

APPENDIX A
ANALYTICAL LABORATORY REPORTS

1983 EPA Analytical Reports

- **Baghouse EP Toxicity**
- **Fish Bioassy**
- **Biomed Analyses**



ENVIRONMENTAL LABORATORY
DATA SUMMARY
METALS

DATE: 5/11/83
ORIGINAL TO: LAB FILES
COPIES TO: M. J. C. Hall
J. H. Hall

SOURCE SPokane Steel Foundry

PROGRAM NUMBER Q30-1-673

DATE COLLECTED 5/11/83

RECEIVED _____

COLLECTED BY _____

Sample (Log) Number	Units	Standard Deviation ± %	132	132	132	132
Station			087	088	089	090
Station			1	2	3	4
Zn						
Ag-EP _{tox}	mg/L	10	<0.02	<0.02	<0.02	<0.02
Pb - " "	"	"	0.22	1.2	6.0	1.0
Cr - " "	"	"	<0.02	<0.02	<0.02	0.05
Cd - " "	"	"	<0.01	0.22	0.01	0.14
Pb - " "	"	"	0.06	1.8	0.20	0.12
Mn						
As EP _{tox}	"		0.0047	0.023	<0.0005	0.0058
Se EP _{tox}	"		<0.0005	0.0085	0.0011	0.0011

NOTE: Dissolved Metals: Those that will pass through a 0.45 μ membrane filter

Suspended Metals: Those retained by a 0.45 μ membrane filter

Total Metals: Those found in the unfiltered, rigorously acid digested sample

mg/L = ppm = μ g/ml

mg/kg = ppm = μ g/gm

μ g/L = ppb = ng/ml

μ g/kg = ppb = ng/gm

"<" is "less than" and ">" is "greater"



S. Halm

SOURCE

Spokane Steel Foundry

PROGRAM NUMBER

DATE COLLECTED

5-11-83

RECEIVED

COLLECTED BY

S. Halm

Sample (Log) Number	Units	Standard Deviation ± %	2087	2088	2089	2090					
Station:			1	2	3	4					
Hg											
As, Total	µg/L		2	1	<1	6					
Se, Total	µg/L		<1	10	<1	3					
Ba											
Ag											
Na											
K											
Ca											

NOTE: Dissolved Metals: Those that will pass through a 0.45 µ membrane filter
Suspended Metals: Those retained by a 0.45 µ membrane filter
Total Metals: Those found in the unfiltered, rigorously acid digested sample
mg/L = ppm = µg/ml
mg/kg = ppm = µg/gm
µg/L = ppb = ng/ml
µg/kg = ppb = ng/gm

"<" is "less than" and ">" is "greater than"

SUMMARIZED BY

J. Freeman

DATE

7-27-83

REVIEWED BY

DATE



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

7272 Cleanwater Lane, LU-11 • Olympia, Washington 98504 • (206) 753-2353

M E M O R A N D U M
June 3, 1983

RECEIVED
JUN 17 1983

To: Jim Malm, Eastern Regional Office
Through: Jerry Freeman, Laboratory Section Head
From: Don Kjosness, Aquatic Biologist, Olympia Environmental Laboratory
Subject: 96-Hour Bioassay Information. Sample from Spokane Steel Foundry - Spokane

DEPT. OF ECOLOGY
SPokane Regional Office

Sample Identification:

Laboratory Reference Number: 132087
Date Sample Collected: May 11, 1983
Date Sample Received: May 13, 1983
Sample Submitted by: Jim Malm
Sample Description: "F1". A grey, powder-like material.

Test Procedure:

The sample was tested for toxic properties in accordance with the Department of Ecology "General Procedure for Static Basic Acute Fish Toxicity Test".

Test Results:

The test data are tabulated in detail on the following pages.

Test Details:

The sample was tested at 100 and 1000 ppm (mg/L) by weight in water.

The test organisms were rainbow trout (*Salmo gairdneri*). The organism length ranged from 38 to 49 mm, giving a short-to-long ratio of 1:1.3. The average length was 42 mm. The average weight was 0.84 grams.

Fifteen trout were added to 15 liters of sample/water mixture in each aquarium. This gave a flesh-to-mixture ratio of 0.8 grams/liter.

The test was started on May 23, 1983, at 0800 hours and completed on May 27, 1983, at 0800 hours.

Conclusions:

100 ppm (mg/L) - 0/30 fish died = 0% mortality.
1000 ppm (mg/L) - 0/30 fish died = 0% mortality.
Control - 0/30 fish died = 0% mortality.

OK:cp

Attachments



DATA SHEET FOR STATIC BASIC ACUTE FISH TOXICITY TEST*

Industry/Source SPOKANE STEEL Foundry
Address SPOKANE
Collector Jim Malm
Date Sample Collected 5-11-83

Laboratory OLYMPIA ENVIRONMENTAL
Analyst Don Kjosness
Beginning Date 5-23-83 Time 0800
Ending Date 5-27-83 Time 0800
Test Organism RAINBOW TROUT (Salmo gairdneri)
Required Test Temperature Range 12° ± 1° C

Laboratory Reference Number	Test Con- tainer No.	Conc. (mg/l)	Number of Cumulative Deaths					Dissolved Oxygen (mg/l)					pH 25°C					Temperature (C)					Total Alkalinity (mg/l as CaCO ₃)		Total Hardness (mg/l as CaCO ₃)		Conductivity µMHOS/cm	
			0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	96	0	96	0	96
132087	1	100	0	0	0	0	0	10.3	9.7	9.1	8.6	7.9	7.8	7.7	7.6	7.6	7.6	12.2	12.0	11.6	12.0	12.2	52	50	41	47	118	116
	2	100	0	0	0	0	0	10.2	9.5	8.9	8.4	7.8	7.8	7.7	7.6	7.6	7.6	12.2	12.0	11.6	12.0	12.2	50	48	43	49	108	115
	3	1000	0	0	0	0	0	10.3	9.8	9.2	8.7	8.0	7.9	7.8	7.8	7.7	7.6	12.4	12.2	11.8	12.2	12.4	50	48	41	47	114	120
	4	1000	0	0	0	0	0	10.1	9.4	8.8	8.3	7.6	7.9	7.8	7.8	7.6	7.6	12.4	12.2	11.8	12.2	12.4	50	50	43	49	110	121
CONTROL	23	Tap H ₂ O	0	0	0	0	0	10.1	9.5	8.9	8.4	7.8	7.6	7.4	7.4	7.6	7.4	12.8	12.6	12.2	12.6	12.8	52	52	43	47	109	114
	24	Tap H ₂ O	0	0	0	0	0	10.3	9.7	9.1	8.6	7.9	7.6	7.4	7.4	7.6	7.4	12.8	12.6	12.2	12.6	12.8	50	48	45	45	109	115

Sample Description A GRAY, POWDER-LIKE MATERIAL
Average Weight 0.84 Mean Length 42 Longest 49 Shortest 38 Ratio (long/short) 1.3:1
Number of organisms per chamber 15 Ratio of flesh to water 0.8 Comments 15 L/TANK

Method on file with the Department of Ecology:

GENERAL PROCEDURE FOR STATIC BASIC ACUTE FISH TOXICITY TEST

DATA VERIFIED BY

G. Freeman

DATE

6-6-83

FIW > 10/30



RESEARCH LABORATORIES, INC.

RECEIVED

JAN 21 1984

October 21, 1983

RECEIVED DEPARTMENT OF ECOLOGY
NOV - 1 1983 SPOKANE REGIONAL OFFICE

Spokane Steel Foundry
c/o Tenold & Dunham
North 3808 Sullivan Road
Spokane Industrial Park
Spokane, Washington 98216

Dear Sirs:

Enclosed is a copy of our lab results on the six metals we tested to determine the probable cause of fish mortality in the LC₅₀ testing.

In addition to the four heavy metals tested, we also tested for Calcium and Magnesium levels. We did not find high enough levels to afford any protection to the fish from heavy metal toxicity. The data in the accompanying report are given in the EP toxic extraction format. These values are not the amount of the metal in the actual sample, but the amount of material extractable by a 24 hour mild acid extraction.

If you divide the ppm given in the report by 50, you get the maximum level of the metal in the 1000 ppm fish LC₅₀ test. If we calculate the maximum level of metals, in a 1000 ppm fish LC₅₀ test, we find ~~that the maximum level of metals is 0.74 ppm for Zinc and 0.068 ppm for Copper.~~ In the Lab Sample #10056, the Zinc Level could be as high as 0.74 ppm and the Copper level as high as 0.068 ppm respectively. In Lab Sample #10058, the Zinc level could be as high as 0.15 ppm. The toxic levels for Zinc in fresh water can be as low as 0.05 ppm, and Copper as low as 0.03 ppm in waters with low hardness values. Sample #10056 could have killed fish due to high Zinc and Copper levels. Sample #10058 could have killed the fish due to high Zinc levels.

In the fish test system, leaching the heavy metals would probably take longer than in the mild acid environment of the EP toxic extraction; however, the same amount of metal could be leached from the sample with ordinary water.

1115 East Pike Street, Seattle, Washington 98122 (206) 324-0380

At this point, we need to hear if the EPA has accepted the testing proposal mailed to your firm under separate cover. We also need to correlate the samples we received from you with the samples the DOE took at the Spokane Steel Foundry.

If we can be of further assistance, please don't hesitate to call.

Sincerely,



Robert Tedrow,
Production Director

RECEIVED

JAN 21 1984

DEPARTMENT OF ECOLOGY
SPOKANE REGIONAL OFFICE



RESEARCH LABORATORIES, INC.

RECEIVED

JAN 11 1984

October 19, 1983

RECEIVED DEPARTMENT OF ECOLOGY
NOV - 1 1983 REGIONAL OFFICE

Spokane Steel Foundry
c/o Tenold & Dunham
North 3808 Sullivan Road
Spokane Industrial Park
Spokane, Washington 99216

SUBJECT: Chemical analysis of foundry waste.

RESULTS: Lab #	Sample	% Ash
10056	Pyno Tech	99.52
10057	Furnace 2	91.98
10058	Furnace 3	99.37

EP TOXICITY EXTRACTION:

Lab #	Mn (ppm)	Ni (ppm)	Zn (ppm)	Cu (ppm)	Ca (ppm)	Mg (ppm)
10056	103.0	0.570	37.0	3.44	48.0	6.56
10057	1.96	0.025	1.73	< 0.01	29.2	5.30
10058	15.0	0.135	7.81	0.01	3.90	2.97

Respectfully submitted,

Floyd R. Kirk

Floyd R. Kirk
Chemist



RESEARCH LABORATORIES, INC.

October 19, 1983

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OCT 20 1983
DEPARTMENT OF ECOLOGY
SPOKANE REGIONAL OFFICE

Spokane Steel Foundry
c/o Tenold & Dunham
North 3808 Sullivan Road
Spokane Industrial Park
Spokane, Washington 99216

Dear Sirs:

At your request we have reviewed the Department of Ecology order #DE83-409 as well as the DOE Memorandums concerning DOE samples #132087, 132088, 132089 and 132090 collected May 11, 1983 at the Spokane Steel Foundry.

BioMed Research Laboratories is a certified analytical chemistry and toxicology laboratory. We can perform the testing necessary to determine the probable cause of fish toxicity found in samples corresponding to DOE sample numbers 132088 and 132090.

We propose to test the samples for metals not included in the normal EP toxic metals list. The testing will be done on a worst case basis; that is on materials prepared under EP toxic extraction with dilute acetic acid.

We feel the most likely metals to look for are zinc, copper, nickel and manganese. The first two metals are toxic to fish at very low levels. The second two metals are likely to be found in steel products. We will also measure calcium and magnesium levels. These two elements have a moderating effect on the toxicity of heavy metals on fish.

An ash weight will also be run to ensure that the principle constituents are inorganic. If not, another approach might possibly be needed.

Sincerely,

A handwritten signature in dark ink, appearing to read "Robert Tedrow". The signature is fluid and cursive, written over the typed name.

Robert Tedrow,
Production Director

**1986 REED Corporation
Analytical Reports**

Laucks

Testing Laboratories, Inc.

940 South Harney St. Seattle Washington 98108 (206)767-5060



Certificate

Chemistry, Microbiology, and Technical Services

CLIENT Reed Corporation
2000 Center Street, Suite 1034
Berkeley, CA 94704
ATTN: Larry Russell

LABORATORY NO 97761

DATE Aug. 8, 1986

REPORT ON SOIL

SAMPLE
IDENTIFICATION

Submitted 7/16/86 and identified as shown below:

TESTS PERFORMED
AND RESULTS

- 1) RSS 1 7/16/86
- 2) RSS 2 7/16/86
- 3) RSS 3 7/16/86
- 4) RSS 4 7/16/86
- 5) RSS 5 7/16/86
- 6) RSS 6 7/16/86
- 7) RSS 7 7/16/86
- 8) RSS 8 7/16/86
- 9) RSS 9 7/16/86
- 10) RSS 10 7/16/86
- 11) RSS 11 7/16/86
- 12) RSS 12 7/16/86
- 13) 12) RSS 13 7/16/86

BCL Dm 9/2/87

At your request, not all analyses were performed on all samples.

Volatile Organics Analysis

	<u>parts per billion (ug/kg)</u>				
	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>
Acetone	500.	16,000.	400.	300.	400.
Methylene Chloride	1700.	2000.	L/500.	700.	L/500.
Trichloroethylene	L/25.	L/25.	L/25.	L/25.	L/25.
Toluene	L/5.	5.	L/5.	L/5.	L/5.
Ethyl Benzene	L/5.	L/5.	L/5.	L/5.	L/5.
m & p-Xylene	L/5.	11.	L/5.	L/5.	L/5.
o-Xylene	L/5.	L/5.	L/5.	L/5.	L/5.



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Volatile Organics Analysis

	<u>parts per billion (ug/kg)</u>				
	<u>6</u>	<u>7</u>	<u>8</u>	<u>9</u>	<u>10</u>
Acetone	500.	700.	700.	700.	L/250.
Methylene Chloride	L/500.	1000.	L/500.	500.	L/500.
Trichloroethylene	L/25.	L/25.	L/25.	L/25.	L/25.
Toluene	L/5.	L/5.	L/5.	L/5.	L/5.
Ethyl Benzene	L/5.	L/5.	L/5.	L/5.	L/5.
m & p-Xylene	L/5.	L/5.	L/5.	L/5.	L/5.
o-Xylene	L/5.	L/5.	L/5.	L/5.	L/5.

	<u>11</u>	<u>12</u>	<u>13</u>	<u>Lab Blank</u>
Acetone	1000.	L/250.	500.	L/250.
Methylene Chloride	1000.	L/500.	L/500.	L/500.
Trichloroethylene	L/25.	L/25.	L/25.	L/25.
Toluene	29.	L/5.	7.	L/5.
Ethyl Benzene	13.	L/5.	L/5.	L/5.
m & p-Xylene	63.	L/5.	6.	L/5.
o-Xylene	27.	L/5.	L/5.	L/5.



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Pesticide Analysis

parts per billion (ug/kg), dry basis

	<u>1</u>	<u>2</u>	<u>4</u>	<u>5</u>
Chlordane	L/20.	L/20.	L/20.	L/20.

Base/Acid/Neutral Analysis

parts per billion (ug/L)

	<u>3</u>	<u>4</u>	<u>5</u>	<u>7</u>	<u>8</u>	<u>13</u>
Phenol	L/390.	L/50.	L/360.	L/370.	L/50.	L/220.
Naphthalene	L/390.	L/50.	L/360.	L/370.	L/50.	L/220.
Bis(2-ethylhexyl)phthalate	420.	68.	L/360.	L/370.	540.	250.



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Inorganics Analysis

	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>
Total Solids, %	95.9	94.1	85.8	96.1	91.4
<u>parts per million (mg/kg), dry basis</u>					
Antimony	L/3.	L/3.	L/3.	L/3.	L/3.
Arsenic	14.	30.	10.	14.	8.0
Beryllium	0.3	0.7	0.5	0.3	0.4
Cadmium	0.5	L/0.5	0.8	0.6	L/0.5
Chromium	10.	18.	18.	10.	14.
Copper	23.	38.	28.	28.	20.
Lead	8.	22.	220.	13.	91.
Nickel	9.	17.	14.	11.	11.
Silver	L/0.1	0.1	0.1	L/0.1	L/0.1
Zinc	51.	110.	170.	54.	83.

	<u>7</u>	<u>10</u>	<u>11</u>	<u>Method Blank</u>
Total Solids, %	85.4	96.2	98.1	---

<u>parts per million (mg/kg), dry basis</u>				
Antimony	L/3.	L/3.	L/3.	L/3.
Arsenic	5.5	2.1	4.4	L/0.5
Beryllium	0.4	0.1	0.2	L/0.1
Cadmium	0.7	L/0.5	0.6	L/0.5
Chromium	36.	350.	140.	2.
Copper	55.	65.	100.	L/1.
Lead	48.	11.	26.	L/5.
Nickel	26.	69.	81.	L/2.
Silver	0.2	0.1	0.2	L/0.1
Zinc	160.	31.	88.	1.



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Comment:

Methylene chloride is a common solvent in everyday use at the laboratory. Presence of detectable levels of methylene chloride is most likely due to unavoidable lab contamination. Presence of contamination resulted in an elevated detection limit for methylene chloride, as well.

Acetone is also a common laboratory solvent and detectable values may be the result of lab contamination. However, the level of 16,000 ug/kg in sample 2 cannot be ascribed to this. You have reported use of isopropyl alcohol (IPA) as a decontamination agent in the field. IPA elutes, under the conditions of this analysis, next to acetone and between acetone and methylene chloride. We believe this value may represent IPA contamination in the field.

Key

L/ indicates "less than"

Respectfully submitted,

Laucks Testing Laboratories, Inc.

cc: Marvin Durning
Attorney at Law

J. M. Owens

JMO:1aj



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APPENDIX

Surrogate Recovery Quality Control Report

Listed below are surrogate (chemically similar) compounds utilized in the analysis of volatile and organic compounds. The surrogates are added to every sample prior extraction and analysis to monitor for matrix effects, purging efficiency, and sample processing errors. The control limits represent the 95% confidence interval established in our laboratory through repetitive analysis of these sample types.

Sample No.	Surrogate Compound	nanograms		% Recovery	Control Limit
		Spike Level	Spike Found		
Lab Blank	2-Bromo-1-chloropropane	696.	703.	101.	62-130
8	2-Bromo-1-chloropropane	696.	646.	93.	62-130
13	2-Bromo-1-chloropropane	696.	632.	91.	62-130
1	2-Bromo-1-chloropropane	696.	663.	95.	62-130
2	2-Bromo-1-chloropropane	696.	670.	96.	62-130
2	2-Bromo-1-chloropropane	696.	643.	92.	62-130
Std. Check	2-Bromo-1-chloropropane	696.	684.	98.	62-130
Lab Blank	2-Bromo-1-chloropropane	696.	682.	98.	62-130
3	2-Bromo-1-chloropropane	696.	653.	94.	62-130
Lab Blank	2-Bromo-1-chloropropane	696.	708.	102.	62-130
4	2-Bromo-1-chloropropane	696.	660.	95.	62-130
Lab Blank	2-Bromo-1-chloropropane	696.	692.	99.	62-130
Std. Check	2-Bromo-1-chloropropane	696.	686.	99.	62-130
5	2-Bromo-1-chloropropane	696.	662.	95.	62-130
Lab Blank	2-Bromo-1-chloropropane	696.	710.	102.	62-130
6	2-Bromo-1-chloropropane	696.	702.	101.	62-130



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LABORATORY NO 97761

		nanograms			
<u>Sample No.</u>	<u>Surrogate Compound</u>	<u>Spike Level</u>	<u>Spike Found</u>	<u>% Recovery</u>	<u>Control Limit</u>
7	2-Bromo-1-chloropropane	696.	643.	92.	62-130
Lab Blank	2-Bromo-1-chloropropane	696.	735.	106.	62-130
Std. Check	2-Bromo-1-chloropropane	696.	702.	101.	62-130
9	2-Bromo-1-chloropropane	696.	662.	95.	62-130
Lab Blank	2-Bromo-1-chloropropane	696.	677.	97.	62-130
10	2-Bromo-1-chloropropane	696.	637.	92.	62-130
Std. Check	2-Bromo-1-chloropropane	696.	678.	97.	62-130
Lab Blank	2-Bromo-1-chloropropane	696.	677.	97.	62-130
12	2-Bromo-1-chloropropane	696.	647.	93.	62-130
Lab Blank	2-Bromo-1-chloropropane	696.	690.	99.	62-130
11	2-Bromo-1-chloropropane	696.	620.	89.	62-130

Std. Check = Standard Check



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Laucks

Testing Laboratories, Inc.

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Certificate

Chemistry, Microbiology, and Technical Services

PAGE NO 8

Reed Corporation

LABORATORY NO 97761

parts per billion (ug/kg)

<u>Sample No.</u>	<u>Surrogate Compound</u>	<u>Spike Level</u>	<u>Spike Found</u>	<u>% Recovery</u>	<u>Control Limit</u>
Blank	Isodrin	13.3	8.0	60.1	43-118*
1	Isodrin	13.3	8.5	63.8	43-118*
2	Isodrin	13.3	14.8	74.0	43-118*
4	Isodrin	13.3	8.7	65.2	43-118*
5	Isodrin	13.3	7.4	55.4	43-118*
Blank	Dibutylchlorendate	26.7	17.1	64.2	20-154
1	Dibutylchlorendate	26.7	18.6	69.5	20-154
2	Dibutylchlorendate	26.7	29.4	74.0	20-154
4	Dibutylchlorendate	26.7	18.0	67.5	20-154
5	Dibutylchlorendate	26.7	17.1	64.0	20-154

*Control limits are established when a sufficient number of analyses have been performed for an analyte in a specific matrix to allow development of a statistically meaningful figure. In this case, no control limits have been established in the soil matrix and the limits given are for a water matrix and should be regarded as estimates.



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Laucks Testing Laboratories, Inc.

Sample Type: Soil
Lab No: 97761
Client: Reed Corp.
QC Logged: 8/6/86

Surrogate Recovery Quality Control Report

Listed below are surrogate (chemically similar) compounds utilized in the analysis of organic compounds. The surrogates are added to every sample prior to extraction to monitor for matrix effects and sample processing errors. The control limits represent the 95% confidence interval established in our laboratory through repetitive analysis of these sample types. In certain cases, we will have accumulated insufficient data to have established control limits.

=====				
Sample Number: Blank		Reported Values in Units of: ug/kg		

Surrogate Compound	Spike Level	Spike Detected	Percent Recovery	Control Limits
=====				
2-Fluorophenol	4000	1830	46	24-133
d5-Phenol	4000	2280	57	20-122
2-Bromophenol	4000	1770	44	---
d5-Nitrobenzene	2000	893	45	20-140
2-Fluorobiphenyl	2000	812	41	20-140
d10-Azobenzene	2000	916	46	---
2,4,6-Tribromophenol	4000	1900	48	10-114
d14-p-Terphenyl	2000	1020	51	20-150

=====				
Sample Number: Blank		Reported Values in Units of: ug/kg		

Surrogate Compound	Spike Level	Spike Detected	Percent Recovery	Control Limits
=====				
2-Fluorophenol	4000	1070	27	24-133
d5-Phenol	4000	1540	39	20-122
2-Bromophenol	4000	1080	27	---
d5-Nitrobenzene	2000	411	21	20-140
2-Fluorobiphenyl	2000	525	26	20-140
d10-Azobenzene	2000	756	38	---
2,4,6-Tribromophenol	4000	1640	41	10-114
d14-p-Terphenyl	2000	1210	61	20-150

Laucks Testing Laboratories, Inc.

Sample Type: Soil
 Lab No: 97761
 Client: Reed Corp.
 QC Logged: 8/6/86

Surrogate Recovery Quality Control Report

=====				
Sample Number: 3		Reported Values in Units of: ug/kg		

Surrogate Compound	Spike Level	Spike Detected	Percent Recovery	Control Limits
=====				
2-Fluorophenol	3890	1570	40	24-133
d5-Phenol	3890	2170	56	20-122
2-Bromophenol	3890	1510	39	---
d5-Nitrobenzene	1950	547	28	20-140
2-Fluorobiphenyl	1950	793	41	20-140
d10-Azobenzene	1950	921	47	---
2,4,6-Tribromophenol	3890	1710	44	10-114
d14-p-Terphenyl	1950	900	46	20-150

=====				
Sample Number: 4		Reported Values in Units of: ug/kg		

Surrogate Compound	Spike Level	Spike Detected	Percent Recovery	Control Limits
=====				
2-Fluorophenol	3480	1730	50	24-133
d5-Phenol	3480	2200	63	20-122
2-Bromophenol	3480	1790	51	---
d5-Nitrobenzene	1740	714	41	20-140
2-Fluorobiphenyl	1740	700	40	20-140
d10-Azobenzene	1740	938	54	---
2,4,6-Tribromophenol	3480	2380	68	10-114
d14-p-Terphenyl	1740	1180	68	20-150

=====				
Sample Number: 5		Reported Values in Units of: ug/kg		

Surrogate Compound	Spike Level	Spike Detected	Percent Recovery	Control Limits
=====				
2-Fluorophenol	3570	1390	39	24-133
d5-Phenol	3570	1600	45	20-122
2-Bromophenol	3570	1390	39	---
d5-Nitrobenzene	1790	456	25	20-140
2-Fluorobiphenyl	1790	663	37	20-140
d10-Azobenzene	1790	687	38	---
2,4,6-Tribromophenol	3570	1370	38	10-114
d14-p-Terphenyl	1790	749	42	20-150

Laucks Testing Laboratories, Inc.

Sample Type: Soil
 Lab No: 97761
 Client: Reed Corp.
 QC Logged: 8/6/86

Surrogate Recovery Quality Control Report

=====				
Sample Number: 7		Reported Values in Units of: ug/kg		

Surrogate Compound	Spike Level	Spike Detected	Percent Recovery	Control Limits
=====				
2-Fluorophenol	3620	1350	37	24-133
d5-Phenol	3620	1800	50	20-122
2-Bromophenol	3620	1390	38	---
d5-Nitrobenzene	1810	492	27	20-140
2-Fluorobiphenyl	1810	710	39	20-140
d10-Azobenzene	1810	756	42	---
2,4,6-Tribromophenol	3620	1250	35	10-114
d14-p-Terphenyl	1810	1060	59	20-150

=====				
Sample Number: 8		Reported Values in Units of: ug/kg		

Surrogate Compound	Spike Level	Spike Detected	Percent Recovery	Control Limits
=====				
2-Fluorophenol	3470	1690	49	24-133
d5-Phenol	3470	1950	56	20-122
2-Bromophenol	3470	1620	47	---
d5-Nitrobenzene	1740	691	40	20-140
2-Fluorobiphenyl	1740	696	40	20-140
d10-Azobenzene	1740	719	41	---
2,4,6-Tribromophenol	3470	2220	64	10-114
d14-p-Terphenyl	1740	1030	59	20-150

=====				
Sample Number: 13		Reported Values in Units of: ug/kg		

Surrogate Compound	Spike Level	Spike Detected	Percent Recovery	Control Limits
=====				
2-Fluorophenol	3660	1510	41	24-133
d5-Phenol	3660	1900	52	20-122
2-Bromophenol	3660	1460	40	---
d5-Nitrobenzene	1830	568	31	20-140
2-Fluorobiphenyl	1830	674	37	20-140
d10-Azobenzene	1830	664	36	---
2,4,6-Tribromophenol	3660	1660	45	10-114
d14-p-Terphenyl	1830	932	51	20-150

TABLE 1

SOIL SAMPLE DATA - OLD INLAND PIT INORGANICS (Metals) mg/kg

COMPOUND	BACKGROUND		PIT BOTTOM			GREY WASTE PILE			BLACK DUST	
	RSS1 (30 ft)	RSS2 (Surface)	SS1 (Surface)	RSS3 (Surface)	RSS7 (6 ft)	SS2 (Surface)	RSS4 (Surface)	RSS5 (3 ft)	RSS11 (Surface)	RSS10 (15 ft)
Antimony	<3.0	<3.0	3.5	<3.0	<3.0	ND(1)	<3.0	<3.0	<3.0	<3.0
Arsenic	14.0	30.0	9.2	10.0	5.5	18.0	14.0	8.0	4.4	2.1
Beryllium	0.3	0.7	ND(1)	0.5	0.4	0.49	0.3	0.4	0.2	0.1
Cadmium	0.5	ND(2)	0.26	0.8	0.7	0.36	0.6	ND(2)	0.6	ND(2)
Chromium	10.0	18.0	52.6	18.0	36.0	38.8	10.0	14	140.0	350.0
Copper	23.0	38.0	145.0	28.0	55.0	112.0	28.0	20	100.0	65.0
Lead	17.0	22.0	30.5	220.0	48.0	41.5	13.0	91	26.0	11.0
Nickel	9.0	17.0	36.4	14.0	26.0	42.2	11.0	11.0	81.0	69.0
Silver	ND	0.1	1.0	0.1	0.2	0.7	ND(3)	ND(3)	0.2	0.1
Zinc	51.0	110.0	63.4	170.0	88.0	86.0	540	83.0	88.0	31.0

Sample Location - (See Figure 2)

SS1 - Ecology & Environment samples - Pit Bottom Sample - August 29, 1984

Total

341.0

Total

443.0

SS2 - Ecology & Environment sample - Grey Waste Pit - August 29, 1984

OR

0.034 1

OR

0.043 1

Note: RSS - Russell soil samples from July 16, 1986

RSS1 - Excavated into bank at pit bottom grade approximately 30 feet below surface

RSS2 - 2" below surface at pit surface - undisturbed

RSS3 - Near RSS2 - at surface

RSS4 - Near SS1 - at surface

RSS5 - Near SS1 - 3 feet below surface

RSS7 - Near SS2 - 6 feet below surface

RSS10 - 15 feet below surface in pile of black dust

RSS11 - Surface in pile of black dust

ND(1) - Not detected - Unknown level per Ecology & Environment

ND(2) - Not detected @ 0.5 mg/kg

ND(3) - Not detected @ 0.1 mg/kg

1988 TAT Analytical Reports

- **Baghouse EP Toxicity and Metals**
- **Soils Analyses**



**ANALYTICAL
RESOURCES
INCORPORATED**

ANALYTICAL ANALYSIS DATA SHEET - METHOD 625

Sample No: T8110056

Lab Sample ID: 2302F
Sample Matrix: Soils/Sediments

QC Report No: 2302-Ecology & Environment
Project No: T10-8810-012
Date Received: 12/01/88

Analytical
Chemists &
Consultants

333 Ninth Ave. North
Seattle, Wa 98109-5187
(206) 621-6490

Date Release Authorized: Robert N. Baker

Date extracted: 12/05/88
Analyzed (Finn 2): 12/07/88
GPC Clean-up: YES (1 of 2)

Amount extracted: 29.9 gm (Dry Weight)
Percent Moisture: 22.3%
pH: 8.1
Conc/Dilution: 1 to 1 (After GPC)

CAS Number		ug/Kg
108-95-2	Phenol	67 U
111-44-4	bis(2-Chloroethyl)Ether	67 U
95-57-8	2-Chlorophenol	67 U
541-73-1	1,3-Dichlorobenzene	67 U
106-46-7	1,4-Dichlorobenzene	67 U
100-51-6	Benzyl Alcohol	330 U
95-50-1	1,2-Dichlorobenzene	67 U
95-48-7	2-Methylphenol	67 U
39638-32-9	bis(2-chloroisopropyl)Ether	67 U
106-44-5	4-Methylphenol	67 U
101-64-7	N-Nitroso-Di-n-Propylamine	67 U
72-1	Hexachloroethane	130 U
8-95-3	Nitrobenzene	67 U
78-59-1	Isophorone	67 U
88-75-5	2-Nitrophenol	330 U
105-67-9	2,4-Dimethylphenol	130 U
65-85-0	Benzoic Acid	670 U
111-91-1	bis(2-Chloroethoxy)Methane	67 U
120-83-2	2,4-Dichlorophenol	200 U
120-82-1	1,2,4-Trichlorobenzene	67 U
91-20-3	Naphthalene	190
106-47-8	4-Chloroaniline	200 U
87-68-3	Hexachlorobutadiene	130 U
59-50-7	4-Chloro-3-Methylphenol	130 U
91-57-6	2-Methylnaphthalene	120
77-47-4	Hexachlorocyclopentadiene	330 U
88-06-2	2,4,6-Trichlorophenol	330 U
95-95-4	2,4,5-Trichlorophenol	330 U
91-58-7	2-Chloronaphthalene	67 U
88-74-4	2-Nitroaniline	330 U
131-11-3	Dimethyl Phthalate	67 U
208-96-8	Acenaphthylene	67 U
99-09-2	3-Nitroaniline	330 U

CAS Number		ug/Kg
83-32-9	Acenaphthene	67 U
51-28-5	2,4-Dinitrophenol	670 U
100-02-7	4-Nitrophenol	330 U
132-64-9	Dibenzofuran	67 U
121-14-2	2,4-Dinitrotoluene	330 U
606-20-2	2,6-Dinitrotoluene	330 U
84-66-2	Diethylphthalate	67 U
7005-72-3	4-Chlorophenyl-phenylether	67 U
86-73-7	Fluorene	42 M
100-01-6	4-Nitroaniline	330 U
534-52-1	4,6-Dinitro-2-Methylphenol	670 U
86-30-6	N-Nitrosodiphenylamine(1)	67 U
101-55-3	4-Bromophenyl-phenylether	67 U
118-74-1	Hexachlorobenzene	67 U
87-86-5	Pentachlorophenol	330 U
85-01-8	Phenanthrene	240
120-12-7	Anthracene	72 M
84-74-2	Di-n-Butylphthalate	67 U
206-44-0	Fluoranthene	65 J
129-00-0	Pyrene	43 J
85-68-7	Butylbenzylphthalate	67 U
91-94-1	3,3'-Dichlorobenzidine	330 U
56-55-3	Benzo(a)Anthracene	67 U
117-81-7	bis(2-Ethylhexyl)Phthalate	80
218-01-9	Chrysene	67 U
117-84-0	Di-n-Octyl Phthalate	67 U
205-99-2	Benzo(b)Fluoranthene	67 U
207-08-9	Benzo(k)Fluoranthene	67 U
50-32-8	Benzo(a)Pyrene	67 U
193-39-5	Indeno(1,2,3-cd)Pyrene	67 U
53-70-3	Dibenz(a,h)Anthracene	67 U
191-24-2	Benzo(ghi)Perylene	67 U

(1) Cannot be separated from diphenylamine

Report prepared 12/08/88 MAC:B

***Base/neutral surrogate recoveries**

d5-Nitrobenzene	76.7%
2-Fluorobiphenyl	84.8%
d14-p-Terphenyl	89.8%

***Acid surrogate recoveries**

d5-Phenol	81.2%
2-Fluorophenol	83.8%
2,4,6-Tribromophenol	75.0%



ANALYTICAL
RESOURCES
INCORPORATED

ORGANICS ANALYSIS DATA SHEET - METHOD 625

Sample No: T80110059

Analytical
Chemists &
Consultants

Lab Sample ID: 23021
Sample Matrix: Soils/Sediments

QC Report No: 2302-Ecology & Environment

Project No: T10-8810-012

Date Received: 12/01/88

333 Ninth Ave. North
Seattle, Wa 98109-5187
(206) 621-6490

Date Release Authorized: Brian M. Baker

Date extracted: 12/05/88
Analyzed (Finn 2): 12/08/88
GPC Clean-up: YES (1 of 2)

Amount extracted: 29.2 gm (Dry Weight)
Percent Moisture: 2.9%
pH: 7.8
Conc/Dilution: 1 to 1 (After GPC)

CAS Number		µg/Kg
108-95-2	Phenol	2600
111-44-4	bis(2-Chloroethyl)Ether	69 U
95-57-8	2-Chlorophenol	69 U
541-73-1	1,3-Dichlorobenzene	69 U
106-46-7	1,4-Dichlorobenzene	69 U
100-51-6	Benzyl Alcohol	340 U
95-50-1	1,2-Dichlorobenzene	69 U
95-48-7	2-Methylphenol	1100
39638-32-9	bis(2-chloroisopropyl)Ether	69 U
106-44-5	4-Methylphenol	360
621-64-7	N-Nitroso-Di-n-Propylamine	69 U
7-72-1	Hexachloroethane	140 U
98-95-3	Nitrobenzene	69 U
78-59-1	Isophorone	69 U
88-75-5	2-Nitrophenol	340 U
105-67-9	2,4-Dimethylphenol	140 U
65-85-0	Benzoic Acid	960
111-91-1	bis(2-Chloroethoxy)Methane	69 U
120-83-2	2,4-Dichlorophenol	210 U
120-82-1	1,2,4-Trichlorobenzene	69 U
91-20-3	Naphthalene	720
106-47-8	4-Chloroaniline	210 U
87-68-3	Hexachlorobutadiene	140 U
59-50-7	4-Chloro-3-Methylphenol	140 U
91-57-6	2-Methylnaphthalene	540
77-47-4	Hexachlorocyclopentadiene	340 U
88-06-2	2,4,6-Trichlorophenol	340 U
95-95-4	2,4,5-Trichlorophenol	340 U
91-58-7	2-Chloronaphthalene	69 U
88-74-4	2-Nitroaniline	340 U
131-11-3	Dimethyl Phthalate	69 U
208-96-8	Acenaphthylene	69 U
99-09-2	3-Nitroaniline	340 U

CAS Number		µg/Kg
83-32-9	Acenaphthene	69 U
51-28-5	2,4-Dinitrophenol	680 U
100-02-7	4-Nitrophenol	340 U
132-64-9	Dibenzofuran	140 U
121-14-2	2,4-Dinitrotoluene	340 U
606-20-2	2,6-Dinitrotoluene	340 U
84-66-2	Diethylphthalate	69 U
7005-72-3	4-Chlorophenyl-phenylether	69 U
86-73-7	Fluorene	110
100-01-6	4-Nitroaniline	340 U
534-52-1	4,6-Dinitro-2-Methylphenol	680 U
86-30-6	N-Nitrosodiphenylamine(1)	69 U
101-55-3	4-Bromophenyl-phenylether	69 U
118-74-1	Hexachlorobenzene	69 U
87-86-5	Pentachlorophenol	340 U
85-01-8	Phenanthrene	560
120-12-7	Anthracene	110
84-74-2	Di-n-Butylphthalate	69 U
206-44-0	Fluoranthene	190
129-00-0	Pyrene	120
85-68-7	Butylbenzylphthalate	69 U
91-94-1	3,3'-Dichlorobenzidine	340 U
56-55-3	Benzo(a)Anthracene	69 U
117-81-7	bis(2-Ethylhexyl)Phthalate	450
218-01-9	Chrysene	69 U
117-84-0	Di-n-Octyl Phthalate	69 U
205-99-2	Benzo(b)Fluoranthene	69 U
207-08-9	Benzo(k)Fluoranthene	69 U
50-32-8	Benzo(a)Pyrene	69 U
193-39-5	Indeno(1,2,3-cd)Pyrene	69 U
53-70-3	Dibenz(a,h)Anthracene	69 U
191-24-2	Benzo(ghi)Perylene	69 U

(1) Cannot be separated from diphenylamine

Report prepared 12/09/88 MAC:B

*Base/neutral surrogate recoveries

d5-Nitrobenzene	80.6%
2-Fluorobiphenyl	86.0%
d14-p-Terphenyl	82.5%

*Acid surrogate recoveries

d5-Phenol	82.6%
2-Fluorophenol	86.6%
2,4,6-Tribromophenol	85.9%



ANALYTICAL
RESOURCES
INCORPORATED

ORGANICS ANALYSIS DATA SHEET - METHOD 625

Lab Sample ID: 2301MB
Sample Matrix: Soils/Sediments

Date Release Authorized: John N. Baker

Date extracted: 12/05/88
Analyzed (Finn 2): 12/07/88
GPC Clean-up: YES (1 of 2)

Sample No: Method Blank

QC Report No: 2302-Ecology & Environment
Project No: T10-8810-012
Date Received: 12/01/88

Analytical
Chemists &
Consultants

333 Ninth Ave. North
Seattle, Wa 98109-5187
(206) 621-6490

Amount extracted: 30.0 gm (Dry Weight)
Percent Moisture: NA
pH: NA
Conc/Dilution: 1 to 1 (After GPC)

CAS Number		µg/Kg
108-95-2	Phenol	67 U
111-44-4	bis(2-Chloroethyl)Ether	67 U
95-57-8	2-Chlorophenol	67 U
541-73-1	1,3-Dichlorobenzene	67 U
106-46-7	1,4-Dichlorobenzene	67 U
100-51-6	Benzyl Alcohol	330 U
95-50-1	1,2-Dichlorobenzene	67 U
95-48-7	2-Methylphenol	67 U
39638-32-9	bis(2-chloroisopropyl)Ether	67 U
106-44-5	4-Methylphenol	67 U
521-64-7	N-Nitroso-Di-n-Propylamine	67 U
7-72-1	Hexachloroethane	130 U
98-95-3	Nitrobenzene	67 U
78-59-1	Isophorone	67 U
88-75-5	2-Nitrophenol	330 U
105-67-9	2,4-Dimethylphenol	130 U
65-85-0	Benzoic Acid	670 U
111-91-1	bis(2-Chloroethoxy)Methane	67 U
120-83-2	2,4-Dichlorophenol	200 U
120-82-1	1,2,4-Trichlorobenzene	67 U
91-20-3	Naphthalene	67 U
106-47-8	4-Chloroaniline	200 U
87-68-3	Hexachlorobutadiene	130 U
59-50-7	4-Chloro-3-Methylphenol	130 U
91-57-6	2-Methylnaphthalene	67 U
77-47-4	Hexachlorocyclopentadiene	330 U
88-06-2	2,4,6-Trichlorophenol	330 U
95-95-4	2,4,5-Trichlorophenol	330 U
91-58-7	2-Chloronaphthalene	67 U
88-74-4	2-Nitroaniline	330 U
131-11-3	Dimethyl Phthalate	67 U
208-96-8	Acenaphthylene	67 U
99-09-2	3-Nitroaniline	330 U

CAS Number		µg/Kg
83-32-9	Acenaphthene	67 U
51-28-5	2,4-Dinitrophenol	670 U
100-02-7	4-Nitrophenol	330 U
132-64-9	Dibenzofuran	67 U
121-14-2	2,4-Dinitrotoluene	330 U
606-20-2	2,6-Dinitrotoluene	330 U
84-66-2	Diethylphthalate	67 U
7005-72-3	4-Chlorophenyl-phenylether	67 U
86-73-7	Fluorene	67 U
100-01-6	4-Nitroaniline	330 U
534-52-1	4,6-Dinitro-2-Methylphenol	670 U
86-30-6	N-Nitrosodiphenylamine(1)	67 U
101-55-3	4-Bromophenyl-phenylether	67 U
118-74-1	Hexachlorobenzene	67 U
87-86-5	Pentachlorophenol	330 U
85-01-8	Phenanthrene	67 U
120-12-7	Anthracene	67 U
84-74-2	Di-n-Butylphthalate	67 U
206-44-0	Fluoranthene	67 U
129-00-0	Pyrene	67 U
85-68-7	Butylbenzylphthalate	67 U
91-94-1	3,3'-Dichlorobenzidine	330 U
56-55-3	Benzo(a)Anthracene	67 U
117-81-7	bis(2-Ethylhexyl)Phthalate	67 U
218-01-9	Chrysene	67 U
117-84-0	Di-n-Octyl Phthalate	67 U
205-99-2	Benzo(b)Fluoranthene	67 U
207-08-9	Benzo(k)Fluoranthene	67 U
50-32-8	Benzo(a)Pyrene	67 U
193-39-5	Indeno(1,2,3-cd)Pyrene	67 U
53-70-3	Dibenz(a,h)Anthracene	67 U
191-24-2	Benzo(ghi)Perylene	67 U

(1) Cannot be separated from diphenylamine

Report prepared 12/08/88 MAC:B

*Base/neutral surrogate recoveries

d5-Nitrobenzene	64.5%
2-Fluorobiphenyl	80.9%
d14-p-Terphenyl	114%

*Acid surrogate recoveries

d5-Phenol	73.6%
2-Fluorophenol	72.3%
2,4,6-Tribromophenol	69.5%



**ANALYTICAL
RESOURCES
INCORPORATED**

ORGANICS ANALYSIS DATA SHEET - METHOD 625

Sample No: T80110059 - MS

Lab Sample ID: 2302IMS
Sample Matrix: Soils/Sediments

QC Report No: 2302-Ecology & Environment
Project No: T10-8810-012
Date Received: 12/01/88

Analytical
Chemists &
Consultants

333 Ninth Ave. North
Seattle, Wa 98109-5187
(206) 621-6490

Date Release Authorized: Brian M. Nelson

Date extracted: 12/05/88
Analyzed (Finn 2): 12/08/88
GPC Clean-up: YES (1 of 2)

Amount extracted: 29.3 gm (Dry Weight)
Percent Moisture: 2.9%
pH: 7.8
Conc/Dilution: 1 to 1 (After GPC)

CAS Number		ug/Kg
108-95-2	Phenol	-
111-44-4	bis(2-Chloroethyl)Ether	68 U
95-57-8	2-Chlorophenol	-
541-73-1	1,3-Dichlorobenzene	68 U
106-46-7	1,4-Dichlorobenzene	-
100-51-6	Benzyl Alcohol	340 U
95-50-1	1,2-Dichlorobenzene	68 U
95-48-7	2-Methylphenol	1100
39638-32-9	bis(2-chloroisopropyl)Ether	68 U
106-44-5	4-Methylphenol	570
621-64-7	N-Nitroso-Di-n-Propylamine	-
57-72-1	Hexachloroethane	140 U
98-95-3	Nitrobenzene	68 U
78-59-1	Isophorone	68 U
88-75-5	2-Nitrophenol	340 U
105-67-9	2,4-Dimethylphenol	140 U
65-85-0	Benzoic Acid	1000
111-91-1	bis(2-Chloroethoxy)Methane	68 U
120-83-2	2,4-Dichlorophenol	200 U
120-82-1	1,2,4-Trichlorobenzene	-
91-20-3	Naphthalene	800
106-47-8	4-Chloroaniline	200 U
87-68-3	Hexachlorobutadiene	140 U
59-50-7	4-Chloro-3-Methylphenol	-
91-57-6	2-Methylnaphthalene	610
77-47-4	Hexachlorocyclopentadiene	340 U
88-06-2	2,4,6-Trichlorophenol	340 U
95-95-4	2,4,5-Trichlorophenol	340 U
91-58-7	2-Chloronaphthalene	68 U
88-74-4	2-Nitroaniline	340 U
131-11-3	Dimethyl Phthalate	68 U
208-96-8	Acenaphthylene	68 U
99-09-2	3-Nitroaniline	340 U

CAS Number		ug/Kg
83-32-9	Acenaphthene	-
51-28-5	2,4-Dinitrophenol	680 U
100-02-7	4-Nitrophenol	-
132-64-9	Dibenzofuran	160 U
121-14-2	2,4-Dinitrotoluene	-
606-20-2	2,6-Dinitrotoluene	340 U
84-66-2	Diethylphthalate	68 U
7005-72-3	4-Chlorophenyl-phenylether	68 U
86-73-7	Fluorene	130
100-01-6	4-Nitroaniline	340 U
534-52-1	4,6-Dinitro-2-Methylphenol	680 U
86-30-6	N-Nitrosodiphenylamine(1)	68 U
101-55-3	4-Bromophenyl-phenylether	68 U
118-74-1	Hexachlorobenzene	68 U
87-86-5	Pentachlorophenol	-
85-01-8	Phenanthrene	750
120-12-7	Anthracene	110
84-74-2	Di-n-Butylphthalate	68 U
206-44-0	Fluoranthene	170
129-00-0	Pyrene	-
85-68-7	Butylbenzylphthalate	68 U
91-94-1	3,3'-Dichlorobenzidine	340 U
56-55-3	Benzo(a)Anthracene	68 U
117-81-7	bis(2-Ethylhexyl)Phthalate	380
218-01-9	Chrysene	68 U
117-84-0	Di-n-Octyl Phthalate	68 U
205-99-2	Benzo(b)Fluoranthene	68 U
207-08-9	Benzo(k)Fluoranthene	68 U
50-32-8	Benzo(a)Pyrene	68 U
193-39-5	Indeno(1,2,3-cd)Pyrene	68 U
53-70-3	Dibenz(a,h)Anthracene	68 U
191-24-2	Benzo(ghi)Perylene	68 U

(1) Cannot be separated from diphenylamine

Report prepared 12/09/88 MAC:B

***Base/neutral surrogate recoveries**

d5-Nitrobenzene	88.6%
2-Fluorobiphenyl	91.6%
d14-p-Terphenyl	96.1%

***Acid surrogate recoveries**

d5-Phenol	90.5%
2-Fluorophenol	87.9%
2,4,6-Tribromophenol	63.7%



**ANALYTICAL
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ORGANICS ANALYSIS DATA SHEET - METHOD 625

Sample No: T80110059 - MSD

Analytical
Chemists &
Consultants

Lab Sample ID: 23021MSD
Sample Matrix: Soils/Sediments

QC Report No: 2302-Ecology & Environment

Project No: T10-8810-012

Date Received: 12/01/88

333 Ninth Ave. North
Seattle, Wa 98109-5187
(206) 621-6490

Date Release Authorized: Dean A. Cohen

Date extracted: 12/05/88
Analyzed (Finn 2): 12/08/88
GPC Clean-up: YES (1 of 2)

Amount extracted: 29.8 gm (Dry Weight)
Percent Moisture: 2.9%
pH: 7.8
Conc/Dilution: 1 to 1 (After GPC)

CAS Number		ug/Kg
108-95-2	Phenol	-
111-44-4	bis(2-Chloroethyl)Ether	67 U
95-57-8	2-Chlorophenol	-
541-73-1	1,3-Dichlorobenzene	67 U
106-46-7	1,4-Dichlorobenzene	-
100-51-6	Benzyl Alcohol	340 U
95-50-1	1,2-Dichlorobenzene	67 U
95-48-7	2-Methylphenol	940
39638-32-9	bis(2-chloroisopropyl)Ether	67 U
106-44-5	4-Methylphenol	710
621-64-7	N-Nitroso-Di-n-Propylamine	-
7-72-1	Hexachloroethane	130 U
98-95-3	Nitrobenzene	67 U
78-59-1	Isophorone	67 U
88-75-5	2-Nitrophenol	340 U
105-67-9	2,4-Dimethylphenol	130 U
65-85-0	Benzoic Acid	960
111-91-1	bis(2-Chloroethoxy)Methane	67 U
120-83-2	2,4-Dichlorophenol	200 U
120-82-1	1,2,4-Trichlorobenzene	-
91-20-3	Naphthalene	810
106-47-8	4-Chloroaniline	200 U
87-68-3	Hexachlorobutadiene	130 U
59-50-7	4-Chloro-3-Methylphenol	-
91-57-6	2-Methylnaphthalene	610
77-47-4	Hexachlorocyclopentadiene	340 U
88-06-2	2,4,6-Trichlorophenol	340 U
95-95-4	2,4,5-Trichlorophenol	340 U
91-58-7	2-Chloronaphthalene	67 U
88-74-4	2-Nitroaniline	340 U
131-11-3	Dimethyl Phthalate	67 U
208-96-8	Acenaphthylene	67 U
99-09-2	3-Nitroaniline	340 U

CAS Number		ug/Kg
83-32-9	Acenaphthene	-
51-28-5	2,4-Dinitrophenol	670 U
100-02-7	4-Nitrophenol	-
132-64-9	Dibenzofuran	170 U
121-14-2	2,4-Dinitrotoluene	-
606-20-2	2,6-Dinitrotoluene	340 U
84-66-2	Diethylphthalate	67 U
7005-72-3	4-Chlorophenyl-phenylether	67 U
86-73-7	Fluorene	130
100-01-6	4-Nitroaniline	340 U
534-52-1	4,6-Dinitro-2-Methylphenol	670 U
86-30-6	N-Nitrosodiphenylamine(1)	67 U
101-55-3	4-Bromophenyl-phenylether	67 U
118-74-1	Hexachlorobenzene	67 U
87-86-5	Pentachlorophenol	-
85-01-8	Phenanthrene	810
120-12-7	Anthracene	150
84-74-2	Di-n-Butylphthalate	67 U
206-44-0	Fluoranthene	170
129-00-0	Pyrene	-
85-68-7	Butylbenzylphthalate	67 U
91-94-1	3,3'-Dichlorobenzidine	340 U
56-55-3	Benzo(a)Anthracene	67 U
117-81-7	bis(2-Ethylhexyl)Phthalate	390
218-01-9	Chrysene	67 U
117-84-0	Di-n-Octyl Phthalate	67 U
205-99-2	Benzo(b)Fluoranthene	67 U
207-08-9	Benzo(k)Fluoranthene	67 U
50-32-8	Benzo(a)Pyrene	67 U
193-39-5	Indeno(1,2,3-cd)Pyrene	67 U
53-70-3	Dibenz(a,h)Anthracene	67 U
191-24-2	Benzo(ghi)Perylene	67 U

(1) Cannot be separated from diphenylamine

Report prepared 12/09/88 MAC:B

***Base/neutral surrogate recoveries**

d5-Nitrobenzene	92.5%
2-Fluorobiphenyl	93.9%
d14-p-Terphenyl	97.8%

***Acid surrogate recoveries**

d5-Phenol	79.8%
2-Fluorophenol	94.0%
2,4,6-Tribromophenol	92.1%



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333 Ninth Ave. North
Seattle, Wa 98109-5187
(206) 621-6490

SOIL SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

ARI Job No: 2302

Client: Ecology & Environment

Project: T10-8810-012

Sample No: T80110059

COMPOUND	SPIKE ADDED (µg/Kg)	SAMPLE CONCENTRATION (µg/Kg)	MS CONCENTRATION (µg/Kg)	MS % REC	QC LIMITS REC
Phenol	14000	2602	14900	87.8	26-90
2-Chlorophenol	14000	0.0	13800	98.6	25-102
1,4-Dichlorobenzene	7000	0.0	4980	71.1	28-104
N-Nitroso-Di-n-Propylamine	7000	0.0	5240	74.9	41-126
1,2,4-Trichlorobenzene	7000	0.0	5270	75.3	38-107
4-Chloro-3-Methylphenol	14000	0.0	9500	67.9	26-103
Acenaphthene	7000	0.0	6500	92.9	31-137
4-Nitrophenol	14000	0.0	9500	67.9	11-114
2,4-Dinitrotoluene	7000	0.0	5680	81.1	28-89
Pentachlorophenol	14000	0.0	13400	95.7	17-109
Pyrene	7000	121.1	6150	86.1	35-142

COMPOUND	SPIKE ADDED (µg/Kg)	MSD CONCENTRATION (µg/Kg)	MSD % REC	% RPD	QC LIMITS	
					RPD	REC
Phenol	14000	15900	*95.0	-7.8	35	26-90
2-Chlorophenol	14000	14500	*104	-4.9	50	25-102
1,4-Dichlorobenzene	7000	5180	74.0	-3.9	27	28-104
N-Nitroso-Di-n-Propylamine	7000	5310	75.9	-1.3	38	41-126
1,2,4-Trichlorobenzene	7000	5220	74.6	1.0	23	38-107
4-Chloro-3-Methylphenol	14000	10700	76.4	-12	33	26-103
Acenaphthene	7000	6470	92.4	0.5	19	31-137
4-Nitrophenol	14000	6900	49.3	32	50	11-114
2,4-Dinitrotoluene	7000	5640	80.6	0.7	47	28-89
Pentachlorophenol	14000	8900	63.6	40	47	17-109
Pyrene	7000	6190	86.7	-0.7	36	35-142

RPD: 0 out of 11 outside limits

Spike Recovery: 2 out of 22 outside limits

Asterisked values outside QC Limits

Comments: 29.56 gram dry weight sample size.

