
| B-7 | 5.5 | 27.70 |
| B-8 | 8.0 | 23.56 |
| B-9 | 8.5 | 24.67 |

Due to the silty soil conditions, these groundwater levels may not be representative of stabilized water levels since they are short-term measurements of seepage into the augers during drilling. Longer-term measurements were obtained from the five installed monitoring wells. On October 7, 1991, groundwater sampling was conducted with stabilized water measurements obtained for the following monitoring wells:

TABLE 2: STABILIZED GROUNDWATER ELEVATIONS

| <u>Monitoring Well No.</u> | <u>Depth (feet)</u> | <u>Elevation MSL (ft)</u> |
|----------------------------|---------------------|---------------------------|
| B-2 | 4.2 | 24.54 |
| B-3 | 4.5 | 27.89 |
| B-4 | 5.5 | 27.68 |
| B-7 | 4.2 | 28.47 |
| B-9 | 5.7 | 27.20 |

The inferred groundwater elevation contours based on these measurements are indicated on Figure 7. Although silty conditions amidst the shallow alluvial soil may slightly mask local variations in groundwater elevation, these inferred contours represent the general trend of groundwater flow towards Ship Creek, west-northwest.

This appears consistent with the regional trends noted in the unconfined aquifers amidst shallow alluvium in the northwestern lowlands of Anchorage. Groundwater flow in the unconfined aquifers in the Anchorage Bowl generally follow surface drainage patterns, which is indicative of the ML&P Plant No.1 site.

Based on the October 7, 1991, measurements, several hydraulic gradients were calculated for the plant site. The first hydraulic gradient was 0.005 ft/ft with a total elevational difference of 0.9-feet between borings B-5 and B-6. The second hydraulic gradient was calculated for the northwest contour transition area (see figure 7), and was found to be 0.012 ft/ft with a total elevational difference of 3.93-feet between boring B-5 and monitoring well B-2.

Groundwater sampling of the five monitoring wells was conducted on October 7, 1991. The water samples correspond to their respective well locations as follows:

Table 4: Groundwater Sampling

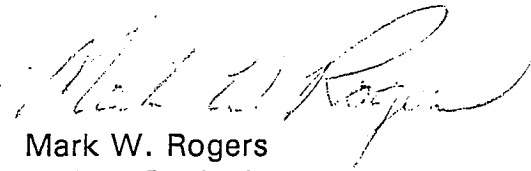
| Sample No. | Monitoring Well No. |
|------------|---------------------|
| WS-1 | MW-9 |
| WS-2 | MW-7 |
| WS-3 | MW-4 |
| WS-4 | MW-3 |
| WS-5 | MW-2 |
| WS-6* | MW-3 |

Remarks: * denotes duplicate sample for quality control.

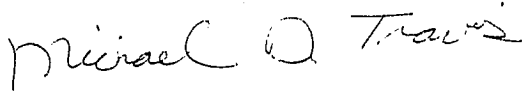
5.0 CLOSURE

RZA-AGRA, has been pleased to be of service to you. If you have any questions regarding the information contained in this report or if we may be of any further assistance, please feel free to contact us.

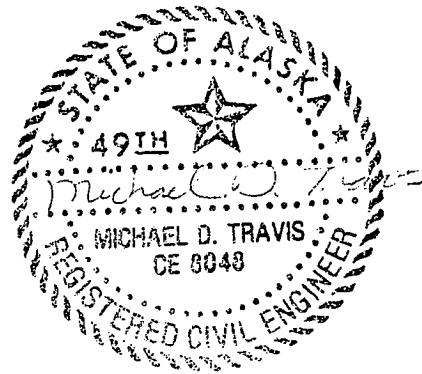
Respectfully submitted,
RZA-AGRA



Mark W. Rogers
Project Geologist



Michael D. Travis, P.E.
Environmental Services Manager



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USGS, City of Anchorage, and Greater Anchorage Borough, 1987. Water Resources Data in Alaska: Water-Data Report AK-87-1.

| Elevation reference: <i>Temporary Bench Mark 33.5 Feet</i> Ground surface elevation: <i>31.72</i> Casing elevation: <i>N/A</i> | | | | | | AS-BUILT DESIGN | | TESTING | |
|---|--|-------------|---------------|-------------|-------------|-----------------|--|---------|--|
| DEPTH (feet) | SOIL DESCRIPTION | SAMPLE TYPE | SAMPLE NUMBER | BLOW COUNTS | QVM READING | GROUND WATER | | | |
| 0 | <i>Loose, moist, brown, SP. Sand with gravel.</i> | █ | S-1 | | | | SOIL BORING ONLY; NO MONITORING WELL INSTALLED. | | |
| | <i>Dense, moist, brown, SP. Sand with gravel. Fine sand/gravel with oxidation.</i> | I | S-2 | 42 | 2 | | | | |
| 5 | <i>Dense, wet, brown to brown-grey, SP → SP-SM. SAND with gravel to SAND with silt and gravel. High diesel odors.</i> | I | S-3 | 64 | 273 | ▼ ATD | | | |
| 10 | <i>Dense, wet, salt-n-pepper to brown-grey, SM → SP-SM. Silty SAND with gravel to SAND with silt and gravel. Trace diesel odors.</i> | I | S-4 | 64 | 39 | | | | |
| | <i>Boring terminated at approximately 11.5 feet.</i> | | | | | | | | |
| 15 | | | | | | | | | |
| 20 | | | | | | | | | |
| 25 | | | | | | | | | |
| 30 | | | | | | | | | |

LEGEND

- █ Grab Sample
- ▼
ATD Observed groundwater level (ATD = at time of drilling)
- I 2-inch O.D. split-spoon sample

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| Elevation reference: <i>Temporary Bench Mark 33.5 Feet</i> Ground surface elevation: 29.19 Casing elevation: 28.74 | | | | | | | AS-BUILT DESIGN | | TESTING |
|--|--|-------------|---------------|-------------|-------------|--------------|-----------------|--|---------|
| DEPTH (feet) | SOIL DESCRIPTION | SAMPLE TYPE | SAMPLE NUMBER | BLOW COUNTS | OVM READING | GROUND WATER | | | |
| 0 | Loose, moist, brown, SP-SM. SAND with silt and gravel. Trace diesel odors. | █ | S-1 | | | 9 | | | |
| | Dense, moist, brown to grey-brown, SP-SM. SAND with silt and gravel. Trace diesel odors. | I | S-2 | 49 | | 6 | | | |
| 5 | Loose, wet, brown to grey-brown, SP-SM. SAND with silt and gravel. Pulpy organics and high diesel odors. | I | S-3 | 17 | | 144 | ▼ ATD | | |
| | Dense, wet, brown-grey, SP-SM. SAND with silt and gravel. Trace clayey silt and moderate diesel odors. | I | S-4 | 63 | | 249 | | | |
| 15 | Dense, moist, salt-n-pepper to blue-grey; SM→CL. Silty SAND with gravel to sandy lean clay with gravel. Trace diesel odor. | I | S-5 | 35 | | 55 | | | |
| 20 | Boring terminated at approximately 18 feet. | | | | | | | | |
| 25 | | | | | | | | | |
| 30 | | | | | | | | | |

LEGEND

- █ Grab Sample
- ▼ Observed groundwater level (ATD = at time of drilling)
- I 2-inch O.D. split-spoon sample

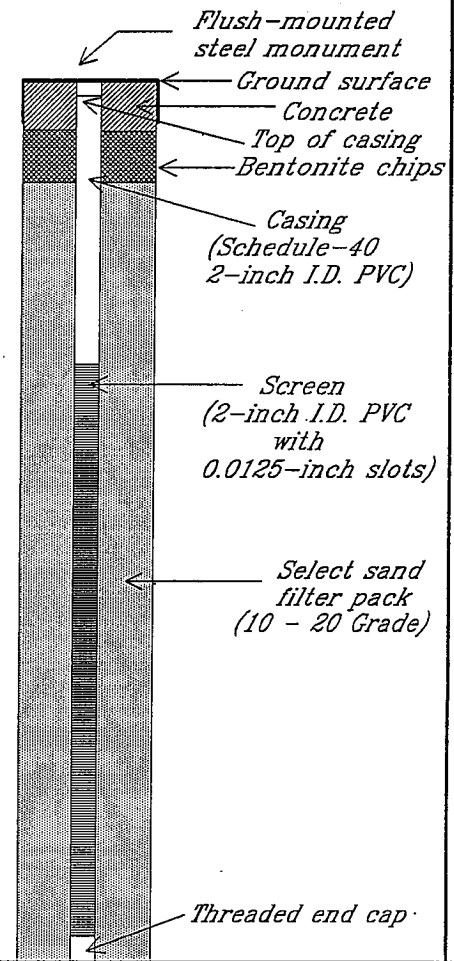
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Elevation reference: *Temporary Bench Mark 33.5 Feet*
 Ground surface elevation: *32.85* Casing elevation: *32.39*

AS-BUILT DESIGN

TESTING

| DEPTH (feet) | SOIL DESCRIPTION | SAMPLE TYPE | SAMPLE NUMBER | BLOW COUNTS | OVM READING | GROUND WATER |
|--------------|---|-------------|---------------|-------------|-------------|--------------|
| 0 | Dense, moist, brown, SP. SAND with gravel. Trace diesel odors. | █ | S-1 | | 40 | |
| | Loose, moist, brown, SP-SM. SAND with silt and gravel. SILT-CLAY with moderate diesel odors. | I | S-2 | 24 | 188 | |
| 5 | Brown to grey-brown, SP-SM. SAND with silt and gravel. Same as above. High diesel odors. | I | S-3 | 16 | 265 | ▼ ATD |
| | Loose, wet, brown-grey, SM. Silty SAND with gravel. High diesel odor. | I | S-4 | 19 | 249 | |
| 15 | Stiff, moist, brown-grey to grey, SC. Clayey SAND with gravel. Organics and mod diesel odors. | I | S-5 | 37 | 78 | |
| | Stiff, moist, blue-grey, CL. Sandy, lean, CLAY. Fine grad sand/gravel. | I | S-6 | 16 | 19 | |
| 20 | Sampling terminated at approximately 20 feet. | | | | | |
| 25 | | | | | | |
| 30 | | | | | | |



Monitoring well terminated at approximately 18.5 feet.

LEGEND

- █ Grab Sample
- I 2-inch O.D. split-spoon sample

- ▼ Observed groundwater level (ATD = at time of drilling)

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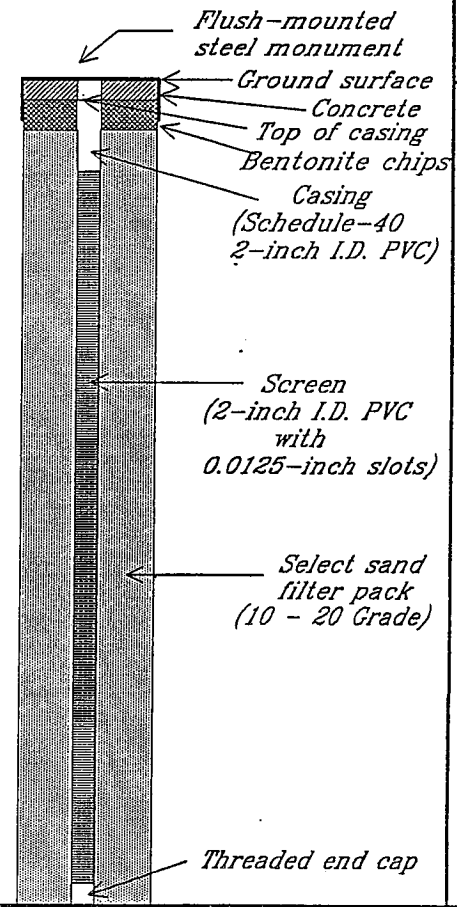
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Elevation reference: *Temporary Bench Mark 33.5 Feet*
 Ground surface elevation: *33.51* Casing elevation: *33.18*

AS-BUILT DESIGN

TESTING

| DEPTH (feet) | SOIL DESCRIPTION | SAMPLE TYPE | SAMPLE NUMBER | BLOW COUNTS | OVM READING | GROUND WATER |
|--------------|--|-------------|---------------|-------------|-------------|--------------|
| 0 | <i>Loose, moist, brown, SP. SAND with gravel.</i> | ■ | S-1 | | 11 | |
| | <i>Dense, moist, brown to brown-grey, SP-SM. SAND with silt and gravel. Trace diesel odors.</i> | | S-2 | 46 | 8 | |
| 5 | <i>Dense, wet, brown-grey. SP-SM. SAND with silt and gravel. Moderate diesel odor.</i> | | S-3 | 52 | 18 | ▼ ATD |
| 10 | <i>Dense, wet, brown-grey, SP-SM. Silty SAND with gravel. Fine sand/gravel.</i> | | S-4 | 56 | 7 | |
| 15 | <i>Stiff, moist, brown-grey to blue-grey, SC → CL. Clayey SAND to sandy, lean CLAY. Fine sand.</i> | | S-5 | 27 | 5 | |
| 20 | <i>Boring terminated at approximately 17.5 feet.</i> | | | | | |
| 25 | | | | | | |
| 30 | | | | | | |



LEGEND

- Grab Sample
- ▼ (ATD = at time of drilling) Observed groundwater level
- I 2-inch O.D. split- spoon sample

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| Elevation reference: <i>Temporary Bench Mark 33.5</i> Ground surface elevation: <i>31.84</i> Casing elevation: <i>N/A</i> | | | | | | | AS-BUILT DESIGN | TESTING |
|--|---|-------------|---------------|-------------|-------------|--------------|--|---------|
| DEPTH (feet) | SOIL DESCRIPTION | SAMPLE TYPE | SAMPLE NUMBER | BLOW COUNTS | OVM READING | GROUND WATER | SOIL BORING ONLY; NO MONITORING WELL INSTALLED. | |
| 0 | <i>Loose, moist, brown, SP. Sand with gravel.</i> | ■ | S-1 | | 3 | | | |
| | <i>Dense, moist, brown, SP → SP-SM. SAND with gravel to SAND with silt and gravel. Clayey silt lenses with trace diesel odors.</i> | I | S-2 | 72 | 12 | | | |
| | <i>Dense, moist, brown-grey, SP-SM. SAND with silt and gravel. Clayey silt lenses with high diesel odors-organics.</i> | I | S-3 | 26 | 184 | | | |
| 5 | <i>Dense, wet, brown to brown-grey, SP-SM. SAND with silt and gravel. Coarse sand/gravel and high diesel odors-sheen.</i> | I | S-4 | 37 | 308 | ▼ ATD | | |
| 10 | <i>Dense, wet, salt-n-pepper to brown-grey, SM → SP-SM. Silty SAND with gravel to SAND with silt and gravel. High diesel odors-sheen.</i> | I | S-5 | 83 | 290 | | | |
| | <i>Boring terminated at approximately 11.5 feet.</i> | | | | | | | |
| 15 | | | | | | | | |
| 20 | | | | | | | | |
| 25 | | | | | | | | |
| 30 | | | | | | | | |

LEGEND

- Grab Sample
- I 2-inch O.D. split-spoon sample


▼ Observed groundwater level
 ATD (ATD = at time of drilling)

RZA - AGRA
Engineering & Environmental Services
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ML & P

PROJECT GENERATION PLANT NO. 1

W.O. A-1271 BORING NO. B-6

| Elevation reference: Temporary Bench Mark 33.5 Feet Ground surface elevation: 31.84 Casing elevation: N/A | | | | | | | AS-BUILT DESIGN | TESTING |
|--|---|-------------|---------------|-------------|-------------|--------------|--|---|
| DEPTH (feet) | SOIL DESCRIPTION | SAMPLE TYPE | SAMPLE NUMBER | BLOW COUNTS | OVM READING | GROUND WATER | SOIL BORING ONLY; NO MONITORING WELL INSTALLED. | |
| 0 | Dense, moist, brown, SP. Sand with gravel. | █ | S-1 | | 33 | | |  ATD |
| | Dense, moist, grey-brown, SP-SM. SAND with silt and gravel to SAND with silt and gravel. Fine sand/gravel and trace diesel odors. | I | S-2 | 73 | 17 | | | |
| 5 | Dense, wet, brown to brown-grey, SP-SM. SAND with silt and gravel. Clayey-silt with cobbles and high diesel odors-sheen. | I | S-3 | 61 | 202 | | | |
| 10 | Dense, wet, salt-n-pepper to brown-grey, SM → SP-SM. Silty SAND with gravel to SAND with silt and gravel. Trace diesel odors. | I | S-4 | 64 | 51 | | | |
| | Boring terminated at approximately 11.5 feet. | | | | | | | |
| 15 | | | | | | | | |
| 20 | | | | | | | | |
| 25 | | | | | | | | |
| 30 | | | | | | | | |

LEGEND

█ Grab Sample

▼ Observed groundwater level
ATD (ATD = at time of drilling)

I 2-inch O.D. split-spoon sample

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ML & P

PROJECT GENERATION PLANT NO. 1

W.O. A-1271

WELL NO. B-7

| Elevation reference: Temporary Bench Mark 33.5 Feet Ground surface elevation: 33.20 Casing elevation: 32.67 | | | | | | | AS-BUILT DESIGN | TESTING |
|--|---|-------------|---------------|-------------|-------------|--------------|-----------------|---------|
| DEPTH (feet) | SOIL DESCRIPTION | SAMPLE TYPE | SAMPLE NUMBER | BLOW COUNTS | OVM READING | GROUND WATER | | |
| 0 | Loose, moist, brown, SP. SAND with gravel. | █ | S-1 | | 5 | | | |
| | Dense, moist, brown to grey-brown, SP. SAND with gravel. Silty sand with clay and trace diesel odors. | I | S-2 | 52 | -- | | | |
| 5 | Dense, wet, grey-brown, SP → SP-SM. SAND with gravel to SAND with silt and gravel. Trace diesel odors. | I | S-3 | 80 | 4 | ▼ ATD | | |
| 10 | Dense, wet, brown-grey to grey, SM → SP-SM. Silty SAND with gravel to SAND. Fine sand/gravel and clayey silt. | I | S-4 | 67 | 3 | | | |
| 15 | Moist, soft, brown-grey to blue-grey, SC → CL. Clayey SAND with gravel to sandy, lean CLAY. | I | S-5 | 8 | 2 | | | |
| 20 | Boring terminated at approximately 18 feet. | | | | | | | |
| 25 | | | | | | | | |
| 30 | | | | | | | | |

LEGEND

- █ Grab Sample
- I 2-inch O.D. split-spoon sample

- ▼ Observed groundwater level (ATD = at time of drilling)

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Elevation reference: *Temporary Bench Mark 33.5 Feet*
 Ground surface elevation: *31.56* Casing elevation: *N/A*

AS-BUILT DESIGN

TESTING

SOIL BORING ONLY;
 NO MONITORING WELL INSTALLED.

| DEPTH (feet) | SOIL DESCRIPTION | SAMPLE TYPE | SAMPLE NUMBER | BLOW COUNTS | OVN READING | GROUND WATER |
|--------------|--|-------------|---------------|-------------|-------------|--------------|
| 0 | <i>Loose, moist, brown, SP-SM. SAND with silt and gravel.</i> | ■ | S-1 | | 1 | |
| | <i>Dense, moist, brown to grey-brown, SP-SM → SM. SAND with silt and gravel to silty SAND with gravel.</i> | I | S-2 | 28 | 2 | |
| | | | | | | |
| 5 | <i>Dense, wet, brown to grey-brown, SM → CL. Silty SAND with gravel to clayey SAND with gravel. Oxidized sand/gravel lenses with trace diesel odors.</i> | I | S-3 | 40 | 13 | |
| | | | | | | ▼ ATD |
| 10 | <i>Dense, wet, brown to brown-grey, SM → SP-SM. Silty sand with gravel to SAND with silt and gravel. Coarse sand/gravel with high diesel odor-sheen.</i> | I | S-4 | 95 | 276 | |
| | <i>Dense, wet, brown-grey, SP-SM. Sand with silt and gravel. Clayey-silt lenses with high diesel odors.</i> | I | S-5 | 40 | 147 | |
| 15 | <i>Boring terminated at approximately 13.5 feet.</i> | | | | | |
| | | | | | | |
| 20 | | | | | | |
| | | | | | | |
| 25 | | | | | | |
| | | | | | | |
| 30 | | | | | | |

LEGEND

■ Grab Sample

▼ Observed groundwater level
 ATD (ATD = at time of drilling)

I 2-inch O.D. split-spoon sample

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ML & P

PROJECT GENERATION PLANT NO. 1

W.O. A-1271

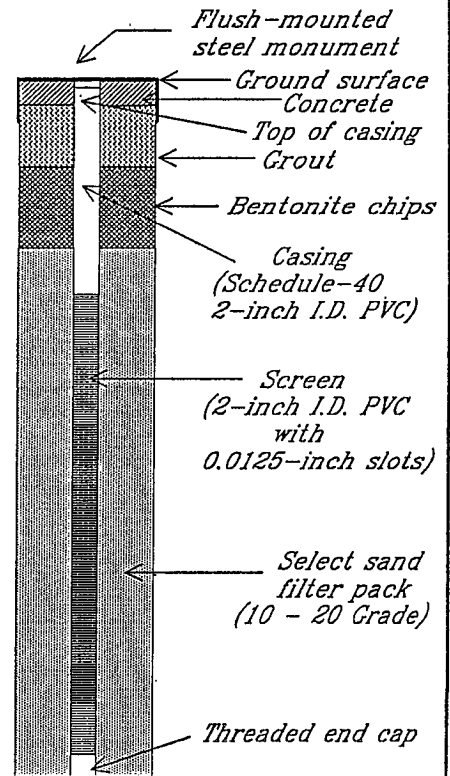
WELL NO. B-9

Elevation reference: Temporary Bench Mark 33.5 Feet
 Ground surface elevation: 33.17 Casing elevation: 32.90

AS-BUILT DESIGN

TESTING

| DEPTH (feet) | SOIL DESCRIPTION | SAMPLE TYPE | SAMPLE NUMBER | BLOW COUNTS | OVM READING | GROUND WATER |
|--------------|--|-------------|---------------|-------------|-------------|--------------|
| 0 | Loose, moderate moist, brown, SP-SM. Sand with silt and gravel. | █ | S-1 | | 11 | |
| | Brown, SP-SM. SAND with silt and gravel. Same as above. | I | S-2 | 22 | | |
| 5 | Firm, moist, brown to brown-grey, SM → SC. Silty SAND to clayey SAND with gravel. Trace diesel odors. | I | S-3 | 15 | 50 | |
| | Stiff, wet, brown-grey to grey, SC → CL. Clayey SAND with gravel to sandy, lean CLAY with gravel. Moderate diesel odors. | I | S-4 | 19 | 15 | ▼ ATD |
| 10 | Medium dense, wet, grey-brown, SP-SM. SAND with silt and gravel. Trace diesel odors. | I | S-5 | 32 | 78 | |
| 15 | Stiff, moist, blue-grey, CL. Sandy, lean, CLAY with gravel. | I | S-6 | 16 | 19 | |
| | Sampling terminated at approximately 16.5 feet. | | | | | |
| 20 | | | | | | |
| 25 | | | | | | |
| 30 | | | | | | |



Monitoring well terminated at approximately 14.8 feet.

LEGEND

- █ Grab Sample
- I 2-inch O.D. split-spoon sample

▼
ATD Observed groundwater level (ATD = at time of drilling)

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 Anchorage, Alaska 99501-3442

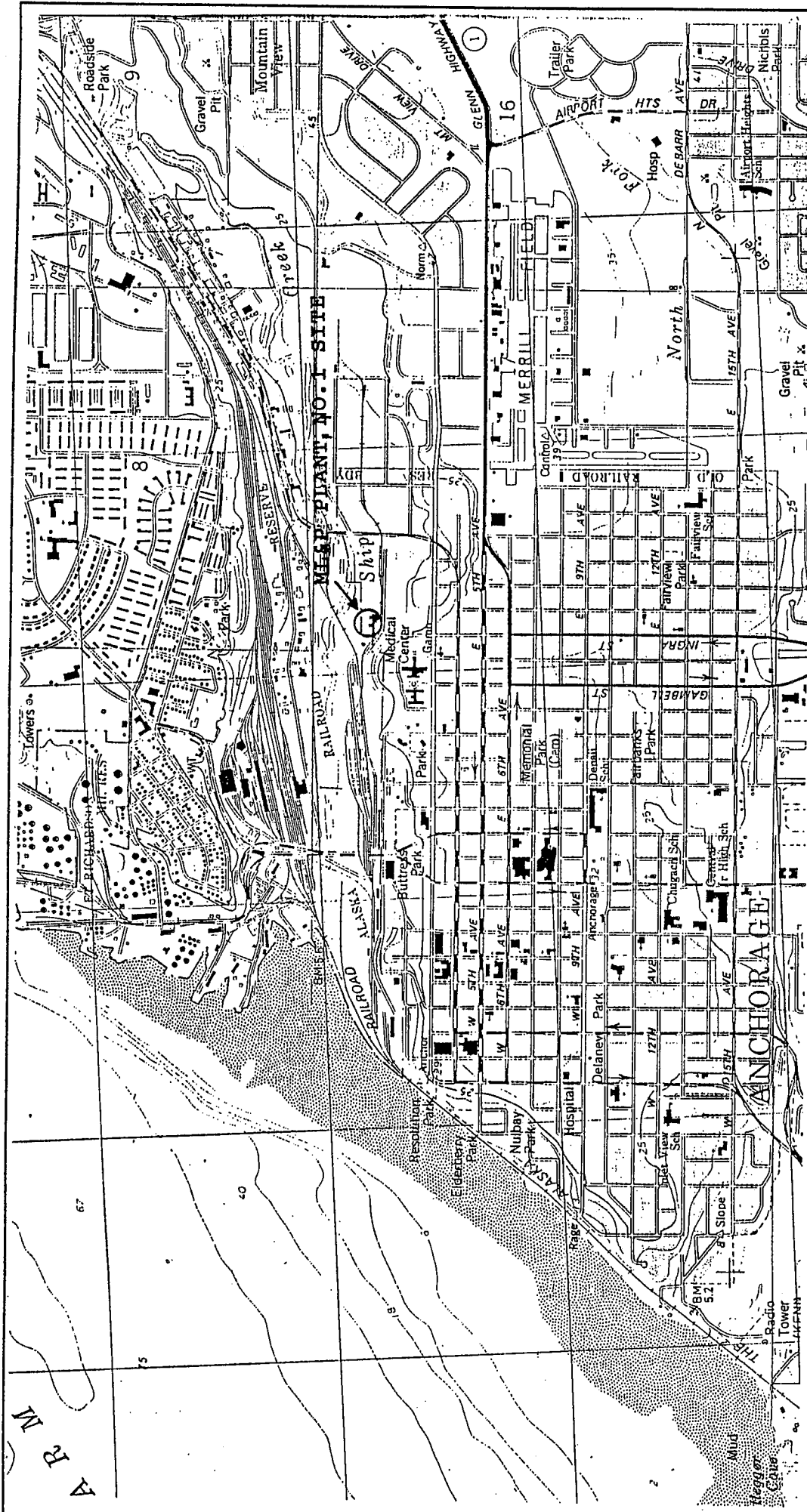
TABLE 3

SUMMARY OF SOIL BORINGS AND FIELD HEADSPACE DATA

| BORING NUMBER | GROUND SURFACE ELEVATION | SAMPLE NUMBER | APPROX. DEPTH (FT) | HEADSPACE RESULTS (PPM) | ASTM CLASS D: 2488 |
|---------------|--------------------------|---------------|--------------------|-------------------------|-----------------------|
| B-1 | 31.72 | S-1 | 0.0-0.5 | 2.0 | SP |
| | | S-2 | 1.5-3.0 | --- | SP |
| | | S-3 | 5.0-6.5 | 273. | SP→SP-SM. |
| | | S-4 | 10.0-11.5 | 39. | SM→SP-SM. |
| B-2 | 29.19 | S-1 | 0.0-0.5 | 9.0 | SP-SM |
| | | S-2 | 2.5-4.0 | 6.0 | SP-SM |
| | | S-3 | 5.0-6.5 | 144. | SP-SM |
| | | S-4 | 10.0-11.5 | 249. | SP-SM |
| | | S-5 | 15.0-16.5 | 55. | SM→CL. |
| B-3 | 32.85 | S-1 | 0.0-0.5 | 40. | SP |
| | | S-2 | 2.5-4.0 | 188. | SP-SM |
| | | S-3 | 5.0-6.5 | 265. | SP-SM |
| | | S-4 | 8.5-10.0 | 249. | SM |
| | | S-5 | 13.5-15.0 | 78. | SC |
| | | S-6 | 18.5-20.0 | 19. | CL |
| B-4 | 33.51 | S-1 | 0.0-0.5 | 11. | SP |
| | | S-2 | 1.0-2.5 | 8.0 | SP-SM |
| | | S-3 | 5.0-6.5 | 18. | SP-SM |
| | | S-4 | 10.0-11.5 | 7.0 | SM |
| | | S-5 | 15.0-16.5 | 5.0 | SC→CL. |
| B-5 | 31.84 | S-1 | 0.0-0.5 | 3.0 | SP |
| | | S-2 | 1.0-2.5 | 12. | SP→SP-SM. |
| | | S-3 | 3.5-5.0 | 184. | SP-SM |
| | | S-4 | 6.0-7.5 | 308. | SP-SM |
| | | S-5 | 10.0-11.5 | 290. | SM→SP-SM. |
| B-6 | 33.22 | S-1 | 0.0-0.5 | 33. | SP |
| | | S-2 | 2.5-4.0 | 17. | SP-SM |
| | | S-3 | 5.0-6.5 | 202. | SP-SM |
| | | S-4 | 10.0-11.5 | 51. | SM→SP-SM. |
| B-7 | 33.20 | S-1 | 0.0-0.5 | 5.0 | SP |
| | | S-2 | 2.5-4.0 | --- | SP |
| | | S-3 | 5.0-6.5 | 4.0 | SP→SP-SM. |
| | | S-4 | 10.0-11.5 | 3.0 | SM→SP-SM. |
| | | S-5 | 15.0-16.5 | 2.0 | SC→CL |

TABLE 3 CONTINUED

| BORING | GROUND SURFACE ELEVATION | SAMPLE | APPROX. DEPTH (FEET) | HEADSPACE RESULTS (PPM-V) | ASTM CLASS D: 2488 |
|--------|--------------------------|--------|----------------------|---------------------------|-----------------------|
| B-8 | 31.56 | S-1 | 0.0-0.5 | 1.0 | SP-SM |
| | | S-2 | 1.0-2.5 | 2.0 | SP-SM→SM. |
| | | S-3 | 5.0-6.5 | 13. | SM→SC |
| | | S-4 | 9.0-10.5 | 276. | SM→SP-SM. |
| | | S-5 | 12.0-13.5 | 147. | SP-SM |
| B-9 | 33.17 | S-1 | 0.0-1.0 | 11. | SP-SM |
| | | S-2 | 2.5-4.0 | --- | SP-SM |
| | | S-3 | 5.0-7.0 | 50. | SM→SC |
| | | S-4 | 7.5-9.0 | 15. | SC→CL |
| | | S-5 | 10.0-12.0 | --- | SP-SM |
| | | S-6 | 15.0-16.5 | 3.0 | CL |



SCALE



SOURCE

USGS 7.5 MINUTE SERIES
TOPOGRAPHIC QUADRANGLE
ANCHORAGE (A-8)
NW, ALASKA

CONTOUR INTERVAL IN METERS

RZA-AGRA
ENGINEERING & ENVIRONMENTAL SERVICES

711 H STREET
SUITE 450
ANCHORAGE, ALASKA 99501-3442

W.O. A-1271

DESIGN MWR

DRAWN PSG

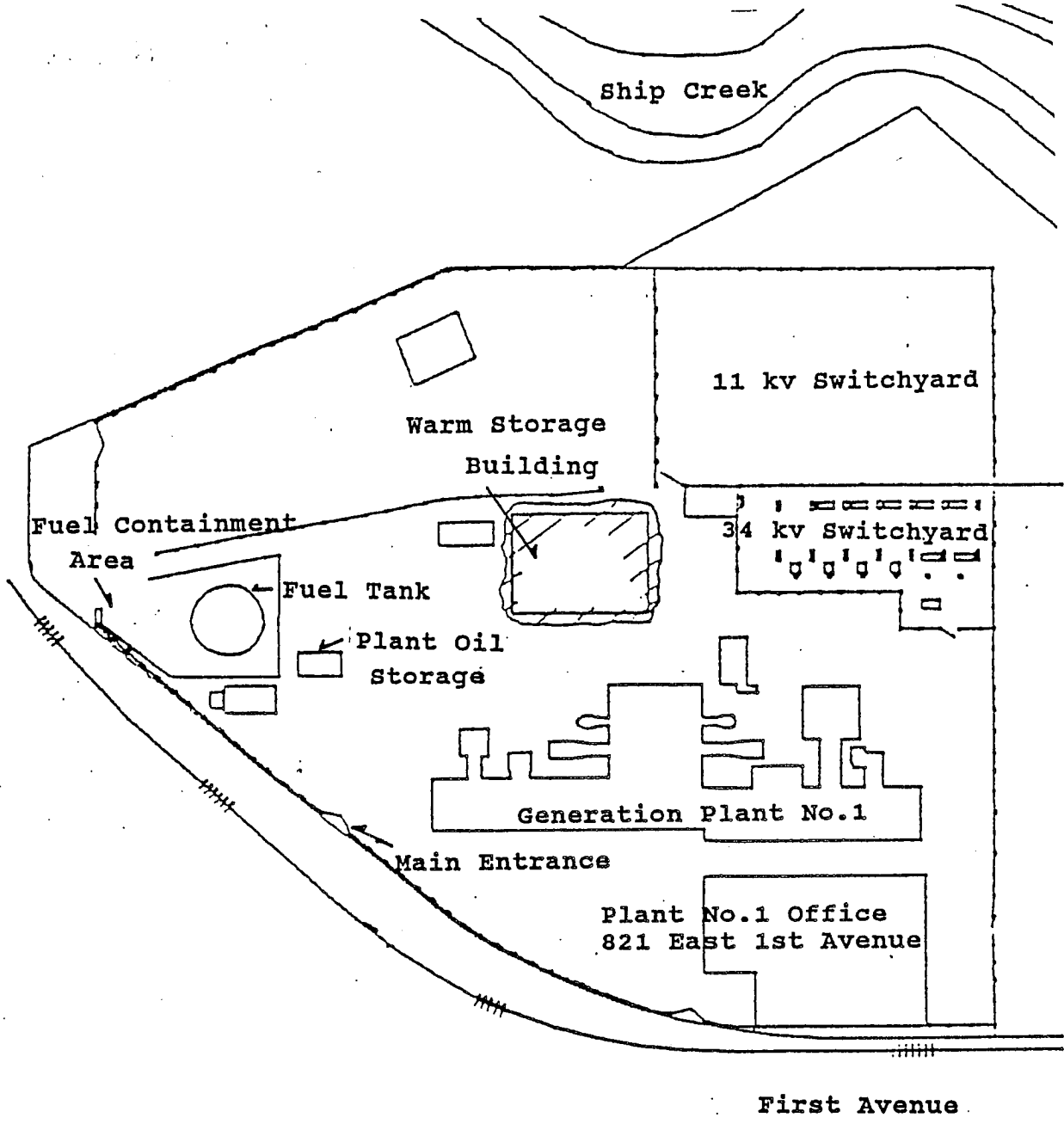
DATE OCTOBER 1991

SCALE AS NOTED

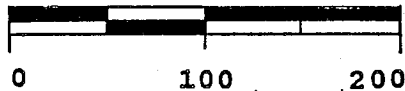
MUNICIPAL LIGHT & POWER PLANT NO. 1
ANCHORAGE, ALASKA

SITE VICINITY MAP

FIGURE 1



HORIZONTAL SCALE (FEET)



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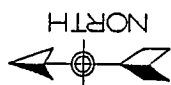
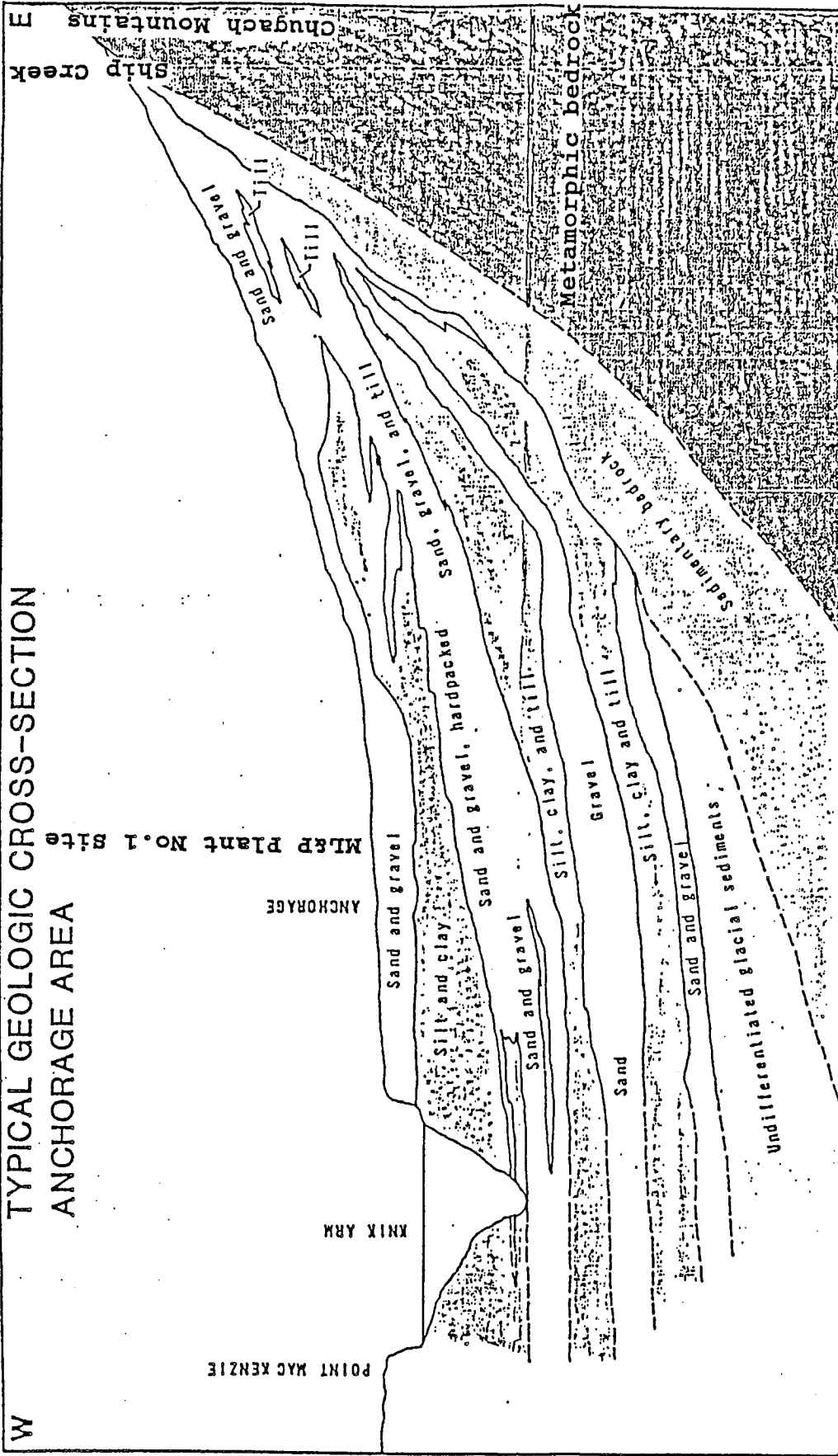
| | |
|--------|--------------|
| W.O. | A-1271 |
| DESIGN | MWR |
| DRAWN | PSG |
| DATE | OCTOBER 1991 |
| SCALE | 1"=100' |

MUNICIPAL LIGHT & POWER PLANT NO. 1
ANCHORAGE, ALASKA

CURRENT LAYOUT PLAN

FIGURE 2

**TYPICAL GEOLOGIC CROSS-SECTION
ANCHORAGE AREA**



Anchorage area. FROM FREETHEY AND SCULLY, 1980.