333 Ninth Ave. North
Seattle, Wa 98109-5187
(206) 621-6490

SEMIVOLATILE METHOD BLANK SUMMARY

ARI Job No: 2302

Client: Ecology & Environment
Project: T10-8810-012

Lab Sample ID: 2301/2302MB
Matrix: Soil
Level: Low
Instrument ID: FINN II

Extraction: SONG
Date Extracted: 12/06/88
Date Analyzed: 12/07/88
Time Analyzed: 07:42

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS,MSD:

[illegible]

Comments:

5B
SEMIVOLATILE ORGANIC GC/MS TUNING AND MASS
CALIBRATION - DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: ANALYTICAL RESOURCES INC. Contract: 2302 E

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

Lab File ID: F2500922 DFTPP Injection Date: 09/22/88

Instrument ID: FINN 2 DFTPP Injection Time: 0835

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	36.8
68	Less than 2.0% of mass 69	0 (0) 1
69	Mass 69 relative abundance	41.9
70	Less than 2.0% of mass 69	0.34 (0.83) 1
127	40.0 - 60.0% of mass 198	49.1
197	Less than 1.0% of mass 198	0
198	Base Peak, 100% relative abundance	100
199	5.0 to 9.0% of mass 198	8.8
275	10.0 - 30.0% of mass 198	28.5
365	Greater than 1.00% of mass 198	2.61
441	Present, but less than mass 443	14.7
442	Greater than 40.0% of mass 198	82.6
443	17.0 - 23.0% of mass 442	15.7 (19.0) 2

1-Value is % mass 69

2-Value is % mass 442

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD50	50 NG STD 7-1	F2500922	09/22/88	0835
02	SSTD160	160 NG STD 7-2	F21600922	"	0924
03	SSTD80	80 NG STD 7-3	F2800922	"	1023
04	SSTD120	120 NG STD 7-4	F21200922	"	1114
05	SSTD20	20 NG STD 7-5	F2200922	"	1205
06	SSTD160	160 NG STD 70-5	F2160092255	"	1253
07	SSTD120	120 NG STD 70-4	F2120092255	"	1352
08	SSTD80	80 NG STD 70-3	F280092255	"	1438
09	SSTD50	50 NG STD 70-2	F250092255	"	1528
10	SSTD20	20 NG STD 70-1	F220092255	"	1612
11	SSTD50	50 NG STD 65-2	F2ABNSURR	"	1702
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					



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Seattle, Wa 98109-5187
(206) 621-6490

**SEMIVOLATILE ORGANIC GC/MS TUNING AND MASS
CALIBRATION - DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)**

Lab File ID: F2501208
Instrument ID: FINN II
Matrix: Soils
Level: Low

Client: Ecology & Environment
DFTPP Injection Date: 12/08/88
DFTPP Injection Time: 07:23

m/e	Ion Abundance Criteria	% Relative Abundance
51	30.0-60.0% of mass 198	44.4
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	38.7
70	Less than 2.0% of mass 69	0.0 (0.0)1
127	40.0-60.0% of mass 198	54.4
197	Less than 1.0% of mass 198	0.0
198	Base peak, 100% relative abundance	100
199	5.0-9.0% of mass 198	6.2
275	10.0-30.0% of mass 198	22.8
365	Greater than 1.00% of mass 198	1.9
441	Present, but less than mass 443	10.0
442	Greater than 40.0% of mass 198	80.4
443	17.0-23.0% of mass 442	14.6 (18.2)2

1-Value is % mass 69 2-Value is % mass 442

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

Client Sample ID	ARI Sample ID	Lab File ID	Date Analyzed	Time Analyzed
-	50ng Cali STD	F2501208	12/08/88	07:23
T8110056	2302F	F22302F	12/08/88	09:01
T8110059	2302I	F22302I	12/08/88	09:48
T8110059-MS	2302IMS	F22302IMS	12/08/88	10:40
T8110059-MSD	2302IMSD	F22302IMSD	12/08/88	11:28

6B
SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: ANALYTICAL RESOURCES INC Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

Instrument ID: FINN 2 Calibration Date(s): 09/22/88

Min RRF for SPCC(#) = 0.050

Max %RSD for CCC(*) = 30.0%

LAB FILE ID: RRF20 = F2200922/F220092255 RRF50 = F2500922/F250092255
RRF80 = F2800922/F280092255 RRF120 = F21200922/F2120092255 RRF160 = F21600922/F2160092255

COMPOUND	RRF20	RRF50	RRF80	RRF120	RRF160	RRF	% RSD
Phenol	* 1.313	1.210	1.322	1.187	1.195	1.245	5.3 *
bis(2-Chloroethyl) ether	1.226	1.147	1.148	1.157	1.100	1.156	3.9
2-Chlorophenol	1.133	1.057	1.090	1.114	1.072	1.093	2.8
1,3-Dichlorobenzene	1.219	1.149	1.125	1.141	1.088	1.144	4.2
1,4-Dichlorobenzene	* 1.306	1.189	1.210	1.172	1.116	1.199	5.8 *
Benzyl alcohol	0.767	0.742	0.783	0.817	0.813	0.785	4.0
1,2-Dichlorobenzene	1.217	1.134	1.150	1.134	1.071	1.141	4.6
2-Methylphenol	1.076	1.014	1.081	1.059	1.082	1.052	2.8
bis(2-Chloroisopropyl) ether	1.484	1.435	1.445	1.477	1.456	1.459	1.4
4-Methylphenol	1.110	1.090	1.109	1.082	1.042	1.087	2.6
N-Nitroso-di-n-propylamine	# 0.726	0.724	0.775	0.831	0.649	0.741	9.1 #
hexachloroethane	0.508	0.513	0.500	0.514	0.505	0.508	1.1
Nitrobenzene	0.281	0.276	0.259	0.241	0.365	0.285	16.8
Isophorone	0.577	0.584	0.605	0.620	0.601	0.597	2.9
2-Nitrophenol	* 0.151	0.166	0.169	0.186	0.166	0.168	7.4 *
2,4-Dimethylphenol	0.248	0.252	0.270	0.267	0.259	0.259	3.6
Benzoic acid	0.133	0.090	0.092	0.101	0.118	0.107	17.2
bis(2-Chloroethoxy) methane	0.372	0.387	0.398	0.400	0.382	0.388	3.0
2,4-Dichlorophenol	* 0.206	0.214	0.224	0.221	0.216	0.216	3.2 *
1,2,4-Trichlorobenzene	0.296	0.294	0.287	0.299	0.276	0.290	2.9
Naphthalene	0.825	0.809	0.755	0.732	0.655	0.755	9.0
4-Chloroaniline	0.146	0.233	0.286	0.301	0.322	0.257	27.4
Hexachlorobutadiene	* 0.155	0.158	0.151	0.158	0.140	0.152	4.9 *
4-Chloro-3-methylphenol	* 0.206	0.215	0.222	0.219	0.212	0.215	3.0 *
2-Methylnaphthalene	0.744	0.748	0.727	0.719	0.689	0.725	3.3
Hexachlorocyclopentadiene	# 0.338	0.358	0.376	0.379	0.356	0.361	4.6 #
2,4,6-Trichlorophenol	* 0.328	0.379	0.440	0.468	0.418	0.407	13.4 *
2,4,5-Trichlorophenol	0.349	0.303	0.280	0.243	0.250	0.285	15.1
2-Chloronaphthalene	1.108	1.090	1.112	1.093	1.048	1.090	2.3
2-Nitroaniline	0.243	0.278	0.299	0.320	0.310	0.290	10.5
Dimethylphthalate	1.247	1.209	1.215	1.196	1.146	1.202	3.1
Acenaphthylene	1.666	1.648	1.678	1.644	1.500	1.627	4.5
2,6-Dinitrotoluene	0.280	0.273	0.267	0.235	0.225	0.256	9.5
3-Nitroaniline	0.260	0.275	0.295	0.302	0.289	0.284	5.9
Acenaphthene	* 0.977	0.929	0.983	0.946	0.903	0.948	3.5 *
2,4-Dinitrophenol	# 0.115	0.168	0.203	0.164	0.152	0.160	19.8 #
1-Nitrophenol	# 0.239	0.245	0.230	0.251	0.201	0.233	8.4 #

6C
SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

b Name: ANALYTICAL RESOURCES INC. Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

Instrument ID: FINN 2 Calibration Date(s): 09/22/83

Min RRF for SPCC(%) = 0.050

Max %RSD for CCC(*) = 30.0%

LAB FILE ID: RRF20 = F2200922/F2200922SS RRF50 = F2500922/F2500922SS
RRF80 = F2800922/F2500922SS RRF120 = F21200922/F21200922SS RRF160 = F21600922/F21600922SS

COMPOUND	RRF20	RRF50	RRF80	RRF120	RRF160	RRF	% RSD
Dibenzofuran	1.852	1.756	1.816	1.757	1.589	1.760	5.8
2,4-Dinitrotoluene	0.222	0.229	0.260	0.248	0.242	0.240	6.3
Diethylphthalate	1.278	1.177	1.094	1.103	1.025	1.136	8.4
4-Chlorophenyl-phenylether	0.639	0.654	0.667	0.645	0.584	0.648	6.1
Fluorene	1.119	1.051	1.083	1.071	0.999	1.066	4.2
4-Nitroaniline	0.277	0.244	0.238	0.203	0.215	0.235	12.2
4,6-Dinitro-2-methylphenol	0.096	0.111	0.124	0.098	0.096	0.105	11.7
N-Nitrosodiphenylamine (1)	* 0.488	0.553	0.543	0.544	0.577	0.541	6.0 *
4-Bromophenyl-phenylether	0.218	0.225	0.223	0.228	0.214	0.222	2.5
Hexachlorobenzene	0.241	0.238	0.244	0.245	0.222	0.238	3.9
Pentachlorophenol	* 0.142	0.153	0.133	0.147	0.135	0.142	5.8 *
Phenanthrene	0.862	0.861	0.875	0.900	0.881	0.876	1.8
Anthracene	0.885	0.789	0.699	0.736	0.531	0.738	15.2
Di-n-butylphthalate	1.338	1.262	1.053	1.077	0.939	1.134	14.3
Fluoranthene	* 1.010	0.897	0.791	0.837	0.733	0.854	12.4 *
Pyrene	1.288	1.219	1.162	1.095	1.114	1.175	6.7
Butylbenzylphthalate	0.744	0.774	0.782	0.794	0.791	0.777	2.6
3,3'-Dichlorobenzidine	0.125	0.143	0.152	0.137	0.130	0.137	7.7
Benzo(a)anthracene	1.124	1.084	1.083	1.122	1.022	1.087	3.8
Chrysene	1.120	1.039	1.000	1.019	0.928	1.021	6.8
bis(2-Ethylhexyl)phthalate	0.995	1.052	1.072	1.039	1.032	1.038	2.7
Di-n-octylphthalate	* 2.267	2.423	2.337	2.090	1.903	2.204	9.4 *
Benzo(b)fluoranthene	1.307	1.340	1.370	1.437	1.396	1.352	4.0
Benzo(k)fluoranthene	1.549	1.520	1.389	1.287	1.160	1.381	11.7
Benzo(a)pyrene	* 1.206	1.313	1.307	1.327	1.213	1.273	4.6 *
Indeno(1,2,3-cd)pyrene	0.981	1.058	1.142	1.172	1.150	1.101	7.2
Dibenz(a,h)anthracene	1.180	1.153	1.192	1.195	1.097	1.163	3.5
Benzo(g,h,i)perylene	1.156	1.188	1.194	1.198	1.159	1.179	1.7
=====							
Nitrobenzene-d5	0.746	0.923	0.937	0.950	0.845	0.880	9.7
2-Fluorobiphenyl	1.147	1.231	1.196	1.145	1.035	1.151	6.4
Terphenyl-d14	0.845	0.751	0.834	0.748	0.666	0.769	9.5
Phenol-d5	1.035	1.128	1.189	1.182	1.617	1.230	18.3
2-Fluorophenol	0.901	0.975	1.025	1.004	1.266	1.034	13.3
2,4,6-Tribromophenol	0.172	0.188	0.197	0.179	0.169	0.181	6.4

Cannot be separated from Diphenylamine



**ANALYTICAL
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**Continuing Calibration Check
Semivolatile HSL Compounds
(Page 1)**

QC Report: 2302-Ecology & Environment
Laboratory: ANALYTICAL RESOURCES, INC
Project: T10-8810-012
Instrument: FINN II

Calibration Date: 12/07/88
Time: 0641 hrs
Laboratory ID: F2501207
Initial Calibration Date: 09/22/88

Minimum RF (avg) for SPCC is 0.050

Maximum %D for CCC is 25%

Compound	RF Avg	RF50	%D	CCC	SPCC
Phenol	1.245	1.258	-1.0	*	
bis(-2-Chloroethyl)Ether	1.156	1.326	-14.7		
2-Chlorophenol	1.093	1.214	-11.1		
1,3-Dichlorobenzene	1.144	1.322	-15.6		
1,4-Dichlorobenzene	1.199	1.338	-11.6	*	
Benzyl Alcohol	0.785	0.900	-14.6		
1,2-Dichlorobenzene	1.141	1.301	-14.0		
2-Methylphenol	1.052	1.183	-12.5		
bis(2-chloroisopropyl)Ether	1.459	1.655	-13.4		
4-Methylphenol	1.087	1.219	-12.1		
N-Nitroso-Di-n-Propylamine	0.741	0.879	-18.6		**
Hexachloroethane	0.508	0.547	-7.7		
Nitrobenzene	0.285	0.338	-18.6		
Isophorone	0.597	0.749	-25.5		
2-Nitrophenol	0.168	0.187	-11.3	*	
2,4-Dimethylphenol	0.259	0.312	-20.5		
Benzoic Acid	0.107	0.099	7.5		
bis(-2-Chloroethoxy)Methane	0.388	0.480	-23.7		
2,4-Dichlorophenol	0.216	0.235	-8.8	*	
1,2,4-Trichlorobenzene	0.290	0.364	-25.5		
Naphthalene	0.755	0.916	-21.3		
4-Chloroaniline	0.257	0.289	-12.5		
Hexachlorobutadiene	0.152	0.187	-23.0	*	
4-Chloro-3-Methylphenol	0.215	0.250	-16.3	*	
2-Methylnaphthalene	0.725	0.689	5.0		
Hexachlorocyclopentadiene	0.361	0.439	-21.6		**
2,4,6-Trichlorophenol	0.407	0.393	3.4	*	
2,4,5-Trichlorophenol	0.285	0.402	-41.1		
2-Chloronaphthalene	1.090	1.261	-15.7		
2-Nitroaniline	0.290	0.291	-0.3		
Dimethyl Phthalate	1.202	1.517	-26.2		
Acenaphthylene	1.627	2.005	-23.2		
3-Nitroaniline	0.284	0.301	-6.0		



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Continuing Calibration Check
Semivolatile HSL Compounds
(Page 2)

QC Report: 2302-Ecology & Environment
Laboratory: ANALYTICAL RESOURCES, INC
Project: T10-8810-012
Instrument: FINN II

Calibration Date: 12/07/88
Time: 0641 hrs
Laboratory ID: F2501207
Initial Calibration Date: 09/22/88

Minimum RF(avg) for SPCC is 0.050

Maximum %D for CCC is 25%

Compound	RF Avg	RF50	%D	CCC	SPCC
Acenaphthene	0.948	1.064	-12.2	*	
2,4-Dinitrophenol	0.160	0.188	-17.5		**
4-Nitrophenol	0.233	0.222	4.7		**
Dibenzofuran	1.760	2.141	-21.6		
2,4-Dinitrotoluene	0.256	0.381	-48.8		
2,6-Dinitrotoluene	0.240	0.265	-10.4		
Diethylphthalate	1.136	1.082	4.8		
4-Chlorophenyl-phenylether	0.648	0.879	-35.6		
Fluorene	1.066	1.299	-21.9		
4-Nitroaniline	0.235	0.232	1.3		
4,6-Dinitro-2-Methylphenol	0.105	0.124	-18.1		
N-Nitrosodiphenylamine	0.541	0.528	2.4	*	
4-Bromophenyl-phenylether	0.222	0.269	-21.2		
Hexachlorobenzene	0.238	0.289	-21.4		
Pentachlorophenol	0.142	0.134	5.6	*	
Phenanthrene	0.876	0.859	1.9		
Anthracene	0.738	0.819	-11.0		
Di-N-Butylphthalate	1.134	1.285	-13.3		
Fluoranthene	0.854	0.977	-14.4	*	
Pyrene	1.175	1.309	-11.4		
Butylbenzylphthalate	0.777	0.805	-3.6		
3,3'-Dichlorobenzidine	0.137	0.087	36.5		
Benzo(a)Anthracene	1.087	1.387	-27.6		
bis(2-Ethylhexyl)Phthalate	1.038	1.206	-16.2		
Chrysene	1.021	1.293	-26.6		
Di-n-Octyl Phthalate	2.204	2.975	-35.0	*	
Benzo(b)Fluoranthene	1.352	1.792	-32.5		
Benzo(k)Fluoranthene	1.381	1.793	-29.8		
Benzo(a)Pyrene	1.273	1.416	-11.2	*	
Indeno(1,2,3-cd)Pyrene	1.101	1.280	-16.3		
Dibenz(a,h)Anthracene	1.283	1.275	0.6		
Benzo(g,h,i)Perylene	1.280	1.326	-3.6		



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Continuing Calibration Check
Semivolatile HSL Compounds
(Page 1)

QC Report: 2302-Ecology & Environment
Laboratory: ANALYTICAL RESOURCES, INC
Project: T10-8810-012
Instrument: FINN II

Calibration Date: 12/08/88
Time: 0808 hrs
Laboratory ID: F2501208
Initial Calibration Date: 09/22/88

Minimum RF (avg) for SPCC is 0.050

Maximum %D for CCC is 25%

Compound	RF Avg	RF50	%D	CCC	SPCC
Phenol	1.245	1.246	-0.1	*	
bis(-2-Chloroethyl)Ether	1.156	1.090	5.7		
2-Chlorophenol	1.093	1.110	-1.6		
1,3-Dichlorobenzene	1.144	1.211	-5.9		
1,4-Dichlorobenzene	1.199	1.258	-4.9	*	
Benzyl Alcohol	0.785	0.747	4.8		
1,2-Dichlorobenzene	1.141	1.194	-4.6		
2-Methylphenol	1.052	1.117	-6.2		
bis(2-chloroisopropyl)Ether	1.459	1.164	20.2		
4-Methylphenol	1.087	1.092	-0.5		
N-Nitroso-Di-n-Propylamine	0.741	0.895	-20.8		**
Hexachloroethane	0.508	0.504	0.8		
Nitrobenzene	0.285	0.270	5.3		
Isophorone	0.597	0.587	1.7		
2-Nitrophenol	0.168	0.160	4.8	*	
2,4-Dimethylphenol	0.259	0.284	-9.7		
Benzoic Acid	0.107	0.081	24.3		
bis(-2-Chloroethoxy)Methane	0.388	0.388	0.0		
2,4-Dichlorophenol	0.216	0.202	6.5	*	
1,2,4-Trichlorobenzene	0.290	0.313	-7.9		
Naphthalene	0.755	0.840	-11.3		
4-Chloroaniline	0.257	0.310	-20.6		
Hexachlorobutadiene	0.152	0.161	-5.9	*	
4-Chloro-3-Methylphenol	0.215	0.264	-22.8	*	
2-Methylnaphthalene	0.725	0.578	20.3		
Hexachlorocyclopentadiene	0.361	0.337	6.6		**
2,4,6-Trichlorophenol	0.407	0.349	14.3	*	
2,4,5-Trichlorophenol	0.285	0.374	-31.2		
2-Chloronaphthalene	1.090	1.088	0.2		
2-Nitroaniline	0.290	0.271	6.6		
Dimethyl Phthalate	1.202	1.409	-17.2		
Acenaphthylene	1.627	1.804	-10.9		
3-Nitroaniline	0.284	0.310	-9.2		



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Continuing Calibration Check
Semivolatile HSL Compounds
(Page 2)

QC Report: 2302-Ecology & Environment
Laboratory: ANALYTICAL RESOURCES, INC
Project: T10-8810-012
Instrument: FINN II

Calibration Date: 12/08/88
Time: 0808 hrs
Laboratory ID: F2501208
Initial Calibration Date: 09/22/88

Minimum RF(avg) for SPCC is 0.050

Maximum %D for CCC is 25%

Compound	RF Avg	RF50	%D	CCC	SPCC
Acenaphthene	0.948	0.990	-4.4	*	
2,4-Dinitrophenol	0.160	0.149	6.9		**
4-Nitrophenol	0.233	0.185	20.6		**
Dibenzofuran	1.760	1.997	-13.5		
2,4-Dinitrotoluene	0.256	0.346	-35.2		
2,6-Dinitrotoluene	0.240	0.282	-17.5		
Diethylphthalate	1.136	1.215	-7.0		
4-Chlorophenyl-phenylether	0.648	0.807	-24.5		
Fluorene	1.066	1.202	-12.8		
4-Nitroaniline	0.235	0.201	14.5		
4,6-Dinitro-2-Methylphenol	0.105	0.101	3.8		
N-Nitrosodiphenylamine	0.541	0.470	13.1	*	
4-Bromophenyl-phenylether	0.222	0.230	-3.6		
Hexachlorobenzene	0.238	0.247	-3.8		
Pentachlorophenol	0.142	0.110	22.5	*	
Phenanthrene	0.876	0.849	3.1		
Anthracene	0.738	0.875	-18.6		
Di-N-Butylphthalate	1.134	1.390	-22.6		
Fluoranthene	0.854	0.975	-14.2	*	
Pyrene	1.175	1.227	-4.4		
Butylbenzylphthalate	0.777	0.828	-6.6		
3,3'-Dichlorobenzidine	0.137	0.117	14.6		
Benzo(a)Anthracene	1.087	1.202	-10.6		
bis(2-Ethylhexyl)Phthalate	1.038	1.152	-11.0		
Chrysene	1.021	1.167	-14.3		
Di-n-Octyl Phthalate	2.204	2.670	-21.1	*	
Benzo(b)Fluoranthene	1.352	1.427	-5.5		
Benzo(k)Fluoranthene	1.381	1.588	-15.0		
Benzo(a)Pyrene	1.273	1.454	-14.2	*	
Indeno(1,2,3-cd)Pyrene	1.101	1.009	8.4		
Dibenz(a,h)Anthracene	1.283	1.072	16.4		
Benzo(g,h,i)Perylene	1.280	1.015	20.7		



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ORGANICS ANALYSIS DATA SHEET - METHOD 624

Sample No: T8110056

Lab Sample ID: 2302F

Sample Matrix: Soil/Sediments

QC Report No: 2302 - E&E

Project: T10-8810-012

Date Received: 12/01/88

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(206) 621-6490

Data Release Authorized: *Lucretia J. Carson*

Report Prepared: 12/07/88 MAC:A

Conc Level: Low
Instrument ID: FINN I
Date Analyzed: 12/07/88

Amount Analyzed: 2.00 gm (Dry Weight)
Percent Moisture: 22.34%
pH: 8.09
Conc/Dil Factor: 1:1

CAS Number		µg/Kg
74-87-3	Chloromethane	9.5 U
74-83-9	Bromomethane	7.8 U
75-01-4	Vinyl Chloride	5.0 U
75-00-3	Chloroethane	8.3 U
75-09-2	Methylene Chloride	5.7 J
67-64-1	Acetone	17 U
75-15-0	Carbon Disulfide	3.0 U
75-35-4	1,1-Dichloroethene	1.8 U
75-34-3	1,1-Dichloroethane	1.5 U
540-59-0	1,2-Dichloroethene (Total)	2.0 U
57-66-3	Chloroform	2.8 U
107-06-2	1,2-Dichloroethane	1.3 U
78-93-3	2-Butanone	16 U R
71-55-6	1,1,1-Trichloroethane	1.5 U
56-23-5	Carbon Tetrachloride	2.3 U
108-05-4	Vinyl Acetate	7.8 U
75-27-4	Bromodichloromethane	0.8 U

CAS Number		µg/Kg
78-87-5	1,2-Dichloropropane	1.8 U
10061-01-5	cis-1,3-Dichloropropene	4.8 U
79-01-6	Trichloroethene	1.5 U
124-48-1	Dibromochloromethane	1.8 U
79-00-5	1,1,2-Trichloroethane	1.8 U
71-43-2	Benzene	2.5 U
10061-02-6	Trans-1,3-Dichloropropene	4.5 U
110-75-8	2-Chloroethylvinylether	6.8 U
75-25-2	Bromoform	6.3 U
108-10-1	4-Methyl-2-Pentanone	8.8 U
591-78-6	2-Hexanone	8.0 U
127-18-4	Tetrachloroethene	1.3 U
79-34-5	1,1,2,2-Tetrachloroethane	6.8 U
108-88-3	Toluene	3.9
108-90-7	Chlorobenzene	2.3 U
100-41-4	Ethylbenzene	1.5 J
100-42-5	Styrene	2.8 U
1330-20-7	Total Xylenes	4.5

***Volatile Organic
Surrogate Recoveries**

d8-Toluene	100%
Bromofluorobenzene	89.4%
d4-1,2-Dichloroethane	91.5%

*Surrogate recoveries indicate the validity
of a given analysis

Data Reporting Qualifiers

Value	If the result is a value greater than or equal to the detection limit, report the value.	B	This flag is used when the analyte is found in the blank as well as a sample. Indicates possible/probable blank contamination.
U	Indicates compound was analyzed for but not detected at the given detection limit.	K	This flag is used when quantitated value falls above the limit of the calibration curve and dilution should be run.
J	Indicates an estimated value when result is less than specified detection limit.	M	Indicates an estimated value of analyte found and confirmed by analyst but with low spectral match parameters.
NR	Analysis not required		



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ORGANICS ANALYSIS DATA SHEET - METHOD 624

Sample No: T8110059

Lab Sample ID: 23021

Sample Matrix: Soil/Sediments

Data Release Authorized: *Susan D. Allen*

Report Prepared: 12/07/88 MAC:A

QC Report No: 2302 - E&E

Project: T10-8810-012

Date Received: 12/01/88

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Seattle, Wa 98109-5187
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Conc Level: Low
Instrument ID: FINN I
Date Analyzed: 12/07/88

Amount Analyzed: 5.20 gm (Dry Weight)
Percent Moisture: 2.94%
pH: 7.84
Conc/Dil Factor: 1:1

CAS Number		µg/Kg
74-87-3	Chloromethane	3.7 U
74-83-9	Bromomethane	3.0 U
75-01-4	Vinyl Chloride	1.9 U
75-00-3	Chloroethane	3.2 U
75-09-2	Methylene Chloride	5.0
67-64-1	Acetone	69
75-15-0	Carbon Disulfide	1.2 U
75-35-4	1,1-Dichloroethene	0.7 U
75-34-3	1,1-Dichloroethane	0.6 U
540-59-0	1,2-Dichloroethene (Total)	0.8 U
57-66-3	Chloroform	1.1 U
107-06-2	1,2-Dichloroethane	0.5 U
78-93-3	2-Butanone	6.0 U R
71-55-6	1,1,1-Trichloroethane	0.6 U
56-23-5	Carbon Tetrachloride	0.9 U
108-05-4	Vinyl Acetate	3.0 U
75-27-4	Bromodichloromethane	0.3 U

CAS Number		µg/Kg
78-87-5	1,2-Dichloropropane	0.7 U
10061-01-5	cis-1,3-Dichloropropene	1.8 U
79-01-6	Trichloroethene	0.6 U
124-48-1	Dibromochloromethane	0.7 U
79-00-5	1,1,2-Trichloroethane	0.7 U
71-43-2	Benzene	2.5
10061-02-6	Trans-1,3-Dichloropropene	1.7 U
110-75-8	2-Chloroethylvinylether	2.6 U
75-25-2	Bromoform	2.4 U
108-10-1	4-Methyl-2-Pentanone	16
591-78-6	2-Hexanone	34 M
127-18-4	Tetrachloroethene	0.5 U
79-34-5	1,1,2,2-Tetrachloroethane	2.6 U
108-88-3	Toluene	6.0
108-90-7	Chlorobenzene	0.9 U
100-41-4	Ethylbenzene	2.7
100-42-5	Styrene	1.5
1330-20-7	Total Xylenes	14

***Volatile Organic
Surrogate Recoveries**

d8-Toluene	105%
Bromofluorobenzene	82.5%
d4-1,2-Dichloroethane	94.7%

*Surrogate recoveries indicate the validity
of a given analysis

Data Reporting Qualifiers

Value	If the result is a value greater than or equal to the detection limit, report the value.	B	This flag is used when the analyte is found in the blank as well as a sample. Indicates possible/probable blank contamination.
U	Indicates compound was analyzed for but not detected at the given detection limit.	K	This flag is used when quantitated value falls above the limit of the calibration curve and dilution should be run.
J	Indicates an estimated value when result is less than specified detection limit.	M	Indicates an estimated value of analyte found and confirmed by analyst but with low spectral match parameters.
NR	Analysis not required		



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ORGANICS ANALYSIS DATA SHEET - METHOD 624

Sample No: Method Blank

Lab Sample ID: 1207MB
Sample Matrix: Soil/Sediments

QC Report No: 2302 - E&E
Project: T10-8810-012
Date Received: 12/01/88

Data Release Authorized: Lusan D. Asar
Report Prepared: 12/07/88 MACA

Conc Level: Low
Instrument ID: FINN I
Date Analyzed: 12/07/88

Amount Analyzed: 5.00 gm (Dry Weight)
Percent Moisture: NR
pH: NR
Conc/Dil Factor: 1:1

CAS Number		µg/Kg
74-87-3	Chloromethane	3.8 U
74-83-9	Bromomethane	3.1 U
75-01-4	Vinyl Chloride	2.0 U
75-00-3	Chloroethane	3.3 U
75-09-2	Methylene Chloride	3.5 U
67-64-1	Acetone	6.9 U
75-15-0	Carbon Disulfide	1.2 U
75-35-4	1,1-Dichloroethene	0.7 U
75-34-3	1,1-Dichloroethane	0.6 U
540-59-0	1,2-Dichloroethene (Total)	0.8 U
57-66-3	Chloroform	1.1 U
107-06-2	1,2-Dichloroethane	0.5 U
78-93-3	2-Butanone	6.2 U R
71-55-6	1,1,1-Trichloroethane	0.6 U
56-23-5	Carbon Tetrachloride	0.9 U
108-05-4	Vinyl Acetate	3.1 U
75-27-4	Bromodichloromethane	0.3 U

CAS Number		µg/Kg
78-87-5	1,2-Dichloropropane	0.7 U
10061-01-5	cis-1,3-Dichloropropene	1.9 U
79-01-6	Trichloroethene	0.6 U
124-48-1	Dibromochloromethane	0.7 U
79-00-5	1,1,2-Trichloroethane	0.7 U
71-43-2	Benzene	1.0 U
10061-02-6	Trans-1,3-Dichloropropene	1.8 U
110-75-8	2-Chloroethylvinylether	2.7 U
75-25-2	Bromoform	2.5 U
108-10-1	4-Methyl-2-Pentanone	3.5 U
591-78-6	2-Hexanone	3.2 U
127-18-4	Tetrachloroethene	0.5 U
79-34-5	1,1,2,2-Tetrachloroethane	2.7 U
108-88-3	Toluene	0.8 U
108-90-7	Chlorobenzene	0.9 U
100-41-4	Ethylbenzene	0.8 U
100-42-5	Styrene	1.1 U
1330-20-7	Total Xylenes	1.8 U

***Volatile Organic
Surrogate Recoveries**

d8-Toluene	98.1%
Bromofluorobenzene	92.6%
d4-1,2-Dichloroethane	90.8%

*Surrogate recoveries indicate the validity
of a given analysis

Data Reporting Qualifiers

Value	If the result is a value greater than or equal to the detection limit, report the value.	B	This flag is used when the analyte is found in the blank as well as a sample. Indicates possible/probable blank contamination.
U	Indicates compound was analyzed for but not detected at the given detection limit.	K	This flag is used when quantitated value falls above the limit of the calibration curve and dilution should be run.
J	Indicates an estimated value when result is less than specified detection limit.	M	Indicates an estimated value of analyte found and confirmed by analyst but with low spectral match parameters.
NR	Analysis not required		



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ORGANICS ANALYSIS DATA SHEET - METHOD 624

Sample No: T8110056 MS

Lab Sample ID: 2302FMS

Sample Matrix: Soil/Sediments

QC Report No: 2302 - E&E

Project: T10-8810-012

Date Received: 12/01/88

Data Release Authorized: *Lisa E. Dean*

Report Prepared: 12/07/88 MAC:A

Conc Level: Low
Instrument ID: FINN I
Date Analyzed: 12/07/88

Amount Analyzed: 2.35 gm (Dry Weight)
Percent Moisture: 22.34%
pH: 8.09
Conc/Dil Factor: 1:1

CAS Number		µg/Kg
74-87-3	Chloromethane	8.1 U
74-83-9	Bromomethane	6.6 U
75-01-4	Vinyl Chloride	4.3 U
75-00-3	Chloroethane	7.0 U
75-09-2	Methylene Chloride	6.6 J
67-64-1	Acetone	15 U
75-15-0	Carbon Disulfide	2.6 U
75-35-4	1,1-Dichloroethene	-
75-34-3	1,1-Dichloroethane	1.3 U
540-59-0	1,2-Dichloroethene (Total)	1.7 U
67-66-3	Chloroform	2.3 U
107-06-2	1,2-Dichloroethane	1.1 U
78-93-3	2-Butanone	13 U R
71-55-6	1,1,1-Trichloroethane	1.3 U
56-23-5	Carbon Tetrachloride	1.9 U
108-05-4	Vinyl Acetate	6.6 U
75-27-4	Bromodichloromethane	0.6 U

CAS Number		µg/Kg
78-87-5	1,2-Dichloropropane	1.5 U
10061-01-5	cis-1,3-Dichloropropene	4.0 U
79-01-6	Trichloroethene	-
124-48-1	Dibromochloromethane	1.5 U
79-00-5	1,1,2-Trichloroethane	1.5 U
71-43-2	Benzene	-
10061-02-6	Trans-1,3-Dichloropropene	3.8 U
110-75-8	2-Chloroethylvinylether	5.7 U
75-25-2	Bromoform	5.3 U
108-10-1	4-Methyl-2-Pentanone	7.4 U
591-78-6	2-Hexanone	6.8 U
127-18-4	Tetrachloroethene	1.1 U
79-34-5	1,1,2,2-Tetrachloroethane	5.7 U
108-88-3	Toluene	-
108-90-7	Chlorobenzene	-
100-41-4	Ethylbenzene	1.7 U
100-42-5	Styrene	2.3 U
1330-20-7	Total Xylenes	3.8 J

***Volatile Organic
Surrogate Recoveries**

d8-Toluene	101%
Bromofluorobenzene	96.0%
d4-1,2-Dichloroethane	95.0%

*Surrogate recoveries indicate the validity
of a given analysis

Data Reporting Qualifiers

Value	If the result is a value greater than or equal to the detection limit, report the value.	B	This flag is used when the analyte is found in the blank as well as a sample. Indicates possible/probable blank contamination.
U	Indicates compound was analyzed for but not detected at the given detection limit.	K	This flag is used when quantitated value falls above the limit of the calibration curve and dilution should be run.
J	Indicates an estimated value when result is less than specified detection limit.	M	Indicates an estimated value of analyte found and confirmed by analyst but with low spectral match parameters.
NR	Analysis not required		



**ANALYTICAL
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ORGANICS ANALYSIS DATA SHEET - METHOD 624

Sample No: T8110056 MSD

Lab Sample ID: 2302FMSD
Sample Matrix: Soil/Sediments

QC Report No: 2302 - E&E
Project: T10-8810-012
Date Received: 12/01/88

Analytical
Chemists &
Consultants

333 Ninth Ave. North
Seattle, Wa 98109-5187
(206) 621-6490

Data Release Authorized: Susan D. Roca
Report Prepared: 12/07/88 MACA

Conc Level: Low
Instrument ID: FINN I
Date Analyzed: 12/07/88

Amount Analyzed: 2.36 gm (Dry Weight)
Percent Moisture: 22.34%
pH: 8.09
Conc/Dil Factor: 1:1

CAS Number		µg/Kg
74-87-3	Chloromethane	8.1 U
74-83-9	Bromomethane	6.6 U
75-01-4	Vinyl Chloride	4.2 U
75-00-3	Chloroethane	7.0 U
75-09-2	Methylene Chloride	6.6 J
67-64-1	Acetone	15 U
75-15-0	Carbon Disulfide	2.5 U
75-35-4	1,1-Dichloroethene	-
75-34-3	1,1-Dichloroethane	1.3 U
540-59-0	1,2-Dichloroethene (Total)	1.7 U
57-66-3	Chloroform	2.3 U
107-06-2	1,2-Dichloroethane	1.1 U
78-93-3	2-Butanone	13 U R
71-55-6	1,1,1-Trichloroethane	1.3 U
56-23-5	Carbon Tetrachloride	1.9 U
108-05-4	Vinyl Acetate	6.6 U
75-27-4	Bromodichloromethane	0.6 U

CAS Number		µg/Kg
78-87-5	1,2-Dichloropropane	1.5 U
10061-01-5	cis-1,3-Dichloropropene	4.0 U
79-01-6	Trichloroethene	-
124-48-1	Dibromochloromethane	1.5 U
79-00-5	1,1,2-Trichloroethane	1.5 U
71-43-2	Benzene	-
10061-02-6	Trans-1,3-Dichloropropene	3.8 U
110-75-8	2-Chloroethylvinylether	5.7 U
75-25-2	Bromoform	5.3 U
108-10-1	4-Methyl-2-Pentanone	7.4 U
591-78-6	2-Hexanone	6.8 U
127-18-4	Tetrachloroethene	1.1 U
79-34-5	1,1,2,2-Tetrachloroethane	5.7 U
108-88-3	Toluene	-
108-90-7	Chlorobenzene	-
100-41-4	Ethylbenzene	1.7 U
100-42-5	Styrene	2.3 U
1330-20-7	Total Xylenes	5.1

***Volatile Organic
Surrogate Recoveries**

d8-Toluene	101%
Bromofluorobenzene	96.2%
d4-1,2-Dichloroethane	92.7%

*Surrogate recoveries indicate the validity
of a given analysis

Data Reporting Qualifiers

Value	If the result is a value greater than or equal to the detection limit, report the value.	B	This flag is used when the analyte is found in the blank as well as a sample. Indicates possible/probable blank contamination.
U	Indicates compound was analyzed for but not detected at the given detection limit.	K	This flag is used when quantitated value falls above the limit of the calibration curve and dilution should be run.
J	Indicates an estimated value when result is less than specified detection limit.	M	Indicates an estimated value of analyte found and confirmed by analyst but with low spectral match parameters.
NR	Analysis not required		

Analytical
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333 Ninth Ave. North
Seattle, Wa 98109-5187
(206) 621-6490

SOIL VOLATILE SURROGATE RECOVERY

ARI Job No: 2302
Level: Low

Client: Ecology & Environment
Project: T10-8810-012

[illegible]

S1 (TOL)=Toluene-d8
S2 (BFB)=Bromofluorobenzene
S3 (DCE)=1,2-Dichloroethane-d4

QC LIMITS
(81-117)
(74-121)
(70-121)

Asterisked values outside QC Limits



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SOIL VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

ARI Job No: 2302

Client: E & E
Project: T10-8810-012

Sample No: T8110056

Level: Low

COMPOUND	SPIKE ADDED ($\mu\text{g/L}$)	SAMPLE CONCENTRATION ($\mu\text{g/L}$)	MS CONCENTRATION ($\mu\text{g/L}$)	MS % REC	QC LIMITS REC
1,1-Dichloroethene	106	0.0	128	121	59-172
Trichloroethene	106	0.0	110	104	62-137
Benzene	106	0.0	106	100	66-142
Toluene	106	3.9	121	111	59-139
Chlorobenzene	106	0.0	93.7	88.4	60-133

COMPOUND	SPIKE ADDED ($\mu\text{g/L}$)	MSD CONCENTRATION ($\mu\text{g/L}$)	MSD % REC	% RPD	QC LIMITS	
					RPD	REC
1,1-Dichloroethene	106	128	121	0.0	22	59-172
Trichloroethene	106	110	104	0.0	24	62-137
Benzene	106	104	98.1	1.9	21	66-142
Toluene	106	122	111	0.0	21	59-139
Chlorobenzene	106	94.2	88.9	-0.6	21	60-133

RPD: 0 out of 5 outside limits
Spike Recovery: 0 out of 10 outside limits

Asterisked values outside QC Limits

Comments: 2.36 gram dry weight sample size

**VOLATILE ORGANIC GC/MS TUNING AND MASS
CALIBRATION - BROMOFLUOROBENZENE (BFB)**

Lab File ID: F18FB1121A
Instrument ID: FINN1
Matrix: Water/Soil
Level: Low

Client: 2302-E0 E
BFB Injection Date: 11/21/88
BFB Injection Time: 07:36
Column: PACK

m/e	Ion Abundance Criteria	% Relative Abundance
50	15.0-40.0% of mass 95	18.6
75	30.0-60.0% of mass 95	40.8
95	Base peak, 100% relative abundance	100
96	5.0-9.0% of mass 95	8.6
173	Less than 2.0% of mass 174	0.5 (0.6)1
174	Greater than 50.0% of mass 95	83.2
175	5.0-9.0% of mass 174	6.1 (7.3)1
176	Greater than 95.0%, but less than 101.0% of mass 174	79.8 (95.9)1
177	5.0-9.0% of mass 176	5.8 (7.3)2

1-Value is % mass 174 2-Value is % mass 176

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS MSD, BLANKS, AND STANDARDS:

[illegible]

**Initial Calibration Data
Volatile Compounds**

Job No: 2302 - E&E
Contractor: ANALYTICAL RESOURCES, INC.
Project: TIO - 8810 - 012

Instrument ID: FINN1
Calibration Date: 11/21/88

Minimum RF-Avg for SPCC is 0.300
(0.25 for Bromoform)

Maximum %RSD for CCC is 30%

LABORATORY ID	201121	501121F	1001121	1501121	2001121			CCC*
Compound	RF 20	RF 50	RF 100	RF 150	RF 200	RF-Avg	%RSD	SPCC**
Chloromethane	0.339	0.341	0.282	0.308	0.310	0.316	7.8	**
Bromomethane	0.571	0.484	0.503	0.490	0.612	0.532	10.6	
Vinyl Chloride	0.487	0.459	0.494	0.515	0.558	0.503	7.3	*
Chloroethane	0.201	0.160	0.178	0.192	0.195	0.185	8.9	
Methylene Chloride	0.415	0.344	0.369	0.413	0.355	0.379	8.7	
Acetone	0.361	0.492	0.372	0.517	0.337	0.416	19.8	
Carbon Disulfide	2.146	2.279	2.350	2.405	2.472	2.330	5.4	
1,1-Dichloroethene	0.977	0.978	1.112	1.141	1.170	1.076	8.5	*
1,1-Dichloroethane	2.033	2.073	2.257	2.346	2.338	2.209	6.7	**
1,2-Dichloroethene (total)	1.181	1.196	1.295	1.330	1.343	1.269	6.0	
Chloroform	2.586	2.608	2.822	2.953	2.843	2.762	5.8	*
1,2-Dichloroethane	1.507	1.495	1.680	1.730	1.676	1.618	6.7	
2-Butanone	0.011	0.013	0.016	0.018	0.016	0.015	18.7	
1,1,1-Trichloroethane	0.182	0.182	0.179	0.189	0.170	0.180	3.8	
Carbon Tetrachloride	0.195	0.214	0.266	0.301	0.267	0.249	17.4	
Ethyl Acetate	0.143	0.197	0.290	0.303	0.303	0.247	29.6	
Bromodichloromethane	0.254	0.271	0.300	0.309	0.292	0.285	7.9	
1,2-Dichloropropane	0.251	0.264	0.280	0.305	0.269	0.274	7.4	*
cis-1,3-Dichloropropene	0.236	0.257	0.295	0.301	0.280	0.274	9.9	
Trichloroethene	0.313	0.321	0.355	0.387	0.346	0.344	8.6	
Dibromochloromethane	0.345	0.396	0.437	0.452	0.408	0.408	10.2	
1,1,2-Trichloroethane	0.249	0.251	0.269	0.287	0.246	0.260	6.7	
Benzene	0.583	0.582	0.527	0.576	0.494	0.552	7.3	
trans-1,3-Dichloropropene	0.172	0.208	0.230	0.240	0.222	0.214	12.3	
Bromoform	0.203	0.287	0.375	0.384	0.366	0.323	24.0	**
4-Methyl-2-Pentanone	0.471	0.572	0.599	0.667	0.598	0.581	12.2	
2-Hexanone	0.306	0.385	0.385	0.447	0.374	0.379	13.2	
Tetrachloroethene	0.422	0.468	0.485	0.509	0.474	0.472	6.8	
1,1,2,2-Tetrachloroethane	0.683	0.764	0.890	0.926	0.823	0.817	11.9	**
Toluene	0.672	0.681	0.674	0.704	0.652	0.677	2.8	*
Chlorobenzene	1.010	1.093	1.139	1.243	1.011	1.099	8.9	**
Ethylbenzene	0.481	0.522	0.535	0.558	0.530	0.525	5.4	*
Styrene	1.039	1.109	1.048	1.131	0.947	1.055	6.8	
Xylene (total)	1.189	1.280	1.386	1.373	1.299	1.305	6.1	
Toluene-d8	1.194	1.196	1.242	1.222	1.249	1.221	2.1	
Bromofluorobenzene	0.916	0.964	1.060	1.029	1.090	1.012	7.0	
1,2-Dichloroethane-d4	1.548	1.492	1.683	1.637	1.759	1.624	6.5	

RF - Response Factor (Numeric is amount of ug/L)
RF-Avg is the Average Response Factor
%RSD - Percent Relative Standard Deviation

CCC - Calibration Check Compounds (*)
SPCC - System Performance Check Compounds (**)



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**Continuing Calibration Check
Volatile HSL Compounds**

QC Report No: 2302-Ecology & Environment
Contractor: ANALYTICAL RESOURCES, INC.
Project No: T10-8810-012
Instrument ID: Finn I

Calibration Date: 12/07/88
Time: 0724 hrs
Laboratory ID: F1501207
Initial Calibration Date: 11/21/88

Minimum RF Avg for SPCC is 0.300
(0.25 for Bromoform)

Maximum %D for CCC is 25%

Compound	RF Avg	RF50	%D	CCC	SPCC
Chloromethane	0.316	0.368	-16.5		**
Bromomethane	0.532	0.494	7.1		
Vinyl Chloride	0.503	0.471	6.4	*	
Chloroethane	0.185	0.190	-2.7		
Methylene Chloride	0.379	0.338	10.8		
Acetone	0.416	0.493	-18.5		
Carbon Disulfide	2.330	2.601	-11.6		
1,1-Dichloroethene	1.076	1.096	-1.9	*	
1,1-Dichloroethane	2.209	2.276	-3.0		**
Trans-1,2-Dichloroethene	1.269	1.330	-4.8		
Chloroform	2.762	2.745	0.6	*	
1,2-Dichloroethane	1.618	1.483	8.3		
2-Butanone	0.015	0.016	-6.7		
1,1,1-Trichloroethane	0.180	0.190	-5.6		
Carbon Tetrachloride	0.249	0.228	8.4		
Vinyl Acetate	0.247	0.228	7.7		
Bromodichloromethane	0.285	0.309	-8.4		
1,2-Dichloropropane	0.274	0.329	-20.1	*	
cis-1,3-Dichloropropene	0.274	0.265	3.3		
Trichloroethene	0.344	0.382	-11.0		
Dibromochloromethane	0.408	0.439	-7.6		
1,1,2-Trichloroethane	0.260	0.294	-13.1		
Benzene	0.552	0.675	-22.3		
trans-1,3-Dichloropropene	0.214	0.179	16.4		
Bromoform	0.323	0.269	16.7		**
4-Methyl-2-Pentanone	0.581	0.673	-15.8		
2-Hexanone	0.379	0.428	-12.9		
Tetrachloroethene	0.472	0.519	-10.0		
1,1,2,2-Tetrachloroethane	0.817	0.874	-7.0		**
Toluene	0.676	0.734	-8.6	*	
Chlorobenzene	1.099	1.184	-7.7		**
Ethylbenzene	0.525	0.551	-5.0	*	
Styrene	1.055	1.132	-7.3		
Xylenes (total)	1.305	1.311	-0.5		



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ORGANICS ANALYSIS DATA SHEET - PESTICIDE/PCB

Sample No: T8110056

Lab Sample ID: 2302 F
Matrix: Soil
VTSR: 12/01/88

Date Extracted: 12/05/88
Date Analyzed: 12/07/88
Conc/Dil Factor: 1:20
Dry Weight Extracted: 29.94 g

QC Report No. 2302-E & E
Project: T10-8810-012
GPC Cleanup: YES
Alumina Cleanup: YES

Data Release Authorized: *Pete M. Keger*

DATA PREPARED: MACE-M.L. (12/13/88)

CAS Number		ug/Kg
319-84-6	Alpha-BHC	2.0 U
319-85-7	Beta-BHC	2.0 U
319-86-8	Delta-BHC	2.0 U
58-89-9	Gamma-BHC (Lindene)	2.0 U
76-44-8	Heptachlor	2.0 U
309-00-2	Aldrin	2.0 U
1024-57-3	Heptachlor Epoxide	2.0 U
959-98-8	Endosulfan I	6.0 U
60-57-1	Dieldrin	4.0 U
72-55-9	4,4'-DDE	4.0 U
72-20-8	Endrin	4.0 U
33212-65-9	Endosulfan II	4.0 U
72-54-8	4,4'-DDD	4.0 U
1031-07-8	Endosulfan Sulfate	4.0 U
50-29-3	4,4'-DDT	4.3 U
72-43-5	Methoxychlor	8.0 U
53494-70-5	Endrin Ketone	4.0 U
5103-74-2	Gamma-Chlordane	4.0 U
5103-71-9	Alpha-Chlordane	4.0 U
8001-35-2	Toxaphene	200 U
-	Aroclor-1242/1016	40 U
12672-29-6	Aroclor-1248	40 U
11097-69-1	Aroclor-1254	40 U
11096-82-5	Aroclor-1260	40 U

*** Pesticide Surrogate Recovery**

Dibutylchlorodate	114%
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Data Qualifiers

U Indicates compound was analyzed for but not
detected at the given detection limit.

NA Indicates compound not analyzed.



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ORGANICS ANALYSIS DATA SHEET - PESTICIDE/PCB

Sample No: T8110059

333 Ninth Ave. North
Seattle, Wa 98109-5187
(206) 621-6490

Lab Sample ID: 23021

Date Extracted: 12/05/88

QC Report No. 2302-E & E

Matrix: Soil

Date Analyzed: 12/07/88

Project: T10-8810-012

YTSR: 12/01/88

Conc/Dil Factor: 1:20

GPC Cleanup: YES

Dry Weight Extracted: 29.18 g

Alumina Cleanup: YES

Data Release Authorized: *[Signature]*

DATA PREPARED: MAC/E-M.L. (12/13/88)

CAS Number		ug/Kg
319-84-6	Alpha-BHC	2.0 U
319-85-7	Beta-BHC	2.0 U
319-86-8	Delta-BHC	2.0 U
58-89-9	Gamma-BHC (Lindane)	2.0 U
76-44-8	Heptachlor	2.0 U
309-00-2	Aldrin	2.0 U
1024-57-3	Heptachlor Epoxide	2.0 U
959-98-8	Endosulfan I	6.0 U
60-57-1	Dieldrin	4.0 U
72-55-9	4,4'-DDE	4.0 U
72-20-8	Endrin	4.0 U
33212-65-9	Endosulfan II	4.0 U
72-54-8	4,4'-DDD	4.0 U
1031-07-8	Endosulfen Sulfate	4.0 U
50-29-3	4,4'-DDT	4.0 U
72-43-5	Methoxychlor	8.0 U
53494-70-5	Endrin Ketone	4.0 U
5103-74-2	Gamma-Chlordane	4.0 U
5103-71-9	Alpha-Chlordane	4.0 U
8001-35-2	Toxaphene	200 U
-	Aroclor-1242/1016	40 U
12672-29-6	Aroclor-1248	40 U
11097-69-1	Aroclor-1254	40 U
11096-82-5	Aroclor-1260	40 U

*** Pesticide Surrogate Recovery**

Dibutylchlorendate	130%
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Data Qualifiers

U Indicates compound was analyzed for but not
detected at the given detection limit.

NA Indicates compound not analyzed.



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ORGANICS ANALYSIS DATA SHEET - PESTICIDE/PCB

Sample No: Method Blank

333 Ninth Ave. North
Seattle, Wa 98109-5187
(206) 621-6490

Lab Sample ID: 2302 MB
Matrix: Soil
YTSR: 12/01/88

Date Extracted: 12/05/88
Date Analyzed: 12/07/88
Conc/Dil Factor: 1:20
Dry Weight Extracted: NA

QC Report No. 2302-E & E
Project: T10-8810-012
GPC Cleanup: YES
Alumina Cleanup: YES

Data Release Authorized:

Peter M. Keple

DATA PREPARED: MAC/E-M.L. (12/13/88)

CAS Number		ug/Kg
319-84-6	Alpha-BHC	2.0 U
319-85-7	Beta-BHC	2.0 U
319-86-8	Delta-BHC	2.0 U
58-89-9	Gamma-BHC (Lindane)	2.0 U
76-44-8	Heptachlor	2.0 U
309-00-2	Aldrin	2.0 U
1024-57-3	Heptachlor Epoxide	2.0 U
959-98-8	Endosulfan I	6.0 U
60-57-1	Dieldrin	4.0 U
72-55-9	4,4'-DDE	4.0 U
72-20-8	Endrin	4.0 U
33212-65-9	Endosulfan II	4.0 U
72-54-8	4,4'-DDD	4.0 U
1031-07-8	Endosulfan Sulfate	4.0 U
50-29-3	4,4'-DDT	4.0 U
72-43-5	Methoxychlor	8.0 U
53494-70-5	Endrin Ketone	4.0 U
5103-74-2	Gamma-Chlordane	4.0 U
5103-71-9	Alpha-Chlordane	4.0 U
8001-35-2	Toxaphene	200 U
-	Aroclor-1242/1016	40 U
12672-29-6	Aroclor-1248	40 U
11097-69-1	Aroclor-1254	40 U
11096-82-5	Aroclor-1260	40 U

*** Pesticide Surrogate Recovery**

Dibutylchlorodate	51%
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Data Qualifiers

U Indicates compound was analyzed for but not
detected at the given detection limit.

NA Indicates compound not analyzed.



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333 Ninth Ave. North
Seattle, Wa 98109-5187
(206) 621-6490

ORGANICS ANALYSIS DATA SHEET - PESTICIDE/PCB

Sample No: T8110059MS

Lab Sample ID: 2302 IMS
Matrix: Soil
VTSR: 12/01/88

Date Extracted: 12/05/88
Date Analyzed: 12/07/88
Conc/Dil Factor: 1:20
Dry Weight Extracted: 29.33 g

QC Report No. 2302-E & E
Project: T10-8810-012
GPC Cleanup: YES
Alumina Cleanup: YES

Data Release Authorized: *John M. Hagle*

DATA PREPARED: MACE-M.L. (12/13/88)

CAS Number		ug/Kg
319-84-6	Alpha-BHC	2.0 U
319-85-7	Beta-BHC	2.0 U
319-86-8	Delta-BHC	2.0 U
58-89-9	Gamma-BHC (Lindane)	-
76-44-8	Heptachlor	-
309-00-2	Aldrin	-
1024-57-3	Heptachlor Epoxide	2.0 U
959-98-8	Endosulfan I	6.0 U
60-57-1	Dieldrin	-
72-55-9	4,4'-DDE	4.0 U
72-20-8	Endrin	-
33212-65-9	Endosulfan II	4.0 U
72-54-8	4,4'-DDD	4.0 U
1031-07-8	Endosulfan Sulfate	4.0 U
50-29-3	4,4'-DDT	-
72-43-5	Methoxychlor	8.0 U
53494-70-5	Endrin Ketone	4.0 U
5103-74-2	Gamma-Chlordane	4.0 U
5103-71-9	Alpha-Chlordane	4.0 U
8001-35-2	Toxaphene	200 U
-	Aroclor-1242/1016	40 U
12672-29-6	Aroclor-1248	40 U
11097-69-1	Aroclor-1254	40 U
11096-82-5	Aroclor-1260	40 U

*** Pesticide Surrogate Recovery**

Dibutylchlorodate	105%
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Data Qualifiers

U Indicates compound was analyzed for but not
detected at the given detection limit.

NA Indicates compound not analyzed.



**ANALYTICAL
RESOURCES
INCORPORATED**

Analytical
Chemists &
Consultants

ORGANICS ANALYSIS DATA SHEET - PESTICIDE/PCB

Sample No: T8110059MSD

333 Ninth Ave. North
Seattle, Wa 98109-5187
(206) 621-6490

Lab Sample ID: 2302 IMSD
Matrix: Soil
YTSR: 12/01/88

Date Extracted: 12/05/88
Date Analyzed: 12/07/88
Conc/Dil Factor: 1:20
Dry Weight Extracted: 29.82 g

QC Report No. 2302-E & E
Project: T10-8810-012
GPC Cleanup: YES
Alumina Cleanup: YES

Data Release Authorized: *Peter M. L.*

DATA PREPARED: MACE-M.L. (12/13/88)

CAS Number		ug/Kg
319-84-6	Alpha-BHC	2.0 U
319-85-7	Beta-BHC	2.0 U
319-86-8	Delta-BHC	2.0 U
58-89-9	Gamma-BHC (Lindane)	-
76-44-8	Heptachlor	-
309-00-2	Aldrin	-
1024-57-3	Heptachlor Epoxide	2.0 U
959-98-8	Endosulfan I	6.0 U
60-57-1	Dieldrin	-
72-55-9	4,4'-DDE	4.0 U
72-20-8	Endrin	-
33212-65-9	Endosulfan II	4.0 U
72-54-8	4,4'-DDD	4.0 U
1031-07-8	Endosulfan Sulfate	4.0 U
50-29-3	4,4'-DDT	-
72-43-5	Methoxychlor	8.0 U
53494-70-5	Endrin Ketone	4.0 U
5103-74-2	Gamma-Chlordane	4.0 U
5103-71-9	Alpha-Chlordane	4.0 U
8001-35-2	Toxaphene	200 U
-	Aroclor-1242/1016	40 U
12672-29-6	Aroclor-1248	40 U
11097-69-1	Aroclor-1254	40 U
11096-82-5	Aroclor-1260	40 U

*** Pesticide Surrogate Recovery**

Dibutylchlorodate	104%
-------------------	------

Data Qualifiers

U Indicates compound was analyzed for but not
detected at the given detection limit.

NA Indicates compound not analyzed.

Analytical
Chemists &
Consultants

Client: Ecology & Environment
Project: T10-8810-012

333 Ninth Ave. North
Seattle, Wa 98109-5187
(206) 621-6490

[illegible]

ADVISORY
QC LIMITS
(20-150)

FORM II PEST-2

PESTICIDE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

ANALYTICAL RESOURCES, INC.

PROJECT: T10-8810-012

QC REPORT NO: 2302-E & E

MATRIX: Soil

VTSR: 12/01/88

Dry Weight Ext.: 29.18 g

Conc/Dilution: 1:20

Date Analyzed: 12/07/88

CLIENT SAMPLE NO: T8110059

ARI LAB ID: 2302 I



COMPOUND	CONC. SPIKE ADDED (µg/Kg)	SAMPLE RESULT	MS CONC.	% REC.	MSD CONC.	% REC.	% RPD
Lindane	27.4	0	29.6	108	28.8	105	2.8
Heptachlor	27.4	0	26.9	98	27.9	102	4.0
Aldrin	27.4	0	27.1	99	27.7	101	2.0
Dieldrin	68.5	0	63.7	93	63.7	93	0
Endrin	68.5	0	69.2	101	69.9	102	1.0
4,4'-DDT	68.5	0	84.3	123	82.2	120	2.5

DATA RELEASE AUTHORIZED:

DATA PREPARED: MAC-E - M.L. (12/13/88)

COMMENTS:

PESTICIDE METHOD BLANK SUMMARY

ARI Job No: 2302

Client: E & E
Project: T10-8810-012

Lab Sample ID: 2302MB
Matrix: Soil
Level: Low

Extraction: Song
Date Extracted: 12/05/88

Date Analyzed (1): 12/07/88
Time Analyzed (1): 01:47
Instrument ID (1): HP5890-1
GC Column ID (1): DB-5 M 30m

Date Analyzed (2): 12/07/88
Time Analyzed (2): 01:47
Instrument ID (2): HP5890-1
GC Column ID (2): DB-608 M 30m

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS,MSD:

[illegible]

Comments:

Pesticide Evaluation Standards Summary
(Page 1)

ARI Job No: 2302

GC Column: DB-5 M 30m

Client: Ecology and Environment

Instrument ID: 5890 ECD 1

Date of Analysis: 12/06/88

Evaluation Check for Linearity

Laboratory ID	EVAL A	EVAL B	EVAL C	
Pesticide	Calibration Factor Eval Mix A	Calibration Factor Eval Mix B	Calibration Factor Eval Mix C	%RSD ($\leq 10\%$)
Aldrin	618640	662480	727080	8.1
Endrin	376560	413213	449587	8.8
4,4'-DDT(1)	167660	203850	194890	10
Dibutyl Chlorodate	186640	203733	188820	4.8

Evaluation Check for 4,4'-DDT/Endrin Breakdown
(percent breakdown expressed as total degradation)

	Laboratory ID	Time of Analysis	Endrin	4,4'-DDT	Combined(2)
Eval Mix B					
72 Hour	EVAL B	11:19	0.00	2.19	-
Eval Mix B	EVAL B	22:45	4.90	4.00	-
Eval Mix B	EVAL B	10:28	0.00	2.43	-
Eval Mix B	EVAL B	19:31	0.00	3.36	-
Eval Mix B					
Eval Mix B					
Eval Mix B					
Eval Mix B					
Eval Mix B					
Eval Mix B					
Eval Mix B					
Eval Mix B					
Eval Mix B					
Eval Mix B					
Eval Mix B					

(1) See Exhibit E, Section 7.5.4

(2) See Exhibit E, Section 7.3.1.2.2.1

FORM VIII

Pesticide Evaluation Standards Summary
(Page 1)

ARI Job No: 2302

GC Column: DB-608 M 30m

Client: Ecology and Environment

Instrument ID: 5390 ECD 1

Date of Analysis: 12/06/88

Evaluation Check for Linearity

Laboratory ID	EVAL A	EVAL B	EVAL C	
Pesticide	Calibration Factor Eval Mix A	Calibration Factor Eval Mix B	Calibration Factor Eval Mix C	%RSD ($\leq 10\%$)
Aldrin	772400	842680	971500	12
Endrin	447813	511600	567773	12
4,4'-DDT(1)	260080	340120	359580	16
Dibutyl Chlorodate	228720	252280	245340	5.0

Evaluation Check for 4,4'-DDT/Endrin Breakdown
(percent breakdown expressed as total degradation)

	Laboratory ID	Time of Analysis	Endrin	4,4'-DDT	Combined(2)
Eval Mix B 72 Hour	EVAL B	11:19	5.99	8.00	-
Eval Mix B	EVAL B	22:45	5.70	7.02	-
Eval Mix B	EVAL B	10:28	0.00	6.12	-
Eval Mix B	EVAL B	19:31	0.00	1.78	-
Eval Mix B					
Eval Mix B					
Eval Mix B					
Eval Mix B					
Eval Mix B					
Eval Mix B					
Eval Mix B					
Eval Mix B					
Eval Mix B					
Eval Mix B					
Eval Mix B					

(1) See Exhibit E, Section 7.5.4

(2) See Exhibit E, Section 7.3.1.2.2.1

FORM VIII

PESTICIDE/PCB STANDARDS SUMMARY

ARI Job No: 2302

Laboratory Analytical Resources, Inc.

Client: Ecology and Environment GC Column: DB-5 M 30m

GC Instrument ID: 5890 ECD 1

Date of Analysis: 12/06/88

Time of Analysis: 12:50

Laboratory ID: PESTAB

Date of Analysis: 12/07/88

Time of Analysis: 03:18

Laboratory ID: PESTAB

COMPOUND	RT	RETENTION TIME WINDOW	CALIBRATION FACTOR	CONF. OR QUANT.	RT	CALIBRATION FACTOR	CONF. OR QUANT.	PERCENT DIFF.**
alpha-BHC	10.54	+/- 0.16	721480	QUANT	10.71	641040	QUANT	11.1
beta-BHC	11.39	+/- 0.17	393880	QUANT	11.56	373440	QUANT	5.2
delta-BHC	12.41	+/- 0.19	303840	QUANT	12.59	327680	QUANT	-7.8
gamma-BHC	11.66	+/- 0.17	749000	QUANT	11.84	663400	QUANT	11.4
Heptachlor	14.32	+/- 0.21	950000	QUANT	14.53	832080	QUANT	12.4
Aldrin	15.77	+/- 0.24	628680	QUANT	15.99	532320	QUANT	15.3
Heptachlor Epoxide	17.51	+/- 0.26	689480	QUANT	17.75	595280	QUANT	13.7
Endosulfan I	19.31	+/- 0.29	388680	QUANT	19.59	340960	QUANT	12.3
Dieldrin	20.68	+/- 0.31	512880	QUANT	20.97	406800	QUANT	20.7
4,4'-DDE	20.43	+/- 0.31	264900	QUANT	20.69	249280	QUANT	5.9
Endrin	21.89	+/- 0.33	412660	QUANT	22.19	377580	QUANT	8.5
Endosulfan II	22.39	+/- 0.34	447420	QUANT	22.69	419220	QUANT	6.3
4,4'-DDD	22.84	+/- 0.34	117940	QUANT	23.10	133920	QUANT	-13.5
Endosulfan Sulfate	25.01	+/- 0.38	190500	QUANT	25.36	117180	QUANT	38.5
4,4'-DDT	25.22	+/- 0.38	195480	QUANT	25.55	107460	QUANT	45.0
Methoxychlor	28.97	+/- 0.43	138990	QUANT	29.24	156690	QUANT	-12.7
Endrin Ketone	28.05	+/- 0.42	309180	QUANT	28.37	400820	QUANT	-29.6
Tech. Chlordane								
alpha-Chlordane	19.41	+/- 0.29	574360	QUANT				
gamma-Chlordane	18.63	+/- 0.28	639000	QUANT				
Toxaphene	30.93	+/- 0.46	29050	QUANT				
Aroclor-1016	13.63	+/- 0.20	49680	QUANT				
Aroclor-1221								
Aroclor-1232								
Aroclor-1242	13.63	+/- 0.20	48342	QUANT				
Aroclor-1248	13.62	+/- 0.20	30054	QUANT				
Aroclor-1254	18.93	+/- 0.28	35145	QUANT				
Aroclor-1260	29.84	+/- 0.45	38921	QUANT				

PESTICIDE/PCB STANDARD SUMMARY

ARI Job No: 2302

Laboratory Analytical Resources, Inc.

Client: Ecology and Environment GC Column: DB-5 M 30m

GC Instrument ID: 5890 ECD I

Date of Analysis: 12/06/88 Time of Analysis: 12:50 Laboratory ID: PESTAB				Date of Analysis: 12/07/88 Time of Analysis: 17:08 Laboratory ID: PESTAB				
COMPOUND	RT	RETENTION TIME WINDOW	CALIBRATION FACTOR	CONF. OR QUANT.	RT	CALIBRATION FACTOR	CONF. OR QUANT.	PERCENT DIFF.**
alpha-BHC	10.54	+/- 0.16	721480	QUANT	10.53	738960	QUANT	-2.4
beta-BHC	11.39	+/- 0.17	393880	QUANT	11.37	457520	QUANT	-16.2
delta-BHC	12.41	+/- 0.19	303840	QUANT	12.39	458920	QUANT	-51.0
gamma-BHC	11.66	+/- 0.17	749000	QUANT	11.65	760000	QUANT	-1.5
Heptachlor	14.32	+/- 0.21	950000	QUANT	14.31	895840	QUANT	5.7
Aldrin	15.77	+/- 0.24	628680	QUANT	15.75	580560	QUANT	7.7
Heptachlor Epoxide	17.51	+/- 0.26	689480	QUANT	17.49	603400	QUANT	12.5
Endosulfan I	19.31	+/- 0.29	388680	QUANT	19.30	356520	QUANT	8.3
Dieldrin	20.68	+/- 0.31	512880	QUANT	20.67	457900	QUANT	10.7
4,4'-DDE	20.43	+/- 0.31	264900	QUANT	20.39	351600	QUANT	-32.7
Endrin	21.89	+/- 0.33	412660	QUANT	21.88	410320	QUANT	0.6
Endosulfan II	22.39	+/- 0.34	447420	QUANT	22.36	483060	QUANT	-8.0
4,4'-DDD	22.84	+/- 0.34	117940	QUANT	22.77	232100	QUANT	-96.8
Endosulfan Sulfate	25.01	+/- 0.38	190500	QUANT	24.98	260320	QUANT	-36.7
4,4'-DDT	25.22	+/- 0.38	195480	QUANT	25.17	267800	QUANT	-37.0
Methoxychlor	28.97	+/- 0.43	138990	QUANT	28.90	197420	QUANT	-42.0
Endrin Ketone	28.05	+/- 0.42	309180	QUANT	28.02	401100	QUANT	-29.7
Tech. Chlordane								
alpha-Chlordane	19.41	+/- 0.29	574360	QUANT				
gamma-Chlordane	18.63	+/- 0.28	639000	QUANT				
Toxaphene	30.93	+/- 0.46	29050	QUANT				
Aroclor-1016	13.63	+/- 0.20	49680	QUANT				
Aroclor-1221								
Aroclor-1232								
Aroclor-1242	13.63	+/- 0.20	48342	QUANT				
Aroclor-1248	13.62	+/- 0.20	30054	QUANT				
Aroclor-1254	18.93	+/- 0.28	35145	QUANT				
Aroclor-1260	29.84	+/- 0.45	38921	QUANT				

PESTICIDE/PCB STANDARD SUMMARY

ARI Job No: 2302

Laboratory Analytical Resources, Inc.

Client: Ecology and Environment GC Column: DB-5 M 30m

GC Instrument ID: 5890 ECD I

Date of Analysis: 12/06/88 Time of Analysis: 12:50 Laboratory ID: PESTAB				Date of Analysis: 12/07/88 Time of Analysis: 23:29 Laboratory ID: PESTAB				
COMPOUND	RT	RETENTION TIME WINDOW	CALIBRATION FACTOR	CONF. OR QUANT.	RT	CALIBRATION FACTOR	CONF. OR QUANT.	PERCENT DIFF.**
alpha-BHC	10.54	+/- 0.16	721480	QUANT	10.66	751800	QUANT	-4.2
beta-BHC	11.39	+/- 0.17	393880	QUANT	11.50	467720	QUANT	-18.7
delta-BHC	12.41	+/- 0.19	303840	QUANT	12.53	450560	QUANT	-48.3
gamma-BHC	11.66	+/- 0.17	749000	QUANT	11.78	756800	QUANT	-1.0
Heptachlor	14.32	+/- 0.21	950000	QUANT	14.46	883320	QUANT	7.0
Aldrin	15.77	+/- 0.24	628680	QUANT	15.93	579520	QUANT	7.8
Heptachlor Epoxide	17.51	+/- 0.26	689480	QUANT	17.67	623480	QUANT	9.6
Endosulfan I	19.31	+/- 0.29	388680	QUANT	19.50	360120	QUANT	7.3
Dieldrin	20.68	+/- 0.31	512880	QUANT	20.88	460460	QUANT	10.2
4,4'-DDE	20.43	+/- 0.31	264900	QUANT	20.60	336160	QUANT	-26.9
Endrin	21.89	+/- 0.33	412660	QUANT	22.11	407160	QUANT	1.3
Endosulfan II	22.39	+/- 0.34	447420	QUANT	22.59	458040	QUANT	-2.4
4,4'-DDD	22.84	+/- 0.34	117940	QUANT	23.00	191200	QUANT	-62.1
Endosulfan Sulfate	25.01	+/- 0.38	190500	QUANT	25.25	246160	QUANT	-29.2
4,4'-DDT	25.22	+/- 0.38	195480	QUANT	25.44	248200	QUANT	-27.0
Methoxychlor	28.97	+/- 0.43	138990	QUANT	29.13	186640	QUANT	-34.3
Endrin Ketone	28.05	+/- 0.42	309180	QUANT	28.27	371640	QUANT	-20.2
Tech. Chlordane								
alpha-Chlordane	19.41	+/- 0.29	574360	QUANT				
gamma-Chlordane	18.63	+/- 0.28	639000	QUANT				
Toxaphene	30.93	+/- 0.46	29050	QUANT				
Aroclor-1016	13.63	+/- 0.20	49680	QUANT				
Aroclor-1221								
Aroclor-1232								
Aroclor-1242	13.63	+/- 0.20	48342	QUANT				
Aroclor-1248	13.62	+/- 0.20	30054	QUANT				
Aroclor-1254	18.93	+/- 0.28	35145	QUANT				
Aroclor-1260	29.84	+/- 0.45	38921	QUANT				

PESTICIDE/PCB STANDARD SUMMARY

ARI Job No: 2302

Laboratory: Analytical Resources, Inc.

Client: Ecology and Environment GC Column: DB-608 M 30m

GC Instrument ID: 5890 ECD 1

Date of Analysis: 12/06/88 Time of Analysis: 12:50 Laboratory ID: PESTAB				Date of Analysis: 12/07/88 Time of Analysis: 03:18 Laboratory ID: PESTAB				
COMPOUND	RT	RETENTION TIME WINDOW	CALIBRATION FACTOR	CONF. OR QUANT.	RT	CALIBRATION FACTOR	CONF. OR QUANT.	PERCENT DIFF.**
alpha-BHC	11.01	+/- 0.17	798120	CONF	10.84	994680	CONF	-24.6
beta-BHC	12.75	+/- 0.19	549600	CONF	12.58	683240	CONF	-24.3
delta-BHC	14.19	+/- 0.21	456680	CONF	13.99	484880	CONF	-6.2
gamma-BHC	12.49	+/- 0.19	816680	CONF	12.32	1017200	CONF	-24.6
Heptachlor	13.73	+/- 0.21	947760	CONF	13.55	1130000	CONF	-19.2
Aldrin	15.11	+/- 0.23	622360	CONF	14.89	786800	CONF	-26.4
Heptachlor Epoxide	17.71	+/- 0.27	669120	CONF	17.47	835440	CONF	-24.9
Endosulfan I	19.55	+/- 0.29	382640	CONF	19.29	469560	CONF	-22.7
Dieldrin	21.27	+/- 0.32	490100	CONF	20.99	615380	CONF	-25.6
4,4'-DDE	20.85	+/- 0.31	403200	CONF	20.57	453180	CONF	-12.4
Endrin	23.47	+/- 0.35	413860	CONF	23.17	497060	CONF	-20.1
Endosulfan II	24.71	+/- 0.37	451820	CONF	24.37	582400	CONF	-28.9
4,4'-DDD	24.34	+/- 0.37	195200	CONF	24.03	204240	CONF	-4.6
Endosulfan Sulfate	27.86	+/- 0.42	320760	CONF	27.55	293160	CONF	8.6
4,4'-DDT	26.47	+/- 0.40	295620	CONF	26.14	279900	CONF	5.3
Methoxychlor	32.06	+/- 0.48	260250	CONF	31.80	229230	CONF	11.9
Endrin Ketone	32.47	+/- 0.49	452420	CONF	32.17	496900	CONF	-9.8
Tech. Chlordane								
alpha-Chlordane	19.11	+/- 0.29	759960	CONF				
gamma-Chlordane	18.27	+/- 0.27	839520	CONF				
Toxaphene	29.52	+/- 0.44	40004	CONF				
Aroclor-1016	13.59	+/- 0.20	71645	CONF				
Aroclor-1221								
Aroclor-1232								
Aroclor-1242	13.60	+/- 0.20	70747	CONF				
Aroclor-1248	13.60	+/- 0.20	43986	CONF				
Aroclor-1254	21.49	+/- 0.32	49783	CONF				
Aroclor-1260	22.53	+/- 0.34	52673	CONF				

PESTICIDE/PCB STANDARD SUMMARY

ARI Job No: 2302

Laboratory Analytical Resources, Inc.

Client: Ecology and Environment GC Column: DB-608 M 30m

GC Instrument ID: 5890 ECD I

Date of Analysis: 12/06/88 Time of Analysis: 12:50 Laboratory ID: PESTAB				Date of Analysis: 12/07/88 Time of Analysis: 17:08 Laboratory ID: PESTAB				
COMPOUND	RT	RETENTION TIME WINDOW	CALIBRATION FACTOR	CONF. OR QUANT.	RT	CALIBRATION FACTOR	CONF. OR QUANT.	PERCENT DIFF.**
alpha-BHC	11.01	+/- 0.17	798120	CONF	10.83	925680	CONF	-16.0
beta-BHC	12.75	+/- 0.19	549600	CONF	12.57	650400	CONF	-18.3
delta-BHC	14.19	+/- 0.21	456680	CONF	13.99	579320	CONF	-26.9
gamma-BHC	12.49	+/- 0.19	816680	CONF	12.31	919320	CONF	-12.6
Heptachlor	13.73	+/- 0.21	947760	CONF	13.54	986360	CONF	-4.1
Aldrin	15.11	+/- 0.23	622360	CONF	14.89	668040	CONF	-7.3
Heptachlor Epoxide	17.71	+/- 0.27	669120	CONF	17.46	699040	CONF	-4.5
Endosulfan I	19.55	+/- 0.29	382640	CONF	19.27	391280	CONF	-2.3
Dieldrin	21.27	+/- 0.32	490100	CONF	20.98	524240	CONF	-7.0
4,4'-DDE	20.85	+/- 0.31	403200	CONF	20.57	488960	CONF	-21.3
Endrin	23.47	+/- 0.35	413860	CONF	23.15	449400	CONF	-8.6
Endosulfan II	24.71	+/- 0.37	451820	CONF	24.36	529200	CONF	-17.1
4,4'-DDD	24.34	+/- 0.37	195200	CONF	24.00	331780	CONF	-70.0
Endosulfan Sulfate	27.86	+/- 0.42	320760	CONF	27.53	341540	CONF	-6.5
4,4'-DDT	26.47	+/- 0.40	295620	CONF	26.12	351420	CONF	-18.9
Methoxychlor	32.06	+/- 0.48	260250	CONF	31.77	353500	CONF	-35.8
Endrin Ketone	32.47	+/- 0.49	452420	CONF	32.17	602460	CONF	-33.2
Tech. Chlordane								
alpha-Chlordane	19.11	+/- 0.29	759960	CONF				
gamma-Chlordane	18.27	+/- 0.27	839520	CONF				
Toxaphene	29.52	+/- 0.44	40004	CONF				
Aroclor-1016	13.59	+/- 0.20	71645	CONF				
Aroclor-1221								
Aroclor-1232								
Aroclor-1242	13.60	+/- 0.20	70747	CONF				
Aroclor-1248	13.60	+/- 0.20	43986	CONF				
Aroclor-1254	21.49	+/- 0.32	49783	CONF				
Aroclor-1260	22.53	+/- 0.34	52673	CONF				

PESTICIDE/PCB STANDARD SUMMARY

ARI Job No: 2302

Laboratory Analytical Resources, Inc.

Client: Ecology and Environment GC Column: DB-608 M 30m

GC Instrument ID: 5890 ECD 1

Date of Analysis: 12/06/88 Time of Analysis: 12:50 Laboratory ID: PESTAB				Date of Analysis: 12/07/88 Time of Analysis: 23:29 Laboratory ID: PESTAB				
COMPOUND	RT	RETENTION TIME WINDOW	CALIBRATION FACTOR	CONF. OR QUANT.	RT	CALIBRATION FACTOR	CONF. OR QUANT.	PERCENT DIFF.**
alpha-BHC	11.01	+/- 0.17	798120	CONF	10.96	946520	CONF	-18.6
beta-BHC	12.75	+/- 0.19	549600	CONF	12.70	681440	CONF	-24.0
delta-BHC	14.19	+/- 0.21	456680	CONF	14.13	579480	CONF	-26.9
gamma-BHC	12.49	+/- 0.19	816680	CONF	12.44	957560	CONF	-17.3
Heptachlor	13.73	+/- 0.21	947760	CONF	13.68	1006440	CONF	-6.2
Aldrin	15.11	+/- 0.23	622360	CONF	15.04	681720	CONF	-9.5
Heptachlor Epoxide	17.71	+/- 0.27	669120	CONF	17.64	711360	CONF	-6.3
Endosulfan I	19.55	+/- 0.29	382640	CONF	19.47	395520	CONF	-3.4
Dieldrin	21.27	+/- 0.32	490100	CONF	21.19	522360	CONF	-6.6
4,4'-DDE	20.85	+/- 0.31	403200	CONF	20.77	484320	CONF	-20.1
Endrin	23.47	+/- 0.35	413860	CONF	23.39	444140	CONF	-7.3
Endosulfan II	24.71	+/- 0.37	451820	CONF	24.61	513340	CONF	-13.6
4,4'-DDD	24.34	+/- 0.37	195200	CONF	24.24	273460	CONF	-40.1
Endosulfan Sulfate	27.86	+/- 0.42	320760	CONF	27.77	340080	CONF	-6.0
4,4'-DDT	26.47	+/- 0.40	295620	CONF	26.37	335460	CONF	-13.5
Methoxychlor	32.06	+/- 0.48	260250	CONF	31.98	287220	CONF	-10.4
Endrin Ketone	32.47	+/- 0.49	452420	CONF	32.38	547680	CONF	-21.1
Tech. Chlordane								
alpha-Chlordane	19.11	+/- 0.29	759960	CONF				
gamma-Chlordane	18.27	+/- 0.27	839520	CONF				
Toxaphene	29.52	+/- 0.44	40004	CONF				
Aroclor-1016	13.59	+/- 0.20	71645	CONF				
Aroclor-1221								
Aroclor-1232								
Aroclor-1242	13.60	+/- 0.20	70747	CONF				
Aroclor-1248	13.60	+/- 0.20	43986	CONF				
Aroclor-1254	21.49	+/- 0.32	49783	CONF				
Aroclor-1260	22.53	+/- 0.34	52673	CONF				

Pesticide/PCB Identification

Analytical Resources Inc.
ARI Job No.: 2302

Client: E & E

Project: T10-8810-012

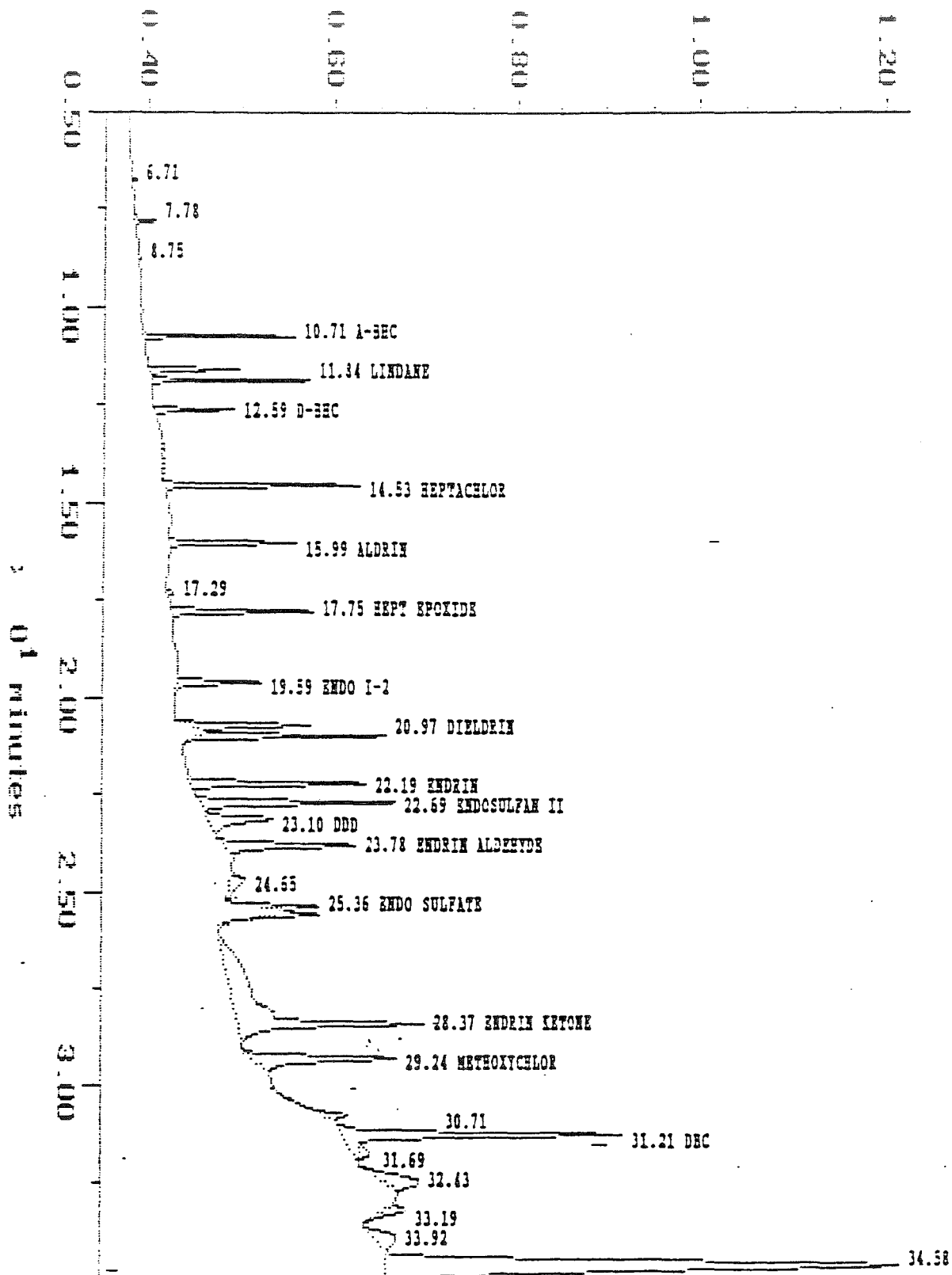
[illegible]

FORM X

Sample: 8857 Channel: 885-885-1
Acquired: 07-280-10 3:13 Method: GC/MS/MS/MS/MS/MS

Filename: 88572
Operator: 71

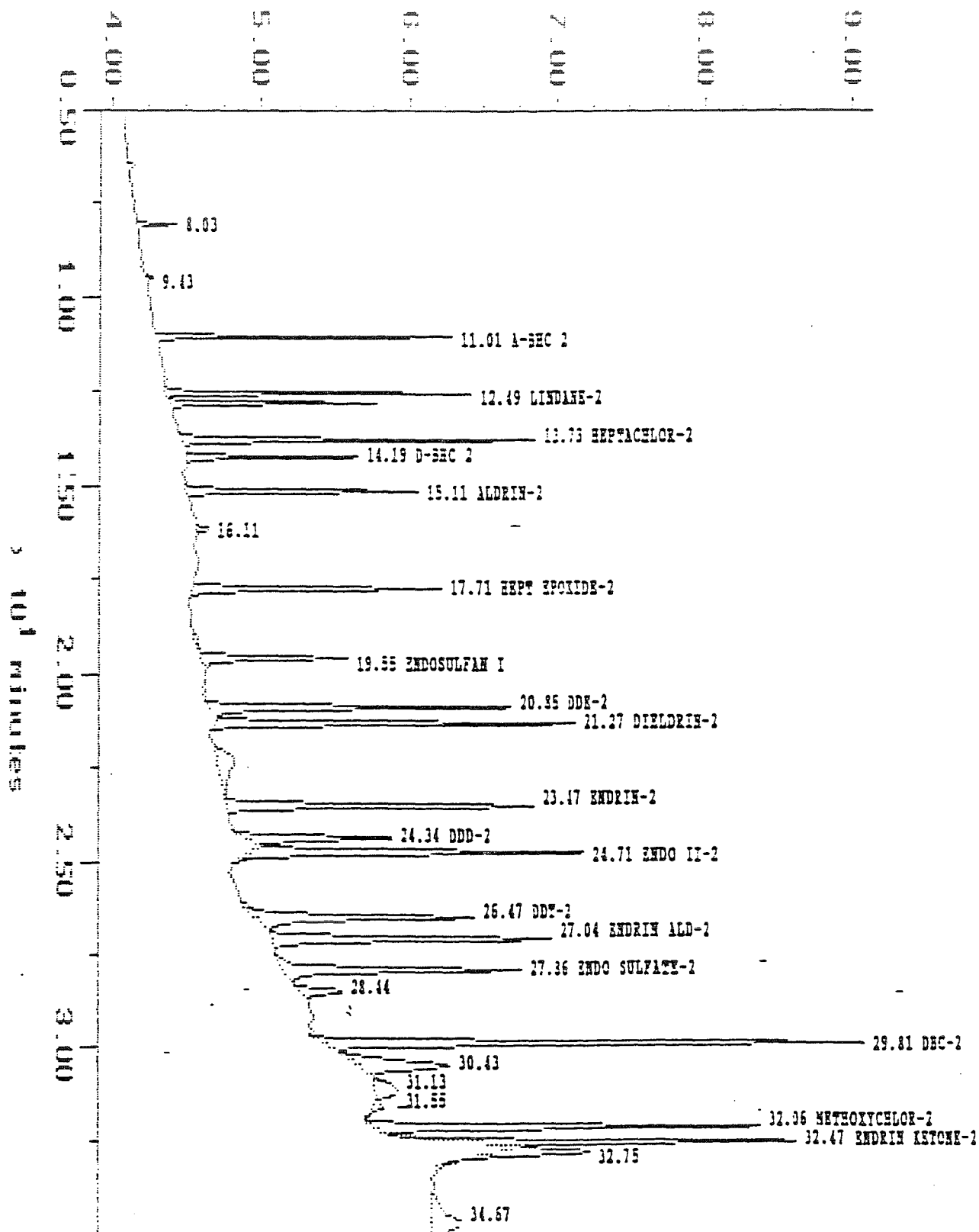
$\times 10^{-1}$ volts



Sample: F557 Channel: ECD-35603-3
Acquired: 07-DEC-88 0:13 Method: C:\MAY\ESTW\ESTW

Filename: F5572
Operator: BT

$\times 10^{-2}$ volts



MAXIMA 820 CUSTOM REPORT

Printed: 6-DEC-1988 15:01:00

SAMPLE: PEST

#22 in Method: PEST/PCB ANALYSIS
Acquired: 7-DEC-1988 3:18
Rate: 2.5 points/sec
Duration: 35.000 minutes
Operator: PK

Type: UHPL
Instrument: 5190-ecdl
Filename: PEST2
Index: 12

DETECTOR: ECD-D55-1

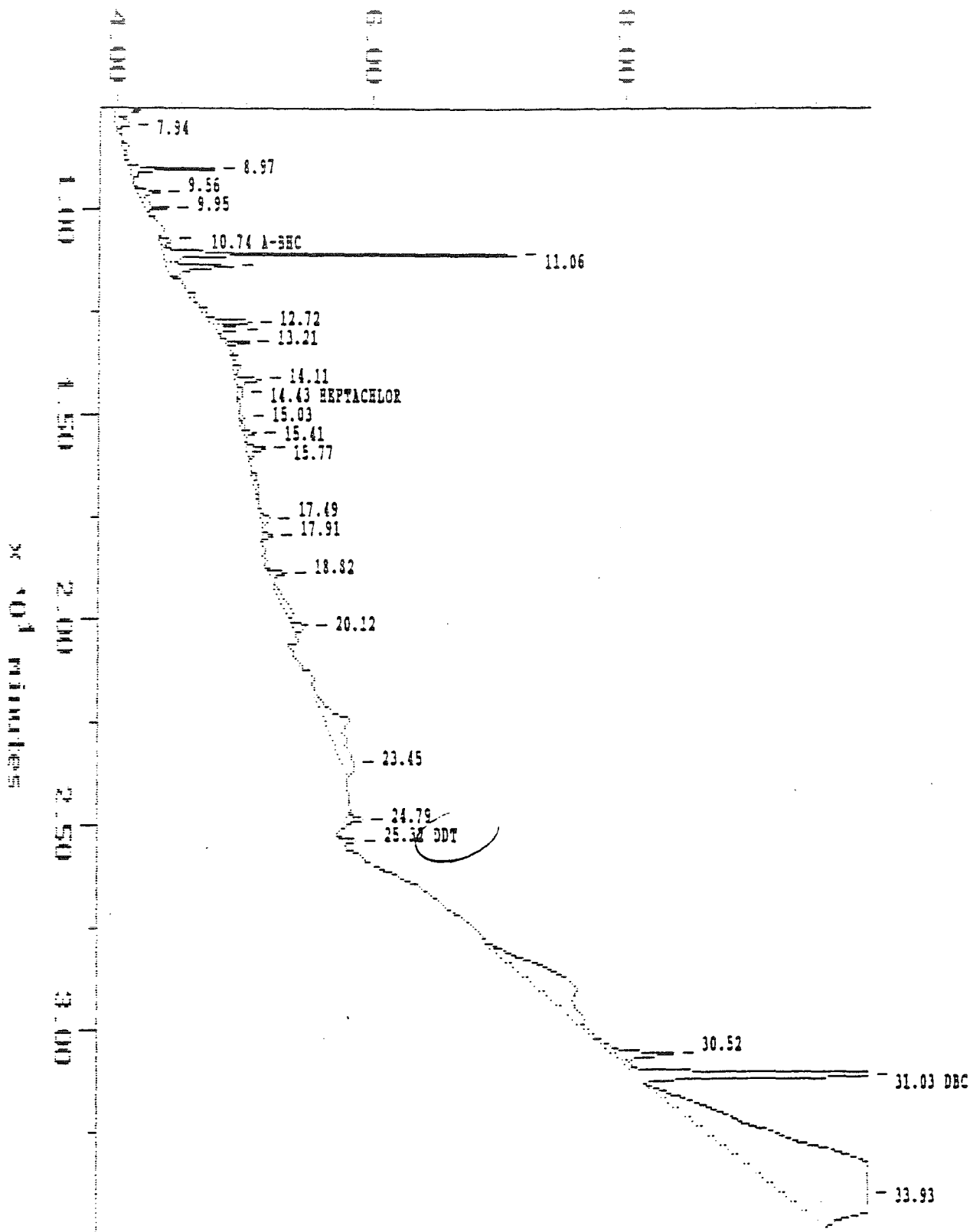
Retention Time (minutes)	Peak Height	Peak Area	Type	Solution Conc (micro/ml)	Component Name
6.713	376	2573	BB		
7.730	2214	9101	BB		
8.747	330	1310	BB		
13.713	16026	65820	BB	0.0222	1-SEC
11.560	9336	48404	BP	0.0237	2-SEC
11.340	16585	69340	PS	0.0221	LINDANE
12.587	3192	41540	BB	0.0279	3-SEC
14.527	20802	102695	BB	0.0219	SEPTACHLOR
16.991	13308	76517	BB	0.0212	ALDRIN
17.287	566	3502	BB		
17.753	14882	96074	BB	0.0216	HEPT EPOXIDE
19.537	8524	61497	BB	0.0439	ENDO 1-2
20.587	12464	88814	BP	0.0471	DDX
20.967	20340	137674	PS	0.0397	DIELDRIN
22.193	13879	142528	BP	0.0453	ENDRIN
22.587	20961	166773	PP	0.0468	ENDOSULFAN II
23.180	6696	77598	PP	0.0553	DDD
23.780	14155	130319	PS	0.0431	ENDRIN ALDEHYDE
24.553	1491	23162	BP		
25.560	5359	37475	PP	0.0398	ENDO SULFATE
25.553	5373	27374	PS	0.0275	DDT
28.367	20041	455951	BB	0.0548	ENDRIN KETONE
29.240	15569	175586	BB	0.1127	METHOXYCHLOR
30.797	2336	5896	BP		
31.207	39597	307405	PP	0.1057	DDC
31.693	1132	14859	SS		
32.427	3778	77223	PS		
33.187	2370	32213	BP		
33.920	2442	54853	PP		
34.530	55335	1060773	ED		
TOTAL	351557	3600517		0.8242	

Retention Time (minutes)	Peak Height	Peak Area	Type	Solution Conc (micro/ml)	Component Name
6.280	860	3891	BB		
7.873	4069	18305	BB		
9.267	999	6985	BB		
10.840	24867	112475	BB	0.0250	A-BHC 2
12.320	25430	118306	BP	0.0250	LINDANE-2
12.580	17081	92375	PB	0.0250	B-BHC 2
13.547	28250	172731	BP	0.0250	HEPTACHLOR-2
13.993	12122	70929	PB	0.0250	D-BHC 2
14.893	19670	125563	BB	0.0250	ALDRIN-2
15.387	855	5872	BB		
17.467	20886	152549	BB	0.0250	HEPT EPOXIDE-2
19.287	11739	97671	BB	0.0500	ENDOSULFAN 1
20.573	<u>22559</u>	194700	BP	0.0500	DDE-2
20.993	30769	251873	PB	0.0500	DISLDRIN-2
23.167	24853	208721	BB	0.0500	ENDRIN-2
24.027	<u>10212</u>	112971	BP	0.0500	DDD-2
24.373	<u>29120</u>	296698	PB	0.0500	ENDO II-2
26.140	<u>13995</u>	148512	BP	0.0500	DDT-2
26.713	<u>22102</u>	219197	PB	0.0500	ENDRIN ALD-2
27.547	14658	139483	BP	0.0500	ENDO SULFATE-2
28.147	6350	74013	PB		
29.540	37878	367709	BB	0.1000	BHC-2
31.800	22923	210530	BP	0.1000	METHOXYCHLOR-2
32.173	24845	201428	PB	0.0500	ENDRIN IETONE-2
TOTAL	<u>427191</u>	<u>3403538</u>		<u>0.8750</u>	

Sample: 2302F Channel: ECD-D55-1
Acquired: 07-DEC-88 20:19 Method: C:\MHA\PEST2\PEST2

Filename: 2302F
Operator: PX

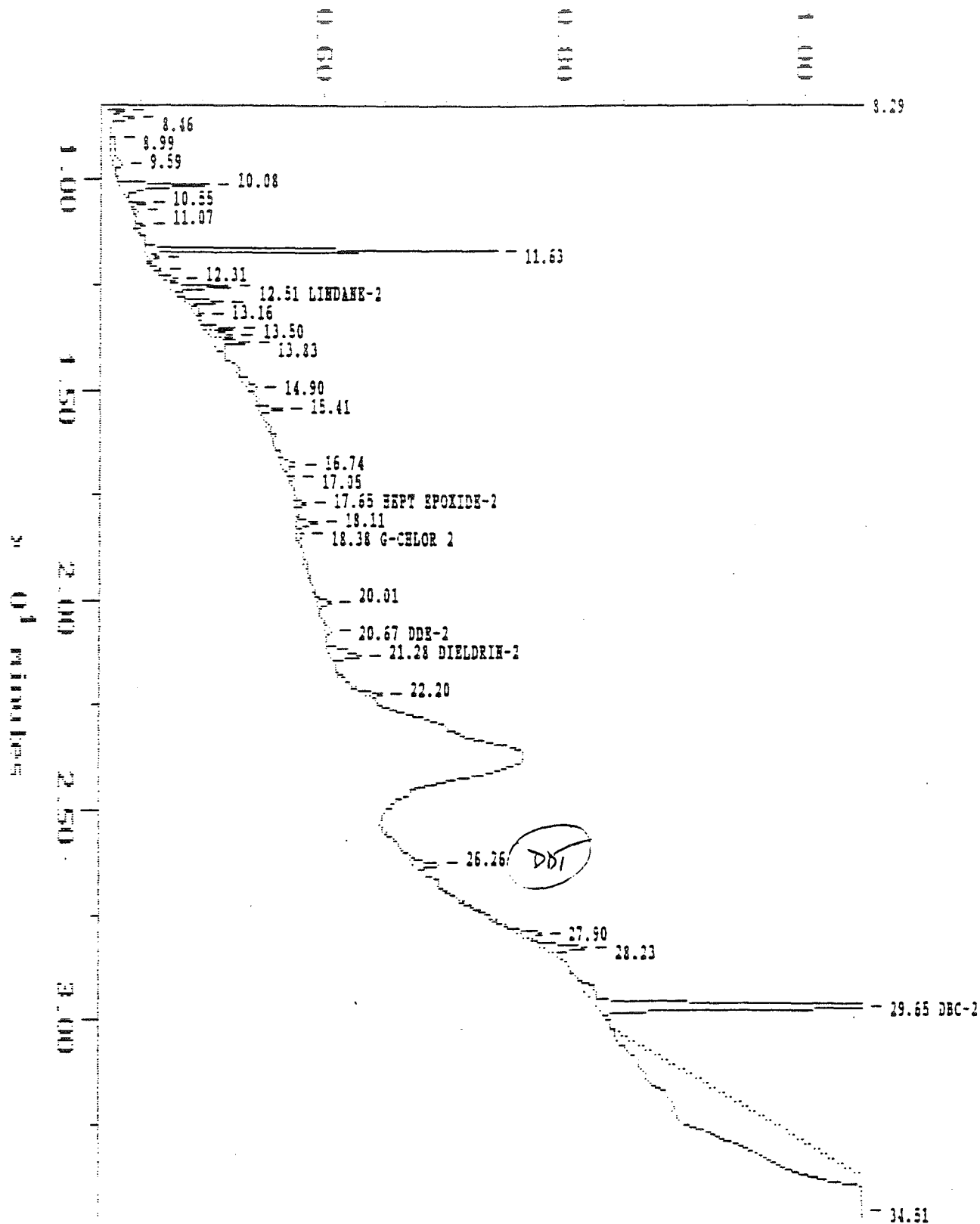
$\times 10^{-2}$ volts



Sample: 23027 Channel: ECD-05608-8
Acquired: 07-DEC-88 20:19 Method: C:\MAL\PEST2\PEST2

Filename: 23027
Operator: BK

$\times 10^{-1}$ volts



MAXIMA 820 CUSTOM REPORT

Printed: 8-DEC-1988 9:24:11

SAMPLE: 2302F

#38 in Method: PEST/PCB ANALYSIS
Acquired: 7-DEC-1988 20:19
Rate: 1.5 points/sec
Duration: 35.000 minutes
Operator: PK

Type: USKH
Instrument: 5590-eccl
Filename: 2302F
Index: 33

DETECTOR: ZCD-DBS-1

Retention Time (minutes)	Peak Height	Peak Area	Type	Solution Conc (micro/ml)	Component Name
5.253	1089	10363	DP		
5.427	1613	13077	DP		
5.750	505	3044	DP		
6.033	1773	8570	DP		
6.460	12982	68953	PS		
6.953	479	2719	SS		
7.500	2347	32554	SP		
7.940	1010	11513	PS		
8.967	6645	37573	SS		
9.560	1775	16319	SP		
9.947	1847	12385	PS		
10.740	875	5146	SP	0.0012	1-DEC 608
11.360	27653	127716	DP		
11.367	5031	40174	PS		
12.720	3327	34430	SP		
12.693	1580	12491	DP		
13.213	1865	5541	PS		
14.107	2159	27512	SP		
14.433	472	4222	PS	0.0005	SEPTEMBER RT
15.327	329	1911	SP		
15.407	870	7452	PS		
15.767	1410	15798	SS		
17.493	695	14812	SS		
17.907	300	6429	SS		
18.920	1135	7999	SS		
20.120	1154	28175	SS		
23.447	1006	103950	SS		
24.793	1260	12498	SP		
25.320	1271	9765	PS	0.0065	(DDT) 4.3 mg
30.520	4669	270871	SP		
31.527	33570	268719	DP	0.0142	(DDE)
33.927	11202	1270008	PS		
	133998	2501249		0.1224	

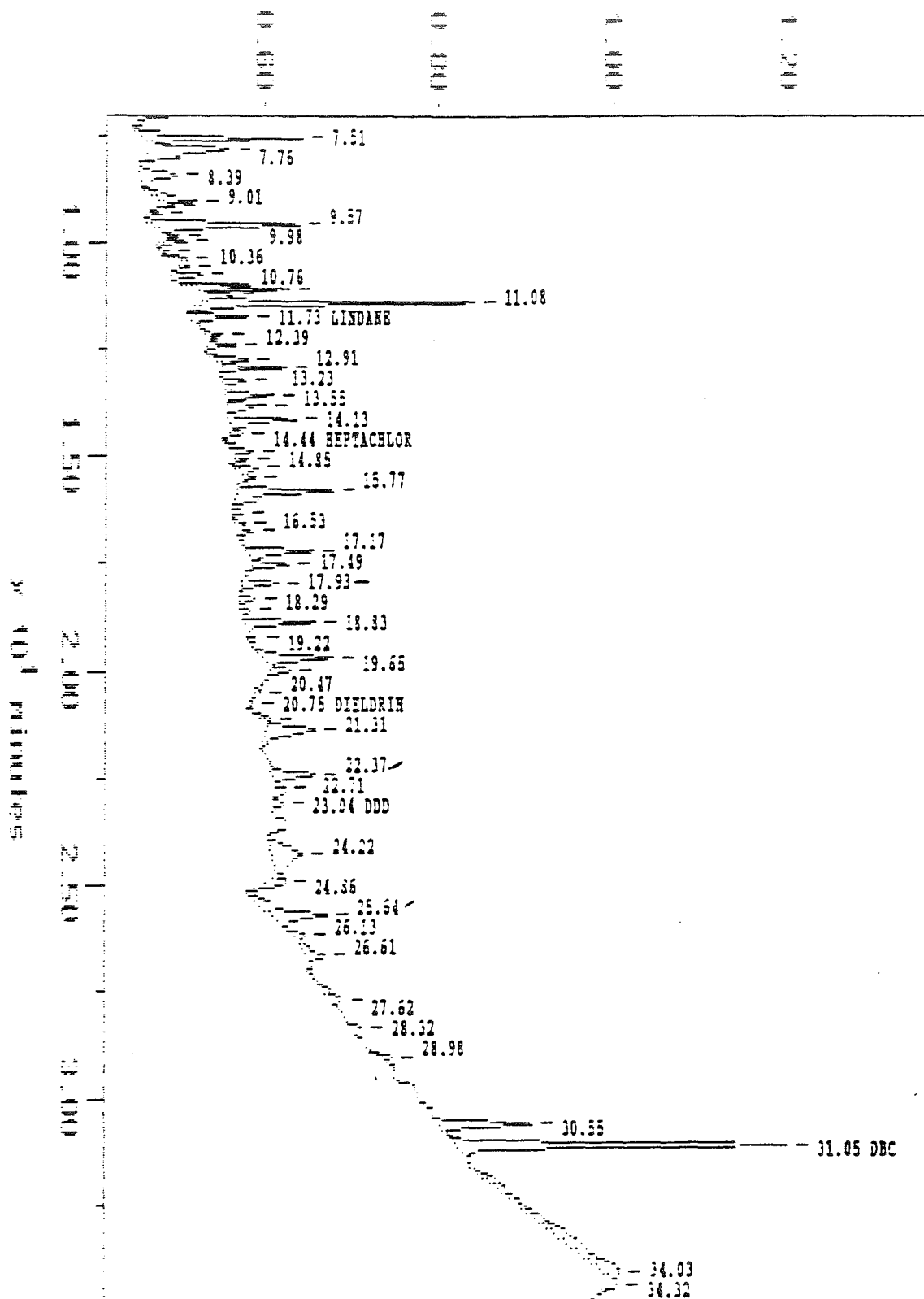
DETECTOR: ECD-28608-3

Retention Time (minutes)	Peak Height	Peak Area	Type	Solution Conc (micro/ml)	Component Name
5.340	1021	8619	SB		
6.033	863	8381	SP		
6.227	1336	12441	PP		
6.507	1317	21692	PS		
7.447	524	6308	SB		
8.293	1362	6029	SP		
8.460	1373	13947	PS		
8.987	514	6899	SP		
9.587	753	8022	PS		
10.080	7390	60377	SP		
10.547	1452	7356	PP		
10.720	369	1487	PS		
11.067	369	3765	SB		
11.633	28922	130900	SP		
11.827	776	4354	SS		
12.087	705	4715	PP		
12.313	1319	7921	PP		
12.513	4922	11384	PP	0.0048	LINDANE-2
12.867	3041	18695	PP		
13.160	491	6241	PS		
13.500	2556	13329	SP		
13.687	1857	16111	PP	0.0016	HEPTACHLOR-2
13.827	2923	20290	PS		
14.900	657	9906	SB		
15.413	1356	12403	SB		
16.740	1129	16405	SP		
17.053	571	4566	PS		
17.653	901	7298	SB	0.0011	HEPT EPOXIDE-2
18.137	1745	14021	SP		
18.390	554	4667	PS	0.0007	G-CHLOR-2 DRS
20.613	1123	15452	SB		
20.673	490	3473	SB	0.0011	DDE-2
21.280	2450	31215	SB	0.0040	DIELDRIN-2
22.200	1378	6072	SB		
26.260	1944	10807	SB	DDT? .0058	
27.900	2000	3741	SP		
28.233	3809	38341	PS		
29.547	39974	362417	SB	0.1055	DSC-2
34.513	1070	-949976	SB		
	129823	1909022		0.1188	

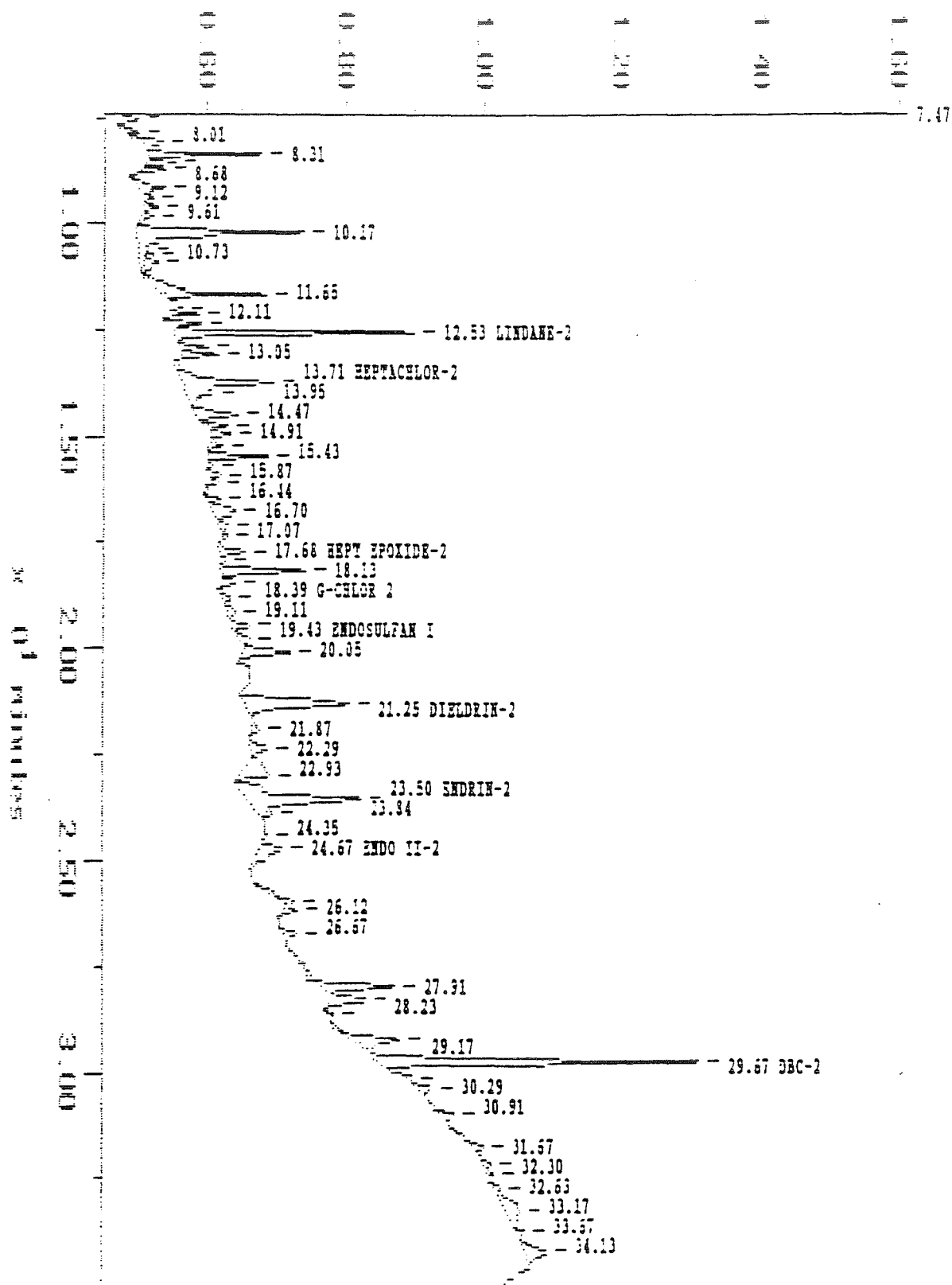
Sample: 23621 Channel: ECD-335-1
Acquired: 97-DEC-18 11:06 Method: C:\MSI\PEST2\PEST2

Filename: 23621
Operator: RZ

$\times 10^{-1}$ volts



```
Filename: 25021
Operator: 28
```



MAXIMA 820 CUSTOM REPORT

Printed: 8-DEC-1988 16:00:51

SAMPLE: 23021

#39 in Method: PEST/PCB ANALYSIS
Acquired: 7-DEC-1988 21:06
Rate: 2.5 points/sec
Duration: 35.000 minutes
Operator: PK

Type: USKH
Instrument: 5590-eccl
Filename: 23021
Index: 39

DETECTOR: ECD-055-1

Retention Time (minutes)	Peak Height	Peak Area	Type	Solution Conc (micro/ml)	Component Name
5.133	10996	49754	DP		
5.280	6724	21917	PP		
5.453	5064	19517	PP		
5.793	2363	22527	PP		
5.930	3948	56777	PP		
6.193	999	3395	SS		
6.480	14936	172611	PP		
6.980	4115	33775	PP		
7.513	17632	108579	PP		
7.760	3916	117850	PP		
8.393	4036	55946	PP		
9.013	4003	41708	PP		
9.133	1409	6386	PP		
9.333	1678	7486	PP		
9.567	16431	141551	PP		
9.840	1596	5423	PP		
9.980	2651	14439	PP		
10.130	1132	5406	PP		
10.350	1300	12598	PP		
10.567	1540	7411	PP	0.3021	1-RT RT/608
10.760	3554	25137	PP		
11.080	10389	70916	PP		
11.233	2736	14186	PP		
11.380	30806	192155	PP		
11.733	6576	44023	PP	0.3033	LINDANE 608
12.140	1732	7648	PP		
12.393	3195	21475	PP		
12.740	3538	27552	PP		
12.913	7232	38596	PP		
13.233	2552	14936	PP		
13.553	5442	38309	PP		
13.800	4192	30626	PP		
14.127	7473	51612	PP		
14.440	1687	12193	PP	0.3013	DEPTACELOR RT

14.353	2392	20912	PP
15.347	1867	8653	PP
15.260	2239	13993	PP
15.467	1116	7759	PP
15.767	10980	105882	PP
15.280	1242	9620	SS
16.527	731	3491	PP
16.720	1429	9556	PP
17.167	7412	61429	PP
17.493	3947	25182	PP
17.927	4103	34371	PP
18.287	1603	12010	PP
18.567	1034	6758	PP
18.833	3137	65909	PP
19.220	1134	5615	PP
19.583	7953	71972	PP
19.933	2396	7355	PP
20.473	700	6895	SS
20.747	353	2641	SS
21.080	940	8007	PP
21.313	5713	31004	PP
22.367	4996	48034	PP
22.707	1273	13263	PP
23.040	1102	10354	PS
24.220	3745	94142	PP
24.860	2137	33219	PP
25.640	6389	97863	PP
26.133	1253	10317	PP
26.867	2056	25301	PS
27.620	1155	19509	BB
28.320	1683	12137	PP
28.980	1152	2171	PS
30.553	10527	89369	PP
31.053	37529	303860	PS
34.027	1877	163186	PP
34.320	894	11893	PS

TOTAL

352626

3000313

0.0007

~~DIFLORIN~~ RT

0.0093

~~DDO~~ RT

0.1296/

OSC

0.1523

DETECTOR: BCD-DE601-3

Retention Time (minutes)	Peak Height	Peak Area	Type	Solution Conc (micro/ml)	Component Name
5.173	5133	31359	PP		
5.447	860	3701	PP		
5.500	2917	23791	PP		

6.040	2153	24904	PP		
6.420	1795	13186	PP		
6.563	5544	35018	PP		
7.053	7972	73757	PP		
7.307	1050	3781	PP		
7.467	2953	20085	PP		
7.900	1765	13534	PP		
8.007	3570	34530	PP		
8.307	16487	84712	PP		
8.513	4171	19570	PP		
8.580	4041	21242	PP		
9.120	3792	35281	PP		
9.360	1242	5905	PP		
9.507	2327	15202	PP		
9.307	1862	12463	PP		
10.173	24113	243210	PP		
10.557	446	2411	SV		
10.727	1375	7501	VV		
10.360	2239	27629	TS		
11.547	14735	116012	PP		
11.967	1373	15069	PP		
12.107	4676	21122	PP		
12.327	4942	26998	PP		
12.527	34740	201697	PP	0.0342	LINDANE-1 RT
12.380	3973	21387	PP		
13.053	5506	33617	PP		
13.707	13174	174902	PP	0.0117	HEPTACHLOR-2
13.947	1166	6453	SS		
14.467	6075	53910	PP		
14.713	3195	16388	PP		
14.913	2876	19583	PP		
15.193	1943	13484	PP		
15.433	3834	55260	PP		
15.547	852	3676	SS		
15.373	1585	12899	PP		
15.947	1584	3383	PP		
15.440	1582	9396	PP		
16.700	2983	41145	PP		
17.067	1071	3852	PP		
17.313	345	4324	PP		
17.580	3569	38079	PP	0.0043	HEPT EPOXIDE-2
17.907	548	2709	PP		
18.127	12057	92718	PP		
18.387	2121	19351	PP	0.0025	G-CHLOR-1 DBS
18.787	1179	11112	PP		
19.113	1132	12121	PP		
19.427	2519	18698	PP	0.0197	ENDOSULFAN 1
19.753	1233	12037	PP		
20.047	6835	67574	PS		
21.253	14932	194549	SB	0.0243	DIELDRIN-2

21.873	1052	11534	SP		
22.293	2302	24789	PP		
22.933	4294	78901	PP		
23.590	16332	249519	PS	0.3328	ENDREN-1
23.840	890	6345	SS		
24.153	459	3612	SP		
24.567	3464	61464	PS	0.0059	ENDO II-1
25.927	1620	14461	SP		
26.120	1688	12823	PP		
26.573	1797	13756	PS		
27.913	20103	56910	SP		
28.233	5513	61100	PP		
28.567	620	3342	PS		
29.167	6679	64708	SP		
29.573	46293	382854	PP	0.1222	DSC-2
30.367	1132	9835	PP		
30.237	2045	18036	PP		
30.913	1831	15831	PP		
31.567	1448	4313	PP		
32.030	331	5317	PP	0.3036	METHOXYCELOR-2
32.300	335	5778	PP		
32.533	321	5955	PP		
33.173	2124	54189	PP		
33.567	1146	11194	PP		
34.133	3189	45880	PS		

TOTAL

380762

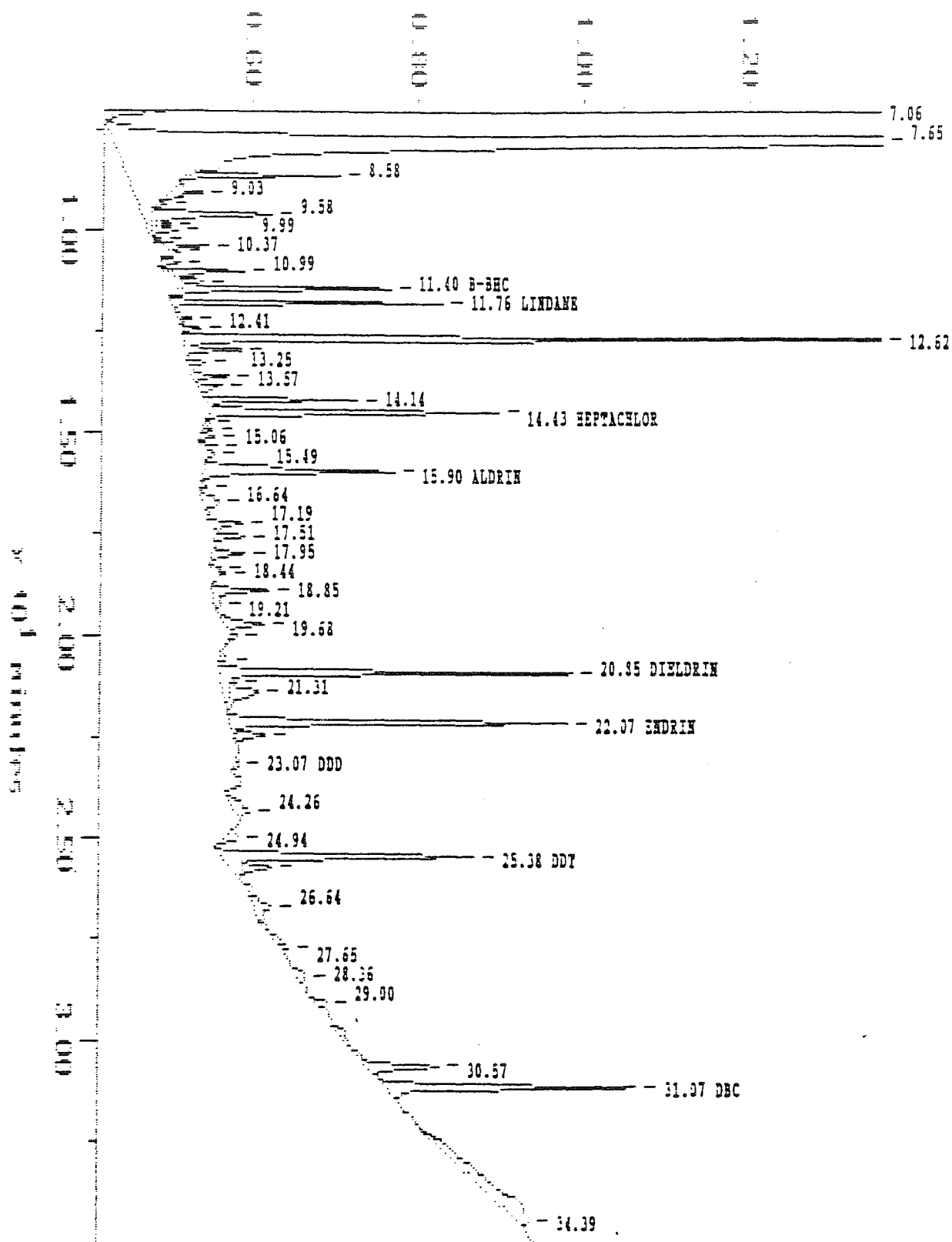
3308038

0.2522

Sample: 2002IMS Channel: ECD-085-1
Acquired: 07-DEC-88 21:54 Method: C:\MIX\PESTO\PESTO