SOURCE

FREETHEY & SCULLY, 1980
WATER RESOURCES OF THE
COOK INLET BASIN, ALASKA:
USGS ATLAS HA-20

RZA-AGRA
ENGINEERING & ENVIRONMENTAL SERVICES

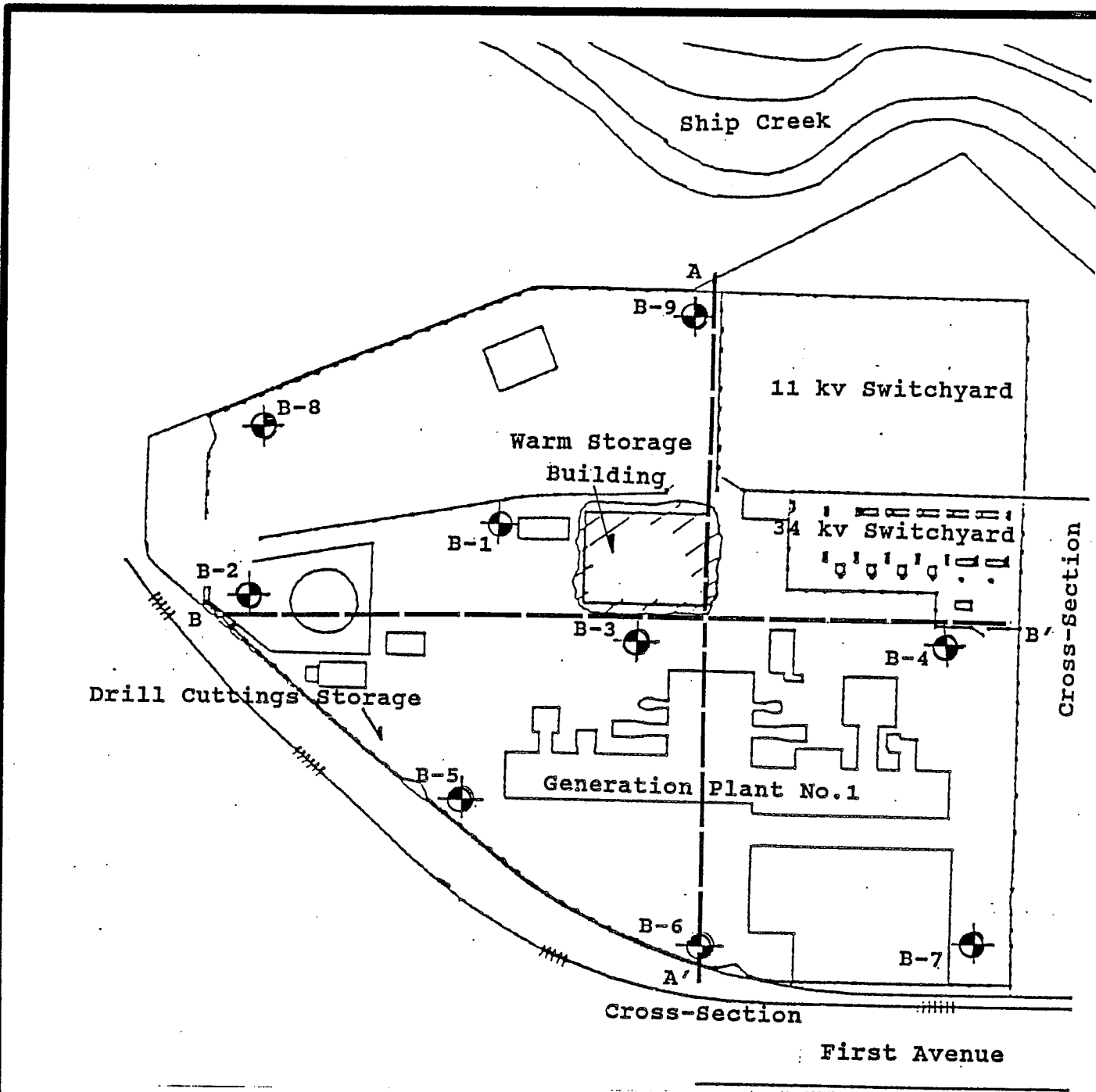
711 H STREET
SUITE 450
ANCHORAGE, ALASKA 99501-3442

| | |
|--------|--------------|
| W.O. | A-1271 |
| DESIGN | MWR |
| DRAWN | PSG |
| DATE | OCTOBER 1991 |
| SCALE | NOT TO SCALE |

MUNICIPAL LIGHT & POWER PLANT NO. 1
ANCHORAGE, ALASKA


SCHEMATIC GEOLOGIC CROSS-SECTION OF
THE ANCHORAGE AREA

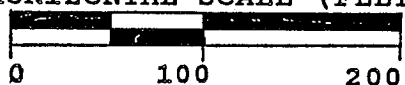
FIGURE 3



LEGEND

 MONITORING WELL / SOIL BORING

 Cross-Section
 HORIZONTAL SCALE (FEET)



RZA-AGRA
 ENGINEERING & ENVIRONMENTAL SERVICES

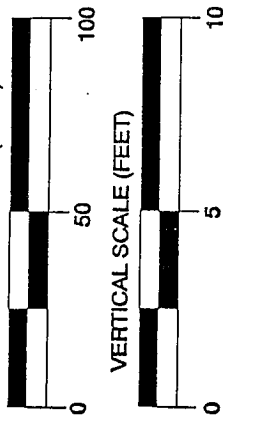
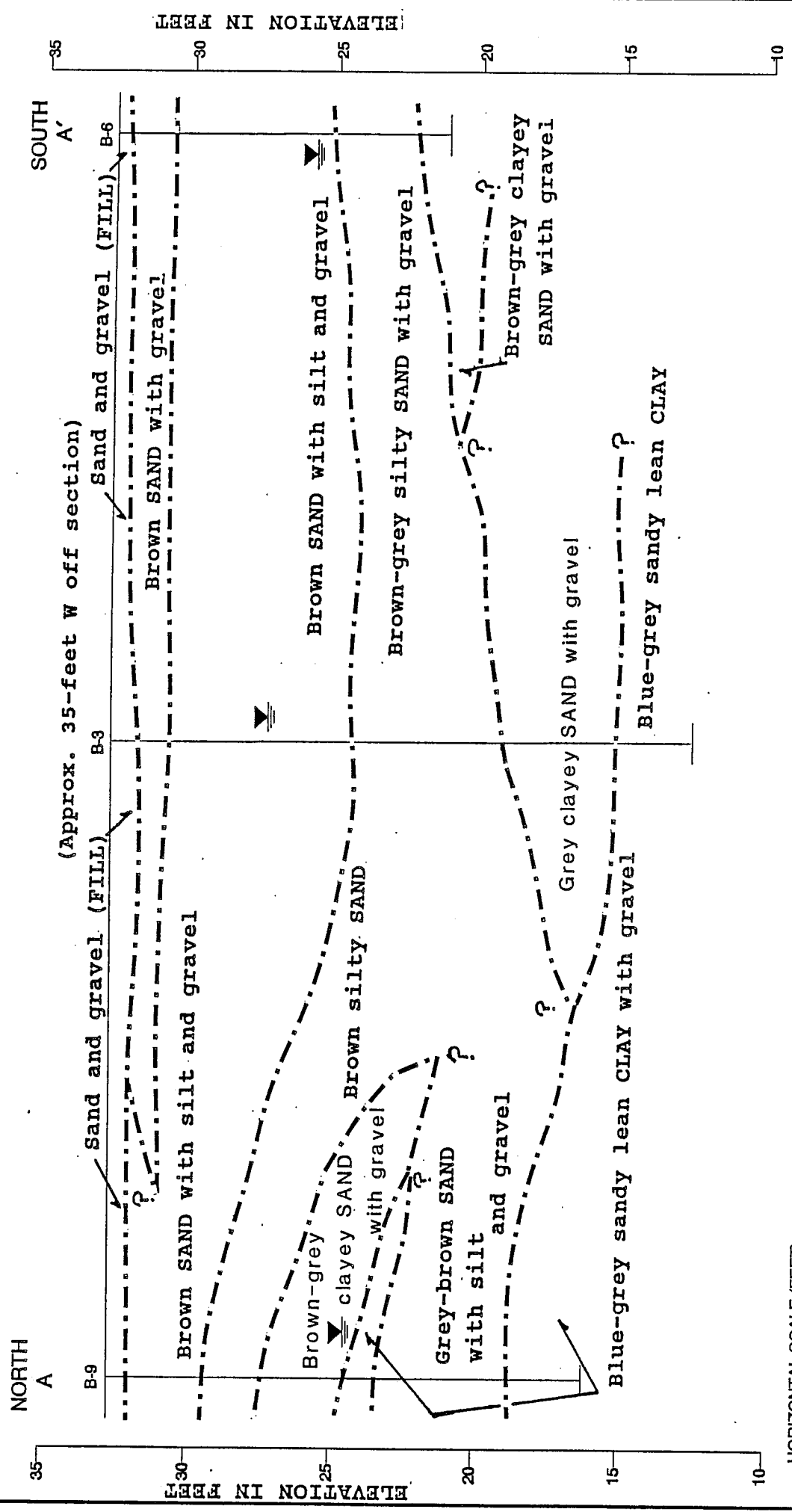
711 H STREET
 SUITE 450
 ANCHORAGE, ALASKA 99501-3442

| | |
|--------|--------------|
| W.O. | A-1271 |
| DESIGN | MWR |
| DRAWN | PSG |
| DATE | OCTOBER 1991 |
| SCALE | 1"=100' |

MUNICIPAL LIGHT & POWER PLANT NO. 1
 ANCHORAGE, ALASKA

SITE AND EXPLORATION PLAN

FIGURE 4



RZA-AGRA
ENGINEERING & ENVIRONMENTAL SERVICES

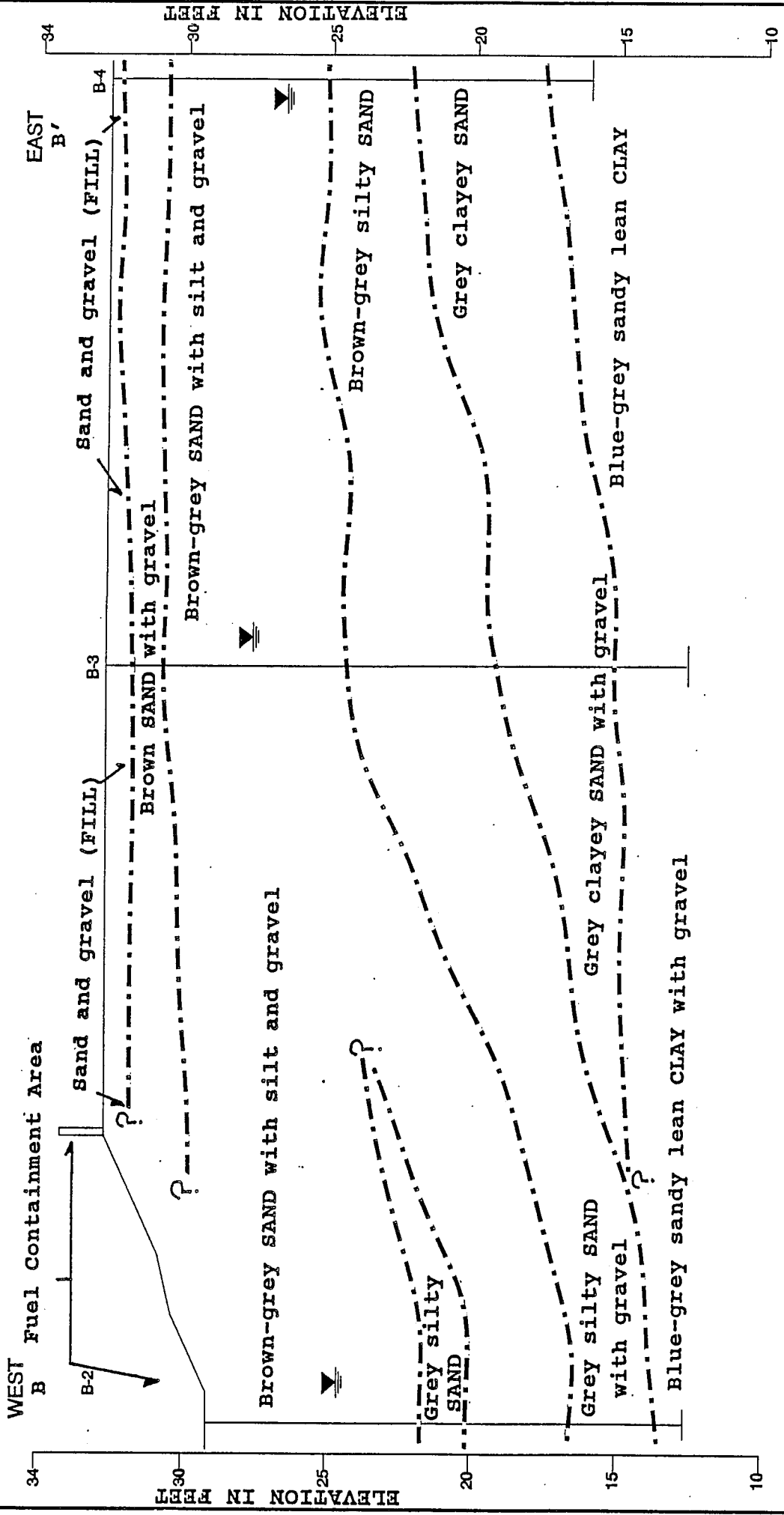
711 H STREET
SUITE 450
ANCHORAGE, ALASKA 99501-3442

W.O. A-1271
DESIGN MWR
DRAWN PSG
DATE OCTOBER 1991
SCALE AS NOTED

MUNICIPAL LIGHT & POWER PLANT NO. 1
ANCHORAGE, ALASKA

GENERALIZED SUBSURFACE CROSS-SECTION A-A'

FIGURE 5

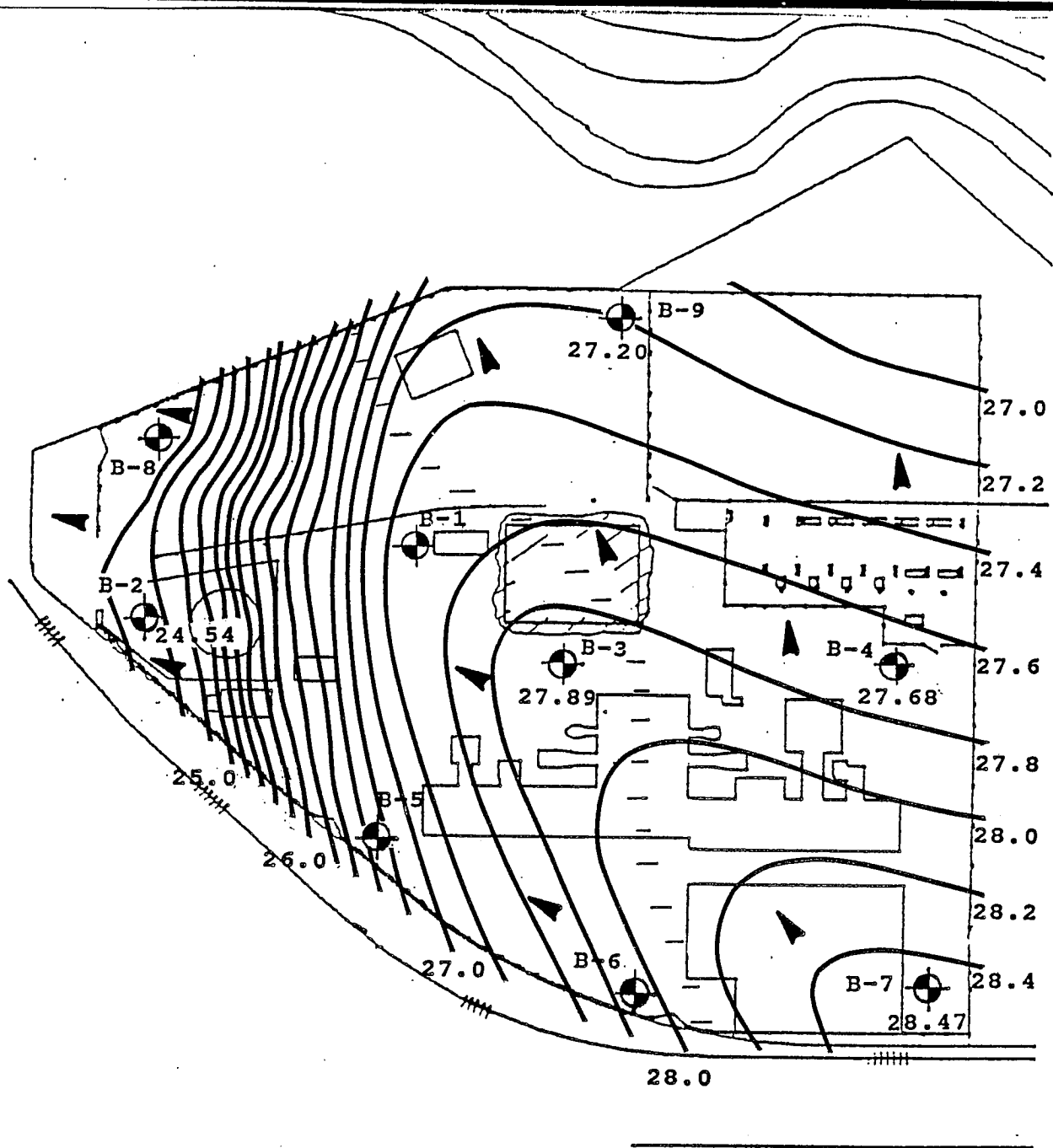


| | | |
|---|--------|--------------|
| RZA-AGRA ENGINEERING & ENVIRONMENTAL SERVICES 711 H STREET SUITE 450 ANCHORAGE, ALASKA 99501-3442 | W.O. | A-1271 |
| | DESIGN | MWR |
| | DRAWN | PSG |
| | DATE | OCTOBER 1991 |
| SCALE | | AS NOTED |

MUNICIPAL LIGHT & POWER PLANT NO. 1
ANCHORAGE, ALASKA

GENERALIZED SUBSURFACE CROSS-SECTION B-B'

FIGURE 6



LEGEND



Monitoring Well

24.54 Stabilized Groundwater Elevation
At The Time Of Measurement

..... Inferred Groundwater
Elevation Contour

..... Inferred Direction Of
Groundwater Migration



RZA-AGRA
ENGINEERING & ENVIRONMENTAL SERVICES

711 H STREET
SUITE 450
ANCHORAGE, ALASKA 99501-3442

W.O. A-1271
DESIGN MWR
DRAWN PSG
DATE JANUARY 1992
SCALE 1"=100'

MUNICIPAL LIGHT & POWER PLANT NO. 1
ANCHORAGE, ALASKA

INFERRED GROUNDWATER ELEVATION CONTOURS

FIGURE 7

APPENDIX B

**CHEMICAL AND GEOLOGICAL LABORATORIES OF ALASKA, INC.
TEST RESULTS**

CHEMICAL & GEOLOGICAL LABORATORIES OF ALASKA, INC.

P.O. BOX 4-1278
Anchorage, Alaska 99509

TELEPHONE (907) 562-2343

ANCHORAGE INDUSTRIAL CENTER
5633 B Street



ANALYTICAL REPORT

From Municipal Light & Power Product Soil
 Address Anchorage, Alaska Date January 17, 1986
 Other Pertinent Data Invoice #35543
 Analyzed by Staff Date January 31, 1986 Lab No. 1809

REPORT OF ANALYSIS
 SOIL SAMPLES
ML & P PLANT #1, 821 EAST 1ST AVENUE

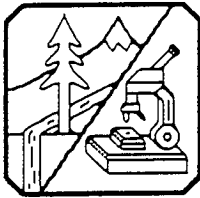
Samples Taken By: Stephen C. Ede-Chemical & Geological Laboratories of Ak., Inc.

| <u>DATE/TIME, HRS.</u> | <u>SAMPLE #</u> | <u>HOLE #</u> | <u>DEPTH</u> | <u>ppm OIL & GREASE</u> | <u>ppm POLYCHLORINATED BIPHENYL</u> |
|------------------------|-----------------|---------------|--------------|---------------------------------|---|
| 17-86/0831 | 1A | 1 | 3" | 156 | 0.4 |
| 17-86/0833 | 1B | 1 | 2' | 2,150 | 2.5 |
| 1-17-86/0837 | 1C | 1 | 4' | 4,090 | 3.3 |
| 1-17-86/0843 | 1D | 1 | 6' | 366 | <0.1 |
| 1-17-86/0852 | 2A | 2 | 3" | 544 | 9.3 |
| 1-17-86/0854 | 2B | 2 | 2' | 318 | 4.4 |
| 1-17-86/0857 | 2C | 2 | 6' | 739 | 0.7 |
| 1-17-86/0906 | 3A | 3 | 6" | 327 | 0.8 |
| 1-17-86/0909 | 3B | 3 | 3' | 1,570 | 0.6 |
| 1-17-86/0912 | 3C | 3 | 6' | 1,440 | 10 |
| 1-17-86/— | 4A | 4 | 6" | 520 | 8.2 |
| 1-17-86/— | 4B | 4 | 3' | 8,830 | 1.8 |
| 1-17-86/0929 | 4C | 4 | 6' | 8,210 | 2.8 |
| 1-17-86/0933 | 5A | 5 | 6" | 662 | 0.4 |
| 1-17-86/0936 | 5B | 5 | 3' | 132 | 0.4 |
| 1-17-86/0935 | 5C | 5 | 6' | 2,120 | 2.6 |
| 17-86/0948 | 6A | 6 | 6" | 1,060 | 5.7 |
| 7-86/0950 | 6B | 6 | 3' | 1,340 | 6.5 |
| 1-17-86/0953 | 6C | 6 | 6' | 139 | 0.2 |
| 1-17-86/1006 | 7A | 7 | 6" | 2,090 | 41 |
| 1-17-86/1007 | 7B | 7 | 3' | 600 | 11 |

| <u>DATE/TIME, HRS.</u> | <u>SAMPLE #</u> | <u>HOLE #</u> | <u>DEPTH</u> | <u>ppm</u> <u>OIL & GREASE</u> | <u>AROCLOR 1260 ppm</u> <u>POLYCHLORINATED BIPHENYL</u> |
|------------------------|-----------------|---------------|--------------|---------------------------------------|--|
| 1-17-86/1001 | 7C | 7 | 6' | 1,140 | 6.3 |
| 1-17-86/1022 | 8A | 8 | 6" | 1,491 | 7.9 |
| 1-17-86/1024 | 8B | 8 | 3' | 767 | 2.3 |
| 1-17-86/1026 | 8C | 8 | 6' | 1,390 | 0.7 |
| 1-17-86/1040 | 9A | 9 | 6" | 459 | 2.8 |
| 1-17-86/1043 | 9B | 9 | 3' | 3,480 | 0.5 |
| 1-17-86/1049 | 9C | 9 | 6' | 2,980 | 1.4 |
| 1-17-86/1153 | 10A | 10 | 6" | 175 | 1.4 |
| 1-17-86/1157 | 10B | 10 | 3' | 779 | 0.7 |
| 1-17-86/1201 | 10C | 10 | 6' | 573 | 0.5 |
| 1-17-86/1215 | 11A | 11 | 6" | 966 | 2.8 |
| 1-17-86/1218 | 11B | 11 | 3' | 123 | 0.5 |
| 1-17-86/1221 | 11C | 11 | 6' | 1,020 | 1.4 |

APPENDIX C

**NORTHERN TESTING LABORATORIES, INC. TEST DATA
SOIL SAMPLES**



NORTHERN TESTING LABORATORIES, INC.

3330 INDUSTRIAL AVENUE
2505 FAIRBANKS STREET

FAIRBANKS, ALASKA 99701
ANCHORAGE, ALASKA 99503

(907) 456-3116 • FAX 456-3125
(907) 277-8378 • FAX 274-9645

Municipal Light & Power
P.O. Box 196650
Anchorage AK 99519-6650

Report Date: 10/15/91

Date Arrived: 09/27/91
Date Sampled: 09/25/91
Time Sampled: -
Collected By: MWR

Attn: Peter Smithson

Definitions
MDL = Method Detection
Limit

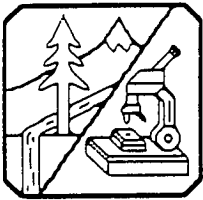
B = Below Regulatory Min.
H = Above Regulatory Max.
E = Below Detection Limit
Estimated Value

Our Lab #: A114406
Location/Project: A-1271
Your Sample ID: B1-S1
Sample Matrix: Soil
Comments:

| Lab Number | Method | Parameter | Units | Result | Flag | MDL | Date Analyzed |
|------------|-----------|------------------------------|-----------|--------|------|------|---------------|
| A114406 | EPA 160.3 | Solids | % | 95.8 | | | 10/02/91 |
| A114406 | EPA 418.1 | Total Petroleum Hydrocarbons | mg/dry kg | 247 | | 20 | 10/07/91 |
| A114406 | EPA 8010 | Bromodichloromethane | mg/dry kg | <MDL | | 0.02 | 10/09/91 |
| | | Bromoform | mg/dry kg | <MDL | | 0.06 | |
| | | Bromomethane | mg/dry kg | <MDL | | 0.12 | |
| | | Carbon Tetrachloride | mg/dry kg | <MDL | | 0.01 | |
| | | Chlorobenzene | mg/dry kg | <MDL | | 0.01 | |
| | | Chloroethane | mg/dry kg | <MDL | | 0.12 | |
| | | 2-Chloroethylvinylether | mg/dry kg | <MDL | | 0.12 | |
| | | Chloroform | mg/dry kg | <MDL | | 0.01 | |
| | | Chloromethane | mg/dry kg | <MDL | | 0.12 | |
| | | Dibromochloromethane | mg/dry kg | <MDL | | 0.03 | |
| | | 1,2-Dichlorobenzene | mg/dry kg | <MDL | | 0.01 | |
| | | 1,3-Dichlorobenzene | mg/dry kg | <MDL | | 0.01 | |
| | | 1,4-Dichlorobenzene | mg/dry kg | <MDL | | 0.01 | |
| | | 1,1-Dichloroethane | mg/dry kg | <MDL | | 0.01 | |
| | | 1,2-Dichloroethane | mg/dry kg | <MDL | | 0.01 | |
| | | 1,1-Dichloroethylene | mg/dry kg | <MDL | | 0.06 | |
| | | trans-1,2-Dichloroethylene | mg/dry kg | <MDL | | 0.06 | |
| | | 1,2-Dichloropropane | mg/dry kg | <MDL | | 0.01 | |
| | | cis-1,3-Dichloropropene | mg/dry kg | <MDL | | 0.01 | |
| | | trans-1,3-Dichloropropene | mg/dry kg | <MDL | | 0.01 | |
| | | Methylene Chloride | mg/dry kg | <MDL | | 0.06 | |
| | | 1,1,2,2-Tetrachloroethane | mg/dry kg | <MDL | | 0.02 | |
| | | Tetrachloroethylene | mg/dry kg | <MDL | | 0.01 | |
| | | 1,1,1-Trichloroethane | mg/dry kg | <MDL | | 0.01 | |
| | | 1,1,2-Trichloroethane | mg/dry kg | <MDL | | 0.01 | |
| | | Trichloroethylene | mg/dry kg | <MDL | | 0.01 | |
| | | Trichlorofluoromethane | mg/dry kg | <MDL | | 0.03 | |

William E. Buchan

Reported By: William E. Buchan
Anchorage Operations Manager



NORTHERN TESTING LABORATORIES, INC.

3330 INDUSTRIAL AVENUE
2505 FAIRBANKS STREET

FAIRBANKS, ALASKA 99701
ANCHORAGE, ALASKA 99503

(907) 456-3116 • FAX 456-3125
(907) 277-8378 • FAX 274-9645

| Lab Number | Method | Parameter | Units | Result Flag | Date MDL Analyzed |
|------------|----------|---|-----------|-------------|----------------------|
| A114406 | EPA 8010 | Vinyl Chloride | mg/dry kg | <MDL | 0.1 10/09/91 |
| A114406 | EPA 8080 | Aroclor 1016 | mg/dry kg | <MDL | 0.1 10/10/91 |
| | | Aroclor 1221 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1232 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1242 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1248 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1254 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1260 | mg/dry kg | 0.4 | 0.1 |
| | | Dibromooctafluorobiphenyl (Recovery) | % | 82.0 | |

William E. Buchan

Reported By: William E. Buchan
Anchorage Operations Manager



NORTHERN TESTING LABORATORIES, INC.

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(907) 277-8378 • FAX 274-9645

Municipal Light & Power
P.O. Box 196650
Anchorage AK 99519-6650

Report Date: 10/15/91

Date Arrived: 09/27/91
Date Sampled: 09/25/91
Time Sampled: -
Collected By: MWR

Attn: Peter Smithson

Definitions
MDL = Method Detection
Limit
B = Below Regulatory Min.
H = Above Regulatory Max.
E = Below Detection Limit
Estimated Value

Our Lab #: A114407
Location/Project: A-1271
Your Sample ID: B1-S2
Sample Matrix: Soil
Comments:

| Lab Number | Method | Parameter | Units | Result Flag | MDL | Date Analyzed |
|------------|-----------|------------------------------|-----------|-------------|------|---------------|
| A114407 | EPA 160.3 | Solids | | 95.4 | | 10/02/91 |
| A114407 | EPA 418.1 | Total Petroleum Hydrocarbons | mg/dry kg | 224 | 20 | 10/07/91 |
| A114407 | EPA 8010 | Bromodichloromethane | mg/dry kg | <MDL | 0.02 | 10/09/91 |
| | | Bromoform | mg/dry kg | <MDL | 0.06 | |
| | | Bromomethane | mg/dry kg | <MDL | 0.12 | |
| | | Carbon Tetrachloride | mg/dry kg | <MDL | 0.01 | |
| | | Chlorobenzene | mg/dry kg | <MDL | 0.01 | |
| | | Chloroethane | mg/dry kg | <MDL | 0.12 | |
| | | 2-Chloroethylvinylether | mg/dry kg | <MDL | 0.12 | |
| | | Chloroform | mg/dry kg | <MDL | 0.01 | |
| | | Chloromethane | mg/dry kg | <MDL | 0.12 | |
| | | Dibromochloromethane | mg/dry kg | <MDL | 0.03 | |
| | | 1,2-Dichlorobenzene | mg/dry kg | <MDL | 0.01 | |
| | | 1,3-Dichlorobenzene | mg/dry kg | <MDL | 0.01 | |
| | | 1,4-Dichlorobenzene | mg/dry kg | <MDL | 0.01 | |
| | | 1,1-Dichloroethane | mg/dry kg | <MDL | 0.01 | |
| | | 1,2-Dichloroethane | mg/dry kg | <MDL | 0.01 | |
| | | 1,1-Dichloroethylene | mg/dry kg | <MDL | 0.06 | |
| | | trans-1,2-Dichloroethylene | mg/dry kg | <MDL | 0.06 | |
| | | 1,2-Dichloropropane | mg/dry kg | <MDL | 0.01 | |
| | | cis-1,3-Dichloropropene | mg/dry kg | <MDL | 0.01 | |
| | | trans-1,3-Dichloropropene | mg/dry kg | <MDL | 0.01 | |
| | | Methylene Chloride | mg/dry kg | <MDL | 0.06 | |
| | | 1,1,2,2-Tetrachloroethane | mg/dry kg | <MDL | 0.02 | |
| | | Tetrachloroethylene | mg/dry kg | <MDL | 0.01 | |
| | | 1,1,1-Trichloroethane | mg/dry kg | <MDL | 0.01 | |
| | | 1,1,2-Trichloroethane | mg/dry kg | <MDL | 0.01 | |
| | | Trichloroethylene | mg/dry kg | <MDL | 0.01 | |
| | | Trichlorofluoromethane | mg/dry kg | <MDL | 0.03 | |

William E. Buchan

Reported By: William E. Buchan
Anchorage Operations Manager



NORTHERN TESTING LABORATORIES, INC.

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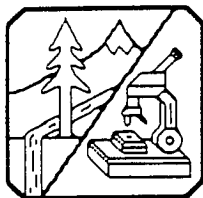
FAIRBANKS, ALASKA 99701
ANCHORAGE, ALASKA 99503

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(907) 277-8378 • FAX 274-9645

| Lab | | | | | Date |
|---------|----------|---|-----------|-------------|--------------|
| Number | Method | Parameter | Units | Result Flag | MDL Analyzed |
| A114407 | EPA 8010 | Vinyl Chloride | mg/dry kg | <MDL | 0.1 10/09/91 |
| A114407 | EPA 8080 | Aroclor 1016 | mg/dry kg | <MDL | 0.1 10/10/91 |
| | | Aroclor 1221 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1232 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1242 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1248 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1254 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1260 | mg/dry kg | 0.4 | 0.1 |
| | | Dibromooctafluorobiphenyl (Recovery) | % | 83.0 | |

William E. Buchan

Reported By: William E. Buchan
Anchorage Operations Manager



NORTHERN TESTING LABORATORIES, INC.

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(907) 277-8378 • FAX 274-9645

Municipal Light & Power
P.O. Box 196650
Anchorage AK 99519-6650

Report Date: 10/15/91

Date Arrived: 09/27/91

Date Sampled: 09/26/91

Time Sampled: -

Collected By: MWR

Attn: Peter Smithson

Definitions
MDL = Method Detection
Limit

B = Below Regulatory Min.

H = Above Regulatory Max.

E = Below Detection Limit

Estimated Value

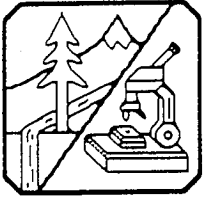
Our Lab #: A114408
Location/Project: A-1271
Your Sample ID: B1-S3
Sample Matrix: Soil
Comments:

| Lab Number | Method | Parameter | Units | Result | Flag | MDL | Date Analyzed |
|------------|-----------|------------------------------|-----------|--------|------|------|---------------|
| A114408 | EPA 160.3 | Solids | % | 95.1 | | | 10/02/91 |
| A114408 | EPA 418.1 | Total Petroleum Hydrocarbons | mg/dry kg | 1520 | | 20 | 10/07/91 |
| A114408 | EPA 8010 | Bromodichloromethane | mg/dry kg | <MDL | | 0.08 | 10/09/91 |
| | | Bromoform | mg/dry kg | <MDL | | 0.24 | |
| | | Bromomethane | mg/dry kg | <MDL | | 0.48 | |
| | | Carbon Tetrachloride | mg/dry kg | <MDL | | 0.04 | |
| | | Chlorobenzene | mg/dry kg | <MDL | | 0.04 | |
| | | Chloroethane | mg/dry kg | <MDL | | 0.48 | |
| | | 2-Chloroethylvinylether | mg/dry kg | <MDL | | 0.48 | |
| | | Chloroform | mg/dry kg | <MDL | | 0.04 | |
| | | Chloromethane | mg/dry kg | <MDL | | 0.48 | |
| | | Dibromochloromethane | mg/dry kg | <MDL | | 0.12 | |
| | | 1,2-Dichlorobenzene | mg/dry kg | <MDL | | 0.04 | |
| | | 1,3-Dichlorobenzene | mg/dry kg | <MDL | | 0.04 | |
| | | 1,4-Dichlorobenzene | mg/dry kg | <MDL | | 0.04 | |
| | | 1,1-Dichloroethane | mg/dry kg | <MDL | | 0.04 | |
| | | 1,2-Dichloroethane | mg/dry kg | <MDL | | 0.04 | |
| | | 1,1-Dichloroethylene | mg/dry kg | <MDL | | 0.24 | |
| | | trans-1,2-Dichloroethylene | mg/dry kg | <MDL | | 0.24 | |
| | | 1,2-Dichloropropane | mg/dry kg | <MDL | | 0.04 | |
| | | cis-1,3-Dichloropropene | mg/dry kg | <MDL | | 0.04 | |
| | | trans-1,3-Dichloropropene | mg/dry kg | <MDL | | 0.04 | |
| | | Methylene Chloride | mg/dry kg | <MDL | | 0.24 | |
| | | 1,1,2,2-Tetrachloroethane | mg/dry kg | <MDL | | 0.08 | |
| | | Tetrachloroethylene | mg/dry kg | <MDL | | 0.04 | |
| | | 1,1,1-Trichloroethane | mg/dry kg | <MDL | | 0.04 | |
| | | 1,1,2-Trichloroethane | mg/dry kg | <MDL | | 0.04 | |
| | | Trichloroethylene | mg/dry kg | <MDL | | 0.04 | |
| | | 1,1,1,2-Tetrafluoroethane | mg/dry kg | <MDL | | 0.12 | |

William E. Buchan

Buchan

Reported By: William E. Buchan
Anchorage Operations Manager



NORTHERN TESTING LABORATORIES, INC.

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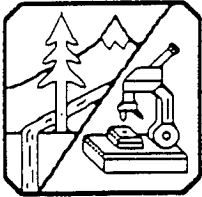
FAIRBANKS, ALASKA 99701
ANCHORAGE, ALASKA 99503

(907) 456-3116 • FAX 456-3125
(907) 277-8378 • FAX 274-9645

| Lab Number | Method | Parameter | Units | Result Flag | Date MDL Analyzed |
|------------|----------|---|-----------|-------------|-------------------|
| A114408 | EPA 8010 | Vinyl Chloride | mg/dry kg | <MDL | 0.4 10/09/91 |
| A114408 | EPA 8080 | Aroclor 1016 | mg/dry kg | <MDL | 0.1 10/10/91 |
| | | Aroclor 1221 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1232 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1242 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1248 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1254 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1260 | mg/dry kg | <MDL | 0.1 |
| | | Dibromooctafluorobiphenyl (Recovery) | % | 70.0 | |

William E. Buchan

Reported By: William E. Buchan
Anchorage Operations Manager



NORTHERN TESTING LABORATORIES, INC.

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Municipal Light & Power
P.O. Box 196650
Anchorage AK 99519-6650

Report Date: 10/15/91

Date Arrived: 09/27/91
Date Sampled: 09/26/91
Time Sampled: -
Collected By: MWR

Attn: Peter Smithson

Definitions

MDL = Method Detection
Limit

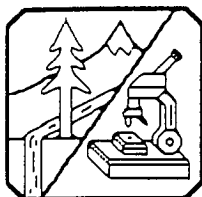
B = Below Regulatory Min.
H = Above Regulatory Max.
E = Below Detection Limit
Estimated Value

Our Lab #: A114409
Location/Project: A-1271
Your Sample ID: B1-S4
Sample Matrix: Soil
Comments:

| Lab Number | Method | Parameter | Units | Result | Flag | MDL | Date Analyzed |
|------------|-----------|------------------------------|-----------|--------|------|------|---------------|
| A114409 | EPA 160.3 | Solids | % | 84.9 | | | 10/02/91 |
| A114409 | EPA 418.1 | Total Petroleum Hydrocarbons | mg/dry kg | 124 | | 20 | 10/07/91 |
| A114409 | EPA 8010 | Bromodichloromethane | mg/dry kg | <MDL | | 0.02 | 10/09/91 |
| | | Bromoform | mg/dry kg | <MDL | | 0.06 | |
| | | Bromomethane | mg/dry kg | <MDL | | 0.12 | |
| | | Carbon Tetrachloride | mg/dry kg | <MDL | | 0.01 | |
| | | Chlorobenzene | mg/dry kg | <MDL | | 0.01 | |
| | | Chloroethane | mg/dry kg | <MDL | | 0.12 | |
| | | 2-Chloroethylvinylether | mg/dry kg | <MDL | | 0.12 | |
| | | Chloroform | mg/dry kg | <MDL | | 0.01 | |
| | | Chloromethane | mg/dry kg | <MDL | | 0.12 | |
| | | Dibromochloromethane | mg/dry kg | <MDL | | 0.03 | |
| | | 1,2-Dichlorobenzene | mg/dry kg | 0.02 | | 0.01 | |
| | | 1,3-Dichlorobenzene | mg/dry kg | <MDL | | 0.01 | |
| | | 1,4-Dichlorobenzene | mg/dry kg | 0.02 | | 0.01 | |
| | | 1,1-Dichloroethane | mg/dry kg | <MDL | | 0.01 | |
| | | 1,2-Dichloroethane | mg/dry kg | <MDL | | 0.01 | |
| | | 1,1-Dichloroethylene | mg/dry kg | <MDL | | 0.06 | |
| | | trans-1,2-Dichloroethylene | mg/dry kg | <MDL | | 0.06 | |
| | | 1,2-Dichloropropane | mg/dry kg | <MDL | | 0.01 | |
| | | cis-1,3-Dichloropropene | mg/dry kg | <MDL | | 0.01 | |
| | | trans-1,3-Dichloropropene | mg/dry kg | <MDL | | 0.01 | |
| | | Methylene Chloride | mg/dry kg | <MDL | | 0.06 | |
| | | 1,1,2,2-Tetrachloroethane | mg/dry kg | <MDL | | 0.02 | |
| | | Tetrachloroethylene | mg/dry kg | <MDL | | 0.01 | |
| | | 1,1,1-Trichloroethane | mg/dry kg | <MDL | | 0.01 | |
| | | 1,1,2-Trichloroethane | mg/dry kg | <MDL | | 0.01 | |
| | | Trichloroethylene | mg/dry kg | <MDL | | 0.01 | |
| | | Trichlorofluoromethane | mg/dry kg | <MDL | | 0.03 | |

William E. Buchan

Reported By: William E. Buchan
Anchorage Operations Manager



NORTHERN TESTING LABORATORIES, INC.

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2505 FAIRBANKS STREET

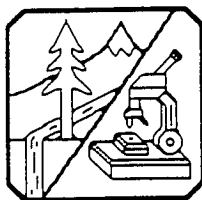
FAIRBANKS, ALASKA 99701
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(907) 277-8378 • FAX 274-9645

| Lab Number | Method | Parameter | Units | Result Flag | Date MDL Analyzed |
|------------|----------|---|-----------|-------------|----------------------|
| A114409 | EPA 8010 | Vinyl Chloride | mg/dry kg | <MDL | 0.1 10/09/91 |
| A114409 | EPA 8080 | Aroclor 1016 | mg/dry kg | <MDL | 0.1 10/10/91 |
| | | Aroclor 1221 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1232 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1242 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1248 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1254 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1260 | mg/dry kg | 0.1 | 0.1 |
| | | Dibromooctafluorobiphenyl (Recovery) | % | 89.0 | |

William E. Buchan

Reported By: William E. Buchan
Anchorage Operations Manager



NORTHERN TESTING LABORATORIES, INC.

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(907) 277-8378 • FAX 274-9645

Municipal Light & Power
P.O. Box 196650
Anchorage AK 99519-6650

Report Date: 10/15/91

Date Arrived: 09/30/91
Date Sampled: 09/27/91
Time Sampled: -
Collected By: MWR

Attn: Peter Smithson

Definitions
MDL = Method Detection
Limit
B = Below Regulatory Min.
H = Above Regulatory Max.
E = Below Detection Limit
Estimated Value

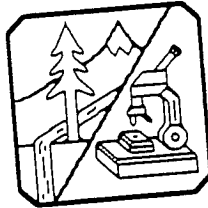
Our Lab #: A114446
Location/Project: -
Your Sample ID: B-2/S-1
Sample Matrix: Soil
Comments:

| Lab Number | Method | Parameter | Units | Result Flag | Date MDL Analyzed |
|------------|-----------|------------------------------|-----------|-------------|-------------------|
| A114446 | EPA 160.3 | Solids | % | 94.8 | 10/03/91 |
| A114446 | EPA 418.1 | Total Petroleum Hydrocarbons | mg/dry kg | <MDL | 20 10/10/91 |
| A114446 | EPA 8010 | Bromodichloromethane | mg/dry kg | <MDL | 0.02 10/11/91 |
| | | Bromoform | mg/dry kg | <MDL | 0.06 |
| | | Bromomethane | mg/dry kg | <MDL | 0.12 |
| | | Carbon Tetrachloride | mg/dry kg | <MDL | 0.01 |
| | | Chlorobenzene | mg/dry kg | <MDL | 0.01 |
| | | Chloroethane | mg/dry kg | <MDL | 0.12 |
| | | 2-Chloroethylvinylether | mg/dry kg | <MDL | 0.12 |
| | | Chloroform | mg/dry kg | <MDL | 0.01 |
| | | Chloromethane | mg/dry kg | <MDL | 0.12 |
| | | Dibromochloromethane | mg/dry kg | <MDL | 0.03 |
| | | 1,2-Dichlorobenzene | mg/dry kg | <MDL | 0.01 |
| | | 1,3-Dichlorobenzene | mg/dry kg | <MDL | 0.01 |
| | | 1,4-Dichlorobenzene | mg/dry kg | <MDL | 0.01 |
| | | 1,1-Dichloroethane | mg/dry kg | <MDL | 0.01 |
| | | 1,2-Dichloroethane | mg/dry kg | <MDL | 0.01 |
| | | 1,1-Dichloroethylene | mg/dry kg | <MDL | 0.06 |
| | | trans-1,2-Dichloroethylene | mg/dry kg | <MDL | 0.06 |
| | | 1,2-Dichloropropane | mg/dry kg | <MDL | 0.01 |
| | | cis-1,3-Dichloropropene | mg/dry kg | <MDL | 0.01 |
| | | trans-1,3-Dichloropropene | mg/dry kg | <MDL | 0.01 |
| | | Methylene Chloride | mg/dry kg | <MDL | 0.06 |
| | | 1,1,2,2-Tetrachloroethane | mg/dry kg | <MDL | 0.02 |
| | | Tetrachloroethylene | mg/dry kg | <MDL | 0.01 |
| | | 1,1,1-Trichloroethane | mg/dry kg | <MDL | 0.01 |
| | | 1,1,2-Trichloroethane | mg/dry kg | <MDL | 0.01 |
| | | Trichloroethylene | mg/dry kg | <MDL | 0.01 |
| | | Trichlorofluoromethane | mg/dry kg | <MDL | 0.03 |

William E. Buchan
Reported By: William E. Buchan
Anchorage Operations Manager



Munic
P.O.
Ancho



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3330 INDUSTRIAL AVENUE
2505 FAIRBANKS STREET

FAIRBANKS, ALASKA 99701
ANCHORAGE, ALASKA 99503

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(907) 277-8378 • FAX 277-8379

Attn:

Our La.
Locati
Your Sa
Sample
Comment

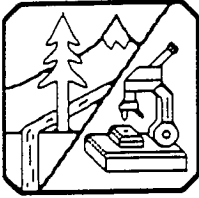
Lab
Number Me

| Lab Number | Method | Parameter | Units | Result Flag |
|------------|--------|---------------------------|-----------|-------------|
| A114447 | EP | | mg/dry kg | <MDL |
| A114447 | EP | Vinyl Chloride | mg/dry kg | <MDL |
| A114447 | EPA | Aroclor 1016 | mg/dry kg | <MDL |
| | | Aroclor 1221 | mg/dry kg | <MDL |
| | | Aroclor 1232 | mg/dry kg | <MDL |
| | | Aroclor 1242 | mg/dry kg | <MDL |
| | | Aroclor 1248 | mg/dry kg | <MDL |
| | | Aroclor 1254 | mg/dry kg | <MDL |
| | | Aroclor 1260 | mg/dry kg | .07 (<MDL) |
| | | Dibromooctafluorobiphenyl | % | 89.0 |
| | | (Recovery) | | |

William E. Buchan

Reported By: William E. Buchan
Anchorage Operations Manager

William E. Buchan
Reported By: William E. Buchan
Anchorage Operations Manager



NORTHERN TESTING LABORATORIES, INC.