Filename: 2002IMS
Operator: PI

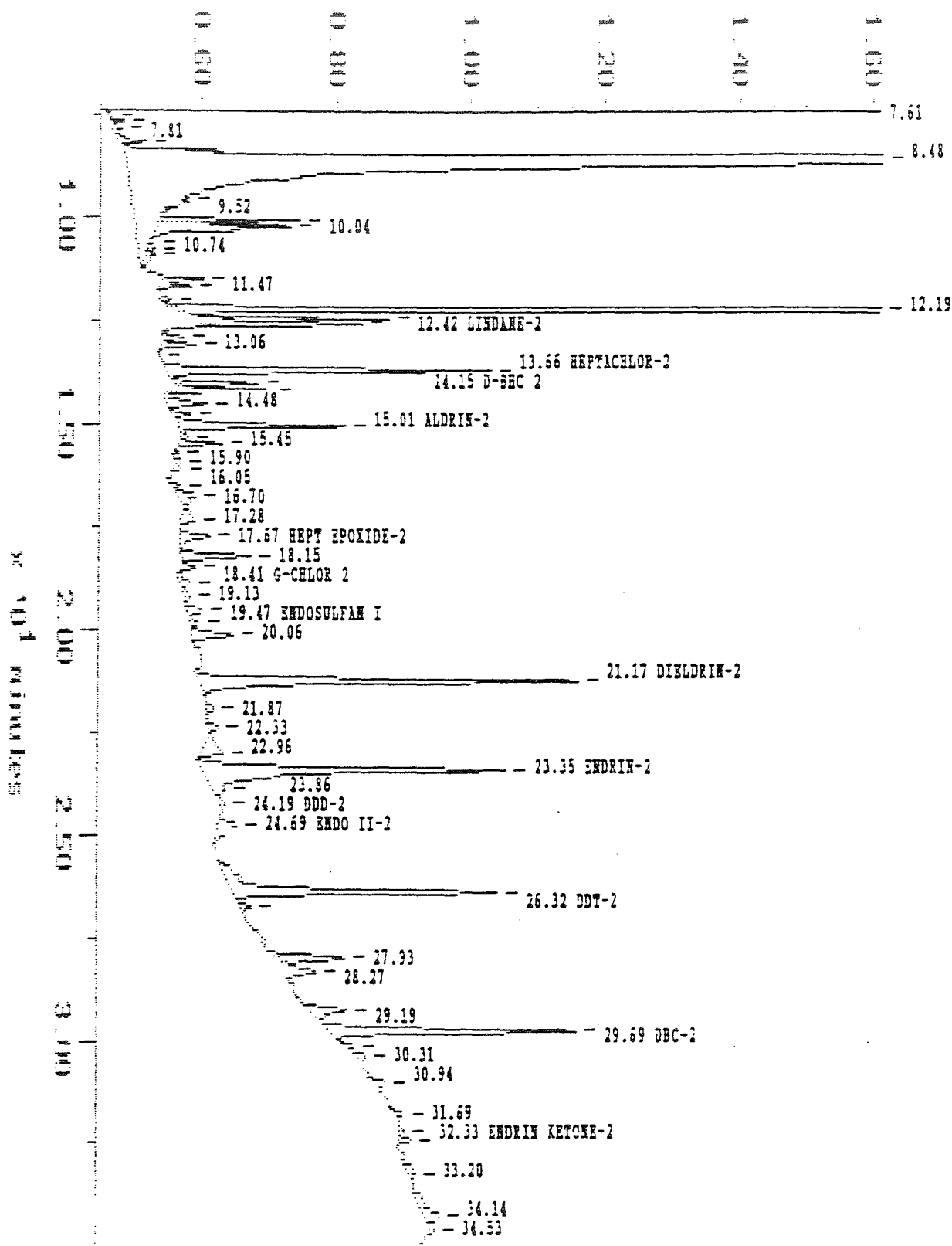
$\times 10^{-1}$ volts



Sample: 2302IMS Channel: ECD-DS600-3
Acquired: 97-DEC-30 21:54 Method: C:\MIA\PEST2\PEST2

Filename: 2302IMS
Operator: RM

$\times 10^{-1}$ volts



MAXIMA 820 CUSTOM REPORT

Printed: 8-DEC-1988 18:07:23

SAMPLE: 2302IMS

#40 in Method: PEST/PCB ANALYSIS
Acquired: 7-DEC-1988 21:54
Rate: 2.5 points/sec
Duration: 35.000 minutes
Operator: PK

Type: UHAN
Instrument: 5890-eccl
Filename: 2302IMS
Index: 40

DETECTOR: BCD-385-1

Retention Time (minutes)	Peak Height	Peak Area	Type	Solution Conc (micro/ml)	Component Name
5.140	7520	45806	DP		
5.287	2466	7746	PP		
5.450	4043	16024	PP		
5.620	1485	5720	PP		
5.813	1535	7642	PP		
5.987	7153	54893	PP		
6.437	12637	122165	PP		
7.050	4014	41619	PP		
7.647	>956794	>13201039	PP		
8.533	17878	73910	SS		
9.027	3993	44922	SV		
9.347	1290	5347	TS		
9.580	14351	126066	SV		
9.853	2301	13866	TV		
9.993	3123	13545	TS		
10.200	945	4491	PP		
10.357	5572	27161	PP		
10.513	948	7216	PP		
10.773	2333	15969	PP		
10.993	9401	48551	PP		
11.247	2464	13373	PP		
11.400	25260	153396	PP		
11.768	32756	152236	PP		
12.153	1475	3063	PP		
12.407	2474	12279	PP		
12.629	135155	962441	PP		
12.927	5247	34441	SS		
13.247	2065	11942	PP		
13.567	4432	30294	PP		
13.813	3174	32999	PP		
14.140	13057	90735	PP		
14.433	34687	249002	PP		
14.723	599	2934	SV		
14.973	1312	3508	TV		

*Recoveries quantified from
STD at #42 in green*

(PK)

*0.0641
0.0433*

*608
LINDANE
108%*

0.0393

*HEPTACHLOR
65%*

15.060	1831	11709	75
15.290	1631	11224	PP
15.487	831	5076	PP
15.900	12957	108112	PP
16.300	372	6353	SS
16.640	2074	31043	PP
17.193	3521	26223	PP
17.513	3561	24016	PP
17.947	4031	36175	PP
18.300	799	3802	PP
18.440	1164	8401	PP
18.853	6797	59870	PP
19.207	607	6163	SS
19.580	4515	45074	PP
19.967	1069	14232	PP
20.527	993	3816	PP
20.847	42833	333199	PP
21.093	566	3089	ST
21.313	3584	55083	75
22.567	41109	313152	75
22.887	3572	32213	SS
23.073	356	4312	SS
24.260	1827	34091	SS
24.940	1708	21576	PP
25.380	30605	283105	75
25.567	3435	30341	SS
26.540	1983	36234	PP
27.647	664	13170	75
28.360	323	12352	SS
29.000	1209	10094	SS
30.573	3699	92194	PP
31.073	30363	246670	75
34.393	1086	196413	SS

TOTAL

654976

1681355

~~0.0000~~

.0376

ALDRIN

97%

0.0037

~~0.0035~~

.0935%

~~0.0035~~

.1045%

0.0030

DDT

DIELDRIN

ENDRIN

DDT

~~0.0000~~

.1233%

DDT

0.1049

DDT

0.6322

DETECTOR: ECD-35601-3

Retention Time (minutes)	Peak Height	Peak Area	Type	Solution Conc micro/ml	Component Name
5.130	3747	13554	PP		
5.287	1533	5429	PP		
5.467	773	3333	PP		
5.607	2087	19780	PP		
5.973	2194	18085	PP		
6.227	687	2417	PP		

6.433	1130	3966	PP		
6.666	4223	67475	PP		
7.067	7148	59321	PP		
7.313	330	2657	PP		
7.473	694	3321	PP		
7.513	1908	6338	PP		
7.967	1267	6483	PP		
8.120	3765	23665	PP		
8.480	>951296	>10621176	PP		
9.520	857	2647	SS		
10.040	21125	102105	SV		
10.160	19804	180023	TV		
10.536	654	3204	VS		
10.740	1089	5624	SV		
10.873	1535	19730	VS	0.0015	A-SEC 2
11.467	6464	37542	PP		
11.647	3920	14544	PP		
11.986	1428	10632	PP		
12.187	230744	1139511	PP		
12.420	25392	58044	PP	0.0250	LINDANE-2
12.540	21143	80731	PP		
12.887	2897	16205	PP		
13.060	4719	27582	PP		
13.320	407	1550	PP		
13.660	48513	324550	PP	0.0429	HEPTACHLOR-2
13.993	11904	57595	PP		
14.153	13722	66532	PP	0.0283	D-SEC 2
14.480	5948	45919	PP		
14.733	2557	13501	PP		
15.013	24395	171060	PP	0.0310	ALDRIN-2
15.293	362	5047	SS		
15.447	6397	32049	PP		
15.650	305	3616	SS		
15.900	383	7428	PP		
16.053	1060	5157	PP		
16.457	1040	5877	PP		
16.730	2510	32445	PP		
17.280	2229	31655	PP		
17.573	4254	42197	PP	0.0051	HEPT EPOXIDE-2
18.147	10055	76272	PP		
18.407	1927	16891	PP	0.0023	G-CHLOR 2
18.800	1239	11299	PP		
19.127	1064	11159	PP		
19.473	2183	20616	PP	0.0093	ENDOSULFAN 2
19.773	950	6315	PP		
20.960	6036	61447	PS		
21.167	55838	498078	SS	0.0524	DIELDRIN-2
21.373	1165	10744	SB		
22.227	1569	16135	SP		
22.960	1546	62917	PP		

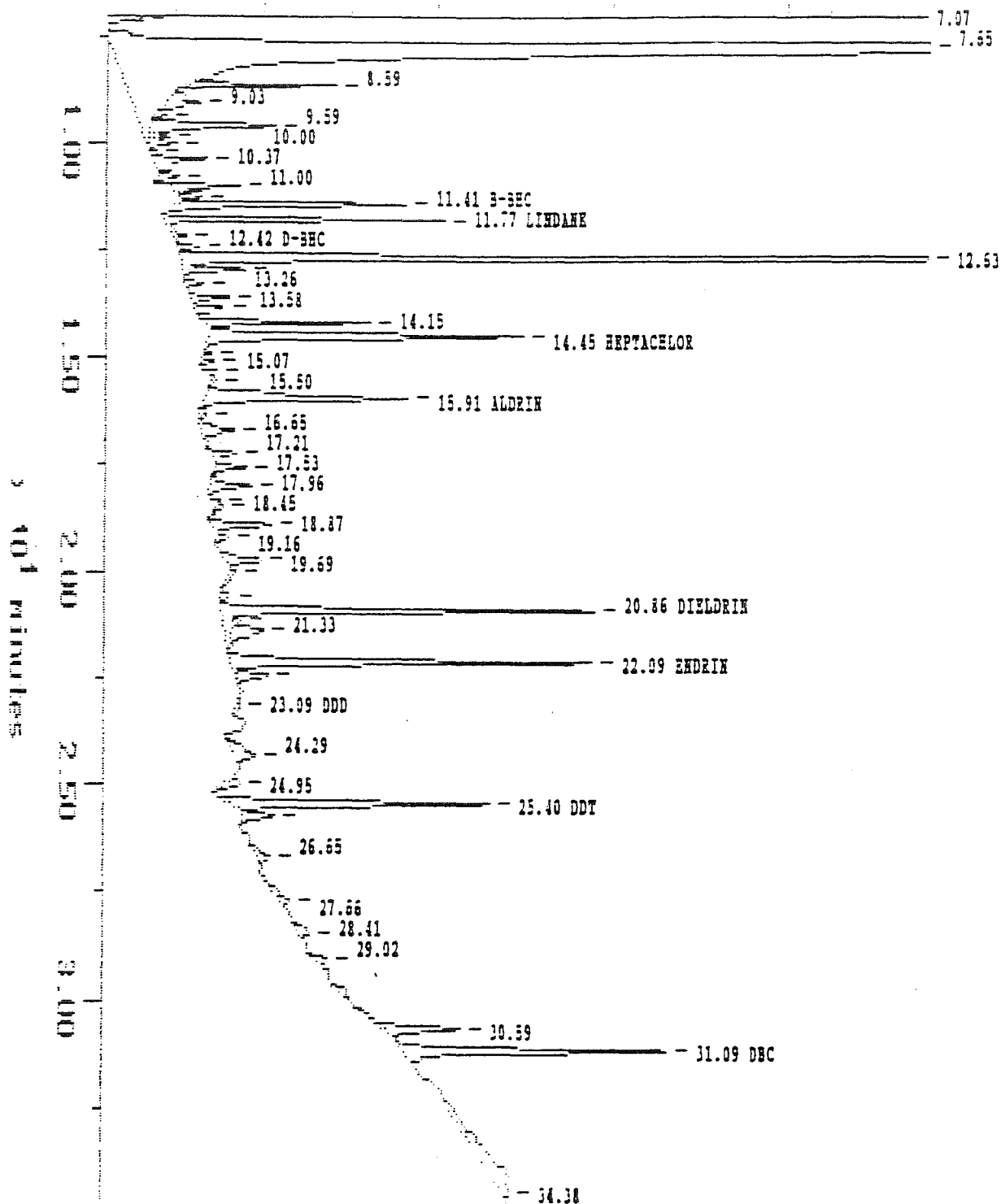
23.347	45294	516898	PP	0.0911	ENDRIN-2
23.369	654	4779	SS		
24.193	735	5929	PS	0.0038	DDD-2
24.687	2939	52603	BS	0.0050	ENDO II-2
26.329	39453	393166	SP	0.1419	DDT-2
26.739	1479	11887	PS		
27.933	9744	85639	SP		
28.267	4323	45146	PS		
29.137	5440	55364	SP		
29.687	36866	303002	PP	0.0973	DBC-2
30.937	384	6506	PP		
30.307	1298	9349	PS		
30.940	1619	13899	SP		
31.693	977	-1789	PS		
32.393	505	4025	SP	0.0026	METHOXYCELOR-2
32.333	1868	12887	PS	0.0038	ENDRIN KETONE-2
33.200	328	16023	BS		
34.140	2289	50154	SP		
34.533	1909	11389	PS		
	-----	-----		-----	
TOTAL	746296	5181317		0.5826	

Sample: 23021MSD Channel: BCD-005-A
Acquired: 07-DEC-88 11:11 Method: GC:K11A/PESTON/PESTO

Filename: 23021MSD
Operator: PK

Rejection

$\times 10^{-1}$ volts



Filename: 100000
Operator: 10

9.53
10.05
10.75
11.47
12.43 LINDANE-2
12.19
13.07
13.67 HEPTACHLOR-2
14.17 D-BHC 2
14.49
15.03 ALDRIN-2
15.46
15.89
16.05
16.72
17.29
17.69 HEPT EPOXIDE-2
18.15
18.42 G-CHLOR 2
19.14
19.52 ENDOSULFAN I
20.08
21.18 DIELDRIN-2
21.89
22.33
22.97
23.37 ENDRIN-2
23.38
24.21 DDD-2
24.70 ENDO II-2
26.34 DDT-2
27.49
27.95
28.29
29.20
29.71 BHC-2
30.31
30.95
31.71
32.35 ENDRIN KETCHER-2
33.23
34.21
34.57

15.907	23136	205739	PP
16.313	921	6751	SS
16.653	3739	40436	PS
17.207	2830	20193	SP
17.327	3650	25107	PP
17.960	4580	40510	PP
18.320	311	3869	PP
18.453	1038	6989	PP
18.867	6795	50103	PP
19.160	1246	11115	PP
19.693	4205	41552	PP
19.980	734	11592	PP
20.540	1001	9315	PP
20.960	43000	334479	PP
21.113	702	3363	SV
21.327	3725	57723	TS
22.087	41615	326093	PS
22.407	3608	33747	SS
23.093	552	6535	SS
24.237	2200	37151	SS
24.953	1737	20630	SP
25.400	29853	239029	PP
25.637	3631	34534	PS
26.553	1455	16973	SS
27.660	938	13347	SS
28.413	1197	20191	SS
29.020	1213	10673	SS
30.593	8674	75235	SP
31.087	30096	252376	PS
34.360	325	129843	SS

TOTAL

752910

5202775

0.037

0.403

ALDRIN

92%
101%

0.0039

0.9839

%

DDT
DIELDRIN

93%

0.1009

%

ENDRIN

102%

0.0047

DDT

0.1527

%

DDT

120% Quantified
from nearest ST
(#42)

0.1039

D5C

0.6426

DETECTOR: ECD-93001-3

Retention Time (minutes)	Peak Height	Peak Area	Type	Solution Conc (micro/ml)	Component Name
5.137	3755	25010	SP		
5.467	755	3361	PP		
5.520	1337	17339	PP		
5.980	1963	15903	PP		
6.233	641	3263	PP		
6.440	999	7626	PP		
6.673	3904	25474	PP		
7.073	7150	56324	PP		
7.437	695	6724	PP		

7.520	1876	6480	PP		
7.520	1200	6036	PP		
8.133	3079	13753	PP		
8.487	>952626	>10575053	PP		
9.527	504	2794	SS		
10.053	19795	96264	SV		
10.193	19778	181299	TV		
10.593	682	3372	TS		
10.753	1103	5493	ST		
10.887	1244	8071	TS	0.5011	A-BHC 2
11.473	6149	33808	PP		
11.660	4948	19409	PP		
11.893	982	3466	PP		
12.133	353355	1914619	PP		
12.433	29727	129399	ST	0.0292	LINDANE-3
12.547	27355	150813	TS		
12.960	3739	23133	ST		
13.073	5315	33114	TS		
13.333	480	1891	SS		
13.567	60839	382255	PP	0.3533	HEPTACHLOR-2
14.307	13275	63043	PP		
14.167	14344	71529	PP	0.0296	D-BHC 2
14.493	7501	54475	PP		
14.747	2626	13956	PP		
15.027	34514	166736	PP	0.3312	ALDRIN-2
15.313	2334	11321	PP		
15.460	6275	34578	PP		
15.680	759	3531	PP		
15.893	911	5615	PP		
16.053	1578	4359	PP		
16.473	1285	7247	PP		
16.723	2507	32474	PP		
17.093	3287	35972	PP		
17.537	4233	43219	PP	0.3651	HEPT EPOXIDE-2
18.133	10173	75349	PP		
18.423	1151	18637	PP	0.3926	G-HECH 2
18.867	392	9137	PP		
19.149	1156	12651	PP		
19.520	3173	29000	PP	0.0135	ENDOSULFAN 2
19.737	583	6398	PP		
20.030	6155	62345	PS		
20.767	514	4713	SP	0.5011	DDT-2
21.100	56820	487769	PS	0.5923	DIELDRIN-2
21.387	567	5092	SP		
22.390	521	3873	PP		
22.533	1839	15076	PP		
22.973	3937	58092	PP		
23.567	45627	513937	PP	0.3913	ENDRIN-2
23.880	752	5910	SS		
24.237	755	5552	PS	0.3333	DDD-2

24.700	2969	36196	PS	0.0051	ENDO II-2
26.340	40150	392190	SP	0.1434	DDT-2
26.713	1712	13077	PS		
27.487	519	3276	PS		
27.947	10210	90246	SP		
28.287	4307	44815	PP		
28.607	688	4753	PS		
29.200	5947	64263	SP		
29.707	36320	300293	PP	0.3959	DBC-2
30.987	1125	8390	PP		
30.313	1463	10505	PS		
30.953	1536	10958	SP		
31.707	1179	-3272	PS		
32.140	650	4340	SP		
32.347	1866	13098	PP	0.3033	ENDRIN ESTONE-2
33.233	770	25711	PP		
34.213	1311	9087	PP		
34.567	1395	17532	PS		
	-----	-----		-----	
TOTAL	905742	6145379		0.6036	



ANALYTICAL
RESOURCES
INCORPORATED

Analytical
Chemists &
Consultants

333 Ninth Ave. North
Seattle, Wa 98109-5167
(206)621-6490

EXPLANATIONS OF INORGANIC DATA REPORT CODES

THE COLUMNS LABELED 'PREP', 'C', AND 'M' CONTAIN IMPORTANT INFORMATION ABOUT YOUR ANALYSES. THE CODES ARE DEFINED BELOW.

PREP CODES

THE 3-LETTER CODES IN THIS COLUMN ARE USED TO DESCRIBE THE METHOD USED TO PREPARE THE SAMPLE FOR ANALYSIS.

THE FIRST LETTER OF THE CODE STANDS FOR THE MATRIX TYPE OR THE FRACTION OF THE SAMPLE THAT IS BEING ANALYZED:

- D = THE DISSOLVED FRACTION OF A SAMPLE (FILTERED THROUGH A 0.45 μ MEMBRANE FILTER.)
- E = THE EP TOXICITY FRACTION OF A SAMPLE.
- F = A PROCEDURE FOR DIGESTING FISH, OR OTHER TISSUE.
- O = A DIGESTION OF AN OIL, GREASE, OR TAR.
- R = A WATER SAMPLE PREPARED BY A 'TOTAL RECOVERABLE' DIGESTION.
- S = A DIGESTION OF A SOIL OR SEDIMENT SAMPLE.
- T = A WATER SAMPLE PREPARED BY A 'TOTAL' DIGESTION.
- W = A SAMPLE ANALYZED WITHOUT ANY PREPARATION.

THE MIDDLE LETTER OF THE CODE RELATES TO THE SOURCE OF THE PROCEDURE.

- A = A METHOD DEVELOPED BY ARI.
- C = THE USEPA CLP PROGRAM STATEMENT OF WORK.
- E = THE USEPA 1979 WATER AND WASTEWATER MANUAL.
- M = A COMMON PROCEDURE FOUND IN A MANY SOURCES.
- P = THE PUGET SOUND ESTUARY PROTOCOLS.
- S = STANDARD METHODS.
- W = THE USEPA SW-846 SOLID WASTE MANUAL.

THE LAST LETTER OF THE PREPARATION CODE REFERS EITHER TO THE FINAL MATRIX OF THE PREPARED SAMPLE OR TO A SPECIALIZED USE OF THE PROCEDURE.

- A = A PROCEDURE FOR ARSENIC AND SELENIUM ANALYSIS ONLY.
- C = A HYDROCHLORIC ACID MATRIX.
- F = A HYDROFLUORIC ACID DIGESTION.
- M = A PROCEDURE FOR MERCURY ANALYSIS ONLY.
- N = A NITRIC ACID MATRIX.
- P = A PERCHLORIC ACID DIGESTION.
- R = A SPECIAL 'SOFT' DIGESTION OF A SOLID.

C CODES

THESE CODES ARE USED TO QUALIFY THE REPORTED CONCENTRATIONS. A CODE OF 'L' MEANS NO ANALYTE WAS DETECTED AT THE REPORTED CONCENTRATION LEVEL.

M CODES

THESE CODES SIGNIFY THE TYPE OF INSTRUMENTAL TECHNIQUE USED WHEN ANALYZING THE SAMPLES. THE CODES ARE DEFINED BELOW:

- CVA = COLD VAPOR AAS
- FLA = FLAME AAS
- GFA = GRAPHITE FURNACE AAS
- ICP = ICP-AES

ANALYTICAL RESOURCES, INC.
Inorganic Laboratory Data Report
12/30/88
08:48:50

Client: E & E
Contact: DAVID BYERS
Project: T10-8810-012
ID number: T8110051
Description:
Sampled: 11/28/88
Matrix: SOIL

ARI job number: 2302
ARI sample number: A

Released by: NRW

A N A L Y T I C A L R E S U L T S

CAS Number	Analyte	Concentration	C	Prep	M
7440-36-0	Antimony	15 mg/kg-dry	L	SCC	ICP
7440-38-2	Arsenic	0.05 mg/L	L	EWN	ICP
7440-38-2	Arsenic	15 mg/kg-dry	L	SCC	ICP
7440-39-3	Barium	0.287 mg/L		EWN	ICP
7440-41-7	Beryllium	0.3 mg/kg-dry		SCC	ICP
7440-43-9	Cadmium	0.002 mg/L	L	EWN	ICP
7440-43-9	Cadmium	0.6 mg/kg-dry	L	SCC	ICP
7440-47-3	Chromium	0.005 mg/L	L	EWN	ICP
7440-47-3	Chromium	39.4 mg/kg-dry		SCC	ICP
7440-47-3	Chromium(VI)	NOT ANALYZED		EW6	ICP
7440-47-3	Chromium(VI)	NOT ANALYZED		SW6	ICP
7440-50-8	Copper	52.5 mg/kg-dry		SCC	ICP
7439-92-1	Lead	0.03 mg/L	L	EWN	ICP
7439-92-1	Lead	15 mg/kg-dry		SCC	ICP
7439-97-6	Mercury	0.0001 mg/L	L	EWM	CVA
7439-97-6	Mercury	0.06 mg/kg-dry		SCM	CVA
7440-02-0	Nickel	15 mg/kg-dry		SCC	ICP
7782-49-2	Selenium	0.05 mg/L	L	EWN	ICP
7782-49-2	Selenium	15 mg/kg-dry	L	SCC	ICP
7440-22-4	Silver	0.003 mg/L	L	EWN	ICP
7440-22-4	Silver	0.9 mg/kg-dry	L	SCC	ICP
7440-28-0	Thallium	15 mg/kg-dry	L	SCC	ICP
7440-66-6	Zinc	58.8 mg/kg-dry		SCC	ICP

ANALYTICAL RESOURCES, INC.
Inorganic Laboratory Data Report
12/30/88
08:51:09

Client: E & E
Contact: DAVID BYERS
Project: T10-8810-012
ID number: T8110051
Description: LABORATORY DUPLICATE
Sampled: 11/28/88
Matrix: SOIL

ARI job number: 2302
ARI sample number: ADUP

Released by: NRW

A N A L Y T I C A L R E S U L T S

CAS Number	Analyte	Concentration	C	Prep	M
7440-36-0	Antimony	12 mg/kg-dry	L	SCC	ICP
7440-38-2	Arsenic	0.05 mg/L	L	EWN	ICP
7440-38-2	Arsenic	12 mg/kg-dry	L	SCC	ICP
7440-39-3	Barium	0.280 mg/L		EWN	ICP
7440-41-7	Beryllium	0.3 mg/kg-dry		SCC	ICP
7440-43-9	Cadmium	0.002 mg/L	L	EWN	ICP
7440-43-9	Cadmium	0.5 mg/kg-dry	L	SCC	ICP
7440-47-3	Chromium	0.005 mg/L	L	EWN	ICP
7440-47-3	Chromium	41.8 mg/kg-dry		SCC	ICP
7440-47-3	Chromium(VI)	NOT ANALYZED		EW6	ICP
7440-47-3	Chromium(VI)	NOT ANALYZED		SW6	ICP
7440-50-8	Copper	52.8 mg/kg-dry		SCC	ICP
7439-92-1	Lead	0.03 mg/L	L	EWN	ICP
7439-92-1	Lead	16 mg/kg-dry		SCC	ICP
7439-97-6	Mercury	0.0001 mg/L	L	EWM	CVA
7439-97-6	Mercury	0.05 mg/kg-dry	L	SCM	CVA
7440-02-0	Nickel	14 mg/kg-dry		SCC	ICP
7782-49-2	Selenium	0.05 mg/L	L	EWN	ICP
7782-49-2	Selenium	12 mg/kg-dry	L	SCC	ICP
7440-22-4	Silver	0.003 mg/L	L	EWN	ICP
7440-22-4	Silver	0.7 mg/kg-dry	L	SCC	ICP
7440-28-0	Thallium	12 mg/kg-dry	L	SCC	ICP
7440-66-6	Zinc	60.1 mg/kg-dry		SCC	ICP

ANALYTICAL RESOURCES, INC.
Inorganic Laboratory Data Report
12/30/88
08:53:37

Client: E & E
Contact: DAVID BYERS
Project: T10-8810-012
ID number: T8110051
Description: MATRIX SPIKE
Sampled: 11/28/88
Matrix: SOIL

ARI job number: 2302
ARI sample number: ASPK

Released by: MBW

A N A L Y T I C A L R E S U L T S

CAS Number	Analyte	Concentration	C	Prep	M
7440-36-0	Antimony	61 mg/kg-dry		SCC	ICP
7440-38-2	Arsenic	2.05 mg/L		EWN	ICP
7440-38-2	Arsenic	599 mg/kg-dry		SCC	ICP
7440-39-3	Barium	2.27 mg/L		EWN	ICP
7440-41-7	Beryllium	11.6 mg/kg-dry		SCC	ICP
7440-43-9	Cadmium	0.057 mg/L		EWN	ICP
7440-43-9	Cadmium	12.9 mg/kg-dry		SCC	ICP
7440-47-3	Chromium	0.204 mg/L		EWN	ICP
7440-47-3	Chromium	87.7 mg/kg-dry		SCC	ICP
7440-47-3	Chromium(VI)	NOT ANALYZED		EW6	ICP
7440-47-3	Chromium(VI)	NOT ANALYZED		SW6	ICP
7440-50-8	Copper	112 mg/kg-dry		SCC	ICP
7439-92-1	Lead	0.50 mg/L		EWN	ICP
7439-92-1	Lead	127 mg/kg-dry		SCC	ICP
7439-97-6	Mercury	0.0009 mg/L		EWM	CVA
7439-97-6	Mercury	0.55 mg/kg-dry		SCM	CVA
7440-02-0	Nickel	133 mg/kg-dry		SCC	ICP
7782-49-2	Selenium	2.10 mg/L		EWN	ICP
7782-49-2	Selenium	584 mg/kg-dry		SCC	ICP
7440-22-4	Silver	0.040 mg/L		EWN	ICP
7440-22-4	Silver	11.1 mg/kg-dry		SCC	ICP
7440-28-0	Thallium	597 mg/kg-dry		SCC	ICP
7440-66-6	Zinc	169 mg/kg-dry		SCC	ICP

ANALYTICAL RESOURCES, INC.
Inorganic Laboratory Data Report
12/30/88
08:54:09

Client: E & E
Contact: DAVID BYERS
Project: T10-8810-012
ID number: T8110052
Description:
Sampled: 11/28/88
Matrix: SOIL

ARI job number: 2302
ARI sample number: B

Released by: 11RW

A N A L Y T I C A L R E S U L T S

CAS Number	Analyte	Concentration	C	Prep	M
7440-36-0	Antimony	24 mg/kg-dry		SCC	ICP
7440-38-2	Arsenic	0.05 mg/L	L	EWN	ICP
7440-38-2	Arsenic	76 mg/kg-dry		SCC	ICP
7440-39-3	Barium	1.52 mg/L		EWN	ICP
7440-41-7	Beryllium	0.4 mg/kg-dry	L	SCC	ICP
7440-43-9	Cadmium	0.102 mg/L		EWN	ICP
7440-43-9	Cadmium	5.4 mg/kg-dry		SCC	ICP
7440-47-3	Chromium	0.032 mg/L		EWN	ICP
7440-47-3	Chromium	1550 mg/kg-dry		SCC	ICP
7440-47-3	Chromium(VI)	0.005 mg/L	L	EW6	ICP
7440-47-3	Chromium(VI)	NOT ANALYZED		SW6	ICP
7440-50-8	Copper	906 mg/kg-dry		SCC	ICP
7439-92-1	Lead	0.92 mg/L		EWN	ICP
7439-92-1	Lead	1860 mg/kg-dry		SCC	ICP
7439-97-6	Mercury	0.0001 mg/L		EWM	CVA
7439-97-6	Mercury	0.09 mg/kg-dry		SCM	CVA
7440-02-0	Nickel	400 mg/kg-dry		SCC	ICP
7782-49-2	Selenium	0.05 mg/L	L	EWN	ICP
7782-49-2	Selenium	20 mg/kg-dry	L	SCC	ICP
7440-22-4	Silver	0.003 mg/L	L	EWN	ICP
7440-22-4	Silver	17.9 mg/kg-dry		SCC	ICP
7440-28-0	Thallium	20 mg/kg-dry	L	SCC	ICP
7440-66-6	Zinc	2050 mg/kg-dry		SCC	ICP

ANALYTICAL RESOURCES, INC.
Inorganic Laboratory Data Report
12/30/88
09:12:02

Client: E & E
Contact: DAVID BYERS
Project: T10-8810-012
ID number: T8110053
Description:
Sampled: 11/28/88
Matrix: SOIL

ARI job number: 2302
ARI sample number: C

Released by: NRW

A N A L Y T I C A L R E S U L T S

CAS Number	Analyte	Concentration	C	Prep	M
7440-36-0	Antimony	13 mg/kg-dry	L	SCC	ICP
7440-38-2	Arsenic	0.39 mg/L		EWN	ICP
7440-38-2	Arsenic	45 mg/kg-dry		SCC	ICP
7440-39-3	Barium	3.65 mg/L		EWN	ICP
7440-41-7	Beryllium	0.3 mg/kg-dry	L	SCC	ICP
7440-43-9	Cadmium	0.02 mg/L	L	EWN	ICP
7440-43-9	Cadmium	0.5 mg/kg-dry	L	SCC	ICP
7440-47-3	Chromium	0.013 mg/L		EWN	ICP
7440-47-3	Chromium	1350 mg/kg-dry		SCC	ICP
7440-47-3	Chromium(VI)	0.006 mg/L		EW6	ICP
7440-47-3	Chromium(VI)	NOT ANALYZED		SW6	ICP
7440-50-8	Copper	413 mg/kg-dry		SCC	ICP
7439-92-1	Lead	0.03 mg/L	L	EWN	ICP
7439-92-1	Lead	13 mg/kg-dry		SCC	ICP
7439-97-6	Mercury	0.0001 mg/L	L	EWM	CVA
7439-97-6	Mercury	0.05 mg/kg-dry	L	SCM	CVA
7440-02-0	Nickel	486 mg/kg-dry		SCC	ICP
7782-49-2	Selenium	0.5 mg/L	L	EWN	ICP
7782-49-2	Selenium	14 mg/kg-dry		SCC	ICP
7440-22-4	Silver	0.03 mg/L	L	EWN	ICP
7440-22-4	Silver	0.8 mg/kg-dry	L	SCC	ICP
7440-28-0	Thallium	13 mg/kg-dry	L	SCC	ICP
7440-66-6	Zinc	39.6 mg/kg-dry		SCC	ICP

ANALYTICAL RESOURCES, INC.
Inorganic Laboratory Data Report
12/30/88
09:13:22

Client: E & E
Contact: DAVID BYERS
Project: T10-8810-012
ID number: T8110054
Description:
Sampled: 11/28/88
Matrix: SOIL

ARI job number: 2302
ARI sample number: D

Released by: MRW

A N A L Y T I C A L R E S U L T S

CAS Number	Analyte	Concentration	C	Prep	M
7440-36-0	Antimony	21 mg/kg-dry	L	SCC	ICP
7440-38-2	Arsenic	0.05 mg/L	L	EWN	ICP
7440-38-2	Arsenic	28 mg/kg-dry		SCC	ICP
7440-39-3	Barium	1.16 mg/L		EWN	ICP
7440-41-7	Beryllium	0.4 mg/kg-dry	L	SCC	ICP
7440-43-9	Cadmium	0.021 mg/L		EWN	ICP
7440-43-9	Cadmium	2.3 mg/kg-dry		SCC	ICP
7440-47-3	Chromium	0.394 mg/L		EWN	ICP
7440-47-3	Chromium	3040 mg/kg-dry		SCC	ICP
7440-47-3	Chromium(VI)	0.086 mg/L		EW6	ICP
7440-47-3	Chromium(VI)	NOT ANALYZED		SW6	ICP
7440-50-8	Copper	224 mg/kg-dry		SCC	ICP
7439-92-1	Lead	0.03 mg/L	L	EWN	ICP
7439-92-1	Lead	177 mg/kg-dry		SCC	ICP
7439-97-6	Mercury	0.0001 mg/L	L	EWM	CVA
7439-97-6	Mercury	0.05 mg/kg-dry	L	SCM	CVA
7440-02-0	Nickel	161 mg/kg-dry		SCC	ICP
7782-49-2	Selenium	0.05 mg/L	L	EWN	ICP
7782-49-2	Selenium	21 mg/kg-dry	L	SCC	ICP
7440-22-4	Silver	0.003 mg/L	L	EWN	ICP
7440-22-4	Silver	2.6 mg/kg-dry		SCC	ICP
7440-28-0	Thallium	21 mg/kg-dry	L	SCC	ICP
7440-66-6	Zinc	334 mg/kg-dry		SCC	ICP

ANALYTICAL RESOURCES, INC.
Inorganic Laboratory Data Report
12/30/88
09:14:39

Client: E & E
Contact: DAVID BYERS
Project: T10-8810-012
ID number: T8110055
Description:
Sampled: 11/28/88
Matrix: SOIL

ARI job number: 2302
ARI sample number: E

Released by: MRW

A N A L Y T I C A L R E S U L T S

CAS Number	Analyte	Concentration	C	Prep	M
7440-36-0	Antimony	35 mg/kg-dry		SCC	ICP
7440-38-2	Arsenic	0.05 mg/L	L	EWN	ICP
7440-38-2	Arsenic	52 mg/kg-dry		SCC	ICP
7440-39-3	Barium	0.138 mg/L		EWN	ICP
7440-41-7	Beryllium	0.4 mg/kg-dry	L	SCC	ICP
7440-43-9	Cadmium	0.565 mg/L		EWN	ICP
7440-43-9	Cadmium	20.9 mg/kg-dry		SCC	ICP
7440-47-3	Chromium	0.920 mg/L		EWN	ICP
7440-47-3	Chromium	10100 mg/kg-dry		SCC	ICP
7440-47-3	Chromium(VI)	0.129 mg/L		EW6	ICP
7440-47-3	Chromium(VI)	NOT ANALYZED		SW6	ICP
7440-50-8	Copper	458 mg/kg-dry		SCC	ICP
7439-92-1	Lead	0.03 mg/L	L	EWN	ICP
7439-92-1	Lead	3680 mg/kg-dry		SCC	ICP
7439-97-6	Mercury	0.0007 mg/L		EWM	CVA
7439-97-6	Mercury	0.44 mg/kg-dry		SCM	CVA
7440-02-0	Nickel	502 mg/kg-dry		SCC	ICP
7782-49-2	Selenium	0.05 mg/L	L	EWN	ICP
7782-49-2	Selenium	20 mg/kg-dry	L	SCC	ICP
7440-22-4	Silver	0.003 mg/L	L	EWN	ICP
7440-22-4	Silver	22.1 mg/kg-dry		SCC	ICP
7440-28-0	Thallium	20 mg/kg-dry	L	SCC	ICP
7440-66-6	Zinc	1880 mg/kg-dry		SCC	ICP

ANALYTICAL RESOURCES, INC.
Inorganic Laboratory Data Report
12/30/88
08:56:08

Client: E & E
Contact: DAVID BYERS
Project: T10-8810-012
ID number: T8110056
Description:
Sampled: 11/29/88
Matrix: SOIL

ARI job number: 2302
ARI sample number: F

Released by: MRW

A N A L Y T I C A L R E S U L T S

CAS Number	Analyte	Concentration	C	Prep	M
7440-36-0	Antimony	13 mg/kg-dry	L	SCC	ICP
7440-38-2	Arsenic	13 mg/kg-dry	L	SCC	ICP
7440-41-7	Beryllium	0.4 mg/kg-dry		SCC	ICP
7440-43-9	Cadmium	0.5 mg/kg-dry	L	SCC	ICP
7440-47-3	Chromium	30.8 mg/kg-dry		SCC	ICP
7440-47-3	Chromium(VI)	NOT ANALYZED		SW6	ICP
7440-50-8	Copper	65.6 mg/kg-dry		SCC	ICP
7439-92-1	Lead	32 mg/kg-dry		SCC	ICP
7439-97-6	Mercury	0.07 mg/kg-dry	L	SCM	CVA
7440-02-0	Nickel	15 mg/kg-dry		SCC	ICP
7782-49-2	Selenium	13 mg/kg-dry	L	SCC	ICP
7440-22-4	Silver	0.8 mg/kg-dry	L	SCC	ICP
7440-28-0	Thallium	13 mg/kg-dry	L	SCC	ICP
7440-66-6	Zinc	121 mg/kg-dry		SCC	ICP

ANALYTICAL RESOURCES, INC.
Inorganic Laboratory Data Report
12/30/88
09:16:30

Client: E & E
Contact: DAVID BYERS
Project: T10-8810-012
ID number: T8110057
Description:
Sampled: 11/29/88
Matrix: SOIL

ARI job number: 2302
ARI sample number: G

Released by: MRW

A N A L Y T I C A L R E S U L T S

CAS Number	Analyte	Concentration	C	Prep	M
7440-36-0	Antimony	10 mg/kg-dry	L	SCC	ICP
7440-38-2	Arsenic	0.05 mg/L	L	EWN	ICP
7440-38-2	Arsenic	15 mg/kg-dry		SCC	ICP
7440-39-3	Barium	0.478 mg/L		EWN	ICP
7440-41-7	Beryllium	0.4 mg/kg-dry		SCC	ICP
7440-43-9	Cadmium	0.002 mg/L	L	EWN	ICP
7440-43-9	Cadmium	0.4 mg/kg-dry	L	SCC	ICP
7440-47-3	Chromium	0.005 mg/L	L	EWN	ICP
7440-47-3	Chromium	25.0 mg/kg-dry		SCC	ICP
7440-47-3	Chromium(VI)	NOT ANALYZED		EW6	ICP
7440-47-3	Chromium(VI)	NOT ANALYZED		SW6	ICP
7440-50-8	Copper	19.4 mg/kg-dry		SCC	ICP
7439-92-1	Lead	0.03 mg/L	L	EWN	ICP
7439-92-1	Lead	11 mg/kg-dry		SCC	ICP
7439-97-6	Mercury	0.0001 mg/L	L	EWM	CVA
7439-97-6	Mercury	0.05 mg/kg-dry	L	SCM	CVA
7440-02-0	Nickel	11 mg/kg-dry		SCC	ICP
7782-49-2	Selenium	0.09 mg/L		EWN	ICP
7782-49-2	Selenium	10 mg/kg-dry	L	SCC	ICP
7440-22-4	Silver	0.003 mg/L	L	EWN	ICP
7440-22-4	Silver	0.6 mg/kg-dry	L	SCC	ICP
7440-28-0	Thallium	10 mg/kg-dry	L	SCC	ICP
7440-66-6	Zinc	53.9 mg/kg-dry		SCC	ICP

ANALYTICAL RESOURCES, INC.
Inorganic Laboratory Data Report
12/30/88
08:56:57

Client: E & E
Contact: DAVID BYERS
Project: T10-8810-012
ID number: T8110058
Description:
Sampled: 11/29/88
Matrix: SOIL

ARI job number: 2302
ARI sample number: H

Released by: MAW

A N A L Y T I C A L R E S U L T S

CAS Number	Analyte	Concentration	C	Prep	M
7440-36-0	Antimony	10 mg/kg-dry	L	SCC	ICP
7440-38-2	Arsenic	0.05 mg/L	L	EWN	ICP
7440-38-2	Arsenic	14 mg/kg-dry		SCC	ICP
7440-39-3	Barium	0.734 mg/L		EWN	ICP
7440-41-7	Beryllium	0.7 mg/kg-dry		SCC	ICP
7440-43-9	Cadmium	0.002 mg/L	L	EWN	ICP
7440-43-9	Cadmium	0.4 mg/kg-dry	L	SCC	ICP
7440-47-3	Chromium	0.005 mg/L	L	EWN	ICP
7440-47-3	Chromium	18.6 mg/kg-dry		SCC	ICP
7440-47-3	Chromium(VI)	NOT ANALYZED		EW6	ICP
7440-47-3	Chromium(VI)	NOT ANALYZED		SW6	ICP
7440-50-8	Copper	16.9 mg/kg-dry		SCC	ICP
7439-92-1	Lead	0.03 mg/L	L	EWN	ICP
7439-92-1	Lead	24 mg/kg-dry		SCC	ICP
7439-97-6	Mercury	0.0001 mg/L	L	EWM	CVA
7439-97-6	Mercury	0.04 mg/kg-dry	L	SCM	CVA
7440-02-0	Nickel	13 mg/kg-dry		SCC	ICP
7782-49-2	Selenium	0.07 mg/L		EWN	ICP
7782-49-2	Selenium	10 mg/kg-dry	L	SCC	ICP
7440-22-4	Silver	0.003 mg/L	L	EWN	ICP
7440-22-4	Silver	0.6 mg/kg-dry	L	SCC	ICP
7440-28-0	Thallium	10 mg/kg-dry	L	SCC	ICP
7440-66-6	Zinc	70.2 mg/kg-dry		SCC	ICP

ANALYTICAL RESOURCES, INC.
Inorganic Laboratory Data Report
12/30/88
08:57:26

Client: E & E
Contact: DAVID BYERS
Project: T10-8810-012
ID number: T8110059
Description:
Sampled: 11/29/88
Matrix: SOIL

ARI job number: 2302
ARI sample number: I

Released by: NRW

A N A L Y T I C A L R E S U L T S

CAS Number	Analyte	Concentration	C	Prep	M
7440-36-0	Antimony	10 mg/kg-dry	L	SCC	ICP
7440-38-2	Arsenic	10 mg/kg-dry	L	SCC	ICP
7440-41-7	Beryllium	0.3 mg/kg-dry		SCC	ICP
7440-43-9	Cadmium	0.4 mg/kg-dry	L	SCC	ICP
7440-47-3	Chromium	189 mg/kg-dry		SCC	ICP
7440-47-3	Chromium(VI)	NOT ANALYZED		SW6	ICP
7440-50-8	Copper	128 mg/kg-dry	.	SCC	ICP
7439-92-1	Lead	32 mg/kg-dry		SCC	ICP
7439-97-6	Mercury	0.05 mg/kg-dry	L	SCM	CVA
7440-02-0	Nickel	121 mg/kg-dry		SCC	ICP
7782-49-2	Selenium	10 mg/kg-dry	L	SCC	ICP
7440-22-4	Silver	0.6 mg/kg-dry	L	SCC	ICP
7440-28-0	Thallium	10 mg/kg-dry	L	SCC	ICP
7440-66-6	Zinc	78.0 mg/kg-dry		SCC	ICP

ANALYTICAL RESOURCES, INC.
Inorganic Laboratory Data Report
12/30/88
08:57:46

Client: E & E
Contact: DAVID BYERS
Project: T10-8810-012
ID number: T8110060
Description:
Sampled: 11/29/88
Matrix: SOIL

ARI job number: 2302
ARI sample number: J

Released by: APW

A N A L Y T I C A L R E S U L T S

CAS Number	Analyte	Concentration	C	Prep	M
7440-36-0	Antimony	9 mg/kg-dry	L	SCC	ICP
7440-38-2	Arsenic	0.05 mg/L	L	EWN	ICP
7440-38-2	Arsenic	12 mg/kg-dry		SCC	ICP
7440-39-3	Barium	0.568 mg/L		EWN	ICP
7440-41-7	Beryllium	0.5 mg/kg-dry		SCC	ICP
7440-43-9	Cadmium	0.002 mg/L	L	EWN	ICP
7440-43-9	Cadmium	0.4 mg/kg-dry		SCC	ICP
7440-47-3	Chromium	0.005 mg/L	L	EWN	ICP
7440-47-3	Chromium	33.4 mg/kg-dry		SCC	ICP
7440-47-3	Chromium(VI)	NOT ANALYZED		EW6	ICP
7440-47-3	Chromium(VI)	NOT ANALYZED		SW6	ICP
7440-50-8	Copper	27.4 mg/kg-dry		SCC	ICP
7439-92-1	Lead	0.03 mg/L	L	EWN	ICP
7439-92-1	Lead	32 mg/kg-dry		SCC	ICP
7439-97-6	Mercury	0.0001 mg/L	L	EWM	CVA
7439-97-6	Mercury	0.05 mg/kg-dry	L	SCM	CVA
7440-02-0	Nickel	17 mg/kg-dry		SCC	ICP
7782-49-2	Selenium	0.08 mg/L		EWN	ICP
7782-49-2	Selenium	9 mg/kg-dry	L	SCC	ICP
7440-22-4	Silver	0.003 mg/L	L	EWN	ICP
7440-22-4	Silver	0.5 mg/kg-dry	L	SCC	ICP
7440-28-0	Thallium	9 mg/kg-dry	L	SCC	ICP
7440-66-6	Zinc	77.8 mg/kg-dry		SCC	ICP

ANALYTICAL RESOURCES, INC.
Inorganic Laboratory Data Report
12/30/88
08:58:16

Client: E & E
Contact: DAVID BYERS
Project: T10-8810-012
ID number: T8110061
Description:
Sampled: 11/29/88
Matrix: SOIL

ARI job number: 2302
ARI sample number: K

Released by: new

A N A L Y T I C A L R E S U L T S

CAS Number	Analyte	Concentration	C	Prep	M
7440-36-0	Antimony	12 mg/kg-dry	L	SCC	ICP
7440-38-2	Arsenic	0.05 mg/L	L	EWN	ICP
7440-38-2	Arsenic	12 mg/kg-dry	L	SCC	ICP
7440-39-3	Barium	1.77 mg/L		EWN	ICP
7440-41-7	Beryllium	0.5 mg/kg-dry		SCC	ICP
7440-43-9	Cadmium	0.033 mg/L		EWN	ICP
7440-43-9	Cadmium	2.3 mg/kg-dry		SCC	ICP
7440-47-3	Chromium	0.005 mg/L	L	EWN	ICP
7440-47-3	Chromium	25.7 mg/kg-dry		SCC	ICP
7440-47-3	Chromium(VI)	NOT ANALYZED		EW6	ICP
7440-47-3	Chromium(VI)	NOT ANALYZED		SW6	ICP
7440-50-8	Copper	24.2 mg/kg-dry		SCC	ICP
7439-92-1	Lead	0.14 mg/L		EWN	ICP
7439-92-1	Lead	282 mg/kg-dry		SCC	ICP
7439-97-6	Mercury	0.0001 mg/L	L	EWM	CVA
7439-97-6	Mercury	0.05 mg/kg-dry	L	SCM	CVA
7440-02-0	Nickel	14 mg/kg-dry		SCC	ICP
7782-49-2	Selenium	0.05 mg/L	L	EWN	ICP
7782-49-2	Selenium	12 mg/kg-dry	L	SCC	ICP
7440-22-4	Silver	0.003 mg/L	L	EWN	ICP
7440-22-4	Silver	0.7 mg/kg-dry	L	SCC	ICP
7440-28-0	Thallium	12 mg/kg-dry	L	SCC	ICP
7440-66-6	Zinc	253 mg/kg-dry		SCC	ICP

ANALYTICAL RESOURCES, INC.
Inorganic Laboratory Data Report
12/30/88
08:58:49

Client: E & E
Contact: DAVID BYERS
Project: T10-8810-012
ID number: T8110062
Description:
Sampled: 11/29/88
Matrix: SOIL

ARI job number: 2302
ARI sample number: L

Released by: NRW

A N A L Y T I C A L R E S U L T S

CAS Number	Analyte	Concentration	C	Prep	M
7440-36-0	Antimony	9 mg/kg-dry	L	SCC	ICP
7440-38-2	Arsenic	0.05 mg/L	L	EWN	ICP
7440-38-2	Arsenic	9 mg/kg-dry	L	SCC	ICP
7440-39-3	Barium	0.335 mg/L		EWN	ICP
7440-41-7	Beryllium	0.2 mg/kg-dry	L	SCC	ICP
7440-43-9	Cadmium	0.002 mg/L	L	EWN	ICP
7440-43-9	Cadmium	0.4 mg/kg-dry	L	SCC	ICP
7440-47-3	Chromium	0.005 mg/L	L	EWN	ICP
7440-47-3	Chromium	161 mg/kg-dry		SCC	ICP
7440-47-3	Chromium(VI)	NOT ANALYZED		EW6	ICP
7440-47-3	Chromium(VI)	NOT ANALYZED		SW6	ICP
7440-50-8	Copper	49.4 mg/kg-dry		SCC	ICP
7439-92-1	Lead	0.03 mg/L	L	EWN	ICP
7439-92-1	Lead	13 mg/kg-dry		SCC	ICP
7439-97-6	Mercury	0.0001 mg/L	L	EWM	CVA
7439-97-6	Mercury	0.05 mg/kg-dry	L	SCM	CVA
7440-02-0	Nickel	34 mg/kg-dry		SCC	ICP
7782-49-2	Selenium	0.05 mg/L	L	EWN	ICP
7782-49-2	Selenium	9 mg/kg-dry	L	SCC	ICP
7440-22-4	Silver	0.003 mg/L	L	EWN	ICP
7440-22-4	Silver	0.5 mg/kg-dry	L	SCC	ICP
7440-28-0	Thallium	9 mg/kg-dry	L	SCC	ICP
7440-66-6	Zinc	34.0 mg/kg-dry		SCC	ICP

ANALYTICAL RESOURCES, INC.
Inorganic Laboratory Data Report
12/30/88
08:59:19

Client: E & E
Contact: DAVID BYERS
Project: T10-8810-012
ID number: T8110063
Description:
Sampled: 11/29/88
Matrix: SOIL

ARI job number: 2302
ARI sample number: M

Released by: NRW

A N A L Y T I C A L R E S U L T S

CAS Number	Analyte	Concentration	C	Prep	M
7440-36-0	Antimony	10 mg/kg-dry	L	SCC	ICP
7440-38-2	Arsenic	0.05 mg/L	L	EWN	ICP
7440-38-2	Arsenic	10 mg/kg-dry	L	SCC	ICP
7440-39-3	Barium	0.277 mg/L		EWN	ICP
7440-41-7	Beryllium	0.2 mg/kg-dry	L	SCC	ICP
7440-43-9	Cadmium	0.002 mg/L	L	EWN	ICP
7440-43-9	Cadmium	0.4 mg/kg-dry	L	SCC	ICP
7440-47-3	Chromium	0.005 mg/L	L	EWN	ICP
7440-47-3	Chromium	61.7 mg/kg-dry		SCC	ICP
7440-47-3	Chromium(VI)	NOT ANALYZED		EW6	ICP
7440-47-3	Chromium(VI)	NOT ANALYZED		SW6	ICP
7440-50-8	Copper	27.6 mg/kg-dry		SCC	ICP
7439-92-1	Lead	0.03 mg/L	L	EWN	ICP
7439-92-1	Lead	10 mg/kg-dry		SCC	ICP
7439-97-6	Mercury	0.0001 mg/L	L	EWM	CVA
7439-97-6	Mercury	0.05 mg/kg-dry		SCM	CVA
7440-02-0	Nickel	19 mg/kg-dry		SCC	ICP
7782-49-2	Selenium	0.05 mg/L	L	EWN	ICP
7782-49-2	Selenium	10 mg/kg-dry	L	SCC	ICP
7440-22-4	Silver	0.003 mg/L	L	EWN	ICP
7440-22-4	Silver	0.6 mg/kg-dry	L	SCC	ICP
7440-28-0	Thallium	10 mg/kg-dry	L	SCC	ICP
7440-66-6	Zinc	26.1 mg/kg-dry		SCC	ICP

ANALYTICAL RESOURCES, INC.
Inorganic Laboratory Data Report
12/30/88
09:00:52

Client: E & E
Contact: DAVID BYERS
Project: T10-8810-012
ID number: T8110064
Description:
Sampled: 11/29/88
Matrix: SOIL

ARI job number: 2302
ARI sample number: N

Released by: NRW

A N A L Y T I C A L R E S U L T S

CAS Number	Analyte	Concentration	C	Prep	M
7440-36-0	Antimony	11 mg/kg-dry	L	SCC	ICP
7440-38-2	Arsenic	0.05 mg/L	L	EWN	ICP
7440-38-2	Arsenic	11 mg/kg-dry		SCC	ICP
7440-39-3	Barium	1.54 mg/L		EWN	ICP
7440-41-7	Beryllium	0.2 mg/kg-dry	L	SCC	ICP
7440-43-9	Cadmium	0.006 mg/L		EWN	ICP
7440-43-9	Cadmium	0.4 mg/kg-dry	L	SCC	ICP
7440-47-3	Chromium	0.005 mg/L	L	EWN	ICP
7440-47-3	Chromium	209 mg/kg-dry		SCC	ICP
7440-47-3	Chromium(VI)	NOT ANALYZED		EW6	ICP
7440-47-3	Chromium(VI)	NOT ANALYZED		SW6	ICP
7440-50-8	Copper	56.1 mg/kg-dry		SCC	ICP
7439-92-1	Lead	0.03 mg/L	L	EWN	ICP
7439-92-1	Lead	30 mg/kg-dry		SCC	ICP
7439-97-6	Mercury	0.0001 mg/L	L	EWM	CVA
7439-97-6	Mercury	0.06 mg/kg-dry		SCM	CVA
7440-02-0	Nickel	123 mg/kg-dry		SCC	ICP
7782-49-2	Selenium	0.05 mg/L	L	EWN	ICP
7782-49-2	Selenium	11 mg/kg-dry	L	SCC	ICP
7440-22-4	Silver	0.003 mg/L	L	EWN	ICP
7440-22-4	Silver	0.6 mg/kg-dry	L	SCC	ICP
7440-28-0	Thallium	11 mg/kg-dry	L	SCC	ICP
7440-66-6	Zinc	49.0 mg/kg-dry		SCC	ICP

ANALYTICAL RESOURCES, INC.
Inorganic Laboratory Data Report
12/30/88
09:01:21

Client: E & E
Contact: DAVID BYERS
Project: T10-8810-012
ID number: T8110065
Description:
Sampled: 11/29/88
Matrix: SOIL

ARI job number: 2302
ARI sample number: 0

Released by: NRW

A N A L Y T I C A L R E S U L T S

CAS Number	Analyte	Concentration	C	Prep	M
7440-36-0	Antimony	11 mg/kg-dry	L	SCC	ICP
7440-38-2	Arsenic	0.05 mg/L	L	EWN	ICP
7440-38-2	Arsenic	16 mg/kg-dry		SCC	ICP
7440-39-3	Barium	0.965 mg/L		EWN	ICP
7440-41-7	Beryllium	0.6 mg/kg-dry		SCC	ICP
7440-43-9	Cadmium	0.005 mg/L		EWN	ICP
7440-43-9	Cadmium	0.7 mg/kg-dry		SCC	ICP
7440-47-3	Chromium	0.005 mg/L	L	EWN	ICP
7440-47-3	Chromium	17.0 mg/kg-dry		SCC	ICP
7440-47-3	Chromium(VI)	NOT ANALYZED		EW6	ICP
7440-47-3	Chromium(VI)	NOT ANALYZED		SW6	ICP
7440-50-8	Copper	28.5 mg/kg-dry		SCC	ICP
7439-92-1	Lead	0.03 mg/L	L	EWN	ICP
7439-92-1	Lead	26 mg/kg-dry		SCC	ICP
7439-97-6	Mercury	0.0001 mg/L	L	EWM	CVA
7439-97-6	Mercury	0.05 mg/kg-dry	L	SCM	CVA
7440-02-0	Nickel	18 mg/kg-dry		SCC	ICP
7782-49-2	Selenium	0.11 mg/L		EWN	ICP
7782-49-2	Selenium	11 mg/kg-dry	L	SCC	ICP
7440-22-4	Silver	0.003 mg/L	L	EWN	ICP
7440-22-4	Silver	0.7 mg/kg-dry	L	SCC	ICP
7440-28-0	Thallium	11 mg/kg-dry	L	SCC	ICP
7440-66-6	Zinc	146 mg/kg-dry		SCC	ICP

ANALYTICAL RESOURCES, INC.
Inorganic Laboratory Data Report
12/30/88
09:01:51

Client: E & E
Contact: DAVID BYERS
Project: T10-8810-012
ID number: T8110066
Description:
Sampled: 11/29/88
Matrix: SOIL

ARI job number: 2302
ARI sample number: P

Released by: MPW

A N A L Y T I C A L R E S U L T S

CAS Number	Analyte	Concentration	C	Prep	M
7440-36-0	Antimony	8 mg/kg-dry	L	SCC	ICP
7440-38-2	Arsenic	0.05 mg/L	L	EWN	ICP
7440-38-2	Arsenic	13 mg/kg-dry		SCC	ICP
7440-39-3	Barium	0.565 mg/L		EWN	ICP
7440-41-7	Beryllium	0.4 mg/kg-dry		SCC	ICP
7440-43-9	Cadmium	0.002 mg/L	L	EWN	ICP
7440-43-9	Cadmium	0.3 mg/kg-dry	L	SCC	ICP
7440-47-3	Chromium	0.005 mg/L	L	EWN	ICP
7440-47-3	Chromium	20.5 mg/kg-dry		SCC	ICP
7440-47-3	Chromium(VI)	NOT ANALYZED		EW6	ICP
7440-47-3	Chromium(VI)	NOT ANALYZED		SW6	ICP
7440-50-8	Copper	28.8 mg/kg-dry		SCC	ICP
7439-92-1	Lead	0.03 mg/L	L	EWN	ICP
7439-92-1	Lead	12 mg/kg-dry		SCC	ICP
7439-97-6	Mercury	0.0001 mg/L	L	EWM	CVA
7439-97-6	Mercury	0.05 mg/kg-dry	L	SCM	CVA
7440-02-0	Nickel	13 mg/kg-dry		SCC	ICP
7782-49-2	Selenium	0.10 mg/L		EWN	ICP
7782-49-2	Selenium	8 mg/kg-dry	L	SCC	ICP
7440-22-4	Silver	0.003 mg/L	L	EWN	ICP
7440-22-4	Silver	0.5 mg/kg-dry	L	SCC	ICP
7440-28-0	Thallium	8 mg/kg-dry	L	SCC	ICP
7440-66-6	Zinc	51.6 mg/kg-dry		SCC	ICP

ANALYTICAL RESOURCES, INC.
Inorganic Laboratory Data Report
12/30/88
09:02:20

Client: E & E
Contact: DAVID BYERS
Project: T10-8810-012
ID number: T8110067
Description:
Sampled: 11/29/88
Matrix: SOIL

ARI job number: 2302
ARI sample number: Q

Released by: NRW

A N A L Y T I C A L R E S U L T S

CAS Number	Analyte	Concentration	C	Prep	M
7440-36-0	Antimony	9 mg/kg-dry	L	SCC	ICP
7440-38-2	Arsenic	0.05 mg/L	L	EWN	ICP
7440-38-2	Arsenic	16 mg/kg-dry		SCC	ICP
7440-39-3	Barium	0.800 mg/L		EWN	ICP
7440-41-7	Beryllium	0.3 mg/kg-dry		SCC	ICP
7440-43-9	Cadmium	0.003 mg/L		EWN	ICP
7440-43-9	Cadmium	0.4 mg/kg-dry	L	SCC	ICP
7440-47-3	Chromium	0.005 mg/L	L	EWN	ICP
7440-47-3	Chromium	36.7 mg/kg-dry		SCC	ICP
7440-47-3	Chromium(VI)	NOT ANALYZED		EW6	ICP
7440-47-3	Chromium(VI)	NOT ANALYZED		SW6	ICP
7440-50-8	Copper	27.2 mg/kg-dry		SCC	ICP
7439-92-1	Lead	0.03 mg/L	L	EWN	ICP
7439-92-1	Lead	18 mg/kg-dry		SCC	ICP
7439-97-6	Mercury	0.0001 mg/L	L	EWM	CVA
7439-97-6	Mercury	0.04 mg/kg-dry		SCM	CVA
7440-02-0	Nickel	15 mg/kg-dry		SCC	ICP
7782-49-2	Selenium	0.11 mg/L		EWN	ICP
7782-49-2	Selenium	9 mg/kg-dry	L	SCC	ICP
7440-22-4	Silver	0.003 mg/L	L	EWN	ICP
7440-22-4	Silver	0.5 mg/kg-dry	L	SCC	ICP
7440-28-0	Thallium	9 mg/kg-dry	L	SCC	ICP
7440-66-6	Zinc	52.5 mg/kg-dry		SCC	ICP

ANALYTICAL RESOURCES, INC.
Inorganic Laboratory Data Report
12/30/88
09:02:50

Client: E & E
Contact: DAVID BYERS
Project: T10-8810-012
ID number: T8110068
Description:
Sampled: 11/29/88
Matrix: SOIL

ARI job number: 2302
ARI sample number: R

Released by: NRW

A N A L Y T I C A L R E S U L T S

CAS Number	Analyte	Concentration	C	Prep	M
7440-36-0	Antimony	8 mg/kg-dry	L	SCC	ICP
7440-38-2	Arsenic	0.05 mg/L	L	EWN	ICP
7440-38-2	Arsenic	16 mg/kg-dry		SCC	ICP
7440-39-3	Barium	0.641 mg/L		EWN	ICP
7440-41-7	Beryllium	0.5 mg/kg-dry		SCC	ICP
7440-43-9	Cadmium	0.002 mg/L		EWN	ICP
7440-43-9	Cadmium	0.3 mg/kg-dry	L	SCC	ICP
7440-47-3	Chromium	0.005 mg/L	L	EWN	ICP
7440-47-3	Chromium	35.2 mg/kg-dry		SCC	ICP
7440-47-3	Chromium(VI)	NOT ANALYZED		EW6	ICP
7440-47-3	Chromium(VI)	NOT ANALYZED		SW6	ICP
7440-50-8	Copper	22.7 mg/kg-dry		SCC	ICP
7439-92-1	Lead	0.03 mg/L	L	EWN	ICP
7439-92-1	Lead	11 mg/kg-dry		SCC	ICP
7439-97-6	Mercury	0.0001 mg/L	L	EWM	CVA
7439-97-6	Mercury	0.05 mg/kg-dry	L	SCM	CVA
7440-02-0	Nickel	13 mg/kg-dry		SCC	ICP
7782-49-2	Selenium	0.10 mg/L		EWN	ICP
7782-49-2	Selenium	8 mg/kg-dry	L	SCC	ICP
7440-22-4	Silver	0.003 mg/L	L	EWN	ICP
7440-22-4	Silver	0.5 mg/kg-dry	L	SCC	ICP
7440-28-0	Thallium	8 mg/kg-dry	L	SCC	ICP
7440-66-6	Zinc	57.2 mg/kg-dry		SCC	ICP

ANALYTICAL RESOURCES, INC.
Inorganic Laboratory Data Report
12/30/88
09:03:58

Client: E & E
Contact: DAVID BYERS
Project: T10-8810-012
ID number: T8110069
Description:
Sampled: 11/29/88
Matrix: SOIL

ARI job number: 2302
ARI sample number: S

Released by: NRW

A N A L Y T I C A L R E S U L T S

CAS Number	Analyte	Concentration	C	Prep	M
7440-36-0	Antimony	8 mg/kg-dry	L	SCC	ICP
7440-38-2	Arsenic	0.05 mg/L	L	EWN	ICP
7440-38-2	Arsenic	21 mg/kg-dry		SCC	ICP
7440-39-3	Barium	0.543 mg/L		EWN	ICP
7440-41-7	Beryllium	0.5 mg/kg-dry		SCC	ICP
7440-43-9	Cadmium	0.002 mg/L	L	EWN	ICP
7440-43-9	Cadmium	0.3 mg/kg-dry	L	SCC	ICP
7440-47-3	Chromium	0.005 mg/L	L	EWN	ICP
7440-47-3	Chromium	20.6 mg/kg-dry		SCC	ICP
7440-47-3	Chromium(VI)	NOT ANALYZED		EW6	ICP
7440-47-3	Chromium(VI)	NOT ANALYZED		SW6	ICP
7440-50-8	Copper	23.1 mg/kg-dry		SCC	ICP
7439-92-1	Lead	0.03 mg/L	L	EWN	ICP
7439-92-1	Lead	12 mg/kg-dry		SCC	ICP
7439-97-6	Mercury	0.0001 mg/L	L	EWM	CVA
7439-97-6	Mercury	0.05 mg/kg-dry	L	SCM	CVA
7440-02-0	Nickel	12 mg/kg-dry		SCC	ICP
7782-49-2	Selenium	0.11 mg/L		EWN	ICP
7782-49-2	Selenium	8 mg/kg-dry	L	SCC	ICP
7440-22-4	Silver	0.003 mg/L	L	EWN	ICP
7440-22-4	Silver	0.5 mg/kg-dry	L	SCC	ICP
7440-28-0	Thallium	8 mg/kg-dry	L	SCC	ICP
7440-66-6	Zinc	54.8 mg/kg-dry		SCC	ICP

ANALYTICAL RESOURCES, INC.
Inorganic Laboratory Data Report
12/30/88
09:04:27

Client: E & E
Contact: DAVID BYERS
Project: T10-8810-012
ID number: T8110070
Description:
Sampled: 11/29/88
Matrix: SOIL

ARI job number: 2302
ARI sample number: T

Released by: NRW

A N A L Y T I C A L R E S U L T S

CAS Number	Analyte	Concentration	C	Prep	M
7440-36-0	Antimony	11 mg/kg-dry	L	SCC	ICP
7440-38-2	Arsenic	0.05 mg/L	L	EWN	ICP
7440-38-2	Arsenic	11 mg/kg-dry	L	SCC	ICP
7440-39-3	Barium	0.449 mg/L		EWN	ICP
7440-41-7	Beryllium	0.3 mg/kg-dry		SCC	ICP
7440-43-9	Cadmium	0.002 mg/L	L	EWN	ICP
7440-43-9	Cadmium	0.4 mg/kg-dry	L	SCC	ICP
7440-47-3	Chromium	0.005 mg/L	L	EWN	ICP
7440-47-3	Chromium	271 mg/kg-dry		SCC	ICP
7440-47-3	Chromium(VI)	NOT ANALYZED		EW6	ICP
7440-47-3	Chromium(VI)	NOT ANALYZED		SW6	ICP
7440-50-8	Copper	111 mg/kg-dry		SCC	ICP
7439-92-1	Lead	0.03 mg/L	L	EWN	ICP
7439-92-1	Lead	27 mg/kg-dry		SCC	ICP
7439-97-6	Mercury	0.0001 mg/L	L	EWM	CVA
7439-97-6	Mercury	0.06 mg/kg-dry	L	SCM	CVA
7440-02-0	Nickel	123 mg/kg-dry		SCC	ICP
7782-49-2	Selenium	0.05 mg/L	L	EWN	ICP
7782-49-2	Selenium	11 mg/kg-dry	L	SCC	ICP
7440-22-4	Silver	0.003 mg/L	L	EWN	ICP
7440-22-4	Silver	0.7 mg/kg-dry	L	SCC	ICP
7440-28-0	Thallium	11 mg/kg-dry	L	SCC	ICP
7440-66-6	Zinc	75.0 mg/kg-dry		SCC	ICP

ANALYTICAL RESOURCES, INC.
Inorganic Laboratory Data Report
12/30/88
09:04:56

Client: E & E
Contact: DAVID BYERS
Project: T10-8810-012
ID number: T8110071
Description:
Sampled: 11/29/88
Matrix: SOIL

ARI job number: 2302
ARI sample number: U

Released by: MRW

A N A L Y T I C A L R E S U L T S

CAS Number	Analyte	Concentration	C	Prep	M
7440-36-0	Antimony	12 mg/kg-dry	L	SCC	ICP
7440-38-2	Arsenic	0.05 mg/L	L	EWN	ICP
7440-38-2	Arsenic	12 mg/kg-dry	L	SCC	ICP
7440-39-3	Barium	0.302 mg/L		EWN	ICP
7440-41-7	Beryllium	0.4 mg/kg-dry		SCC	ICP
7440-43-9	Cadmium	0.013 mg/L		EWN	ICP
7440-43-9	Cadmium	0.7 mg/kg-dry		SCC	ICP
7440-47-3	Chromium	0.005 mg/L	L	EWN	ICP
7440-47-3	Chromium	217 mg/kg-dry		SCC	ICP
7440-47-3	Chromium(VI)	NOT ANALYZED		EW6	ICP
7440-47-3	Chromium(VI)	NOT ANALYZED		SW6	ICP
7440-50-8	Copper	78.7 mg/kg-dry		SCC	ICP
7439-92-1	Lead	0.03 mg/L	L	EWN	ICP
7439-92-1	Lead	39 mg/kg-dry		SCC	ICP
7439-97-6	Mercury	0.0001 mg/L	L	EWM	CVA
7439-97-6	Mercury	0.06 mg/kg-dry	L	SCM	CVA
7440-02-0	Nickel	44 mg/kg-dry		SCC	ICP
7782-49-2	Selenium	0.05 mg/L	L	EWN	ICP
7782-49-2	Selenium	12 mg/kg-dry	L	SCC	ICP
7440-22-4	Silver	0.003 mg/L	L	EWN	ICP
7440-22-4	Silver	0.7 mg/kg-dry	L	SCC	ICP
7440-28-0	Thallium	12 mg/kg-dry	L	SCC	ICP
7440-66-6	Zinc	98.6 mg/kg-dry		SCC	ICP

ANALYTICAL RESOURCES, INC.
Inorganic Laboratory Data Report
12/30/88
09:05:26

Client: E & E
Contact: DAVID BYERS
Project: T10-8810-012
ID number: T8110072
Description:
Sampled: 11/29/88
Matrix: SOIL

ARI job number: 2302
ARI sample number: V

Released by: ARW

A N A L Y T I C A L R E S U L T S

CAS Number	Analyte	Concentration	C	Prep	M
7440-36-0	Antimony	11 mg/kg-dry	L	SCC	ICP
7440-38-2	Arsenic	0.05 mg/L	L	EWN	ICP
7440-38-2	Arsenic	11 mg/kg-dry		SCC	ICP
7440-39-3	Barium	0.267 mg/L		EWN	ICP
7440-41-7	Beryllium	0.6 mg/kg-dry		SCC	ICP
7440-43-9	Cadmium	0.007 mg/L		EWN	ICP
7440-43-9	Cadmium	0.9 mg/kg-dry		SCC	ICP
7440-47-3	Chromium	0.005 mg/L	L	EWN	ICP
7440-47-3	Chromium	217 mg/kg-dry		SCC	ICP
7440-47-3	Chromium(VI)	NOT ANALYZED		EW6	ICP
7440-47-3	Chromium(VI)	NOT ANALYZED		SW6	ICP
7440-50-8	Copper	109 mg/kg-dry		SCC	ICP
7439-92-1	Lead	0.03 mg/L	L	EWN	ICP
7439-92-1	Lead	50 mg/kg-dry		SCC	ICP
7439-97-6	Mercury	0.0001 mg/L	L	EWN	CVA
7439-97-6	Mercury	0.05 mg/kg-dry	L	SCM	CVA
7440-02-0	Nickel	62 mg/kg-dry		SCC	ICP
7782-49-2	Selenium	0.05 mg/L	L	EWN	ICP
7782-49-2	Selenium	11 mg/kg-dry	L	SCC	ICP
7440-22-4	Silver	0.003 mg/L	L	EWN	ICP
7440-22-4	Silver	0.7 mg/kg-dry	L	SCC	ICP
7440-28-0	Thallium	11 mg/kg-dry	L	SCC	ICP
7440-66-6	Zinc	155 mg/kg-dry		SCC	ICP

ANALYTICAL RESOURCES, INC.
Inorganic Laboratory Data Report
12/30/88
09:05:55

Client: E & E
Contact: DAVID BYERS
Project: T10-8810-012
ID number: T8110073
Description:
Sampled: 11/29/88
Matrix: SOIL

ARI job number: 2302
ARI sample number: W

Released by: NRW

A N A L Y T I C A L R E S U L T S

CAS Number	Analyte	Concentration	C	Prep	M
7440-36-0	Antimony	11 mg/kg-dry	L	SCC	ICP
7440-38-2	Arsenic	0.05 mg/L	L	EWN	ICP
7440-38-2	Arsenic	11 mg/kg-dry	L	SCC	ICP
7440-39-3	Barium	0.215 mg/L		EWN	ICP
7440-41-7	Beryllium	0.2 mg/kg-dry		SCC	ICP
7440-43-9	Cadmium	0.003 mg/L		EWN	ICP
7440-43-9	Cadmium	0.5 mg/kg-dry		SCC	ICP
7440-47-3	Chromium	0.005 mg/L	L	EWN	ICP
7440-47-3	Chromium	71.0 mg/kg-dry		SCC	ICP
7440-47-3	Chromium(VI)	NOT ANALYZED		EW6	ICP
7440-47-3	Chromium(VI)	NOT ANALYZED		SW6	ICP
7440-50-8	Copper	88.8 mg/kg-dry		SCC	ICP
7439-92-1	Lead	0.03 mg/L	L	EWN	ICP
7439-92-1	Lead	30 mg/kg-dry		SCC	ICP
7439-97-6	Mercury	0.0001 mg/L	L	EWN	CVA
7439-97-6	Mercury	0.12 mg/kg-dry		SCM	CVA
7440-02-0	Nickel	53 mg/kg-dry		SCC	ICP
7782-49-2	Selenium	0.05 mg/L	L	EWN	ICP
7782-49-2	Selenium	11 mg/kg-dry	L	SCC	ICP
7440-22-4	Silver	0.003 mg/L	L	EWN	ICP
7440-22-4	Silver	0.7 mg/kg-dry	L	SCC	ICP
7440-28-0	Thallium	11 mg/kg-dry	L	SCC	ICP
7440-66-6	Zinc	79.8 mg/kg-dry		SCC	ICP

ANALYTICAL RESOURCES, INC.
Inorganic Laboratory Data Report
12/30/88
09:06:25

Client: E & E
Contact: DAVID BYERS
Project: T10-8810-012
ID number: T8110073
Description: LABORATORY DUPLICATE
Sampled: 11/29/88
Matrix: SOIL

ARI job number: 2302
ARI sample number: WDUP

Released by: NRW

A N A L Y T I C A L R E S U L T S

CAS Number	Analyte	Concentration	C	Prep	M
7440-36-0	Antimony	11 mg/kg-dry	L	SCC	ICP
7440-38-2	Arsenic	0.05 mg/L	L	EWN	ICP
7440-38-2	Arsenic	11 mg/kg-dry	L	SCC	ICP
7440-39-3	Barium	0.212 mg/L		EWN	ICP
7440-41-7	Beryllium	0.3 mg/kg-dry		SCC	ICP
7440-43-9	Cadmium	0.003 mg/L		EWN	ICP
7440-43-9	Cadmium	0.4 mg/kg-dry	L	SCC	ICP
7440-47-3	Chromium	0.005 mg/L	L	EWN	ICP
7440-47-3	Chromium	74.0 mg/kg-dry		SCC	ICP
7440-47-3	Chromium(VI)	NOT ANALYZED		EW6	ICP
7440-47-3	Chromium(VI)	NOT ANALYZED		SW6	ICP
7440-50-8	Copper	90.7 mg/kg-dry		SCC	ICP
7439-92-1	Lead	0.03 mg/L	L	EWN	ICP
7439-92-1	Lead	30 mg/kg-dry		SCC	ICP
7439-97-6	Mercury	0.0001 mg/L	L	EWM	CVA
7439-97-6	Mercury	0.05 mg/kg-dry	L	SCM	CVA
7440-02-0	Nickel	54 mg/kg-dry		SCC	ICP
7782-49-2	Selenium	0.05 mg/L	L	EWN	ICP
7782-49-2	Selenium	11 mg/kg-dry	L	SCC	ICP
7440-22-4	Silver	0.003 mg/L	L	EWN	ICP
7440-22-4	Silver	0.7 mg/kg-dry	L	SCC	ICP
7440-28-0	Thallium	11 mg/kg-dry	L	SCC	ICP
7440-66-6	Zinc	82.0 mg/kg-dry		SCC	ICP

ANALYTICAL RESOURCES, INC.
Inorganic Laboratory Data Report
12/30/88
09:06:55

Client: E & E
Contact: DAVID BYERS
Project: T10-8810-012
ID number: T8110073
Description: MATRIX SPIKE
Sampled: 11/29/88
Matrix: SOIL

ARI job number: 2302
ARI sample number: WSPK

Released by: NRW

A N A L Y T I C A L R E S U L T S

CAS Number	Analyte	Concentration	C	Prep	M
7440-36-0	Antimony	70 mg/kg-dry		SCC	ICP
7440-38-2	Arsenic	2.05 mg/L		EWN	ICP
7440-38-2	Arsenic	586 mg/kg-dry		SCC	ICP
7440-39-3	Barium	2.19 mg/L		EWN	ICP
7440-41-7	Beryllium	11.0 mg/kg-dry		SCC	ICP
7440-43-9	Cadmium	0.061 mg/L		EWN	ICP
7440-43-9	Cadmium	12.6 mg/kg-dry		SCC	ICP
7440-47-3	Chromium	0.204 mg/L		EWN	ICP
7440-47-3	Chromium	121 mg/kg-dry		SCC	ICP
7440-47-3	Chromium(VI)	NOT ANALYZED		EW6	ICP
7440-47-3	Chromium(VI)	NOT ANALYZED		SW6	ICP
7440-50-8	Copper	146 mg/kg-dry		SCC	ICP
7439-92-1	Lead	0.48 mg/L		EWN	ICP
7439-92-1	Lead	139 mg/kg-dry		SCC	ICP
7439-97-6	Mercury	0.0009 mg/L		EWM	CVA
7439-97-6	Mercury	0.59 mg/kg-dry		SCM	CVA
7440-02-0	Nickel	164 mg/kg-dry		SCC	ICP
7782-49-2	Selenium	2.05 mg/L		EWN	ICP
7782-49-2	Selenium	580 mg/kg-dry		SCC	ICP
7440-22-4	Silver	0.048 mg/L		EWN	ICP
7440-22-4	Silver	11.4 mg/kg-dry		SCC	ICP
7440-28-0	Thallium	559 mg/kg-dry		SCC	ICP
7440-66-6	Zinc	181 mg/kg-dry		SCC	ICP

ANALYTICAL RESOURCES, INC.
Inorganic Laboratory Data Report
12/30/88
09:07:26

Client: E & E
Contact: DAVID BYERS
Project: T10-8810-012
ID number: T8110074
Description:
Sampled: 11/29/88
Matrix: SOIL

ARI job number: 2302
ARI sample number: X

Released by: NRW

A N A L Y T I C A L R E S U L T S

CAS Number	Analyte	Concentration	C	Prep	M
7440-36-0	Antimony	9 mg/kg-dry	L	SCC	ICP
7440-38-2	Arsenic	0.05 mg/L	L	EWN	ICP
7440-38-2	Arsenic	14 mg/kg-dry		SCC	ICP
7440-39-3	Barium	0.859 mg/L		EWN	ICP
7440-41-7	Beryllium	0.6 mg/kg-dry		SCC	ICP
7440-43-9	Cadmium	0.007 mg/L		EWN	ICP
7440-43-9	Cadmium	0.6 mg/kg-dry		SCC	ICP
7440-47-3	Chromium	0.005 mg/L	L	EWN	ICP
7440-47-3	Chromium	332 mg/kg-dry		SCC	ICP
7440-47-3	Chromium(VI)	NOT ANALYZED		EW6	ICP
7440-47-3	Chromium(VI)	NOT ANALYZED		SW6	ICP
7440-50-8	Copper	40.5 mg/kg-dry		SCC	ICP
7439-92-1	Lead	0.03 mg/L	L	EWN	ICP
7439-92-1	Lead	53 mg/kg-dry		SCC	ICP
7439-97-6	Mercury	0.0001 mg/L	L	EWN	CVA
7439-97-6	Mercury	0.04 mg/kg-dry		SCM	CVA
7440-02-0	Nickel	39 mg/kg-dry		SCC	ICP
7782-49-2	Selenium	0.05 mg/L	L	EWN	ICP
7782-49-2	Selenium	9 mg/kg-dry	L	SCC	ICP
7440-22-4	Silver	0.003 mg/L	L	EWN	ICP
7440-22-4	Silver	0.5 mg/kg-dry	L	SCC	ICP
7440-28-0	Thallium	9 mg/kg-dry	L	SCC	ICP
7440-66-6	Zinc	106 mg/kg-dry		SCC	ICP

ANALYTICAL RESOURCES, INC.
Inorganic Laboratory Data Report
12/30/88
09:07:55

Client: E & E
Contact: DAVID BYERS
Project: T10-8810-012
ID number: T8110075
Description:
Sampled: 11/29/88
Matrix: SOIL

ARI job number: 2302
ARI sample number: Y

Released by: NRW

A N A L Y T I C A L R E S U L T S

CAS Number	Analyte	Concentration	C	Prep	M
7440-36-0	Antimony	9 mg/kg-dry	L	SCC	ICP
7440-38-2	Arsenic	0.05 mg/L	L	EWN	ICP
7440-38-2	Arsenic	12 mg/kg-dry		SCC	ICP
7440-39-3	Barium	0.478 mg/L		EWN	ICP
7440-41-7	Beryllium	0.3 mg/kg-dry		SCC	ICP
7440-43-9	Cadmium	0.003 mg/L		EWN	ICP
7440-43-9	Cadmium	0.4 mg/kg-dry	L	SCC	ICP
7440-47-3	Chromium	0.005 mg/L	L	EWN	ICP
7440-47-3	Chromium	1280 mg/kg-dry		SCC	ICP
7440-47-3	Chromium(VI)	NOT ANALYZED		EW6	ICP
7440-47-3	Chromium(VI)	NOT ANALYZED		SW6	ICP
7440-50-8	Copper	47.2 mg/kg-dry		SCC	ICP
7439-92-1	Lead	0.03 mg/L	L	EWN	ICP
7439-92-1	Lead	28 mg/kg-dry		SCC	ICP
7439-97-6	Mercury	0.0001 mg/L	L	EWM	CVA
7439-97-6	Mercury	0.04 mg/kg-dry	L	SCM	CVA
7440-02-0	Nickel	42 mg/kg-dry		SCC	ICP
7782-49-2	Selenium	0.05 mg/L	L	EWN	ICP
7782-49-2	Selenium	9 mg/kg-dry	L	SCC	ICP
7440-22-4	Silver	0.003 mg/L	L	EWN	ICP
7440-22-4	Silver	0.6 mg/kg-dry	L	SCC	ICP
7440-28-0	Thallium	9 mg/kg-dry	L	SCC	ICP
7440-66-6	Zinc	57.3 mg/kg-dry		SCC	ICP

ANALYTICAL RESOURCES, INC.
Inorganic Laboratory Data Report
12/30/88
09:08:25

Client: E & E
Contact: DAVID BYERS
Project: T10-8810-012
ID number: T8110076
Description:
Sampled: 11/29/88
Matrix: SOIL

ARI job number: 2302
ARI sample number: Z

Released by: NEW

A N A L Y T I C A L R E S U L T S

CAS Number	Analyte	Concentration	C	Prep	M
7440-36-0	Antimony	8 mg/kg-dry	L	SCC	ICP
7440-38-2	Arsenic	0.05 mg/L	L	EWN	ICP
7440-38-2	Arsenic	13 mg/kg-dry		SCC	ICP
7440-39-3	Barium	0.485 mg/L		EWN	ICP
7440-41-7	Beryllium	0.5 mg/kg-dry		SCC	ICP
7440-43-9	Cadmium	0.002 mg/L	L	EWN	ICP
7440-43-9	Cadmium	0.3 mg/kg-dry	L	SCC	ICP
7440-47-3	Chromium	0.005 mg/L	L	EWN	ICP
7440-47-3	Chromium	25.9 mg/kg-dry		SCC	ICP
7440-47-3	Chromium(VI)	NOT ANALYZED		EW6	ICP
7440-47-3	Chromium(VI)	NOT ANALYZED		SW6	ICP
7440-50-8	Copper	20.6 mg/kg-dry		SCC	ICP
7439-92-1	Lead	0.03 mg/L	L	EWN	ICP
7439-92-1	Lead	35 mg/kg-dry		SCC	ICP
7439-97-6	Mercury	0.0001 mg/L	L	EWM	CVA
7439-97-6	Mercury	0.05 mg/kg-dry	L	SCM	CVA
7440-02-0	Nickel	23 mg/kg-dry		SCC	ICP
7782-49-2	Selenium	0.05 mg/L	L	EWN	ICP
7782-49-2	Selenium	8 mg/kg-dry	L	SCC	ICP
7440-22-4	Silver	0.003 mg/L	L	EWN	ICP
7440-22-4	Silver	0.5 mg/kg-dry	L	SCC	ICP
7440-28-0	Thallium	8 mg/kg-dry	L	SCC	ICP
7440-66-6	Zinc	91.3 mg/kg-dry		SCC	ICP

ANALYTICAL RESOURCES, INC.
Inorganic Laboratory Data Report
12/30/88
08:49:17

Client: E & E
Contact: DAVID BYERS
Project: T10-8810-012
ID number: T8110077
Description:
Sampled: 11/29/88
Matrix: SOIL

ARI job number: 2302
ARI sample number: AA

Released by: NRW

A N A L Y T I C A L R E S U L T S

CAS Number	Analyte	Concentration	C	Prep	M
7440-36-0	Antimony	7 mg/kg-dry	L	SCC	ICP
7440-38-2	Arsenic	0.05 mg/L	L	EWN	ICP
7440-38-2	Arsenic	17 mg/kg-dry		SCC	ICP
7440-39-3	Barium	0.519 mg/L		EWN	ICP
7440-41-7	Beryllium	0.4 mg/kg-dry		SCC	ICP
7440-43-9	Cadmium	0.002 mg/L		EWN	ICP
7440-43-9	Cadmium	0.3 mg/kg-dry	L	SCC	ICP
7440-47-3	Chromium	0.005 mg/L	L	EWN	ICP
7440-47-3	Chromium	22.9 mg/kg-dry		SCC	ICP
7440-47-3	Chromium(VI)	NOT ANALYZED		EW6	ICP
7440-47-3	Chromium(VI)	NOT ANALYZED		SW6	ICP
7440-50-8	Copper	19.9 mg/kg-dry		SCC	ICP
7439-92-1	Lead	0.03 mg/L	L	EWN	ICP
7439-92-1	Lead	16 mg/kg-dry		SCC	ICP
7439-97-6	Mercury	0.0001 mg/L	L	EWM	CVA
7439-97-6	Mercury	0.04 mg/kg-dry	L	SCM	CVA
7440-02-0	Nickel	13 mg/kg-dry		SCC	ICP
7782-49-2	Selenium	0.05 mg/L	L	EWN	ICP
7782-49-2	Selenium	7 mg/kg-dry	L	SCC	ICP
7440-22-4	Silver	0.003 mg/L	L	EWN	ICP
7440-22-4	Silver	0.4 mg/kg-dry	L	SCC	ICP
7440-28-0	Thallium	7 mg/kg-dry	L	SCC	ICP
7440-66-6	Zinc	60.9 mg/kg-dry		SCC	ICP

ANALYTICAL RESOURCES, INC.
Inorganic Laboratory Data Report
12/30/88
08:49:44

Client: E & E
Contact: DAVID BYERS
Project: T10-8810-012
ID number: T8110078
Description:
Sampled: 11/29/88
Matrix: SOIL

ARI job number: 2302
ARI sample number: AB

Released by: MRW

A N A L Y T I C A L R E S U L T S

CAS Number	Analyte	Concentration	C	Prep	M
7440-36-0	Antimony	8 mg/kg-dry	L	SCC	ICP
7440-38-2	Arsenic	0.05 mg/L	L	EWN	ICP
7440-38-2	Arsenic	18 mg/kg-dry		SCC	ICP
7440-39-3	Barium	0.244 mg/L		EWN	ICP
7440-41-7	Beryllium	0.5 mg/kg-dry		SCC	ICP
7440-43-9	Cadmium	0.002 mg/L	L	EWN	ICP
7440-43-9	Cadmium	0.3 mg/kg-dry	L	SCC	ICP
7440-47-3	Chromium	0.005 mg/L	L	EWN	ICP
7440-47-3	Chromium	13.3 mg/kg-dry		SCC	ICP
7440-47-3	Chromium(VI)	NOT ANALYZED		EW6	ICP
7440-47-3	Chromium(VI)	NOT ANALYZED		SW6	ICP
7440-50-8	Copper	15.0 mg/kg-dry		SCC	ICP
7439-92-1	Lead	0.03 mg/L	L	EWN	ICP
7439-92-1	Lead	10 mg/kg-dry		SCC	ICP
7439-97-6	Mercury	0.0001 mg/L	L	EWM	CVA
7439-97-6	Mercury	0.04 mg/kg-dry	L	SCM	CVA
7440-02-0	Nickel	11 mg/kg-dry		SCC	ICP
7782-49-2	Selenium	0.05 mg/L	L	EWN	ICP
7782-49-2	Selenium	8 mg/kg-dry	L	SCC	ICP
7440-22-4	Silver	0.003 mg/L	L	EWN	ICP
7440-22-4	Silver	0.5 mg/kg-dry	L	SCC	ICP
7440-28-0	Thallium	8 mg/kg-dry	L	SCC	ICP
7440-66-6	Zinc	40.2 mg/kg-dry		SCC	ICP

ANALYTICAL RESOURCES, INC.
Inorganic Laboratory Data Report
12/30/88
08:50:12

Client: E & E
Contact: DAVID BYERS
Project: T10-8810-012
ID number: T8110079
Description:
Sampled: 11/29/88
Matrix: SOIL

ARI job number: 2302
ARI sample number: AC

Released by: NRW

A N A L Y T I C A L R E S U L T S

CAS Number	Analyte	Concentration	C	Prep	M
7440-36-0	Antimony	8 mg/kg-dry	L	SCC	ICP
7440-38-2	Arsenic	0.05 mg/L	L	EWN	ICP
7440-38-2	Arsenic	12 mg/kg-dry		SCC	ICP
7440-39-3	Barium	0.442 mg/L		EWN	ICP
7440-41-7	Beryllium	0.4 mg/kg-dry		SCC	ICP
7440-43-9	Cadmium	0.002 mg/L		EWN	ICP
7440-43-9	Cadmium	0.3 mg/kg-dry	L	SCC	ICP
7440-47-3	Chromium	0.005 mg/L	L	EWN	ICP
7440-47-3	Chromium	20.1 mg/kg-dry		SCC	ICP
7440-47-3	Chromium(VI)	NOT ANALYZED		EW6	ICP
7440-47-3	Chromium(VI)	NOT ANALYZED		SW6	ICP
7440-50-8	Copper	17.9 mg/kg-dry		SCC	ICP
7439-92-1	Lead	0.03 mg/L	L	EWN	ICP
7439-92-1	Lead	11 mg/kg-dry		SCC	ICP
7439-97-6	Mercury	0.0001 mg/L	L	EWM	CVA
7439-97-6	Mercury	0.09 mg/kg-dry		SCM	CVA
7440-02-0	Nickel	9 mg/kg-dry		SCC	ICP
7782-49-2	Selenium	0.05 mg/L	L	EWN	ICP
7782-49-2	Selenium	8 mg/kg-dry	L	SCC	ICP
7440-22-4	Silver	0.003 mg/L	L	EWN	ICP
7440-22-4	Silver	0.5 mg/kg-dry	L	SCC	ICP
7440-28-0	Thallium	8 mg/kg-dry	L	SCC	ICP
7440-66-6	Zinc	40.4 mg/kg-dry		SCC	ICP

ANALYTICAL RESOURCES, INC.
Inorganic Laboratory Data Report
12/30/88
08:50:40

Client: E & E
Contact: DAVID BYERS
Project: T10-8810-012
ID number: T8110080
Description:
Sampled: 11/29/88
Matrix: SOIL

ARI job number: 2302
ARI sample number: AD

Released by: MRW

A N A L Y T I C A L R E S U L T S

CAS Number	Analyte	Concentration	C	Prep	M
7440-36-0	Antimony	9 mg/kg-dry	L	SCC	ICP
7440-38-2	Arsenic	0.05 mg/L	L	EWN	ICP
7440-38-2	Arsenic	25 mg/kg-dry		SCC	ICP
7440-39-3	Barium	0.314 mg/L		EWN	ICP
7440-41-7	Beryllium	0.5 mg/kg-dry		SCC	ICP
7440-43-9	Cadmium	0.002 mg/L		EWN	ICP
7440-43-9	Cadmium	0.4 mg/kg-dry	L	SCC	ICP
7440-47-3	Chromium	0.005 mg/L	L	EWN	ICP
7440-47-3	Chromium	16.5 mg/kg-dry		SCC	ICP
7440-47-3	Chromium(VI)	NOT ANALYZED		EW6	ICP
7440-47-3	Chromium(VI)	NOT ANALYZED		SW6	ICP
7440-50-8	Copper	37.0 mg/kg-dry		SCC	ICP
7439-92-1	Lead	0.03 mg/L	L	EWN	ICP
7439-92-1	Lead	17 mg/kg-dry		SCC	ICP
7439-97-6	Mercury	0.0001 mg/L	L	EWN	CVA
7439-97-6	Mercury	0.04 mg/kg-dry	L	SCM	CVA
7440-02-0	Nickel	14 mg/kg-dry		SCC	ICP
7782-49-2	Selenium	0.05 mg/L	L	EWN	ICP
7782-49-2	Selenium	9 mg/kg-dry	L	SCC	ICP
7440-22-4	Silver	0.003 mg/L	L	EWN	ICP
7440-22-4	Silver	0.5 mg/kg-dry	L	SCC	ICP
7440-28-0	Thallium	9 mg/kg-dry	L	SCC	ICP
7440-66-6	Zinc	58.4 mg/kg-dry		SCC	ICP

ANALYTICAL RESOURCES, INC.
Inorganic Laboratory Data Report
12/30/88
08:51:39

Client: E & E
Contact: DAVID BYERS
Project: T10-8810-012
ID number: T8110081
Description:
Sampled: 11/29/88
Matrix: SOIL

ARI job number: 2302
ARI sample number: AE

Released by: NRW

A N A L Y T I C A L R E S U L T S

CAS Number	Analyte	Concentration	C	Prep	M
7440-36-0	Antimony	7 mg/kg-dry	L	SCC	ICP
7440-38-2	Arsenic	0.05 mg/L	L	EWN	ICP
7440-38-2	Arsenic	18 mg/kg-dry		SCC	ICP
7440-39-3	Barium	0.334 mg/L		EWN	ICP
7440-41-7	Beryllium	0.4 mg/kg-dry		SCC	ICP
7440-43-9	Cadmium	0.038 mg/L		EWN	ICP
7440-43-9	Cadmium	0.3 mg/kg-dry	L	SCC	ICP
7440-47-3	Chromium	0.005 mg/L	L	EWN	ICP
7440-47-3	Chromium	13.6 mg/kg-dry		SCC	ICP
7440-47-3	Chromium(VI)	NOT ANALYZED		EW6	ICP
7440-47-3	Chromium(VI)	NOT ANALYZED		SW6	ICP
7440-50-8	Copper	26.1 mg/kg-dry		SCC	ICP
7439-92-1	Lead	0.03 mg/L	L	EWN	ICP
7439-92-1	Lead	13 mg/kg-dry		SCC	ICP
7439-97-6	Mercury	0.0001 mg/L	L	EWM	CVA
7439-97-6	Mercury	0.05 mg/kg-dry	L	SCM	CVA
7440-02-0	Nickel	11 mg/kg-dry		SCC	ICP
7782-49-2	Selenium	0.05 mg/L	L	EWN	ICP
7782-49-2	Selenium	7 mg/kg-dry	L	SCC	ICP
7440-22-4	Silver	0.003 mg/L	L	EWN	ICP
7440-22-4	Silver	0.4 mg/kg-dry	L	SCC	ICP
7440-28-0	Thallium	7 mg/kg-dry	L	SCC	ICP
7440-66-6	Zinc	52.9 mg/kg-dry		SCC	ICP

ANALYTICAL RESOURCES, INC.
Inorganic Laboratory Data Report
12/30/88
08:52:08

Client: E & E
Contact: DAVID BYERS
Project: T10-8810-012
ID number: T8110082
Description:
Sampled: 11/29/88
Matrix: SOIL

ARI job number: 2302
ARI sample number: AF

Released by: NRW

A N A L Y T I C A L R E S U L T S

CAS Number	Analyte	Concentration	C	Prep	M
7440-36-0	Antimony	10 mg/kg-dry	L	SCC	ICP
7440-38-2	Arsenic	0.05 mg/L	L	EWN	ICP
7440-38-2	Arsenic	10 mg/kg-dry	L	SCC	ICP
7440-39-3	Barium	2.05 mg/L		EWN	ICP
7440-41-7	Beryllium	0.5 mg/kg-dry		SCC	ICP
7440-43-9	Cadmium	0.054 mg/L		EWN	ICP
7440-43-9	Cadmium	1.9 mg/kg-dry		SCC	ICP
7440-47-3	Chromium	0.005 mg/L	L	EWN	ICP
7440-47-3	Chromium	77.8 mg/kg-dry		SCC	ICP
7440-47-3	Chromium(VI)	NOT ANALYZED		EW6	ICP
7440-47-3	Chromium(VI)	NOT ANALYZED		SW6	ICP
7440-50-8	Copper	32.9 mg/kg-dry		SCC	ICP
7439-92-1	Lead	0.08 mg/L		EWN	ICP
7439-92-1	Lead	109 mg/kg-dry		SCC	ICP
7439-97-6	Mercury	0.0001 mg/L	L	EWM	CVA
7439-97-6	Mercury	0.05 mg/kg-dry		SCM	CVA
7440-02-0	Nickel	23 mg/kg-dry		SCC	ICP
7782-49-2	Selenium	0.05 mg/L	L	EWN	ICP
7782-49-2	Selenium	10 mg/kg-dry	L	SCC	ICP
7440-22-4	Silver	0.003 mg/L	L	EWN	ICP
7440-22-4	Silver	0.6 mg/kg-dry	L	SCC	ICP
7440-28-0	Thallium	10 mg/kg-dry	L	SCC	ICP
7440-66-6	Zinc	253 mg/kg-dry		SCC	ICP

ANALYTICAL RESOURCES, INC.
Inorganic Laboratory Data Report
12/30/88
08:52:37

Client: E & E
Contact: DAVID BYERS
Project: T10-8810-012
ID number: T8110083

ARI job number: 2302
ARI sample number: AG

Description:

Sampled: 11/29/88
Matrix: SOIL

Released by: NRW

A N A L Y T I C A L R E S U L T S

CAS Number	Analyte	Concentration	C	Prep	M
7440-36-0	Antimony	10 mg/kg-dry	L	SCC	ICP
7440-38-2	Arsenic	0.05 mg/L	L	EWN	ICP
7440-38-2	Arsenic	10 mg/kg-dry	L	SCC	ICP
7440-39-3	Barium	0.607 mg/L		EWN	ICP
7440-41-7	Beryllium	0.2 mg/kg-dry	L	SCC	ICP
7440-43-9	Cadmium	0.017 mg/L		EWN	ICP
7440-43-9	Cadmium	2.2 mg/kg-dry		SCC	ICP
7440-47-3	Chromium	0.005 mg/L	L	EWN	ICP
7440-47-3	Chromium	50.3 mg/kg-dry		SCC	ICP
7440-47-3	Chromium(VI)	NOT ANALYZED		EW6	ICP
7440-47-3	Chromium(VI)	NOT ANALYZED		SW6	ICP
7440-50-8	Copper	40.2 mg/kg-dry		SCC	ICP
7439-92-1	Lead	0.03 mg/L		EWN	ICP
7439-92-1	Lead	75 mg/kg-dry		SCC	ICP
7439-97-6	Mercury	0.0001 mg/L	L	EWM	CVA
7439-97-6	Mercury	0.05 mg/kg-dry	L	SCM	CVA
7440-02-0	Nickel	17 mg/kg-dry		SCC	ICP
7782-49-2	Selenium	0.05 mg/L	L	EWN	ICP
7782-49-2	Selenium	10 mg/kg-dry	L	SCC	ICP
7440-22-4	Silver	0.003 mg/L	L	EWN	ICP
7440-22-4	Silver	0.6 mg/kg-dry	L	SCC	ICP
7440-28-0	Thallium	10 mg/kg-dry	L	SCC	ICP
7440-66-6	Zinc	46.1 mg/kg-dry		SCC	ICP

ANALYTICAL RESOURCES, INC.
Inorganic Laboratory Data Report
12/30/88
08:53:08

Client: E & E
Contact: DAVID BYERS
Project: T10-8810-012
ID number: T8110084
Description:
Sampled: 11/29/88
Matrix: SOIL

ARI job number: 2302
ARI sample number: AH

Released by: NRW

A N A L Y T I C A L R E S U L T S

CAS Number	Analyte	Concentration	C	Prep	M
7440-36-0	Antimony	9 mg/kg-dry	L	SCC	ICP
7440-38-2	Arsenic	0.05 mg/L	L	EWN	ICP
7440-38-2	Arsenic	9 mg/kg-dry	L	SCC	ICP
7440-39-3	Barium	0.470 mg/L		EWN	ICP
7440-41-7	Beryllium	0.3 mg/kg-dry		SCC	ICP
7440-43-9	Cadmium	0.006 mg/L		EWN	ICP
7440-43-9	Cadmium	0.4 mg/kg-dry		SCC	ICP
7440-47-3	Chromium	0.005 mg/L	L	EWN	ICP
7440-47-3	Chromium	276 mg/kg-dry		SCC	ICP
7440-47-3	Chromium(VI)	NOT ANALYZED		EW6	ICP
7440-47-3	Chromium(VI)	NOT ANALYZED		SW6	ICP
7440-50-8	Copper	63.9 mg/kg-dry		SCC	ICP
7439-92-1	Lead	0.03 mg/L	L	EWN	ICP
7439-92-1	Lead	40 mg/kg-dry		SCC	ICP
7439-97-6	Mercury	0.0001 mg/L	L	EWM	CVA
7439-97-6	Mercury	0.04 mg/kg-dry	L	SCM	CVA
7440-02-0	Nickel	31 mg/kg-dry		SCC	ICP
7782-49-2	Selenium	0.05 mg/L	L	EWN	ICP
7782-49-2	Selenium	9 mg/kg-dry	L	SCC	ICP
7440-22-4	Silver	0.003 mg/L	L	EWN	ICP
7440-22-4	Silver	0.5 mg/kg-dry	L	SCC	ICP
7440-28-0	Thallium	9 mg/kg-dry	L	SCC	ICP
7440-66-6	Zinc	87.4 mg/kg-dry		SCC	ICP

ANALYTICAL RESOURCES, INC.
Inorganic Laboratory Data Report
12/30/88
09:18:21

Client: E & E
Contact: DAVID BYERS
Project: T10-8810-012
ID number:
Description: METHOD BLANK
Sampled: / /
Matrix: SOIL

ARI job number: 2302
ARI sample number: MB1

Released by: NRW

A N A L Y T I C A L R E S U L T S

CAS Number	Analyte	Concentration	C	Prep	M
7440-36-0	Antimony	10 mg/kg-dry	L	SCC	ICP
7440-38-2	Arsenic	0.05 mg/L	L	EWN	ICP
7440-38-2	Arsenic	10 mg/kg-dry	L	SCC	ICP
7440-39-3	Barium	0.001 mg/L	L	EWN	ICP
7440-41-7	Beryllium	0.2 mg/kg-dry	L	SCC	ICP
7440-43-9	Cadmium	0.002 mg/L	L	EWN	ICP
7440-43-9	Cadmium	0.4 mg/kg-dry	L	SCC	ICP
7440-47-3	Chromium	0.005 mg/L	L	EWN	ICP
7440-47-3	Chromium	1.0 mg/kg-dry	L	SCC	ICP
7440-47-3	Chromium(VI)	NOT ANALYZED		EW6	ICP
7440-47-3	Chromium(VI)	NOT ANALYZED		SW6	ICP
7440-50-8	Copper	0.4 mg/kg-dry	L	SCC	ICP
7439-92-1	Lead	0.03 mg/L	L	EWN	ICP
7439-92-1	Lead	5 mg/kg-dry	L	SCC	ICP
7439-97-6	Mercury	0.0001 mg/L	L	EWM	CVA
7439-97-6	Mercury	0.05 mg/kg-dry	L	SCM	CVA
7440-02-0	Nickel	2 mg/kg-dry	L	SCC	ICP
7782-49-2	Selenium	0.05 mg/L	L	EWN	ICP
7782-49-2	Selenium	10 mg/kg-dry	L	SCC	ICP
7440-22-4	Silver	0.003 mg/L	L	EWN	ICP
7440-22-4	Silver	0.6 mg/kg-dry	L	SCC	ICP
7440-28-0	Thallium	10 mg/kg-dry	L	SCC	ICP
7440-66-6	Zinc	1.2 mg/kg-dry		SCC	ICP

ANALYTICAL RESOURCES, INC.
Inorganic Laboratory Data Report
12/30/88
09:00:22

Client: E & E
Contact: DAVID BYERS
Project: T10-8810-012
ID number:
Description: METHOD BLANK
Sampled: / /
Matrix: SOIL

ARI job number: 2302
ARI sample number: MB2

Released by: NRW

A N A L Y T I C A L R E S U L T S

CAS Number	Analyte	Concentration	C	Prep	M
7440-36-0	Antimony	10 mg/kg-dry	L	SCC	ICP
7440-38-2	Arsenic	0.05 mg/L	L	EWN	ICP
7440-38-2	Arsenic	10 mg/kg-dry	L	SCC	ICP
7440-39-3	Barium	0.001 mg/L	L	EWN	ICP
7440-41-7	Beryllium	0.2 mg/kg-dry	L	SCC	ICP
7440-43-9	Cadmium	0.002 mg/L	L	EWN	ICP
7440-43-9	Cadmium	0.4 mg/kg-dry	L	SCC	ICP
7440-47-3	Chromium	0.005 mg/L	L	EWN	ICP
7440-47-3	Chromium	1.0 mg/kg-dry	L	SCC	ICP
7440-47-3	Chromium(VI)	NOT ANALYZED		EW6	ICP
7440-47-3	Chromium(VI)	NOT ANALYZED		SW6	ICP
7440-50-8	Copper	0.4 mg/kg-dry	L	SCC	ICP
7439-92-1	Lead	0.03 mg/L	L	EWN	ICP
7439-92-1	Lead	5 mg/kg-dry	L	SCC	ICP
7439-97-6	Mercury	0.0001 mg/L	L	EWM	CVA
7439-97-6	Mercury	0.05 mg/kg-dry	L	SCM	CVA
7440-02-0	Nickel	2 mg/kg-dry	L	SCC	ICP
7782-49-2	Selenium	0.05 mg/L	L	EWN	ICP
7782-49-2	Selenium	10 mg/kg-dry	L	SCC	ICP
7440-22-4	Silver	0.003 mg/L	L	EWN	ICP
7440-22-4	Silver	0.6 mg/kg-dry	L	SCC	ICP
7440-28-0	Thallium	10 mg/kg-dry	L	SCC	ICP
7440-66-6	Zinc	1.0 mg/kg-dry		SCC	ICP

ANALYTICAL RESOURCES, INC.
Inorganic Laboratory Data Report
12/30/88
09:03:19

Client: E & E
Contact: DAVID BYERS
Project: T10-8810-012
ID number: NBS 2704
Description: BUFFALO RIVER SED
Sampled: / /
Matrix: SEDIMENT

ARI job number: 2302
ARI sample number: REF1

Released by: NRW

A N A L Y T I C A L R E S U L T S

CAS Number	Analyte	Concentration	C	Prep	M
7440-36-0	Antimony	13 mg/kg-dry	L	SCC	ICP
7440-38-2	Arsenic	26 mg/kg-dry		SCC	ICP
7440-41-7	Beryllium	0.7 mg/kg-dry		SCC	ICP
7440-43-9	Cadmium	3.3 mg/kg-dry		SCC	ICP
7440-47-3	Chromium	88.6 mg/kg-dry		SCC	ICP
7440-47-3	Chromium(VI)	NOT ANALYZED		SW6	ICP
7440-50-8	Copper	90.1 mg/kg-dry		SCC	ICP
7439-92-1	Lead	144 mg/kg-dry		SCC	ICP
7439-97-6	Mercury	1.48 mg/kg-dry		SCM	CVA
7440-02-0	Nickel	39 mg/kg-dry		SCC	ICP
7782-49-2	Selenium	13 mg/kg-dry	L	SCC	ICP
7440-22-4	Silver	0.8 mg/kg-dry	L	SCC	ICP
7440-28-0	Thallium	13 mg/kg-dry	L	SCC	ICP
7440-66-6	Zinc	386 mg/kg-dry		SCC	ICP

ANALYTICAL RESOURCES, INC.
Inorganic Laboratory Data Report
12/30/88
09:03:39

Client: E & E
Contact: DAVID BYERS
Project: T10-8810-012
ID number: NBS 2704
Description: BUFFALO RIVER SED
Sampled: / /
Matrix: SEDIMENT

ARI job number: 2302
ARI sample number: REF2

Released by: NRW

A N A L Y T I C A L R E S U L T S

CAS Number	Analyte	Concentration	C	Prep	M
7440-36-0	Antimony	12 mg/kg-dry	L	SCC	ICP
7440-38-2	Arsenic	24 mg/kg-dry		SCC	ICP
7440-41-7	Beryllium	0.8 mg/kg-dry		SCC	ICP
7440-43-9	Cadmium	3.4 mg/kg-dry		SCC	ICP
7440-47-3	Chromium	90.9 mg/kg-dry		SCC	ICP
7440-47-3	Chromium(VI)	NOT ANALYZED		SW6	ICP
7440-50-8	Copper	94.9 mg/kg-dry		SCC	ICP
7439-92-1	Lead	153 mg/kg-dry		SCC	ICP
7439-97-6	Mercury	1.27 mg/kg-dry		SCM	CVA
7440-02-0	Nickel	38 mg/kg-dry		SCC	ICP
7782-49-2	Selenium	12 mg/kg-dry	L	SCC	ICP
7440-22-4	Silver	0.7 mg/kg-dry	L	SCC	ICP
7440-28-0	Thallium	12 mg/kg-dry	L	SCC	ICP
7440-66-6	Zinc	410 mg/kg-dry		SCC	ICP

ANALYTICAL RESOURCES, INC.

Results of NBS 2704 Buffalo River Sediment Analysis

Client: E & E

ARI Sample number: 2302 REF1

Units: mg/kg-dry

ANALYTE	FOUND	CERTIFIED	VALUE	RECOVERY
Arsenic	26	23.4 ±	0.8	111.11
Cadmium	3.3	3.45 ±	0.22	95.65
Chromium	88.6	135 ±	5	65.63
Copper	90.1	98.6 ±	5	91.38
Lead	144	161 ±	17	89.44
Mercury	1.48	1.44 ±	0.07	102.78
Nickel	39	44.1 ±	3	88.44
Zinc	386	438 ±	12	88.13

RECOVERY = Percent Recovery

ANALYTICAL RESOURCES, INC.

Results of NBS 2704 Buffalo River Sediment Analysis

Client: E & E

ARI Sample number: 2302 REF1

Units: mg/kg-dry

ANALYTE	FOUND	CERTIFIED	VALUE	RECOVERY
Arsenic	24	23.4 ±	0.8	102.56
Cadmium	3.4	3.45 ±	0.22	98.55
Chromium	90.9	135 ±	5	67.33
Copper	94.9	98.6 ±	5	96.25
Lead	153	161 ±	17	95.03
Mercury	1.27	1.44 ±	0.07	88.19
Nickel	38	44.1 ±	3	86.17
Zinc	410	438 ±	12	93.61

RECOVERY = Percent Recovery

ANALYTICAL RESOURCES, INC.

Results of Quality Control Duplicate Analysis

Client: E & E

Sample Identification: 2302 A (EPTOX)

Units: mg/L

ANALYTE	ORIGINAL SAMPLE	C	DUPLICATE ANALYSIS	C	RELATIVE PERCENT DIFFERENCE
Arsenic	0.05	L	0.05	L	0.0
Barium	0.287		0.28		2.5
Cadmium	0.002	L	0.002	L	0.0
Chromium	0.005	L	0.005	L	0.0
Lead	0.03	L	0.03	L	0.0
Mercury	0.0001	L	0.0001	L	0.0
Selenium	0.05	L	0.05	L	0.0
Silver	0.003	L	0.003	L	0.0

ANALYTICAL RESOURCES, INC.

Results of Quality Control Duplicate Analysis

Client: E & E

Sample Identification: 2302 A (TOTAL)

Units: mg/kg-dry

ANALYTE	ORIGINAL SAMPLE	C	DUPLICATE ANALYSIS	C	RELATIVE PERCENT DIFFERENCE
Antimony	15	L	12	L	
Arsenic	15	L	12	L	
Beryllium	0.3		0.3		0.0
Cadmium	0.6	L	0.5	L	
Chromium	39.4		41.8		5.9
Copper	52.5		52.8		0.6
Lead	15		16		6.5
Mercury	0.06		0.05	L	
Nickel	15		14		6.9
Selenium	15	L	12	L	
Silver	0.9	L	0.7	L	
Thallium	15	L	12	L	
Zinc	58.8		60.1		2.2

ANALYTICAL RESOURCES, INC.

Results of Quality Control Duplicate Analysis

Client: E & E

Sample Identification: 2302 W (EPTOX)

Units: mg/L

ANALYTE	ORIGINAL SAMPLE	C	DUPLICATE ANALYSIS	C	RELATIVE PERCENT DIFFERENCE
Arsenic	0.05	L	0.05	L	0.0
Barium	0.215		0.212		1.4
Cadmium	0.003		0.003		0.0
Chromium	0.005	L	0.005	L	0.0
Lead	0.03	L	0.03	L	0.0
Mercury	0.0001	L	0.0001	L	0.0
Selenium	0.05	L	0.05	L	0.0
Silver	0.003	L	0.003	L	0.0

ANALYTICAL RESOURCES, INC.

Results of Quality Control Duplicate Analysis

Client: E & E

Sample Identification: 2302 W (TOTAL)

Units: mg/kg-dry

ANALYTE	ORIGINAL SAMPLE	C	DUPLICATE ANALYSIS	C	RELATIVE PERCENT DIFFERENCE
Antimony	11	L	11	L	
Arsenic	11	L	11	L	
Beryllium	0.2		0.3		40.0
Cadmium	0.5		0.4	L	
Chromium	71		74		4.1
Copper	88.8		90.7		2.1
Lead	30		30		0.0
Mercury	0.12		0.05	L	
Nickel	53		54		1.9
Selenium	11	L	11	L	
Silver	0.7	L	0.7	L	
Thallium	11	L	11	L	
Zinc	79.8		82		2.7

ANALYTICAL RESOURCES, INC.

Results of Quality Control Matrix Spike Analysis

Client: E & E

Sample Identification: 2302 A (EPTOX)

Units: mg/L

ANALYTE	ORIGINAL SAMPLE	C	SPIKED SAMPLE	C	AMOUNT ADDED	PERCENT RECOVERY
Arsenic	0		2.05		2	102.5
Barium	0.287		2.27		2	99.2
Cadmium	0		0.057		0.05	114.0
Chromium	0		0.204		0.2	102.0
Lead	0		0.5		0.5	100.0
Mercury	0		0.0009		0.001	90.0
Selenium	0		2.1		2	105.0
Silver	0		0.04		0.05	80.0

ANALYTICAL RESOURCES, INC.

Results of Quality Control Matrix Spike Analysis

Client: E & E

Sample Identification: 2302 ASPK (TOTAL)

Units: mg/kg-dry

ANALYTE	ORIGINAL SAMPLE	C	SPIKED SAMPLE	C	AMOUNT ADDED	PERCENT RECOVERY
Antimony	0		61		116	52.6
Arsenic	0		599		579	103.5
Beryllium	0.3		11.6		11.6	97.4
Cadmium	0		12.9		11.6	111.2
Chromium	39.4		87.7		46.3	104.3
Copper	52.5		112		57.9	102.8
Lead	0		127		116	109.5
Mercury	0.06		0.55		0.53	92.5
Nickel	15		133		116	101.7
Selenium	0		584		579	100.9
Silver	0		11.1		11.6	95.7
Thallium	0		597		591	101.0
Zinc	58.8		169		116	95.0

ANALYTICAL RESOURCES, INC.