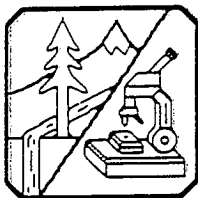
3330 INDUSTRIAL AVENUE
2505 FAIRBANKS STREET

FAIRBANKS, ALASKA 99701
ANCHORAGE, ALASKA 99503

(907) 456-3116 • FAX 456-3125
(907) 277-8378 • FAX 274-9645

| Lab Number | Method | Parameter | Units | Result Flag | Date MDL Analyzed |
|---------------|----------|---|-----------|-------------|----------------------|
| 114447 | EPA 8010 | Vinyl Chloride | mg/dry kg | <MDL | 0.1 10/11/91 |
| A114447 | EPA 8080 | Aroclor 1016 | mg/dry kg | <MDL | 0.1 10/08/91 |
| | | Aroclor 1221 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1232 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1242 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1248 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1254 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1260 | mg/dry kg | <MDL | 0.1 |
| | | Dibromooctafluorobiphenyl (Recovery) | % | 84.0 | |

Reported By: William E. Buchan
Anchorage Operations Manager



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Municipal Light & Power
P.O. Box 196650
Anchorage AK 99519-6650

Report Date: 10/15/91

Date Arrived: 09/30/91
Date Sampled: 09/27/91
Time Sampled: -
Collected By: MWR

Attn: Peter Smithson

Definitions

MDL = Method Detection
Limit

B = Below Regulatory Min.

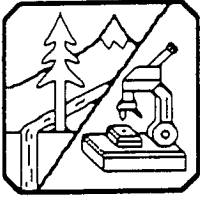
H = Above Regulatory Max.

E = Below Detection Limit
Estimated Value

Our Lab #: A114448
Location/Project: -
Your Sample ID: B-2/S-3
Sample Matrix: Soil
Comments:

| Lab Number | Method | Parameter | Units | Result Flag | Date MDL Analyzed |
|------------|-----------|------------------------------|-----------|-------------|-------------------|
| A114448 | EPA 160.3 | Solids | % | 63.4 | 10/03/91 |
| A114448 | EPA 418.1 | Total Petroleum Hydrocarbons | mg/dry kg | 9080 | 20 10/11/91 |
| A114448 | EPA 8010 | Bromodichloromethane | mg/dry kg | <MDL | 0.02 10/11/91 |
| | | Bromoform | mg/dry kg | <MDL | 0.06 |
| | | Bromomethane | mg/dry kg | <MDL | 0.12 |
| | | Carbon Tetrachloride | mg/dry kg | <MDL | 0.01 |
| | | Chlorobenzene | mg/dry kg | <MDL | 0.01 |
| | | Chloroethane | mg/dry kg | <MDL | 0.12 |
| | | 2-Chloroethylvinylether | mg/dry kg | <MDL | 0.12 |
| | | Chloroform | mg/dry kg | <MDL | 0.01 |
| | | Chloromethane | mg/dry kg | <MDL | 0.12 |
| | | Dibromochloromethane | mg/dry kg | <MDL | 0.03 |
| | | 1,2-Dichlorobenzene | mg/dry kg | <MDL | 0.01 |
| | | 1,3-Dichlorobenzene | mg/dry kg | <MDL | 0.01 |
| | | 1,4-Dichlorobenzene | mg/dry kg | <MDL | 0.01 |
| | | 1,1-Dichloroethane | mg/dry kg | <MDL | 0.01 |
| | | 1,2-Dichloroethane | mg/dry kg | <MDL | 0.01 |
| | | 1,1-Dichloroethylene | mg/dry kg | <MDL | 0.06 |
| | | trans-1,2-Dichloroethylene | mg/dry kg | <MDL | 0.06 |
| | | 1,2-Dichloropropane | mg/dry kg | <MDL | 0.01 |
| | | cis-1,3-Dichloropropene | mg/dry kg | <MDL | 0.01 |
| | | trans-1,3-Dichloropropene | mg/dry kg | <MDL | 0.01 |
| | | Methylene Chloride | mg/dry kg | <MDL | 0.06 |
| | | 1,1,2,2-Tetrachloroethane | mg/dry kg | <MDL | 0.02 |
| | | Tetrachloroethylene | mg/dry kg | <MDL | 0.01 |
| | | 1,1,1-Trichloroethane | mg/dry kg | <MDL | 0.01 |
| | | 1,1,2-Trichloroethane | mg/dry kg | <MDL | 0.01 |
| | | Trichloroethylene | mg/dry kg | <MDL | 0.01 |
| | | Trichlorofluoromethane | mg/dry kg | <MDL | 0.03 |

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| Lab Number | Method | Parameter | Units | Result Flag | Date MDL Analyzed |
|---------------|----------|---|-----------|-------------|----------------------|
| A114448 | EPA 8010 | Vinyl Chloride | mg/dry kg | <MDL | 0.1 10/11/91 |
| A114448 | EPA 8080 | Aroclor 1016 | mg/dry kg | <MDL | 0.1 10/08/91 |
| | | Aroclor 1221 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1232 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1242 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1248 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1254 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1260 | mg/dry kg | <MDL | 0.1 |
| | | Dibromooctafluorobiphenyl (Recovery) | % | 89.0 | |

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Municipal Light & Power
P.O. Box 196650
Anchorage AK 99519-6650

Report Date: 10/15/91

Date Arrived: 09/30/91
Date Sampled: 09/27/91
Time Sampled: -
Collected By: MWR

Attn: Peter Smithson

Definitions

MDL = Method Detection
Limit

B = Below Regulatory Min.

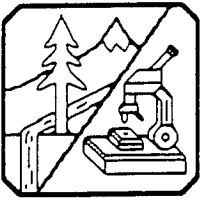
H = Above Regulatory Max.

E = Below Detection Limit
Estimated Value

Our Lab #: A114449
Location/Project: -
Your Sample ID: B-2/S-4
Sample Matrix: Soil
Comments:

| Lab Number | Method | Parameter | Units | Result Flag | Date MDL Analyzed |
|---------------|-----------|------------------------------|-----------|-------------|----------------------|
| A114449 | EPA 160.3 | Solids | % | 88.1 | 10/03/91 |
| A114449 | EPA 418.1 | Total Petroleum Hydrocarbons | mg/dry kg | 110 | 20 10/11/91 |
| A114449 | EPA 8010 | Bromodichloromethane | mg/dry kg | <MDL | 0.02 10/11/91 |
| | | Bromoform | mg/dry kg | <MDL | 0.06 |
| | | Bromomethane | mg/dry kg | <MDL | 0.12 |
| | | Carbon Tetrachloride | mg/dry kg | <MDL | 0.01 |
| | | Chlorobenzene | mg/dry kg | <MDL | 0.01 |
| | | Chloroethane | mg/dry kg | <MDL | 0.12 |
| | | 2-Chloroethylvinylether | mg/dry kg | <MDL | 0.12 |
| | | Chloroform | mg/dry kg | <MDL | 0.01 |
| | | Chloromethane | mg/dry kg | <MDL | 0.12 |
| | | Dibromochloromethane | mg/dry kg | <MDL | 0.03 |
| | | 1,2-Dichlorobenzene | mg/dry kg | <MDL | 0.01 |
| | | 1,3-Dichlorobenzene | mg/dry kg | <MDL | 0.01 |
| | | 1,4-Dichlorobenzene | mg/dry kg | <MDL | 0.01 |
| | | 1,1-Dichloroethane | mg/dry kg | <MDL | 0.01 |
| | | 1,2-Dichloroethane | mg/dry kg | <MDL | 0.01 |
| | | 1,1-Dichloroethylene | mg/dry kg | <MDL | 0.06 |
| | | trans-1,2-Dichloroethylene | mg/dry kg | <MDL | 0.06 |
| | | 1,2-Dichloropropane | mg/dry kg | <MDL | 0.01 |
| | | cis-1,3-Dichloropropene | mg/dry kg | <MDL | 0.01 |
| | | trans-1,3-Dichloropropene | mg/dry kg | <MDL | 0.01 |
| | | Methylene Chloride | mg/dry kg | <MDL | 0.06 |
| | | 1,1,2,2-Tetrachloroethane | mg/dry kg | <MDL | 0.02 |
| | | Tetrachloroethylene | mg/dry kg | <MDL | 0.01 |
| | | 1,1,1-Trichloroethane | mg/dry kg | <MDL | 0.01 |
| | | 1,1,2-Trichloroethane | mg/dry kg | <MDL | 0.01 |
| | | Trichloroethylene | mg/dry kg | <MDL | 0.01 |
| | | Trichlorofluoromethane | mg/dry kg | <MDL | 0.03 |

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Anchorage Operations Manager



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2505 FAIRBANKS STREET

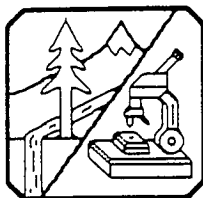
FAIRBANKS, ALASKA 99701
ANCHORAGE, ALASKA 99503

(907) 456-3116 • FAX 456-3125
(907) 277-8378 • FAX 274-9645

| Lab Number | Method | Parameter | Units | Result Flag | Date Analyzed |
|------------|----------|---|-----------|-------------|---------------|
| A114449 | EPA 8010 | Vinyl Chloride | mg/dry kg | <MDL | 0.1 10/11/91 |
| A114449 | EPA 8080 | Aroclor 1016 | mg/dry kg | <MDL | 0.1 10/13/91 |
| | | Aroclor 1221 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1232 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1242 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1248 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1254 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1260 | mg/dry kg | 7.1 | 0.1 |
| | | Dibromooctafluorobiphenyl (Recovery) | % | 98.0 | |

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Municipal Light & Power
P.O. Box 196650
Anchorage AK 99519-6650

Report Date: 10/15/91

Date Arrived: 09/30/91
Date Sampled: 09/27/91
Time Sampled: -
Collected By: MWR

Attn: Peter Smithson

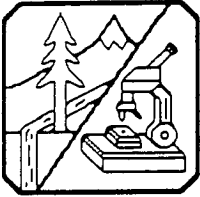
Our Lab #: A114450
Location/Project: -
Your Sample ID: B-2/S-5
Sample Matrix: Soil
Comments:

Definitions
MDL = Method Detection
Limit
B = Below Regulatory Min.
H = Above Regulatory Max.
E = Below Detection Limit
Estimated Value

| Lab Number | Method | Parameter | Units | Result Flag | Date MDL Analyzed |
|------------|-----------|------------------------------|-----------|-------------|-------------------|
| A114450 | EPA 160.3 | Solids | % | 56.4 | 10/03/91 |
| A114450 | EPA 418.1 | Total Petroleum Hydrocarbons | mg/dry kg | 521 | 20 10/11/91 |
| A114450 | EPA 8010 | Bromodichloromethane | mg/dry kg | <MDL | 0.02 10/11/91 |
| | | Bromoform | mg/dry kg | <MDL | 0.06 |
| | | Bromomethane | mg/dry kg | <MDL | 0.12 |
| | | Carbon Tetrachloride | mg/dry kg | <MDL | 0.01 |
| | | Chlorobenzene | mg/dry kg | <MDL | 0.01 |
| | | Chloroethane | mg/dry kg | <MDL | 0.12 |
| | | 2-Chloroethylvinylether | mg/dry kg | <MDL | 0.12 |
| | | Chloroform | mg/dry kg | <MDL | 0.01 |
| | | Chloromethane | mg/dry kg | <MDL | 0.12 |
| | | Dibromochloromethane | mg/dry kg | <MDL | 0.03 |
| | | 1,2-Dichlorobenzene | mg/dry kg | <MDL | 0.01 |
| | | 1,3-Dichlorobenzene | mg/dry kg | <MDL | 0.01 |
| | | 1,4-Dichlorobenzene | mg/dry kg | <MDL | 0.01 |
| | | 1,1-Dichloroethane | mg/dry kg | <MDL | 0.01 |
| | | 1,2-Dichloroethane | mg/dry kg | <MDL | 0.01 |
| | | 1,1-Dichloroethylene | mg/dry kg | <MDL | 0.06 |
| | | trans-1,2-Dichloroethylene | mg/dry kg | <MDL | 0.06 |
| | | 1,2-Dichloropropane | mg/dry kg | <MDL | 0.01 |
| | | cis-1,3-Dichloropropene | mg/dry kg | <MDL | 0.01 |
| | | trans-1,3-Dichloropropene | mg/dry kg | <MDL | 0.01 |
| | | Methylene Chloride | mg/dry kg | <MDL | 0.06 |
| | | 1,1,2,2-Tetrachloroethane | mg/dry kg | <MDL | 0.02 |
| | | Tetrachloroethylene | mg/dry kg | <MDL | 0.01 |
| | | 1,1,1-Trichloroethane | mg/dry kg | <MDL | 0.01 |
| | | 1,1,2-Trichloroethane | mg/dry kg | <MDL | 0.01 |
| | | Trichloroethylene | mg/dry kg | <MDL | 0.01 |
| | | Trichlorofluoromethane | mg/dry kg | <MDL | 0.03 |

William E. Buchan

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Anchorage Operations Manager



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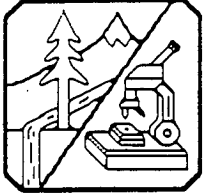
3330 INDUSTRIAL AVENUE
2505 FAIRBANKS STREET

FAIRBANKS, ALASKA 99701
ANCHORAGE, ALASKA 99503

(907) 456-3116 • FAX 456-3125
(907) 277-8378 • FAX 274-9645

| Lab Number | Method | Parameter | Units | Result Flag | Date MDL Analyzed |
|---------------|----------|---|-----------|-------------|----------------------|
| A114450 | EPA 8010 | Vinyl Chloride | mg/dry kg | <MDL | 0.1 10/11/91 |
| A114450 | EPA 8080 | Aroclor 1016 | mg/dry kg | <MDL | 0.1 10/08/91 |
| | | Aroclor 1221 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1232 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1242 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1248 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1254 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1260 | mg/dry kg | <MDL | 0.1 |
| | | Dibromooctafluorobiphenyl (Recovery) | % | 90.0 | |

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Anchorage Operations Manager



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Municipal Light & Power
P.O. Box 196650
Anchorage AK 99519-6650

Report Date: 10/15/91

Date Arrived: 09/27/91
Date Sampled: 09/26/91
Time Sampled: -
Collected By: MWR

Attn: Peter Smithson

Definitions

MDL = Method Detection
Limit

B = Below Regulatory Min.

H = Above Regulatory Max.

E = Below Detection Limit

Estimated Value

Our Lab #: A114410
Location/Project: A-1271
Your Sample ID: B3-S1
Sample Matrix: Soil
Comments:

| Lab Number | Method | Parameter | Units | Result | Flag | MDL | Date Analyzed |
|------------|-----------|------------------------------|-----------|--------|------|------|---------------|
| A114410 | EPA 160.3 | Solids | % | 89.9 | | | 10/02/91 |
| A114410 | EPA 418.1 | Total Petroleum Hydrocarbons | mg/dry kg | 1520 | | 20 | 10/07/91 |
| A114410 | EPA 8010 | Bromodichloromethane | mg/dry kg | <MDL | | 0.08 | 10/09/91 |
| | | Bromoform | mg/dry kg | <MDL | | 0.24 | |
| | | Bromomethane | mg/dry kg | <MDL | | 0.48 | |
| | | Carbon Tetrachloride | mg/dry kg | <MDL | | 0.04 | |
| | | Chlorobenzene | mg/dry kg | <MDL | | 0.04 | |
| | | Chloroethane | mg/dry kg | <MDL | | 0.48 | |
| | | 2-Chloroethylvinylether | mg/dry kg | <MDL | | 0.48 | |
| | | Chloroform | mg/dry kg | <MDL | | 0.04 | |
| | | Chloromethane | mg/dry kg | <MDL | | 0.48 | |
| | | Dibromochloromethane | mg/dry kg | <MDL | | 0.12 | |
| | | 1,2-Dichlorobenzene | mg/dry kg | <MDL | | 0.04 | |
| | | 1,3-Dichlorobenzene | mg/dry kg | <MDL | | 0.04 | |
| | | 1,4-Dichlorobenzene | mg/dry kg | <MDL | | 0.04 | |
| | | 1,1-Dichloroethane | mg/dry kg | <MDL | | 0.04 | |
| | | 1,2-Dichloroethane | mg/dry kg | <MDL | | 0.04 | |
| | | 1,1-Dichloroethylene | mg/dry kg | <MDL | | 0.24 | |
| | | trans-1,2-Dichloroethylene | mg/dry kg | <MDL | | 0.24 | |
| | | 1,2-Dichloropropane | mg/dry kg | <MDL | | 0.04 | |
| | | cis-1,3-Dichloropropene | mg/dry kg | <MDL | | 0.04 | |
| | | trans-1,3-Dichloropropene | mg/dry kg | <MDL | | 0.04 | |
| | | Methylene Chloride | mg/dry kg | <MDL | | 0.24 | |
| | | 1,1,2,2-Tetrachloroethane | mg/dry kg | <MDL | | 0.08 | |
| | | Tetrachloroethylene | mg/dry kg | <MDL | | 0.04 | |
| | | 1,1,1-Trichloroethane | mg/dry kg | <MDL | | 0.04 | |
| | | 1,1,2-Trichloroethane | mg/dry kg | <MDL | | 0.04 | |
| | | Trichloroethylene | mg/dry kg | <MDL | | 0.04 | |
| | | Dichlorofluoromethane | mg/dry kg | <MDL | | 0.12 | |

William E. Buchan

Reported By: William E. Buchan
Anchorage Operations Manager



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2505 FAIRBANKS STREET

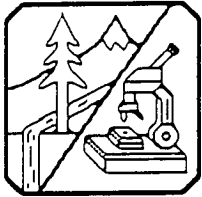
FAIRBANKS, ALASKA 99701
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| Lab Number | Method | Parameter | Units | Result Flag | Date MDL Analyzed |
|------------|----------|---|-----------|-------------|-------------------|
| A114410 | EPA 8010 | Vinyl Chloride | mg/dry kg | <MDL | 0.4 10/09/91 |
| A114410 | EPA 8080 | Aroclor 1016 | mg/dry kg | <MDL | 0.1 10/10/91 |
| | | Aroclor 1221 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1232 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1242 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1248 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1254 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1260 | mg/dry kg | 30.0 | 0.1 |
| | | Dibromooctafluorobiphenyl (Recovery) | % | 110.0 | |

William E. Buchan

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Municipal Light & Power
P.O. Box 196650
Anchorage AK 99519-6650

Report Date: 10/15/91

Date Arrived: 09/27/91

Date Sampled: 09/26/91

Time Sampled: -

Collected By: MWR

Attn: Peter Smithson

Definitions

MDL = Method Detection
Limit

B = Below Regulatory Min.

H = Above Regulatory Max.

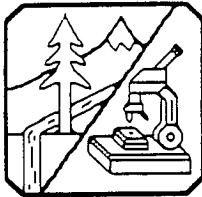
E = Below Detection Limit

Estimated Value

Our Lab #: A114411
Location/Project: A-1271
Your Sample ID: B3-S3
Sample Matrix: Soil
Comments:

| Lab Number | Method | Parameter | Units | Result | Flag | Date MDL Analyzed |
|------------|-----------|------------------------------|-----------|--------|------|-------------------|
| A114411 | EPA 160.3 | Solids | % | 88.0 | . | 10/02/91 |
| A114411 | EPA 418.1 | Total Petroleum Hydrocarbons | mg/dry kg | 4570 | | 20 10/08/91 |
| A114411 | EPA 8010 | Bromodichloromethane | mg/dry kg | <MDL | | 0.08 10/09/91 |
| | | Bromoform | mg/dry kg | <MDL | | 0.24 |
| | | Bromomethane | mg/dry kg | <MDL | | 0.48 |
| | | Carbon Tetrachloride | mg/dry kg | <MDL | | 0.04 |
| | | Chlorobenzene | mg/dry kg | <MDL | | 0.04 |
| | | Chloroethane | mg/dry kg | <MDL | | 0.48 |
| | | 2-Chloroethylvinylether | mg/dry kg | <MDL | | 0.48 |
| | | Chloroform | mg/dry kg | <MDL | | 0.04 |
| | | Chloromethane | mg/dry kg | <MDL | | 0.48 |
| | | Dibromochloromethane | mg/dry kg | <MDL | | 0.12 |
| | | 1,2-Dichlorobenzene | mg/dry kg | <MDL | | 0.04 |
| | | 1,3-Dichlorobenzene | mg/dry kg | <MDL | | 0.04 |
| | | 1,4-Dichlorobenzene | mg/dry kg | <MDL | | 0.04 |
| | | 1,1-Dichloroethane | mg/dry kg | <MDL | | 0.04 |
| | | 1,2-Dichloroethane | mg/dry kg | <MDL | | 0.04 |
| | | 1,1-Dichloroethylene | mg/dry kg | <MDL | | 0.24 |
| | | trans-1,2-Dichloroethylene | mg/dry kg | <MDL | | 0.24 |
| | | 1,2-Dichloropropane | mg/dry kg | <MDL | | 0.04 |
| | | cis-1,3-Dichloropropene | mg/dry kg | <MDL | | 0.04 |
| | | trans-1,3-Dichloropropene | mg/dry kg | <MDL | | 0.04 |
| | | Methylene Chloride | mg/dry kg | <MDL | | 0.24 |
| | | 1,1,2,2-Tetrachloroethane | mg/dry kg | <MDL | | 0.08 |
| | | Tetrachloroethylene | mg/dry kg | <MDL | | 0.04 |
| | | 1,1,1-Trichloroethane | mg/dry kg | <MDL | | 0.04 |
| | | 1,1,2-Trichloroethane | mg/dry kg | <MDL | | 0.04 |
| | | Trichloroethylene | mg/dry kg | <MDL | | 0.04 |
| | | Trichlorofluoromethane | mg/dry kg | <MDL | | 0.12 |

William E. Buchan
Reported By: William E. Buchan
Anchorage Operations Manager



NORTHERN TESTING LABORATORIES, INC.

3330 INDUSTRIAL AVENUE
2505 FAIRBANKS STREET

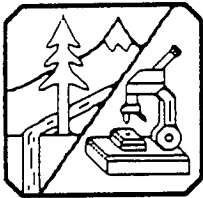
FAIRBANKS, ALASKA 99701
ANCHORAGE, ALASKA 99503

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| Lab Number | Method | Parameter | Units | Result Flag | Date MDL Analyzed |
|------------|----------|---|-----------|-------------|-------------------|
| A114411 | EPA 8010 | Vinyl Chloride | mg/dry kg | <MDL | 0.4 10/09/91 |
| A114411 | EPA 8080 | Aroclor 1016 | mg/dry kg | <MDL | 0.1 10/10/91 |
| | | Aroclor 1221 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1232 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1242 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1248 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1254 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1260 | mg/dry kg | 2.5 | 0.1 |
| | | Dibromooctafluorobiphenyl (Recovery) | % | 93.0 | |

William E. Buchan

Reported By: William E. Buchan
Anchorage Operations Manager



NORTHERN TESTING LABORATORIES, INC.

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2505 FAIRBANKS STREET

FAIRBANKS, ALASKA 99701
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Municipal Light & Power
P.O. Box 196650
Anchorage AK 99519-6650

Report Date: 10/15/91

Date Arrived: 09/27/91
Date Sampled: 09/26/91
Time Sampled: -
Collected By: MWR

Attn: Peter Smithson

Definitions
MDL = Method Detection
Limit

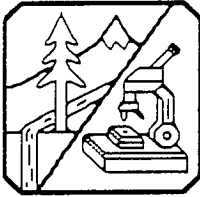
B = Below Regulatory Min.
H = Above Regulatory Max.
E = Below Detection Limit
Estimated Value

Our Lab #: A114412
Location/Project: A-1271
Your Sample ID: B3-S4
Sample Matrix: Soil
Comments:

| Lab Number | Method | Parameter | Units | Result Flag | Date MDL Analyzed |
|------------|-----------|------------------------------|-----------|-------------|-------------------|
| A114412 | EPA 160.3 | Solids | % | 80.0 | 10/02/91 |
| A114412 | EPA 418.1 | Total Petroleum Hydrocarbons | mg/dry kg | 1710 | 20 10/08/91 |
| A114412 | EPA 8010 | Bromodichloromethane | mg/dry kg | <MDL | 0.08 10/09/91 |
| | | Bromoform | mg/dry kg | <MDL | 0.24 |
| | | Bromomethane | mg/dry kg | <MDL | 0.48 |
| | | Carbon Tetrachloride | mg/dry kg | <MDL | 0.04 |
| | | Chlorobenzene | mg/dry kg | <MDL | 0.04 |
| | | Chloroethane | mg/dry kg | <MDL | 0.48 |
| | | 2-Chloroethylvinylether | mg/dry kg | <MDL | 0.48 |
| | | Chloroform | mg/dry kg | <MDL | 0.04 |
| | | Chloromethane | mg/dry kg | <MDL | 0.48 |
| | | Dibromochloromethane | mg/dry kg | <MDL | 0.12 |
| | | 1,2-Dichlorobenzene | mg/dry kg | <MDL | 0.04 |
| | | 1,3-Dichlorobenzene | mg/dry kg | <MDL | 0.04 |
| | | 1,4-Dichlorobenzene | mg/dry kg | <MDL | 0.04 |
| | | 1,1-Dichloroethane | mg/dry kg | <MDL | 0.04 |
| | | 1,2-Dichloroethane | mg/dry kg | <MDL | 0.04 |
| | | 1,1-Dichloroethylene | mg/dry kg | <MDL | 0.24 |
| | | trans-1,2-Dichloroethylene | mg/dry kg | <MDL | 0.24 |
| | | 1,2-Dichloropropane | mg/dry kg | <MDL | 0.04 |
| | | cis-1,3-Dichloropropene | mg/dry kg | <MDL | 0.04 |
| | | trans-1,3-Dichloropropene | mg/dry kg | <MDL | 0.04 |
| | | Methylene Chloride | mg/dry kg | <MDL | 0.24 |
| | | 1,1,2,2-Tetrachloroethane | mg/dry kg | <MDL | 0.08 |
| | | Tetrachloroethylene | mg/dry kg | <MDL | 0.04 |
| | | 1,1,1-Trichloroethane | mg/dry kg | <MDL | 0.04 |
| | | 1,1,2-Trichloroethane | mg/dry kg | <MDL | 0.04 |
| | | Trichloroethylene | mg/dry kg | <MDL | 0.04 |
| | | Perfluoromethane | mg/dry kg | <MDL | 0.12 |

William E. Buchan

Reported By: William E. Buchan
Anchorage Operations Manager



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3330 INDUSTRIAL AVENUE
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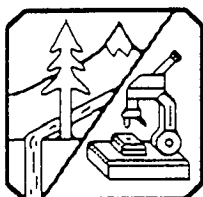
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ANCHORAGE, ALASKA 99503

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| Lab Number | Method | Parameter | Units | Result Flag | Date MDL Analyzed |
|------------|----------|---|-----------|-------------|----------------------|
| A114412 | EPA 8010 | Vinyl Chloride | mg/dry kg | <MDL | 0.4 10/09/91 |
| A114412 | EPA 8080 | Aroclor 1016 | mg/dry kg | <MDL | 0.1 10/10/91 |
| | | Aroclor 1221 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1232 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1242 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1248 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1254 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1260 | mg/dry kg | 0.4 | 0.1 |
| | | Dibromooctafluorobiphenyl (Recovery) | % | 95.0 | |

William E. Buchan

Reported By: William E. Buchan
Anchorage Operations Manager



NORTHERN TESTING LABORATORIES, INC.

3330 INDUSTRIAL AVENUE
2505 FAIRBANKS STREET

FAIRBANKS, ALASKA 99701
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(907) 277-8378 • FAX 274-9645

Municipal Light & Power
P.O. Box 196650
Anchorage AK 99519-6650

Report Date: 10/15/91

Date Arrived: 09/27/91

Date Sampled: 09/26/91

Time Sampled: -

Collected By: MWR

Attn: Peter Smithson

Definitions

MDL = Method Detection
Limit

B = Below Regulatory Min.

H = Above Regulatory Max.

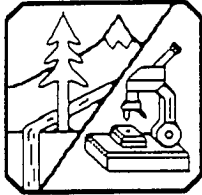
E = Below Detection Limit

Estimated Value

Our Lab #: A114419
Location/Project: A-1271
Your Sample ID: B3-S5
Sample Matrix: Soil
Comments:

| Lab Number | Method | Parameter | Units | Result | Flag | MDL | Date Analyzed |
|------------|-----------|------------------------------|-----------|--------|------|------|---------------|
| A114419 | EPA 160.3 | Solids | % | 69.9 | | | 10/02/91 |
| A114419 | EPA 418.1 | Total Petroleum Hydrocarbons | mg/dry kg | 57 | | 20 | 10/09/91 |
| A114419 | EPA 8010 | Bromodichloromethane | mg/dry kg | <MDL | | 0.08 | 10/09/91 |
| | | Bromoform | mg/dry kg | <MDL | | 0.24 | |
| | | Bromomethane | mg/dry kg | <MDL | | 0.48 | |
| | | Carbon Tetrachloride | mg/dry kg | <MDL | | 0.04 | |
| | | Chlorobenzene | mg/dry kg | <MDL | | 0.04 | |
| | | Chloroethane | mg/dry kg | <MDL | | 0.48 | |
| | | 2-Chloroethylvinylether | mg/dry kg | <MDL | | 0.48 | |
| | | Chloroform | mg/dry kg | <MDL | | 0.04 | |
| | | Chloromethane | mg/dry kg | <MDL | | 0.48 | |
| | | Dibromochloromethane | mg/dry kg | <MDL | | 0.12 | |
| | | 1,2-Dichlorobenzene | mg/dry kg | <MDL | | 0.04 | |
| | | 1,3-Dichlorobenzene | mg/dry kg | <MDL | | 0.04 | |
| | | 1,4-Dichlorobenzene | mg/dry kg | <MDL | | 0.04 | |
| | | 1,1-Dichloroethane | mg/dry kg | <MDL | | 0.04 | |
| | | 1,2-Dichloroethane | mg/dry kg | <MDL | | 0.04 | |
| | | 1,1-Dichloroethylene | mg/dry kg | <MDL | | 0.24 | |
| | | trans-1,2-Dichloroethylene | mg/dry kg | <MDL | | 0.24 | |
| | | 1,2-Dichloropropane | mg/dry kg | <MDL | | 0.04 | |
| | | cis-1,3-Dichloropropene | mg/dry kg | <MDL | | 0.04 | |
| | | trans-1,3-Dichloropropene | mg/dry kg | <MDL | | 0.04 | |
| | | Methylene Chloride | mg/dry kg | <MDL | | 0.24 | |
| | | 1,1,2,2-Tetrachloroethane | mg/dry kg | <MDL | | 0.08 | |
| | | Tetrachloroethylene | mg/dry kg | <MDL | | 0.04 | |
| | | 1,1,1-Trichloroethane | mg/dry kg | <MDL | | 0.04 | |
| | | 1,1,2-Trichloroethane | mg/dry kg | <MDL | | 0.04 | |
| | | Trichloroethylene | mg/dry kg | <MDL | | 0.04 | |
| | | Trichlorofluoromethane | mg/dry kg | <MDL | | 0.12 | |

William E. Buchan
Reported By: William E. Buchan
Anchorage Operations Manager



NORTHERN TESTING LABORATORIES, INC.

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2505 FAIRBANKS STREET

FAIRBANKS, ALASKA 99701
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| Lab Number | Method | Parameter | Units | Result Flag | Date MDL Analyzed |
|------------|----------|---|-----------|-------------|-------------------|
| A114419 | EPA 8010 | Vinyl Chloride | mg/dry kg | <MDL | 0.4 10/09/91 |
| A114419 | EPA 8080 | Aroclor 1016 | mg/dry kg | <MDL | 0.1 10/10/91 |
| | | Aroclor 1221 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1232 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1242 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1248 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1254 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1260 | mg/dry kg | 0.1 | 0.1 |
| | | Dibromooctafluorobiphenyl (Recovery) | % | 81.0 | |

William E. Buchan

Reported By: William E. Buchan
Anchorage Operations Manager



NORTHERN TESTING LABORATORIES, INC.

3330 INDUSTRIAL AVENUE
2505 FAIRBANKS STREET

FAIRBANKS, ALASKA 99701
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Municipal Light & Power
P.O. Box 196650
Anchorage AK 99519-6650

Report Date: 10/15/91

Date Arrived: 09/27/91
Date Sampled: 09/26/91
Time Sampled: -
Collected By: MWR

Attn: Peter Smithson

Definitions

MDL = Method Detection
Limit

B = Below Regulatory Min.

H = Above Regulatory Max.

E = Below Detection Limit

Estimated Value

Our Lab #: A114413
Location/Project: A-1271
Your Sample ID: B3-S6
Sample Matrix: Soil

Comments:

| Lab Number | Method | Parameter | Units | Result Flag | Date MDL Analyzed |
|---------------|-----------|------------------------------|-----------|-------------|----------------------|
| A114413 | EPA 160.3 | Solids | % | 75.7 | 10/02/91 |
| A114413 | EPA 418.1 | Total Petroleum Hydrocarbons | mg/dry kg | <MDL | 20 10/08/91 |
| A114413 | EPA 8010 | Bromodichloromethane | mg/dry kg | <MDL | 0.02 10/09/91 |
| | | Bromoform | mg/dry kg | <MDL | 0.06 |
| | | Bromomethane | mg/dry kg | <MDL | 0.12 |
| | | Carbon Tetrachloride | mg/dry kg | <MDL | 0.01 |
| | | Chlorobenzene | mg/dry kg | <MDL | 0.01 |
| | | Chloroethane | mg/dry kg | <MDL | 0.12 |
| | | 2-Chloroethylvinylether | mg/dry kg | <MDL | 0.12 |
| | | Chloroform | mg/dry kg | <MDL | 0.01 |
| | | Chloromethane | mg/dry kg | <MDL | 0.12 |
| | | Dibromochloromethane | mg/dry kg | <MDL | 0.03 |
| | | 1,2-Dichlorobenzene | mg/dry kg | <MDL | 0.01 |
| | | 1,3-Dichlorobenzene | mg/dry kg | <MDL | 0.01 |
| | | 1,4-Dichlorobenzene | mg/dry kg | <MDL | 0.01 |
| | | 1,1-Dichloroethane | mg/dry kg | <MDL | 0.01 |
| | | 1,2-Dichloroethane | mg/dry kg | <MDL | 0.01 |
| | | 1,1-Dichloroethylene | mg/dry kg | <MDL | 0.06 |
| | | trans-1,2-Dichloroethylene | mg/dry kg | <MDL | 0.06 |
| | | 1,2-Dichloropropane | mg/dry kg | <MDL | 0.01 |
| | | cis-1,3-Dichloropropene | mg/dry kg | <MDL | 0.01 |
| | | trans-1,3-Dichloropropene | mg/dry kg | <MDL | 0.01 |
| | | Methylene Chloride | mg/dry kg | <MDL | 0.06 |
| | | 1,1,2,2-Tetrachloroethane | mg/dry kg | <MDL | 0.02 |
| | | Tetrachloroethylene | mg/dry kg | <MDL | 0.01 |
| | | 1,1,1-Trichloroethane | mg/dry kg | <MDL | 0.01 |
| | | 1,1,2-Trichloroethane | mg/dry kg | <MDL | 0.01 |
| | | Trichloroethylene | mg/dry kg | <MDL | 0.01 |
| | | Trichlorofluoromethane | mg/dry kg | <MDL | 0.03 |

William E. Buchan

Reported By: William E. Buchan
Anchorage Operations Manager



NORTHERN TESTING LABORATORIES, INC.

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2505 FAIRBANKS STREET

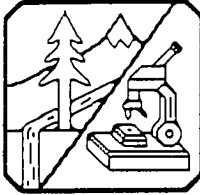
FAIRBANKS, ALASKA 99701
ANCHORAGE, ALASKA 99503

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| Lab Number | Method | Parameter | Units | Result Flag | Date MDL Analyzed |
|------------|----------|---|-----------|-------------|-------------------|
| A114413 | EPA 8010 | Vinyl Chloride | mg/dry kg | <MDL | 0.1 10/09/91 |
| A114413 | EPA 8080 | Aroclor 1016 | mg/dry kg | <MDL | 0.1 10/10/91 |
| | | Aroclor 1221 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1232 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1242 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1248 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1254 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1260 | mg/dry kg | <MDL | 0.1 |
| | | Dibromooctafluorobiphenyl (Recovery) | % | 87.0 | |

William E. Buchan

Reported By: William E. Buchan
Anchorage Operations Manager



NORTHERN TESTING LABORATORIES, INC.

3330 INDUSTRIAL AVENUE
2505 FAIRBANKS STREET

FAIRBANKS, ALASKA 99701
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Municipal Light & Power
P.O. Box 196650
Anchorage AK 99519-6650

Report Date: 10/15/91

Date Arrived: 09/27/91
Date Sampled: 09/26/91
Time Sampled: -
Collected By: MWR

Attn: Peter Smithson

Definitions
MDL = Method Detection
Limit

B = Below Regulatory Min.
H = Above Regulatory Max.
E = Below Detection Limit
Estimated Value

Our Lab #: A114414
Location/Project: A-1271
Your Sample ID: B4-S1
Sample Matrix: Soil
Comments:

| Lab Number | Method | Parameter | Units | Result | Flag | Date MDL Analyzed |
|------------|-----------|------------------------------|-----------|--------|------|-------------------|
| A114414 | EPA 160.3 | Solids | % | 95.6 | | 10/02/91 |
| A114414 | EPA 418.1 | Total Petroleum Hydrocarbons | mg/dry kg | 922 | | 20 10/08/91 |
| A114414 | EPA 8010 | Bromodichloromethane | mg/dry kg | <MDL | | 0.02 10/09/91 |
| | | Bromoform | mg/dry kg | <MDL | | 0.06 |
| | | Bromomethane | mg/dry kg | <MDL | | 0.12 |
| | | Carbon Tetrachloride | mg/dry kg | <MDL | | 0.01 |
| | | Chlorobenzene | mg/dry kg | <MDL | | 0.01 |
| | | Chloroethane | mg/dry kg | <MDL | | 0.12 |
| | | 2-Chloroethylvinylether | mg/dry kg | <MDL | | 0.12 |
| | | Chloroform | mg/dry kg | <MDL | | 0.01 |
| | | Chloromethane | mg/dry kg | <MDL | | 0.12 |
| | | Dibromochloromethane | mg/dry kg | <MDL | | 0.03 |
| | | 1,2-Dichlorobenzene | mg/dry kg | <MDL | | 0.01 |
| | | 1,3-Dichlorobenzene | mg/dry kg | <MDL | | 0.01 |
| | | 1,4-Dichlorobenzene | mg/dry kg | <MDL | | 0.01 |
| | | 1,1-Dichloroethane | mg/dry kg | <MDL | | 0.01 |
| | | 1,2-Dichloroethane | mg/dry kg | <MDL | | 0.01 |
| | | 1,1-Dichloroethylene | mg/dry kg | <MDL | | 0.06 |
| | | trans-1,2-Dichloroethylene | mg/dry kg | <MDL | | 0.06 |
| | | 1,2-Dichloropropane | mg/dry kg | <MDL | | 0.01 |
| | | cis-1,3-Dichloropropene | mg/dry kg | <MDL | | 0.01 |
| | | trans-1,3-Dichloropropene | mg/dry kg | <MDL | | 0.01 |
| | | Methylene Chloride | mg/dry kg | <MDL | | 0.06 |
| | | 1,1,2,2-Tetrachloroethane | mg/dry kg | <MDL | | 0.02 |
| | | Tetrachloroethylene | mg/dry kg | <MDL | | 0.01 |
| | | 1,1,1-Trichloroethane | mg/dry kg | <MDL | | 0.01 |
| | | 1,1,2-Trichloroethane | mg/dry kg | <MDL | | 0.01 |
| | | Trichloroethylene | mg/dry kg | <MDL | | 0.01 |
| | | Trichlorofluoromethane | mg/dry kg | <MDL | | 0.03 |

William E. Buchan

Reported By: William E. Buchan
Anchorage Operations Manager



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3330 INDUSTRIAL AVENUE
2505 FAIRBANKS STREET

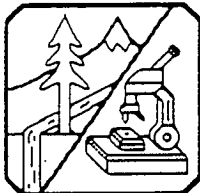
FAIRBANKS, ALASKA 99701
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| Lab Number | Method | Parameter | Units | Result Flag | Date MDL Analyzed |
|------------|----------|---|-----------|-------------|----------------------|
| A114414 | EPA 8010 | Vinyl Chloride | mg/dry kg | <MDL | 0.1 10/09/91 |
| A114414 | EPA 8080 | Aroclor 1016 | mg/dry kg | <MDL | 0.1 10/10/91 |
| | | Aroclor 1221 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1232 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1242 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1248 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1254 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1260 | mg/dry kg | 11.0 | 0.1 |
| | | Dibromooctafluorobiphenyl (Recovery) | % | 105.0 | |

William E. Buchan

Reported By: William E. Buchan
Anchorage Operations Manager



NORTHERN TESTING LABORATORIES, INC.

3330 INDUSTRIAL AVENUE
2505 FAIRBANKS STREET

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Municipal Light & Power
P.O. Box 196650
Anchorage AK 99519-6650

Report Date: 10/15/91

Date Arrived: 09/27/91

Date Sampled: 09/26/91

Time Sampled: -

Collected By: MWR

Attn: Peter Smithson

Definitions

MDL = Method Detection
Limit

B = Below Regulatory Min.

H = Above Regulatory Max.

E = Below Detection Limit

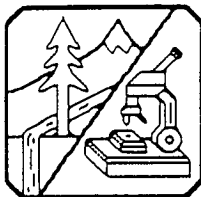
Estimated Value

Our Lab #: A114415
Location/Project: A-1271
Your Sample ID: B4-S2
Sample Matrix: Soil
Comments:

| Lab Number | Method | Parameter | Units | Result | Flag | MDL | Date Analyzed |
|------------|-----------|------------------------------|-----------|--------|------|------|---------------|
| A114415 | EPA 160.3 | Solids | % | 86.3 | | | 10/02/91 |
| A114415 | EPA 418.1 | Total Petroleum Hydrocarbons | mg/dry kg | 283 | | 20 | 10/09/91 |
| A114415 | EPA 8010 | Bromodichloromethane | mg/dry kg | <MDL | | 0.08 | 10/09/91 |
| | | Bromoform | mg/dry kg | <MDL | | 0.24 | |
| | | Bromomethane | mg/dry kg | <MDL | | 0.48 | |
| | | Carbon Tetrachloride | mg/dry kg | <MDL | | 0.04 | |
| | | Chlorobenzene | mg/dry kg | <MDL | | 0.04 | |
| | | Chloroethane | mg/dry kg | <MDL | | 0.48 | |
| | | 2-Chloroethylvinylether | mg/dry kg | <MDL | | 0.48 | |
| | | Chloroform | mg/dry kg | <MDL | | 0.04 | |
| | | Chloromethane | mg/dry kg | <MDL | | 0.48 | |
| | | Dibromochloromethane | mg/dry kg | <MDL | | 0.12 | |
| | | 1,2-Dichlorobenzene | mg/dry kg | <MDL | | 0.04 | |
| | | 1,3-Dichlorobenzene | mg/dry kg | <MDL | | 0.04 | |
| | | 1,4-Dichlorobenzene | mg/dry kg | <MDL | | 0.04 | |
| | | 1,1-Dichloroethane | mg/dry kg | <MDL | | 0.04 | |
| | | 1,2-Dichloroethane | mg/dry kg | <MDL | | 0.04 | |
| | | 1,1-Dichloroethylene | mg/dry kg | <MDL | | 0.24 | |
| | | trans-1,2-Dichloroethylene | mg/dry kg | <MDL | | 0.24 | |
| | | 1,2-Dichloropropane | mg/dry kg | <MDL | | 0.04 | |
| | | cis-1,3-Dichloropropene | mg/dry kg | <MDL | | 0.04 | |
| | | trans-1,3-Dichloropropene | mg/dry kg | <MDL | | 0.04 | |
| | | Methylene Chloride | mg/dry kg | <MDL | | 0.24 | |
| | | 1,1,2,2-Tetrachloroethane | mg/dry kg | <MDL | | 0.08 | |
| | | Tetrachloroethylene | mg/dry kg | <MDL | | 0.04 | |
| | | 1,1,1-Trichloroethane | mg/dry kg | <MDL | | 0.04 | |
| | | 1,1,2-Trichloroethane | mg/dry kg | <MDL | | 0.04 | |
| | | Trichloroethylene | mg/dry kg | <MDL | | 0.04 | |
| | | Dichlorofluoromethane | mg/dry kg | <MDL | | 0.12 | |

William E. Buchan

Reported By: William E. Buchan
Anchorage Operations Manager



NORTHERN TESTING LABORATORIES, INC.