Results of Quality Control Matrix Spike Analysis

Client: E & E

Sample Identification: 2302 W (EPTOX)

Units: mg/L

ANALYTE	ORIGINAL SAMPLE	C	SPIKED SAMPLE	C	AMOUNT ADDED	PERCENT RECOVERY
Arsenic	0		2.05		2	102.5
Barium	0.215		2.19		2	98.8
Cadmium	0.003		0.061		0.05	116.0
Chromium	0		0.204		0.2	102.0
Lead	0		0.48		0.5	96.0
Mercury	0		0.0009		0.001	90.0
Selenium	0		2.05		2	102.5
Silver	0		0.048		0.05	96.0

ANALYTICAL RESOURCES, INC.

Results of Quality Control Matrix Spike Analysis

Client: E & E

Sample Identification: 2302 W (TOTAL)

Units: mg/kg-dry

ANALYTE	ORIGINAL SAMPLE	C	SPIKED SAMPLE	C	AMOUNT ADDED	PERCENT RECOVERY
Antimony	0		70		113	61.9
Arsenic	0		586		564	103.9
Beryllium	0.2		11		11.3	95.6
Cadmium	0.5		12.6		11.3	107.1
Chromium	71		121		45.1	110.9
Copper	88.8		146		56.4	101.4
Lead	30		139		113	96.5
Mercury	0.12		0.59		0.53	88.7
Nickel	53		164		113	98.2
Selenium	0		580		564	102.8
Silver	0		11.4		11.3	100.9
Thallium	0		559		576	97.0
Zinc	79.8		181		113	89.6



SPECTRA Laboratories, Inc.

5013 Pacific Hwy. E. #A-12 • Tacoma, WA 98424 • (206) 922-5120

December 21, 1988

Analytical Resources, Inc.
333 Ninth Avenue North
Seattle, WA 98109-5187
Customer #81570

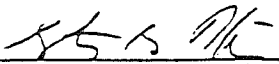
Attn: Dave Mitchell

<u>Spectra #</u>	<u>ARI #</u>	<u>Client #</u>	<u>Cyanide (CN), ppm</u>
18015	2302F	T8110056	<1
18016	2302I	T8110059	<1

Cyanide testing performed by EPA Method 335.2

*not to be used for
cyanide to Spectra.*

SPECTRA LABORATORIES, INC.


Steven G. Hibbs, Chemist

1991 E & E (Ecology)

Analytical Reports

- **Soils Analyses**
- **Groundwater Analyses**



ecology and environment, inc.

101 YESLER WAY, SEATTLE, WASHINGTON, 98104, TEL. 206/624-9537

International Specialists in the Environment

MEMORANDUM

DATE: June 30, 1991

TO: Sheila Fleming, Project Manager, E & E, Seattle

THRU: Kathy Bahnick, Program Manager, E & E, Seattle ^{PS}

FROM: Lila Transue, Chemist, E & E, Seattle ^{fa}

SUBJ: Data Evaluation for Old Inland Pit

REF: Contract Number C0089007
Job Number WZ6040

An evaluation of data for 34 samples collected from Old Inland Pit has been completed. Four water and twenty soil samples were analyzed for volatile organic compounds (VOCs), semivolatile organic compounds (BNAs), pesticides/polychlorinated biphenyl compounds (pest./PCBs), and inorganic elements (ICP metals), and one trip blank was analyzed for VOCs only. Ten additional soil samples were analyzed for ICP metals only. The samples were analyzed by Analytical Recourses, Inc., of Seattle, Washington using the following methods:

VOCs: USEPA "Test Methods for the Evaluation of Solid Waste",
SW-846, September, 1986 (SW-846) Method 8240

BNAs: SW-846 Method 8270

Pest./PCBs: SW-846 Method 8080

ICP Metals: SW-846 Method 6010

The samples were numbered:

MW-1-1 (Soil)	SU-1-1 (Soil)	SR-1 (Soil-ICP Metals only)
MW-1-2 (Soil)	SU-1-2 (Soil)	SR-2 (Soil-ICP Metals only)
MW-2-1 (Soil)	SU-1-3 (Soil)	SR-3 (Soil-ICP Metals only)
MW-2-2 (Soil)	SU-2-1 (Soil)	SR-4 (Soil-ICP Metals only)
MW-3-1 (Soil)	SU-2-2 (Soil)	SR-5 (Soil-ICP Metals only)
MW-4-1 (Soil)	SU-2-3 (Soil)	SR-6 (Soil-ICP Metals only)
MW-4-2 (Soil)	SU-3-1 (Soil)	SR-7 (Soil-ICP Metals only)

WZ6040.2.0

MW-1	(Water)	SU-3-2	(Soil)	SR-8	(Soil-ICP Metals only)
MW-2	(Water)	SU-3-3	(Soil)	SR-9	(Soil-ICP Metals only)
MW-3	(Water)	SU-3-3A	(Soil)	SR-10	(Soil-ICP Metals only)
MW-4	(Water)	SU-4-1	(Soil)	Trip Blank (Water-VOCs only)	
		SU-4-2	(Soil)		
		SU-4-3	(Soil)		

The following assumptions were made by the data evaluator for this data package:

- o All calibrations were assumed to have followed correct procedures and have results within method specified Quality Control (QC) limits;
- o Instrument detection limits were assumed to be less than or equal to the laboratory reporting limits;
- o All analyte identifications were assumed to be correct;
- o All specific QC requirements outlined in the appropriate methods were assumed to have been followed;
- o All laboratory criteria for QC analysis were assumed to meet the method QC criteria;
- o All transcriptions and calculations made by the laboratory were assumed to be correct.

The data evaluation consisted of a check of extraction and analysis times, initial and continuing calibration summary sheets, surrogate recoveries, internal standard areas, matrix spike (MS) and matrix spike duplicate (MSD) percent recoveries, duplicate relative percent difference (RPD), and method blank results. Raw data was not checked as part of this data evaluation.

Overall, data were acceptable for use. Data qualifiers based on U.S. Environmental Protection Agency (EPA) Hazardous Site Evaluation Division Laboratory Data Validation Functional Guidelines for Evaluating Organics and Inorganics Analysis, 1988, and the EPA (Region 10) Regional Protocol for Holding Times, Blanks, and VOA Preservation (April 13, 1989) were used to flag data when laboratory quality control criteria were not met. Data qualifiers may modify the usefulness of individual values.

1) Timeliness

All samples met EPA Region 10 holding time criteria, except:

<u>Sample Number</u>	<u>Matrix</u>	<u>Parameter</u>	<u>Date Sampled</u>	<u>Date Extracted</u>	<u>Holding Time</u>	<u>QC Limit</u>
MW-1	Water	BNA	5-23-91	6-3-91	11 days	7 days
MW-2	Water	BNA	5-23-91	6-3-91	11 days	7 days
MW-3	Water	BNA	5-23-91	6-3-91	11 days	7 days
MW-4	Water	BNA	5-23-91	6-3-91	11 days	7 days
MW-1	Water	Pest./PCB	5-23-91	6-3-91	11 days	7 days
MW-2	Water	Pest./PCB	5-23-91	6-3-91	11 days	7 days
MW-3	Water	Pest./PCB	5-23-91	6-3-91	11 days	7 days
MW-4	Water	Pest./PCB	5-23-91	6-3-91	11 days	7 days
MW-2-1	Soil	Pest./PCB	5-16-91	6-10-91	25 days	14 days
MW-2-2	Soil	Pest./PCB	5-17-91	6-3-91	17 days	14 days
MW-4-2	Soil	Pest./PCB	5-16-91	6-10-91	25 days	14 days

Data for the samples and parameters listed above were flagged as estimated quantities (J or UJ), as appropriate.

2) Instrument Calibration

All initial calibrations met QC criteria. All continuing calibrations met QC criteria, except for the following analytes which were detected in the samples and had percent difference (%D) values outside QC limits:

<u>Date</u>	<u>Time</u>	<u>Parameter</u>	<u>Analyte</u>	<u>%D</u>	<u>QC Limits</u>	<u>Assoc. Sample</u>
5-29-91	08:37	VOC	Acetone	30.5	<25%	SU-4-2
6-8-91	17:03	Pest/PCB	4,4'-DDE	24.3/28.6*	<15%/<20%*	SU-4-2, SU-4-3
6-8-91	17:03	Pest/PCB	Methoxychlor	21.7/21.2*	<15%/<20%*	SU-4-3
6-8-91	17:03	Pest/PCB	alpha-Chlordane	20.4/21.0*	<15%/<20%*	SU-4-3
6-8-91	17:03	Pest/PCB	gamma-Chlordane	20.2/22.6*	<15%/<20%*	SU-4-3

Assoc. - Associated

* First value is %D for quantitation column, second value is %D for confirmation column.

For samples associated with the corresponding calibration and analytes listed above, positive results were flagged as estimated quantities (J).

3) Blanks

Frequency criteria were met for all laboratory blank analysis.

The following analytes were detected in laboratory blanks at levels above instrument detection limits, and were also detected in associated samples at similar concentrations:

<u>Blank I.D.</u>	<u>Par.</u>	<u>Matrix</u>	<u>Analyte</u>	<u>Conc. Found</u>	<u>Assoc. Samples</u>
F10520MB	VOC	Soil	Methylene Chloride	0.7 µg/kg	MW-1-1, MW-4-1
F50521MB	VOC	Soil	Methylene Chloride Acetone	1.3J µg/kg 1.8J µg/kg	MW-4-2, MW-2-1
F10522MB	VOC	Soil	Methylene Chloride Acetone	4.0 µg/kg 7.9 µg/kg	MW-2-2
F10529MB	VOC	Soil	Methylene Chloride Acetone	1.1 µg/kg 5.8 µg/kg	SU-3-3A, SU-4-1, SU-4-2, SU-4-3
F10530MB	VOC	Soil	Methylene Chloride Acetone	2.4 µg/kg 7.0 µg/kg	MW-3-1
F10531MB	VOC	Water	Methylene Chloride Acetone	2.0 µg/L 8.5 µg/L	MW-1, MW-2, MW-3, MW-4
F50531MB	VOC	Water	Methylene Chloride	1.5J µg/L	Trip Blank
MBLK0605A	ICP Metals	Soil	Barium Beryllium Cobalt	4.9 µg/L 4.3 µg/L 6.6 µg/L	All SU- soils
MBLK0604	ICP Metals	Soil	Beryllium	1.5 µg/L	SR-1, SR-2, SR-4 to SR-10, MW-1-1, MW-2-2, MW-4-1
MBLK0605B	ICP Metals	Soil	Beryllium Cobalt	4.3 µg/L 6.6 µg/L	MW-1-2, MW-2-1, MW-4-2, MW-3-1

Conc. - Concentration
Assoc. - Associated
Par. - Parameter

Reported levels of the above compounds in the associated samples were flagged "UJ" (estimated quantitation limit) if the concentrations were below five times the amount found in the appropriate blank (ten times for methylene chloride and acetone).

4) Surrogate Recovery

Recoveries (%Rs) for all surrogate compounds for organic analyses met QC criteria, except:

<u>Sample</u>	<u>Parameter</u>	<u>Compound</u>	<u>%R</u>	<u>QC Limits</u>
MW-1-1	BNA (Acid Fraction)	2-Fluorophenol	13	25-121%
MW-1-1	BNA (Acid Fraction)	2,4,6-Tribromophenol	0.7	19-122%
MW-1-2	BNA (Acid Fraction)	2-Fluorophenol	24.3	25-121%
MW-2-2	BNA (Acid Fraction)	2-Fluorophenol	22.8	25-121%
MW-3	BNA (Acid Fraction)	2,4,6-Tribromophenol	130	10-123%

Positive results for the acid compounds in sample MW-1-1 were flagged as estimated quantities (J), while quantitation limits for the acid compounds in sample MW-1-1 were flagged as unusable (UR), based on the low acid surrogate recoveries. No action was taken for samples MW-1-2, MW-2-2, and MW-3, with only one acid surrogate outside QC limits.

5) Internal Standard Areas

All internal standard areas were within QC limits, except for perylene-d12 in the BNA analysis for Sample SU-1-1. The internal standard area for perylene-d12 in sample SU-1-1 was greater than 200 percent of the internal standard area from the corresponding continuing calibration. No action was taken, as no BNA analytes associated with perylene-d12 were detected in sample SU-1-1.

6) Matrix Spike and Matrix Spike Duplicate Analysis

Samples SU-3-3A and MW-3-1 underwent matrix spike (MS) and matrix spike duplicate (MSD) analyses for all organic parameters. Samples MW-4-1, MW-4-2, and MW-2 underwent MS and MSD analyses for VOCs. Samples MW-1, MW-2-1, and MW-4 underwent MS and MSD analyses for BNAs, and samples MW-1-2, MW-4-2, and MW-4 underwent MS and MSD analyses for Pest/PCBs. All MS and MSD recoveries were within QC limits, except:

Sample	Matrix	Param.	Analyte	%R	QC Limits
MW-2-1 MS	Soil	BNA	N-Nitroso-di-n-propylamine	31.5	41-126%
MW-2-1 MS	Soil	BNA	1,2,4-Trichlorobenzene	35.3	38-107%
MW-2-1 MS	Soil	BNA	2,4-Dinitrotoluene	21.0	28-89%
MW-4 MS	Water	BNA	Pentachlorophenol	130	10-123%
MW-1-2 MS	Soil	Pest/PCB	Lindane	36	46-127%
MW-1-2 MS	Soil	Pest/PCB	Aldrin	33	34-132%
MW-1-2 MSD	Soil	Pest/PCB	Lindane	39	46-127%

For analytes with low MS and/or MSD recoveries, positive results and quantitation limits were flagged as estimated (J or UJ) for those analytes in the associated sample. For analytes with high MS and/or MSD recoveries, only positive results were flagged as estimated quantities (J) for those analytes in the associated sample.

All MS/MSD relative percent difference (RPD) values were within QC limits, except:

Sample	Matrix	Parameter	Analyte	RPD	QC Limits
MW-2-1	Soil	BNA	1,4-Dichlorobenzene	28.4	<27%
MW-2-1	Soil	BNA	1,2,4-Trichlorobenzene	27.0	<23%
MW-2-1	Soil	BNA	4-Chloro-3-methylphenol	33.5	<33%
MW-2-1	Soil	BNA	Acenaphthylene	22.1	<19%
MW-4	Water	Pest/PCB	Lindane	19	<15%

Positive results and quantitation limits were flagged as estimated for the analytes listed above in the associated sample.

7) Matrix Spike Sample Analysis

Samples SU-1-1, SR-1, and MW-1 underwent MS analysis for ICP metals. All recoveries were within QC limits, except:

Sample	Matrix	Analyte	%R	QC Limits
SU-1-1	Soil	Antimony	22	75-125%
	Soil	Magnesium	129	75-125%
SR-1	Soil	Antimony	27.3	75-125%
	Soil	Chromium	73.1	75-125%
	Soil	Cobalt	74.5	75-125%
	Soil	Potassium	43.0	75-125%

Quantitation limits for antimony in all soil samples were flagged as unusable (UR), while positive results were flagged as estimated quantities (J). Positive results for magnesium in all SU- soil samples and sample MW-3-1 were flagged as estimated quantities. Positive results and quantitation limits for chromium, cobalt, and potassium in all SR- soil samples and samples MW-1-1, MW-1-2, MW-2-1, MW-2-2, MW-4-1, and MW-4-2 were flagged as estimated (J or UJ).

8) Duplicate Sample Analysis

Samples SU-1-2, SR-2, and MW-2 underwent duplicate analysis for ICP metals. All duplicate RPD values for ICP metals analyses were within QC limits, except for zinc in sample SU-1-2 with an RPD of 43 percent. QC criteria require an RPD of less than or equal to 35 percent for duplicate soil analysis. Therefore, all positive results and quantitation limits for zinc in SU- soil samples and sample MW-3-1 were flagged as estimated (J or UJ).

9) Laboratory Control Sample

The recoveries for ICP metals in the laboratory control samples (LCSs) were within QC limits, except for aluminum and selenium, which had high recoveries for the LCS associated with the SU- soil samples and sample MW-3-1. Therefore, positive results for aluminum and selenium in those samples were flagged as estimated quantities (J).

10) Sample Analysis

Organic and inorganic analytes detected at levels above instrument detection limits, but below laboratory quantitation limits, were reported as estimated quantities (J) on the data sheets.

Data Qualifiers

- U - The material was analyzed for but was not detected. The associated numerical value is a laboratory quantitation limit, adjusted for sample weight/sample volume, extraction volume, percent solids and sample dilution.
- J - The analyte was analyzed for and was positively identified, but the associated numerical value may not be consistent with the amount actually present in the environmental sample. The data should be seriously considered for decision-making and are usable for many purposes.

- UJ - The material was analyzed for, but was not detected. The associated numerical value is an estimated/adjusted quantitation limit. The associated numerical value may not accurately or precisely represent the concentration necessary to detect the analyte in this sample.
- R - Quality Control indicates that data are unusable for all purposes. The analyte was analyzed for, but the presence or absence of the analyte has not been verified. Resampling and reanalysis are necessary for verification to confirm or deny the presence of an analyte.
- N - Presumptive evidence of presence of material (tentative identification). Confirmation of the analyte requires further analysis.
- M - Indicates an estimated value of an analyte found and confirmed by the laboratory analyst, but with low mass spectral match parameters.

INORGANIC ANALYSIS DATA SHEET

Client: E&E

Lab Name: Analytical Resources, Inc.

Client's Sample Number

Matrix (soil/water): Soil

SR1

Lab Sample ID: 8303 A

% Solids: 85.85

Date Received: 05/20/91

Concentration Units (ug/L or mg/kg dry weight): mg/kg-dry

CAS No.	Analyte	Concentration	C
7429-90-5	Aluminum	12700	
7440-36-0	Antimony	4.1	U R
7440-38-2	Arsenic	14.2	
7440-39-3	Barium	134	
7440-41-7	Beryllium	0.40	U H
7440-43-9	Cadmium	0.25	
7440-70-2	Calcium	8760	
7440-47-3	Chromium	16.0	
7440-48-4	Cobalt	6.7	U H
7440-50-8	Copper	24.7	
7439-89-6	Iron	17100	
7439-92-1	Lead	70.7	
7439-95-4	Magnesium	6310	
7439-96-5	Manganese	393	
7439-97-6	Mercury		
7440-02-0	Nickel	11.4	
7440-09-7	Potassium	2350	
7782-49-2	Selenium	4.1	U H
7440-22-4	Silver	0.25	
7440-23-5	Sodium	205	
7440-28-0	Thallium	5.4	
7440-62-2	Vanadium	23.4	
7440-66-6	Zinc	112	
	Cyanide		

Color Before:

Clarity Before:

Texture:

Color After:

Clarity After:

Artifacts:

Comments:

-JAG 6-25-91

INORGANIC ANALYSIS DATA SHEET

Client: E&E

Lab Name: Analytical Resources, Inc.

Client's Sample Number

Matrix (soil/water): Soil

SR2

Lab Sample ID: 8303 B

% Solids: 86.80

Date Received: 05/20/91

Concentration Units (ug/L or mg/kg dry weight): mg/kg-dry

CAS No.	Analyte	Concentration	C
7429-90-5	Aluminum	16500	
7440-36-0	Antimony	5.8	
7440-38-2	Arsenic	10.3	
7440-39-3	Barium	154	
7440-41-7	Beryllium	0.51	
7440-43-9	Cadmium	1.1	
7440-70-2	Calcium	9070	
7440-47-3	Chromium	21.2	
7440-48-4	Cobalt	8.0	
7440-50-8	Copper	43.8	
7439-89-6	Iron	22100	
7439-92-1	Lead	62.5	
7439-95-4	Magnesium	6420	
7439-96-5	Manganese	552	
7439-97-6	Mercury		
7440-02-0	Nickel	15.6	
7440-09-7	Potassium	2750	
7782-49-2	Selenium	5.0	
7440-22-4	Silver	0.25	
7440-23-5	Sodium	257	
7440-28-0	Thallium	4.2	
7440-62-2	Vanadium	27.0	
7440-66-6	Zinc	183	
	Cyanide		

Color Before:

Clarity Before:

Texture:

Color After:

Clarity After:

Artifacts:

Comments:

JAG 6-25-91

INORGANIC ANALYSIS DATA SHEET

ient: E&E

Lab Name: Analytical Resources, Inc.

Client's Sample Number

Matrix (soil/water): Soil

SR3

Lab Sample ID: 8303 C

% Solids: 80.27

Date Received: 05/20/91

Concentration Units (ug/L or mg/kg dry weight): mg/kg-dry

CAS No.	Analyte	Concentration	C
7429-90-5	Aluminum	18300	U R
7440-36-0	Antimony	21.2	
7440-38-2	Arsenic	22.5	
7440-39-3	Barium	788	
7440-41-7	Beryllium	0.88	
7440-43-9	Cadmium	1.8	
7440-70-2	Calcium	3510	
7440-47-3	Chromium	63.3	
7440-48-4	Cobalt	91.1	
7440-50-8	Copper	63.5	
7439-89-6	Iron	32700	
7439-92-1	Lead	234	
7439-95-4	Magnesium	3580	
7439-96-5	Manganese	15000	
7439-97-6	Mercury		
7440-02-0	Nickel	35.4	
7440-09-7	Potassium	1600	
7782-49-2	Selenium	21.2	U
7440-22-4	Silver	3.2	
7440-23-5	Sodium	1500	
7440-28-0	Thallium	21.2	
7440-62-2	Vanadium	63.0	
7440-66-6	Zinc	397	
	Cyanide		

20.0 21.2

46

4

21.2

Color Before:

Clarity Before:

Texture:

Color After:

Clarity After:

Artifacts:

Comments:

6-25-91

INORGANIC ANALYSIS DATA SHEET

Client: E&E

Lab Name: Analytical Resources, Inc.

Client's Sample Number

Matrix (soil/water): Soil

SR4

Lab Sample ID: 8303 D

% Solids: 85.33

Date Received: 05/20/91

Concentration Units (ug/L or mg/kg dry weight): mg/kg-dry

CAS No.	Analyte	Concentration	C
7429-90-5	Aluminum	6230	
7440-36-0	Antimony	4.7	U R
7440-38-2	Arsenic	4.7	U
7440-39-3	Barium	417	
7440-41-7	Beryllium	0.20	U J
7440-43-9	Cadmium	0.73	
7440-70-2	Calcium	2770	
7440-47-3	Chromium	50.2	J
7440-48-4	Cobalt	2.0	J
7440-50-8	Copper	60.9	
7439-89-6	Iron	23500	
7439-92-1	Lead	20.7	
7439-95-4	Magnesium	1260	
7439-96-5	Manganese	1010	
7439-97-6	Mercury		
7440-02-0	Nickel	21.8	
7440-09-7	Potassium	407	J
7782-49-2	Selenium	4.7	U
7440-22-4	Silver	0.28	U
7440-23-5	Sodium	531	
7440-28-0	Thallium	6.9	
7440-62-2	Vanadium	5.6	
7440-66-6	Zinc	47.3	
	Cyanide		

Color Before:

Clarity Before:

Texture:

Color After:

Clarity After:

Artifacts:

Comments:

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

ient: E&E

Lab Name: Analytical Resources, Inc.

Client's Sample Number

Matrix (soil/water): Soil

SR5

Lab Sample ID: 8303 E

% Solids: 86.50

Date Received: 05/20/91

Concentration Units (ug/L or mg/kg dry weight): mg/kg-dry

CAS No.	Analyte	Concentration	C
7429-90-5	Aluminum	7030	
7440-36-0	Antimony	4.4	U R
7440-38-2	Arsenic	4.4	U
7440-39-3	Barium	259	
7440-41-7	Beryllium	0.20	U
7440-43-9	Cadmium	0.32	U
7440-70-2	Calcium	3270	
7440-47-3	Chromium	31.4	
7440-48-4	Cobalt	1.8	
7440-50-8	Copper	41.5	
7439-89-6	Iron	11100	
7439-92-1	Lead	24.8	
7439-95-4	Magnesium	1930	
7439-96-5	Manganese	152	
7439-97-6	Mercury		
7440-02-0	Nickel	19.0	
7440-09-7	Potassium	369	
7782-49-2	Selenium	4.4	U
7440-22-4	Silver	0.26	U
7440-23-5	Sodium	586	
7440-28-0	Thallium	4.9	
7440-62-2	Vanadium	14.8	
7440-66-6	Zinc	50.6	
	Cyanide		

Color Before:

Clarity Before:

Texture:

Color After:

Clarity After:

Artifacts:

Comments:

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INORGANIC ANALYSIS DATA SHEET

Client: E&E

Lab Name: Analytical Resources, Inc.

Client's Sample Number

Matrix (soil/water): Soil

SR6

Lab Sample ID: 8303 F

% Solids: 80.94

Date Received: 05/20/91

Concentration Units (ug/L or mg/kg dry weight): mg/kg-dry

CAS No.	Analyte	Concentration	C
7429-90-5	Aluminum	9190	
7440-36-0	Antimony	4.0	U R
7440-38-2	Arsenic	5.2	
7440-39-3	Barium	388	
7440-41-7	Beryllium	0.33	U J
7440-43-9	Cadmium	0.43	
7440-70-2	Calcium	6430	
7440-47-3	Chromium	106	J 12.0
7440-48-4	Cobalt	3.7	J 17.71
7440-50-8	Copper	64.1	
7439-89-6	Iron	17900	
7439-92-1	Lead	43.5	
7439-95-4	Magnesium	2790	
7439-96-5	Manganese	344	
7439-97-6	Mercury		
7440-02-0	Nickel	20.6	
7440-09-7	Potassium	814	J 21.01
7782-49-2	Selenium	4.0	U 10.9
7440-22-4	Silver	0.24	U
7440-23-5	Sodium	576	
7440-28-0	Thallium	9.4	
7440-62-2	Vanadium	25.1	
7440-66-6	Zinc	87.4	
	Cyanide		

Color Before:

Clarity Before:

Texture:

Color After:

Clarity After:

Artifacts:

Comments:

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INORGANIC ANALYSIS DATA SHEET

Client: E&E

Lab Name: Analytical Resources, Inc.

Client's Sample Number

Matrix (soil/water): Soil

SR7

Lab Sample ID: 8303 G

% Solids: 86.16

Date Received: 05/20/91

Concentration Units (ug/L or mg/kg dry weight): mg/kg-dry

CAS No.	Analyte	Concentration	C
7429-90-5	Aluminum	2720	
7440-36-0	Antimony	4.5	U
7440-38-2	Arsenic	4.5	U
7440-39-3	Barium	19.4	
7440-41-7	Beryllium	0.090	U
7440-43-9	Cadmium	0.19	
7440-70-2	Calcium	700	
7440-47-3	Chromium	3.9	
7440-48-4	Cobalt	1.3	
7440-50-8	Copper	4.3	
7439-89-6	Iron	3480	
7439-92-1	Lead	30.0	
7439-95-4	Magnesium	1080	
7439-96-5	Manganese	62.8	
7439-97-6	Mercury		
7440-02-0	Nickel	2.1	
7440-09-7	Potassium	484	
7782-49-2	Selenium	4.5	U
7440-22-4	Silver	0.27	U
7440-23-5	Sodium	65.8	
7440-28-0	Thallium	4.5	U
7440-62-2	Vanadium	5.9	
7440-66-6	Zinc	19.1	
	Cyanide		

Color Before:

Clarity Before:

Texture:

Color After:

Clarity After:

Artifacts:

Comments:

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INORGANIC ANALYSIS DATA SHEET

Client: E&E

Lab Name: Analytical Resources, Inc.

Client's Sample Number

Matrix (soil/water): Soil

SR8

Lab Sample ID: 8303 H

% Solids: 84.10

Date Received: 05/20/91

Concentration Units (ug/L or mg/kg dry weight): mg/kg-dry

CAS No.	Analyte	Concentration	C
7429-90-5	Aluminum	21800	
7440-36-0	Antimony	6.8	
7440-38-2	Arsenic	44.5	
7440-39-3	Barium	177	
7440-41-7	Beryllium	0.59	
7440-43-9	Cadmium	0.36	
7440-70-2	Calcium	5150	
7440-47-3	Chromium	17.0	
7440-48-4	Cobalt	7.9	
7440-50-8	Copper	22.2	
7439-89-6	Iron	24000	
7439-92-1	Lead	218	
7439-95-4	Magnesium	7170	
7439-96-5	Manganese	641	
7439-97-6	Mercury		
7440-02-0	Nickel	12.0	
7440-09-7	Potassium	3040	
7782-49-2	Selenium	4.3	
7440-22-4	Silver	0.26	
7440-23-5	Sodium	189	
7440-28-0	Thallium	4.3	
7440-62-2	Vanadium	35.8	
7440-66-6	Zinc	105	
	Cyanide		

Color Before:

Clarity Before:

Texture:

Color After:

Clarity After:

Artifacts:

Comments:

INORGANIC ANALYSIS DATA SHEET

ient: E&E

Lab Name: Analytical Resources, Inc.

Client's Sample Number

Matrix (soil/water): Soil

SR9

Lab Sample ID: 8303 I

% Solids: 90.52

Date Received: 05/20/91

Concentration Units (ug/L or mg/kg dry weight): mg/kg-dry

CAS No.	Analyte	Concentration	C
7429-90-5	Aluminum	12200	
7440-36-0	Antimony	3.7	U R
7440-38-2	Arsenic	10.6	
7440-39-3	Barium	83.2	
7440-41-7	Beryllium	0.39	U 5
7440-43-9	Cadmium	0.15	U
7440-70-2	Calcium	19500	
7440-47-3	Chromium	15.8	46
7440-48-4	Cobalt	6.3	
7440-50-8	Copper	25.3	
7439-89-6	Iron	15600	
7439-92-1	Lead	17.1	
7439-95-4	Magnesium	8290	
7439-96-5	Manganese	389	
7439-97-6	Mercury		
7440-02-0	Nickel	9.7	
7440-09-7	Potassium	2570	4
7782-49-2	Selenium	3.7	U
7440-22-4	Silver	0.22	U
7440-23-5	Sodium	217	5
7440-28-0	Thallium	3.7	U
7440-62-2	Vanadium	17.4	
7440-66-6	Zinc	54.8	
	Cyanide		

Color Before:

Clarity Before:

Texture:

Color After:

Clarity After:

Artifacts:

ments:

8216-25-9

INORGANIC ANALYSIS DATA SHEET

Client: E&E

Lab Name: Analytical Resources, Inc.

Client's Sample Number

Matrix (soil/water): Soil

SR10

Lab Sample ID: 8303 J

% Solids: 87.58

Date Received: 05/20/91

Concentration Units (ug/L or mg/kg dry weight): mg/kg-dry

CAS No.	Analyte	Concentration	C
7429-90-5	Aluminum	15400	
7440-36-0	Antimony	4.1	U
7440-38-2	Arsenic	8.3	
7440-39-3	Barium	119	
7440-41-7	Beryllium	0.44	U
7440-43-9	Cadmium	0.16	U
7440-70-2	Calcium	9370	
7440-47-3	Chromium	16.4	
7440-48-4	Cobalt	6.4	
7440-50-8	Copper	45.6	
7439-89-6	Iron	17200	
7439-92-1	Lead	28.2	
7439-95-4	Magnesium	6640	
7439-96-5	Manganese	550	
7439-97-6	Mercury		
7440-02-0	Nickel	10.7	
7440-09-7	Potassium	2360	
7782-49-2	Selenium	6.4	
7440-22-4	Silver	0.24	U
7440-23-5	Sodium	199	
7440-28-0	Thallium	4.1	U
7440-62-2	Vanadium	21.3	
7440-66-6	Zinc	119	
	Cyanide		

Background

Color Before:

Clarity Before:

Texture:

Color After:

Clarity After:

Artifacts:

Comments:

- 5076-35-91

INORGANIC ANALYSIS DATA SHEET

Client: E&E

Lab Name: Analytical Resources, Inc.

Client's Sample Number

Matrix (soil/water): Soil

SU 1-1

Lab Sample ID: 8339 A

% Solids: 95.29

Date Received: 05/22/91

Concentration Units (ug/L or mg/kg dry weight): mg/kg-dry

CAS No.	Analyte	Concentration	C
7429-90-5	Aluminum	9030	
7440-36-0	Antimony	3.1	U
7440-38-2	Arsenic	6.1	
7440-39-3	Barium	906	
7440-41-7	Beryllium	0.36	U
7440-43-9	Cadmium	0.23	U
7440-70-2	Calcium	3400	
7440-47-3	Chromium	160	
7440-48-4	Cobalt	2.9	
7440-50-8	Copper	105	
7439-89-6	Iron	25300	
7439-92-1	Lead	36.1	
7439-95-4	Magnesium	1800	
7439-96-5	Manganese	403	
7439-97-6	Mercury		
7440-02-0	Nickel	76.5	
7440-09-7	Potassium	473	
7782-49-2	Selenium	3.1	U
7440-22-4	Silver	0.19	U
7440-23-5	Sodium	3260	
7440-28-0	Thallium	14.5	
7440-62-2	Vanadium	16.5	
7440-66-6	Zinc	81.7	
	Cyanide		

MTCA

Background

HJ

HJ

102

17.81

HJ

21.61

HJ

25,026

HJ

16.19

U

U

HJ

16.19

Color Before:

Clarity Before:

Texture:

Color After:

Clarity After:

Artifacts:

Comments:

J2) 6-25-91

INORGANIC ANALYSIS DATA SHEET

Client: E&E

Lab Name: Analytical Resources, Inc.

Client's Sample Number

Matrix (soil/water): Soil

SU 1-2

Lab Sample ID: 8339 B

% Solids: 87.73

Date Received: 05/22/91

Concentration Units (ug/L or mg/kg dry weight): mg/kg-dry

CAS No.	Analyte	Concentration	C
7429-90-5	Aluminum	13600	H
7440-36-0	Antimony	5.7	
7440-38-2	Arsenic	10.2	
7440-39-3	Barium	747	u H
7440-41-7	Beryllium	0.59	
7440-43-9	Cadmium	0.96	
7440-70-2	Calcium	2830	J
7440-47-3	Chromium	303	
7440-48-4	Cobalt	7.7	
7440-50-8	Copper	94.5	H
7439-89-6	Iron	42000	
7439-92-1	Lead	156	
7439-95-4	Magnesium	2340	J
7439-96-5	Manganese	606	
7439-97-6	Mercury		
7440-02-0	Nickel	84.4	H
7440-09-7	Potassium	889	
7782-49-2	Selenium	4.7	
7440-22-4	Silver	0.25	J
7440-23-5	Sodium	2180	
7440-28-0	Thallium	17.7	
7440-62-2	Vanadium	29.2	J
7440-66-6	Zinc	192	
	Cyanide		

MTCA

Background

130.

12.81

31.31

25,270

16.17

30.1

Color Before:

Clarity Before:

Texture:

Color After:

Clarity After:

Artifacts:

Comments:

6/25/91

INORGANIC ANALYSIS DATA SHEET

Client: E&E

Lab Name: Analytical Resources, Inc.

Client's Sample Number

Matrix (soil/water): Soil

SU 1-3

Lab Sample ID: 8339 C

% Solids: 89.02

Date Received: 05/22/91

Concentration Units (ug/L or mg/kg dry weight): mg/kg-dry

CAS No.	Analyte	Concentration	C
7429-90-5	Aluminum	10100	44
7440-36-0	Antimony	4.5	44
7440-38-2	Arsenic	7.9	44
7440-39-3	Barium	895	44
7440-41-7	Beryllium	0.36	44
7440-43-9	Cadmium	0.41	44
7440-70-2	Calcium	3360	44
7440-47-3	Chromium	220	44
7440-48-4	Cobalt	4.3	44
7440-50-8	Copper	111	44
7439-89-6	Iron	37000	44
7439-92-1	Lead	39.5	44
7439-95-4	Magnesium	2000	44
7439-96-5	Manganese	601	44
7439-97-6	Mercury	80.8	44
7440-02-0	Nickel	533	44
7440-09-7	Potassium	3.9	44
7782-49-2	Selenium	0.23	44
7440-22-4	Silver	2770	44
7440-23-5	Sodium	22.4	44
7440-28-0	Thallium	18.9	44
7440-62-2	Vanadium	94.5	44
7440-66-6	Zinc		44
	Cyanide		

MTCA

Substance

15.91

21.61

25,026

16.7

Color Before:

Clarity Before:

Texture:

Color After:

Clarity After:

Artifacts:

Comments:

12-16-91

INORGANIC ANALYSIS DATA SHEET

Client: E&E

Lab Name: Analytical Resources, Inc.

Client's Sample Number

Matrix (soil/water): Soil

SU 2-1

Lab Sample ID: 8339 D

% Solids: 89.23

Date Received: 05/22/91

Concentration Units (ug/L or mg/kg dry weight): mg/kg-dry

CAS No.	Analyte	Concentration	C
7429-90-5	Aluminum	9840	
7440-36-0	Antimony	4.1	U
7440-38-2	Arsenic	5.3	
7440-39-3	Barium	826	
7440-41-7	Beryllium	0.39	U
7440-43-9	Cadmium	0.41	U
7440-70-2	Calcium	4400	
7440-47-3	Chromium	57.1	
7440-48-4	Cobalt	2.0	U
7440-50-8	Copper	88.0	
7439-89-6	Iron	15200	
7439-92-1	Lead	37.1	
7439-95-4	Magnesium	2110	
7439-96-5	Manganese	238	
7439-97-6	Mercury		
7440-02-0	Nickel	28.5	
7440-09-7	Potassium	538	
7782-49-2	Selenium	4.1	U
7440-22-4	Silver	0.25	U
7440-23-5	Sodium	3390	
7440-28-0	Thallium	9.9	
7440-62-2	Vanadium	12.8	
7440-66-6	Zinc	80.1	
	Cyanide		

*Background**13.14**36.4*

Color Before:

Clarity Before:

Texture:

Color After:

Clarity After:

Artifacts:

Comments:

- 6-26-91

INORGANIC ANALYSIS DATA SHEET

Client: E&E

Lab Name: Analytical Resources, Inc.

Client's Sample Number

Matrix (soil/water): Soil

SU 2-3

Lab Sample ID: 8339 F

% Solids: 89.48

Date Received: 05/22/91

Concentration Units (ug/L or mg/kg dry weight): mg/kg-dry

CAS No.	Analyte	Concentration	C
7429-90-5	Aluminum	9310	J
7440-36-0	Antimony	4.7	U R
7440-38-2	Arsenic	10.2	
7440-39-3	Barium	331	
7440-41-7	Beryllium	0.34	U J
7440-43-9	Cadmium	0.32	U J
7440-70-2	Calcium	9410	
7440-47-3	Chromium	79.7	
7440-48-4	Cobalt	4.7	J
7440-50-8	Copper	54.4	
7439-89-6	Iron	21600	
7439-92-1	Lead	38.0	
7439-95-4	Magnesium	4720	J
7439-96-5	Manganese	364	
7439-97-6	Mercury		
7440-02-0	Nickel	73.7	
7440-09-7	Potassium	1180	
7782-49-2	Selenium	4.7	U
7440-22-4	Silver	0.28	U
7440-23-5	Sodium	1260	
7440-28-0	Thallium	10.4	
7440-62-2	Vanadium	12.8	
7440-66-6	Zinc	70.5	J
	Cyanide		

Color Before:

Clarity Before:

Texture:

Color After:

Clarity After:

Artifacts:

Comments:

INORGANIC ANALYSIS DATA SHEET

Client: E&E

Lab Name: Analytical Resources, Inc.

Client's Sample Number

Matrix (soil/water): Soil

SU 2-2

Lab Sample ID: 8339 E

% Solids: 97.75

Date Received: 05/22/91

Concentration Units (ug/L or mg/kg dry weight): mg/kg-dry

CAS No.	Analyte	Concentration	C
7429-90-5	Aluminum	2140	
7440-36-0	Antimony	3.0	U
7440-38-2	Arsenic	3.0	U
7440-39-3	Barium	79.6	
7440-41-7	Beryllium	0.059	U
7440-43-9	Cadmium	0.12	U
7440-70-2	Calcium	600	
7440-47-3	Chromium	215	
7440-48-4	Cobalt	1.5	U
7440-50-8	Copper	28.6	
7439-89-6	Iron	11400	
7439-92-1	Lead	6.7	
7439-95-4	Magnesium	396	
7439-96-5	Manganese	124	
7439-97-6	Mercury		
7440-02-0	Nickel	25.3	
7440-09-7	Potassium	116	
7782-49-2	Selenium	3.0	U
7440-22-4	Silver	0.18	U
7440-23-5	Sodium	879	
7440-28-0	Thallium	6.6	
7440-62-2	Vanadium	7.4	
7440-66-6	Zinc	13.7	
	Cyanide		

Color Before:

Clarity Before:

Texture:

Color After:

Clarity After:

Artifacts:

Comments:

INORGANIC ANALYSIS DATA SHEET

Client: E&E

Lab Name: Analytical Resources, Inc.

Client's Sample Number

Matrix (soil/water): Soil

SU 3-1

Lab Sample ID: 8339 G

% Solids: 86.60

Date Received: 05/22/91

Concentration Units (ug/L or mg/kg dry weight): mg/kg-dry

CAS No.	Analyte	Concentration	C
7429-90-5	Aluminum	8160	J
7440-36-0	Antimony	4.0	U R
7440-38-2	Arsenic	4.0	U
7440-39-3	Barium	754	
7440-41-7	Beryllium	0.39	U J
7440-43-9	Cadmium	0.35	U J
7440-70-2	Calcium	3530	
7440-47-3	Chromium	66.3	
7440-48-4	Cobalt	1.8	U J
7440-50-8	Copper	87.7	
7439-89-6	Iron	14000	
7439-92-1	Lead	36.3	
7439-95-4	Magnesium	1790	J
7439-96-5	Manganese	229	
7439-97-6	Mercury		
7440-02-0	Nickel	32.6	
7440-09-7	Potassium	521	
7782-49-2	Selenium	4.0	U
7440-22-4	Silver	0.24	U
7440-23-5	Sodium	3920	
7440-28-0	Thallium	8.3	
7440-62-2	Vanadium	10.7	
7440-66-6	Zinc	83.5	J
	Cyanide		

Color Before:

Clarity Before:

Texture:

Color After:

Clarity After:

Artifacts:

Comments:

file 6-25-91

INORGANIC ANALYSIS DATA SHEET

Client: E&E

Lab Name: Analytical Resources, Inc.

Client's Sample Number

Matrix (soil/water): Soil

SU 3-2

Lab Sample ID: 8339 H

% Solids: 93.96

Date Received: 05/22/91

Concentration Units (ug/L or mg/kg dry weight): mg/kg-dry

CAS No.	Analyte	Concentration	C
7429-90-5	Aluminum	9130	H
7440-36-0	Antimony	4.7	
7440-38-2	Arsenic	7.4	
7440-39-3	Barium	70.6	
7440-41-7	Beryllium	0.32	U
7440-43-9	Cadmium	0.16	
7440-70-2	Calcium	17000	
7440-47-3	Chromium	17.5	
7440-48-4	Cobalt	5.0	J
7440-50-8	Copper	13.4	
7439-89-6	Iron	14400	
7439-92-1	Lead	10.3	
7439-95-4	Magnesium	7720	H
7439-96-5	Manganese	299	
7439-97-6	Mercury		
7440-02-0	Nickel	6.9	
7440-09-7	Potassium	2460	U
7782-49-2	Selenium	5.3	
7440-22-4	Silver	0.25	
7440-23-5	Sodium	307	
7440-28-0	Thallium	4.1	H
7440-62-2	Vanadium	16.3	
7440-66-6	Zinc	37.6	
	Cyanide		

Color Before:

Clarity Before:

Texture:

Color After:

Clarity After:

Artifacts:

Comments:

6-75-91

INORGANIC ANALYSIS DATA SHEET

Client: E&E

Lab Name: Analytical Resources, Inc.

Client's Sample Number

Matrix (soil/water): Soil

SU 3-3

Lab Sample ID: 8339 I

% Solids: 92.78

Date Received: 05/22/91

Concentration Units (ug/L or mg/kg dry weight): mg/kg-dry

CAS No.	Analyte	Concentration	C
7429-90-5	Aluminum	10700	J
7440-36-0	Antimony	4.5	
7440-38-2	Arsenic	14.5	
7440-39-3	Barium	81.1	
7440-41-7	Beryllium	0.37	U
7440-43-9	Cadmium	0.14	
7440-70-2	Calcium	18800	J
7440-47-3	Chromium	12.4	
7440-48-4	Cobalt	5.8	
7440-50-8	Copper	18.1	
7439-89-6	Iron	16600	J
7439-92-1	Lead	13.9	
7439-95-4	Magnesium	8790	
7439-96-5	Manganese	351	
7439-97-6	Mercury		U
7440-02-0	Nickel	12.5	
7440-09-7	Potassium	1890	
7782-49-2	Selenium	4.0	
7440-22-4	Silver	0.21	J
7440-23-5	Sodium	197	
7440-28-0	Thallium	8.0	
7440-62-2	Vanadium	16.0	
7440-66-6	Zinc	50.8	J
	Cyanide		

Color Before:

Clarity Before:

Texture:

Color After:

Clarity After:

Artifacts:

Comments:

Handwritten: 7439-95-4

INORGANIC ANALYSIS DATA SHEET

Client: E&E

Lab Name: Analytical Resources, Inc.

Client's Sample Number

Matrix (soil/water): Soil

SU 3-3A

Lab Sample ID: 8339 J

% Solids: 92.19

Date Received: 05/22/91

Concentration Units (ug/L or mg/kg dry weight): mg/kg-dry

CAS No.	Analyte	Concentration	C
7429-90-5	Aluminum	10100	H
7440-36-0	Antimony	4.6	
7440-38-2	Arsenic	14.2	
7440-39-3	Barium	78.7	U
7440-41-7	Beryllium	0.35	
7440-43-9	Cadmium	0.13	
7440-70-2	Calcium	15200	H
7440-47-3	Chromium	13.9	
7440-48-4	Cobalt	5.0	
7440-50-8	Copper	22.5	U
7439-89-6	Iron	15200	
7439-92-1	Lead	14.6	
7439-95-4	Magnesium	8450	U
7439-96-5	Manganese	378	
7439-97-6	Mercury		
7440-02-0	Nickel	11.2	H
7440-09-7	Potassium	1850	
7782-49-2	Selenium	3.3	
7440-22-4	Silver	0.20	H
7440-23-5	Sodium	210	
7440-28-0	Thallium	9.2	
7440-62-2	Vanadium	13.5	H
7440-66-6	Zinc	44.0	
	Cyanide		

Color Before:

Clarity Before:

Texture:

Color After:

Clarity After:

Artifacts:

Comments:

5/26/91

INORGANIC ANALYSIS DATA SHEET

Client: E&E

Lab Name: Analytical Resources, Inc.

Client's Sample Number

Matrix (soil/water): Soil

SU 4-1

Lab Sample ID: 8339 K

% Solids: 89.61

Date Received: 05/22/91

Concentration Units (ug/L or mg/kg dry weight): mg/kg-dry

CAS No.	Analyte	Concentration	C
7429-90-5	Aluminum	10400	J
7440-36-0	Antimony	3.4	U R
7440-38-2	Arsenic	4.3	
7440-39-3	Barium	746	
7440-41-7	Beryllium	0.43	U J
7440-43-9	Cadmium	0.42	U J
7440-70-2	Calcium	3360	
7440-47-3	Chromium	53.6	
7440-48-4	Cobalt	2.1	U J
7440-50-8	Copper	85.1	
7439-89-6	Iron	17700	
7439-92-1	Lead	36.2	
7439-95-4	Magnesium	2330	J
7439-96-5	Manganese	266	
7439-97-6	Mercury		
7440-02-0	Nickel	29.8	
7440-09-7	Potassium	559	
7782-49-2	Selenium	3.4	U
7440-22-4	Silver	0.21	U
7440-23-5	Sodium	3690	
7440-28-0	Thallium	9.8	
7440-62-2	Vanadium	12.9	
7440-66-6	Zinc	76.8	J
	Cyanide		

Background

Color Before:

Clarity Before:

Texture:

Color After:

Clarity After:

Artifacts:

Comments:

[Signature] 6-25-91

INORGANIC ANALYSIS DATA SHEET

Client: E&E

Lab Name: Analytical Resources, Inc.

Client's Sample Number

Matrix (soil/water): Soil

SU 4-2

Lab Sample ID: 8339 L

% Solids: 95.42

Date Received: 05/22/91

Concentration Units (ug/L or mg/kg dry weight): mg/kg-dry

CAS No.	Analyte	Concentration	C
7429-90-5	Aluminum	2240	
7440-36-0	Antimony	4.0	U
7440-38-2	Arsenic	4.0	U
7440-39-3	Barium	75.2	
7440-41-7	Beryllium	0.081	U
7440-43-9	Cadmium	0.16	U
7440-70-2	Calcium	525	
7440-47-3	Chromium	159	
7440-48-4	Cobalt	1.8	U
7440-50-8	Copper	47.0	
7439-89-6	Iron	12100	
7439-92-1	Lead	8.8	
7439-95-4	Magnesium	380	J
7439-96-5	Manganese	147	
7439-97-6	Mercury		
7440-02-0	Nickel	43.7	
7440-09-7	Potassium	100	J
7782-49-2	Selenium	4.0	U
7440-22-4	Silver	0.24	U
7440-23-5	Sodium	574	
7440-28-0	Thallium	6.6	
7440-62-2	Vanadium	4.4	
7440-66-6	Zinc	84.9	J
	Cyanide		

Color Before:

Clarity Before:

Texture:

Color After:

Clarity After:

Artifacts:

Comments:

INORGANIC ANALYSIS DATA SHEET

Client: E&E

Lab Name: Analytical Resources, Inc.

Client's Sample Number

Matrix (soil/water): Soil

SU 4-3

Lab Sample ID: 8339 M

% Solids: 89.33

Date Received: 05/22/91

Concentration Units (ug/L or mg/kg dry weight): mg/kg-dry

CAS No.	Analyte	Concentration	C
7429-90-5	Aluminum	17100	
7440-36-0	Antimony	4.1	U
7440-38-2	Arsenic	8.3	
7440-39-3	Barium	133	
7440-41-7	Beryllium	0.53	U
7440-43-9	Cadmium	0.17	U
7440-70-2	Calcium	4800	
7440-47-3	Chromium	26.2	
7440-48-4	Cobalt	6.4	
7440-50-8	Copper	19.9	
7439-89-6	Iron	19400	
7439-92-1	Lead	39.4	
7439-95-4	Magnesium	7190	
7439-96-5	Manganese	493	
7439-97-6	Mercury		
7440-02-0	Nickel	11.3	
7440-09-7	Potassium	2610	
7782-49-2	Selenium	4.8	
7440-22-4	Silver	0.25	U
7440-23-5	Sodium	289	
7440-28-0	Thallium	7.6	
7440-62-2	Vanadium	26.9	
7440-66-6	Zinc	79.0	
	Cyanide		

Color Before:

Clarity Before:

Texture:

Color After:

Clarity After:

Artifacts:

Comments:



ORGANICS ANALYSIS DATA SHEET
Volatiles by Method 624/8240

Sample No: SU 1-2

ANALYTICAL
RESOURCES
INCORPORATED

Lab ID: 8339 B
Matrix: Soil/Sediments

QC Report No: 8339-Ecology & Environmental
Project No: WZ 6030
Old Inlet Pit

Analytical
Chemists &
Consultants

333 Ninth Ave. North
Seattle, WA 98109-5181
(206) 621-6490
(206) 621-7523 (FAX)

Data Release Authorized: [Signature]
Report prepared: 06/10/91 - MAC:D jv

Date Received: 05/22/91
Amount Analyzed: 4.6 g (Dry wt.)
Percent Moisture: 10.1%
pH: NA

Instrument: FINN I
Date Analyzed: 05/28/91

CAS Number		µg/Kg
74-87-3	Chloromethane	2.2 U
74-83-9	Bromomethane	2.2 U
75-01-4	Vinyl Chloride	3.3 U
75-00-3	Chloroethane	3.3 U
75-09-2	Methylene Chloride	1.3
67-64-1	Acetone	3.3 U
75-15-0	Carbon Disulfide	2.2 U
75-35-4	1,1-Dichloroethene	1.1 U
75-34-3	1,1-Dichloroethane	1.1 U
540-59-0	1,2-Dichloroethene (total)	1.1 U
67-66-3	Chloroform	1.1 U
107-06-2	1,2-Dichloroethane	2.2 U
78-93-3	2-Butanone	8.2 U
71-55-6	1,1,1-Trichloroethane	1.1 U
56-23-5	Carbon Tetrachloride	2.2 U
108-05-4	Vinyl Acetate	2.2 U
75-27-4	Bromodichloromethane	1.1 U
75-69-4	Trichlorofluoromethane	2.2 U

CAS Number		µg/Kg
78-87-5	1,2-Dichloropropane	1.1 U
10061-02-6	Trans-1,3-Dichloropropene	2.2 U
79-01-6	Trichloroethene	1.1 U
124-48-1	Dibromochloromethane	1.1 U
79-00-5	1,1,2-Trichloroethane	1.1 U
71-43-2	Benzene	1.1 U
10061-01-5	cis-1,3-Dichloropropene	1.1 U
110-75-8	2-Chloroethylvinylether	2.2 U
75-25-2	Bromoform	3.3 U
108-10-1	4-Methyl-2-Pentanone	2.2 U
591-78-6	2-Hexanone	2.2 U
127-18-4	Tetrachloroethene	1.1 U
79-34-5	1,1,2,2-Tetrachloroethane	2.2 U
108-88-3	Toluene	0.7 J
108-90-7	Chlorobenzene	1.1 U
100-41-4	Ethylbenzene	1.1 U
100-42-5	Styrene	1.1 U
1330-20-7	Total Xylenes	2.2 U
	1,1,2-Trichloro-1,2,2-trifluoroethane	2.2 U

Surrogate Recoveries

d8-Toluene	103%
Bromofluorobenzene	83.0%
d4-1,2-Dichloroethane	95.2%

QC Limits

81-117
74-121
70-121

- Jo- 6 25-91

Data Reporting Qualifiers

Value If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected at the given detection limit.

J Indicates an estimated value when result is less than specified detection limit.

NR Analysis not required.

B This flag is used when the analyte is found in the blank as well as a sample. Indicates possible/probable blank contamination.

K This flag is used when quantitated value falls above the limit of the calibration curve and dilution should be run.

M Indicates an estimated value of analyte found and confirmed by analyst but with low spectral match parameters.

ORGANICS ANALYSIS DATA SHEET
Volatiles by Method 624/8240



Sample No: SU 1-3

ANALYTICAL
RESOURCES
INCORPORATED

Lab ID: 8339 C
Matrix: Soil/Sediments

QC Report No: 8339-Ecology & Environmental
Project No: WZ 6030
Old Inlet Pit

Analytical
Chemists &
Consultants

333 Ninth Ave. North
Seattle, WA 98109-5187
(206) 621-6490
(206) 621-7523 (FAX)

Data Release Authorized: *[Signature]*

Report prepared: 06/10/91 - MAC:Djv

Date Received: 05/22/91
Amount Analyzed: 4.6 g (Dry wt.)
Percent Moisture: 9.9%
pH: NA

Instrument: FINN I
Date Analyzed: 05/28/91

CAS Number		µg/Kg
74-87-3	Chloromethane	2.2 U
74-83-9	Bromomethane	2.2 U
75-01-4	Vinyl Chloride	3.2 U
75-00-3	Chloroethane	3.2 U
75-09-2	Methylene Chloride	1.6
67-64-1	Acetone	3.2 U
75-15-0	Carbon Disulfide	2.2 U
75-35-4	1,1-Dichloroethene	1.1 U
75-34-3	1,1-Dichloroethane	1.1 U
540-59-0	1,2-Dichloroethene (total)	1.1 U
67-66-3	Chloroform	1.1 U
107-06-2	1,2-Dichloroethane	2.2 U
78-93-3	2-Butanone	8.1 U
71-55-6	1,1,1-Trichloroethane	1.1 U
56-23-5	Carbon Tetrachloride	2.2 U
108-05-4	Vinyl Acetate	2.2 U
75-27-4	Bromodichloromethane	1.1 U
75-69-4	Trichlorofluoromethane	2.2 U

CAS Number		µg/Kg
78-87-5	1,2-Dichloropropane	1.1 U
10061-02-6	Trans-1,3-Dichloropropene	2.2 U
79-01-6	Trichloroethene	1.1 U
124-48-1	Dibromochloromethane	1.1 U
79-00-5	1,1,2-Trichloroethane	1.1 U
71-43-2	Benzene	1.1 U
10061-01-5	cis-1,3-Dichloropropene	1.1 U
110-75-8	2-Chloroethylvinylether	2.2 U
75-25-2	Bromoform	3.2 U
108-10-1	4-Methyl-2-Pentanone	2.2 U
591-78-6	2-Hexanone	2.2
127-18-4	Tetrachloroethene	1.1 U
79-34-5	1,1,2,2-Tetrachloroethane	2.2 U
108-88-3	Toluene	1.2
108-90-7	Chlorobenzene	1.1 U
100-41-4	Ethylbenzene	1.1 U
100-42-5	Styrene	1.1 U
1330-20-7	Total Xylenes	0.6 M
	1,1,2-Trichloro-1,2,2-trifluoroethane	2.2 U

Surrogate Recoveries

d8-Toluene	106%
Bromofluorobenzene	82.8%
d4-1,2-Dichloroethane	96.8%

QC Limits

81-117
74-121
70-121

Handwritten note: 6-25-91

Data Reporting Qualifiers

Value If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected at the given detection limit.

J Indicates an estimated value when result is less than specified detection limit.

NR Analysis not required.

B This flag is used when the analyte is found in the blank as well as a sample. Indicates possible/probable blank contamination.

K This flag is used when quantitated value falls above the limit of the calibration curve and dilution should be run.

M Indicates an estimated value of analyte found and confirmed by analyst but with low spectral match parameters.

ORGANICS ANALYSIS DATA SHEET
Volatiles by Method 624/8240



Sample No: SU 3-2

ANALYTICAL
RESOURCES
INCORPORATED

Lab ID: 8339 H
Matrix: Soil/Sediments

QC Report No: 8339-Ecology & Environmental Consultants
Project No: WZ 6030
Old Inlet Pit

Analytical
Chemists &
Consultants
333 Ninth Ave. North
Seattle, WA 98109-518
(206) 621-6490
(206) 621-7523 (FAX)

Data Release Authorized: [Signature]
Report prepared: 06/10/91 - MAC:DJV

Date Received: 05/22/91
Amount Analyzed: 5.1 g (Dry wt.)
Percent Moisture: 2.7%
pH: NA

Instrument: FINN I
Date Analyzed: 05/28/91

CAS Number		µg/Kg
74-87-3	Chloromethane	2.0 U
74-83-9	Bromomethane	2.0 U
75-01-4	Vinyl Chloride	3.0 U
75-00-3	Chloroethane	3.0 U
75-09-2	Methylene Chloride	1.3
67-64-1	Acetone	4.9
75-15-0	Carbon Disulfide	2.0 U
75-35-4	1,1-Dichloroethene	1.0 U
75-34-3	1,1-Dichloroethane	1.0 U
540-59-0	1,2-Dichloroethene (total)	1.0 U
67-66-3	Chloroform	1.0 U
107-06-2	1,2-Dichloroethane	2.0 U
78-93-3	2-Butanone	7.4 U
71-55-6	1,1,1-Trichloroethane	1.0 U
56-23-5	Carbon Tetrachloride	2.0 U
108-05-4	Vinyl Acetate	2.0 U
75-27-4	Bromodichloromethane	1.0 U
75-69-4	Trichlorofluoromethane	2.0 U

CAS Number		µg/Kg
78-87-5	1,2-Dichloropropane	1.0 U
10061-02-6	Trans-1,3-Dichloropropene	2.0 U
79-01-6	Trichloroethene	1.0 U
124-48-1	Dibromochloromethane	1.0 U
79-00-5	1,1,2-Trichloroethane	1.0 U
71-43-2	Benzene	1.0 U
10061-01-5	cis-1,3-Dichloropropene	1.0 U
110-75-8	2-Chloroethylvinylether	2.0 U
75-25-2	Bromoform	3.0 U
108-10-1	4-Methyl-2-Pentanone	2.0 U
591-78-6	2-Hexanone	2.0 U
127-18-4	Tetrachloroethene	1.0 U
79-34-5	1,1,2,2-Tetrachloroethane	2.0 U
108-88-3	Toluene	1.0 U
108-90-7	Chlorobenzene	1.0 U
100-41-4	Ethylbenzene	1.0 U
100-42-5	Styrene	2.0 U
1330-20-7	Total Xylenes	2.0 U
	1,1,2-Trichloro-1,2,2-trifluoroethane	2.0 U

Surrogate Recoveries

d8-Toluene	96.1%
Bromofluorobenzene	95.8%
d4-1,2-Dichloroethane	94.4%

QC Limits

81-117
74-121
70-121

Sci) 6-25-91

Data Reporting Qualifiers

Value If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected at the given detection limit.