3330 INDUSTRIAL AVENUE
2505 FAIRBANKS STREET

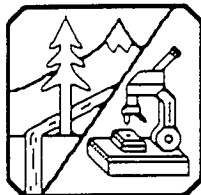
FAIRBANKS, ALASKA 99701
ANCHORAGE, ALASKA 99503

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(907) 277-8378 • FAX 274-9645

| Lab Number | Method | Parameter | Units | Result Flag | Date MDL Analyzed |
|------------|----------|---|-----------|-------------|-------------------|
| A114415 | EPA 8010 | Vinyl Chloride | mg/dry kg | <MDL | 0.4 10/09/91 |
| A114415 | EPA 8080 | Aroclor 1016 | mg/dry kg | <MDL | 0.1 10/10/91 |
| | | Aroclor 1221 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1232 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1242 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1248 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1254 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1260 | mg/dry kg | 0.2 | 0.1 |
| | | Dibromooctafluorobiphenyl (Recovery) | % | 73.0 | |

William E. Buchan

Reported By: William E. Buchan
Anchorage Operations Manager



NORTHERN TESTING LABORATORIES, INC.

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Municipal Light & Power
P.O. Box 196650
Anchorage AK 99519-6650

Report Date: 10/15/91

Date Arrived: 09/27/91
Date Sampled: 09/26/91
Time Sampled: -
Collected By: MWR

Attn: Peter Smithson

Definitions

MDL = Method Detection
Limit

B = Below Regulatory Min.

H = Above Regulatory Max.

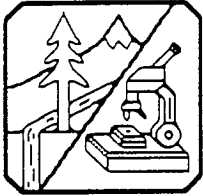
E = Below Detection Limit
Estimated Value

Our Lab #: A114416
Location/Project: A-1271
Your Sample ID: B4-S3
Sample Matrix: Soil
Comments:

| Lab Number | Method | Parameter | Units | Result Flag | Date MDL Analyzed |
|------------|-----------|------------------------------|-----------|-------------|-------------------|
| A114416 | EPA 160.3 | Solids | % | 92.0 | 10/02/91 |
| A114416 | EPA 418.1 | Total Petroleum Hydrocarbons | mg/dry kg | <MDL | 20 10/09/91 |
| A114416 | EPA 8010 | Bromodichloromethane | mg/dry kg | <MDL | 0.08 10/09/91 |
| | | Bromoform | mg/dry kg | <MDL | 0.24 |
| | | Bromomethane | mg/dry kg | <MDL | 0.48 |
| | | Carbon Tetrachloride | mg/dry kg | <MDL | 0.04 |
| | | Chlorobenzene | mg/dry kg | <MDL | 0.04 |
| | | Chloroethane | mg/dry kg | <MDL | 0.48 |
| | | 2-Chloroethylvinylether | mg/dry kg | <MDL | 0.48 |
| | | Chloroform | mg/dry kg | <MDL | 0.04 |
| | | Chloromethane | mg/dry kg | <MDL | 0.48 |
| | | Dibromochloromethane | mg/dry kg | <MDL | 0.12 |
| | | 1,2-Dichlorobenzene | mg/dry kg | <MDL | 0.04 |
| | | 1,3-Dichlorobenzene | mg/dry kg | <MDL | 0.04 |
| | | 1,4-Dichlorobenzene | mg/dry kg | <MDL | 0.04 |
| | | 1,1-Dichloroethane | mg/dry kg | <MDL | 0.04 |
| | | 1,2-Dichloroethane | mg/dry kg | <MDL | 0.04 |
| | | 1,1-Dichloroethylene | mg/dry kg | <MDL | 0.24 |
| | | trans-1,2-Dichloroethylene | mg/dry kg | <MDL | 0.24 |
| | | 1,2-Dichloropropane | mg/dry kg | <MDL | 0.04 |
| | | cis-1,3-Dichloropropene | mg/dry kg | <MDL | 0.04 |
| | | trans-1,3-Dichloropropene | mg/dry kg | <MDL | 0.04 |
| | | Methylene Chloride | mg/dry kg | <MDL | 0.24 |
| | | 1,1,2,2-Tetrachloroethane | mg/dry kg | <MDL | 0.08 |
| | | Tetrachloroethylene | mg/dry kg | <MDL | 0.04 |
| | | 1,1,1-Trichloroethane | mg/dry kg | <MDL | 0.04 |
| | | 1,1,2-Trichloroethane | mg/dry kg | <MDL | 0.04 |
| | | Trichloroethylene | mg/dry kg | <MDL | 0.04 |
| | | Trichlorofluoromethane | mg/dry kg | <MDL | 0.12 |

William E. Buchan

Reported By: William E. Buchan
Anchorage Operations Manager



NORTHERN TESTING LABORATORIES, INC.

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2505 FAIRBANKS STREET

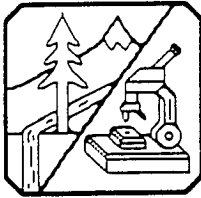
FAIRBANKS, ALASKA 99701
ANCHORAGE, ALASKA 99503

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(907) 277-8378 • FAX 274-9645

| Lab Number | Method | Parameter | Units | Result Flag | Date MDL Analyzed |
|------------|----------|---|-----------|-------------|----------------------|
| A114416 | EPA 8010 | Vinyl Chloride | mg/dry kg | <MDL | 0.4 10/09/91 |
| A114416 | EPA 8080 | Aroclor 1016 | mg/dry kg | <MDL | 0.1 10/10/91 |
| | | Aroclor 1221 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1232 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1242 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1248 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1254 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1260 | mg/dry kg | <MDL | 0.1 |
| | | Dibromooctafluorobiphenyl (Recovery) | % | 79.0 | |

William E. Buchan

Reported By: William E. Buchan
Anchorage Operations Manager



NORTHERN TESTING LABORATORIES, INC.

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Municipal Light & Power
P.O. Box 196650
Anchorage AK 99519-6650

Report Date: 10/15/91

Date Arrived: 09/27/91
Date Sampled: 09/26/91
Time Sampled: -
Collected By: MWR

Attn: Peter Smithson

Definitions
MDL = Method Detection
Limit

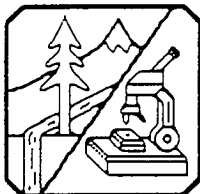
B = Below Regulatory Min.
H = Above Regulatory Max.
E = Below Detection Limit
Estimated Value

Our Lab #: A114417
Location/Project: A-1271
Your Sample ID: B4-S4
Sample Matrix: Soil
Comments:

| Lab Number | Method | Parameter | Units | Result Flag | Date MDL Analyzed |
|------------|-----------|------------------------------|-----------|-------------|-------------------|
| A114417 | EPA 160.3 | Solids | % | 79.2 | 10/02/91 |
| A114417 | EPA 418.1 | Total Petroleum Hydrocarbons | mg/dry kg | 32 | 20 10/09/91 |
| A114417 | EPA 8010 | Bromodichloromethane | mg/dry kg | <MDL | 0.02 10/09/91 |
| | | Bromoform | mg/dry kg | <MDL | 0.06 |
| | | Bromomethane | mg/dry kg | <MDL | 0.12 |
| | | Carbon Tetrachloride | mg/dry kg | <MDL | 0.01 |
| | | Chlorobenzene | mg/dry kg | <MDL | 0.01 |
| | | Chloroethane | mg/dry kg | <MDL | 0.12 |
| | | 2-Chloroethylvinylether | mg/dry kg | <MDL | 0.12 |
| | | Chloroform | mg/dry kg | <MDL | 0.01 |
| | | Chloromethane | mg/dry kg | <MDL | 0.12 |
| | | Dibromochloromethane | mg/dry kg | <MDL | 0.03 |
| | | 1,2-Dichlorobenzene | mg/dry kg | <MDL | 0.01 |
| | | 1,3-Dichlorobenzene | mg/dry kg | <MDL | 0.01 |
| | | 1,4-Dichlorobenzene | mg/dry kg | <MDL | 0.01 |
| | | 1,1-Dichloroethane | mg/dry kg | <MDL | 0.01 |
| | | 1,2-Dichloroethane | mg/dry kg | <MDL | 0.01 |
| | | 1,1-Dichloroethylene | mg/dry kg | <MDL | 0.06 |
| | | trans-1,2-Dichloroethylene | mg/dry kg | <MDL | 0.06 |
| | | 1,2-Dichloropropane | mg/dry kg | <MDL | 0.01 |
| | | cis-1,3-Dichloropropene | mg/dry kg | <MDL | 0.01 |
| | | trans-1,3-Dichloropropene | mg/dry kg | <MDL | 0.01 |
| | | Methylene Chloride | mg/dry kg | <MDL | 0.06 |
| | | 1,1,2,2-Tetrachloroethane | mg/dry kg | <MDL | 0.02 |
| | | Tetrachloroethylene | mg/dry kg | <MDL | 0.01 |
| | | 1,1,1-Trichloroethane | mg/dry kg | <MDL | 0.01 |
| | | 1,1,2-Trichloroethane | mg/dry kg | <MDL | 0.01 |
| | | Trichloroethylene | mg/dry kg | <MDL | 0.01 |
| | | Trichlorofluoromethane | mg/dry kg | <MDL | 0.03 |

William E. Buchan

Reported By: William E. Buchan
Anchorage Operations Manager



NORTHERN TESTING LABORATORIES, INC.

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FAIRBANKS, ALASKA 99701
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| Lab Number | Method | Parameter | Units | Result Flag | Date MDL Analyzed |
|------------|----------|---|-----------|-------------|-------------------|
| A114417 | EPA 8010 | Vinyl Chloride | mg/dry kg | <MDL | 0.1 10/09/91 |
| A114417 | EPA 8080 | Aroclor 1016 | mg/dry kg | <MDL | 0.1 10/10/91 |
| | | Aroclor 1221 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1232 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1242 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1248 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1254 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1260 | mg/dry kg | 0.1 | 0.1 |
| | | Dibromooctafluorobiphenyl (Recovery) | % | 76.0 | |

William E. Buchan

Reported By: William E. Buchan
Anchorage Operations Manager



NORTHERN TESTING LABORATORIES, INC.

3330 INDUSTRIAL AVENUE
2505 FAIRBANKS STREET

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Municipal Light & Power
P.O. Box 196650
Anchorage AK 99519-6650

Report Date: 10/15/91

Date Arrived: 09/27/91
Date Sampled: 09/26/91
Time Sampled: -
Collected By: MWR

Attn: Peter Smithson

Definitions

MDL = Method Detection
Limit

B = Below Regulatory Min.

H = Above Regulatory Max.

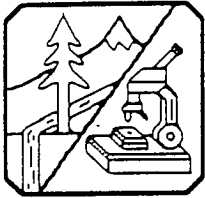
E = Below Detection Limit
Estimated Value

Our Lab #: A114418
Location/Project: A-1271
Your Sample ID: B4-S5
Sample Matrix: Soil
Comments:

| Lab Number | Method | Parameter | Units | Result Flag | MDL | Date Analyzed |
|------------|-----------|------------------------------|-----------|-------------|------|---------------|
| A114418 | EPA 160.3 | Solids | % | 83.4 | | 10/02/91 |
| A114418 | EPA 418.1 | Total Petroleum Hydrocarbons | mg/dry kg | <MDL | 20 | 10/09/91 |
| A114418 | EPA 8010 | Bromodichloromethane | mg/dry kg | <MDL | 0.02 | 10/09/91 |
| | | Bromoform | mg/dry kg | <MDL | 0.06 | |
| | | Bromomethane | mg/dry kg | <MDL | 0.12 | |
| | | Carbon Tetrachloride | mg/dry kg | <MDL | 0.01 | |
| | | Chlorobenzene | mg/dry kg | <MDL | 0.01 | |
| | | Chloroethane | mg/dry kg | <MDL | 0.12 | |
| | | 2-Chloroethylvinylether | mg/dry kg | <MDL | 0.12 | |
| | | Chloroform | mg/dry kg | <MDL | 0.01 | |
| | | Chloromethane | mg/dry kg | <MDL | 0.12 | |
| | | Dibromochloromethane | mg/dry kg | <MDL | 0.03 | |
| | | 1,2-Dichlorobenzene | mg/dry kg | <MDL | 0.01 | |
| | | 1,3-Dichlorobenzene | mg/dry kg | <MDL | 0.01 | |
| | | 1,4-Dichlorobenzene | mg/dry kg | <MDL | 0.01 | |
| | | 1,1-Dichloroethane | mg/dry kg | <MDL | 0.01 | |
| | | 1,2-Dichloroethane | mg/dry kg | <MDL | 0.01 | |
| | | 1,1-Dichloroethylene | mg/dry kg | <MDL | 0.06 | |
| | | trans-1,2-Dichloroethylene | mg/dry kg | <MDL | 0.06 | |
| | | 1,2-Dichloropropane | mg/dry kg | <MDL | 0.01 | |
| | | cis-1,3-Dichloropropene | mg/dry kg | <MDL | 0.01 | |
| | | trans-1,3-Dichloropropene | mg/dry kg | <MDL | 0.01 | |
| | | Methylene Chloride | mg/dry kg | <MDL | 0.06 | |
| | | 1,1,2,2-Tetrachloroethane | mg/dry kg | <MDL | 0.02 | |
| | | Tetrachloroethylene | mg/dry kg | <MDL | 0.01 | |
| | | 1,1,1-Trichloroethane | mg/dry kg | <MDL | 0.01 | |
| | | 1,1,2-Trichloroethane | mg/dry kg | <MDL | 0.01 | |
| | | Trichloroethylene | mg/dry kg | <MDL | 0.01 | |
| | | Trichlorofluoromethane | mg/dry kg | <MDL | 0.03 | |

William E. Buchan

Reported By: William E. Buchan
Anchorage Operations Manager



NORTHERN TESTING LABORATORIES, INC.

3330 INDUSTRIAL AVENUE
2505 FAIRBANKS STREET

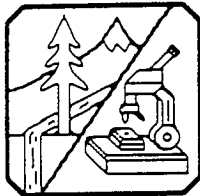
FAIRBANKS, ALASKA 99701
ANCHORAGE, ALASKA 99503

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| Lab Number | Method | Parameter | Units | Result Flag | Date MDL Analyzed |
|------------|----------|---|-----------|-------------|----------------------|
| A114418 | EPA 8010 | Vinyl Chloride | mg/dry kg | <MDL | 0.1 10/09/91 |
| A114418 | EPA 8080 | Aroclor 1016 | mg/dry kg | <MDL | 0.1 10/10/91 |
| | | Aroclor 1221 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1232 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1242 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1248 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1254 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1260 | mg/dry kg | <MDL | 0.1 |
| | | Dibromooctafluorobiphenyl (Recovery) | % | 89.0 | |

William E. Buchan

Reported By: William E. Buchan
Anchorage Operations Manager



NORTHERN TESTING LABORATORIES, INC.

3330 INDUSTRIAL AVENUE
2505 FAIRBANKS STREET

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Municipal Light & Power
P.O. Box 196650
Anchorage AK 99519-6650

Report Date: 10/15/91

Date Arrived: 09/30/91
Date Sampled: 09/27/91
Time Sampled: -
Collected By: MWR

Attn: Peter Smithson

Definitions

MDL = Method Detection
Limit

B = Below Regulatory Min.

H = Above Regulatory Max.

E = Below Detection Limit

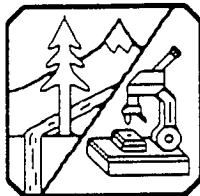
Estimated Value

Our Lab #: A114451
Location/Project: -
Your Sample ID: B-5/S-1
Sample Matrix: Soil
Comments:

| Lab Number | Method | Parameter | Units | Result | Flag | Date MDL Analyzed |
|------------|-----------|------------------------------|-----------|--------|------|-------------------|
| A114451 | EPA 160.3 | Solids | % | 96.3 | | 10/03/91 |
| A114451 | EPA 418.1 | Total Petroleum Hydrocarbons | mg/dry kg | 816 | | 20 10/11/91 |
| A114451 | EPA 8010 | Bromodichloromethane | mg/dry kg | <MDL | | 0.02 10/11/91 |
| | | Bromoform | mg/dry kg | <MDL | | 0.06 |
| | | Bromomethane | mg/dry kg | <MDL | | 0.12 |
| | | Carbon Tetrachloride | mg/dry kg | <MDL | | 0.01 |
| | | Chlorobenzene | mg/dry kg | <MDL | | 0.01 |
| | | Chloroethane | mg/dry kg | <MDL | | 0.12 |
| | | 2-Chloroethylvinylether | mg/dry kg | <MDL | | 0.12 |
| | | Chloroform | mg/dry kg | <MDL | | 0.01 |
| | | Chloromethane | mg/dry kg | <MDL | | 0.12 |
| | | Dibromochloromethane | mg/dry kg | <MDL | | 0.03 |
| | | 1,2-Dichlorobenzene | mg/dry kg | <MDL | | 0.01 |
| | | 1,3-Dichlorobenzene | mg/dry kg | <MDL | | 0.01 |
| | | 1,4-Dichlorobenzene | mg/dry kg | <MDL | | 0.01 |
| | | 1,1-Dichloroethane | mg/dry kg | <MDL | | 0.01 |
| | | 1,2-Dichloroethane | mg/dry kg | <MDL | | 0.01 |
| | | 1,1-Dichloroethylene | mg/dry kg | <MDL | | 0.06 |
| | | trans-1,2-Dichloroethylene | mg/dry kg | <MDL | | 0.06 |
| | | 1,2-Dichloropropane | mg/dry kg | <MDL | | 0.01 |
| | | cis-1,3-Dichloropropene | mg/dry kg | <MDL | | 0.01 |
| | | trans-1,3-Dichloropropene | mg/dry kg | <MDL | | 0.01 |
| | | Methylene Chloride | mg/dry kg | <MDL | | 0.06 |
| | | 1,1,2,2-Tetrachloroethane | mg/dry kg | <MDL | | 0.02 |
| | | Tetrachloroethylene | mg/dry kg | <MDL | | 0.01 |
| | | 1,1,1-Trichloroethane | mg/dry kg | <MDL | | 0.01 |
| | | 1,1,2-Trichloroethane | mg/dry kg | <MDL | | 0.01 |
| | | Trichloroethylene | mg/dry kg | <MDL | | 0.01 |
| | | Trichlorofluoromethane | mg/dry kg | <MDL | | 0.03 |

William E. Buchan

Reported By: William E. Buchan
Anchorage Operations Manager



NORTHERN TESTING LABORATORIES, INC.

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2505 FAIRBANKS STREET

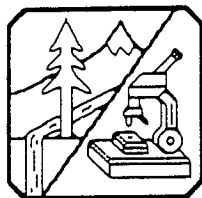
FAIRBANKS, ALASKA 99701
ANCHORAGE, ALASKA 99503

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| Lab Number | Method | Parameter | Units | Result Flag | Date MDL Analyzed |
|---------------|----------|---|-----------|-------------|----------------------|
| 114451 | EPA 8010 | Vinyl Chloride | mg/dry kg | <MDL | 0.1 10/11/91 |
| A114451 | EPA 8080 | Aroclor 1016 | mg/dry kg | <MDL | 0.1 10/13/91 |
| | | Aroclor 1221 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1232 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1242 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1248 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1254 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1260 | mg/dry kg | 7.9 | 0.1 |
| | | Dibromooctafluorobiphenyl (Recovery) | % | 98.0 | |

William E. Buchan

Reported By: William E. Buchan
Anchorage Operations Manager



NORTHERN TESTING LABORATORIES, INC.

3330 INDUSTRIAL AVENUE
2505 FAIRBANKS STREET

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Municipal Light & Power
P.O. Box 196650
Anchorage AK 99519-6650

Report Date: 10/15/91

Date Arrived: 09/30/91
Date Sampled: 09/27/91
Time Sampled: -
Collected By: MWR

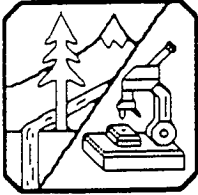
Attn: Peter Smithson

Definitions
MDL = Method Detection
Limit
B = Below Regulatory Min.
H = Above Regulatory Max.
E = Below Detection Limit
Estimated Value

Our Lab #: A114452
Location/Project: -
Your Sample ID: B-5/S-2
Sample Matrix: Soil
Comments:

| Lab Number | Method | Parameter | Units | Result | Flag | MDL | Date Analyzed |
|------------|-----------|------------------------------|-----------|--------|------|------|---------------|
| A114452 | EPA 160.3 | Solids | % | 94.1 | | | 10/03/91 |
| A114452 | EPA 418.1 | Total Petroleum Hydrocarbons | mg/dry kg | 5.70 | | 20 | 10/11/91 |
| A114452 | EPA 8010 | Bromodichloromethane | mg/dry kg | <MDL | | 0.02 | 10/11/91 |
| | | Bromoform | mg/dry kg | <MDL | | 0.06 | |
| | | Bromomethane | mg/dry kg | <MDL | | 0.12 | |
| | | Carbon Tetrachloride | mg/dry kg | <MDL | | 0.01 | |
| | | Chlorobenzene | mg/dry kg | <MDL | | 0.01 | |
| | | Chloroethane | mg/dry kg | <MDL | | 0.12 | |
| | | 2-Chloroethylvinylether | mg/dry kg | <MDL | | 0.12 | |
| | | Chloroform | mg/dry kg | <MDL | | 0.01 | |
| | | Chloromethane | mg/dry kg | <MDL | | 0.12 | |
| | | Dibromochloromethane | mg/dry kg | <MDL | | 0.03 | |
| | | 1,2-Dichlorobenzene | mg/dry kg | <MDL | | 0.01 | |
| | | 1,3-Dichlorobenzene | mg/dry kg | <MDL | | 0.01 | |
| | | 1,4-Dichlorobenzene | mg/dry kg | <MDL | | 0.01 | |
| | | 1,1-Dichloroethane | mg/dry kg | <MDL | | 0.01 | |
| | | 1,2-Dichloroethane | mg/dry kg | <MDL | | 0.01 | |
| | | 1,1-Dichloroethylene | mg/dry kg | <MDL | | 0.06 | |
| | | trans-1,2-Dichloroethylene | mg/dry kg | <MDL | | 0.06 | |
| | | 1,2-Dichloropropane | mg/dry kg | <MDL | | 0.01 | |
| | | cis-1,3-Dichloropropene | mg/dry kg | <MDL | | 0.01 | |
| | | trans-1,3-Dichloropropene | mg/dry kg | <MDL | | 0.01 | |
| | | Methylene Chloride | mg/dry kg | <MDL | | 0.06 | |
| | | 1,1,2,2-Tetrachloroethane | mg/dry kg | <MDL | | 0.02 | |
| | | Tetrachloroethylene | mg/dry kg | <MDL | | 0.01 | |
| | | 1,1,1-Trichloroethane | mg/dry kg | <MDL | | 0.01 | |
| | | 1,1,2-Trichloroethane | mg/dry kg | <MDL | | 0.01 | |
| | | Trichloroethylene | mg/dry kg | <MDL | | 0.01 | |
| | | Trichlorofluoromethane | mg/dry kg | <MDL | | 0.03 | |

William E. Buchan
Reported By: William E. Buchan
Anchorage Operations Manager



NORTHERN TESTING LABORATORIES, INC.

3330 INDUSTRIAL AVENUE
2505 FAIRBANKS STREET

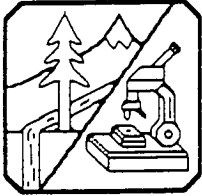
FAIRBANKS, ALASKA 99701
ANCHORAGE, ALASKA 99503

(907) 456-3116 • FAX 456-3125
(907) 277-8378 • FAX 274-9645

| Lab Number | Method | Parameter | Units | Result Flag | Date MDL Analyzed |
|------------|----------|---|-----------|-------------|-------------------|
| A114452 | EPA 8010 | Vinyl Chloride | mg/dry kg | <MDL | 0.1 10/11/91 |
| A114452 | EPA 8080 | Aroclor 1016 | mg/dry kg | <MDL | 0.1 10/13/91 |
| | | Aroclor 1221 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1232 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1242 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1248 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1254 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1260 | mg/dry kg | 0.5 | 0.1 |
| | | Dibromooctafluorobiphenyl (Recovery) | % | matrix int | |

William E. Buchan

Reported By: William E. Buchan
Anchorage Operations Manager



NORTHERN TESTING LABORATORIES, INC.

3330 INDUSTRIAL AVENUE
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Municipal Light & Power
P.O. Box 196650
Anchorage AK 99519-6650

Report Date: 10/15/91

Date Arrived: 09/30/91
Date Sampled: 09/27/91
Time Sampled: -
Collected By: MWR

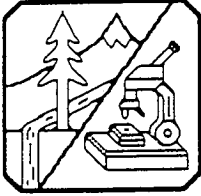
Attn: Peter Smithson

Our Lab #: A114453
Location/Project: -
Your Sample ID: B-5/S-3
Sample Matrix: Soil
Comments:

Definitions
MDL = Method Detection
Limit
B = Below Regulatory Min.
H = Above Regulatory Max.
E = Below Detection Limit
Estimated Value

| Lab Number | Method | Parameter | Units | Result | Flag | MDL | Date Analyzed |
|------------|-----------|------------------------------|-----------|--------|------|------|---------------|
| A114453 | EPA 160.3 | Solids | % | 90.1 | | | 10/03/91 |
| A114453 | EPA 418.1 | Total Petroleum Hydrocarbons | mg/dry kg | 88 | | 20 | 10/11/91 |
| A114453 | EPA 8010 | Bromodichloromethane | mg/dry kg | <MDL | | 0.02 | 10/11/91 |
| | | Bromoform | mg/dry kg | <MDL | | 0.06 | |
| | | Bromomethane | mg/dry kg | <MDL | | 0.12 | |
| | | Carbon Tetrachloride | mg/dry kg | <MDL | | 0.01 | |
| | | Chlorobenzene | mg/dry kg | <MDL | | 0.01 | |
| | | Chloroethane | mg/dry kg | <MDL | | 0.12 | |
| | | 2-Chloroethylvinylether | mg/dry kg | <MDL | | 0.12 | |
| | | Chloroform | mg/dry kg | <MDL | | 0.01 | |
| | | Chloromethane | mg/dry kg | <MDL | | 0.12 | |
| | | Dibromochloromethane | mg/dry kg | <MDL | | 0.03 | |
| | | 1,2-Dichlorobenzene | mg/dry kg | <MDL | | 0.01 | |
| | | 1,3-Dichlorobenzene | mg/dry kg | <MDL | | 0.01 | |
| | | 1,4-Dichlorobenzene | mg/dry kg | <MDL | | 0.01 | |
| | | 1,1-Dichloroethane | mg/dry kg | <MDL | | 0.01 | |
| | | 1,2-Dichloroethane | mg/dry kg | <MDL | | 0.01 | |
| | | 1,1-Dichloroethylene | mg/dry kg | <MDL | | 0.06 | |
| | | trans-1,2-Dichloroethylene | mg/dry kg | <MDL | | 0.06 | |
| | | 1,2-Dichloropropane | mg/dry kg | <MDL | | 0.01 | |
| | | cis-1,3-Dichloropropene | mg/dry kg | <MDL | | 0.01 | |
| | | trans-1,3-Dichloropropene | mg/dry kg | <MDL | | 0.01 | |
| | | Methylene Chloride | mg/dry kg | <MDL | | 0.06 | |
| | | 1,1,2,2-Tetrachloroethane | mg/dry kg | <MDL | | 0.02 | |
| | | Tetrachloroethylene | mg/dry kg | <MDL | | 0.01 | |
| | | 1,1,1-Trichloroethane | mg/dry kg | <MDL | | 0.01 | |
| | | 1,1,2-Trichloroethane | mg/dry kg | <MDL | | 0.01 | |
| | | Trichloroethylene | mg/dry kg | <MDL | | 0.01 | |
| | | Trichlorofluoromethane | mg/dry kg | <MDL | | 0.03 | |

William E. Buchan
Reported By: William E. Buchan
Anchorage Operations Manager



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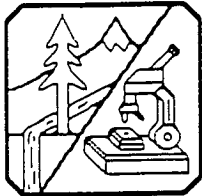
3330 INDUSTRIAL AVENUE
2505 FAIRBANKS STREET

FAIRBANKS, ALASKA 99701
ANCHORAGE, ALASKA 99503

(907) 456-3116 • FAX 456-3125
(907) 277-8378 • FAX 274-9645

| Lab Number | Method | Parameter | Units | Result Flag | Date MDL Analyzed |
|---------------|----------|---|-----------|-------------|----------------------|
| A114453 | EPA 8010 | Vinyl Chloride | mg/dry kg | <MDL | 0.1 10/11/91 |
| A114453 | EPA 8080 | Aroclor 1016 | mg/dry kg | <MDL | 0.1 10/13/91 |
| | | Aroclor 1221 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1232 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1242 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1248 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1254 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1260 | mg/dry kg | 0.1 | 0.1 |
| | | Dibromooctafluorobiphenyl (Recovery) | % | 87.0 | |

Reported By: William E. Buchan
Anchorage Operations Manager



NORTHERN TESTING LABORATORIES, INC.

3330 INDUSTRIAL AVENUE
2505 FAIRBANKS STREET

FAIRBANKS, ALASKA 99701
ANCHORAGE, ALASKA 99503

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Municipal Light & Power
P.O. Box 196650
Anchorage AK 99519-6650

Report Date: 10/15/91

Date Arrived: 09/30/91
Date Sampled: 09/27/91
Time Sampled: -
Collected By: MWR

Attn: Peter Smithson

Definitions

MDL = Method Detection
Limit

B = Below Regulatory Min.

H = Above Regulatory Max.

E = Below Detection Limit

Estimated Value

Our Lab #: A114454
Location/Project: -
Your Sample ID: B-5/S-4
Sample Matrix: Soil
Comments:

| Lab Number | Method | Parameter | Units | Result Flag | Date MDL Analyzed |
|------------|-----------|------------------------------|-----------|-------------|-------------------|
| A114454 | EPA 160.3 | Solids | % | 82.3 | 10/03/91 |
| A114454 | EPA 418.1 | Total Petroleum Hydrocarbons | mg/dry kg | 949 | 20 10/11/91 |
| A114454 | EPA 8010 | Bromodichloromethane | mg/dry kg | <MDL | 0.02 10/11/91 |
| | | Bromoform | mg/dry kg | <MDL | 0.06 |
| | | Bromomethane | mg/dry kg | <MDL | 0.12 |
| | | Carbon Tetrachloride | mg/dry kg | <MDL | 0.01 |
| | | Chlorobenzene | mg/dry kg | <MDL | 0.01 |
| | | Chloroethane | mg/dry kg | <MDL | 0.12 |
| | | 2-Chloroethylvinylether | mg/dry kg | <MDL | 0.12 |
| | | Chloroform | mg/dry kg | <MDL | 0.01 |
| | | Chloromethane | mg/dry kg | <MDL | 0.12 |
| | | Dibromochloromethane | mg/dry kg | <MDL | 0.03 |
| | | 1,2-Dichlorobenzene | mg/dry kg | <MDL | 0.01 |
| | | 1,3-Dichlorobenzene | mg/dry kg | <MDL | 0.01 |
| | | 1,4-Dichlorobenzene | mg/dry kg | <MDL | 0.01 |
| | | 1,1-Dichloroethane | mg/dry kg | <MDL | 0.01 |
| | | 1,2-Dichloroethane | mg/dry kg | <MDL | 0.01 |
| | | 1,1-Dichloroethylene | mg/dry kg | <MDL | 0.06 |
| | | trans-1,2-Dichloroethylene | mg/dry kg | <MDL | 0.06 |
| | | 1,2-Dichloropropane | mg/dry kg | <MDL | 0.01 |
| | | cis-1,3-Dichloropropene | mg/dry kg | <MDL | 0.01 |
| | | trans-1,3-Dichloropropene | mg/dry kg | <MDL | 0.01 |
| | | Methylene Chloride | mg/dry kg | <MDL | 0.06 |
| | | 1,1,2,2-Tetrachloroethane | mg/dry kg | <MDL | 0.02 |
| | | Tetrachloroethylene | mg/dry kg | <MDL | 0.01 |
| | | 1,1,1-Trichloroethane | mg/dry kg | <MDL | 0.01 |
| | | 1,1,2-Trichloroethane | mg/dry kg | <MDL | 0.01 |
| | | Trichloroethylene | mg/dry kg | <MDL | 0.01 |
| | | Trichlorofluoromethane | mg/dry kg | <MDL | 0.03 |

William E. Buchan

Reported By: William E. Buchan
Anchorage Operations Manager



NORTHERN TESTING LABORATORIES, INC.

3330 INDUSTRIAL AVENUE
2505 FAIRBANKS STREET

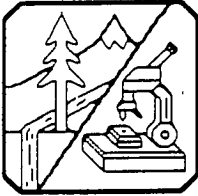
FAIRBANKS, ALASKA 99701
ANCHORAGE, ALASKA 99503

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(907) 277-8378 • FAX 274-9645

| Lab Number | Method | Parameter | Units | Result Flag | Date MDL Analyzed |
|------------|----------|---|-----------|-------------|----------------------|
| 1114454 | EPA 8010 | Vinyl Chloride | mg/dry kg | <MDL | 0.1 10/11/91 |
| 1114454 | EPA 8080 | Aroclor 1016 | mg/dry kg | <MDL | 0.1 10/13/91 |
| | | Aroclor 1221 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1232 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1242 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1248 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1254 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1260 | mg/dry kg | <MDL | 0.1 |
| | | Dibromooctafluorobiphenyl (Recovery) | % | 62.0 | |

William E. Buchan

Reported By: William E. Buchan
Anchorage Operations Manager



NORTHERN TESTING LABORATORIES, INC.

3330 INDUSTRIAL AVENUE
2505 FAIRBANKS STREET

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Municipal Light & Power
P.O. Box 196650
Anchorage AK 99519-6650

Report Date: 10/15/91

Date Arrived: 09/30/91
Date Sampled: 09/27/91
Time Sampled: -
Collected By: MWR

Attn: Peter Smithson

Definitions

MDL = Method Detection
Limit

B = Below Regulatory Min.

H = Above Regulatory Max.

E = Below Detection Limit

Estimated Value

Our Lab #: A114455

Location/Project: -

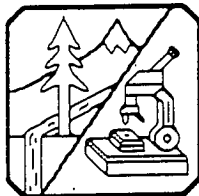
Your Sample ID: B-5/S-5

Sample Matrix: Soil

Comments:

| Lab Number | Method | Parameter | Units | Result | Flag | Date MDL Analyzed |
|------------|-----------|------------------------------|-----------|--------|------|-------------------|
| A114455 | EPA 160.3 | Solids | % | 85.2 | | 10/03/91 |
| A114455 | EPA 418.1 | Total Petroleum Hydrocarbons | mg/dry kg | 3990 | | 20 10/11/91 |
| A114455 | EPA 8010 | Bromodichloromethane | mg/dry kg | <MDL | | 0.02 10/11/91 |
| | | Bromoform | mg/dry kg | <MDL | | 0.06 |
| | | Bromomethane | mg/dry kg | <MDL | | 0.12 |
| | | Carbon Tetrachloride | mg/dry kg | <MDL | | 0.01 |
| | | Chlorobenzene | mg/dry kg | <MDL | | 0.01 |
| | | Chloroethane | mg/dry kg | <MDL | | 0.12 |
| | | 2-Chloroethylvinylether | mg/dry kg | <MDL | | 0.12 |
| | | Chloroform | mg/dry kg | <MDL | | 0.01 |
| | | Chloromethane | mg/dry kg | <MDL | | 0.12 |
| | | Dibromochloromethane | mg/dry kg | <MDL | | 0.03 |
| | | 1,2-Dichlorobenzene | mg/dry kg | <MDL | | 0.01 |
| | | 1,3-Dichlorobenzene | mg/dry kg | <MDL | | 0.01 |
| | | 1,4-Dichlorobenzene | mg/dry kg | <MDL | | 0.01 |
| | | 1,1-Dichloroethane | mg/dry kg | <MDL | | 0.01 |
| | | 1,2-Dichloroethane | mg/dry kg | <MDL | | 0.01 |
| | | 1,1-Dichloroethylene | mg/dry kg | <MDL | | 0.06 |
| | | trans-1,2-Dichloroethylene | mg/dry kg | <MDL | | 0.06 |
| | | 1,2-Dichloropropane | mg/dry kg | <MDL | | 0.01 |
| | | cis-1,3-Dichloropropene | mg/dry kg | <MDL | | 0.01 |
| | | trans-1,3-Dichloropropene | mg/dry kg | <MDL | | 0.01 |
| | | Methylene Chloride | mg/dry kg | <MDL | | 0.06 |
| | | 1,1,2,2-Tetrachloroethane | mg/dry kg | <MDL | | 0.02 |
| | | Tetrachloroethylene | mg/dry kg | <MDL | | 0.01 |
| | | 1,1,1-Trichloroethane | mg/dry kg | <MDL | | 0.01 |
| | | 1,1,2-Trichloroethane | mg/dry kg | <MDL | | 0.01 |
| | | Trichloroethylene | mg/dry kg | <MDL | | 0.01 |
| | | Trichlorofluoromethane | mg/dry kg | <MDL | | 0.03 |

William E. Buchan
Reported By: William E. Buchan
Anchorage Operations Manager



NORTHERN TESTING LABORATORIES, INC.

3330 INDUSTRIAL AVENUE
2505 FAIRBANKS STREET

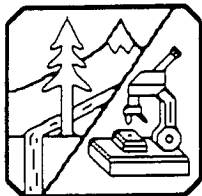
FAIRBANKS, ALASKA 99701
ANCHORAGE, ALASKA 99503

(907) 456-3116 • FAX 456-3125
(907) 277-8378 • FAX 274-9645

| Lab Number | Method | Parameter | Units | Result Flag | Date MDL Analyzed |
|------------|----------|---|-----------|-------------|-------------------|
| A114455 | EPA 8010 | Vinyl Chloride | mg/dry kg | <MDL | 0.1 10/11/91 |
| A114455 | EPA 8080 | Aroclor 1016 | mg/dry kg | <MDL | 0.1 10/13/91 |
| | | Aroclor 1221 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1232 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1242 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1248 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1254 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1260 | mg/dry kg | .05 (<DL) | 0.1 |
| | | Dibromooctafluorobiphenyl (Recovery) | % | 62.0 | |

William E. Buchan

Reported By: William E. Buchan
Anchorage Operations Manager



NORTHERN TESTING LABORATORIES, INC.

3330 INDUSTRIAL AVENUE
2505 FAIRBANKS STREET

FAIRBANKS, ALASKA 99701
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(907) 277-8378 • FAX 274-9645

Municipal Light & Power
P.O. Box 196650
Anchorage AK 99519-6650

Report Date: 10/15/91

Date Arrived: 09/30/91
Date Sampled: 09/27/91
Time Sampled: -
Collected By: MWR

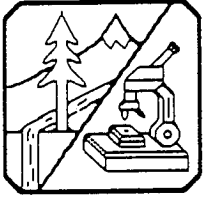
Attn: Peter Smithson

Definitions
MDL = Method Detection
Limit
B = Below Regulatory Min.
H = Above Regulatory Max.
E = Below Detection Limit
Estimated Value

Our Lab #: A114456
Location/Project: -
Your Sample ID: B-6/S-1
Sample Matrix: Soil
Comments:

| Lab Number | Method | Parameter | Units | Result | Flag | MDL | Date Analyzed |
|------------|-----------|------------------------------|-----------|--------|------|------|---------------|
| A114456 | EPA 160.3 | Solids | % | 97.5 | | | 10/03/91 |
| A114456 | EPA 418.1 | Total Petroleum Hydrocarbons | mg/dry kg | 1330 | | | 20 10/11/91 |
| A114456 | EPA 8010 | Bromodichloromethane | mg/dry kg | <MDL | | 0.02 | 10/11/91 |
| | | Bromoform | mg/dry kg | <MDL | | 0.06 | |
| | | Bromomethane | mg/dry kg | <MDL | | 0.12 | |
| | | Carbon Tetrachloride | mg/dry kg | <MDL | | 0.01 | |
| | | Chlorobenzene | mg/dry kg | <MDL | | 0.01 | |
| | | Chloroethane | mg/dry kg | <MDL | | 0.12 | |
| | | 2-Chloroethylvinylether | mg/dry kg | <MDL | | 0.12 | |
| | | Chloroform | mg/dry kg | <MDL | | 0.01 | |
| | | Chloromethane | mg/dry kg | <MDL | | 0.12 | |
| | | Dibromochloromethane | mg/dry kg | <MDL | | 0.03 | |
| | | 1,2-Dichlorobenzene | mg/dry kg | <MDL | | 0.01 | |
| | | 1,3-Dichlorobenzene | mg/dry kg | <MDL | | 0.01 | |
| | | 1,4-Dichlorobenzene | mg/dry kg | <MDL | | 0.01 | |
| | | 1,1-Dichloroethane | mg/dry kg | <MDL | | 0.01 | |
| | | 1,2-Dichloroethane | mg/dry kg | <MDL | | 0.01 | |
| | | 1,1-Dichloroethylene | mg/dry kg | <MDL | | 0.06 | |
| | | trans-1,2-Dichloroethylene | mg/dry kg | <MDL | | 0.06 | |
| | | 1,2-Dichloropropane | mg/dry kg | <MDL | | 0.01 | |
| | | cis-1,3-Dichloropropene | mg/dry kg | <MDL | | 0.01 | |
| | | trans-1,3-Dichloropropene | mg/dry kg | <MDL | | 0.01 | |
| | | Methylene Chloride | mg/dry kg | <MDL | | 0.06 | |
| | | 1,1,2,2-Tetrachloroethane | mg/dry kg | <MDL | | 0.02 | |
| | | Tetrachloroethylene | mg/dry kg | <MDL | | 0.01 | |
| | | 1,1,1-Trichloroethane | mg/dry kg | <MDL | | 0.01 | |
| | | 1,1,2-Trichloroethane | mg/dry kg | <MDL | | 0.01 | |
| | | Trichloroethylene | mg/dry kg | <MDL | | 0.01 | |
| | | Trichlorofluoromethane | mg/dry kg | <MDL | | 0.03 | |

William E. Buchan
Reported By: William E. Buchan
Anchorage Operations Manager



NORTHERN TESTING LABORATORIES, INC.

3330 INDUSTRIAL AVENUE
2505 FAIRBANKS STREET

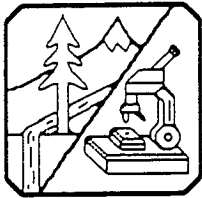
FAIRBANKS, ALASKA 99701
ANCHORAGE, ALASKA 99503

(907) 456-3116 • FAX 456-3125
(907) 277-8378 • FAX 274-9645

| Lab Number | Method | Parameter | Units | Result Flag | Date MDL Analyzed |
|------------|----------|---|-----------|-------------|-------------------|
| A114456 | EPA 8010 | Vinyl Chloride | mg/dry kg | <MDL | 0.1 10/11/91 |
| A114456 | EPA 8080 | Aroclor 1016 | mg/dry kg | <MDL | 0.1 10/13/91 |
| | | Aroclor 1221 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1232 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1242 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1248 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1254 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1260 | mg/dry kg | 0.2 | 0.1 |
| | | Dibromooctafluorobiphenyl (Recovery) | % | matrix int | |

William E. Buchan

Reported By: William E. Buchan
Anchorage Operations Manager



NORTHERN TESTING LABORATORIES, INC.

3330 INDUSTRIAL AVENUE
2505 FAIRBANKS STREET

FAIRBANKS, ALASKA 99701
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Municipal Light & Power
P.O. Box 196650
Anchorage AK 99519-6650

Report Date: 10/15/91

Date Arrived: 09/30/91

Date Sampled: 09/27/91

Time Sampled: -

Collected By: MWR

Attn: Peter Smithson

Definitions

MDL = Method Detection
Limit

B = Below Regulatory Min.

H = Above Regulatory Max.

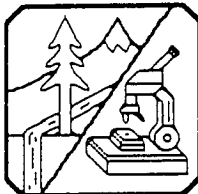
E = Below Detection Limit

Estimated Value

Our Lab #: A114457
Location/Project: -
Your Sample ID: B-6/S-2
Sample Matrix: Soil
Comments:

| Lab Number | Method | Parameter | Units | Result | Flag | Date MDL Analyzed |
|------------|-----------|------------------------------|-----------|--------|------|-------------------|
| A114457 | EPA 160.3 | Solids | % | 94.2 | | 10/03/91 |
| A114457 | EPA 418.1 | Total Petroleum Hydrocarbons | mg/dry kg | <MDL | | 20 10/11/91 |
| A114457 | EPA 8010 | Bromodichloromethane | mg/dry kg | <MDL | | 0.02 10/11/91 |
| | | Bromoform | mg/dry kg | <MDL | | 0.06 |
| | | Bromomethane | mg/dry kg | <MDL | | 0.12 |
| | | Carbon Tetrachloride | mg/dry kg | <MDL | | 0.01 |
| | | Chlorobenzene | mg/dry kg | <MDL | | 0.01 |
| | | Chloroethane | mg/dry kg | <MDL | | 0.12 |
| | | 2-Chloroethylvinylether | mg/dry kg | <MDL | | 0.12 |
| | | Chloroform | mg/dry kg | <MDL | | 0.01 |
| | | Chloromethane | mg/dry kg | <MDL | | 0.12 |
| | | Dibromochloromethane | mg/dry kg | <MDL | | 0.03 |
| | | 1,2-Dichlorobenzene | mg/dry kg | <MDL | | 0.01 |
| | | 1,3-Dichlorobenzene | mg/dry kg | <MDL | | 0.01 |
| | | 1,4-Dichlorobenzene | mg/dry kg | <MDL | | 0.01 |
| | | 1,1-Dichloroethane | mg/dry kg | <MDL | | 0.01 |
| | | 1,2-Dichloroethane | mg/dry kg | <MDL | | 0.01 |
| | | 1,1-Dichloroethylene | mg/dry kg | <MDL | | 0.06 |
| | | trans-1,2-Dichloroethylene | mg/dry kg | <MDL | | 0.06 |
| | | 1,2-Dichloropropane | mg/dry kg | <MDL | | 0.01 |
| | | cis-1,3-Dichloropropene | mg/dry kg | <MDL | | 0.01 |
| | | trans-1,3-Dichloropropene | mg/dry kg | <MDL | | 0.01 |
| | | Methylene Chloride | mg/dry kg | <MDL | | 0.06 |
| | | 1,1,2,2-Tetrachloroethane | mg/dry kg | <MDL | | 0.02 |
| | | Tetrachloroethylene | mg/dry kg | <MDL | | 0.01 |
| | | 1,1,1-Trichloroethane | mg/dry kg | <MDL | | 0.01 |
| | | 1,1,2-Trichloroethane | mg/dry kg | <MDL | | 0.01 |
| | | Trichloroethylene | mg/dry kg | <MDL | | 0.01 |
| | | Trichlorofluoromethane | mg/dry kg | <MDL | | 0.03 |

William E. Buchan
Reported By: William E. Buchan
Anchorage Operations Manager



NORTHERN TESTING LABORATORIES, INC.

3330 INDUSTRIAL AVENUE
2505 FAIRBANKS STREET

FAIRBANKS, ALASKA 99701
ANCHORAGE, ALASKA 99503

(907) 456-3116 • FAX 456-3125
(907) 277-8378 • FAX 274-9645

| Lab Number | Method | Parameter | Units | Result Flag | Date Analyzed |
|------------|----------|---|-----------|-------------|---------------|
| A114457 | EPA 8010 | Vinyl Chloride | mg/dry kg | <MDL | 0.1 10/11/91 |
| A114457 | EPA 8080 | Aroclor 1016 | mg/dry kg | <MDL | 0.1 10/13/91 |
| | | Aroclor 1221 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1232 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1242 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1248 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1254 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1260 | mg/dry kg | .06 (<DL) | 0.1 |
| | | Dibromooctafluorobiphenyl (Recovery) | % | 75.0 | |

William E. Buchan

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Anchorage Operations Manager



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Municipal Light & Power
P.O. Box 196650
Anchorage AK 99519-6650

Report Date: 10/15/91

Date Arrived: 09/30/91
Date Sampled: 09/27/91
Time Sampled: -
Collected By: MWR

Attn: Peter Smithson

Definitions

MDL = Method Detection
Limit

B = Below Regulatory Min.

H = Above Regulatory Max.

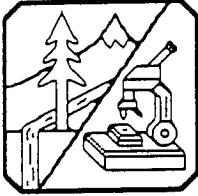
E = Below Detection Limit

Estimated Value

Our Lab #: A114458
Location/Project: -
Your Sample ID: B-6/S-4
Sample Matrix: Soil
Comments:

| Lab Number | Method | Parameter | Units | Result | Flag | Date MDL Analyzed |
|------------|-----------|------------------------------|-----------|--------|------|-------------------|
| 114458 | EPA 160.3 | Solids | % | 82.4 | | 10/03/91 |
| 114458 | EPA 418.1 | Total Petroleum Hydrocarbons | mg/dry kg | 28 | | 20 10/11/91 |
| 114458 | EPA 8010 | Bromodichloromethane | mg/dry kg | <MDL | | 0.02 10/11/91 |
| | | Bromoform | mg/dry kg | <MDL | | 0.06 |
| | | Bromomethane | mg/dry kg | <MDL | | 0.12 |
| | | Carbon Tetrachloride | mg/dry kg | <MDL | | 0.01 |
| | | Chlorobenzene | mg/dry kg | <MDL | | 0.01 |
| | | Chloroethane | mg/dry kg | <MDL | | 0.12 |
| | | 2-Chloroethylvinylether | mg/dry kg | <MDL | | 0.12 |
| | | Chloroform | mg/dry kg | <MDL | | 0.01 |
| | | Chloromethane | mg/dry kg | <MDL | | 0.12 |
| | | Dibromochloromethane | mg/dry kg | <MDL | | 0.03 |
| | | 1,2-Dichlorobenzene | mg/dry kg | <MDL | | 0.01 |
| | | 1,3-Dichlorobenzene | mg/dry kg | <MDL | | 0.01 |
| | | 1,4-Dichlorobenzene | mg/dry kg | <MDL | | 0.01 |
| | | 1,1-Dichloroethane | mg/dry kg | <MDL | | 0.01 |
| | | 1,2-Dichloroethane | mg/dry kg | <MDL | | 0.01 |
| | | 1,1-Dichloroethylene | mg/dry kg | <MDL | | 0.06 |
| | | trans-1,2-Dichloroethylene | mg/dry kg | <MDL | | 0.06 |
| | | 1,2-Dichloropropane | mg/dry kg | <MDL | | 0.01 |
| | | cis-1,3-Dichloropropene | mg/dry kg | <MDL | | 0.01 |
| | | trans-1,3-Dichloropropene | mg/dry kg | <MDL | | 0.01 |
| | | Methylene Chloride | mg/dry kg | <MDL | | 0.06 |
| | | 1,1,2,2-Tetrachloroethane | mg/dry kg | <MDL | | 0.02 |
| | | Tetrachloroethylene | mg/dry kg | <MDL | | 0.01 |
| | | 1,1,1-Trichloroethane | mg/dry kg | <MDL | | 0.01 |
| | | 1,1,2-Trichloroethane | mg/dry kg | <MDL | | 0.01 |
| | | Trichloroethylene | mg/dry kg | <MDL | | 0.01 |
| | | Trichlorofluoromethane | mg/dry kg | <MDL | | 0.03 |

William E. Buchan
Reported By: William E. Buchan
Anchorage Operations Manager



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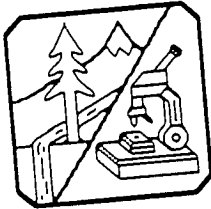
FAIRBANKS, ALASKA 99701
ANCHORAGE, ALASKA 99503

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| Lab Number | Method | Parameter | Units | Result Flag | Date MDL Analyzed |
|------------|----------|---|-----------|-------------|-------------------|
| A114458 | EPA 8010 | Vinyl Chloride | mg/dry kg | <MDL | 0.1 10/11/91 |
| A114458 | EPA 8080 | Aroclor 1016 | mg/dry kg | <MDL | 0.1 10/13/91 |
| | | Aroclor 1221 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1232 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1242 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1248 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1254 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1260 | mg/dry kg | <MDL | 0.1 |
| | | Dibromooctafluorobiphenyl (Recovery) | % | matrix int | |

William E. Buchan

Reported By: William E. Buchan
Anchorage Operations Manager



NORTHERN TESTING LABORATORIES, INC.

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Municipal Light & Power
P.O. Box 196650
Anchorage AK 99519-6650

Report Date: 10/15/91

Date Arrived: 09/30/91
Date Sampled: 09/30/91

Time Sampled: -
Collected By: MWR

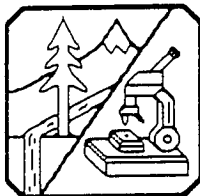
Attn: Peter Smithson

Definitions
MDL = Method Detection Limit
B = Below Regulatory Min.
H = Above Regulatory Max.
E = Below Detection Limit Estimated Value

Our Lab #: A114459
Location/Project: -
Your Sample ID: B-7/S-1
Sample Matrix: Soil
Comments:

| Lab Number | Method | Parameter | Units | Result Flag | Date MDL Analyzed |
|------------|-----------|------------------------------|-----------|-------------|-------------------|
| | | | % | 97.1 | 10/07/91 |
| A114459 | EPA 160.3 | Solids | mg/dry kg | 860 | 20 10/11/91 |
| A114459 | EPA 418.1 | Total Petroleum Hydrocarbons | mg/dry kg | <MDL | 0.02 10/11/91 |
| A114459 | EPA 8010 | Bromodichloromethane | mg/dry kg | <MDL | 0.06 |
| | | Bromoform | mg/dry kg | <MDL | 0.12 |
| | | Bromomethane | mg/dry kg | <MDL | 0.01 |
| | | Carbon Tetrachloride | mg/dry kg | <MDL | 0.01 |
| | | Chlorobenzene | mg/dry kg | <MDL | 0.12 |
| | | Chloroethane | mg/dry kg | <MDL | 0.12 |
| | | 2-Chloroethylvinylether | mg/dry kg | <MDL | 0.01 |
| | | Chloroform | mg/dry kg | <MDL | 0.12 |
| | | Chloromethane | mg/dry kg | <MDL | 0.03 |
| | | Dibromochloromethane | mg/dry kg | <MDL | 0.01 |
| | | 1,2-Dichlorobenzene | mg/dry kg | <MDL | 0.01 |
| | | 1,3-Dichlorobenzene | mg/dry kg | <MDL | 0.01 |
| | | 1,4-Dichlorobenzene | mg/dry kg | <MDL | 0.01 |
| | | 1,1-Dichloroethane | mg/dry kg | <MDL | 0.01 |
| | | 1,2-Dichloroethane | mg/dry kg | <MDL | 0.06 |
| | | 1,1-Dichloroethylene | mg/dry kg | <MDL | 0.06 |
| | | trans-1,2-Dichloroethylene | mg/dry kg | <MDL | 0.01 |
| | | 1,2-Dichloropropane | mg/dry kg | <MDL | 0.01 |
| | | cis-1,3-Dichloropropene | mg/dry kg | <MDL | 0.01 |
| | | trans-1,3-Dichloropropene | mg/dry kg | <MDL | 0.06 |
| | | Methylene Chloride | mg/dry kg | <MDL | 0.02 |
| | | 1,1,2,2-Tetrachloroethane | mg/dry kg | 0.20 | 0.01 |
| | | Tetrachloroethylene | mg/dry kg | <MDL | 0.01 |
| | | 1,1,1-Trichloroethane | mg/dry kg | <MDL | 0.01 |
| | | 1,1,2-Trichloroethane | mg/dry kg | <MDL | 0.01 |
| | | Trichloroethylene | mg/dry kg | <MDL | 0.01 |
| | | Trichlorofluoromethane | mg/dry kg | <MDL | 0.03 |

William E. Buchan
Reported By: William E. Buchan
Anchorage Operations Manager



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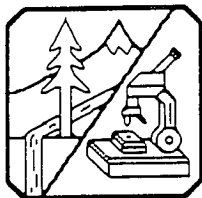
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| Lab Number | Method | Parameter | Units | Result Flag | Date MDL Analyzed |
|------------|----------|---|-----------|-------------|-------------------|
| A114459 | EPA 8010 | Vinyl Chloride | mg/dry kg | <MDL | 0.1 10/11/91 |
| A114459 | EPA 8080 | Aroclor 1016 | mg/dry kg | <MDL | 0.1 10/14/91 |
| | | Aroclor 1221 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1232 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1242 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1248 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1254 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1260 | mg/dry kg | 73.0 | 0.1 |
| | | Dibromooctafluorobiphenyl (Recovery) | % | 99.0 | |

William E. Buchan

Reported By: William E. Buchan
Anchorage Operations Manager



NORTHERN TESTING LABORATORIES, INC.

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Municipal Light & Power
P.O. Box 196650
Anchorage AK 99519-6650

Report Date: 10/15/91

Date Arrived: 09/30/91
Date Sampled: 09/30/91
Time Sampled: -
Collected By: MWR

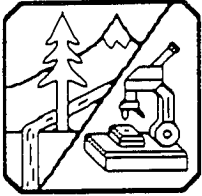
Attn: Peter Smithson

Definitions
MDL = Method Detection
Limit
B = Below Regulatory Min.
H = Above Regulatory Max.
E = Below Detection Limit
Estimated Value

Our Lab #: A114460
Location/Project: -
Your Sample ID: B-7/S-2
Sample Matrix: Soil
Comments:

| Lab Number | Method | Parameter | Units | Result | Flag | MDL | Date Analyzed |
|------------|-----------|------------------------------|-----------|--------|------|------|---------------|
| A114460 | EPA 160.3 | Solids | % | 86.6 | | | 10/07/91 |
| A114460 | EPA 418.1 | Total Petroleum Hydrocarbons | mg/dry kg | 227 | | 20 | 10/11/91 |
| A114460 | EPA 8010 | Bromodichloromethane | mg/dry kg | <MDL | | 0.02 | 10/11/91 |
| | | Bromoform | mg/dry kg | <MDL | | 0.06 | |
| | | Bromomethane | mg/dry kg | <MDL | | 0.12 | |
| | | Carbon Tetrachloride | mg/dry kg | <MDL | | 0.01 | |
| | | Chlorobenzene | mg/dry kg | <MDL | | 0.01 | |
| | | Chloroethane | mg/dry kg | <MDL | | 0.12 | |
| | | 2-Chloroethylvinylether | mg/dry kg | <MDL | | 0.12 | |
| | | Chloroform | mg/dry kg | <MDL | | 0.01 | |
| | | Chloromethane | mg/dry kg | <MDL | | 0.12 | |
| | | Dibromochloromethane | mg/dry kg | <MDL | | 0.03 | |
| | | 1,2-Dichlorobenzene | mg/dry kg | 0.03 | | 0.01 | |
| | | 1,3-Dichlorobenzene | mg/dry kg | <MDL | | 0.01 | |
| | | 1,4-Dichlorobenzene | mg/dry kg | <MDL | | 0.01 | |
| | | 1,1-Dichloroethane | mg/dry kg | <MDL | | 0.01 | |
| | | 1,2-Dichloroethane | mg/dry kg | <MDL | | 0.01 | |
| | | 1,1-Dichloroethylene | mg/dry kg | <MDL | | 0.06 | |
| | | trans-1,2-Dichloroethylene | mg/dry kg | <MDL | | 0.06 | |
| | | 1,2-Dichloropropane | mg/dry kg | <MDL | | 0.01 | |
| | | cis-1,3-Dichloropropene | mg/dry kg | <MDL | | 0.01 | |
| | | trans-1,3-Dichloropropene | mg/dry kg | <MDL | | 0.01 | |
| | | Methylene Chloride | mg/dry kg | <MDL | | 0.06 | |
| | | 1,1,2,2-Tetrachloroethane | mg/dry kg | <MDL | | 0.02 | |
| | | Tetrachloroethylene | mg/dry kg | 0.38 | | 0.01 | |
| | | 1,1,1-Trichloroethane | mg/dry kg | <MDL | | 0.01 | |
| | | 1,1,2-Trichloroethane | mg/dry kg | <MDL | | 0.01 | |
| | | Trichloroethylene | mg/dry kg | 0.03 | | 0.01 | |
| | | Trichlorofluoromethane | mg/dry kg | <MDL | | 0.03 | |

Reported By: William E. Buchan
Anchorage Operations Manager



NORTHERN TESTING LABORATORIES, INC.

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FAIRBANKS, ALASKA 99701
ANCHORAGE, ALASKA 99503

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| Lab Number | Method | Parameter | Units | Result Flag | Date MDL Analyzed |
|------------|----------|---|-----------|-------------|----------------------|
| A114460 | EPA 8010 | Vinyl Chloride | mg/dry kg | <MDL | 0.1 10/11/91 |
| A114460 | EPA 8080 | Aroclor 1016 | mg/dry kg | <MDL | 0.1 10/13/91 |
| | | Aroclor 1221 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1232 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1242 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1248 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1254 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1260 | mg/dry kg | 8.0 | 0.1 |
| | | Dibromooctafluorobiphenyl (Recovery) | % | 99.0 | |

Reported By: William E. Buchan
Anchorage Operations Manager



NORTHERN TESTING LABORATORIES, INC.

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Municipal Light & Power
P.O. Box 196650
Anchorage AK 99519-6650

Report Date: 10/15/91

Date Arrived: 09/30/91
Date Sampled: 09/30/91
Time Sampled: -
Collected By: MWR

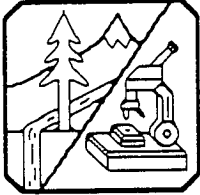
Attn: Peter Smithson

Definitions
MDL = Method Detection
Limit
B = Below Regulatory Min.
H = Above Regulatory Max.
E = Below Detection Limit
Estimated Value

Our Lab #: A114461
Location/Project: -
Your Sample ID: B-7/S-3
Sample Matrix: Soil
Comments:

| Lab Number | Method | Parameter | Units | Result Flag | Date MDL Analyzed |
|------------|-----------|------------------------------|-----------|-------------|-------------------|
| A114461 | EPA 160.3 | Solids | % | 93.0 | 10/07/91 |
| A114461 | EPA 418.1 | Total Petroleum Hydrocarbons | mg/dry kg | <MDL | 20 10/11/91 |
| A114461 | EPA 8010 | Bromodichloromethane | mg/dry kg | <MDL | 0.02 10/11/91 |
| | | Bromoform | mg/dry kg | <MDL | 0.06 |
| | | Bromomethane | mg/dry kg | <MDL | 0.12 |
| | | Carbon Tetrachloride | mg/dry kg | <MDL | 0.01 |
| | | Chlorobenzene | mg/dry kg | <MDL | 0.01 |
| | | Chloroethane | mg/dry kg | <MDL | 0.12 |
| | | 2-Chloroethylvinylether | mg/dry kg | <MDL | 0.12 |
| | | Chloroform | mg/dry kg | <MDL | 0.01 |
| | | Chloromethane | mg/dry kg | <MDL | 0.12 |
| | | Dibromochloromethane | mg/dry kg | <MDL | 0.03 |
| | | 1,2-Dichlorobenzene | mg/dry kg | <MDL | 0.01 |
| | | 1,3-Dichlorobenzene | mg/dry kg | <MDL | 0.01 |
| | | 1,4-Dichlorobenzene | mg/dry kg | <MDL | 0.01 |
| | | 1,1-Dichloroethane | mg/dry kg | <MDL | 0.01 |
| | | 1,2-Dichloroethane | mg/dry kg | <MDL | 0.01 |
| | | 1,1-Dichloroethylene | mg/dry kg | <MDL | 0.06 |
| | | trans-1,2-Dichloroethylene | mg/dry kg | <MDL | 0.06 |
| | | 1,2-Dichloropropane | mg/dry kg | <MDL | 0.01 |
| | | cis-1,3-Dichloropropene | mg/dry kg | <MDL | 0.01 |
| | | trans-1,3-Dichloropropene | mg/dry kg | <MDL | 0.01 |
| | | Methylene Chloride | mg/dry kg | <MDL | 0.06 |
| | | 1,1,2,2-Tetrachloroethane | mg/dry kg | <MDL | 0.02 |
| | | Tetrachloroethylene | mg/dry kg | 0.04 | 0.01 |
| | | 1,1,1-Trichloroethane | mg/dry kg | <MDL | 0.01 |
| | | 1,1,2-Trichloroethane | mg/dry kg | <MDL | 0.01 |
| | | Trichloroethylene | mg/dry kg | <MDL | 0.01 |
| | | Trichlorofluoromethane | mg/dry kg | <MDL | 0.03 |

William E. Buchan
Reported By: William E. Buchan
Anchorage Operations Manager



NORTHERN TESTING LABORATORIES, INC.

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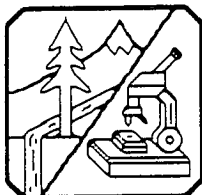
FAIRBANKS, ALASKA 99701
ANCHORAGE, ALASKA 99503

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| Lab Number | Method | Parameter | Units | Result Flag | Date MDL Analyzed |
|------------|----------|---|-----------|-------------|----------------------|
| A114461 | EPA 8010 | Vinyl Chloride | mg/dry kg | <MDL | 0.1 10/11/91 |
| A114461 | EPA 8080 | Aroclor 1016 | mg/dry kg | <MDL | 0.1 10/13/91 |
| | | Aroclor 1221 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1232 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1242 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1248 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1254 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1260 | mg/dry kg | 0.6 | 0.1 |
| | | Dibromooctafluorobiphenyl (Recovery) | % | 67.0 | 0.1 |

William E. Buchan

Reported By: William E. Buchan
Anchorage Operations Manager



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Municipal Light & Power
P.O. Box 196650
Anchorage AK 99519-6650

Report Date: 10/15/91

Date Arrived: 09/30/91
Date Sampled: 09/30/91
Time Sampled: -
Collected By: MWR

Attn: Peter Smithson

Definitions

MDL = Method Detection
Limit

B = Below Regulatory Min.

H = Above Regulatory Max.

E = Below Detection Limit

Estimated Value

Our Lab #: A114462
Location/Project: -
Your Sample ID: B-7/S-4
Sample Matrix: Soil
Comments:

| Lab Number | Method | Parameter | Units | Result Flag | Date MDL Analyzed |
|------------|-----------|------------------------------|-----------|-------------|-------------------|
| A114462 | EPA 160.3 | Solids | % | 90.9 | 10/07/91 |
| A114462 | EPA 418.1 | Total Petroleum Hydrocarbons | mg/dry kg | <MDL | 20 10/11/91 |
| A114462 | EPA 8010 | Bromodichloromethane | mg/dry kg | <MDL | 0.02 10/11/91 |
| | | Bromoform | mg/dry kg | <MDL | 0.06 |
| | | Bromomethane | mg/dry kg | <MDL | 0.12 |
| | | Carbon Tetrachloride | mg/dry kg | <MDL | 0.01 |
| | | Chlorobenzene | mg/dry kg | <MDL | 0.01 |
| | | Chloroethane | mg/dry kg | <MDL | 0.12 |
| | | 2-Chloroethylvinylether | mg/dry kg | <MDL | 0.12 |
| | | Chloroform | mg/dry kg | <MDL | 0.01 |
| | | Chloromethane | mg/dry kg | <MDL | 0.12 |
| | | Dibromochloromethane | mg/dry kg | <MDL | 0.03 |
| | | 1,2-Dichlorobenzene | mg/dry kg | <MDL | 0.01 |
| | | 1,3-Dichlorobenzene | mg/dry kg | <MDL | 0.01 |
| | | 1,4-Dichlorobenzene | mg/dry kg | <MDL | 0.01 |
| | | 1,1-Dichloroethane | mg/dry kg | <MDL | 0.01 |
| | | 1,2-Dichloroethane | mg/dry kg | <MDL | 0.01 |
| | | 1,1-Dichloroethylene | mg/dry kg | <MDL | 0.06 |
| | | trans-1,2-Dichloroethylene | mg/dry kg | <MDL | 0.06 |
| | | 1,2-Dichloropropane | mg/dry kg | <MDL | 0.01 |
| | | cis-1,3-Dichloropropene | mg/dry kg | <MDL | 0.01 |
| | | trans-1,3-Dichloropropene | mg/dry kg | <MDL | 0.01 |
| | | Methylene Chloride | mg/dry kg | <MDL | 0.06 |
| | | 1,1,2,2-Tetrachloroethane | mg/dry kg | <MDL | 0.02 |
| | | Tetrachloroethylene | mg/dry kg | 0.02 | 0.01 |
| | | 1,1,1-Trichloroethane | mg/dry kg | <MDL | 0.01 |
| | | 1,1,2-Trichloroethane | mg/dry kg | <MDL | 0.01 |
| | | Trichloroethylene | mg/dry kg | <MDL | 0.01 |
| | | Trichlorofluoromethane | mg/dry kg | <MDL | 0.03 |

William E. Buchan
Reported By: William E. Buchan
Anchorage Operations Manager



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3330 INDUSTRIAL AVENUE
2505 FAIRBANKS STREET

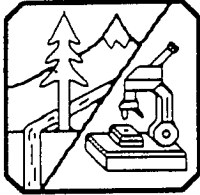
FAIRBANKS, ALASKA 99701
ANCHORAGE, ALASKA 99503

(907) 456-3116 • FAX 456-3125
(907) 277-8378 • FAX 274-9645

| Lab Number | Method | Parameter | Units | Result Flag | Date MDL Analyzed |
|------------|----------|---|-----------|-------------|----------------------|
| A114462 | EPA 8010 | Vinyl Chloride | mg/dry kg | <MDL | 0.1 10/11/91 |
| A114462 | EPA 8080 | Aroclor 1016 | mg/dry kg | <MDL | 0.1 10/13/91 |
| | | Aroclor 1221 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1232 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1242 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1248 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1254 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1260 | mg/dry kg | 0.3 | 0.1 |
| | | Dibromooctafluorobiphenyl (Recovery) | % | 68.0 | |

William E. Buchan

Reported By: William E. Buchan
Anchorage Operations Manager



NORTHERN TESTING LABORATORIES, INC.

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Municipal Light & Power
P.O. Box 196650
Anchorage AK 99519-6650

Report Date: 10/15/91

Date Arrived: 09/30/91
Date Sampled: 09/30/91
Time Sampled: -
Collected By: MWR

Attn: Peter Smithson

Definitions

MDL = Method Detection
Limit

B = Below Regulatory Min.

H = Above Regulatory Max.

E = Below Detection Limit

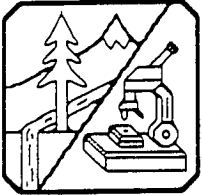
Estimated Value

Our Lab #: A114463
Location/Project: -
Your Sample ID: B-7/S-5
Sample Matrix: Soil
Comments:

| Lab Number | Method | Parameter | Units | Result | Flag | Date MDL Analyzed |
|------------|-----------|------------------------------|-----------|--------|------|-------------------|
| A114463 | EPA 160.3 | Solids | % | 77.6 | | 10/07/91 |
| A114463 | EPA 418.1 | Total Petroleum Hydrocarbons | mg/dry kg | <MDL | | 20 10/11/91 |
| A114463 | EPA 8010 | Bromodichloromethane | mg/dry kg | <MDL | | 0.02 10/11/91 |
| | | Bromoform | mg/dry kg | <MDL | | 0.06 |
| | | Bromomethane | mg/dry kg | <MDL | | 0.12 |
| | | Carbon Tetrachloride | mg/dry kg | <MDL | | 0.01 |
| | | Chlorobenzene | mg/dry kg | <MDL | | 0.01 |
| | | Chloroethane | mg/dry kg | <MDL | | 0.12 |
| | | 2-Chloroethylvinylether | mg/dry kg | <MDL | | 0.12 |
| | | Chloroform | mg/dry kg | <MDL | | 0.01 |
| | | Chloromethane | mg/dry kg | <MDL | | 0.12 |
| | | Dibromochloromethane | mg/dry kg | <MDL | | 0.03 |
| | | 1,2-Dichlorobenzene | mg/dry kg | <MDL | | 0.01 |
| | | 1,3-Dichlorobenzene | mg/dry kg | <MDL | | 0.01 |
| | | 1,4-Dichlorobenzene | mg/dry kg | <MDL | | 0.01 |
| | | 1,1-Dichloroethane | mg/dry kg | <MDL | | 0.01 |
| | | 1,2-Dichloroethane | mg/dry kg | <MDL | | 0.01 |
| | | 1,1-Dichloroethylene | mg/dry kg | <MDL | | 0.06 |
| | | trans-1,2-Dichloroethylene | mg/dry kg | <MDL | | 0.06 |
| | | 1,2-Dichloropropane | mg/dry kg | <MDL | | 0.01 |
| | | cis-1,3-Dichloropropene | mg/dry kg | <MDL | | 0.01 |
| | | trans-1,3-Dichloropropene | mg/dry kg | <MDL | | 0.01 |
| | | Methylene Chloride | mg/dry kg | <MDL | | 0.06 |
| | | 1,1,2,2-Tetrachloroethane | mg/dry kg | <MDL | | 0.02 |
| | | Tetrachloroethylene | mg/dry kg | <MDL | | 0.01 |
| | | 1,1,1-Trichloroethane | mg/dry kg | <MDL | | 0.01 |
| | | 1,1,2-Trichloroethane | mg/dry kg | <MDL | | 0.01 |
| | | Trichloroethylene | mg/dry kg | <MDL | | 0.01 |
| | | Trichlorofluoromethane | mg/dry kg | <MDL | | 0.03 |

William E. Buchan

Reported By: William E. Buchan
Anchorage Operations Manager



NORTHERN TESTING LABORATORIES, INC.

3330 INDUSTRIAL AVENUE
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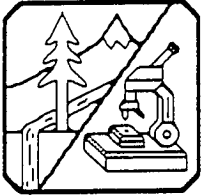
FAIRBANKS, ALASKA 99701
ANCHORAGE, ALASKA 99503

(907) 456-3116 • FAX 456-3125
(907) 277-8378 • FAX 274-9645

| Lab Number | Method | Parameter | Units | Result Flag | Date Analyzed |
|------------|----------|---|-----------|-------------|---------------|
| A114463 | EPA 8010 | Vinyl Chloride | mg/dry kg | <MDL | 0.1 10/11/91 |
| A114463 | EPA 8080 | Aroclor 1016 | mg/dry kg | <MDL | 0.1 10/13/91 |
| | | Aroclor 1221 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1232 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1242 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1248 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1254 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1260 | mg/dry kg | <MDL | 0.1 |
| | | Dibromooctafluorobiphenyl (Recovery) | % | <MDL | 0.1 |

William E. Buchan

Reported By: William E. Buchan
Anchorage Operations Manager



NORTHERN TESTING LABORATORIES, INC.

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Municipal Light & Power
P.O. Box 196650
Anchorage AK 99519-6650

Report Date: 10/11/91

Date Arrived: 09/26/91

Date Sampled: 09/25/91

Time Sampled: -

Collected By: MWR

Attn: Peter Smithson

Definitions

MDL = Method Detection
Limit

B = Below Regulatory Min.

H = Above Regulatory Max.

E = Below Detection Limit

Estimated Value

Our Lab #: A114358
Location/Project: A-1271
Your Sample ID: B8/S1
Sample Matrix: Soil
Comments:

| Lab Number | Method | Parameter | Units | Result Flag | Date MDL Analyzed |
|---------------|-----------|------------------------------|-----------|-------------|----------------------|
| A114358 | EPA 160.3 | Solids | % | 94.2 | 10/02/91 |
| A114358 | EPA 418.1 | Total Petroleum Hydrocarbons | mg/dry kg | 75 | 20 10/05/91 |
| A114358 | EPA 8010 | Bromodichloromethane | mg/dry kg | <MDL | 0.02 10/09/91 |
| | | Bromoform | mg/dry kg | <MDL | 0.06 |
| | | Bromomethane | mg/dry kg | <MDL | 0.12 |
| | | Carbon Tetrachloride | mg/dry kg | <MDL | 0.01 |
| | | Chlorobenzene | mg/dry kg | <MDL | 0.01 |
| | | Chloroethane | mg/dry kg | <MDL | 0.12 |
| | | 2-Chloroethylvinylether | mg/dry kg | <MDL | 0.12 |
| | | Chloroform | mg/dry kg | <MDL | 0.01 |
| | | Chloromethane | mg/dry kg | <MDL | 0.12 |
| | | Dibromochloromethane | mg/dry kg | <MDL | 0.03 |
| | | 1,2-Dichlorobenzene | mg/dry kg | <MDL | 0.01 |
| | | 1,3-Dichlorobenzene | mg/dry kg | <MDL | 0.01 |
| | | 1,4-Dichlorobenzene | mg/dry kg | <MDL | 0.01 |
| | | 1,1-Dichloroethane | mg/dry kg | <MDL | 0.01 |
| | | 1,2-Dichloroethane | mg/dry kg | <MDL | 0.01 |
| | | 1,1-Dichloroethylene | mg/dry kg | <MDL | 0.06 |
| | | trans-1,2-Dichloroethylene | mg/dry kg | <MDL | 0.06 |
| | | 1,2-Dichloropropane | mg/dry kg | <MDL | 0.01 |
| | | cis-1,3-Dichloropropene | mg/dry kg | <MDL | 0.01 |
| | | trans-1,3-Dichloropropene | mg/dry kg | <MDL | 0.01 |
| | | Methylene Chloride | mg/dry kg | <MDL | 0.06 |
| | | 1,1,2,2-Tetrachloroethane | mg/dry kg | <MDL | 0.02 |
| | | Tetrachloroethylene | mg/dry kg | <MDL | 0.01 |
| | | 1,1,1-Trichloroethane | mg/dry kg | <MDL | 0.01 |
| | | 1,1,2-Trichloroethane | mg/dry kg | <MDL | 0.01 |
| | | Trichloroethylene | mg/dry kg | <MDL | 0.01 |
| | | Trichlorofluoromethane | mg/dry kg | <MDL | 0.03 |

William E. Buchan

Reported By: William E. Buchan
Anchorage Operations Manager



NORTHERN TESTING LABORATORIES, INC.

3330 INDUSTRIAL AVENUE
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FAIRBANKS, ALASKA 99701
ANCHORAGE, ALASKA 99503

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(907) 277-8378 • FAX 274-9645

| Lab Number | Method | Parameter | Units | Result Flag | Date MDL Analyzed |
|------------|----------|---|-----------|-------------|-------------------|
| A114358 | EPA 8010 | Vinyl Chloride | mg/dry kg | <MDL | 0.1 10/09/91 |
| A114358 | EPA 8080 | Aroclor 1016 | mg/dry kg | <MDL | 0.1 10/05/91 |
| | | Aroclor 1221 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1232 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1242 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1248 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1254 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1260 | mg/dry kg | <MDL | 0.1 |
| | | Dibromooctafluorobiphenyl (Recovery) | % | 87.0 | |

Reported By: William E. Buchan
Anchorage Operations Manager



NORTHERN TESTING LABORATORIES, INC.

3330 INDUSTRIAL AVENUE
2505 FAIRBANKS STREET

FAIRBANKS, ALASKA 99701
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(907) 277-8378 • FAX 274-9645

Municipal Light & Power
P.O. Box 196650
Anchorage AK 99519-6650

Report Date: 10/11/91

Date Arrived: 09/26/91
Date Sampled: 09/25/91
Time Sampled: -
Collected By: MWR

Attn: Peter Smithson

Definitions
MDL = Method Detection
Limit
B = Below Regulatory Min.
H = Above Regulatory Max.
E = Below Detection Limit
Estimated Value

Our Lab #: A114359
Location/Project: A-1271
Your Sample ID: B8/S2
Sample Matrix: Soil
Comments:

| Lab Number | Method | Parameter | Units | Result Flag | Date MDL Analyzed |
|------------|-----------|------------------------------|-----------|-------------|-------------------|
| A114359 | EPA 160.3 | Solids | % | 95.7 | 10/02/91 |
| A114359 | EPA 418.1 | Total Petroleum Hydrocarbons | mg/dry kg | <MDL | 20 10/05/91 |
| A114359 | EPA 8010 | Bromodichloromethane | mg/dry kg | <MDL | 0.02 10/09/91 |
| | | Bromoform | mg/dry kg | <MDL | 0.06 |
| | | Bromomethane | mg/dry kg | <MDL | 0.12 |
| | | Carbon Tetrachloride | mg/dry kg | <MDL | 0.01 |
| | | Chlorobenzene | mg/dry kg | <MDL | 0.01 |
| | | Chloroethane | mg/dry kg | <MDL | 0.12 |
| | | 2-Chloroethylvinylether | mg/dry kg | <MDL | 0.12 |
| | | Chloroform | mg/dry kg | <MDL | 0.01 |
| | | Chloromethane | mg/dry kg | <MDL | 0.12 |
| | | Dibromochloromethane | mg/dry kg | <MDL | 0.03 |
| | | 1,2-Dichlorobenzene | mg/dry kg | <MDL | 0.01 |
| | | 1,3-Dichlorobenzene | mg/dry kg | <MDL | 0.01 |
| | | 1,4-Dichlorobenzene | mg/dry kg | <MDL | 0.01 |
| | | 1,1-Dichloroethane | mg/dry kg | <MDL | 0.01 |
| | | 1,2-Dichloroethane | mg/dry kg | <MDL | 0.01 |
| | | 1,1-Dichloroethylene | mg/dry kg | <MDL | 0.06 |
| | | trans-1,2-Dichloroethylene | mg/dry kg | <MDL | 0.06 |
| | | 1,2-Dichloropropane | mg/dry kg | <MDL | 0.01 |
| | | cis-1,3-Dichloropropene | mg/dry kg | <MDL | 0.01 |
| | | trans-1,3-Dichloropropene | mg/dry kg | <MDL | 0.01 |
| | | Methylene Chloride | mg/dry kg | <MDL | 0.06 |
| | | 1,1,2,2-Tetrachloroethane | mg/dry kg | <MDL | 0.02 |
| | | Tetrachloroethylene | mg/dry kg | <MDL | 0.01 |
| | | 1,1,1-Trichloroethane | mg/dry kg | <MDL | 0.01 |
| | | 1,1,2-Trichloroethane | mg/dry kg | <MDL | 0.01 |
| | | Trichloroethylene | mg/dry kg | <MDL | 0.01 |
| | | Trichlorofluoromethane | mg/dry kg | <MDL | 0.03 |

William E. Buchan

Reported By: William E. Buchan
Anchorage Operations Manager



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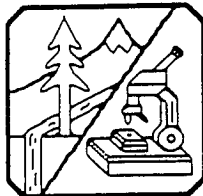
3330 INDUSTRIAL AVENUE
2505 FAIRBANKS STREET

FAIRBANKS, ALASKA 99701
ANCHORAGE, ALASKA 99503

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(907) 277-8378 • FAX 274-9645

| Lab Number | Method | Parameter | Units | Result Flag | Date MDL Analyzed |
|------------|----------|---|-----------|-------------|-------------------|
| A114359 | EPA 8010 | Vinyl Chloride | mg/dry kg | <MDL | 0.1 10/09/91 |
| A114359 | EPA 8080 | Aroclor 1016 | mg/dry kg | <MDL | 0.1 10/05/91 |
| | | Aroclor 1221 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1232 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1242 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1248 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1254 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1260 | mg/dry kg | <MDL | 0.1 |
| | | Dibromooctafluorobiphenyl (Recovery) | % | 79.0 | |

Reported By: William E. Buchan
Anchorage Operations Manager



NORTHERN TESTING LABORATORIES, INC.

3330 INDUSTRIAL AVENUE
2505 FAIRBANKS STREET

FAIRBANKS, ALASKA 99701
ANCHORAGE, ALASKA 99503

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(907) 277-8378 • FAX 274-9645

Municipal Light & Power
P.O. Box 196650
Anchorage AK 99519-6650

Report Date: 10/11/91

Date Arrived: 09/26/91

Date Sampled: 09/25/91

Time Sampled: -

Collected By: MWR

Attn: Peter Smithson

Definitions

MDL = Method Detection
Limit

B = Below Regulatory Min.

H = Above Regulatory Max.

E = Below Detection Limit

Estimated Value

Our Lab #: A114360

Location/Project: A-1271

Your Sample ID: B8/S3

Sample Matrix: Soil

Comments:

| Lab Number | Method | Parameter | Units | Result | Flag | MDL | Date Analyzed |
|------------|-----------|------------------------------|-----------|--------|------|------|---------------|
| A114360 | EPA 160.3 | Solids | % | 94.1 | | | 10/02/91 |
| A114360 | EPA 418.1 | Total Petroleum Hydrocarbons | mg/dry kg | 132 | | | 20 10/05/91 |
| A114360 | EPA 8010 | Bromodichloromethane | mg/dry kg | <MDL | | 0.02 | 10/09/91 |
| | | Bromoform | mg/dry kg | <MDL | | 0.06 | |
| | | Bromomethane | mg/dry kg | <MDL | | 0.12 | |
| | | Carbon Tetrachloride | mg/dry kg | <MDL | | 0.01 | |
| | | Chlorobenzene | mg/dry kg | <MDL | | 0.01 | |
| | | Chloroethane | mg/dry kg | <MDL | | 0.12 | |
| | | 2-Chloroethylvinylether | mg/dry kg | <MDL | | 0.12 | |
| | | Chloroform | mg/dry kg | <MDL | | 0.01 | |
| | | Chloromethane | mg/dry kg | <MDL | | 0.12 | |
| | | Dibromochloromethane | mg/dry kg | <MDL | | 0.03 | |
| | | 1,2-Dichlorobenzene | mg/dry kg | <MDL | | 0.01 | |
| | | 1,3-Dichlorobenzene | mg/dry kg | <MDL | | 0.01 | |
| | | 1,4-Dichlorobenzene | mg/dry kg | <MDL | | 0.01 | |
| | | 1,1-Dichloroethane | mg/dry kg | <MDL | | 0.01 | |
| | | 1,2-Dichloroethane | mg/dry kg | <MDL | | 0.01 | |
| | | 1,1-Dichloroethylene | mg/dry kg | <MDL | | 0.06 | |
| | | trans-1,2-Dichloroethylene | mg/dry kg | <MDL | | 0.06 | |
| | | 1,2-Dichloropropane | mg/dry kg | <MDL | | 0.01 | |
| | | cis-1,3-Dichloropropene | mg/dry kg | <MDL | | 0.01 | |
| | | trans-1,3-Dichloropropene | mg/dry kg | <MDL | | 0.01 | |
| | | Methylene Chloride | mg/dry kg | <MDL | | 0.06 | |
| | | 1,1,2,2-Tetrachloroethane | mg/dry kg | <MDL | | 0.02 | |
| | | Tetrachloroethylene | mg/dry kg | <MDL | | 0.01 | |
| | | 1,1,1-Trichloroethane | mg/dry kg | <MDL | | 0.01 | |
| | | 1,1,2-Trichloroethane | mg/dry kg | <MDL | | 0.01 | |
| | | Trichloroethylene | mg/dry kg | <MDL | | 0.01 | |
| | | Trichlorofluoromethane | mg/dry kg | <MDL | | 0.03 | |

Reported By: William E. Buchan
Anchorage Operations Manager



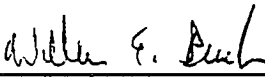
NORTHERN TESTING LABORATORIES, INC.

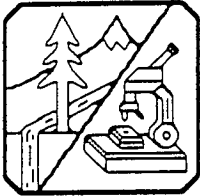
3330 INDUSTRIAL AVENUE
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FAIRBANKS, ALASKA 99701
ANCHORAGE, ALASKA 99503

(907) 456-3116 • FAX 456-3125
(907) 277-8378 • FAX 274-9645

| Lab Number | Method | Parameter | Units | Result Flag | Date MDL Analyzed |
|------------|----------|---|-----------|-------------|-------------------|
| A114360 | EPA 8010 | Vinyl Chloride | mg/dry kg | <MDL | 0.1 10/09/91 |
| A114360 | EPA 8080 | Aroclor 1016 | mg/dry kg | <MDL | 0.1 10/05/91 |
| | | Aroclor 1221 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1232 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1242 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1248 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1254 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1260 | mg/dry kg | <MDL | 0.1 |
| | | Dibromooctafluorobiphenyl (Recovery) | % | 83.0 | |


Reported By: William E. Buchan
Anchorage Operations Manager



NORTHERN TESTING LABORATORIES, INC.