J Indicates an estimated value when result is less than specified detection limit.

NR Analysis not required.

B This flag is used when the analyte is found in the blank as well as a sample. Indicates possible/probable blank contamination.

K This flag is used when quantitated value falls above the limit of the calibration curve and dilution should be run.

M Indicates an estimated value of analyte found and confirmed by analyst but with low spectral match parameters.

ORGANICS ANALYSIS DATA SHEET
Volatiles by Method 624/8240



Sample No: SU 3-3

ANALYTICAL
RESOURCES
INCORPORATED

Lab ID: 83391
Matrix: Soil/Sediments

QC Report No: 8339-Ecology & Environmental Consultants
Project No: WZ 6030
Old Inlet Pit

Analytical
Chemists &
Consultants
333 Ninth Ave. North
Seattle, WA 98109-5187
(206) 621-6490
(206) 621-7523 (FAX)

Data Release Authorized: [Signature]
Report prepared: 06/10/91 - MAC:Djv

Date Received: 05/22/91
Amount Analyzed: 4.7 g (Dry wt.)
Percent Moisture: 7.4%
pH: NA

Instrument: FINN I
Date Analyzed: 05/28/91

CAS Number		µg/Kg
74-87-3	Chloromethane	2.1 U
74-83-9	Bromomethane	2.1 U
75-01-4	Vinyl Chloride	3.2 U
75-00-3	Chloroethane	3.2 U
75-09-2	Methylene Chloride	2.2
67-64-1	Acetone	4.2 J
75-15-0	Carbon Disulfide	2.1 U
75-35-4	1,1-Dichloroethene	1.1 U
75-34-3	1,1-Dichloroethane	1.1 U
540-59-0	1,2-Dichloroethene (total)	1.1 U
67-66-3	Chloroform	1.1 U
107-06-2	1,2-Dichloroethane	2.1 U
78-93-3	2-Butanone	7.9 U
71-55-6	1,1,1-Trichloroethane	1.1 U
56-23-5	Carbon Tetrachloride	2.1 U
108-05-4	Vinyl Acetate	2.1 U
75-27-4	Bromodichloromethane	1.1 U
75-69-4	Trichlorofluoromethane	2.1 U

CAS Number		µg/Kg
78-87-5	1,2-Dichloropropane	1.1 U
10061-02-6	Trans-1,3-Dichloropropene	2.1 U
79-01-6	Trichloroethene	1.1 U
124-48-1	Dibromochloromethane	1.1 U
79-00-5	1,1,2-Trichloroethane	1.1 U
71-43-2	Benzene	1.1 U
10061-01-5	cis-1,3-Dichloropropene	1.1 U
110-75-8	2-Chloroethylvinylether	2.1 U
75-25-2	Bromoform	3.2 U
108-10-1	4-Methyl-2-Pentanone	2.1 U
591-78-6	2-Hexanone	2.
127-18-4	Tetrachloroethene	1.1
79-34-5	1,1,2,2-Tetrachloroethane	2.1 U
108-88-3	Toluene	1.1 U
108-90-7	Chlorobenzene	1.1 U
100-41-4	Ethylbenzene	1.1 U
100-42-5	Styrene	2.1 U
1330-20-7	Total Xylenes	2.1 U
	1,1,2-Trichloro-1,2,2-trifluoroethane	2.1 U

Surrogate Recoveries

d8-Toluene	96.5%
Bromofluorobenzene	96.8%
d4-1,2-Dichloroethane	94.7%

QC Limits

81-117
74-121
70-121

10-6-25-91

Data Reporting Qualifiers

Value If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected at the given detection limit.

J Indicates an estimated value when result is less than specified detection limit.

NR Analysis not required.

B This flag is used when the analyte is found in the blank as well as a sample. Indicates possible/probable blank contamination.

K This flag is used when quantitated value falls above the limit of the calibration curve and dilution should be run.

M Indicates an estimated value of analyte found and confirmed by analyst but with low spectral match parameters.

ORGANICS ANALYSIS DATA SHEET
Volatiles by Method 624/8240



Sample No: SU 3-3A

ANALYTICAL
RESOURCES
INCORPORATED

Lab ID: 8339 J
Matrix: Soil/Sediments

QC Report No: 8339-Ecology & Environmental Consultants
Project No: WZ 6030
Old Inlet Pit

Analytical
Chemists &
Consultants
333 Ninth Ave. North
Seattle, WA 98109-5187
(206) 621-6490
(206) 621-7523 (FAX)

Data Release Authorized: [Signature]
Report prepared: 06/10/91 - MAC:DJV

Date Received: 05/22/91
Amount Analyzed: 4.7 g (Dry wt.)
Percent Moisture: 5.8%
pH: NA

Instrument: FINN I
Date Analyzed: 05/29/91

CAS Number		µg/Kg
74-87-3	Chloromethane	2.1 U
74-83-9	Bromomethane	2.1 U
75-01-4	Vinyl Chloride	3.2 U
75-00-3	Chloroethane	3.2 U
75-09-2	Methylene Chloride	3.7 U
67-64-1	Acetone	3.2 U
75-15-0	Carbon Disulfide	2.1 U
75-35-4	1,1-Dichloroethene	1.1 U
75-34-3	1,1-Dichloroethane	1.1 U
540-59-0	1,2-Dichloroethene (total)	1.1 U
67-66-3	Chloroform	1.1 U
107-06-2	1,2-Dichloroethane	2.1 U
78-93-3	2-Butanone	7.9 U
71-55-6	1,1,1-Trichloroethane	1.1 U
56-23-5	Carbon Tetrachloride	2.1 U
108-05-4	Vinyl Acetate	2.1 U
75-27-4	Bromodichloromethane	1.1 U
75-69-4	Trichlorofluoromethane	2.1 U

CAS Number		µg/Kg
78-87-5	1,2-Dichloropropane	1.1 U
10061-02-6	Trans-1,3-Dichloropropene	2.1 U
79-01-6	Trichloroethene	1.1 U
124-48-1	Dibromochloromethane	1.1 U
79-00-5	1,1,2-Trichloroethane	1.1 U
71-43-2	Benzene	1.1 U
10061-01-5	cis-1,3-Dichloropropene	1.1 U
110-75-8	2-Chloroethylvinylether	2.1 U
75-25-2	Bromoform	3.2 U
108-10-1	4-Methyl-2-Pentanone	2.1 U
591-78-6	2-Hexanone	2.1 U
127-18-4	Tetrachloroethene	1.1 U
79-34-5	1,1,2,2-Tetrachloroethane	2.1 U
108-88-3	Toluene	1.1 U
108-90-7	Chlorobenzene	1.1 U
100-41-4	Ethylbenzene	1.1 U
100-42-5	Styrene	1.1 U
1330-20-7	Total Xylenes	2.1 U
	1,1,2-Trichloro-1,2,2-trifluoroethane	2.1 U

Surrogate Recoveries

d8-Toluene	98.8%
Bromofluorobenzene	94.2%
d4-1,2-Dichloroethane	99.8%

QC Limits

81-117
74-121
70-121

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Data Reporting Qualifiers

Value If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected at the given detection limit.

J Indicates an estimated value when result is less than specified detection limit.

NR Analysis not required.

B This flag is used when the analyte is found in the blank as well as a sample. Indicates possible/probable blank contamination.

K This flag is used when quantitated value falls above the limit of the calibration curve and dilution should be run.

M Indicates an estimated value of analyte found and confirmed by analyst but with low spectral match parameters.



ORGANICS ANALYSIS DATA SHEET
Volatiles by Method 624/8240

Sample No: SU 4-1

ANALYTICAL
RESOURCES
INCORPORATED

Analytical
Chemists &

Lab ID: 8339 K
Matrix: Soil/Sediments

QC Report No: 8339-Ecology & Environmental Consultants
Project No: WZ 6030
Old Inlet Pit

333 Ninth Ave. North
Seattle, WA 98109-5187
(206) 621-6490
(206) 621-7523 (FAX)

Data Release Authorized: *Ann T. Lefu*

Report prepared: 06/10/91 - MAC:D JV

Date Received: 05/22/91

Amount Analyzed: 4.5 g (Dry wt.)

Percent Moisture: 12.1%

pH: NA

Instrument: FINN I
Date Analyzed: 05/29/91

CAS Number		µg/Kg
74-87-3	Chloromethane	2.2 U
74-83-9	Bromomethane	2.2 U
75-01-4	Vinyl Chloride	3.3 U
75-00-3	Chloroethane	3.3 U
75-09-2	Methylene Chloride	3.1 U
67-64-1	Acetone	3.3 U
75-15-0	Carbon Disulfide	2.2 U
75-35-4	1,1-Dichloroethene	1.1 U
75-34-3	1,1-Dichloroethane	1.1 U
540-59-0	1,2-Dichloroethene (total)	1.1 U
67-66-3	Chloroform	1.1 U
107-06-2	1,2-Dichloroethane	2.2 U
78-93-3	2-Butanone	8.3 U
71-55-6	1,1,1-Trichloroethane	1.1 U
56-23-5	Carbon Tetrachloride	2.2 U
108-05-4	Vinyl Acetate	2.2 U
75-27-4	Bromodichloromethane	1.1 U
75-69-4	Trichlorofluoromethane	2.2 U

CAS Number		µg/Kg
78-87-5	1,2-Dichloropropane	1.1 U
10061-02-6	Trans-1,3-Dichloropropene	2.2 U
79-01-6	Trichloroethene	1.1 U
124-48-1	Dibromochloromethane	1.1 U
79-00-5	1,1,2-Trichloroethane	1.1 U
71-43-2	Benzene	1.1 U
10061-01-5	cis-1,3-Dichloropropene	1.1 U
110-75-8	2-Chloroethylvinylether	2.2 U
75-25-2	Bromoform	3.3 U
108-10-1	4-Methyl-2-Pentanone	1.1 U
591-78-6	2-Hexanone	1.1 U
127-18-4	Tetrachloroethene	1.1 U
79-34-5	1,1,2,2-Tetrachloroethane	2.2 U
108-88-3	Toluene	1.5 U
108-90-7	Chlorobenzene	0.8 U
100-41-4	Ethylbenzene	1.1 U
100-42-5	Styrene	1.1 U
1330-20-7	Total Xylenes	2.2 U
	1,1,2-Trichloro-1,2,2-trifluoroethane	2.2 U

Surrogate Recoveries

d8-Toluene	108%
Bromofluorobenzene	85.3%
d4-1,2-Dichloroethane	101%

QC Limits

81-117
74-121
70-121

by 6-25-91

Data Reporting Qualifiers

Value If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected at the given detection limit.

J Indicates an estimated value when result is less than specified detection limit.

NR Analysis not required.

B This flag is used when the analyte is found in the blank as well as a sample. Indicates possible/probable blank contamination.

K This flag is used when quantitated value falls above the limit of the calibration curve and dilution should be run.

M Indicates an estimated value of analyte found and confirmed by analyst but with low spectral match parameters.

ORGANICS ANALYSIS DATA SHEET
Volatiles by Method 624/8240



Sample No: SU 4-2

ANALYTICAL
RESOURCES
INCORPORATED

Lab ID: 8339 L
Matrix: Soil/Sediments

QC Report No: 8339-Ecology & Environmental Consultants
Project No: WZ 6030
Old Inlet Pit

Analytical
Chemists &
333 Ninth Ave North
Seattle, WA 98109-518
(206) 621-6490
(206) 621-7523 (FAX)

Data Release Authorized: *[Signature]*
Report prepared: 06/10/91 - MAC:D JV

Date Received: 05/22/91
Amount Analyzed: 4.9 g (Dry wt.)
Percent Moisture: 4.2%
pH: NA

Instrument: FINN I
Date Analyzed: 05/29/91

CAS Number		µg/Kg
74-87-3	Chloromethane	2.0 U
74-83-9	Bromomethane	2.0 U
75-01-4	Vinyl Chloride	3.1 U
75-00-3	Chloroethane	3.1 U
75-09-2	Methylene Chloride	1.9 UJ
67-64-1	Acetone	68 J
75-15-0	Carbon Disulfide	2.0 U
75-35-4	1,1-Dichloroethene	1.0 U
75-34-3	1,1-Dichloroethane	1.0 U
540-59-0	1,2-Dichloroethene (total)	1.0 U
67-66-3	Chloroform	1.0 U
107-06-2	1,2-Dichloroethane	2.0 U
78-93-3	2-Butanone	7.6 U
71-55-6	1,1,1-Trichloroethane	1.0 U
56-23-5	Carbon Tetrachloride	2.0 U
108-05-4	Vinyl Acetate	2.0 U
75-27-4	Bromodichloromethane	1.0 U
75-69-4	Trichlorofluoromethane	2.0 U

CAS Number		µg/Kg
78-87-5	1,2-Dichloropropane	1.0 U
10061-02-6	Trans-1,3-Dichloropropene	2.0 U
79-01-6	Trichloroethene	1.0 U
124-48-1	Dibromochloromethane	1.0 U
79-00-5	1,1,2-Trichloroethane	1.0 U
71-43-2	Benzene	1.0 U
10061-01-5	cis-1,3-Dichloropropene	1.0 U
110-75-8	2-Chloroethylvinylether	2.0 U
75-25-2	Bromoform	3.1 U
108-10-1	4-Methyl-2-Pentanone	2.0 U
591-78-6	2-Hexanone	2.0 U
127-18-4	Tetrachloroethene	1.0 U
79-34-5	1,1,2,2-Tetrachloroethane	2.0 U
108-88-3	Toluene	0.7 M
108-90-7	Chlorobenzene	1.0 U
100-41-4	Ethylbenzene	1.0 U
100-42-5	Styrene	1.0 U
1330-20-7	Total Xylenes	2.0 U
	1,1,2-Trichloro-1,2,2-trifluoroethane	2.0 U

Surrogate Recoveries

d8-Toluene	101%
Bromofluorobenzene	88.7%
d4-1,2-Dichloroethane	101%

QC Limits

81-117
74-121
70-121

See 6-25-91

Data Reporting Qualifiers

Value If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected at the given detection limit.

J Indicates an estimated value when result is less than specified detection limit.

NR Analysis not required.

B This flag is used when the analyte is found in the blank as well as a sample. Indicates possible/probable blank contamination.

K This flag is used when quantitated value falls above the limit of the calibration curve and dilution should be run.

M Indicates an estimated value of analyte found and confirmed by analyst but with low spectral match parameters.

ORGANICS ANALYSIS DATA SHEET
Volatiles by Method 624/8240



Sample No: SU 4-3

ANALYTICAL
RESOURCES
INCORPORATED

Lab ID: 8339 M
Matrix: Soil/Sediments

QC Report No: 8339-Ecology & Environmental Consultants
Project No: WZ 6030
Old Inlet Pit

Analytical
Chemists &
Consultants
333 Ninth Ave. North
Seattle, WA 98109-51
(206) 621-6490
(206) 621-7523 (FAX)

Data Release Authorized: *[Signature]*
Report prepared: 06/10/91 - MAC:DJV

Date Received: 05/22/91
Amount Analyzed: 4.5 g (Dry wt.)
Percent Moisture: 10.2%
pH: NA

Instrument: FINN I
Date Analyzed: 05/29/91

CAS Number		µg/Kg
74-87-3	Chloromethane	2.2 U
74-83-9	Bromomethane	2.2 U
75-01-4	Vinyl Chloride	3.3 U
75-00-3	Chloroethane	3.3 U
75-09-2	Methylene Chloride	2.5 U
67-64-1	Acetone	3.3 U
75-15-0	Carbon Disulfide	2.2 U
75-35-4	1,1-Dichloroethene	1.1 U
75-34-3	1,1-Dichloroethane	1.1 U
540-59-0	1,2-Dichloroethene (total)	1.1 U
67-66-3	Chloroform	1.1 U
107-06-2	1,2-Dichloroethane	2.2 U
78-93-3	2-Butanone	8.3 U
71-55-6	1,1,1-Trichloroethane	1.1 U
56-23-5	Carbon Tetrachloride	2.2 U
108-05-4	Vinyl Acetate	2.2 U
75-27-4	Bromodichloromethane	1.1 U
75-69-4	Trichlorofluoromethane	2.2 U

CAS Number		µg/Kg
78-87-5	1,2-Dichloropropane	1.1 U
10061-02-6	Trans-1,3-Dichloropropene	2.2 U
79-01-6	Trichloroethene	1.1 U
124-48-1	Dibromochloromethane	1.1 U
79-00-5	1,1,2-Trichloroethane	1.1 U
71-43-2	Benzene	1.1 U
10061-01-5	cis-1,3-Dichloropropene	1.1 U
110-75-8	2-Chloroethylvinylether	2.2 U
75-25-2	Bromoform	3.3 U
108-10-1	4-Methyl-2-Pentanone	2.2 U
591-78-6	2-Hexanone	1.1 U
127-18-4	Tetrachloroethene	1.1 U
79-34-5	1,1,2,2-Tetrachloroethane	2.2 U
108-88-3	Toluene	1.1 U
108-90-7	Chlorobenzene	1.1 U
100-41-4	Ethylbenzene	1.1 U
100-42-5	Styrene	1.1 U
1330-20-7	Total Xylenes	2.2 U
1,1,2-Trichloro-1,2,2-trifluoroethane		2.2 U

Surrogate Recoveries

d8-Toluene	104%
Bromofluorobenzene	87.3%
d4-1,2-Dichloroethane	99.9%

QC Limits

81-117
74-121
70-121

See 6-25-91

Data Reporting Qualifiers

Value If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected at the given detection limit.

J Indicates an estimated value when result is less than specified detection limit.

NR Analysis not required.

B This flag is used when the analyte is found in the blank as well as a sample. Indicates possible/probable blank contamination.

K This flag is used when quantitated value falls above the limit of the calibration curve and dilution should be run.

M Indicates an estimated value of analyte found and confirmed by analyst but with low spectral match parameters.



ANALYTICAL
RESOURCES
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

Semivolatiles by Methods 625/8270

Lab ID: 8339 A

Matrix: Soils/Sediments

Sample No: SU 1-1

QC Report No: 8339-Ecology & Environment

Project No: WZ 6030

Old Inland Pit

VTSR: 05/22/91

Analytical
Chemists &
Consultants

333 Ninth Ave. North
Seattle, WA 98109-518
(206) 621-6490
(206) 621-7523 (FAX)

Date Release Authorized: *Ram B. Peth*
Report prepared: 06/17/91-MAC:D jv

Date extracted: 05/31/91

Analyzed (FINN 2): 06/05/91

GPC Clean-up: Yes (1 of 2)

Sample Wt: 33.3 gm (Dry Weight)

Percent Moisture: 3.6%

pH: 9.8

Conc/Dilution: 1 to 1

CAS Number		µg/Kg
108-95-2	Phenol	180
111-44-4	bis(2-Chloroethyl)Ether	60 U
95-57-8	2-Chlorophenol	60 U
541-73-1	1,3-Dichlorobenzene	60 U
106-46-7	1,4-Dichlorobenzene	60 U
100-51-6	Benzyl Alcohol	300 U
95-50-1	1,2-Dichlorobenzene	60 U
95-48-7	2-Methylphenol	200
108-60-1	bis(2-chloroisopropyl)Ether	60 U
106-44-5	4-Methylphenol	54 J
71-64-7	N-Nitroso-Di-n-Propylamine	60 U
72-1	Hexachloroethane	120 U
95-3	Nitrobenzene	60 U
78-59-1	Isophorone	60 U
88-75-5	2-Nitrophenol	300 U
105-67-9	2,4-Dimethylphenol	120 U
65-85-0	Benzoic Acid	200 M
111-91-1	bis(2-Chloroethoxy)Methane	60 U
120-83-2	2,4-Dichlorophenol	180 U
120-82-1	1,2,4-Trichlorobenzene	60 U
91-20-3	Naphthalene	519
106-47-8	4-Chloroaniline	180 U
87-68-3	Hexachlorobutadiene	120 U
59-50-7	4-Chloro-3-Methylphenol	120 U
91-57-6	2-Methylnaphthalene	590
77-47-4	Hexachlorocyclopentadiene	300 U
88-06-2	2,4,6-Trichlorophenol	300 U
95-95-4	2,4,5-Trichlorophenol	300 U
91-58-7	2-Chloronaphthalene	60 U
88-74-4	2-Nitroaniline	300 U
131-11-3	Dimethyl Phthalate	60 U
208-96-8	Acenaphthylene	60 U
99-09-2	3-Nitroaniline	300 U

CAS Number		µg/Kg
83-32-9	Acenaphthene	41 M
51-28-5	2,4-Dinitrophenol	600 U
100-02-7	4-Nitrophenol	300 U
132-64-9	Dibenzofuran	150
121-14-2	2,4-Dinitrotoluene	300 U
606-20-2	2,6-Dinitrotoluene	300 U
84-66-2	Diethylphthalate	60 U
7005-72-3	4-Chlorophenyl-phenylether	60 U
86-73-7	Fluorene	91
100-01-6	4-Nitroaniline	300 U
534-52-1	4,6-Dinitro-2-Methylphenol	600 U
86-30-6	N-Nitrosodiphenylamine(1)	60 U
101-55-3	4-Bromophenyl-phenylether	60 U
118-74-1	Hexachlorobenzene	60 U
87-86-5	Pentachlorophenol	300
85-01-8	Phenanthrene	580
120-12-7	Anthracene	120
84-74-2	Di-n-Butylphthalate	60 U
206-44-0	Fluoranthene	150
129-00-0	Pyrene	100
85-68-7	Butylbenzylphthalate	60 U
91-94-1	3,3'-Dichlorobenzidine	300 U
56-55-3	Benzo(a)Anthracene	34 M
117-81-7	bis(2-Ethylhexyl)Phthalate	270
218-01-9	Chrysene	49 J
117-84-0	Di-n-Octyl Phthalate	60 U
205-99-2	Benzo(b)Fluoranthene	60 U
207-08-9	Benzo(k)Fluoranthene	60 U
50-32-8	Benzo(a)Pyrene	60 U
193-39-5	Indeno(1,2,3-cd)Pyrene	60 U
53-70-3	Dibenz(a,h)Anthracene	60 U
191-24-2	Benzo(ghi)Perylene	60 U

(1) Cannot be separated from diphenylamine

*Base/neutral surrogate recoveries

d5-Nitrobenzene	69.9%
2-Fluorobiphenyl	76.8%
d14-p-Terphenyl	80.3%

recycled paper

*Acid surrogate recoveries

d5-Phenol	68.1%
2-Fluorophenol	50.8%
2,4,6-Tribromophenol	81.9%

10/6-25-91



ANALYTICAL
RESOURCES
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

Semivolatiles by Methods 625/8270

Lab ID: 8339 B

Matrix: Soils/Sediments

Sample No: SU 1-2

QC Report No: 8339-Ecology & Environment

Project No: WZ 6030

Old Inland Pit

VTSR: 05/22/91

Analytical
Chemists &
Consultants

333 Ninth Ave. North
Seattle, WA 98109-5111
(206) 621-6490
(206) 621-7523 (FAX)

Date Release Authorized: *David B. Little*

Report prepared: 06/17/91-MAC:D JV

Date extracted: 05/31/91

Analyzed (FINN 2): 06/05/91

GPC Clean-up: Yes (1 of 2)

Sample Wt: 29.9 gm (Dry Weight)

Percent Moisture: 10.7%

pH: 8.8

Conc/Dilution: 1 to 1

CAS Number		µg/Kg
108-95-2	Phenol	180
111-44-4	bis(2-Chloroethyl)Ether	67 U
95-57-8	2-Chlorophenol	67 U
541-73-1	1,3-Dichlorobenzene	67 U
106-46-7	1,4-Dichlorobenzene	67 U
100-51-6	Benzyl Alcohol	330 U
95-50-1	1,2-Dichlorobenzene	67 U
95-48-7	2-Methylphenol	170
108-60-1	bis(2-chloroisopropyl)Ether	67 U
106-44-5	4-Methylphenol	87 M
621-64-7	N-Nitroso-Di-n-Propylamine	67 U
67-72-1	Hexachloroethane	130 U
98-95-3	Nitrobenzene	67 U
78-59-1	Isophorone	67 U
88-75-5	2-Nitrophenol	330 U
105-67-9	2,4-Dimethylphenol	130 U
65-85-0	Benzoic Acid	670 U
111-91-1	bis(2-Chloroethoxy)Methane	67 U
120-83-2	2,4-Dichlorophenol	200 U
120-82-1	1,2,4-Trichlorobenzene	67 U
91-20-3	Naphthalene	370
106-47-8	4-Chloroaniline	200 U
87-68-3	Hexachlorobutadiene	130 U
59-50-7	4-Chloro-3-Methylphenol	130 U
91-57-6	2-Methylnaphthalene	420
77-47-4	Hexachlorocyclopentadiene	330 U
88-06-2	2,4,6-Trichlorophenol	330 U
95-95-4	2,4,5-Trichlorophenol	330 U
91-58-7	2-Chloronaphthalene	67 U
88-74-4	2-Nitroaniline	330 U
131-11-3	Dimethyl Phthalate	67 U
208-96-8	Acenaphthylene	67 U
99-09-2	3-Nitroaniline	330 U

CAS Number		µg/Kg
83-32-9	Acenaphthene	34 M
51-28-5	2,4-Dinitrophenol	670 U
100-02-7	4-Nitrophenol	330 U
132-64-9	Dibenzofuran	120
121-14-2	2,4-Dinitrotoluene	330 U
606-20-2	2,6-Dinitrotoluene	330 U
84-66-2	Diethylphthalate	67 U
7005-72-3	4-Chlorophenyl-phenylether	67 U
86-73-7	Fluorene	79
100-01-6	4-Nitroaniline	330 U
534-52-1	4,6-Dinitro-2-Methylphenol	670 U
86-30-6	N-Nitrosodiphenylamine(1)	67 U
101-55-3	4-Bromophenyl-phenylether	67 U
118-74-1	Hexachlorobenzene	67 U
87-86-5	Pentachlorophenol	330 U
85-01-8	Phenanthrene	520
120-12-7	Anthracene	89
84-74-2	Di-n-Butylphthalate	70 U
206-44-0	Fluoranthene	130
129-00-0	Pyrene	99
85-68-7	Butylbenzylphthalate	67 U
91-94-1	3,3'-Dichlorobenzidine	330 U
56-55-3	Benzo(a)Anthracene	38 M
117-81-7	bis(2-Ethylhexyl)Phthalate	260
218-01-9	Chrysene	44 J
117-84-0	Di-n-Octyl Phthalate	67 U
205-99-2	Benzo(b)Fluoranthene	67 U
207-08-9	Benzo(k)Fluoranthene	67 U
50-32-8	Benzo(a)Pyrene	67 U
193-39-5	Indeno(1,2,3-cd)Pyrene	67 U
53-70-3	Dibenz(a,h)Anthracene	67 U
191-24-2	Benzo(ghi)Perylene	67 U

(1) Cannot be separated from diphenylamine

*Base/neutral surrogate recoveries

d5-Nitrobenzene	69.6%
2-Fluorobiphenyl	78.7%
d14-p-Terphenyl	81.1%

recycled paper

*Acid surrogate recoveries

d5-Phenol	66.5%
2-Fluorophenol	58.3%
2,4,6-Tribromophenol	76.0%

Ja 6-25



ANALYTICAL
RESOURCES
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

Semivolatiles by Methods 625/8270

Lab ID: 8339 C

Matrix: Soils/Sediments

Sample No: SU 1-3

QC Report No: 8339-Ecology & Environment

Project No: WZ 6030

Old Inland Pit

VTSR: 05/22/91

Analytical
Chemists, &
Consultants

333 Ninth Ave. North
Seattle, WA 98109-518
(206) 621-6490
(206) 621-7523 (FAX)

Date Release Authorized: *Jim B. Keith*
Report prepared: 06/17/91-MAC:D *ju*

Date extracted: 05/31/91

Analyzed (FINN 2): 06/05/91

GPC Clean-up: Yes (1 of 2)

Sample Wt: 30.9 gm (Dry Weight)

Percent Moisture: 11.3%

pH: 8.9

Conc/Dilution: 1 to 1

CAS Number		µg/Kg	CAS Number		µg/Kg
108-95-2	Phenol	180	83-32-9	Acenaphthene	65 U
111-44-4	bis(2-Chloroethyl)Ether	65 U	51-28-5	2,4-Dinitrophenol	650 U
95-57-8	2-Chlorophenol	65 U	100-02-7	4-Nitrophenol	320 U
541-73-1	1,3-Dichlorobenzene	65 U	132-64-9	Dibenzofuran	110
106-46-7	1,4-Dichlorobenzene	65 U	121-14-2	2,4-Dinitrotoluene	320 U
100-51-6	Benzyl Alcohol	320 U	606-20-2	2,6-Dinitrotoluene	320 U
95-50-1	1,2-Dichlorobenzene	65 U	84-66-2	Diethylphthalate	65 U
95-48-7	2-Methylphenol	180	7005-72-3	4-Chlorophenyl-phenylether	65 U
108-60-1	bis(2-chloroisopropyl)Ether	65 U	86-73-7	Fluorene	61 J
106-44-5	4-Methylphenol	50 M	100-01-6	4-Nitroaniline	320 U
21-64-7	N-Nitroso-Di-n-Propylamine	65 U	534-52-1	4,6-Dinitro-2-Methylphenol	650 U
72-1	Hexachloroethane	130 U	86-30-6	N-Nitrosodiphenylamine(1)	65 U
98-95-3	Nitrobenzene	65 U	101-55-3	4-Bromophenyl-phenylether	65 U
78-59-1	Isophorone	65 U	118-74-1	Hexachlorobenzene	65 U
88-75-5	2-Nitrophenol	320 U	87-86-5	Pentachlorophenol	320 U
105-67-9	2,4-Dimethylphenol	130 U	85-01-8	Phenanthrene	500
65-85-0	Benzoic Acid	650 U	120-12-7	Anthracene	110
111-91-1	bis(2-Chloroethoxy)Methane	65 U	84-74-2	Di-n-Butylphthalate	60 U
120-83-2	2,4-Dichlorophenol	190 U	206-44-0	Fluoranthene	170
120-82-1	1,2,4-Trichlorobenzene	65 U	129-00-0	Pyrene	190
91-20-3	Naphthalene	330	85-68-7	Butylbenzylphthalate	65 U
106-47-8	4-Chloroaniline	190 U	91-94-1	3,3'-Dichlorobenzidine	320 U
87-68-3	Hexachlorobutadiene	130 U	56-55-3	Benzo(a)Anthracene	160
59-50-7	4-Chloro-3-Methylphenol	130 U	117-81-7	bis(2-Ethylhexyl)Phthalate	260
91-57-6	2-Methylnaphthalene	400	218-01-9	Chrysene	170
77-47-4	Hexachlorocyclopentadiene	320 U	117-84-0	Di-n-Octyl Phthalate	65 U
88-06-2	2,4,6-Trichlorophenol	320 U	205-99-2	Benzo(b)Fluoranthene	
95-95-4	2,4,5-Trichlorophenol	320 U	207-08-9	Benzo(k)Fluoranthene	180 M
91-58-7	2-Chloronaphthalene	65 U	50-32-8	Benzo(a)Pyrene	66 M
88-74-4	2-Nitroaniline	320 U	193-39-5	Indeno(1,2,3-cd)Pyrene	65 U
131-11-3	Dimethyl Phthalate	65 U	53-70-3	Dibenz(a,h)Anthracene	65 U
208-96-8	Acenaphthylene	65 U	191-24-2	Benzo(ghi)Perylene	65 U
99-09-2	3-Nitroaniline	320 U			

(1) Cannot be separated from diphenylamine

*Base/neutral surrogate recoveries

d5-Nitrobenzene	69.8%
2-Fluorobiphenyl	76.3%
d14-p-Terphenyl	83.0%

recycled paper

*Acid surrogate recoveries

d5-Phenol	68.9%
2-Fluorophenol	58.3%
2,4,6-Tribromophenol	74.4%

ecology and environment

6-25-91



ANALYTICAL
RESOURCES
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

Semivolatiles by Methods 625/8270

Lab ID: 8339 D

Matrix: Soils/Sediments

Date Release Authorized: *[Signature]*

Report prepared: 06/17/91-MAC:D JV

Sample No: SU 2-1

QC Report No: 8339-Ecology & Environment

Project No: WZ 6030

Old Inland Pit

VTSR: 05/22/91

Analytical
Chemists &
Consultants

333 Ninth Ave. North
Seattle, WA 98109-5187
(206) 621-6490
(206) 621-7523 (FAX)

Date extracted: 05/31/91

Analyzed (FINN 2): 06/05/91

GPC Clean-up: Yes (1 of 2)

Sample Wt: 31.4 gm (Dry Weight)

Percent Moisture: 8.6%

pH: 8.8

Conc/Dilution: 1 to 1

CAS Number		µg/Kg
108-95-2	Phenol	310
111-44-4	bis(2-Chloroethyl)Ether	64 U
95-57-8	2-Chlorophenol	64 U
541-73-1	1,3-Dichlorobenzene	64 U
106-46-7	1,4-Dichlorobenzene	64 U
100-51-6	Benzyl Alcohol	320 U
95-50-1	1,2-Dichlorobenzene	64 U
95-48-7	2-Methylphenol	280
108-60-1	bis(2-chloroisopropyl)Ether	64 U
106-44-5	4-Methylphenol	90
621-64-7	N-Nitroso-Di-n-Propylamine	64 U
67-72-1	Hexachloroethane	130 U
98-95-3	Nitrobenzene	64 U
78-59-1	Isophorone	64 U
88-75-5	2-Nitrophenol	320 U
105-67-9	2,4-Dimethylphenol	130 U
65-85-0	Benzoic Acid	640 U
111-91-1	bis(2-Chloroethoxy)Methane	64 U
120-83-2	2,4-Dichlorophenol	190 U
120-82-1	1,2,4-Trichlorobenzene	64 U
91-20-3	Naphthalene	530
106-47-8	4-Chloroaniline	190 U
87-68-3	Hexachlorobutadiene	130 U
59-50-7	4-Chloro-3-Methylphenol	130 U
91-57-6	2-Methylnaphthalene	630
77-47-4	Hexachlorocyclopentadiene	320 U
88-06-2	2,4,6-Trichlorophenol	320 U
95-95-4	2,4,5-Trichlorophenol	320 U
91-58-7	2-Chloronaphthalene	64 U
88-74-4	2-Nitroaniline	320 U
131-11-3	Dimethyl Phthalate	64 U
208-96-8	Acenaphthylene	64 U
99-09-2	3-Nitroaniline	320 U

CAS Number		µg/Kg
83-32-9	Acenaphthene	40 J
51-28-5	2,4-Dinitrophenol	640 U
100-02-7	4-Nitrophenol	320 U
132-64-9	Dibenzofuran	190
121-14-2	2,4-Dinitrotoluene	320 U
606-20-2	2,6-Dinitrotoluene	320 U
84-66-2	Diethylphthalate	64 U
7005-72-3	4-Chlorophenyl-phenylether	64 U
86-73-7	Fluorene	100
100-01-6	4-Nitroaniline	320 U
534-52-1	4,6-Dinitro-2-Methylphenol	640 U
86-30-6	N-Nitrosodiphenylamine(1)	64 U
101-55-3	4-Bromophenyl-phenylether	64 U
118-74-1	Hexachlorobenzene	64 U
87-86-5	Pentachlorophenol	320 U
85-01-8	Phenanthrene	810
120-12-7	Anthracene	110
84-74-2	Di-n-Butylphthalate	60 U
206-44-0	Fluoranthene	180
129-00-0	Pyrene	140
85-68-7	Butylbenzylphthalate	64 U
91-94-1	3,3'-Dichlorobenzidine	320 U
56-55-3	Benzo(a)Anthracene	36 M
117-81-7	bis(2-Ethylhexyl)Phthalate	670
218-01-9	Chrysene	59 M
117-84-0	Di-n-Octyl Phthalate	64 U
205-99-2	Benzo(b)Fluoranthene	64 U
207-08-9	Benzo(k)Fluoranthene	64 U
50-32-8	Benzo(a)Pyrene	64 U
193-39-5	Indeno(1,2,3-cd)Pyrene	64 U
53-70-3	Dibenz(a,h)Anthracene	64 U
191-24-2	Benzo(ghi)Perylene	64 U

(1) Cannot be separated from diphenylamine

*Base/neutral surrogate recoveries

d5-Nitrobenzene	68.9%
2-Fluorobiphenyl	80.4%
d14-p-Terphenyl	84.3%

recycled paper

*Acid surrogate recoveries

d5-Phenol	67.4%
2-Fluorophenol	61.5%
2,4,6-Tribromophenol	81.4%

recycled paper



ANALYTICAL
RESOURCES
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

Semivolatiles by Methods 625/8270

Lab-ID: 8339 E

Matrix: Soils/Sediments

Sample No: SU 2-2

QC Report No: 8339-Ecology & Environment

Project No: WZ 6030

Old Inland Pit

VTSR: 05/22/91

Analytical,
Chemists &
Consultants

333 Ninth Ave. North
Seattle, WA 98109-5
(206) 621-6490
(206) 621-7523 (FAX)

Date Release Authorized: *Ann B. Luth*

Report prepared: 06/17/91-MAC:D JV

Date extracted: 05/31/91

Analyzed (FINN 2): 06/05/91

GPC Clean-up: Yes (1 of 2)

Sample Wt: 30.4 gm (Dry Weight)

Percent Moisture: 9.2%

pH: 9.7

Conc/Dilution: 1 to 1

CAS Number		µg/Kg
108-95-2	Phenol	110 U
111-44-4	bis(2-Chloroethyl)Ether	66 U
95-57-8	2-Chlorophenol	66 U
541-73-1	1,3-Dichlorobenzene	66 U
106-46-7	1,4-Dichlorobenzene	66 U
100-51-6	Benzyl Alcohol	330 U
95-50-1	1,2-Dichlorobenzene	66 U
95-48-7	2-Methylphenol	66 U
108-60-1	bis(2-chloroisopropyl)Ether	66 U
106-44-5	4-Methylphenol	66 U
21-64-7	N-Nitroso-Di-n-Propylamine	66 U
7-72-1	Hexachloroethane	130 U
98-95-3	Nitrobenzene	66 U
78-59-1	Isophorone	66 U
88-75-5	2-Nitrophenol	330 U
105-67-9	2,4-Dimethylphenol	130 U
65-85-0	Benzoic Acid	660 U
111-91-1	bis(2-Chloroethoxy)Methane	66 U
120-83-2	2,4-Dichlorophenol	200 U
120-82-1	1,2,4-Trichlorobenzene	66 U
91-20-3	Naphthalene	170
106-47-8	4-Chloroaniline	200 U
87-68-3	Hexachlorobutadiene	130 U
59-50-7	4-Chloro-3-Methylphenol	130 U
91-57-6	2-Methylnaphthalene	95
77-47-4	Hexachlorocyclopentadiene	330 U
88-06-2	2,4,6-Trichlorophenol	330 U
95-95-4	2,4,5-Trichlorophenol	330 U
91-58-7	2-Chloronaphthalene	66 U
88-74-4	2-Nitroaniline	330 U
131-11-3	Dimethyl Phthalate	66 U
208-96-8	Acenaphthylene	66 U
99-09-2	3-Nitroaniline	330 U

CAS Number		µg/Kg
83-32-9	Acenaphthene	66 U
51-28-5	2,4-Dinitrophenol	660 U
100-02-7	4-Nitrophenol	330 U
132-64-9	Dibenzofuran	66 U
121-14-2	2,4-Dinitrotoluene	330 U
606-20-2	2,6-Dinitrotoluene	330 U
84-66-2	Diethylphthalate	66 U
7005-72-3	4-Chlorophenyl-phenylether	66 U
86-73-7	Fluorene	66 U
100-01-6	4-Nitroaniline	330 U
534-52-1	4,6-Dinitro-2-Methylphenol	660 U
86-30-6	N-Nitrosodiphenylamine(1)	66 U
101-55-3	4-Bromophenyl-phenylether	66 U
118-74-1	Hexachlorobenzene	66 U
87-86-5	Pentachlorophenol	330 U
85-01-8	Phenanthrene	130
120-12-7	Anthracene	66 U
84-74-2	Di-n-Butylphthalate	66 U
206-44-0	Fluoranthene	66 U
129-00-0	Pyrene	66 U
85-68-7	Butylbenzylphthalate	66 U
91-94-1	3,3'-Dichlorobenzidine	330 U
56-55-3	Benzo(a)Anthracene	66 U
117-81-7	bis(2-Ethylhexyl)Phthalate	150
218-01-9	Chrysene	66 U
117-84-0	Di-n-Octyl Phthalate	66 U
205-99-2	Benzo(b)Fluoranthene	66 U
207-08-9	Benzo(k)Fluoranthene	66 U
50-32-8	Benzo(a)Pyrene	66 U
193-39-5	Indeno(1,2,3-cd)Pyrene	66 U
53-70-3	Dibenz(a,h)Anthracene	66 U
191-24-2	Benzo(ghi)Perylene	66 U

(1) Cannot be separated from diphenylamine

*Base/neutral surrogate recoveries

d5-Nitrobenzene	51.5%
2-Fluorobiphenyl	80.0%
d14-p-Terphenyl	79.9%

recycled paper

*Acid surrogate recoveries

d5-Phenol	54.3%
2-Fluorophenol	40.7%
2,4,6-Tribromophenol	76.2%

environmental



ANALYTICAL
RESOURCES
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

Semivolatiles by Methods 625/8270

Lab ID: 8339 F

Matrix: Soils/Sediments

Sample No: SU 2-3

QC Report No: 8339-Ecology & Environment

Project No: WZ 6030

Old Inland Pit

VTSR: 05/22/91

Analytical
Chemists &
Consultants

333 Ninth Ave North
Seattle, WA 98109-5187
(206) 621-6490
(206) 621-7523 (FAX)

Date Release Authorized: *[Signature]*

Report prepared: 06/17/91-MAC:D JV

Date extracted: 05/31/91

Analyzed (FINN 2): 06/05/91

GPC Clean-up: Yes (1 of 2)

Sample Wt: 31.7 gm (Dry Weight)

Percent Moisture: 8.4%

pH: 9.3

Conc/Dilution: 1 to 1

CAS Number		µg/Kg
108-95-2	Phenol	130 U
111-44-4	bis(2-Chloroethyl)Ether	63 U
95-57-8	2-Chlorophenol	63 U
541-73-1	1,3-Dichlorobenzene	63 U
106-46-7	1,4-Dichlorobenzene	63 U
100-51-6	Benzyl Alcohol	320 U
95-50-1	1,2-Dichlorobenzene	63 U
95-48-7	2-Methylphenol	63 U
108-60-1	bis(2-chloroisopropyl)Ether	63 U
106-44-5	4-Methylphenol	63 U
621-64-7	N-Nitroso-Di-n-Propylamine	63 U
67-72-1	Hexachloroethane	130 U
98-95-3	Nitrobenzene	63 U
78-59-1	Isophorone	63 U
88-75-5	2-Nitrophenol	320 U
105-67-9	2,4-Dimethylphenol	130 U
65-85-0	Benzoic Acid	630 U
111-91-1	bis(2-Chloroethoxy)Methane	63 U
120-83-2	2,4-Dichlorophenol	190 U
120-82-1	1,2,4-Trichlorobenzene	63 U
91-20-3	Naphthalene	100
106-47-8	4-Chloroaniline	190 U
87-68-3	Hexachlorobutadiene	130 U
59-50-7	4-Chloro-3-Methylphenol	130 U
91-57-6	2-Methylnaphthalene	100
77-47-4	Hexachlorocyclopentadiene	320 U
88-06-2	2,4,6-Trichlorophenol	320 U
95-95-4	2,4,5-Trichlorophenol	320 U
91-58-7	2-Chloronaphthalene	63 U
88-74-4	2-Nitroaniline	320 U
131-11-3	Dimethyl Phthalate	63 U
208-96-8	Acenaphthylene	63 U
99-09-2	3-Nitroaniline	320 U

CAS Number		µg/Kg
83-32-9	Acenaphthene	63 U
51-28-5	2,4-Dinitrophenol	630 U
100-02-7	4-Nitrophenol	320 U
132-64-9	Dibenzofuran	38 M
121-14-2	2,4-Dinitrotoluene	320 U
606-20-2	2,6-Dinitrotoluene	320 U
84-66-2	Diethylphthalate	63 U
7005-72-3	4-Chlorophenyl-phenylether	63 U
86-73-7	Fluorene	63 U
100-01-6	4-Nitroaniline	320 U
534-52-1	4,6-Dinitro-2-Methylphenol	630 U
86-30-6	N-Nitrosodiphenylamine(1)	63 U
101-55-3	4-Bromophenyl-phenylether	63 U
118-74-1	Hexachlorobenzene	63 U
87-86-5	Pentachlorophenol	320 U
85-01-8	Phenanthrene	150
120-12-7	Anthracene	63 U
84-74-2	Di-n-Butylphthalate	63 U
206-44-0	Fluoranthene	63 U
129-00-0	Pyrene	63 U
85-68-7	Butylbenzylphthalate	63 U
91-94-1	3,3'-Dichlorobenzidine	320 U
56-55-3	Benzo(a)Anthracene	63 U
117-81-7	bis(2-Ethylhexyl)Phthalate	160
218-01-9	Chrysene	63 U
117-84-0	Di-n-Octyl Phthalate	63 U
205-99-2	Benzo(b)Fluoranthene	63 U
207-08-9	Benzo(k)Fluoranthene	63 U
50-32-8	Benzo(a)Pyrene	63 U
193-39-5	Indeno(1,2,3-cd)Pyrene	63 U
53-70-3	Dibenz(a,h)Anthracene	63 U
191-24-2	Benzo(ghi)Perylene	63 U

(1) Cannot be separated from diphenylamine

*Base/neutral surrogate recoveries

d5-Nitrobenzene	66.5%
2-Fluorobiphenyl	78.9%
d14-p-Terphenyl	89.2%

*Acid surrogate recoveries

d5-Phenol	63.6%
2-Fluorophenol	54.5%
2,4,6-Tribromophenol	78.0%



ANALYTICAL
RESOURCES
INCORPORATED

ANALYTICAL RESOURCES DATA SHEET

Semivolatiles by Methods 625/8270

Lab ID: 8339 G

Matrix: Soils/Sediments

Sample No: SU 3-1

QC Report No: 8339-Ecology & Environment

Project No: WZ 6030

Old Inland Pit

VTSR: 05/22/91

Analytical
Chemists &
Consultants

333 Ninth Ave. North
Seattle, WA 98109-5187
(206) 621-6490
(206) 621-7523 (FAX)

Date Release Authorized: *Carla B. Pitter*

Report prepared: 06/17/91-MAC:D jv

Date extracted: 05/31/91

Analyzed (FINN 2): 06/05/91

GPC Clean-up: Yes (1 of 2)

Sample Wt: 31.6 gm (Dry Weight)

Percent Moisture: 8.6%

pH: 9.0

Conc/Dilution: 1 to 1

CAS Number		µg/Kg	CAS Number		µg/Kg
108-95-2	Phenol	97 J	83-32-9	Acenaphthene	40 J
111-44-4	bis(2-Chloroethyl)Ether	63 U	51-28-5	2,4-Dinitrophenol	630 U
95-57-8	2-Chlorophenol	63 U	100-02-7	4-Nitrophenol	320 U
541-73-1	1,3-Dichlorobenzene	63 U	132-64-9	Dibenzofuran	63 J
106-46-7	1,4-Dichlorobenzene	63 U	121-14-2	2,4-Dinitrotoluene	320 U
100-51-6	Benzyl Alcohol	320 U	606-20-2	2,6-Dinitrotoluene	320 U
95-50-1	1,2-Dichlorobenzene	63 U	84-66-2	Diethylphthalate	63 U
95-48-7	2-Methylphenol	63 U	7005-72-3	4-Chlorophenyl-phenylether	63 U
108-60-1	bis(2-chloroisopropyl)Ether	63 U	86-73-7	Fluorene	50 J
106-44-5	4-Methylphenol	63 U	100-01-6	4-Nitroaniline	320 U
64-7	N-Nitroso-Di-n-Propylamine	63 U	534-52-1	4,6-Dinitro-2-Methylphenol	630 U
2-1	Hexachloroethane	130 U	86-30-6	N-Nitrosodiphenylamine(1)	63 U
98-95-3	Nitrobenzene	63 U	101-55-3	4-Bromophenyl-phenylether	63 U
78-59-1	Isophorone	63 U	118-74-1	Hexachlorobenzene	63 U
88-75-5	2-Nitrophenol	320 U	87-86-5	Pentachlorophenol	320 U
105-67-9	2,4-Dimethylphenol	130 U	85-01-8	Phenanthrene	340
65-85-0	Benzoic Acid	630 U	120-12-7	Anthracene	37 J
111-91-1	bis(2-Chloroethoxy)Methane	63 U	84-74-2	Di-n-Butylphthalate	63 U
120-83-2	2,4-Dichlorophenol	190 U	206-44-0	Fluoranthene	73
120-82-1	1,2,4-Trichlorobenzene	63 U	129-00-0	Pyrene	56 J
91-20-3	Naphthalene	350	85-68-7	Butylbenzylphthalate	63 U
106-47-8	4-Chloroaniline	190 U	91-94-1	3,3'-Dichlorobenzidine	320 U
87-68-3	Hexachlorobutadiene	130 U	56-55-3	Benzo(a)Anthracene	63 U
59-50-7	4-Chloro-3-Methylphenol	130 U	117-81-7	bis(2-Ethylhexyl)Phthalate	140
91-57-6	2-Methylnaphthalene	430	218-01-9	Chrysene	63 U
77-47-4	Hexachlorocyclopentadiene	320 U	117-84-0	Di-n-Octyl Phthalate	63 U
88-06-2	2,4,6-Trichlorophenol	320 U	205-99-2	Benzo(b)Fluoranthene	63 U
95-95-4	2,4,5-Trichlorophenol	320 U	207-08-9	Benzo(k)Fluoranthene	63 U
91-58-7	2-Chloronaphthalene	63 U	50-32-8	Benzo(a)Pyrene	63 U
88-74-4	2-Nitroaniline	320 U	193-39-5	Indeno(1,2,3-cd)Pyrene	63 U
131-11-3	Dimethyl Phthalate	63 U	53-70-3	Dibenz(a,h)Anthracene	63 U
208-96-8	Acenaphthylene	63 U	191-24-2	Benzo(ghi)Perylene	63 U
99-2	3-Nitroaniline	320 U			

(1) Cannot be separated from diphenylamine

*Base/neutral surrogate recoveries

d5-Nitrobenzene	69.3%
2-Fluorobiphenyl	80.4%
d14-p-Terphenyl	79.9%

recycled paper

*Acid surrogate recoveries

d5-Phenol	69.9%
2-Fluorophenol	61.3%
2,4,6-Tribromophenol	75.4%

ecology and environment



ANALYTICAL
RESOURCE
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

Sample No: SU 3-2

Analytical
Chemists &
Consultants

333 Ninth Ave. North
Seattle, WA 98109-516
(206) 621-6490
(206) 621-7523 (FAX)

Semivolatiles by Methods 625/8270

Lab ID: 8339 H

Matrix: Soils/Sediments

QC Report No: 8339-Ecology & Environment

Project No: WZ 6030

Old Inland Pit

VTSR: 05/22/91

Date Release Authorized: *Paul B. Kitch*
Report prepared: 06/17/91-MAC:D jv

Sample Wt: 35.0 gm (Dry Weight)

Date extracted: 05/31/91

Percent Moisture: 4.2%

Analyzed (FINN 2): 06/05/91

pH: 9.1

GPC Clean-up: Yes (1 of 2)

Conc/Dilution: 1 to 1

CAS Number		µg/Kg
108-95-2	Phenol	57 U
111-44-4	bis(2-Chloroethyl)Ether	57 U
95-57-8	2-Chlorophenol	57 U
541-73-1	1,3-Dichlorobenzene	57 U
106-46-7	1,4-Dichlorobenzene	57 U
100-51-6	Benzyl Alcohol	290 U
95-50-1	1,2-Dichlorobenzene	57 U
95-48-7	2-Methylphenol	57 U
108-60-1	bis(2-chloroisopropyl)Ether	57 U
106-44-5	4-Methylphenol	57 U
621-64-7	N-Nitroso-Di-n-Propylamine	57 U
67-72-1	Hexachloroethane	110 U
98-95-3	Nitrobenzene	57 U
78-59-1	Isophorone	57 U
88-75-5	2-Nitrophenol	290 U
105-67-9	2,4-Dimethylphenol	110 U
65-85-0	Benzoic Acid	570 U
111-91-1	bis(2-Chloroethoxy)Methane	57 U
120-83-2	2,4-Dichlorophenol	170 U
120-82-1	1,2,4-Trichlorobenzene	57 U
91-20-3	Naphthalene	57 U
106-47-8	4-Chloroaniline	170 U
87-68-3	Hexachlorobutadiene	110 U
59-50-7	4-Chloro-3-Methylphenol	110 U
91-57-6	2-Methylnaphthalene	57 U
77-47-4	Hexachlorocyclopentadiene	290 U
88-06-2	2,4,6-Trichlorophenol	290 U
95-95-4	2,4,5-Trichlorophenol	290 U
91-58-7	2-Chloronaphthalene	57 U
88-74-4	2-Nitroaniline	290 U
131-11-3	Dimethyl Phthalate	57 U
208-96-8	Acenaphthylene	57 U
99-09-2	3-Nitroaniline	290 U

CAS Number		µg/Kg
83-32-9	Acenaphthene	57 U
51-28-5	2,4-Dinitrophenol	570 U
100-02-7	4-Nitrophenol	290 U
132-64-9	Dibenzofuran	57 U
121-14-2	2,4-Dinitrotoluene	290 U
606-20-2	2,6-Dinitrotoluene	290 U
84-66-2	Diethylphthalate	57 U
7005-72-3	4-Chlorophenyl-phenylether	57 U
86-73-7	Fluorene	57 U
100-01-6	4-Nitroaniline	290 U
534-52-1	4,6-Dinitro-2-Methylphenol	570 U
86-30-6	N-Nitrosodiphenylamine(1)	57 U
101-55-3	4-Bromophenyl-phenylether	57 U
118-74-1	Hexachlorobenzene	57 U
87-86-5	Pentachlorophenol	290 U
85-01-8	Phenanthrene	57 U
120-12-7	Anthracene	57 U
84-74-2	Di-n-Butylphthalate	57 U
206-44-0	Fluoranthene	57 U
129-00-0	Pyrene	57 U
85-68-7	Butylbenzylphthalate	57 U
91-94-1	3,3'-Dichlorobenzidine	290 U
56-55-3	Benzo(a)Anthracene	57 U
117-81-7	bis(2-Ethylhexyl)Phthalate	57 U
218-01-9	Chrysene	57 U
117-84-0	Di-n-Octyl Phthalate	57 U
205-99-2	Benzo(b)Fluoranthene	57 U
207-08-9	Benzo(k)Fluoranthene	57 U
50-32-8	Benzo(a)Pyrene	57 U
193-39-5	Indeno(1,2,3-cd)Pyrene	57 U
53-70-3	Dibenz(a,h)Anthracene	57 U
191-24-2	Benzo(ghi)Perylene	57 U

(1) Cannot be separated from diphenylamine

*Base/neutral surrogate recoveries

d5-Nitrobenzene	68.5%
2-Fluorobiphenyl	80.2%
d14-p-Terphenyl	89.8%

recycled paper

*Acid surrogate recoveries

d5-Phenol	56.5%
2-Fluorophenol	56.6%
2,4,6-Tribromophenol	62.7%

ecology and environment



**ANALYTICAL
RESOURCES
INCORPORATED**

ORGANICS ANALYSIS DATA SHEET

Semivolatiles by Methods 625/8270

Lab ID: 8339 I-

Matrix: Soils/Sediments

Sample No: SU 3-3

QC Report No: 8339-Ecology & Environment

Project No: WZ 6030

Old Inland Pit

VTSR: 05/22/91

Analytical
Chemists &
Consultants

333 Ninth Ave. North
Seattle, WA 98109-5187
(206) 621-6490
(206) 621-7523 (FAX)

Date Release Authorized: *[Signature]*

Report prepared: 06/17/91-MAC:D jv

Date extracted: 05/31/91

Analyzed (FINN 2): 06/05/91

GPC Clean-up: Yes (1 of 2)

Sample Wt: 33.0 gm (Dry Weight)

Percent Moisture: 7.0%

pH: 9.8

Conc/Dilution: 1 to 1

CAS Number		µg/Kg	CAS Number		µg/Kg
108-95-2	Phenol	61 U	83-32-9	Acenaphthene	61 U
111-44-4	bis(2-Chloroethyl)Ether	61 U	51-28-5	2,4-Dinitrophenol	610 U
95-57-8	2-Chlorophenol	61 U	100-02-7	4-Nitrophenol	300 U
541-73-1	1,3-Dichlorobenzene	61 U	132-64-9	Dibenzofuran	61 U
106-46-7	1,4-Dichlorobenzene	61 U	121-14-2	2,4-Dinitrotoluene	300 U
100-51-6	Benzyl Alcohol	300 U	606-20-2	2,6-Dinitrotoluene	300 U
95-50-1	1,2-Dichlorobenzene	61 U	84-66-2	Diethylphthalate	61 U
95-48-7	2-Methylphenol	61 U	7005-72-3	4-Chlorophenyl-phenylether	61 U
108-60-1	bis(2-chloroisopropyl)Ether	61 U	86-73-7	Fluorene	61 U
106-44-5	4-Methylphenol	61 U	100-01-6	4-Nitroaniline	300 U
116-64-7	N-Nitroso-Di-n-Propylamine	61 U	534-52-1	4,6-Dinitro-2-Methylphenol	610 U
72-1	Hexachloroethane	120 U	86-30-6	N-Nitrosodiphenylamine(1)	61 U
98-95-3	Nitrobenzene	61 U	101-55-3	4-Bromophenyl-phenylether	61 U
78-59-1	Isophorone	61 U	118-74-1	Hexachlorobenzene	61 U
88-75-5	2-Nitrophenol	300 U	87-86-5	Pentachlorophenol	300 U
105-67-9	2,4-Dimethylphenol	120 U	85-01-8	Phenanthrene	61 U
65-85-0	Benzoic Acid	610 U	120-12-7	Anthracene	61 U
111-91-1	bis(2-Chloroethoxy)Methane	61 U	84-74-2	Di-n-Butylphthalate	61 U
120-83-2	2,4-Dichlorophenol	180 U	206-44-0	Fluoranthene	61 U
120-82-1	1,2,4-Trichlorobenzene	61 U	129-00-0	Pyrene	61 U
91-20-3	Naphthalene	61 U	85-68-7	Butylbenzylphthalate	61 U
106-47-8	4-Chloroaniline	180 U	91-94-1	3,3'-Dichlorobenzidine	300 U
87-68-3	Hexachlorobutadiene	120 U	56-55-3	Benzo(a)Anthracene	61 U
59-50-7	4-Chloro-3-Methylphenol	120 U	117-81-7	bis(2-Ethylhexyl)Phthalate	61 U
91-57-6	2-Methylnaphthalene	61 U	218-01-9	Chrysene	61 U
77-47-4	Hexachlorocyclopentadiene	300 U	117-84-0	Di-n-Octyl Phthalate	61 U
88-06-2	2,4,6-Trichlorophenol	300 U	205-99-2	Benzo(b)Fluoranthene	61 U
95-95-4	2,4,5-Trichlorophenol	300 U	207-08-9	Benzo(k)Fluoranthene	61 U
91-58-7	2-Chloronaphthalene	61 U	50-32-8	Benzo(a)Pyrene	61 U
88-74-4	2-Nitroaniline	300 U	193-39-5	Indeno(1,2,3-cd)Pyrene	61 U
131-11-3	Dimethyl Phthalate	61 U	53-70-3	Dibenz(a,h)Anthracene	61 U
208-96-8	Acenaphthylene	61 U	191-24-2	Benzo(ghi)Perylene	61 U
09-2	3-Nitroaniline	300 U			