3330 INDUSTRIAL AVENUE
2505 FAIRBANKS STREET

FAIRBANKS, ALASKA 99701
ANCHORAGE, ALASKA 99503

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(907) 277-8378 • FAX 274-9645

Municipal Light & Power
P.O. Box 196650
Anchorage AK 99519-6650

Report Date: 10/11/91

Date Arrived: 09/26/91
Date Sampled: 09/25/91
Time Sampled: -
Collected By: MWR

Attn: Peter Smithson

Definitions

MDL = Method Detection
Limit

B = Below Regulatory Min.

H = Above Regulatory Max.

E = Below Detection Limit
Estimated Value

Our Lab #: A114361
Location/Project: A-1271
Your Sample ID: B8/S4
Sample Matrix: Soil
Comments:

| Lab Number | Method | Parameter | Units | Result | Flag | Date MDL Analyzed |
|------------|-----------|------------------------------|-----------|--------|------|-------------------|
| A114361 | EPA 160.3 | Solids | % | 91.8 | | 10/02/91 |
| A114361 | EPA 418.1 | Total Petroleum Hydrocarbons | mg/dry kg | 1100 | | 20 10/05/91 |
| A114361 | EPA 8010 | Bromodichloromethane | mg/dry kg | <MDL | | 0.02 10/09/91 |
| | | Bromoform | mg/dry kg | <MDL | | 0.06 |
| | | Bromomethane | mg/dry kg | <MDL | | 0.12 |
| | | Carbon Tetrachloride | mg/dry kg | <MDL | | 0.01 |
| | | Chlorobenzene | mg/dry kg | <MDL | | 0.01 |
| | | Chloroethane | mg/dry kg | <MDL | | 0.12 |
| | | 2-Chloroethylvinylether | mg/dry kg | <MDL | | 0.12 |
| | | Chloroform | mg/dry kg | <MDL | | 0.01 |
| | | Chloromethane | mg/dry kg | <MDL | | 0.12 |
| | | Dibromochloromethane | mg/dry kg | <MDL | | 0.03 |
| | | 1,2-Dichlorobenzene | mg/dry kg | <MDL | | 0.01 |
| | | 1,3-Dichlorobenzene | mg/dry kg | <MDL | | 0.01 |
| | | 1,4-Dichlorobenzene | mg/dry kg | <MDL | | 0.01 |
| | | 1,1-Dichloroethane | mg/dry kg | <MDL | | 0.01 |
| | | 1,2-Dichloroethane | mg/dry kg | <MDL | | 0.01 |
| | | 1,1-Dichloroethylene | mg/dry kg | <MDL | | 0.06 |
| | | trans-1,2-Dichloroethylene | mg/dry kg | <MDL | | 0.06 |
| | | 1,2-Dichloropropane | mg/dry kg | <MDL | | 0.01 |
| | | cis-1,3-Dichloropropene | mg/dry kg | <MDL | | 0.01 |
| | | trans-1,3-Dichloropropene | mg/dry kg | <MDL | | 0.01 |
| | | Methylene Chloride | mg/dry kg | <MDL | | 0.06 |
| | | 1,1,2,2-Tetrachloroethane | mg/dry kg | <MDL | | 0.02 |
| | | Tetrachloroethylene | mg/dry kg | <MDL | | 0.01 |
| | | 1,1,1-Trichloroethane | mg/dry kg | <MDL | | 0.01 |
| | | 1,1,2-Trichloroethane | mg/dry kg | <MDL | | 0.01 |
| | | Trichloroethylene | mg/dry kg | <MDL | | 0.01 |
| | | Trichlorofluoromethane | mg/dry kg | <MDL | | 0.03 |

William E. Buchan

Reported By: William E. Buchan
Anchorage Operations Manager



NORTHERN TESTING LABORATORIES, INC.

3330 INDUSTRIAL AVENUE
2505 FAIRBANKS STREET

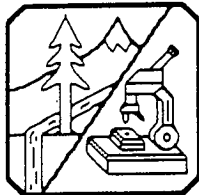
FAIRBANKS, ALASKA 99701
ANCHORAGE, ALASKA 99503

(907) 456-3116 • FAX 456-3125
(907) 277-8378 • FAX 274-9645

| Lab Number | Method | Parameter | Units | Result Flag | Date MDL Analyzed |
|------------|----------|---|-----------|-------------|-------------------|
| A114361 | EPA 8010 | Vinyl Chloride | mg/dry kg | <MDL | 0.1 10/09/91 |
| A114361 | EPA 8080 | Aroclor 1016 | mg/dry kg | <MDL | 0.1 10/05/91 |
| | | Aroclor 1221 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1232 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1242 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1248 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1254 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1260 | mg/dry kg | <MDL | 0.1 |
| | | Dibromooctafluorobiphenyl (Recovery) | % | 83.0 | |

William E. Buchan

Reported By: William E. Buchan
Anchorage Operations Manager



NORTHERN TESTING LABORATORIES, INC.

3330 INDUSTRIAL AVENUE
2505 FAIRBANKS STREET

FAIRBANKS, ALASKA 99701
ANCHORAGE, ALASKA 99503

(907) 456-3116 • FAX 456-3125
(907) 277-8378 • FAX 274-9645

Municipal Light & Power
P.O. Box 196650
Anchorage AK 99519-6650

Report Date: 10/11/91

Date Arrived: 09/26/91
Date Sampled: 09/25/91
Time Sampled: -
Collected By: MWR

Attn: Peter Smithson

Definitions
MDL = Method Detection
Limit
B = Below Regulatory Min.
H = Above Regulatory Max.
E = Below Detection Limit
Estimated Value

Our Lab #: A114362
Location/Project: A-1271
Your Sample ID: B8/S5
Sample Matrix: Soil
Comments:

| Lab Number | Method | Parameter | Units | Result Flag | Date MDL Analyzed |
|------------|-----------|------------------------------|-----------|-------------|-------------------|
| A114362 | EPA 160.3 | Solids | % | 83.9 | 10/02/91 |
| A114362 | EPA 418.1 | Total Petroleum Hydrocarbons | mg/dry kg | 137 | 20 10/05/91 |
| A114362 | EPA 8010 | Bromodichloromethane | mg/dry kg | <MDL | 0.02 10/09/91 |
| | | Bromoform | mg/dry kg | <MDL | 0.06 |
| | | Bromomethane | mg/dry kg | <MDL | 0.12 |
| | | Carbon Tetrachloride | mg/dry kg | <MDL | 0.01 |
| | | Chlorobenzene | mg/dry kg | <MDL | 0.01 |
| | | Chloroethane | mg/dry kg | <MDL | 0.12 |
| | | 2-Chloroethylvinylether | mg/dry kg | <MDL | 0.12 |
| | | Chloroform | mg/dry kg | <MDL | 0.01 |
| | | Chloromethane | mg/dry kg | <MDL | 0.12 |
| | | Dibromochloromethane | mg/dry kg | <MDL | 0.03 |
| | | 1,2-Dichlorobenzene | mg/dry kg | <MDL | 0.01 |
| | | 1,3-Dichlorobenzene | mg/dry kg | <MDL | 0.01 |
| | | 1,4-Dichlorobenzene | mg/dry kg | <MDL | 0.01 |
| | | 1,1-Dichloroethane | mg/dry kg | <MDL | 0.01 |
| | | 1,2-Dichloroethane | mg/dry kg | <MDL | 0.01 |
| | | 1,1-Dichloroethylene | mg/dry kg | <MDL | 0.06 |
| | | trans-1,2-Dichloroethylene | mg/dry kg | <MDL | 0.06 |
| | | 1,2-Dichloropropane | mg/dry kg | <MDL | 0.01 |
| | | cis-1,3-Dichloropropene | mg/dry kg | <MDL | 0.01 |
| | | trans-1,3-Dichloropropene | mg/dry kg | <MDL | 0.01 |
| | | Methylene Chloride | mg/dry kg | <MDL | 0.06 |
| | | 1,1,2,2-Tetrachloroethane | mg/dry kg | <MDL | 0.02 |
| | | Tetrachloroethylene | mg/dry kg | <MDL | 0.01 |
| | | 1,1,1-Trichloroethane | mg/dry kg | <MDL | 0.01 |
| | | 1,1,2-Trichloroethane | mg/dry kg | <MDL | 0.01 |
| | | Trichloroethylene | mg/dry kg | <MDL | 0.01 |
| | | Trichlorofluoromethane | mg/dry kg | <MDL | 0.03 |

William E. Buchan

Reported By: William E. Buchan
Anchorage Operations Manager



NORTHERN TESTING LABORATORIES, INC.

3330 INDUSTRIAL AVENUE
2505 FAIRBANKS STREET

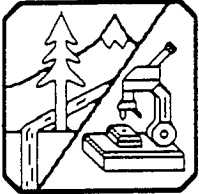
FAIRBANKS, ALASKA 99701
ANCHORAGE, ALASKA 99503

(907) 456-3116 • FAX 456-3125
(907) 277-8378 • FAX 274-9645

| Lab Number | Method | Parameter | Units | Result Flag | Date Analyzed |
|------------|----------|---|-----------|-------------|---------------|
| A114362 | EPA 8010 | Vinyl Chloride | mg/dry kg | <MDL | 0.1 10/09/91 |
| A114362 | EPA 8080 | Aroclor 1016 | mg/dry kg | <MDL | 0.1 10/05/91 |
| | | Aroclor 1221 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1232 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1242 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1248 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1254 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1260 | mg/dry kg | <MDL | 0.1 |
| | | Dibromooctafluorobiphenyl (Recovery) | % | 92.0 | |

William E. Buchan

Reported By: William E. Buchan
Anchorage Operations Manager



NORTHERN TESTING LABORATORIES, INC.

3330 INDUSTRIAL AVENUE
2505 FAIRBANKS STREET

FAIRBANKS, ALASKA 99701
ANCHORAGE, ALASKA 99503

(907) 456-3116 • FAX 456-3125
(907) 277-8378 • FAX 274-9645

Municipal Light & Power
P.O. Box 196650
Anchorage AK 99519-6650

Report Date: 10/11/91

Date Arrived: 09/26/91
Date Sampled: 09/25/91
Time Sampled: -
Collected By: MWR

Attn: Peter Smithson

Definitions

MDL = Method Detection
Limit

B = Below Regulatory Min.

H = Above Regulatory Max.

E = Below Detection Limit

Estimated Value

Our Lab #: A114363
Location/Project: A-1271
Your Sample ID: B9/S1
Sample Matrix: Soil
Comments:

| Lab Number | Method | Parameter | Units | Result | Flag | MDL | Date Analyzed |
|------------|-----------|------------------------------|-----------|-----------------------|------|------|---------------|
| A114363 | EPA 160.3 | Solids | % | 93.9 | | | 10/02/91 |
| A114363 | EPA 418.1 | Total Petroleum Hydrocarbons | mg/dry kg | 518 | | 20 | 10/05/91 |
| A114363 | EPA 8010 | Bromodichloromethane | mg/dry kg | <MDL | | 0.02 | 10/09/91 |
| | | Bromoform | mg/dry kg | <MDL | | 0.06 | |
| | | Bromomethane | mg/dry kg | <MDL | | 0.12 | |
| | | Carbon Tetrachloride | mg/dry kg | <MDL | | 0.01 | |
| | | Chlorobenzene | mg/dry kg | <MDL | | 0.01 | |
| | | Chloroethane | mg/dry kg | <MDL | | 0.12 | |
| | | 2-Chloroethylvinylether | mg/dry kg | <MDL | | 0.12 | |
| | | Chloroform | mg/dry kg | <MDL | | 0.01 | |
| | | Chloromethane | mg/dry kg | <MDL | | 0.12 | |
| | | Dibromochloromethane | mg/dry kg | <MDL | | 0.03 | |
| | | 1,2-Dichlorobenzene | mg/dry kg | <MDL | | 0.01 | |
| | | 1,3-Dichlorobenzene | mg/dry kg | <MDL | | 0.01 | |
| | | 1,4-Dichlorobenzene | mg/dry kg | <MDL | | 0.01 | |
| | | 1,1-Dichloroethane | mg/dry kg | <MDL | | 0.01 | |
| | | 1,2-Dichloroethane | mg/dry kg | <MDL | | 0.01 | |
| | | 1,1-Dichloroethylene | mg/dry kg | <MDL | | 0.06 | |
| | | trans-1,2-Dichloroethylene | mg/dry kg | <MDL | | 0.06 | |
| | | 1,2-Dichloropropane | mg/dry kg | <MDL | | 0.01 | |
| | | cis-1,3-Dichloropropene | mg/dry kg | <MDL | | 0.01 | |
| | | trans-1,3-Dichloropropene | mg/dry kg | <MDL | | 0.01 | |
| | | Methylene Chloride | mg/dry kg | <MDL | | 0.06 | |
| | | 1,1,2,2-Tetrachloroethane | mg/dry kg | <MDL | | 0.02 | |
| | | Tetrachloroethylene | mg/dry kg | 0.20 0.02* | | 0.01 | |
| | | 1,1,1-Trichloroethane | mg/dry kg | <MDL | | 0.01 | |
| | | 1,1,2-Trichloroethane | mg/dry kg | <MDL | | 0.01 | |
| | | Trichloroethylene | mg/dry kg | 0.30 0.03* | | 0.01 | |
| | | Trichlorofluoromethane | mg/dry kg | <MDL | | 0.03 | |

William E. Buchan

Reported By: William E. Buchan
Anchorage Operations Manager

* Revised, see following sheet



NORTHERN TESTING LABORATORIES, INC.

5000 INDUSTRIAL AVENUE
SEASIDE FAIRBANKS, ALASKA

FAIRBANKS, ALASKA 99701
ANALYTICAL LABORATORY

(907) 456-3110 • FAX 456-3125
(907) 577-1378 • FAX 274-8645

Municipal Light & Power
P.O. Box 104480
Anchorage AK 99519-6650

Report Date: 10/11/91

Date Arrived: 09/25/91
Date Completed: 09/28/91
Time Sampled: -
Collected By: MWR

Attn: Peter Smithson

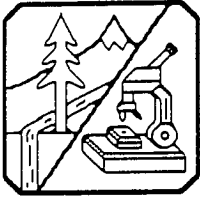
Definitions
MDL = Method Detection
Limit

B = Below Regulatory Min.
H = Above Regulatory Max.
E = Below Detection Limit
Estimated Value

Our Lab #: A114363
Location/Project: A-1271
Your Sample ID: BY/51
Sample Matrix: Soil
Comments: Revised transmittal.

| Lab Number | Method | Parameter | Units | Result | Flag | Date Analyzed | MDL |
|------------|-----------|------------------------------|-----------|--------|------|---------------|------|
| A114363 | EPA 160.3 | Solids | % | 93.9 | | 10/02/91 | |
| A114363 | EPA 418.1 | Total Petroleum Hydrocarbons | mg/dry kg | BLU | | 10/02/91 | |
| A114363 | EPA 8010 | Bromochloroethane | mg/dry kg | <MDL | | 10/02/91 | 0.06 |
| | | Bromoform | mg/dry kg | <MDL | | | 0.12 |
| | | Bromomethane | mg/dry kg | <MDL | | | 0.01 |
| | | Carbon tetrachloride | mg/dry kg | <MDL | | | 0.01 |
| | | Chlorobenzene | mg/dry kg | <MDL | | | 0.12 |
| | | Chloroethane | mg/dry kg | <MDL | | | 0.12 |
| | | 2-Chloroethylvinylether | mg/dry kg | <MDL | | | 0.01 |
| | | Chloroform | mg/dry kg | <MDL | | | 0.12 |
| | | Chloromethane | mg/dry kg | <MDL | | | 0.03 |
| | | Dibromochloromethane | mg/dry kg | <MDL | | | 0.01 |
| | | 1,2-Dichlorobenzene | mg/dry kg | <MDL | | | 0.01 |
| | | 1,3-Dichlorobenzene | mg/dry kg | <MDL | | | 0.01 |
| | | 1,4-Dichlorobenzene | mg/dry kg | <MDL | | | 0.01 |
| | | 1,1-Dichloroethane | mg/dry kg | <MDL | | | 0.01 |
| | | 1,2-Dichloroethane | mg/dry kg | <MDL | | | 0.01 |
| | | 1,1-Dichloroethylene | mg/dry kg | <MDL | | | 0.06 |
| | | trans-1,2-Dichloroethylene | mg/dry kg | <MDL | | | 0.01 |
| | | 1,2-Dichloropropane | mg/dry kg | <MDL | | | 0.01 |
| | | cis-1,3-Dichloropropene | mg/dry kg | <MDL | | | 0.01 |
| | | trans-1,3-Dichloropropene | mg/dry kg | <MDL | | | 0.01 |
| | | Methylene chloride | mg/dry kg | <MDL | | | 0.02 |
| | | 1,1,2,2-Tetrachloroethane | mg/dry kg | U.U1 | | | U.U1 |
| | | Tetrachloroethylene | mg/dry kg | <MDL | | | U.U1 |
| | | 1,1,1-Trichloroethane | mg/dry kg | <MDL | | | 0.01 |
| | | 1,1,2-Trichloroethane | mg/dry kg | <MDL | | | 0.01 |
| | | Trichloroethylene | mg/dry kg | 0.03 | | | 0.01 |
| | | Trichlorofluoromethane | mg/dry kg | <MDL | | | 0.03 |

Reported By: William E. Luchan
Anchorage Operations Manager



NORTHERN TESTING LABORATORIES, INC.

3330 INDUSTRIAL AVENUE
2505 FAIRBANKS STREET

FAIRBANKS, ALASKA 99701
ANCHORAGE, ALASKA 99503

(907) 456-3116 • FAX 456-3125
(907) 277-8378 • FAX 274-9645

| Lab Number | Method | Parameter | Units | Result Flag | Date MDL Analyzed |
|------------|----------|---|-----------|-------------|-------------------|
| A114363 | EPA 8010 | Vinyl Chloride | mg/dry kg | <MDL | 0.1 10/09/91 |
| A114363 | EPA 8080 | Aroclor 1016 | mg/dry kg | <MDL | 0.1 10/05/91 |
| | | Aroclor 1221 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1232 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1242 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1248 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1254 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1260 | mg/dry kg | <MDL | 0.1 |
| | | Dibromooctafluorobiphenyl (Recovery) | % | 84.0 | |

William E. Buchan

Reported By: William E. Buchan
Anchorage Operations Manager



NORTHERN TESTING LABORATORIES, INC.

3330 INDUSTRIAL AVENUE
2505 FAIRBANKS STREET

FAIRBANKS, ALASKA 99701
ANCHORAGE, ALASKA 99503

(907) 456-3116 • FAX 456-3125
(907) 277-8378 • FAX 274-9645

Municipal Light & Power
P.O. Box 196650
Anchorage AK 99519-6650

Report Date: 10/11/91

Date Arrived: 09/26/91
Date Sampled: 09/25/91
Time Sampled: -
Collected By: MWR

Attn: Peter Smithson

Definitions

MDL = Method Detection
Limit

B = Below Regulatory Min.

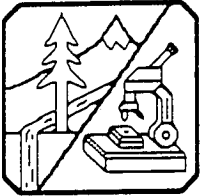
H = Above Regulatory Max.

E = Below Detection Limit
Estimated Value

Our Lab #: A114364
Location/Project: A-1271
Your Sample ID: B9/S3
Sample Matrix: Soil
Comments:

| Lab Number | Method | Parameter | Units | Result | Flag | Date MDL Analyzed |
|------------|-----------|------------------------------|-----------|--------|------|-------------------|
| A114364 | EPA 160.3 | Solids | % | 69.5 | | 10/02/91 |
| A114364 | EPA 418.1 | Total Petroleum Hydrocarbons | mg/dry kg | 71 | | 20 10/05/91 |
| A114364 | EPA 8010 | Bromodichloromethane | mg/dry kg | <MDL | | 0.02 10/09/91 |
| | | Bromoform | mg/dry kg | <MDL | | 0.06 |
| | | Bromomethane | mg/dry kg | <MDL | | 0.12 |
| | | Carbon Tetrachloride | mg/dry kg | <MDL | | 0.01 |
| | | Chlorobenzene | mg/dry kg | <MDL | | 0.01 |
| | | Chloroethane | mg/dry kg | <MDL | | 0.12 |
| | | 2-Chloroethylvinylether | mg/dry kg | <MDL | | 0.12 |
| | | Chloroform | mg/dry kg | <MDL | | 0.01 |
| | | Chloromethane | mg/dry kg | <MDL | | 0.12 |
| | | Dibromochloromethane | mg/dry kg | <MDL | | 0.03 |
| | | 1,2-Dichlorobenzene | mg/dry kg | <MDL | | 0.01 |
| | | 1,3-Dichlorobenzene | mg/dry kg | <MDL | | 0.01 |
| | | 1,4-Dichlorobenzene | mg/dry kg | <MDL | | 0.01 |
| | | 1,1-Dichloroethane | mg/dry kg | <MDL | | 0.01 |
| | | 1,2-Dichloroethane | mg/dry kg | <MDL | | 0.01 |
| | | 1,1-Dichloroethylene | mg/dry kg | <MDL | | 0.06 |
| | | trans-1,2-Dichloroethylene | mg/dry kg | <MDL | | 0.06 |
| | | 1,2-Dichloropropane | mg/dry kg | <MDL | | 0.01 |
| | | cis-1,3-Dichloropropene | mg/dry kg | <MDL | | 0.01 |
| | | trans-1,3-Dichloropropene | mg/dry kg | <MDL | | 0.01 |
| | | Methylene Chloride | mg/dry kg | <MDL | | 0.06 |
| | | 1,1,2,2-Tetrachloroethane | mg/dry kg | <MDL | | 0.02 |
| | | Tetrachloroethylene | mg/dry kg | <MDL | | 0.01 |
| | | 1,1,1-Trichloroethane | mg/dry kg | <MDL | | 0.01 |
| | | 1,1,2-Trichloroethane | mg/dry kg | <MDL | | 0.01 |
| | | Trichloroethylene | mg/dry kg | <MDL | | 0.01 |
| | | Trichlorofluoromethane | mg/dry kg | <MDL | | 0.03 |

William E. Buchan
Reported By: William E. Buchan
Anchorage Operations Manager



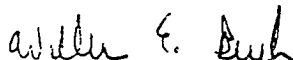
NORTHERN TESTING LABORATORIES, INC.

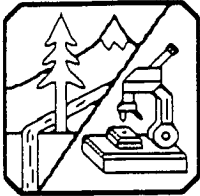
3330 INDUSTRIAL AVENUE
2505 FAIRBANKS STREET

FAIRBANKS, ALASKA 99701
ANCHORAGE, ALASKA 99503

(907) 456-3116 • FAX 456-3125
(907) 277-8378 • FAX 274-9645

| Lab Number | Method | Parameter | Units | Result Flag | Date MDL Analyzed |
|------------|----------|---|-----------|-------------|-------------------|
| A114364 | EPA 8010 | Vinyl Chloride | mg/dry kg | <MDL | 0.1 10/09/91 |
| A114364 | EPA 8080 | Aroclor 1016 | mg/dry kg | <MDL | 0.1 10/05/91 |
| | | Aroclor 1221 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1232 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1242 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1248 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1254 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1260 | mg/dry kg | <MDL | 0.1 |
| | | Dibromooctafluorobiphenyl (Recovery) | % | 84.0 | |


Reported By: William E. Buchan
Anchorage Operations Manager



NORTHERN TESTING LABORATORIES, INC.

3330 INDUSTRIAL AVENUE
2505 FAIRBANKS STREET

FAIRBANKS, ALASKA 99701
ANCHORAGE, ALASKA 99503

(907) 456-3116 • FAX 456-3125
(907) 277-8378 • FAX 274-9645

Municipal Light & Power
P.O. Box 196650
Anchorage AK 99519-6650

Report Date: 10/11/91

Date Arrived: 09/26/91
Date Sampled: 09/25/91
Time Sampled: -
Collected By: MWR

Attn: Peter Smithson

Definitions

MDL = Method Detection
Limit

B = Below Regulatory Min.

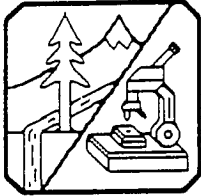
H = Above Regulatory Max.

E = Below Detection Limit
Estimated Value

Our Lab #: A114365
Location/Project: A-1271
Your Sample ID: B9/S4
Sample Matrix: Soil
Comments:

| Lab Number | Method | Parameter | Units | Result | Flag | MDL | Date Analyzed |
|------------|-----------|------------------------------|-----------|--------|------|------|---------------|
| A114365 | EPA 160.3 | Solids | % | 71.5 | | | 10/02/91 |
| A114365 | EPA 418.1 | Total Petroleum Hydrocarbons | mg/dry kg | 23 | | 20 | 10/05/91 |
| A114365 | EPA 8010 | Bromodichloromethane | mg/dry kg | <MDL | | 0.02 | 10/09/91 |
| | | Bromoform | mg/dry kg | <MDL | | 0.06 | |
| | | Bromomethane | mg/dry kg | <MDL | | 0.12 | |
| | | Carbon Tetrachloride | mg/dry kg | <MDL | | 0.01 | |
| | | Chlorobenzene | mg/dry kg | <MDL | | 0.01 | |
| | | Chloroethane | mg/dry kg | <MDL | | 0.12 | |
| | | 2-Chloroethylvinylether | mg/dry kg | <MDL | | 0.12 | |
| | | Chloroform | mg/dry kg | <MDL | | 0.01 | |
| | | Chloromethane | mg/dry kg | <MDL | | 0.12 | |
| | | Dibromochloromethane | mg/dry kg | <MDL | | 0.03 | |
| | | 1,2-Dichlorobenzene | mg/dry kg | <MDL | | 0.01 | |
| | | 1,3-Dichlorobenzene | mg/dry kg | <MDL | | 0.01 | |
| | | 1,4-Dichlorobenzene | mg/dry kg | <MDL | | 0.01 | |
| | | 1,1-Dichloroethane | mg/dry kg | <MDL | | 0.01 | |
| | | 1,2-Dichloroethane | mg/dry kg | <MDL | | 0.01 | |
| | | 1,1-Dichloroethylene | mg/dry kg | <MDL | | 0.06 | |
| | | trans-1,2-Dichloroethylene | mg/dry kg | <MDL | | 0.06 | |
| | | 1,2-Dichloropropane | mg/dry kg | <MDL | | 0.01 | |
| | | cis-1,3-Dichloropropene | mg/dry kg | <MDL | | 0.01 | |
| | | trans-1,3-Dichloropropene | mg/dry kg | <MDL | | 0.01 | |
| | | Methylene Chloride | mg/dry kg | <MDL | | 0.06 | |
| | | 1,1,2,2-Tetrachloroethane | mg/dry kg | <MDL | | 0.02 | |
| | | Tetrachloroethylene | mg/dry kg | <MDL | | 0.01 | |
| | | 1,1,1-Trichloroethane | mg/dry kg | <MDL | | 0.01 | |
| | | 1,1,2-Trichloroethane | mg/dry kg | <MDL | | 0.01 | |
| | | Trichloroethylene | mg/dry kg | <MDL | | 0.01 | |
| | | Trichlorofluoromethane | mg/dry kg | <MDL | | 0.03 | |

William E. Buchan
Reported By: William E. Buchan
Anchorage Operations Manager



NORTHERN TESTING LABORATORIES, INC.

3330 INDUSTRIAL AVENUE
2505 FAIRBANKS STREET

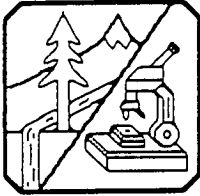
FAIRBANKS, ALASKA 99701
ANCHORAGE, ALASKA 99503

(907) 456-3116 • FAX 456-3125
(907) 277-8378 • FAX 274-9645

| Lab Number | Method | Parameter | Units | Result Flag | Date MDL Analyzed |
|------------|----------|---|-----------|-------------|-------------------|
| A114365 | EPA 8010 | Vinyl Chloride | mg/dry kg | <MDL | 0.1 10/09/91 |
| A114365 | EPA 8080 | Aroclor 1016 | mg/dry kg | <MDL | 0.1 10/05/91 |
| | | Aroclor 1221 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1232 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1242 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1248 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1254 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1260 | mg/dry kg | <MDL | 0.1 |
| | | Dibromooctafluorobiphenyl (Recovery) | % | 85.0 | |

William E. Buchan

Reported By: William E. Buchan
Anchorage Operations Manager



NORTHERN TESTING LABORATORIES, INC.

3330 INDUSTRIAL AVENUE
2505 FAIRBANKS STREET

FAIRBANKS, ALASKA 99701
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(907) 277-8378 • FAX 274-9645

Municipal Light & Power
P.O. Box 196650
Anchorage AK 99519-6650

Report Date: 10/11/91

Date Arrived: 09/26/91
Date Sampled: 09/25/91
Time Sampled: -
Collected By: MWR

Attn: Peter Smithson

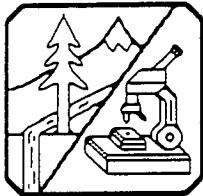
Our Lab #: A114366
Location/Project: A-1271
Your Sample ID: B9/S5
Sample Matrix: Soil
Comments:

Definitions
MDL = Method Detection
Limit
B = Below Regulatory Min.
H = Above Regulatory Max.
E = Below Detection Limit
Estimated Value

| Lab Number | Method | Parameter | Units | Result Flag | Date MDL Analyzed |
|------------|-----------|------------------------------|-----------|-------------|-------------------|
| A114366 | EPA 160.3 | Solids | % | 85.6 | 10/02/91 |
| A114366 | EPA 418.1 | Total Petroleum Hydrocarbons | mg/dry kg | 171 | 20 10/05/91 |
| A114366 | EPA 8010 | Bromodichloromethane | mg/dry kg | <MDL | 0.02 10/09/91 |
| | | Bromoform | mg/dry kg | <MDL | 0.06 |
| | | Bromomethane | mg/dry kg | <MDL | 0.12 |
| | | Carbon Tetrachloride | mg/dry kg | <MDL | 0.01 |
| | | Chlorobenzene | mg/dry kg | <MDL | 0.01 |
| | | Chloroethane | mg/dry kg | <MDL | 0.12 |
| | | 2-Chloroethylvinylether | mg/dry kg | <MDL | 0.12 |
| | | Chloroform | mg/dry kg | <MDL | 0.01 |
| | | Chloromethane | mg/dry kg | <MDL | 0.12 |
| | | Dibromochloromethane | mg/dry kg | <MDL | 0.03 |
| | | 1,2-Dichlorobenzene | mg/dry kg | <MDL | 0.01 |
| | | 1,3-Dichlorobenzene | mg/dry kg | <MDL | 0.01 |
| | | 1,4-Dichlorobenzene | mg/dry kg | <MDL | 0.01 |
| | | 1,1-Dichloroethane | mg/dry kg | <MDL | 0.01 |
| | | 1,2-Dichloroethane | mg/dry kg | <MDL | 0.01 |
| | | 1,1-Dichloroethylene | mg/dry kg | <MDL | 0.06 |
| | | trans-1,2-Dichloroethylene | mg/dry kg | <MDL | 0.06 |
| | | 1,2-Dichloropropane | mg/dry kg | <MDL | 0.01 |
| | | cis-1,3-Dichloropropene | mg/dry kg | <MDL | 0.01 |
| | | trans-1,3-Dichloropropene | mg/dry kg | <MDL | 0.01 |
| | | Methylene Chloride | mg/dry kg | <MDL | 0.06 |
| | | 1,1,2,2-Tetrachloroethane | mg/dry kg | <MDL | 0.02 |
| | | Tetrachloroethylene | mg/dry kg | <MDL | 0.01 |
| | | 1,1,1-Trichloroethane | mg/dry kg | <MDL | 0.01 |
| | | 1,1,2-Trichloroethane | mg/dry kg | <MDL | 0.01 |
| | | Trichloroethylene | mg/dry kg | <MDL | 0.01 |
| | | Trichlorofluoromethane | mg/dry kg | <MDL | 0.03 |

William E. Buchan

Reported By: William E. Buchan
Anchorage Operations Manager



NORTHERN TESTING LABORATORIES, INC.

3330 INDUSTRIAL AVENUE
2505 FAIRBANKS STREET

FAIRBANKS, ALASKA 99701
ANCHORAGE, ALASKA 99503

(907) 456-3116 • FAX 456-3125
(907) 277-8378 • FAX 274-9645

| Lab Number | Method | Parameter | Units | Result Flag | Date MDL Analyzed |
|------------|----------|---|-----------|-------------|-------------------|
| A114366 | EPA 8010 | Vinyl Chloride | mg/dry kg | <MDL | 0.1 10/09/91 |
| A114366 | EPA 8080 | Aroclor 1016 | mg/dry kg | <MDL | 0.1 10/05/91 |
| | | Aroclor 1221 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1232 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1242 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1248 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1254 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1260 | mg/dry kg | <MDL | 0.1 |
| | | Dibromooctafluorobiphenyl (Recovery) | % | 94.0 | |

William E. Buchan

Reported By: William E. Buchan
Anchorage Operations Manager



NORTHERN TESTING LABORATORIES, INC.

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2505 FAIRBANKS STREET

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(907) 277-8378 • FAX 274-9645

Municipal Light & Power
P.O. Box 196650
Anchorage AK 99519-6650

Report Date: 10/11/91

Date Arrived: 09/26/91
Date Sampled: 09/25/91
Time Sampled: -
Collected By: MWR

Attn: Peter Smithson

Definitions

MDL = Method Detection Limit
B = Below Regulatory Min.
H = Above Regulatory Max.
E = Below Detection Limit Estimated Value

Our Lab #: A114367
Location/Project: A-1271
Your Sample ID: B9/S6
Sample Matrix: Soil
Comments:

| Lab Number | Method | Parameter | Units | Result Flag | Date MDL Analyzed |
|------------|-----------|------------------------------|-----------|-------------|-------------------|
| A114367 | EPA 160.3 | Solids | % | 75.5 | 10/02/91 |
| A114367 | EPA 418.1 | Total Petroleum Hydrocarbons | mg/dry kg | <MDL | 20 10/05/91 |
| A114367 | EPA 8010 | Bromodichloromethane | mg/dry kg | <MDL | 0.02 10/09/91 |
| | | Bromoform | mg/dry kg | <MDL | 0.06 |
| | | Bromomethane | mg/dry kg | <MDL | 0.12 |
| | | Carbon Tetrachloride | mg/dry kg | <MDL | 0.01 |
| | | Chlorobenzene | mg/dry kg | <MDL | 0.01 |
| | | Chloroethane | mg/dry kg | <MDL | 0.12 |
| | | 2-Chloroethylvinylether | mg/dry kg | <MDL | 0.12 |
| | | Chloroform | mg/dry kg | <MDL | 0.01 |
| | | Chloromethane | mg/dry kg | <MDL | 0.12 |
| | | Dibromochloromethane | mg/dry kg | <MDL | 0.03 |
| | | 1,2-Dichlorobenzene | mg/dry kg | <MDL | 0.01 |
| | | 1,3-Dichlorobenzene | mg/dry kg | <MDL | 0.01 |
| | | 1,4-Dichlorobenzene | mg/dry kg | <MDL | 0.01 |
| | | 1,1-Dichloroethane | mg/dry kg | <MDL | 0.01 |
| | | 1,2-Dichloroethane | mg/dry kg | <MDL | 0.01 |
| | | 1,1-Dichloroethylene | mg/dry kg | <MDL | 0.06 |
| | | trans-1,2-Dichloroethylene | mg/dry kg | <MDL | 0.06 |
| | | 1,2-Dichloropropane | mg/dry kg | <MDL | 0.01 |
| | | cis-1,3-Dichloropropene | mg/dry kg | <MDL | 0.01 |
| | | trans-1,3-Dichloropropene | mg/dry kg | <MDL | 0.01 |
| | | Methylene Chloride | mg/dry kg | <MDL | 0.06 |
| | | 1,1,2,2-Tetrachloroethane | mg/dry kg | <MDL | 0.02 |
| | | Tetrachloroethylene | mg/dry kg | <MDL | 0.01 |
| | | 1,1,1-Trichloroethane | mg/dry kg | <MDL | 0.01 |
| | | 1,1,2-Trichloroethane | mg/dry kg | <MDL | 0.01 |
| | | Trichloroethylene | mg/dry kg | <MDL | 0.01 |
| | | Trichlorofluoromethane | mg/dry kg | <MDL | 0.03 |

William E. Buchan

Reported By: William E. Buchan
Anchorage Operations Manager



NORTHERN TESTING LABORATORIES, INC.

3330 INDUSTRIAL AVENUE
2505 FAIRBANKS STREET

FAIRBANKS, ALASKA 99701
ANCHORAGE, ALASKA 99503

(907) 456-3116 • FAX 456-3125
(907) 277-8378 • FAX 274-9645

| Lab Number | Method | Parameter | Units | Result Flag | Date MDL Analyzed |
|------------|----------|---|-----------|-------------|-------------------|
| A114367 | EPA 8010 | Vinyl Chloride | mg/dry kg | <MDL | 0.1 10/09/91 |
| A114367 | EPA 8080 | Aroclor 1016 | mg/dry kg | <MDL | 0.1 10/05/91 |
| | | Aroclor 1221 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1232 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1242 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1248 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1254 | mg/dry kg | <MDL | 0.1 |
| | | Aroclor 1260 | mg/dry kg | <MDL | 0.1 |
| | | Dibromooctafluorobiphenyl (Recovery) | % | 84.0 | |

William E. Buchan

Reported By: William E. Buchan
Anchorage Operations Manager



RITTENHOUSE-ZEMAN & ASSOCIATES, INC.
ENVIRONMENTAL CONSULTANTS

1400 140th AVENUE NE
BELLEVUE, WASHINGTON 98005
(206)746-8020 FAX#(206)746-6364

CHAIN OF CUSTODY RECORD / LABORATORY ANALYSES REQUEST

| ANALYSIS REQUESTED: | | | | OTHER: (Write in) | | | | | | | | | | | | | | | | |
|---|-------|------|----------|-----------------------------------|--------------------------------------|-----------------------------------|--|--------------------------------|------------------------------------|-------------------------------|---------------------|-------------------------------|---------------------------------------|---|------------------|-------------------------------|--|--|--|--|
| Circle, Check Box, or Write Preferred Method in Box | | | | | | | | | | | | | | | | | | | | |
| | | | | Detection Limits Desired | | | | | | | | | | | | | | | | |
| | | | | Hold for Future Analysis | | | | | | | | | | | | | | | | |
| | | | | # of Containers | | | | | | | | | | | | | | | | |
| JOB #: A-1271 | | | | | | | | | | | | | | | | | | | | |
| PROJECT NAME: ML & P | | | | | | | | | | | | | | | | | | | | |
| RZA CONTACT: JAMES SMITH | | | | | | | | | | | | | | | | | | | | |
| PHONE #: (907) 276-6480 | | | | | | | | | | | | | | | | | | | | |
| SAMPLE ID # | DATE | TIME | PRESERV. | MATRIX | Total Petrol. Hydrocarbons EPA 418.1 | Fuel Scan/TPH by GC EPA 8015-mod. | Halogenated Volatiles EPA 801 EPA 8010 | Aromatics EPA 802 EPA 8020 | PolyNuclear Aromatics EPA 810 8310 | Total Halogens (TOX) EPA 9076 | Total Metals ICP AA | TCLP Metals EPA 1311 | Purgeable Organics GC/MS EPA 8240 824 | Base/Neut./Acid/Organics GC/MS EPA 825 8270 | PCB EPA 808 8080 | Ignitability (Flash) EPA 1010 | | | | |
| 1 | 01/51 | 9/25 | CHILLED | SOIL | | | | | | | | | | | | | | | | |
| 2 | 01/52 | ↓ | ↓ | ↓ | | | | | | | | | | | | | | | | |
| 3 | 01/53 | 9/25 | CHILLED | SOIL | | | | | | | | | | | | | | | | |
| 4 | 01/54 | 9/26 | CHILLED | SOIL | | | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | | | | | | | |
| 11 | | | | | | | | | | | | | | | | | | | | |
| 12 | | | | | | | | | | | | | | | | | | | | |
| RELINQUISHED BY RZA: | | | | RELINQUISHED BY: | | | | LABORATORY: | | | | SAMPLE RECEIPT: | | | | | | | | |
| Signature: <i>Mark W. Rodgers</i> | | | | Signature: <i>James Smith</i> | | | | Shipping I.D. #: A114400 → 409 | | | | Total # Containers: A | | | | | | | | |
| Printed Name: MARK W. RODGERS | | | | Printed Name: James Smith | | | | Carrier: good | | | | Condition of Containers? good | | | | | | | | |
| Firm: RZA, INC. | | | | Firm: AML & P | | | | DOT Designation: | | | | Condition of Seals? good | | | | | | | | |
| Date/Time: 12/29/07 07:15 | | | | Date/Time: 1/29/10 10:15 | | | | SPECIAL INSTRUCTIONS/COMMENTS: | | | | | | | | | | | | |
| RECEIVED BY: | | | | RECEIVED BY: | | | | | | | | | | | | | | | | |
| Signature: <i>James Smith</i> | | | | Signature: <i>Alan M. LeJeune</i> | | | | | | | | | | | | | | | | |
| Printed Name: James Smith | | | | Printed Name: Alan M. LeJeune | | | | | | | | | | | | | | | | |
| Firm: AML & P | | | | Firm: NTL | | | | | | | | | | | | | | | | |
| Date/Time: 12-27-91 07:15 | | | | Date/Time: 12-27-91 08:30 | | | | | | | | | | | | | | | | |



RITTENHOUSE-ZEMAN & ASSOCIATES, INC.
ENVIRONMENTAL CONSULTANTS

1400 140th AVENUE NE
BELLEVUE, WASHINGTON 98005
(206)746-8020 FAX#(206)746-6364

CHAIN OF CUSTODY RECORD / LABORATORY ANALYSES REQUEST

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|--|--|---|--|--|----------------------------------|--|--|----------------------------------|--|--|----------------------------------|--|--|--|--|--|----------------------------------|--|--|----------------------------------|--|--|----------------------------------|--|--|----------------------------------|--|--|----------------------------------|--|--|----------------------------------|--|--|
| JOB #: A-1271 | | | ANALYSIS REQUESTED: (Circle, Check Box, or Write Preferred Method in Box) | | | | | | | | | | | | OTHER: (Write in) | | | | | | | | | | | | | | | | | | | | |
| PROJECT NAME: ML & P | | | Total Petrol. Hydrocarbons EPA 4181 | | | | | | | | | | | | Hold for Future Analysis | | | | | | | | | | | | | | | | | | | | |
| RZA CONTACT: JAMES SMITH | | | Total Volatiles EPA 8015-mod. | | | | | | | | | | | | GC/MS: EPA 8240 8240 | | | | | | | | | | | | | | | | | | | | |
| PHONE #: (907) 276-6480 | | | Aromatics EPA 802 EPA 8020 | | | | | | | | | | | | GC/MS: EPA 825 8270 | | | | | | | | | | | | | | | | | | | | |
| SAMPLE ID # | | | DATE | | | PRESERV. | | | MATRIX | | | Purgeable Organics EPA 1311 | | | Base/Neut/Acid/Organics GC/MS: EPA 825 8270 | | | PCB EPA 808 8080 | | | Ignitability (Flash) EPA 1010 | | | # of Containers | | | Detection Limits Desired | | | | | | | | |
| 1 B1/51 | | | 9/25 | | | CHILLED | | | SOIL | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 B1/52 | | | ↓ | | | ↓ | | | ↓ | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 B1/53 | | | 9/25 | | | CHILLED | | | SOIL | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 B1/54 | | | 9/26 | | | CHILLED | | | SOIL | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 11 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 12 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| RELINQUISHED BY RZA: | | | RELINQUISHED BY: | | | RECEIVED BY: | | | RECEIVED BY: | | | RECEIVED BY: | | | RECEIVED BY: | | | RECEIVED BY: | | | RECEIVED BY: | | | RECEIVED BY: | | | RECEIVED BY: | | | RECEIVED BY: | | | RECEIVED BY: | | |
| Signature: <i>Mark W. Rogers</i> | | | Signature: <i>James Smith</i> | | | Signature: <i>Mark W. Rogers</i> | | | Signature: <i>James Smith</i> | | | Signature: <i>Mark W. Rogers</i> | | | Signature: <i>James Smith</i> | | | Signature: <i>Mark W. Rogers</i> | | | Signature: <i>James Smith</i> | | | Signature: <i>Mark W. Rogers</i> | | | Signature: <i>James Smith</i> | | | Signature: <i>Mark W. Rogers</i> | | | Signature: <i>James Smith</i> | | |
| Printed Name: MARK W. ROGERS | | | Printed Name: JAMES SMITH | | | Printed Name: MARK W. ROGERS | | | Printed Name: JAMES SMITH | | | Printed Name: MARK W. ROGERS | | | Printed Name: JAMES SMITH | | | Printed Name: MARK W. ROGERS | | | Printed Name: JAMES SMITH | | | Printed Name: MARK W. ROGERS | | | Printed Name: JAMES SMITH | | | Printed Name: MARK W. ROGERS | | | Printed Name: JAMES SMITH | | |
| Firm: RZA, INC. | | | Firm: AMCOR | | | Firm: AMCOR | | | Firm: AMCOR | | | Firm: AMCOR | | | Firm: AMCOR | | | Firm: AMCOR | | | Firm: AMCOR | | | Firm: AMCOR | | | Firm: AMCOR | | | Firm: AMCOR | | | Firm: AMCOR | | |
| Date/Time: 9/27/91 07:15 | | | Date/Time: 9/27/91 10:15 | | | Date/Time: 9/27/91 10:15 | | | Date/Time: 9/27/91 10:15 | | | Date/Time: 9/27/91 10:15 | | | Date/Time: 9/27/91 10:15 | | | Date/Time: 9/27/91 10:15 | | | Date/Time: 9/27/91 10:15 | | | Date/Time: 9/27/91 10:15 | | | Date/Time: 9/27/91 10:15 | | | Date/Time: 9/27/91 10:15 | | | Date/Time: 9/27/91 10:15 | | |
| RECEIVED BY: | | | RECEIVED BY: | | | RECEIVED BY: | | | RECEIVED BY: | | | RECEIVED BY: | | | RECEIVED BY: | | | RECEIVED BY: | | | RECEIVED BY: | | | RECEIVED BY: | | | RECEIVED BY: | | | RECEIVED BY: | | | RECEIVED BY: | | |
| Signature: <i>James Smith</i> | | | Signature: <i>Mark W. Rogers</i> | | | Signature: <i>James Smith</i> | | | Signature: <i>Mark W. Rogers</i> | | | Signature: <i>James Smith</i> | | | Signature: <i>Mark W. Rogers</i> | | | Signature: <i>James Smith</i> | | | Signature: <i>Mark W. Rogers</i> | | | Signature: <i>James Smith</i> | | | Signature: <i>Mark W. Rogers</i> | | | Signature: <i>James Smith</i> | | | Signature: <i>Mark W. Rogers</i> | | |
| Printed Name: Peter Smithson | | | Printed Name: Peter Smithson | | | Printed Name: Peter Smithson | | | Printed Name: Peter Smithson | | | Printed Name: Peter Smithson | | | Printed Name: Peter Smithson | | | Printed Name: Peter Smithson | | | Printed Name: Peter Smithson | | | Printed Name: Peter Smithson | | | Printed Name: Peter Smithson | | | Printed Name: Peter Smithson | | | Printed Name: Peter Smithson | | |
| Firm: Amcor | | | Firm: Amcor | | | Firm: Amcor | | | Firm: Amcor | | | Firm: Amcor | | | Firm: Amcor | | | Firm: Amcor | | | Firm: Amcor | | | Firm: Amcor | | | Firm: Amcor | | | Firm: Amcor | | | Firm: Amcor | | |
| Date/Time: 9/27-91 0715 | | | Date/Time: 9/27-91 0715 | | | Date/Time: 9/27-91 0715 | | | Date/Time: 9/27-91 0715 | | | Date/Time: 9/27-91 0715 | | | Date/Time: 9/27-91 0715 | | | Date/Time: 9/27-91 0715 | | | Date/Time: 9/27-91 0715 | | | Date/Time: 9/27-91 0715 | | | Date/Time: 9/27-91 0715 | | | Date/Time: 9/27-91 0715 | | | Date/Time: 9/27-91 0715 | | |

DISTRIBUTION: WHITE - return to originator; YELLOW - lab; PINK - retained by originator.



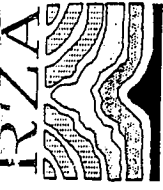
RITTENHOUSE-ZEMAN & ASSOCIATES, INC.
 ENVIRONMENTAL CONSULTANTS

1400 140th AVENUE NE
 BELLEVUE, WASHINGTON 98005
 (206)746-8020 FAX#(206)746-6364

CHAIN OF CUSTODY RECORD / LABORATORY ANALYSES REQUEST

| JOB #: A-1221 | | | | ANALYSIS REQUESTED: (Circle, Check Box, or Write Preferred Method in Box) OTHER: (Write in) | | | | | | | | | | | | | | | |
|--------------------------|------|------|----------|---|-----|---|--------------------------------------|---|-------------------------------|---------------------------------------|----------------------------------|------------------------|-------------------------|---|--|---------------------|----------------------------------|-----------------|--------------------------|
| PROJECT NAME: ML & P | | | | | | | | | | | | | | | | | | | |
| RZA CONTACT: JAMES SMITH | | | | | | | | | | | | | | | | | | | |
| PHONE #: (907) 276-6480 | | | | | | | | | | | | | | | | | | | |
| SAMPLE ID # | DATE | TIME | PRESERV. | MATRIX | BTX | Total Petrol. Hydrocarbons EPA 418.1 | Fuel Scan/TPH by GC EPA 8015-mod. | Halogenated Volatiles EPA 801 EPA 8010 | Aromatics EPA 802 EPA 8020 | PolyNuclear Aromatics EPA 810 8310 | Total Halogens (TOX) EPA 9076 | Total Metals ICP AA | TCLP Metals EPA 1311 | Purgeable Organics GC/MS: EPA 8240 824 | Base/Neut/Acid/Organics GC/MS: EPA 825 8270 | PCB EPA 808 8080 | Ignitability (Flash) EPA 1010 | # of Containers | Detection Limits Desired |
| 102/51 | 9/27 | | CHILLED | SOIL | X | | | X | | | | | | | | X | | | |
| 202/52 | | | | | | | | | | | | | | | | | | | |
| 302/53 | | | | | | | | | | | | | | | | | | | |
| 402/54 | | | | | | | | | | | | | | | | | | | |
| 502/55 | 9/27 | | CHILLED | SOIL | | | | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | | | | | | | | |
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| 10 | | | | | | | | | | | | | | | | | | | |
| 11 | | | | | | | | | | | | | | | | | | | |
| 12 | | | | | | | | | | | | | | | | | | | |

| RELINQUISHED BY RZA: | RELINQUISHED BY: | RECEIVED BY: | LABORATORY: | SAMPLE RECEIPT: |
|------------------------------|------------------------|------------------------|--------------------------------|--------------------------|
| Signature: Mack W. Rogers | Signature: [Signature] | Signature: [Signature] | | |
| Printed Name: MACK W. ROGERS | Printed Name: [Name] | Printed Name: [Name] | Shipping I.D. #: | Total # Containers: |
| Time: [Time] | Time: [Time] | Time: [Time] | Carrier: | Condition of Containers? |
| Date/Time: 9/27/91 17:15 | Date/Time: [Date/Time] | Date/Time: [Date/Time] | DOT Designation: | Condition of Seals? |
| RECEIVED BY: | RECEIVED BY: | RECEIVED BY: | SPECIAL INSTRUCTIONS/COMMENTS: | |
| Signature: [Signature] | Signature: [Signature] | Signature: [Signature] | | |
| Printed Name: Peter Smithson | Printed Name: [Name] | Printed Name: [Name] | | |
| Time: [Time] | Time: [Time] | Time: [Time] | | |
| Date/Time: 9/27/91 1715 | Date/Time: [Date/Time] | Date/Time: [Date/Time] | | |



CHAIN OF CUSTODY RECORD / LABORATORY ANALYSES REQUEST

JOB #: A-1271

PROJECT NAME: ML & P

RZA CONTACT: JAMES SMITH

PHONE #: (907) 276-6480

| SAMPLE ID # | DATE | TIME | PRESERV. | MATRIX | BTEX | Total Petrol. Hydrocarbons EPA 418.1 | Fuel Scan/TPH by GC EPA 8015-mod | Halogenated Volatiles EPA 801 EPA 8010 | Aromatics EPA 802 EPA 8020 | PolyNuclear Aromatics EPA 810 8310 | Total Halogens (TOX) EPA 9076 | Total Metals ICP AA | TCLP Metals EPA 1311 | Purgeable Organics GC/MS: EPA 8240 624 | Base/Neu/Acid/Organics GC/MS: EPA 825 8270 | PCB EPA 808 8080 | Ignitability (Flash) EPA 1010 | Hold for Future Analysis | # of Containers | Detection Limits Desired |
|-------------|---------|-------|----------|--------|------|---|-------------------------------------|---|-------------------------------|---------------------------------------|----------------------------------|------------------------|-------------------------|---|---|---------------------|----------------------------------|-----------------------------|-----------------|--------------------------|
| 1 | 8/27/91 | 17:15 | CHILLED | SOIL | X | ↓ | ↓ | X | | | | | | | | X | ↓ | | | |
| 2 | 8/27/91 | 17:15 | CHILLED | SOIL | | ↓ | ↓ | | | | | | | | | | ↓ | | | |
| 3 | 8/27/91 | 17:15 | | | | | | | | | | | | | | | | | | |
| 4 | 8/27/91 | 17:15 | | | | | | | | | | | | | | | | | | |
| 5 | 8/27/91 | 17:15 | | | | | | | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | | | | | | | | | |
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| 10 | | | | | | | | | | | | | | | | | | | | |
| 11 | | | | | | | | | | | | | | | | | | | | |
| 12 | | | | | | | | | | | | | | | | | | | | |

ANALYSIS REQUESTED: (Circle, Check Box, or Write Preferred Method in Box) OTHER: (Write in)

| RELINQUISHED BY: RZA: | RELINQUISHED BY: | RELINQUISHED BY: | RECEIVED BY: |
|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| Signature: Mark W. Rogers | Signature: [Signature] | Signature: [Signature] | Signature: [Signature] |
| Printed Name: MARK W. ROGERS | Printed Name: [Printed Name] | Printed Name: [Printed Name] | Printed Name: [Printed Name] |
| Title: RZA, INC. | Title: LEP/LEE SHELF | Title: [Title] | Title: [Title] |
| Date/Time: 8/27/91 17:15 | Date/Time: 8-28-91 1:20 PM | Date/Time: [Date/Time] | Date/Time: [Date/Time] |

RECEIVED BY: [Signature] **Signature:** [Signature]
Printed Name: Peter Smithson
Title: NTL Anch
Date/Time: 8/27/91 17:15

RECEIVED BY: [Signature] **Signature:** [Signature]
Printed Name: Stephen D. Oliver
Title: NTL Anch
Date/Time: 8/27/91 17:15

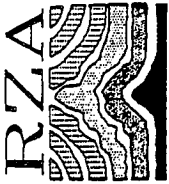
LABORATORY: **SAMPLE RECEIPT:**

Shipping I.D. #: _____ **Total # Containers:** _____

Carrier: _____ **Condition of Containers:** _____

DOT Designation: _____ **Condition of Seals:** _____

SPECIAL INSTRUCTIONS/COMMENTS:



RITTENHOUSE-ZEMAN & ASSOCIATES, INC.
ENVIRONMENTAL CONSULTANTS

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BELLEVUE, WASHINGTON 98005
(206)746-8020 FAX#(206)746-6364

CHAIN OF CUSTODY RECORD / LABORATORY ANALYSES REQUEST

| JOB #: A-1271 | | | | ANALYSIS REQUESTED: (Circle, Check Box, or Write Preferred Method in Box) | | | | | | | | | | | | OTHER: (Write in) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---------------------|---------------------|---------------------|--|--------------|-------------|-------------|--|----------------------|-----------------------|-----------------------|--|------------------|-----------------------|-----------------------|-------------------------|----------------------------|----------------------------|---------------------|----------|--------------|--------|-------------|----------|----------------------|--------------|-----------------------|------------------|-----------|------------------|-----------------------|---------------------|---------------|----------------------------|-----------|-----|---------------------|--------------------|---------------------|----------|--------------|--------|-------------|----------|----------------------|--------------|-----------------------|------------------|-----------|------------------|-----------------------|---------------------|---------------|----------------------------|-----------|-----|--|--|--|--|---|--|--|--|--|----|--|--|--|--|----|--|--|--|--|----|--|--|--|--|--|--|--|--|
| PROJECT NAME: ML & P | | | | <table border="1"> <tr> <td>Base/Neut/Acid/Organics</td> <td>GC/MS: EPA 825 8270</td> <td>Purgeable Organics</td> <td>GC/MS: EPA 8240 824</td> <td>EPA 1311</td> <td>Total Metals</td> <td>ICP AA</td> <td>TCLP Metals</td> <td>EPA 9076</td> <td>Total Halogens (TOX)</td> <td>EPA 610 8310</td> <td>PolyNuclear Aromatics</td> <td>EPA 602 EPA 8020</td> <td>Aromatics</td> <td>EPA 601 EPA 8010</td> <td>Halogenated Volatiles</td> <td>Fuel Scan/TPH by GC</td> <td>EPA 8015-mod.</td> <td>Total Petrol. Hydrocarbons</td> <td>EPA 418.1</td> <td>BTX</td> </tr> <tr> <td>GC/MS: EPA 825 8270</td> <td>Purgeable Organics</td> <td>GC/MS: EPA 8240 824</td> <td>EPA 1311</td> <td>Total Metals</td> <td>ICP AA</td> <td>TCLP Metals</td> <td>EPA 9076</td> <td>Total Halogens (TOX)</td> <td>EPA 610 8310</td> <td>PolyNuclear Aromatics</td> <td>EPA 602 EPA 8020</td> <td>Aromatics</td> <td>EPA 601 EPA 8010</td> <td>Halogenated Volatiles</td> <td>Fuel Scan/TPH by GC</td> <td>EPA 8015-mod.</td> <td>Total Petrol. Hydrocarbons</td> <td>EPA 418.1</td> <td>BTX</td> </tr> </table> | | | | | | | | | | | | Base/Neut/Acid/Organics | GC/MS: EPA 825 8270 | Purgeable Organics | GC/MS: EPA 8240 824 | EPA 1311 | Total Metals | ICP AA | TCLP Metals | EPA 9076 | Total Halogens (TOX) | EPA 610 8310 | PolyNuclear Aromatics | EPA 602 EPA 8020 | Aromatics | EPA 601 EPA 8010 | Halogenated Volatiles | Fuel Scan/TPH by GC | EPA 8015-mod. | Total Petrol. Hydrocarbons | EPA 418.1 | BTX | GC/MS: EPA 825 8270 | Purgeable Organics | GC/MS: EPA 8240 824 | EPA 1311 | Total Metals | ICP AA | TCLP Metals | EPA 9076 | Total Halogens (TOX) | EPA 610 8310 | PolyNuclear Aromatics | EPA 602 EPA 8020 | Aromatics | EPA 601 EPA 8010 | Halogenated Volatiles | Fuel Scan/TPH by GC | EPA 8015-mod. | Total Petrol. Hydrocarbons | EPA 418.1 | BTX | Ignitability (Flash) EPA 1010 PCB 808 8080 GC/MS: EPA 825 8270 Base/Neut/Acid/Organics GC/MS: EPA 8240 824 Purgeable Organics GC/MS: EPA 8240 824 EPA 1311 Total Metals ICP AA TCLP Metals EPA 9076 Total Halogens (TOX) EPA 610 8310 PolyNuclear Aromatics EPA 602 EPA 8020 Aromatics EPA 601 EPA 8010 Halogenated Volatiles Fuel Scan/TPH by GC EPA 8015-mod. Total Petrol. Hydrocarbons EPA 418.1 BTX | | | | Hold for Future Analysis # of Containers Detection Limits Desired | | | | | | | | | | | | | | | | | | | | | | | |
| Base/Neut/Acid/Organics | GC/MS: EPA 825 8270 | Purgeable Organics | GC/MS: EPA 8240 824 | EPA 1311 | Total Metals | ICP AA | TCLP Metals | EPA 9076 | Total Halogens (TOX) | EPA 610 8310 | PolyNuclear Aromatics | EPA 602 EPA 8020 | Aromatics | EPA 601 EPA 8010 | Halogenated Volatiles | Fuel Scan/TPH by GC | EPA 8015-mod. | Total Petrol. Hydrocarbons | EPA 418.1 | BTX | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| GC/MS: EPA 825 8270 | Purgeable Organics | GC/MS: EPA 8240 824 | EPA 1311 | Total Metals | ICP AA | TCLP Metals | EPA 9076 | Total Halogens (TOX) | EPA 610 8310 | PolyNuclear Aromatics | EPA 602 EPA 8020 | Aromatics | EPA 601 EPA 8010 | Halogenated Volatiles | Fuel Scan/TPH by GC | EPA 8015-mod. | Total Petrol. Hydrocarbons | EPA 418.1 | BTX | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| RZA CONTACT: JAMES SMITH | | | | <table border="1"> <thead> <tr> <th>SAMPLE ID #</th> <th>DATE</th> <th>TIME</th> <th>PRESERV.</th> <th>MATRIX</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>B3/51</td> <td>9/26</td> <td>CHILLED</td> <td>SOIL</td> </tr> <tr> <td>2</td> <td>B3/53</td> <td></td> <td>↓</td> <td>↓</td> </tr> <tr> <td>3</td> <td>B3/54</td> <td></td> <td>↓</td> <td>↓</td> </tr> <tr> <td>4</td> <td>B3/55</td> <td></td> <td>↓</td> <td>↓</td> </tr> <tr> <td>5</td> <td>B3/56</td> <td>9/26</td> <td>CHILLED</td> <td>SOIL</td> </tr> <tr> <td>6</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>7</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>8</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>9</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>10</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>11</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>12</td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> | | | | | | | | | | | | SAMPLE ID # | DATE | TIME | PRESERV. | MATRIX | 1 | B3/51 | 9/26 | CHILLED | SOIL | 2 | B3/53 | | ↓ | ↓ | 3 | B3/54 | | ↓ | ↓ | 4 | B3/55 | | ↓ | ↓ | 5 | B3/56 | 9/26 | CHILLED | SOIL | 6 | | | | | 7 | | | | | 8 | | | | | 9 | | | | | 10 | | | | | 11 | | | | | 12 | | | | | SAMPLE RECEIPT: A114410 → A13, A14, A19 Total # Containers: 5 Condition of Containers? GOOD Condition of Seals? GOOD | | | |
| SAMPLE ID # | DATE | TIME | PRESERV. | MATRIX | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | B3/51 | 9/26 | CHILLED | SOIL | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | B3/53 | | ↓ | ↓ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | B3/54 | | ↓ | ↓ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | B3/55 | | ↓ | ↓ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | B3/56 | 9/26 | CHILLED | SOIL | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 11 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 12 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| RELINQUISHED BY RZA: Signature: <i>Mark W. Rogers</i> Printed Name: Mark W. Rogers Firm: RZA, INC. Date/Time: 9/27/91 07:15 | | | | RELINQUISHED BY: Signature: <i>James Smith</i> Printed Name: Peter Smithson Firm: AMLP Date/Time: 9-27-91 | | | | LABORATORY: Shipping I.D. #: Carrier: DOT Designation: | | | | SPECIAL INSTRUCTIONS/COMMENTS: (NO SAMPLE FOR B3/52). | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| RECEIVED BY: Signature: <i>Pete Smith</i> Printed Name: Peter Smithson Firm: AMLP Date/Time: 9/27/91 07:15 | | | | RECEIVED BY: Signature: <i>William M. Lesieur</i> Printed Name: Dawn M. Lesieur Firm: NTL Date/Time: 09-27-91 (0930) | | | | RECEIVED BY: Signature: <i>William M. Lesieur</i> Printed Name: Dawn M. Lesieur Firm: NTL Date/Time: 09-27-91 (0930) | | | | RECEIVED BY: Signature: <i>William M. Lesieur</i> Printed Name: Dawn M. Lesieur Firm: NTL Date/Time: 09-27-91 (0930) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |



RITTENHOUSE-ZEMAN & ASSOCIATES, INC.
ENVIRONMENTAL CONSULTANTS

1400 140th AVENUE NE
BELLEVUE, WASHINGTON 98005
(206)746-8020 FAX#(206)746-6364

CHAIN OF CUSTODY RECORD / LABORATORY ANALYSES REQUEST

| | | | | | |
|----------------------------------|--------------------------------------|--|--------------------------------------|---|--|
| JOB #: A-1271 | | ANALYSIS REQUESTED: Circle, Check Box, or Write Preferred Method in Box | | OTHER: (Write in) | |
| PROJECT NAME: ML & P | | Total Petrol. Hydrocarbons EPA 418.1 | | Hold for Future Analysis | |
| RZA CONTACT: JAMES SMITH | | Fuel Scan/TPH by GC EPA 8015-mod | | | |
| PHONE #: (907) 276-6480 | | Halogenated Volatiles EPA 801 EPA 8010 | | | |
| SAMPLE ID # | DATE | TIME | PRESERV. | MATRIX | |
| 1B3/51 | 9/26 | | CHILLED | SOIL | |
| 2B3/53 | | | ↓ | ↓ | |
| 3B3/54 | | | ↓ | ↓ | |
| 4B3/55 | | | ↓ | ↓ | |
| 5B3/56 | 9/26 | | CHILLED | SOIL | |
| 6 | | | | | |
| 7 | | | | | |
| 8 | | | | | |
| 9 | | | | | |
| 10 | | | | | |
| 11 | | | | | |
| 12 | | | | | |
| RELINQUISHED BY RZA: | | RELINQUISHED BY: | | LABORATORY: | |
| Signature: <i>Mark N. Rogers</i> | Signature: <i>James Smith</i> | Signature: | Signature: | SAMPLE RECEIPT: | |
| Printed Name: Mark N. Rogers | Printed Name: James Smith | Printed Name: | Printed Name: | Total # Containers: | |
| Firm: RZA, INC. | Firm: AMLP | Firm: | Firm: | Condition of Containers? | |
| Date/Time: 9/27/91 07:15 | Date/Time: 9/27/91 7:07S | Date/Time: | Date/Time: | Condition of Seals? | |
| RECEIVED BY: | RECEIVED BY: | RECEIVED BY: | RECEIVED BY: | SPECIAL INSTRUCTIONS/COMMENTS: (NO SAMPLE FOR B3/52). | |
| Signature: <i>James Smith</i> | Signature: <i>William M. Asquith</i> | Signature: <i>William M. Asquith</i> | Signature: <i>William M. Asquith</i> | | |
| Printed Name: James Smith | Printed Name: Peter Smithson | Printed Name: William M. Asquith | Printed Name: William M. Asquith | | |
| Firm: AMLP | Firm: AMLP | Firm: AMLP | Firm: AMLP | | |
| Date/Time: 9/27/91 07:15 | Date/Time: 9/27/91 07:15 | Date/Time: 9/27/91 07:15 | Date/Time: 9/27/91 07:15 | | |



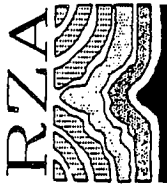
RZA
RITTENHOUSE-ZEMAN & ASSOCIATES, INC.
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| PROJECT NAME: ML & P | | | | | | | | | | | | | | | | | | | | |
| RZA CONTACT: JAMES SMITH | | | | | | | | | | | | | | | | | | | | |
| PHONE #: (907) 226-6480 | | | | | | | | | | | | | | | | | | | | |
| SAMPLE ID # | DATE | TIME | MATRIX | Total Petrol. Hydrocarbons EPA 418.1 | Fuel Scan/TPH by GC EPA 8015-mod | Halogenated Volatiles EPA 801 EPA 8010 | Aromatics EPA 802 EPA 8020 | PolyNuclear Aromatics EPA 810 8310 | Total Halogens (TOX) EPA 9076 | Total Metals ICP AA | TCLP Metals EPA 1311 | Purgeable Organics GC/MS: EPA 8240 824 | Base/Neut./Acid/Organics GC/MS: EPA 825 8270 | PCB EPA 808 8080 | Ignitability (Flash) EPA 1010 | # of Containers | | | Hold for Future Analysis | Detection Limits Desired |
| 1 | 04/51 | 9:26 | CHILLED SOIL | | | | | | | | | | | | | | | | | |
| 2 | 04/52 | ↓ | ↓ | | | | | | | | | | | | | | | | | |
| 3 | 04/53 | ↓ | ↓ | | | | | | | | | | | | | | | | | |
| 4 | 04/54 | ↓ | ↓ | | | | | | | | | | | | | | | | | |
| 5 | 04/55 | 9:26 | CHILLED SOIL | | | | | | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | | | | | | | | | |
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| | | | |
|----------------------------------|--------------------------------------|---------------------------------------|-------------------------------|
| RELINQUISHED BY RZA: | RELINQUISHED BY: | LABORATORY: | SAMPLE RECEIPT: |
| Signature: <i>Mark W. Rogers</i> | Signature: <i>Peter E. Smith</i> | | A114414 → 418 |
| Printed Name: Mark W. Rogers | Printed Name: Peter E. Smith | Shipping I.D. #: | Total # Containers: 5 |
| File: RZA, INC | File: M&P | Carrier: | Condition of Containers? good |
| Date/Time: 4-27-91 0745 | Date/Time: 4-27-91 1015 | DOT Designation: | Condition of Seals? good |
| RECEIVED BY: | RECEIVED BY: | SPECIAL INSTRUCTIONS/COMMENTS: | |
| Signature: <i>Peter E. Smith</i> | Signature: <i>William M. LeJeune</i> | | |
| Printed Name: Peter E. Smith | Printed Name: William M. LeJeune | | |
| File: M&P | File: NTL | | |
| Date/Time: 4-27-91 0745 | Date/Time: 04-27-91 0930 | | |



RITTENHOUSE-ZEMAN & ASSOCIATES, INC.
ENVIRONMENTAL CONSULTANTS

1400 140th AVENUE NE
BELLEVUE, WASHINGTON 98005
(206)746-8020 FAX#(206)746-6364

CHAIN OF CUSTODY RECORD / LABORATORY ANALYSES REQUEST

| | | | | | | | | | | | | | | | | | |
|---------------------------------------|--|---|--|--------------------------------|--|--|--|--|--|--|--|--|--|--------------------------|--|--|--|
| JOB #: A-1271 | | ANALYSIS REQUESTED: (Circle, Check Box, or Write Preferred Method in Box) | | | | | | | | | | OTHER: (Write in) | | | | | |
| PROJECT NAME: ML & P | | Total Petrol. Hydrocarbons EPA 418 I | | | | | | | | | | Total Metals ICP AA | | | | | |
| RZA CONTACT: JAMES SMITH | | Fuel Scan/TPH by GC EPA 8015-mod. | | | | | | | | | | Total Halogens (TOX) EPA 9076 | | | | | |
| PHONE #: (907) 276-6480 | | Halogenated Volatiles EPA 801 EPA 8010 | | | | | | | | | | PolyNuclear Aromatics EPA 810 8310 | | | | | |
| SAMPLE ID # DATE TIME PRESERV. MATRIX | | Aromatics EPA 802 EPA 8020 | | | | | | | | | | GC/MS: EPA 8240 8240 | | | | | |
| 1 B4/51 9/26 CHILLED SOIL | | EPA 601 EPA 8010 | | | | | | | | | | Purgeable Organics GC/MS: EPA 8240 8240 | | | | | |
| 2 B4/52 CHILLED SOIL | | EPA 8015-mod. | | | | | | | | | | Base/Neut/Acid/Organics GC/MS: EPA 826 8270 | | | | | |
| 3 B4/53 CHILLED SOIL | | EPA 8015-mod. | | | | | | | | | | PCB EPA 808 8080 | | | | | |
| 4 B4/54 CHILLED SOIL | | EPA 8015-mod. | | | | | | | | | | Ignitability (Flash) EPA 1010 | | | | | |
| 5 B4/55 9/26 CHILLED SOIL | | EPA 8015-mod. | | | | | | | | | | Detection Limits Desired | | | | | |
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| 12 | | | | | | | | | | | | | | | | | |
| RELINQUISHED BY RZA: | | RELINQUISHED BY: | | LABORATORY: | | | | | | | | | | SAMPLE RECEIPT: | | | |
| Signature: Mark W. Rogers | | Signature: Peter Smith | | Signature: [Signature] | | | | | | | | | | Total # Containers: | | | |
| Printed Name: Mark W. Rogers | | Printed Name: Peter Smith | | Shipping I.D. #: | | | | | | | | | | Condition of Containers? | | | |
| Firm: RZA, INC | | Firm: AMREP | | Carrier: | | | | | | | | | | Condition of Seals? | | | |
| Date/Time: 12/29/01 07:15 | | Date/Time: 1/2/02 10:15 | | DOT Designation: | | | | | | | | | | | | | |
| RECEIVED BY: | | RECEIVED BY: | | SPECIAL INSTRUCTIONS/COMMENTS: | | | | | | | | | | | | | |
| Signature: Peter Smith | | Signature: [Signature] | | Date/Time: 12/29/01 07:15 | | | | | | | | | | | | | |
| Printed Name: Peter Smith | | Printed Name: [Name] | | Date/Time: 12/29/01 07:15 | | | | | | | | | | | | | |
| Firm: AMREP | | Firm: AMREP | | Date/Time: 12/29/01 07:15 | | | | | | | | | | | | | |



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 BELLEVUE, WASHINGTON 98005
 (206)746-8020 FAX#(206)746-6364

CHAIN OF CUSTODY RECORD / LABORATORY ANALYSES REQUEST

| | | | | | | | | | | | | | | | | | | | | | |
|--------------------------------|-------|---|--|--------------------------------|--|--------------------------------|--|--------------------------------|--|--------------------------------|--|--------------------------------|---|---------------------------------------|--|----------------------------------|--|------------------------------------|--|--------------------------------|--|
| JOB #: A-1271 | | ANALYSIS REQUESTED: (Circle, Check Box, or Write Preferred Method in Box) | | | | | | | | | | | | OTHER: (Write in) | | | | | | | |
| PROJECT NAME: ML & P | | Total Petrol. Hydrocarbons EPA 418.1 | | | | | | | | | | | | Total Metals EPA 9076 | | | | Hold for Future Analysis | | | |
| RZA CONTACT: JAMES SMITH | | Fuel Scan/TPH by GC EPA 8015-mod. | | | | | | | | | | | | Total Halogens (TOX) EPA 9076 | | | | GC/MS: EPA 8240 8270 | | | |
| PHONE #: (907) 276-6480 | | Halogenated Volatiles EPA 801 EPA 8010 | | | | | | | | | | | | PolyNuclear Aromatics EPA 810 8310 | | | | Purgeable Organics EPA 8240 824 | | | |
| SAMPLE ID # | | DATE TIME | | PRESERV. | | MATRIX | | Aromatics EPA 802 EPA 8020 | | GC/MS: EPA 625 8270 | | Base/Neut/Acid/Organics | | PCB EPA 808 8080 | | Ignitability (Flash) EPA 1010 | | # of Containers | | Detection Limits Desired | |
| 1 | B5/51 | 9/27 | | CHILLED | | SOL. | | X | | | | | X | | | | | | | | |
| 2 | B5/52 | | | | | | | | | | | | | | | | | | | | |
| 3 | B5/53 | | | | | | | | | | | | | | | | | | | | |
| 4 | B5/54 | | | | | | | | | | | | | | | | | | | | |
| 5 | B5/55 | 9/27 | | CHILLED | | SOL. | | | | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | | | | | | | | | | |
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| 11 | | | | | | | | | | | | | | | | | | | | | |
| 12 | | | | | | | | | | | | | | | | | | | | | |
| RELINQUISHED BY RZA: | | RELINQUISHED BY: | | RELINQUISHED BY: | | RECEIVED BY: | | RECEIVED BY: | | RECEIVED BY: | | RECEIVED BY: | | RECEIVED BY: | | RECEIVED BY: | | RECEIVED BY: | | RECEIVED BY: | |
| Signature: Mark W. Rogers | | Signature: Mark W. Rogers | | Signature: Mark W. Rogers | | Signature: Mark W. Rogers | | Signature: Mark W. Rogers | | Signature: Mark W. Rogers | | Signature: Mark W. Rogers | | Signature: Mark W. Rogers | | Signature: Mark W. Rogers | | Signature: Mark W. Rogers | | Signature: Mark W. Rogers | |
| Printed Name: MARK W. ROGERS | | Printed Name: MARK W. ROGERS | | Printed Name: MARK W. ROGERS | | Printed Name: MARK W. ROGERS | | Printed Name: MARK W. ROGERS | | Printed Name: MARK W. ROGERS | | Printed Name: MARK W. ROGERS | | Printed Name: MARK W. ROGERS | | Printed Name: MARK W. ROGERS | | Printed Name: MARK W. ROGERS | | Printed Name: MARK W. ROGERS | |
| Time: RZA, INC. | | Time: MWRP | | Time: MWRP | | Time: MWRP | | Time: MWRP | | Time: MWRP | | Time: MWRP | | Time: MWRP | | Time: MWRP | | Time: MWRP | | Time: MWRP | |
| Date/Time: 9/27/91 16:00 | | Date/Time: 9-30-91 1:20 PM | | Date/Time: 9-30-91 1:20 PM | | Date/Time: 9-30-91 1:20 PM | | Date/Time: 9-30-91 1:20 PM | | Date/Time: 9-30-91 1:20 PM | | Date/Time: 9-30-91 1:20 PM | | Date/Time: 9-30-91 1:20 PM | | Date/Time: 9-30-91 1:20 PM | | Date/Time: 9-30-91 1:20 PM | | Date/Time: 9-30-91 1:20 PM | |
| RECEIVED BY: | | RECEIVED BY: | | RECEIVED BY: | | RECEIVED BY: | | RECEIVED BY: | | RECEIVED BY: | | RECEIVED BY: | | RECEIVED BY: | | RECEIVED BY: | | RECEIVED BY: | | RECEIVED BY: | |
| Signature: J.L. Smith | | Signature: J.L. Smith | | Signature: J.L. Smith | | Signature: J.L. Smith | | Signature: J.L. Smith | | Signature: J.L. Smith | | Signature: J.L. Smith | | Signature: J.L. Smith | | Signature: J.L. Smith | | Signature: J.L. Smith | | Signature: J.L. Smith | |
| Printed Name: J.L. Smith | | Printed Name: J.L. Smith | | Printed Name: J.L. Smith | | Printed Name: J.L. Smith | | Printed Name: J.L. Smith | | Printed Name: J.L. Smith | | Printed Name: J.L. Smith | | Printed Name: J.L. Smith | | Printed Name: J.L. Smith | | Printed Name: J.L. Smith | | Printed Name: J.L. Smith | |
| Time: AMLP | | Time: NTL ANCH | | Time: NTL ANCH | | Time: NTL ANCH | | Time: NTL ANCH | | Time: NTL ANCH | | Time: NTL ANCH | | Time: NTL ANCH | | Time: NTL ANCH | | Time: NTL ANCH | | Time: NTL ANCH | |
| Date/Time: 9-27-91 1600 | | Date/Time: 9-30-91 1600 | | Date/Time: 9-30-91 1600 | | Date/Time: 9-30-91 1600 | | Date/Time: 9-30-91 1600 | | Date/Time: 9-30-91 1600 | | Date/Time: 9-30-91 1600 | | Date/Time: 9-30-91 1600 | | Date/Time: 9-30-91 1600 | | Date/Time: 9-30-91 1600 | | Date/Time: 9-30-91 1600 | |
| LABORATORY: | | LABORATORY: | | LABORATORY: | | LABORATORY: | | LABORATORY: | | LABORATORY: | | LABORATORY: | | LABORATORY: | | LABORATORY: | | LABORATORY: | | LABORATORY: | |
| Shipping I.D. #: | | Shipping I.D. #: | | Shipping I.D. #: | | Shipping I.D. #: | | Shipping I.D. #: | | Shipping I.D. #: | | Shipping I.D. #: | | Shipping I.D. #: | | Shipping I.D. #: | | Shipping I.D. #: | | Shipping I.D. #: | |
| Carrier: | | Carrier: | | Carrier: | | Carrier: | | Carrier: | | Carrier: | | Carrier: | | Carrier: | | Carrier: | | Carrier: | | Carrier: | |
| DOT Designation: | | DOT Designation: | | DOT Designation: | | DOT Designation: | | DOT Designation: | | DOT Designation: | | DOT Designation: | | DOT Designation: | | DOT Designation: | | DOT Designation: | | DOT Designation: | |
| SPECIAL INSTRUCTIONS/COMMENTS: | | SPECIAL INSTRUCTIONS/COMMENTS: | | SPECIAL INSTRUCTIONS/COMMENTS: | | SPECIAL INSTRUCTIONS/COMMENTS: | | SPECIAL INSTRUCTIONS/COMMENTS: | | SPECIAL INSTRUCTIONS/COMMENTS: | | SPECIAL INSTRUCTIONS/COMMENTS: | | SPECIAL INSTRUCTIONS/COMMENTS: | | SPECIAL INSTRUCTIONS/COMMENTS: | | SPECIAL INSTRUCTIONS/COMMENTS: | | SPECIAL INSTRUCTIONS/COMMENTS: | |
| Total # Containers: | | Total # Containers: | | Total # Containers: | | Total # Containers: | | Total # Containers: | | Total # Containers: | | Total # Containers: | | Total # Containers: | | Total # Containers: | | Total # Containers: | | Total # Containers: | |
| Condition of Containers? | | Condition of Containers? | | Condition of Containers? | | Condition of Containers? | | Condition of Containers? | | Condition of Containers? | | Condition of Containers? | | Condition of Containers? | | Condition of Containers? | | Condition of Containers? | | Condition of Containers? | |
| Condition of Seals? | | Condition of Seals? | | Condition of Seals? | | Condition of Seals? | | Condition of Seals? | | Condition of Seals? | | Condition of Seals? | | Condition of Seals? | | Condition of Seals? | | Condition of Seals? | | Condition of Seals? | |



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1400 140th AVENUE NE
BELLEVUE, WASHINGTON 98005
(206)746-8020 FAX#(206)746-6364

CHAIN OF CUSTODY RECORD / LABORATORY ANALYSES REQUEST

| | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|--------|------|----------|--|------|--------------------------------------|-----------------------------------|--|----------------------------|---------------------------------------|-------------------------------|--------------------------------|----------------------|---------------------------------------|---|--------------------------|-------------------------------|--|--|--------------------------|-------------------|-----------------|--------------------------|--|
| JOB #: A-1271 | | | | ANALYSIS REQUESTS: (Circle, Check Box, or Write Preferred Method in Box) | | | | | | | | | | | | | | | | | OTHER: (Write in) | | | |
| PROJECT NAME: ML & P | | | | | | | | | | | | | | | | | | | | | | | | |
| RZA CONTACT: JAMES SMITH | | | | | | | | | | | | | | | | | | | | | | | | |
| PHONE #: (907) 276-6480 | | | | | | | | | | | | | | | | | | | | | | | | |
| SAMPLE ID # | DATE | TIME | PRESERV. | MATRIX | BTEX | Total Petrol. Hydrocarbons EPA 418.1 | Fuel Scan/TPH by GC EPA 8015-mod. | Halogenated Volatiles EPA 801 EPA 8010 | Aromatics EPA 802 EPA 8020 | PolyNuclear Aromatics EPA 810 EPA 810 | Total Halogens (TOX) EPA 9076 | ICP AA | TCDF Metals EPA 1311 | Purgeable Organics GC/MS EPA 8240 824 | Base/Neut./Acid/Organics GC/MS EPA 825 8270 | PCB EPA 808 8080 | Ignitability (Flash) EPA 1010 | | | Hold for Future Analysis | | # of Containers | Detection Limits Desired | |
| 1 | 8/5/91 | 9/27 | CHILLED | SOIL | X | X | | X | | | | | | | | X | | | | | | | | |
| 2 | 8/5/91 | | ↓ | ↓ | | | | | | | | | | | | | | | | | | | | |
| 3 | 8/5/91 | | ↓ | ↓ | | | | | | | | | | | | | | | | | | | | |
| 4 | 8/5/91 | | ↓ | ↓ | | | | | | | | | | | | | | | | | | | | |
| 5 | 8/5/91 | | CHILLED | SOIL | | | | | | | | | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | | | | | | | | | | | | | |
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| 12 | | | | | | | | | | | | | | | | | | | | | | | | |
| RELINQUISHED BY RZA: | | | | RELINQUISHED BY: | | | | RELINQUISHED BY: | | | | LABORATORY: | | | | SAMPLE RECEIPT: | | | | | | | | |
| Signature: <i>Mark W. Rogers</i> | | | | Signature: <i>Mark W. Rogers</i> | | | | Signature: <i>Mark W. Rogers</i> | | | | Shipping I.D. #: | | | | Total # Containers: | | | | | | | | |
| Printed Name: MARK W. ROGERS | | | | Printed Name: MARK W. ROGERS | | | | Printed Name: MARK W. ROGERS | | | | Carrier: | | | | Condition of Containers? | | | | | | | | |
| Time: 16:00 | | | | Time: 16:00 | | | | Time: 16:00 | | | | DOT Designation: | | | | Condition of Seals? | | | | | | | | |
| Date/Time: 8/27/91 16:00 | | | | Date/Time: 8/27/91 16:00 | | | | Date/Time: 8/27/91 16:00 | | | | SPECIAL INSTRUCTIONS/COMMENTS: | | | | | | | | | | | | |
| RECEIVED BY: | | | | RECEIVED BY: | | | | RECEIVED BY: | | | | | | | | | | | | | | | | |
| Signature: <i>Pete Smithson</i> | | | | Signature: <i>Stephen D. Oliver</i> | | | | Signature: <i>Stephen D. Oliver</i> | | | | | | | | | | | | | | | | |
| Printed Name: Pete Smithson | | | | Printed Name: Stephen D. Oliver | | | | Printed Name: Stephen D. Oliver | | | | | | | | | | | | | | | | |
| Time: 1600 | | | | Time: NTL ANCH | | | | Time: NTL ANCH | | | | | | | | | | | | | | | | |
| Date/Time: 8-27-91 1600 | | | | Date/Time: 8-28-30/sep/91 | | | | Date/Time: 8-28-30/sep/91 | | | | | | | | | | | | | | | | |

DISTRIBUTION: WHITE-return to originator; YELLOW-lab; PINK-retained by originator.



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ENVIRONMENTAL CONSULTANTS

1400 140th AVENUE NE
BELLEVUE, WASHINGTON 98005
(206)746-8020 FAX#(206)746-6364

CHAIN OF CUSTODY RECORD / LABORATORY ANALYSES REQUEST

JOB #: A-1221

PROJECT NAME: ML & P

RZA CONTACT: JAMES SMITH

PHONE #: (907) 276-6480

| SAMPLE ID # | DATE | TIME | PRESERV. | MATRIX |
|-------------|------|------|----------|--------|
| 186151 | 9/27 | | CHILLED | SOIL |
| 286152 | | | ↓ | ↓ |
| 386154 | 9/27 | | CHILLED | SOIL |
| 4 | | | | |
| 5 | | | | |
| 6 | | | | |
| 7 | | | | |
| 8 | | | | |
| 9 | | | | |
| TL | | | | |
| TL | | | | |
| TL | | | | |

ANALYSIS REQUESTED: (Circle, Check Box, or Write Preferred Method in Box) OTHER: (Write in)

| Analysis | Requested | Method | Notes |
|----------------------------|-------------------------------------|---------------------|-------|
| Total Petrol. Hydrocarbons | <input checked="" type="checkbox"/> | EPA 418.1 | |
| Fuel Scan/TPH by GC | <input checked="" type="checkbox"/> | EPA 8015-mod. | |
| Halogenated Volatiles | <input checked="" type="checkbox"/> | EPA 801 EPA 8010 | |
| Aromatics | <input checked="" type="checkbox"/> | EPA 802 EPA 8020 | |
| PolyNuclear Aromatics | <input checked="" type="checkbox"/> | EPA 810 8310 | |
| Total Halogens (TOX) | <input checked="" type="checkbox"/> | EPA 9076 | |
| Total Metals | <input checked="" type="checkbox"/> | ICP AA | |
| TCLP Metals | <input checked="" type="checkbox"/> | EPA 1311 | |
| Purgeable Organics | <input checked="" type="checkbox"/> | GC/MS: EPA 8240 824 | |
| Base/Neut/Acid/Organics | <input checked="" type="checkbox"/> | GC/MS: EPA 825 8270 | |
| PCB | <input checked="" type="checkbox"/> | EPA 808 8080 | |
| Ignitability (Flash) | <input checked="" type="checkbox"/> | EPA 1010 | |

LABORATORY: RELINQUISHED BY: Signature: *[Signature]* Printed Name: MARK W. ROSEES Time: 12:30 PM Date/Time: 9/27/91 16:00

RECEIVED BY: Signature: *[Signature]* Printed Name: STEPHEN D. OLIVER Time: NTL Arch Date/Time: 15:00 20 Sept 91

RECEIVED BY: Signature: *[Signature]* Printed Name: Peter Smithson Time: AML + P Date/Time: 9/27/91 1600

RECEIVED BY: Signature: *[Signature]* Printed Name: STEPHEN D. OLIVER Time: NTL Arch Date/Time: 15:00 20 Sept 91

SPECIAL INSTRUCTIONS/COMMENTS:

LABORATORY: RELINQUISHED BY: Signature: *[Signature]* Printed Name: MARK W. ROSEES Time: 12:30 PM Date/Time: 9/27/91 16:00

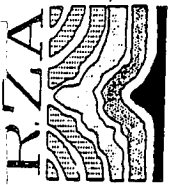
RECEIVED BY: Signature: *[Signature]* Printed Name: STEPHEN D. OLIVER Time: NTL Arch Date/Time: 15:00 20 Sept 91

RECEIVED BY: Signature: *[Signature]* Printed Name: Peter Smithson Time: AML + P Date/Time: 9/27/91 1600

SAMPLE RECEIPT: Total # Containers: Condition of Containers? Condition of Seals?

Shipping I.D. #: Carrier: DOT Designation:

Hold for Future Analysis / of Containers Detection Limits Desired



RITTENHOUSE-ZEMAN & ASSOCIATES, INC.
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(206)746-8020 FAX#(206)746-6364

CHAIN OF CUSTODY RECORD / LABORATORY ANALYSES REQUEST

JOB #: A-1221

PROJECT NAME: ML #P

RZA CONTACT: JAMES SMITH

PHONE #: (907) 276-6480

| SAMPLE ID # | DATE | TIME | PRESERV. | MATRIX |
|-------------|------|------|----------|--------|
| 186151 | 9/27 | | CHILLED | SOIL |
| 286152 | ↓ | | ↓ | ↓ |
| 386154 | 9/27 | | CHILLED | SOIL |
| 4 | | | | |
| 5 | | | | |
| 6 | | | | |
| 7 | | | | |
| 8 | | | | |
| 9 | | | | |
| 10 | | | | |
| 11 | | | | |
| 12 | | | | |

ANALYSIS REQUESTED: (Circle, Check Box, or Write Preferred Method in Box) OTHER: (Write in)

| BTX | Total Petrol. Hydrocarbons EPA 418.1 | Fuel Scan/TPH by GC EPA 8015-mod | Halogenated Volatiles EPA 801 EPA 8010 | Aromatics EPA 802 EPA 8020 | PolyNuclear Aromatics EPA 810 8310 | Total Halogens (TOX) EPA 9076 | Total Metals ICP AA | TCLP Metals EPA 1311 | Purgeable Organics GC/MS EPA 8240 824 | Base/Neut./Acid/Organics GC/MS EPA 825 8270 | PCB EPA 808 8080 | Ignitability (Flash) EPA 1010 | Hold for Future Analysis | # of Containers | Detection Limits Desired |
|-----|--------------------------------------|----------------------------------|--|----------------------------|------------------------------------|-------------------------------|---------------------|----------------------|---------------------------------------|---|------------------|-------------------------------|--------------------------|-----------------|--------------------------|
| X | X | X | X | | | | | | | | X | | | | |

RELINQUISHED BY RZA: Signature: Mark W. Rogers, Printed Name: MARK W. ROGERS, Firm: RZA, INC., Date/Time: 9/27/91 16:00

RELINQUISHED BY: Signature: [Signature], Printed Name: KEVINE E SHINE, Firm: MRSHP, Date/Time: 9-30-91 1:20

RECEIVED BY: Signature: Peter Smithson, Printed Name: Peter Smithson, Firm: AML+P, Date/Time: 9-27-91 1600

RECEIVED BY: Signature: [Signature], Printed Name: Stephen P. Oliver, Firm: NTL Arch, Date/Time: 30 Sept 91

RECEIVED BY: Signature: [Signature], Printed Name: [Name], Firm: [Firm], Date/Time: [Date/Time]

LABORATORY: [Name], Shipping I.D. #: [Number], Carrier: [Name], DOT Designation: [Number]

SPECIAL INSTRUCTIONS/COMMENTS: [Text]

SAMPLE RECEIPT: Total # Containers: [Number], Condition of Containers?: [Text], Condition of Seals?: [Text]

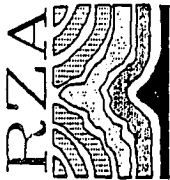


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CHAIN OF CUSTODY RECORD / LABORATORY ANALYSES REQUEST

| | | | | | |
|---------------------------------------|------|---|--------------|---------------------------------------|--|
| JOB #: A-1271 | | ANALYSIS REQUESTED: (Circle, Check Box, or Write Preferred Method in Box) | | OTHER: (Write in) | |
| PROJECT NAME: MUNICIPAL LIGHT & POWER | | Total Petrol. Hydrocarbons EPA 4181 | | Total Metals ICP AA | |
| RZA CONTACT: JAMES SMITH | | Fuel Scan/TPH by GC EPA 8015-mod. | | Total Halogens (TOX) EPA 9076 | |
| PHONE #: (907) 276-6480 | | Halogenated Volatiles EPA 601 EPA 8010 | | PolyNuclear Aromatics EPA 610 8310 | |
| SAMPLE ID # | | PRESERV. | | Aromatics EPA 602 EPA 8020 | |
| DATE | | MATRIX | | GC/MS: EPA 8240 824 | |
| TIME | | | | GC/MS: EPA 625 8270 | |
| 1 | B751 | 9/30 | CHILLED SOIL | PCB EPA 608 8080 | |
| 2 | B752 | ↓ | ↓ | Ignitability (Flash) EPA 1010 | |
| 3 | B753 | ↓ | ↓ | Hold for Future Analysis | |
| 4 | B754 | ↓ | ↓ | / of Containers | |
| 5 | B755 | 9/30 | CHILLED SOIL | Detection Limits Desired | |
| 6 | | | | | |
| 7 | | | | | |
| 8 | | | | | |
| 9 | | | | | |
| 10 | | | | | |
| 11 | | | | | |
| 12 | | | | | |
| RELINQUISHED BY RZA: | | RELINQUISHED BY: | | LABORATORY: | |
| Signature: Mark W. Rogers | | Signature: Leslie [Signature] | | SAMPLE RECEIPT: | |
| Printed Name: MARK W. ROGERS | | Printed Name: LESLIE E. SMITH | | Total # Containers: | |
| Time: [Blank] | | Time: [Blank] | | Condition of Containers? | |
| Date/Time: 9/30/91 11:00 | | Date/Time: 9/30/91 13:00 | | Condition of Seals? | |
| RECEIVED BY: | | RECEIVED BY: | | SPECIAL INSTRUCTIONS/COMMENTS: | |
| Signature: Peter Smithson | | Signature: Stephen D. DiVella | | | |
| Printed Name: Peter Smithson | | Printed Name: Stephen D. DiVella | | | |
| Time: [Blank] | | Time: [Blank] | | | |
| Date/Time: 9/30/91 1100 | | Date/Time: 30 Sept 91 | | | |

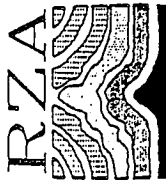


RITTENHOUSE-ZEMAN & ASSOCIATES, INC.
 ENVIRONMENTAL CONSULTANTS

1400 140th AVENUE NE
 BELLEVUE, WASHINGTON 98005
 (206)746-8020 FAX#(206)746-6364

CHAIN OF CUSTODY RECORD / LABORATORY ANALYSES REQUEST

| | | | | | | | | | | | | | | | | | | | |
|--|------|---|----------|--------------------------------|------|--------------------------------------|-----------------------------------|--|-------------------|------------------------------------|-------------------------------|---------------------|----------------------|---------------------------------------|--|------------------|-------------------------------|--|--|
| JOB #: A-1271 | | ANALYSIS REQUESTED: (Circle, Check Box, or Write Preferred Method in Box) OTHER: (Write in) | | | | | | | | | | | | | | | | | |
| PROJECT NAME: MUNICIPAL LIGHT #1 POWER | | Detection Limits Desired | | | | | | | | | | | | | | | | | |
| RZA CONTACT: JAMES SMITH | | / of Containers | | | | | | | | | | | | | | | | | |
| PHONE #: (907) 276-6480 | | Hold for Future Analysis | | | | | | | | | | | | | | | | | |
| SAMPLE ID # | DATE | TIME | PRESERV. | MATRIX | BTEX | Total Petrol. Hydrocarbons EPA 418.1 | Fuel Scan/TPH by GC EPA 8015-mod. | Halogenated Volatiles EPA 801 EPA 8010 | Aromatics EPA 802 | PolyNuclear Aromatics EPA 810 8310 | Total Halogens (TOX) EPA 9076 | Total Metals ICP AA | TCLP Metals EPA 1311 | Purgeable Organics GC/MS EPA 8240 824 | Nase/Neut/Acid/Organics GC/MS EPA 825 8270 | PCB EPA 808 8080 | Ignitability (Flash) EPA 1010 | | |
| 1B751 | 9/30 | | CHILLED | SOIL | X | | | X | | | | | | | | X | | | |
| 2B752 | | | | | | | | | | | | | | | | | | | |
| 3B753 | | | | | | | | | | | | | | | | | | | |
| 4B754 | | | | | | | | | | | | | | | | | | | |
| 5B755 | 9/30 | | CHILLED | SOIL | X | | | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | | | | | | |
| 11 | | | | | | | | | | | | | | | | | | | |
| 12 | | | | | | | | | | | | | | | | | | | |
| RELINQUISHED BY RZA: | | RELINQUISHED BY: | | LABORATORY: | | | | | | | | | | | | | | | |
| Signature: Mark W. Rogers | | Signature: Mark W. Rogers | | SAMPLE RECEIPT: | | | | | | | | | | | | | | | |
| Printed Name: MARK W. ROGERS | | Printed Name: MARK W. ROGERS | | Total # Containers: | | | | | | | | | | | | | | | |
| Firm: RZA, INC. | | Firm: RZA, INC. | | Condition of Containers? | | | | | | | | | | | | | | | |
| Date/Time: 9/30/91 11:00 | | Date/Time: 9/30/91 13:00 | | Condition of Seals? | | | | | | | | | | | | | | | |
| RECEIVED BY: | | RECEIVED BY: | | SPECIAL INSTRUCTIONS/COMMENTS: | | | | | | | | | | | | | | | |
| Signature: James Smith | | Signature: Stephen D. O'Neil | | | | | | | | | | | | | | | | | |
| Printed Name: Peter Smithson | | Printed Name: Stephen D. O'Neil | | | | | | | | | | | | | | | | | |
| Firm: AML | | Firm: ATL Anch | | | | | | | | | | | | | | | | | |
| Date/Time: 9/30/91 1100 | | Date/Time: 30 Sept 91 | | | | | | | | | | | | | | | | | |



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CHAIN OF CUSTODY RECORD / LABORATORY ANALYSES REQUEST

JOB #: A-1271

PROJECT NAME: ML & P

RZA CONTACT: JAMES SMITH

PHONE #: (907) 276-6480

| SAMPLE ID # | DATE | TIME | PRESERV. | MATRIX |
|-------------|-------|------|----------|--------|
| 1 | B8/51 | 9/25 | CHILLED | SOIL |
| 2 | B8/52 | | | |
| 3 | B8/53 | | | |
| 4 | B8/54 | | | |
| 5 | B8/55 | 9/25 | CHILLED | SOIL |
| 6 | | | | |
| 7 | | | | |
| 8 | | | | |
| 9 | | | | |
| 10 | | | | |
| 11 | | | | |
| 12 | | | | |

ANALYSIS REQUESTED: (Circle, Check Box, or Write Preferred Method in Box)

| | | |
|-----|--|--|
| BTX | Total Petrol. Hydrocarbons EPA 418.1 | |
| | Fuel Scan/TPH by GC EPA 8015-mod. | |
| | Halogenated Volatiles EPA 801 EPA 8010 | |
| | Aromatics EPA 802 EPA 8020 | |
| | PolyNuclear Aromatics EPA 810 8310 | |
| | Total Halogens (TOX) EPA 9076 | |
| | Total Metals ICP AA | |
| | TCLP Metals EPA 1311 | |
| | Purgeable Organics GC/MS: EPA 8240 824 | |
| | Base/Neut./Acid/Organics GC/MS: EPA 825 8270 | |
| | PCB EPA 808 8080 | |
| | Ignitability (Flash) EPA 1010 | |

OTHER: (Write in)

| | | | |
|------------------------------|----------------------------------|------------------|----------------------------------|
| RELIQUISHED BY RZA: | Signature: <i>Mark W. Rogers</i> | RELINQUISHED BY: | Signature: <i>Mark W. Rogers</i> |
| Printed Name: MARK W. ROGERS | Printed Name: Peter Smithen | Printed Name: | Printed Name: |
| Firm: RZA, INC. | Firm: AML+P | Firm: | Firm: |
| Date/Time: 9/25/91 16:00 | Date/Time: 9/25/91 1630 | Date/Time: | Date/Time: |
| RECEIVED BY: | Signature: <i>Peter Smithen</i> | RECEIVED BY: | Signature: <i>Peter Smithen</i> |
| Printed Name: Peter Smithen | Printed Name: ERIC W. AMUNDSON | Printed Name: | Printed Name: |
| Firm: AML+P | Firm: NTV | Firm: | Firm: |
| Date/Time: 9/25/91 1600 | Date/Time: 09/25/91 @ 1630 | Date/Time: | Date/Time: |

LABORATORY: RELINQUISHED BY: Signature: Printed Name: Firm: Date/Time:

SAMPLE RECEIPT: Total # Containers: Condition of Containers? Condition of Seals?

SPECIAL INSTRUCTIONS/COMMENTS:

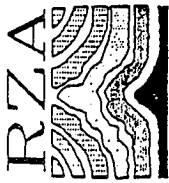


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CHAIN OF CUSTODY RECORD / LABORATORY ANALYSES REQUEST

| JOB #: A-1271 | | | | ANALYSIS REQUESTED: (Circle, Check Box, or Write Preferred Method in Box) | | | | | | | | | | | | OTHER: (Write in) | | | | |
|------------------------------|-------|------|----------|---|-------------------------------------|-----------------------------------|--|----------------------------|-------------------------------------|--------------------------------|---------------------|----------------------|--|--|--------------------------|-------------------------------|--------------------------|-----------------|--------------------------|--|
| PROJECT NAME: ML # P | | | | | | | | | | | | | | | | | | | | |
| RZA CONTACT: JAMES SMITH | | | | | | | | | | | | | | | | | | | | |
| PHONE #: (907) 276-6480 | | | | | | | | | | | | | | | | | | | | |
| SAMPLE ID # | DATE | TIME | PRESERV. | MATRIX | Total Petrol. Hydrocarbons EPA 4181 | Fuel Scan/TPH by GC EPA 8015-mod. | Halogenated Volatiles EPA 801 EPA 8010 | Aromatics EPA 802 EPA 8020 | Poly/Nuclear Aromatics EPA 810 8310 | Total Halogens (TOX) EPA 9076 | Total Metals ICP AA | TCLP Metals EPA 1311 | Purgeable Organics GC/MS: EPA 8240 824 | Base/Neut./Acid/Organics GC/MS: EPA 825 8270 | PCB EPA 808 8080 | Ignitability (Flash) EPA 1010 | Hold for Future Analysis | / of Containers | Detection Limits Desired | |
| 1 | B8/51 | 9/25 | CHILLED | SOIL | | | | | | | | | | | | | | | | |
| 2 | B8/52 | | | | | | | | | | | | | | | | | | | |
| 3 | B8/53 | | | | | | | | | | | | | | | | | | | |
| 4 | B8/54 | | | | | | | | | | | | | | | | | | | |
| 5 | B8/55 | 9/25 | CHILLED | SOIL | | | | | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | | | | | | | |
| 11 | | | | | | | | | | | | | | | | | | | | |
| 12 | | | | | | | | | | | | | | | | | | | | |
| RELIQUISHED BY RZA: | | | | | RELIQUISHED BY: | | | | | LABORATORY: | | | | | SAMPLE RECEIPT: | | | | | |
| Signature: Mark W. Rogers | | | | | Signature: Peter Smith | | | | | Signature: | | | | | Total # Containers: | | | | | |
| Printed Name: MARK W. ROGERS | | | | | Printed Name: Peter Smith | | | | | Signature: | | | | | Condition of Containers? | | | | | |
| Time: AML+P | | | | | Time: NTL | | | | | Carrier: | | | | | Condition of Seals? | | | | | |
| Date/Time: 9/25/91 16:00 | | | | | Date/Time: 09/25/91 1630 | | | | | DOT Designation: | | | | | | | | | | |
| RECEIVED BY: | | | | | RECEIVED BY: | | | | | SPECIAL INSTRUCTIONS/COMMENTS: | | | | | | | | | | |
| Signature: James Smith | | | | | Signature: Peter Smith | | | | | Signature: | | | | | | | | | | |
| Printed Name: Peter Smith | | | | | Printed Name: Peter Smith | | | | | Signature: | | | | | | | | | | |
| Time: AML+P | | | | | Time: NTL | | | | | Signature: | | | | | | | | | | |
| Date/Time: 9/25/91 1600 | | | | | Date/Time: 09/25/91 1630 | | | | | Signature: | | | | | | | | | | |



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BELLEVUE, WASHINGTON 98005
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CHAIN OF CUSTODY RECORD / LABORATORY ANALYSES REQUEST

| JOB #: A-1271 | | | | ANALYSIS REQUESTED: (Circle, Check Box, or Write Preferred Method in Box) OTHER: (Write in) | | | | | | | | | | | | | | | | | |
|----------------------------------|-------|------|----------|---|------------------------------------|--------------------------------------|-----------------------------------|--|----------------------------|--|-------------------------------|---------------------|----------------------|--|--|------------------|-------------------------------|--------------------------|-----------------|--------------------------|--|
| PROJECT NAME: ML # P | | | | | | | | | | | | | | | | | | | | | |
| RZA CONTACT: JAMES SMITH | | | | | | | | | | | | | | | | | | | | | |
| PHONE #: (907) 276-6480 | | | | | | | | | | | | | | | | | | | | | |
| SAMPLE ID # | DATE | TIME | PRESERV. | MATRIX | BTEX | Total Petrol. Hydrocarbons EPA 418.1 | Fuel Scan/TPH by GC EPA 8015-mod. | Halogenated Volatiles EPA 801 EPA 8010 | Aromatics EPA 802 EPA-8020 | PolyNuclear Aromatics EPA 810 8310 | Total Halogens (TOX) EPA 9076 | Total Metals ICP AA | TCLP Metals EPA 1311 | Purgeable Organics GC/MS: EPA 8240 824 | Base/Neu/Acid/Organics GC/MS: EPA 826 8270 | PCB EPA 808 8080 | Ignitability (Flash) EPA 1010 | Hold for Future Analysis | # of Containers | Detection Limits Desired | |
| 1 | B9/51 | 9/25 | CHILLED | SOIL | | | | | | | | | | | | | | | | | |
| 2 | B9/53 | | ↓ | ↓ | | | | | | | | | | | | | | | | | |
| 3 | B9/54 | | ↓ | ↓ | | | | | | | | | | | | | | | | | |
| 4 | B9/55 | | ↓ | ↓ | | | | | | | | | | | | | | | | | |
| 5 | B9/56 | 9/25 | CHILLED | SOIL | | | | | | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | | | | | | | | |
| 11 | | | | | | | | | | | | | | | | | | | | | |
| 12 | | | | | | | | | | | | | | | | | | | | | |
| RELINQUISHED BY RZA: | | | | | RELINQUISHED BY: | | | | | LABORATORY: | | | | | SAMPLE RECEIPT: | | | | | | |
| Signature: <i>Mark W. Rogers</i> | | | | | Signature: <i>James Smith</i> | | | | | Shipping I.D. #: | | | | | Total # Containers: | | | | | | |
| Printed Name: Mark W. Rogers | | | | | Printed Name: Peter Smithson | | | | | Carrier: | | | | | Condition of Containers? | | | | | | |
| Firm: RZA, INC | | | | | Firm: AMLAP | | | | | DOT Designation: | | | | | Condition of Seals? | | | | | | |
| Date/Time: 9/25/91 16:00 | | | | | Date/Time: 9/25/91 1630 | | | | | SPECIAL INSTRUCTIONS/COMMENTS: (NO SAMPLE FOR B9/52) | | | | | | | | | | | |
| RECEIVED BY: | | | | | RECEIVED BY: | | | | | | | | | | | | | | | | |
| Signature: <i>Pete Smithson</i> | | | | | Signature: <i>Eric W. Alwinson</i> | | | | | | | | | | | | | | | | |
| Printed Name: Peter Smithson | | | | | Printed Name: ERIC W ALWINSON | | | | | | | | | | | | | | | | |
| Firm: AMLAP | | | | | Firm: NW | | | | | | | | | | | | | | | | |
| Date/Time: 9/25/91 1600 | | | | | Date/Time: 9/25/91 @ 1630 | | | | | | | | | | | | | | | | |



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CHAIN OF CUSTODY RECORD / LABORATORY ANALYSES REQUEST

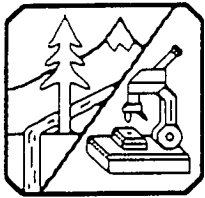
| JOB #: A-1271 | | | | ANALYSIS REQUESTED: (Circle, Check Box, or Write Preferred Method in Box) OTHER: (Write in) | | | | | | | | | | | | | | | | |
|--------------------------|---------|------|----------|---|--------------------------------------|----------------------------------|--|----------------------------|------------------------------------|-------------------------------|---------------------|----------------------|--|---|------------------|-------------------------------|--------------------------|-----------------|--------------------------|--|
| PROJECT NAME: ML & P | | | | | | | | | | | | | | | | | | | | |
| RZA CONTACT: JAMES SMITH | | | | | | | | | | | | | | | | | | | | |
| PHONE #: (907) 276-6480 | | | | | | | | | | | | | | | | | | | | |
| SAMPLE ID # | DATE | TIME | PRESERV. | MATRIX | Total Petrol. Hydrocarbons EPA 418.1 | Fuel Scn/TPH by GC EPA 8015-mod. | Halogenated Volatiles EPA 801 EPA 8010 | Aromatics EPA 802 EPA 8020 | PolyNuclear Aromatics EPA 810 8310 | Total Halogens (TOX) EPA 9076 | Total Metals ICP AA | TCLP Metals EPA 1311 | Purgeable Organics GC/MS: EPA 8240 824 | Base/Neut/Acid/Organics GC/MS: EPA 825 8270 | PCB EPA 808 8080 | Ignitability (Flash) EPA 1010 | Hold for Future Analysis | # of Containers | Detection Limits Desired | |
| 1 | 8/25/91 | 9:25 | CHILLED | SOIL | | | | | | | | | | | | | | | | |
| 2 | 8/29/91 | | ↓ | ↓ | | | | | | | | | | | | | | | | |
| 3 | 8/29/91 | | ↓ | ↓ | | | | | | | | | | | | | | | | |
| 4 | 8/29/91 | | ↓ | ↓ | | | | | | | | | | | | | | | | |
| 5 | 8/29/91 | 9:25 | CHILLED | SOIL | | | | | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | | | | | | | |
| 11 | | | | | | | | | | | | | | | | | | | | |
| 12 | | | | | | | | | | | | | | | | | | | | |

| | | | |
|--|------------------------------------|------------------|--------------------------|
| RELIQUISHED BY RZA: | RELIQUISHED BY: | LABORATORY: | SAMPLE RECEIPT: |
| Signature: <i>Mark W. Rogers</i> | Signature: <i>James Smith</i> | | |
| Printed Name: Mark W. Rogers | Printed Name: James Smith | | |
| Firm: RZA, INC | Firm: AML+P | | |
| Date/Time: 9/25/91 16:00 | Date/Time: 8/25/91 16:30 | | |
| RECEIVED BY: | RECEIVED BY: | Shipping I.D. #: | Total # Containers: |
| Signature: <i>Pete Smith</i> | Signature: <i>Eric W. Anderson</i> | | |
| Printed Name: Peter Smithson | Printed Name: Eric W. Anderson | | |
| Firm: AML+P | Firm: NW | Carrier: | Condition of Containers? |
| Date/Time: 9/25/91 16:00 | Date/Time: 8/25/91 16:30 | DOT Designation: | Condition of Seals? |
| SPECIAL INSTRUCTIONS/COMMENTS: (NO SAMPLE FOR BA/S2) | | | |

TABLE D-1

BORING - WATER SAMPLE CORRELATIONS

| <u>Boring</u> | <u>Water Sample</u> |
|---------------|---------------------|
| B-2 | WS-5 |
| B-3 | WS-4 WS-6 |
| B-4 | WS-3 |
| B-7 | WS-2 |
| B-9 | WS-1 |



NORTHERN TESTING LABORATORIES, INC.

3330 INDUSTRIAL AVENUE
2505 FAIRBANKS STREET

FAIRBANKS, ALASKA 99701
ANCHORAGE, ALASKA 99503

(907) 456-3116 • FAX 456-3125
(907) 277-8378 • FAX 274-9645

Municipal Light & Power
P.O. Box 196650
Anchorage AK 99519-6650

Report Date: 10/28/91

Date Arrived: 10/08/91

Date Sampled: 10/07/91

Time Sampled: -

Collected By: MWR

Attn: Peter Smithson

Definitions
MDL = Method Detection
Limit

B = Below Regulatory Min.

H = Above Regulatory Max.

E = Below Detection Limit

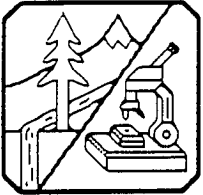
Estimated Value

Our Lab #: A114644
Location/Project: -
Your Sample ID: WS-1
Sample Matrix: Water
Comments:

| Method | Parameter | Units | Result Flag | MDL | Date Analyzed |
|---------|----------------------------|-------|-------------|-------|---------------|
| EPA 602 | Benzene | ug/l | <MDL | 0.2 | 10/23/91 |
| | Chlorobenzene | ug/l | <MDL | 0.2 | |
| | 1,2-Dichlorobenzene | ug/l | <MDL | 0.2 | |
| | 1,3-Dichlorobenzene | ug/l | <MDL | 0.2 | |
| | 1,4-Dichlorobenzene | ug/l | <MDL | 0.2 | |
| | Ethylbenzene | ug/l | <MDL | 0.2 | |
| | Toluene | ug/l | <MDL | 0.3 | |
| | Xylenes | ug/l | <MDL | 0.6 | |
| | Surrogate Spike (Recovery) | % | 117.0 | | |
| EPA 608 | Aroclor 1016 | ug/l | <MDL | 1.000 | 10/16/91 |
| | Aroclor 1221 | ug/l | <MDL | 1.000 | |
| | Aroclor 1232 | ug/l | <MDL | 1.000 | |
| | Aroclor 1242 | ug/l | <MDL | 1.000 | |
| | Aroclor 1248 | ug/l | <MDL | 1.000 | |
| | Aroclor 1254 | ug/l | <MDL | 1.000 | |
| | Aroclor 1260 | ug/l | <MDL | 1.000 | |
| | Surrogate Spike (Recovery) | % | 98 | | |



Reported By: William E. Buchan
Anchorage Operations Manager



NORTHERN TESTING LABORATORIES, INC.

3330 INDUSTRIAL AVENUE
2505 FAIRBANKS STREET

FAIRBANKS, ALASKA 99701
ANCHORAGE, ALASKA 99503

(907) 456-3116 • FAX 456-3125
(907) 277-8378 • FAX 274-9645

Municipal Light & Power
P.O. Box 196650
Anchorage AK 99519-6650

Report Date: 10/28/91

Date Arrived: 10/08/91

Date Sampled: 10/07/91

Time Sampled: -

Collected By: MWR

Attn: Peter Smithson

Definitions

MDL = Method Detection
Limit

B = Below Regulatory Min.

H = Above Regulatory Max.

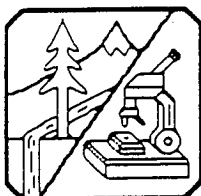
E = Below Detection Limit

Estimated Value

Our Lab #: A114645
Location/Project: -
Your Sample ID: WS-2
Sample Matrix: Water
Comments:

| Method | Parameter | Units | Result Flag | MDL | Date Analyzed |
|---------|----------------------------|-------|-------------|-------|---------------|
| EPA 602 | Benzene | ug/l | <MDL | 0.2 | 10/23/91 |
| | Chlorobenzene | ug/l | <MDL | 0.2 | |
| | 1,2-Dichlorobenzene | ug/l | <MDL | 0.2 | |
| | 1,3-Dichlorobenzene | ug/l | <MDL | 0.2 | |
| | 1,4-Dichlorobenzene | ug/l | <MDL | 0.2 | |
| | Ethylbenzene | ug/l | <MDL | 0.2 | |
| | Toluene | ug/l | <MDL | 0.3 | |
| | Xylenes | ug/l | <MDL | 0.6 | |
| | Surrogate Spike (Recovery) | % | | 120.0 | |
| EPA 608 | Aroclor 1016 | ug/l | <MDL | 1.000 | 10/16/91 |
| | Aroclor 1221 | ug/l | <MDL | 1.000 | |
| | Aroclor 1232 | ug/l | <MDL | 1.000 | |
| | Aroclor 1242 | ug/l | <MDL | 1.000 | |
| | Aroclor 1248 | ug/l | <MDL | 1.000 | |
| | Aroclor 1254 | ug/l | <MDL | 1.000 | |
| | Aroclor 1260 | ug/l | 1.700 | 1.000 | |
| | Surrogate Spike (Recovery) | % | | 90 | |

Reported By: William E. Buchan
Anchorage Operations Manager



NORTHERN TESTING LABORATORIES, INC.

3330 INDUSTRIAL AVENUE
2505 FAIRBANKS STREET

FAIRBANKS, ALASKA 99701
ANCHORAGE, ALASKA 99503

(907) 456-3116 • FAX 456-3125
(907) 277-8378 • FAX 274-9645

Municipal Light & Power
P.O. Box 196650
Anchorage AK 99519-6650

Report Date: 10/28/91

Date Arrived: 10/08/91

Date Sampled: 10/07/91

Time Sampled: -

Collected By: MWR

Attn: Peter Smithson

Definitions

MDL = Method Detection
Limit

B = Below Regulatory Min.

H = Above Regulatory Max.

E = Below Detection Limit

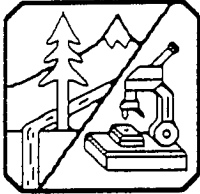
Estimated Value

Our Lab #: A114646
Location/Project: -
Your Sample ID: WS-3
Sample Matrix: Water
Comments:

| Method | Parameter | Units | Result Flag | MDL | Date Analyzed |
|---------|----------------------------|-------|-------------|-------|---------------|
| EPA 602 | Benzene | ug/l | <MDL | 0.2 | 10/23/91 |
| | Chlorobenzene | ug/l | <MDL | 0.2 | |
| | 1,2-Dichlorobenzene | ug/l | <MDL | 0.2 | |
| | 1,3-Dichlorobenzene | ug/l | <MDL | 0.2 | |
| | 1,4-Dichlorobenzene | ug/l | <MDL | 0.2 | |
| | Ethylbenzene | ug/l | <MDL | 0.2 | |
| | Toluene | ug/l | 0.5 | 0.3 | |
| | Xylenes | ug/l | 1.0 | 0.6 | |
| | Surrogate Spike (Recovery) | % | 110.0 | | |
| EPA 608 | Aroclor 1016 | ug/l | <MDL | 1.000 | 10/16/91 |
| | Aroclor 1221 | ug/l | <MDL | 1.000 | |
| | Aroclor 1232 | ug/l | <MDL | 1.000 | |
| | Aroclor 1242 | ug/l | <MDL | 1.000 | |
| | Aroclor 1248 | ug/l | <MDL | 1.000 | |
| | Aroclor 1254 | ug/l | <MDL | 1.000 | |
| | Aroclor 1260 | ug/l | 0.70 (<MDL) | 1.000 | |
| | Surrogate Spike (Recovery) | % | 82 | | |

William E. Buchan

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Anchorage Operations Manager



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Report Date: 10/28/91

Date Arrived: 10/08/91

Date Sampled: 10/07/91

Time Sampled: -

Collected By: MWR

Attn: Peter Smithson

Definitions
MDL = Method Detection
Limit

B = Below Regulatory Min.

H = Above Regulatory Max.

E = Below Detection Limit

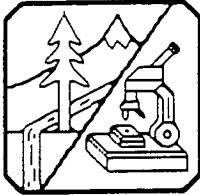
Estimated Value

Our Lab #: A114647
Location/Project: -
Your Sample ID: WS-4
Sample Matrix: Water

Comments: Due to heavy aroma, sample ran at dilution. Diesel pattern noted.

| Method | Parameter | Units | Result | Flag | MDL | Date Analyzed |
|---------|----------------------------|-------|--------|-------|-------|---------------|
| EPA 602 | Benzene | ug/l | <MDL | | 2.0 | 10/23/91 |
| | Chlorobenzene | ug/l | <MDL | | 2.0 | |
| | 1,2-Dichlorobenzene | ug/l | <MDL | | 2.0 | |
| | 1,3-Dichlorobenzene | ug/l | <MDL | | 2.0 | |
| | 1,4-Dichlorobenzene | ug/l | <MDL | | 2.0 | |
| | Ethylbenzene | ug/l | 5.7 | | 2.0 | |
| | Toluene | ug/l | <MDL | | 3.0 | |
| | Xylenes | ug/l | 78.0 | | 6.0 | |
| | Surrogate Spike (Recovery) | | % | 114.0 | | |
| EPA 608 | Aroclor 1016 | ug/l | <MDL | | 1.000 | 10/16/91 |
| | Aroclor 1221 | ug/l | <MDL | | 1.000 | |
| | Aroclor 1232 | ug/l | <MDL | | 1.000 | |
| | Aroclor 1242 | ug/l | <MDL | | 1.000 | |
| | Aroclor 1248 | ug/l | <MDL | | 1.000 | |
| | Aroclor 1254 | ug/l | <MDL | | 1.000 | |
| | Aroclor 1260 | ug/l | 16.000 | | 1.000 | |
| | Surrogate Spike (Recovery) | | % | 107 | | |

Reported By: William E. Buchan
Anchorage Operations Manager



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Municipal Light & Power
P.O. Box 196650
Anchorage AK 99519-6650

Report Date: 10/28/91

Date Arrived: 10/08/91

Date Sampled: 10/07/91

Time Sampled: -

Collected By: MWR

Attn: Peter Smithson

Definitions
MDL = Method Detection
Limit

B = Below Regulatory Min.

H = Above Regulatory Max.

E = Below Detection Limit

Estimated Value

Our Lab #: A114648

Location/Project: -

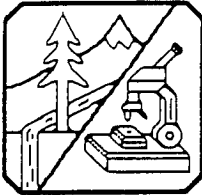
Your Sample ID: WS-5

Sample Matrix: Water

Comments: Due to heavy aroma, sample ran at dilution. Diesel pattern noted.

| Method | Parameter | Units | Result Flag | MDL | Date Analyzed |
|---------|----------------------------|----------------------------|-------------|-------|---------------|
| EPA 602 | Benzene | ug/l | <MDL | 2.0 | 10/23/91 |
| | Chlorobenzene | ug/l | <MDL | 2.0 | |
| | 1,2-Dichlorobenzene | ug/l | <MDL | 2.0 | |
| | 1,3-Dichlorobenzene | ug/l | <MDL | 2.0 | |
| | 1,4-Dichlorobenzene | ug/l | <MDL | 2.0 | |
| | Ethylbenzene | ug/l | <MDL | 2.0 | |
| | Toluene | ug/l | <MDL | 3.0 | |
| | Xylenes | ug/l | 8.9 | 6.0 | |
| | Surrogate Spike (Recovery) | % | 95.0 | | |
| EPA 608 | Aroclor 1016 | ug/l | <MDL | 1.000 | 10/16/91 |
| | Aroclor 1221 | ug/l | <MDL | 1.000 | |
| | Aroclor 1232 | ug/l | <MDL | 1.000 | |
| | Aroclor 1242 | ug/l | <MDL | 1.000 | |
| | Aroclor 1248 | ug/l | <MDL | 1.000 | |
| | Aroclor 1254 | ug/l | <MDL | 1.000 | |
| | Aroclor 1260 | ug/l | 0.90 (<MDL) | 1.000 | |
| | | Surrogate Spike (Recovery) | % | 110 | |

Reported By: William E. Buchan
Anchorage Operations Manager



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Municipal Light & Power
P.O. Box 196650
Anchorage AK 99519-6650

Report Date: 10/28/91

Date Arrived: 10/08/91

Date Sampled: 10/07/91

Time Sampled: -

Collected By: MWR

Attn: Peter Smithson

Definitions
MDL = Method Detection
Limit

B = Below Regulatory Min.

H = Above Regulatory Max.

E = Below Detection Limit

Estimated Value

Our Lab #: All14649
Location/Project: -
Your Sample ID: WS-6
Sample Matrix: Water

Comments: Due to heavy aroma, sample ran at dilution. Diesel pattern noted.

| Method | Parameter | Units | Result Flag | MDL | Date Analyzed |
|---------|----------------------------|----------------------------|-------------|-------|---------------|
| EPA 602 | Benzene | ug/l | <MDL | 2.0 | 10/23/91 |
| | Chlorobenzene | ug/l | <MDL | 2.0 | |
| | 1,2-Dichlorobenzene | ug/l | <MDL | 2.0 | |
| | 1,3-Dichlorobenzene | ug/l | <MDL | 2.0 | |
| | 1,4-Dichlorobenzene | ug/l | <MDL | 2.0 | |
| | Ethylbenzene | ug/l | <MDL | 2.0 | |
| | Toluene | ug/l | <MDL | 3.0 | |
| | Xylenes | ug/l | 17.0 | 6.0 | |
| | Surrogate Spike (Recovery) | % | 116.0 | | |
| EPA 608 | Aroclor 1016 | ug/l | <MDL | 1.000 | 10/16/91 |
| | Aroclor 1221 | ug/l | <MDL | 1.000 | |
| | Aroclor 1232 | ug/l | <MDL | 1.000 | |
| | Aroclor 1242 | ug/l | <MDL | 1.000 | |
| | Aroclor 1248 | ug/l | <MDL | 1.000 | |
| | Aroclor 1254 | ug/l | <MDL | 1.000 | |
| | Aroclor 1260 | ug/l | 23.000 | 1.000 | |
| | | Surrogate Spike (Recovery) | % | 95 | |

Reported By: William E. Buchan
Anchorage Operations Manager



RITTENHOUSE-ZEMAN & ASSOCIATES, INC.
ENVIRONMENTAL CONSULTANTS

1400 140th AVENUE NE
BELLEVUE, WASHINGTON 98005
(206)746-8020 FAX#(206)746-6364

CHAIN OF CUSTODY RECORD / LABORATORY ANALYSES REQUEST

| | | | | | | | | | | | | | | | | | | | |
|-------------------------------|------|------|---|--------|---|--------------------------------|--|--|--|--|--|--|--------------------------|--|--|--------------------------------|--|--|--|
| JOB #: A-1271 | | | ANALYSIS REQUESTED: (Circle, Check Box, or Write Preferred Method in Box) | | | | | | | | | | OTHER: (Write in) | | | | | | |
| PROJECT NAME: ML #P | | | Total Petrol. Hydrocarbons EPA 418.1 | | | | | | | | | | Hold for Future Analysis | | | | | | |
| RZA CONTACT: JAMES SMITH | | | Fuel Scan/TPH by GC EPA 8015-mod | | | | | | | | | | Detection Limits Desired | | | | | | |
| PHONE #: (907) 276-6480 | | | Halogenated Volatiles EPA 801 EPA 8010 | | | | | | | | | | 1 of Containers | | | | | | |
| SAMPLE ID # | DATE | TIME | PRESERV. | MATRIX | Aromatics EPA 802 EPA 8020 | | | | | | | | | | | | | | |
| 1 WS-1 | 10/7 | | CHILLED | WATER | PolyNuclear Aromatics EPA 610 8310 | | | | | | | | | | | | | | |
| 2 WS-2 | ↓ | | ↓ | ↓ | EPA 9076 | | | | | | | | | | | | | | |
| 3 WS-3 | ↓ | | ↓ | ↓ | Total Halogens (TOX) | | | | | | | | | | | | | | |
| 4 WS-4 | ↓ | | ↓ | ↓ | Total Metals ICP AA | | | | | | | | | | | | | | |
| 5 WS-5 | ↓ | | ↓ | ↓ | EPA 1311 | | | | | | | | | | | | | | |
| 6 WS-6 | 10/7 | | CHILLED | WATER | Purgeable Organics GC/MS EPA 8240 824 | | | | | | | | | | | | | | |
| 7 | | | | | Base/Neut./Acid/Organics GC/MS EPA 625 8270 | | | | | | | | | | | | | | |
| 8 | | | | | EPA 808 (Flash) | | | | | | | | | | | | | | |
| 9 | | | | | EPA 8080 | | | | | | | | | | | | | | |
| 10 | | | | | Ignitability (Flash) EPA 1010 | | | | | | | | | | | | | | |
| 11 | | | | | | | | | | | | | | | | | | | |
| 12 | | | | | | | | | | | | | | | | | | | |
| RELINQUISHED BY RZA: | | | RELINQUISHED BY: | | | LABORATORY: | | | | | | | | | | SAMPLE RECEIPT: | | | |
| Signature: Mark W. Rogers | | | Signature: Peter Smithson | | | NTL | | | | | | | | | | NTL | | | |
| Printed Name: Mark W. Rogers | | | Printed Name: Peter Smithson | | | Shipping I.D. #: NTL | | | | | | | | | | Total # Containers: 18 | | | |
| Firm: RZA, INC | | | Firm: AML #P | | | Carrier: | | | | | | | | | | Condition of Containers?: GOOD | | | |
| Date/Time: 10/7/91 18:00 | | | Date/Time: 10-8-91 10:58 | | | DOT Designation: | | | | | | | | | | Condition of Seals? GOOD | | | |
| RECEIVED BY: | | | RECEIVED BY: | | | SPECIAL INSTRUCTIONS/COMMENTS: | | | | | | | | | | | | | |
| Signature: Craig S. Ness | | | Signature: Eric W. Amundson | | | | | | | | | | | | | | | | |
| Printed Name: CRAIG S. NESS | | | Printed Name: ERIC W. AMUNDSON | | | | | | | | | | | | | | | | |
| Firm: Municipal Light & Power | | | Firm: NTL | | | | | | | | | | | | | | | | |
| Date/Time: 10-7-91 6:00 p.m. | | | Date/Time: 10/8/91 9:10 | | | | | | | | | | | | | | | | |