(1) Cannot be separated from diphenylamine

***Base/neutral surrogate recoveries**

d5-Nitrobenzene	51.3%
2-Fluorobiphenyl	64.6%
d14-p-Terphenyl	74.3%

recycled paper

***Acid surrogate recoveries**

d5-Phenol	42.7%
2-Fluorophenol	42.6%
2,4,6-Tribromophenol	47.1%

ecology and environment



ANALYTICAL
RESOURCES
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

Sample No: SU 3-3A

Semivolatiles by Methods 625/8270

Lab ID: 8339 J

Matrix: Soils/Sediments

QC Report No: 8339-Ecology & Environment

Project No: WZ 6030

Old Inland Pit

VTSR: 05/22/91

Analytical
Chemists &
Consultants

333 Ninth Ave North
Seattle, WA 98109-518
(206) 621-6490
(206) 621-7523 (FAX)

Date Release Authorized: *Don B. Fisher*

Report prepared: 06/17/91-MAC:D jv

Date extracted: 05/31/91

Analyzed (FINN 2): 06/05/91

GPC Clean-up: Yes (1 of 2)

Sample Wt: 34.0 gm (Dry Weight)

Percent Moisture: 7.2%

pH: 9.8

Conc/Dilution: 1 to 1

CAS Number		µg/Kg	CAS Number		µg/Kg
108-95-2	Phenol	59 U	83-32-9	Acenaphthene	59 U
111-44-4	bis(2-Chloroethyl)Ether	59 U	51-28-5	2,4-Dinitrophenol	590 U
95-57-8	2-Chlorophenol	59 U	100-02-7	4-Nitrophenol	290 U
541-73-1	1,3-Dichlorobenzene	59 U	132-64-9	Dibenzofuran	59 U
106-46-7	1,4-Dichlorobenzene	59 U	121-14-2	2,4-Dinitrotoluene	290 U
100-51-6	Benzyl Alcohol	290 U	606-20-2	2,6-Dinitrotoluene	290 U
95-50-1	1,2-Dichlorobenzene	59 U	84-66-2	Diethylphthalate	59 U
95-48-7	2-Methylphenol	59 U	7005-72-3	4-Chlorophenyl-phenylether	59 U
108-60-1	bis(2-chloroisopropyl)Ether	59 U	86-73-7	Fluorene	59 U
106-44-5	4-Methylphenol	59 U	100-01-6	4-Nitroaniline	290 U
621-64-7	N-Nitroso-Di-n-Propylamine	59 U	534-52-1	4,6-Dinitro-2-Methylphenol	590 U
67-72-1	Hexachloroethane	120 U	86-30-6	N-Nitrosodiphenylamine(1)	59 U
98-95-3	Nitrobenzene	59 U	101-55-3	4-Bromophenyl-phenylether	59 U
78-59-1	Isophorone	59 U	118-74-1	Hexachlorobenzene	59 U
88-75-5	2-Nitrophenol	290 U	87-86-5	Pentachlorophenol	290 U
105-67-9	2,4-Dimethylphenol	120 U	85-01-8	Phenanthrene	59 U
65-85-0	Benzoic Acid	590 U	120-12-7	Anthracene	59 U
111-91-1	bis(2-Chloroethoxy)Methane	59 U	84-74-2	Di-n-Butylphthalate	59 U
120-83-2	2,4-Dichlorophenol	180 U	206-44-0	Fluoranthene	59 U
120-82-1	1,2,4-Trichlorobenzene	59 U	129-00-0	Pyrene	59 U
91-20-3	Naphthalene	59 U	85-68-7	Butylbenzylphthalate	59 U
106-47-8	4-Chloroaniline	180 U	91-94-1	3,3'-Dichlorobenzidine	290 U
87-68-3	Hexachlorobutadiene	120 U	56-55-3	Benzo(a)Anthracene	59 U
59-50-7	4-Chloro-3-Methylphenol	120 U	117-81-7	bis(2-Ethylhexyl)Phthalate	59 U
91-57-6	2-Methylnaphthalene	59 U	218-01-9	Chrysene	59 U
77-47-4	Hexachlorocyclopentadiene	290 U	117-84-0	Di-n-Octyl Phthalate	59 U
88-06-2	2,4,6-Trichlorophenol	290 U	205-99-2	Benzo(b)Fluoranthene	59 U
95-95-4	2,4,5-Trichlorophenol	290 U	207-08-9	Benzo(k)Fluoranthene	59 U
91-58-7	2-Chloronaphthalene	59 U	50-32-8	Benzo(a)Pyrene	59 U
88-74-4	2-Nitroaniline	290 U	193-39-5	Indeno(1,2,3-cd)Pyrene	59 U
131-11-3	Dimethyl Phthalate	59 U	53-70-3	Dibenz(a,h)Anthracene	59 U
208-96-8	Acenaphthylene	59 U	191-24-2	Benzo(ghi)Perylene	59 U
99-09-2	3-Nitroaniline	290 U			

(1) Cannot be separated from diphenylamine

*Base/neutral surrogate recoveries

d5-Nitrobenzene	76.9%
2-Fluorobiphenyl	88.5%
d14-p-Terphenyl	86.6%

recycled paper
recycled paper

*Acid surrogate recoveries

d5-Phenol	59.1%
2-Fluorophenol	59.8%
2,4,6-Tribromophenol	63.5%

ecology and environment
ecology and environment



ANALYTICAL
RESOURCES
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

Semivolatiles by Methods 625/8270

Lab ID: 8339 K

Matrix: Soils/Sediments

Sample No: SU 4-1

QC Report No: 8339-Ecology & Environment

Project No: WZ 6030

Old Inland Pit

VTSR: 05/22/91

Analytical
Chemists &
Consultants

333 Ninth Ave. North
Seattle, WA 98109-518
(206) 621-6490
(206) 621-7523 (FAX)

Date Release Authorized: *Don B. Pette*

Report prepared: 06/17/91-MAC:D JV

Date extracted: 05/31/91

Analyzed (FINN 2): 06/07/91

GPC Clean-up: Yes (1 of 2)

Sample Wt: 28.9 gm (Dry Weight)

Percent Moisture: 14.8%

pH: 9.0

Conc/Dilution: 1 to 1

CAS Number		µg/Kg
108-95-2	Phenol	190 M
111-44-4	bis(2-Chloroethyl)Ether	69 U
95-57-8	2-Chlorophenol	69 U
541-73-1	1,3-Dichlorobenzene	69 U
106-46-7	1,4-Dichlorobenzene	69 U
100-51-6	Benzyl Alcohol	350 U
95-50-1	1,2-Dichlorobenzene	69 U
95-48-7	2-Methylphenol	110
108-60-1	bis(2-chloroisopropyl)Ether	69 U
106-44-5	4-Methylphenol	64 M
71-64-7	N-Nitroso-Di-n-Propylamine	69 U
-72-1	Hexachloroethane	140 U
98-95-3	Nitrobenzene	69 U
78-59-1	Isophorone	69 U
88-75-5	2-Nitrophenol	350 U
105-67-9	2,4-Dimethylphenol	140 U
65-85-0	Benzoic Acid	690 U
111-91-1	bis(2-Chloroethoxy)Methane	69 U
120-83-2	2,4-Dichlorophenol	210 U
120-82-1	1,2,4-Trichlorobenzene	69 U
91-20-3	Naphthalene	330
106-47-8	4-Chloroaniline	210 U
87-68-3	Hexachlorobutadiene	140 U
59-50-7	4-Chloro-3-Methylphenol	140 U
91-57-6	2-Methylnaphthalene	440
77-47-4	Hexachlorocyclopentadiene	350 U
88-06-2	2,4,6-Trichlorophenol	350 U
95-95-4	2,4,5-Trichlorophenol	350 U
91-58-7	2-Chloronaphthalene	69 U
88-74-4	2-Nitroaniline	350 U
131-11-3	Dimethyl Phthalate	69 U
208-96-8	Acenaphthylene	69 U
99-09-2	3-Nitroaniline	350 U

CAS Number		µg/Kg
83-32-9	Acenaphthene	69 U
51-28-5	2,4-Dinitrophenol	690 U
100-02-7	4-Nitrophenol	350 U
132-64-9	Dibenzofuran	130
121-14-2	2,4-Dinitrotoluene	350 U
606-20-2	2,6-Dinitrotoluene	350 U
84-66-2	Diethylphthalate	69 U
7005-72-3	4-Chlorophenyl-phenylether	69 U
86-73-7	Fluorene	73
100-01-6	4-Nitroaniline	350 U
534-52-1	4,6-Dinitro-2-Methylphenol	690 U
86-30-6	N-Nitrosodiphenylamine(1)	69 U
101-55-3	4-Bromophenyl-phenylether	69 U
118-74-1	Hexachlorobenzene	69 U
87-86-5	Pentachlorophenol	350 U
85-01-8	Phenanthrene	590
120-12-7	Anthracene	94
84-74-2	Di-n-Butylphthalate	69 U
206-44-0	Fluoranthene	130
129-00-0	Pyrene	130
85-68-7	Butylbenzylphthalate	69 U
91-94-1	3,3'-Dichlorobenzidine	350 U
56-55-3	Benzo(a)Anthracene	69 U
117-81-7	bis(2-Ethylhexyl)Phthalate	680
218-01-9	Chrysene	45 M
117-84-0	Di-n-Octyl Phthalate	69 U
205-99-2	Benzo(b)Fluoranthene	69 U
207-08-9	Benzo(k)Fluoranthene	69 U
50-32-8	Benzo(a)Pyrene	69 U
193-39-5	Indeno(1,2,3-cd)Pyrene	69 U
53-70-3	Dibenz(a,h)Anthracene	69 U
191-24-2	Benzo(ghi)Perylene	69 U

(1) Cannot be separated from diphenylamine

*Base/neutral surrogate recoveries

d5-Nitrobenzene	69.0%
2-Fluorobiphenyl	83.0%
d14-p-Terphenyl	96.7%

recycled paper

*Acid surrogate recoveries

d5-Phenol	81.7%
2-Fluorophenol	57.4%
2,4,6-Tribromophenol	76.1%



ANALYTICAL
RESOURCES
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

Semivolatiles by Methods 625/8270

Lab ID: 8339 L.

Matrix: Soils/Sediments

Sample No: SU 4-2

QC Report No: 8339-Ecology & Environment

Project No: WZ 6030

Old Inland Pit

VTSR: 05/22/91

Analytical
Chemists &
Consultants

333 Ninth Ave. North
Seattle, WA 98109-5187
(206) 621-6490
(206) 621-7523 (FAX)

Date Release Authorized: 12/11/91
Report prepared: 06/17/91-MAC:D JV

Date extracted: 05/31/91
Analyzed (FINN 2): 06/07/91
GPC Clean-up: Yes (1 of 2)

Sample Wt: 31.2 gm (Dry Weight)
Percent Moisture: 6.5%
pH: 9.2
Conc/Dilution: 1 to 1

CAS Number		µg/Kg
108-95-2	Phenol	80 M
111-44-4	bis(2-Chloroethyl)Ether	64 U
95-57-8	2-Chlorophenol	64 U
541-73-1	1,3-Dichlorobenzene	64 U
106-46-7	1,4-Dichlorobenzene	64 U
100-51-6	Benzyl Alcohol	320 U
95-50-1	1,2-Dichlorobenzene	64 U
95-48-7	2-Methylphenol	64 U
108-60-1	bis(2-chloroisopropyl)Ether	64 U
106-44-5	4-Methylphenol	64 U
621-64-7	N-Nitroso-Di-n-Propylamine	64 U
67-72-1	Hexachloroethane	130 U
98-95-3	Nitrobenzene	64 U
78-59-1	Isophorone	64 U
88-75-5	2-Nitrophenol	320 U
105-67-9	2,4-Dimethylphenol	130 U
65-85-0	Benzoic Acid	640 U
111-91-1	bis(2-Chloroethoxy)Methane	64 U
120-83-2	2,4-Dichlorophenol	190 U
120-82-1	1,2,4-Trichlorobenzene	64 U
91-20-3	Naphthalene	74 M
106-47-8	4-Chloroaniline	190 U
87-68-3	Hexachlorobutadiene	130 U
59-50-7	4-Chloro-3-Methylphenol	130 U
91-57-6	2-Methylnaphthalene	93
77-47-4	Hexachlorocyclopentadiene	320 U
88-06-2	2,4,6-Trichlorophenol	320 U
95-95-4	2,4,5-Trichlorophenol	320 U
91-58-7	2-Chloronaphthalene	64 U
88-74-4	2-Nitroaniline	320 U
131-11-3	Dimethyl Phthalate	64 U
208-96-8	Acenaphthylene	64 U
99-09-2	3-Nitroaniline	320 U

CAS Number		µg/Kg
83-32-9	Acenaphthene	64 U
51-28-5	2,4-Dinitrophenol	640 U
100-02-7	4-Nitrophenol	320 U
132-64-9	Dibenzofuran	64 U
121-14-2	2,4-Dinitrotoluene	320 U
606-20-2	2,6-Dinitrotoluene	320 U
84-66-2	Diethylphthalate	64 U
7005-72-3	4-Chlorophenyl-phenylether	64 U
86-73-7	Fluorene	64 U
100-01-6	4-Nitroaniline	320 U
534-52-1	4,6-Dinitro-2-Methylphenol	640 U
86-30-6	N-Nitrosodiphenylamine(1)	64 U
101-55-3	4-Bromophenyl-phenylether	64 U
118-74-1	Hexachlorobenzene	64 U
87-86-5	Pentachlorophenol	320 U
85-01-8	Phenanthrene	160
120-12-7	Anthracene	64 U
84-74-2	Di-n-Butylphthalate	64 U
206-44-0	Fluoranthene	88
129-00-0	Pyrene	93
85-68-7	Butylbenzylphthalate	64 U
91-94-1	3,3'-Dichlorobenzidine	320 U
56-55-3	Benzo(a)Anthracene	64 U
117-81-7	bis(2-Ethylhexyl)Phthalate	100 M
218-01-9	Chrysene	51 M
117-84-0	Di-n-Octyl Phthalate	64 U
205-99-2	Benzo(b)Fluoranthene	64 U
207-08-9	Benzo(k)Fluoranthene	64 U
50-32-8	Benzo(a)Pyrene	64 U
193-39-5	Indeno(1,2,3-cd)Pyrene	64 U
53-70-3	Dibenz(a,h)Anthracene	64 U
191-24-2	Benzo(ghi)Perylene	64 U

(1) Cannot be separated from diphenylamine

*Base/neutral surrogate recoveries

d5-Nitrobenzene	75.9%
2-Fluorobiphenyl	85.3%
d14-p-Terphenyl	102%

recycled paper

*Acid surrogate recoveries

d5-Phenol	82.9%
2-Fluorophenol	70.0%
2,4,6-Tribromophenol	68.1%

recycled paper



ANALYTICAL
RESOURCES
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

Sample No: SU 4-3

Semivolatiles by Methods 625/8270

Lab ID: 8339 M

Matrix: Soils/Sediments

QC Report No: 8339-Ecology & Environment

Project No: WZ 6030

Old Inland Pit

VTSR: 05/22/91

Analytical
Chemists &
Consultants

333 Ninth Ave. North
Seattle, WA 98109-5116
(206) 621-6490
(206) 621-7523 (FAX)

Date Release Authorized: *Ronk. L. L.*
Report prepared: 06/17/91-MAC:D JV

Date extracted: 05/31/91

Analyzed (FINN 2): 06/07/91

GPC Clean-up: Yes (1 of 2)

Sample Wt: 30.4 gm (Dry Weight)

Percent Moisture: 11.6%

pH: 7.0

Conc/Dilution: 1 to 1

CAS Number		µg/Kg
108-95-2	Phenol	66 U
111-44-4	bis(2-Chloroethyl)Ether	66 U
95-57-8	2-Chlorophenol	66 U
541-73-1	1,3-Dichlorobenzene	66 U
106-46-7	1,4-Dichlorobenzene	66 U
100-51-6	Benzyl Alcohol	330 U
95-50-1	1,2-Dichlorobenzene	66 U
95-48-7	2-Methylphenol	66 U
108-60-1	bis(2-chloroisopropyl)Ether	66 U
106-44-5	4-Methylphenol	66 U
621-64-7	N-Nitroso-Di-n-Propylamine	66 U
7-72-1	Hexachloroethane	130 U
95-3	Nitrobenzene	66 U
78-59-1	Isophorone	66 U
88-75-5	2-Nitrophenol	330 U
105-67-9	2,4-Dimethylphenol	130 U
65-85-0	Benzoic Acid	660 U
111-91-1	bis(2-Chloroethoxy)Methane	66 U
120-83-2	2,4-Dichlorophenol	200 U
120-82-1	1,2,4-Trichlorobenzene	66 U
91-20-3	Naphthalene	66 U
106-47-8	4-Chloroaniline	200 U
87-68-3	Hexachlorobutadiene	130 U
59-50-7	4-Chloro-3-Methylphenol	130 U
91-57-6	2-Methylnaphthalene	66 U
77-47-4	Hexachlorocyclopentadiene	330 U
88-06-2	2,4,6-Trichlorophenol	330 U
95-95-4	2,4,5-Trichlorophenol	330 U
91-58-7	2-Chloronaphthalene	66 U
88-74-4	2-Nitroaniline	330 U
131-11-3	Dimethyl Phthalate	66 U
208-96-8	Acenaphthylene	66 U
99-09-2	3-Nitroaniline	330 U

CAS Number		µg/Kg
83-32-9	Acenaphthene	66 U
51-28-5	2,4-Dinitrophenol	660 U
100-02-7	4-Nitrophenol	330 U
132-64-9	Dibenzofuran	66 U
121-14-2	2,4-Dinitrotoluene	330 U
606-20-2	2,6-Dinitrotoluene	330 U
84-66-2	Diethylphthalate	66 U
7005-72-3	4-Chlorophenyl-phenylether	66 U
86-73-7	Fluorene	66 U
100-01-6	4-Nitroaniline	330 U
534-52-1	4,6-Dinitro-2-Methylphenol	660 U
86-30-6	N-Nitrosodiphenylamine (1)	66 U
101-55-3	4-Bromophenyl-phenylether	66 U
118-74-1	Hexachlorobenzene	66 U
87-86-5	Pentachlorophenol	330 U
85-01-8	Phenanthrene	54 M
120-12-7	Anthracene	66 U
84-74-2	Di-n-Butylphthalate	66 U
206-44-0	Fluoranthene	38 M
129-00-0	Pyrene	79 M
85-68-7	Butylbenzylphthalate	66 U
91-94-1	3,3'-Dichlorobenzidine	330 U
56-55-3	Benzo(a)Anthracene	66 U
117-81-7	bis(2-Ethylhexyl)Phthalate	66 U
218-01-9	Chrysene	66 U
117-84-0	Di-n-Octyl Phthalate	66 U
205-99-2	Benzo(b)Fluoranthene	66 U
207-08-9	Benzo(k)Fluoranthene	66 U
50-32-8	Benzo(a)Pyrene	66 U
193-39-5	Indeno(1,2,3-cd)Pyrene	66 U
53-70-3	Dibenz(a,h)Anthracene	66 U
191-24-2	Benzo(ghi)Perylene	66 U

(1) Cannot be separated from diphenylamine

*Base/neutral surrogate recoveries

d5-Nitrobenzene	81.9%
2-Fluorobiphenyl	90.9%
d14-p-Terphenyl	98.9%

recycled paper

*Acid surrogate recoveries

d5-Phenol	86.6%
2-Fluorophenol	83.6%
2,4,6-Tribromophenol	61.1%

ecology and environment



ANALYTICAL
RESOURCES
INCORPORATED

Analytical
Chemists &
Consultants

333 Ninth Ave. North
Seattle, WA 98109-5187
(206) 621-6490
(206) 621-7523 (FAX)

ORGANICS ANALYSIS DATA SHEET
PESTICIDE/PCB by method 608/8080

Lab Sample ID: 8339A

Matrix: Soil/Sediment

Data Release Authorized: *[Signature]*

Data Prepared: 06/12/91-MAC:C sdrd

Sample No: SU 1-1

QC Report No.: 8339 - E&E

Project: WZ6030

Old Inland Pit

VTSR: 05/22/91

Date Extracted: 05/31/91

Date Analyzed: 06/08/91

Sample Amount: 33.3 gm

Final Ext. Volume: 20 mls

GPC Cleanup: Yes

Alumina Cleanup: Yes

Sulfur Cleanup: No

Conc/Dilution: 1 to 1

CAS Number		µg/Kg
319-84-6	Alpha-BHC	2.9 U
319-85-7	Beta-BHC	2.9 U
319-86-8	Delta-BHC	4.3 U
58-89-9	Gamma-BHC (Lindane)	2.9 U
76-44-8	Heptachlor	2.9 U
309-00-2	Aldrin	2.9 U
1024-57-3	Heptachlor Epoxide	2.9 U
959-98-8	Endosulfan I	2.9 U
60-57-1	Dieldrin	5.8 U
72-55-9	4,4'-DDE	5.8 U
72-20-8	Endrin	5.8 U
33212-65-9	Endosulfan II	5.8 U
72-54-8	4,4'-DDD	5.8 U
1031-07-8	Endosulfan Sulfate	12 U
50-29-3	4,4'-DDT	5.8 U
72-43-5	Methoxychlor	12 U
53494-70-5	Endrin Ketone	8.6 U
5103-74-2	Gamma-Chlordane	4.3 U
5103-71-9	Alpha-Chlordane	4.3 U
8001-35-2	Toxaphene	430 U

Pesticide Surrogate Recovery	% Rec.	QC Limits
Dibutylchlorodate	82%	20-154
Dibromooctafluorobiphenyl	78%	na

Data Qualifiers

Value	If the result is a value greater than or equal to the detection limit, report the value.
J	Indicates an estimated value when that value is less than the calculated detection limit.
X	Indicates a value above the linear range of the detector. Dilution required.
S	Indicates no value reported due to saturation of the detector.
D	Indicates the surrogate was diluted out.
U	Indicates compound was analyzed for, but not detected at the given detection limit.
NA	Indicates compound not analyzed.

FORM 1-PEST-W



ANALYTICAL
RESOURCES
INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PESTICIDE/PCB by method 608/8080
Lab Sample ID: 8339B

Matrix: Soil/Sediment

Data Release Authorized: *[Signature]*
Data Prepared: 06/12/91-MAC:C sard

Sample No: SU 1-2

QC Report No.: 8339 - E&E
Project: WZ6030
Old Inland Pit
VTSR: 05/22/91

Analytical
Chemists &
Consultants

333 Ninth Ave. North
Seattle, WA 98109-5187
(206) 621-6490
(206) 621-7523 (FAX)

Date Extracted: 05/31/91
Date Analyzed: 06/08/91
Sample Amount: 29.9 gm
Final Ext. Volume: 20 mls

GPC Cleanup: Yes
Alumina Cleanup: Yes
Sulfur Cleanup: No
Conc/Dilution: 1 to 1

CAS Number		µg/Kg
319-84-6	Alpha-BHC	2.9 U
319-85-7	Beta-BHC	2.9 U
319-86-8	Delta-BHC	4.3 U
58-89-9	Gamma-BHC (Lindane)	2.9 U
76-44-8	Heptachlor	2.9 U
309-00-2	Aldrin	2.9 U
1024-57-3	Heptachlor Epoxide	2.9 U
959-98-8	Endosulfan I	2.9 U
60-57-1	Dieldrin	5.8 U
72-55-9	4,4'-DDE	5.8 U
72-20-8	Endrin	5.8 U
33212-65-9	Endosulfan II	5.8 U
72-54-8	4,4'-DDD	5.8 U
1031-07-8	Endosulfan Sulfate	12 U
50-29-3	4,4'-DDT	5.8 U
72-43-5	Methoxychlor	12 U
53494-70-5	Endrin Ketone	8.6 U
5103-74-2	Gamma-Chlordane	4.3 U
5103-71-9	Alpha-Chlordane	4.3 U
8001-35-2	Toxaphene	430 U

Pesticide Surrogate Recovery	% Rec.	QC Limits
Dibutylchlorendate	102%	20-154
Dibromooctafluorobiphenyl	87%	na

Data Qualifiers

Value	If the result is a value greater than or equal to the detection limit, report the value.
J	Indicates an estimated value when that value is less than the calculated detection limit.
X	Indicates a value above the linear range of the detector. Dilution required.
S	Indicates no value reported due to saturation of the detector.
D	Indicates the surrogate was diluted out.
U	Indicates compound was analyzed for, but not detected at the given detection limit.
NA	Indicates compound not analyzed.

for 6-25-91



ANALYTICAL
RESOURCES
INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PESTICIDE/PCB by method 608/8080

Lab Sample ID: 8339C

Matrix: Soil/Sediment

Sample No: SU 1-3

QC Report No.: 8339 - E&E

Project: WZ6030

Old Inland Pit

VTSR: 05/22/91

Data Release Authorized: *[Signature]*

Data Prepared: 06/12/91-MAC:C sdrd

Analytical
Chemists &
Consultants

333 Ninth Ave. North
Seattle, WA 98109-5187
(206) 621-6490
(206) 621-7523 (FAX)

Date Extracted: 05/31/91
Date Analyzed: 06/08/91
Sample Amount: 30.9 gm
Final Ext. Volume: 20 ml

GPC Cleanup: Yes
Alumina Cleanup: Yes
Sulfur Cleanup: No
Conc/Dilution: 1 to 1

CAS Number		µg/Kg
319-84-6	Alpha-BHC	2.9 U
319-85-7	Beta-BHC	2.9 U
319-86-8	Delta-BHC	4.3 U
58-89-9	Gamma-BHC (Lindane)	2.9 U
76-44-8	Heptachlor	2.9 U
309-00-2	Aldrin	2.9 U
1024-57-3	Heptachlor Epoxide	2.9 U
959-98-8	Endosulfan I	2.9 U
60-57-1	Dieldrin	5.8 U
72-55-9	4,4'-DDE	5.8 U
72-20-8	Endrin	5.8 U
33212-65-9	Endosulfan II	5.8 U
72-54-8	4,4'-DDD	5.8 U
1031-07-8	Endosulfan Sulfate	12 U
50-29-3	4,4'-DDT	5.8 U
72-43-5	Methoxychlor	12 U
53494-70-5	Endrin Ketone	8.6 U
5103-74-2	Gamma-Chlordane	4.3 U
5103-71-9	Alpha-Chlordane	4.3 U
8001-35-2	Toxaphene	430 U

Pesticide Surrogate Recovery	% Rec.	QC Limits
Dibutylchlorodate	89%	20-154
Dibromooctafluorobiphenyl	81%	na

Data Qualifiers

Value	If the result is a value greater than or equal to the detection limit, report the value.
J	Indicates an estimated value when that value is less than the calculated detection limit.
X	Indicates a value above the linear range of the detector. Dilution required.
S	Indicates no value reported due to saturation of the detector.
D	Indicates the surrogate was diluted out.
U	Indicates compound was analyzed for, but not detected at the given detection limit.
NA	Indicates compound not analyzed.

FORM 1-PEST-W



ANALYTICAL
RESOURCES
INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PESTICIDE/PCB by method 608/8080

Lab Sample ID: 8339D

Matrix: Soil/Sediment

Data Release Authorized: *[Signature]*

Data Prepared: 06/12/91-MAC:C sard

Sample No: SU 2-1

QC Report No.: 8339 - E&E

Project: WZ6030

Old Inland Pit

VTSR: 05/22/91

Analytical
Chemists &
Consultants

333 Ninth Ave. North
Seattle, WA 98109-5187
(206) 621-6490
(206) 621-7523 (FAX)

Date Extracted: 05/31/91

Date Analyzed: 06/08/91

Sample Amount: 31.4 gm

Final Ext. Volume: 20 mls

GPC Cleanup: Yes

Alumina Cleanup: Yes

Sulfur Cleanup: No

Conc/Dilution: 1 to 1

CAS Number		µg/Kg
319-84-6	Alpha-BHC	2.9 U
319-85-7	Beta-BHC	2.9 U
319-86-8	Delta-BHC	4.3 U
58-89-9	Gamma-BHC (Lindane)	2.9 U
76-44-8	Heptachlor	2.9 U
309-00-2	Aldrin	2.9 U
1024-57-3	Heptachlor Epoxide	2.9 U
959-98-8	Endosulfan I	5.0 U
60-57-1	Dieldrin	5.8 U
72-55-9	4,4'-DDE	5.8 U
72-20-8	Endrin	5.8 U
33212-65-9	Endosulfan II	5.8 U
72-54-8	4,4'-DDD	5.8 U
1031-07-8	Endosulfan Sulfate	12 U
50-29-3	4,4'-DDT	5.8 U
72-43-5	Methoxychlor	12 U
53494-70-5	Endrin Ketone	8.6 U
5103-74-2	Gamma-Chlordane	4.3 U
5103-71-9	Alpha-Chlordane	4.3 U
8001-35-2	Toxaphene	430 U

Pesticide Surrogate Recovery	% Rec.	QC Limits
Dibutylchloroendate	93%	20-154
Dibromooctafluorobiphenyl	83%	na

Data Qualifiers

Value	If the result is a value greater than or equal to the detection limit, report the value.
J	Indicates an estimated value when that value is less than the calculated detection limit.
X	Indicates a value above the linear range of the detector. Dilution required.
S	Indicates no value reported due to saturation of the detector.
D	Indicates the surrogate was diluted out.
U	Indicates compound was analyzed for, but not detected at the given detection limit.
NA	Indicates compound not analyzed.

8339-25-91



ANALYTICAL
RESOURCES
INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PESTICIDE/PCB by method 608/8080

Lab Sample ID: 8339E

-- Matrix: Soil/Sediment

Sample No: SU 2-2

QC Report No.: 8339 - E&E

Project: WZ6030

Old Inland Pit

VTSR: 05/22/91

Analytical
Chemists &
Consultants

333 Ninth Ave. North
Seattle, WA 98109-5187
(206) 621-6490
(206) 621-7523 (FAX)

Data Release Authorized: *[Signature]*

Data Prepared: 06/12/91-MAC: C: dtd

Date Extracted: 05/31/91
Date Analyzed: 06/07/91
Sample Amount: 30.4 gm
Final Ext. Volume: 20 ml

GPC Cleanup: Yes
Alumina Cleanup: Yes
Sulfur Cleanup: No
Conc/Dilution: 1 to 1

CAS Number		µg/Kg
319-84-6	Alpha-BHC	2.9 U
319-85-7	Beta-BHC	2.9 U
319-86-8	Delta-BHC	4.3 U
58-89-9	Gamma-BHC (Lindane)	2.9 U
76-44-8	Heptachlor	2.9 U
309-00-2	Aldrin	2.9 U
1024-57-3	Heptachlor Epoxide	2.9 U
959-98-8	Endosulfan I	2.9 U
60-57-1	Dieldrin	5.8 U
72-55-9	4,4'-DDE	5.8 U
72-20-8	Endrin	5.8 U
33212-65-9	Endosulfan II	5.8 U
72-54-8	4,4'-DDD	5.8 U
1031-07-8	Endosulfan Sulfate	12 U
50-29-3	4,4'-DDT	5.8 U
72-43-5	Methoxychlor	12 U
53494-70-5	Endrin Ketone	8.6 U
5103-74-2	Gamma-Chlordane	4.3 U
5103-71-9	Alpha-Chlordane	4.3 U
8001-35-2	Toxaphene	430 U

Pesticide Surrogate Recovery	% Rec.	QC Limits
Dibutylchlorodate	100%	20-154
Dibromooctafluorobiphenyl	92%	na

Data Qualifiers

Value	If the result is a value greater than or equal to the detection limit, report the value.
J	Indicates an estimated value when that value is less than the calculated detection limit.
X	Indicates a value above the linear range of the detector. Dilution required.
S	Indicates no value reported due to saturation of the detector.
D	Indicates the surrogate was diluted out.
U	Indicates compound was analyzed for, but not detected at the given detection limit.
NA	Indicates compound not analyzed.

FORM 1-PEST-W



ANALYTICAL
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333 Ninth Ave. North
Seattle, WA 98109-518
(206) 621-6490
(206) 621-7523 (FAX)

ORGANICS ANALYSIS DATA SHEET
PESTICIDE/PCB by method 608/8080
Lab Sample ID: 8339F

-- Matrix: Soil/Sediment

Data Release Authorized: *[Signature]*
Data Prepared: 06/12/91-MAC:C sdrd

Sample No: SU 2-3

QC Report No.: 8339 - E&E

Project: WZ6030

Old Inland Pit

VTSR: 05/22/91

Date Extracted: 05/31/91

Date Analyzed: 06/08/91

Sample Amount: 31.7 gm

Final Ext. Volume: 20 ml

GPC Cleanup: Yes

Alumina Cleanup: Yes

Sulfur Cleanup: No

Conc/Dilution: 1 to 1

CAS Number		µg/Kg
319-84-6	Alpha-BHC	2.9 U
319-85-7	Beta-BHC	2.9 U
319-86-8	Delta-BHC	4.3 U
58-89-9	Gamma-BHC (Lindane)	2.9 U
76-44-8	Heptachlor	2.9 U
309-00-2	Aldrin	2.9 U
1024-57-3	Heptachlor Epoxide	2.9 U
959-98-8	Endosulfan I	2.9 U
60-57-1	Dieldrin	5.8 U
72-55-9	4,4'-DDE	5.8 U
72-20-8	Endrin	5.8 U
33212-65-9	Endosulfan II	5.8 U
72-54-8	4,4'-DDD	5.8 U
1031-07-8	Endosulfan Sulfate	12 U
50-29-3	4,4'-DDT	5.8 U
72-43-5	Methoxychlor	12 U
53494-70-5	Endrin Ketone	8.6 U
5103-74-2	Gamma-Chlordane	4.3 U
5103-71-9	Alpha-Chlordane	4.3 U
8001-35-2	Toxaphene	430 U

Pesticide Surrogate Recovery	% Rec.	QC Limits
Dibutylchlorodate	99%	20-154
Dibromooctafluorobiphenyl	92%	na

Data Qualifiers

Value	If the result is a value greater than or equal to the detection limit, report the value.
J	Indicates an estimated value when that value is less than the calculated detection limit.
X	Indicates a value above the linear range of the detector. Dilution required.
S	Indicates no value reported due to saturation of the detector.
D	Indicates the surrogate was diluted out.
U	Indicates compound was analyzed for, but not detected at the given detection limit.
NA	Indicates compound not analyzed.

ja) (1-25-a)



ANALYTICAL
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ORGANICS ANALYSIS DATA SHEET
PESTICIDE/PCB by method 608/8080

Lab Sample ID: 8339G

Matrix: Soil/Sediment

Sample No: SU 3-1

QC Report No.: 8339 - E&E

Project: WZ6030

Old Inland Pit

VTSR: 05/22/91

Analytical
Chemists &
Consultants

333 Ninth Ave. North
Seattle, WA 98109-5187
(206) 621-6490
(206) 621-7523 (FAX)

Data Release Authorized: *[Signature]*

Data Prepared: 06/12/91-MAC:C sdrd

Date Extracted: 05/31/91
Date Analyzed: 06/08/91
Sample Amount: 31.6 gm
Final Ext. Volume: 20 mls

GPC Cleanup: Yes
Alumina Cleanup: Yes
Sulfur Cleanup: No
Conc/Dilution: 1 to 1

CAS Number		µg/Kg
319-84-6	Alpha-BHC	2.9 U
319-85-7	Beta-BHC	2.9 U
319-86-8	Delta-BHC	4.3 U
58-89-9	Gamma-BHC (Lindane)	2.9 U
76-44-8	Heptachlor	2.9 U
309-00-2	Aldrin	2.9 U
1024-57-3	Heptachlor Epoxide	2.9 U
959-98-8	Endosulfan I	2.9 U
60-57-1	Dieldrin	5.8 U
72-55-9	4,4'-DDE	5.8 U
72-20-8	Endrin	5.8 U
33212-65-9	Endosulfan II	5.8 U
72-54-8	4,4'-DDD	5.8 U
1031-07-8	Endosulfan Sulfate	12 U
50-29-3	4,4'-DDT	5.8 U
72-43-5	Methoxychlor	12 U
53494-70-5	Endrin Ketone	8.6 U
5103-74-2	Gamma-Chlordane	4.3 U
5103-71-9	Alpha-Chlordane	4.3 U
8001-35-2	Toxaphene	430 U

Pesticide Surrogate Recovery	% Rec.	QC Limits
Dibutylchlorodate	96%	20-154
Dibromooctafluorobiphenyl	92%	na

Data Qualifiers

Value	If the result is a value greater than or equal to the detection limit, report the value.
J	Indicates an estimated value when that value is less than the calculated detection limit.
X	Indicates a value above the linear range of the detector. Dilution required.
S	Indicates no value reported due to saturation of the detector.
D	Indicates the surrogate was diluted out.
U	Indicates compound was analyzed for, but not detected at the given detection limit.
NA	Indicates compound not analyzed.

FORM 1-PEST-W



**ANALYTICAL
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ORGANICS ANALYSIS DATA SHEET
PESTICIDE/PCB by method 608/8080

Lab Sample ID: 8339H

Matrix: Soil/Sediment

Data Release Authorized: *[Signature]*

Data Prepared: 06/12/91-MAC:C sardl

Sample No: SU 3-2

QC Report No.: 8339 - E&E -

Project: WZ6030

Old Inland Pit

VTSR: 05/22/91

Analytical
Chemists &
Consultants

333 Ninth Ave. North
Seattle, WA 98109-5167
(206) 621-6490
(206) 621-7523 (FAX)

Date Extracted: 05/31/91

Date Analyzed: 06/08/91

Sample Amount: 35.0 gm

Final Ext. Volume: 20 mls

GPC Cleanup: Yes

Alumina Cleanup: Yes

Sulfur Cleanup: No

Conc/Dilution: 1 to 1

CAS Number		µg/Kg
319-84-6	Alpha-BHC	2.9 U
319-85-7	Beta-BHC	2.9 U
319-86-8	Delta-BHC	4.3 U
58-89-9	Gamma-BHC (Lindane)	2.9 U
76-44-8	Heptachlor	2.9 U
309-00-2	Aldrin	2.9 U
1024-57-3	Heptachlor Epoxide	2.9 U
959-98-8	Endosulfan I	2.9 U
60-57-1	Dieldrin	5.8 U
72-55-9	4,4'-DDE	5.8 U
72-20-8	Endrin	5.8 U
33212-65-9	Endosulfan II	5.8 U
72-54-8	4,4'-DDD	5.8 U
1031-07-8	Endosulfan Sulfate	12 U
50-29-3	4,4'-DDT	5.8 U
72-43-5	Methoxychlor	12 U
53494-70-5	Endrin Ketone	8.6 U
5103-74-2	Gamma-Chlordane	4.3 U
5103-71-9	Alpha-Chlordane	4.3 U
8001-35-2	Toxaphene	430 U

Pesticide Surrogate Recovery	% Rec.	QC Limits
Dibutylchlorodate	99%	20-154
Dibromooctafluorobiphenyl	94%	na

Data Qualifiers

Value	If the result is a value greater than or equal to the detection limit, report the value.
J	Indicates an estimated value when that value is less than the calculated detection limit.
X	Indicates a value above the linear range of the detector. Dilution required.
S	Indicates no value reported due to saturation of the detector.
D	Indicates the surrogate was diluted out.
U	Indicates compound was analyzed for, but not detected at the given detection limit.
NA	Indicates compound not analyzed.

John 6-25-91



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(206) 621-7523 (FAX)

ORGANICS ANALYSIS DATA SHEET
PESTICIDE/PCB by method 608/8080

Lab Sample ID: 8339 I

Matrix: Soil/Sediment

Data Release Authorized: *[Signature]*

Data Prepared: 06/12/91-MAC:C sdrd

Sample No: SU 3-3

QC Report No.: 8339 - E&E

Project: WZ6030

Old Inland Pit

VTSR: 05/22/91

Date Extracted: 05/31/91

Date Analyzed: 06/07/91

Sample Amount: 33.0 gm

Final Ext. Volume: 20 mls

GPC Cleanup: Yes

Alumina Cleanup: Yes

Sulfur Cleanup: No

Conc/Dilution: 1 to 1

CAS Number		µg/Kg
319-84-6	Alpha-BHC	2.9 U
319-85-7	Beta-BHC	2.9 U
319-86-8	Delta-BHC	4.3 U
58-89-9	Gamma-BHC (Lindane)	2.9 U
76-44-8	Heptachlor	2.9 U
309-00-2	Aldrin	2.9 U
1024-57-3	Heptachlor Epoxide	2.9 U
959-98-8	Endosulfan I	2.9 U
60-57-1	Dieldrin	5.8 U
72-55-9	4,4'-DDE	5.8 U
72-20-8	Endrin	5.8 U
33212-65-9	Endosulfan II	5.8 U
72-54-8	4,4'-DDD	5.8 U
1031-07-8	Endosulfan Sulfate	12 U
50-29-3	4,4'-DDT	5.8 U
72-43-5	Methoxychlor	12 U
53494-70-5	Endrin Ketone	8.6 U
5103-74-2	Gamma-Chlordane	4.3 U
5103-71-9	Alpha-Chlordane	4.3 U
8001-35-2	Toxaphene	430 U

Pesticide Surrogate Recovery	% Rec.	QC Limits
Dibutylchlorodane	78%	20-154
Dibromooctafluorobiphenyl	71%	na

jay 6-25-91

Data Qualifiers

Value	If the result is a value greater than or equal to the detection limit, report the value.
J	Indicates an estimated value when that value is less than the calculated detection limit.
X	Indicates a value above the linear range of the detector. Dilution required.
S	Indicates no value reported due to saturation of the detector.
D	Indicates the surrogate was diluted out.
U	Indicates compound was analyzed for, but not detected at the given detection limit.
NA	Indicates compound not analyzed.

FORM 1-PEST-W



ANALYTICAL
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ORGANICS ANALYSIS DATA SHEET
PESTICIDE/PCB by method 608/8080
Lab Sample ID: 8339 J

-- Matrix: Soil/Sediment

Data Release Authorized: *[Signature]*

Data Prepared: 06/12/91-MAC:C sdrd

Sample No: SU 3-3A

QC Report No.: 8339 - E&E

Project: WZ6030

Old Inland Pit

VTSR: 05/22/91

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Seattle, WA 98109-5187
(206) 621-6490
(206) 621-7523 (FAX)

Date Extracted: 05/31/91

Date Analyzed: 06/07/91

Sample Amount: 34.0 gm

Final Ext. Volume: 20 ml

GPC Cleanup: Yes

Alumina Cleanup: Yes

Sulfur Cleanup: No

Conc/Dilution: 1 to 1

CAS Number		µg/Kg
319-84-6	Alpha-BHC	2.9 U
319-85-7	Beta-BHC	2.9 U
319-86-8	Delta-BHC	4.3 U
58-89-9	Gamma-BHC (Lindane)	2.9 U
76-44-8	Heptachlor	2.9 U
309-00-2	Aldrin	2.9 U
1024-57-3	Heptachlor Epoxide	2.9 U
959-98-8	Endosulfan I	2.9 U
60-57-1	Dieldrin	5.8 U
72-55-9	4,4'-DDE	5.8 U
72-20-8	Endrin	5.8 U
33212-65-9	Endosulfan II	5.8 U
72-54-8	4,4'-DDD	5.8 U
1031-07-8	Endosulfan Sulfate	12 U
50-29-3	4,4'-DDT	5.8 U
72-43-5	Methoxychlor	12 U
53494-70-5	Endrin Ketone	8.6 U
5103-74-2	Gamma-Chlordane	4.3 U
5103-71-9	Alpha-Chlordane	4.3 U
8001-35-2	Toxaphene	430 U

Pesticide Surrogate Recovery	% Rec.	QC Limits
Dibutylchlorodate	109%	20-154
Dibromooctafluorobiphenyl	96%	na

Data Qualifiers

Value	If the result is a value greater than or equal to the detection limit, report the value.
J	Indicates an estimated value when that value is less than the calculated detection limit.
X	Indicates a value above the linear range of the detector. Dilution required.
S	Indicates no value reported due to saturation of the detector.
D	Indicates the surrogate was diluted out.
U	Indicates compound was analyzed for, but not detected at the given detection limit.
NA	Indicates compound not analyzed.

See 6-25-91



ANALYTICAL
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ORGANICS ANALYSIS DATA SHEET
PESTICIDE/PCB by method 608/8080

Lab Sample ID: 8339K

-- Matrix: Soil/Sediment

Sample No: SU 4-1

QC Report No.: 8339 - E&E

Project: WZ6030

Old Inland Pit

VTSR: 05/22/91

Analytical
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333 Ninth Ave. North
Seattle, WA 98109-5187
(206) 621-6490
(206) 621-7523 (FAX)

Data Release Authorized: *[Signature]*

Data Prepared: 06/12/91-MAC:C sdrd

Date Extracted: 05/31/91

Date Analyzed: 06/08/91

Sample Amount: 28.9 gm

Final Ext. Volume: 20 mls

GPC Cleanup: Yes

Alumina Cleanup: Yes

Sulfur Cleanup: No

Conc/Dilution: 1 to 1

CAS Number		µg/Kg
319-84-6	Alpha-BHC	2.9 U
319-85-7	Beta-BHC	2.9 U
319-86-8	Delta-BHC	4.3 U
58-89-9	Gamma-BHC (Lindane)	2.9 U
76-44-8	Heptachlor	2.9 U
309-00-2	Aldrin	2.9 U
1024-57-3	Heptachlor Epoxide	2.9 U
959-98-8	Endosulfan I	2.9 U
60-57-1	Dieldrin	5.8 U
72-55-9	4,4'-DDE	5.8 U
72-20-8	Endrin	5.8 U
33212-65-9	Endosulfan II	5.8 U
72-54-8	4,4'-DDD	5.8 U
1031-07-8	Endosulfan Sulfate	12 U
50-29-3	4,4'-DDT	5.8 U
72-43-5	Methoxychlor	12 U
53494-70-5	Endrin Ketone	8.6 U
5103-74-2	Gamma-Chlordane	4.3 U
5103-71-9	Alpha-Chlordane	4.3 U
8001-35-2	Toxaphene	430 U

Pesticide Surrogate Recovery	% Rec.	QC Limits
Dibutylchlorodate	89%	20-154
Dibromooctafluorobiphenyl	79%	na

Data Qualifiers

Value	If the result is a value greater than or equal to the detection limit, report the value.
J	Indicates an estimated value when that value is less than the calculated detection limit.
X	Indicates a value above the linear range of the detector. Dilution required.
S	Indicates no value reported due to saturation of the detector.
D	Indicates the surrogate was diluted out.
U	Indicates compound was analyzed for, but not detected at the given detection limit.
NA	Indicates compound not analyzed.

FORM 1-PEST-W



**ANALYTICAL
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ORGANICS ANALYSIS DATA SHEET

STICIDE/PCB by method 608/8080

Lab Sample ID: 8339L

Matrix: Soil/Sediment

Data Release Authorized: *[Signature]*

Data Prepared: 06/12/91-MAC:C sdr

Sample No: SU 4-2

QC Report No.: 8339 - E&E

Project: WZ6030

Old Inland Pit

VTSR: 05/22/91

Analytical
Chemists &
Consultants

333 Ninth Ave. North
Seattle, WA 98109-5187
(206) 621-6490
(206) 621-7523 (FAX)

Date Extracted: 05/31/91

Date Analyzed: 06/08/91

Sample Amount: 31.2 gm

Final Ext. Volume: 20 ml

GPC Cleanup: Yes

Alumina Cleanup: Yes

Sulfur Cleanup: No

Conc/Dilution: 1 to 1

CAS Number		µg/Kg
319-84-6	Alpha-BHC	2.9 U
319-85-7	Beta-BHC	2.9 U
319-86-8	Delta-BHC	4.3 U
58-89-9	Gamma-BHC (Lindane)	2.9 U
76-44-8	Heptachlor	2.9 U
309-00-2	Aldrin	2.9 U
1024-57-3	Heptachlor Epoxide	2.9 U
959-98-8	Endosulfan I	2.9 U
60-57-1	Dieldrin	5.8 U
72-55-9	4,4'-DDE	7.8 U
72-20-8	Endrin	5.8 U
33212-65-9	Endosulfan II	5.8 U
72-54-8	4,4'-DDD	5.8 U
1031-07-8	Endosulfan Sulfate	12 U
50-29-3	4,4'-DDT	5.8 U
72-43-5	Methoxychlor	12 U
53494-70-5	Endrin Ketone	8.6 U
5103-74-2	Gamma-Chlordane	4.3 U
5103-71-9	Alpha-Chlordane	4.3 U
8001-35-2	Toxaphene	430 U

Pesticide Surrogate Recovery	% Rec.	QC Limits
Dibutylchlorodate	95%	20-154
Dibromooctafluorobiphenyl	92%	na

Data Qualifiers

Value	If the result is a value greater than or equal to the detection limit, report the value.
J	Indicates an estimated value when that value is less than the calculated detection limit.
X	Indicates a value above the linear range of the detector. Dilution required.
S	Indicates no value reported due to saturation of the detector.
D	Indicates the surrogate was diluted out.
U	Indicates compound was analyzed for, but not detected at the given detection limit.
NA	Indicates compound not analyzed.

See 6-25-91



ANALYTICAL
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ORGANICS ANALYSIS DATA SHEET
PESTICIDE/PCB by method 608/8080

Lab Sample ID: 8339M

Matrix: Soil/Sediment

Sample No: SU 4-3

QC Report No.: 8339 - E&E

Project: WZ6030

Old Inland Pit

VTSR: 05/22/91

Data Release Authorized: *[Signature]*

Data Prepared: 06/12/91-MAC:C sdrd

Analytical
Chemists &
Consultants

333 Ninth Ave. North
Seattle, WA 98109-5187
(206) 621-6490
(206) 621-7523 (FAX)

Date Extracted: 05/31/91
Date Analyzed: 06/08/91
Sample Amount: 30.4 gm
Final Ext. Volume: 20 mls

GPC Cleanup: Yes
Alumina Cleanup: Yes
Sulfur Cleanup: No
Conc/Dilution: 1 to 1

CAS Number		µg/Kg
319-84-6	Alpha-BHC	2.9 U
319-85-7	Beta-BHC	2.9 U
319-86-8	Delta-BHC	4.3 U
58-89-9	Gamma-BHC (Lindane)	2.9 U
76-44-8	Heptachlor	2.9 U
309-00-2	Aldrin	2.9 U
1024-57-3	Heptachlor Epoxide	2.9 U
959-98-8	Endosulfan I	2.9 U
60-57-1	Dieldrin	73
72-55-9	4,4'-DDE	25 J
72-20-8	Endrin	5.8 U
33212-65-9	Endosulfan II	5.8 U
72-54-8	4,4'-DDD	11 U
1031-07-8	Endosulfan Sulfate	12 U
50-29-3	4,4'-DDT	34
72-43-5	Methoxychlor	17 J
53494-70-5	Endrin Ketone	8.6 U
5103-74-2	Gamma-Chlordane	18 J
5103-71-9	Alpha-Chlordane	27 J
8001-35-2	Toxaphene	430 U

Pesticide Surrogate Recovery	% Rec.	QC Limits
Dibutylchloroendate	94%	20-154
Dibromooctafluorobiphenyl	92%	na

Data Qualifiers

Value If the result is a value greater than or equal to the detection limit, report the value.
J Indicates an estimated value when that value is less than the calculated detection limit.
X Indicates a value above the linear range of the detector. Dilution required.
S Indicates no value reported due to saturation of the detector.
D Indicates the surrogate was diluted out.
U Indicates compound was analyzed for, but not detected at the given detection limit.
NA Indicates compound not analyzed.

FORM 1-PEST-W

10/6-25-91

INORGANIC ANALYSIS DATA SHEET

ient: E&E

Lab Name: Analytical Resources, Inc.

Client's Sample Number

Matrix (soil/water): Soil

MW1-1

Lab Sample ID: 8263 B

% Solids: 96.07

Date Received: 05/15/91

Concentration Units (ug/L or mg/kg dry weight): mg/kg-dry

CAS No.	Analyte	Concentration	C
7429-90-5	Aluminum	10400	
7440-36-0	Antimony	5.8	
7440-38-2	Arsenic	8.3	
7440-39-3	Barium	72.4	
7440-41-7	Beryllium	0.29	
7440-43-9	Cadmium	0.17	
7440-70-2	Calcium	28300	
7440-47-3	Chromium	9.5	
7440-48-4	Cobalt	5.1	
7440-50-8	Copper	27.3	
7439-89-6	Iron	14600	
7439-92-1	Lead	14.2	
7439-95-4	Magnesium	7530	
7439-96-5	Manganese	328	
7439-97-6	Mercury		
7440-02-0	Nickel	8.4	
7440-09-7	Potassium	1900	
7782-49-2	Selenium	4.2	
7440-22-4	Silver	0.25	
7440-23-5	Sodium	158	
7440-28-0	Thallium	4.2	
7440-62-2	Vanadium	18.1	
7440-66-6	Zinc	54.0	
	Cyanide		

Color Before:

Clarity Before:

Texture:

Color After:

Clarity After:

Artifacts:

Comments:

La-76-25-91

INORGANIC ANALYSIS DATA SHEET

Client: E&E

Lab Name: Analytical Resources, Inc.

Client's Sample Number

Matrix (soil/water): Soil

MW1-2

Lab Sample ID: 8263 C

% Solids: 96.41

Date Received: 05/15/91

Concentration Units (ug/L or mg/kg dry weight): mg/kg-dry

CAS No.	Analyte	Concentration	C
7429-90-5	Aluminum	6560	
7440-36-0	Antimony	3.8	U R
7440-38-2	Arsenic	5.6	
7440-39-3	Barium	37.1	
7440-41-7	Beryllium	0.22	U Y
7440-43-9	Cadmium	0.15	U
7440-70-2	Calcium	17000	
7440-47-3	Chromium	5.9	
7440-48-4	Cobalt	2.5	U Y
7440-50-8	Copper	5.6	
7439-89-6	Iron	9430	
7439-92-1	Lead	5.3	
7439-95-4	Magnesium	7430	
7439-96-5	Manganese	193	
7439-97-6	Mercury		
7440-02-0	Nickel	5.5	
7440-09-7	Potassium	2230	
7782-49-2	Selenium	4.6	
7440-22-4	Silver	0.23	U
7440-23-5	Sodium	131	
7440-28-0	Thallium	4.7	
7440-62-2	Vanadium	7.1	
7440-66-6	Zinc	25.3	
	Cyanide		

Color Before:

Clarity Before:

Texture:

Color After:

Clarity After:

Artifacts:

Comments:

Jaj 6-25-91

INORGANIC ANALYSIS DATA SHEET

Client: E&E

Lab Name: Analytical Resources, Inc.

Client's Sample Number

Matrix (soil/water): Soil

MW2-1

Lab Sample ID: 8290 B

% Solids: 94.39

Date Received: 05/17/91

Concentration Units (ug/L or mg/kg dry weight): mg/kg-dry

CAS No.	Analyte	Concentration	C
7429-90-5	Aluminum	10000	
7440-36-0	Antimony	3.6	U R
7440-38-2	Arsenic	5.6	
7440-39-3	Barium	52.5	
7440-41-7	Beryllium	0.31	U Y
7440-43-9	Cadmium	0.15	U
7440-70-2	Calcium	3470	
7440-47-3	Chromium	11.4	
7440-48-4	Cobalt	5.2	Y
7440-50-8	Copper	10.8	
7439-89-6	Iron	15100	
7439-92-1	Lead	11.0	
7439-95-4	Magnesium	7560	
7439-96-5	Manganese	352	
7439-97-6	Mercury		
7440-02-0	Nickel	9.6	
7440-09-7	Potassium	1840	
7782-49-2	Selenium	3.6	U
7440-22-4	Silver	0.22	U
7440-23-5	Sodium	208	Y
7440-28-0	Thallium	8.5	
7440-62-2	Vanadium	15.1	
7440-66-6	Zinc	34.2	
	Cyanide		

Color Before:

Clarity Before:

Texture:

Color After:

Clarity After:

Artifacts:

Comments:

Jan 6-25-91

INORGANIC ANALYSIS DATA SHEET

Client: E&E

Lab Name: Analytical Resources, Inc.

Client's Sample Number

Matrix (soil/water): Soil

MW2-2

Lab Sample ID: 8302 A

% Solids: 97.26

Date Received: 05/20/91

Concentration Units (ug/L or mg/kg dry weight): mg/kg-dry

CAS No.	Analyte	Concentration	C
7429-90-5	Aluminum	6780	
7440-36-0	Antimony	4.0	
7440-38-2	Arsenic	4.8	
7440-39-3	Barium	28.2	
7440-41-7	Beryllium	0.21	
7440-43-9	Cadmium	0.14	
7440-70-2	Calcium	14300	
7440-47-3	Chromium	6.6	
7440-48-4	Cobalt	3.1	
7440-50-8	Copper	9.4	
7439-89-6	Iron	10400	
7439-92-1	Lead	5.9	
7439-95-4	Magnesium	6830	
7439-96-5	Manganese	210	
7439-97-6	Mercury		
7440-02-0	Nickel	6.6	
7440-09-7	Potassium	1510	
7782-49-2	Selenium	3.5	
7440-22-4	Silver	0.21	
7440-23-5	Sodium	112	
7440-28-0	Thallium	3.5	
7440-62-2	Vanadium	7.5	
7440-66-6	Zinc	21.6	
	Cyanide		

Color Before:

Clarity Before:

Texture:

Color After:

Clarity After:

Artifacts:

Comments:

J(1) 6.75-91

INORGANIC ANALYSIS DATA SHEET

Client: E&E

Lab Name: Analytical Resources, Inc.

Client's Sample Number

Matrix (soil/water): Soil

MW-3-1

Lab Sample ID: 8358 E

% Solids: 94.79

Date Received: 05/24/91

Concentration Units (ug/L or mg/kg dry weight): mg/kg-dry

CAS No.	Analyte	Concentration	C
7429-90-5	Aluminum	10100	J
7440-36-0	Antimony	4.6	J
7440-38-2	Arsenic	8.7	
7440-39-3	Barium	65.9	
7440-41-7	Beryllium	0.30	U J
7440-43-9	Cadmium	0.15	U
7440-70-2	Calcium	16000	
7440-47-3	Chromium	14.7	
7440-48-4	Cobalt	5.3	
7440-50-8	Copper	11.1	
7439-89-6	Iron	15000	
7439-92-1	Lead	7.9	
7439-95-4	Magnesium	8810	J
7439-96-5	Manganese	297	
7439-97-6	Mercury		
7440-02-0	Nickel	10.2	
7440-09-7	Potassium	3530	
7782-49-2	Selenium	5.9	J
7440-22-4	Silver	0.22	U
7440-23-5	Sodium	228	J
7440-28-0	Thallium	10.6	
7440-62-2	Vanadium	14.5	
7440-66-6	Zinc	34.0	J
	Cyanide		

Color Before:

Clarity Before:

Texture:

Color After:

Clarity After:

Artifacts:

Comments:

6-25-91

INORGANIC ANALYSIS DATA SHEET

Client: E&E

Lab Name: Analytical Resources, Inc.

Client's Sample Number

Matrix (soil/water): Soil

MW4-1

Lab Sample ID: 8263 A

% Solids: 96.62

Date Received: 05/15/91

Concentration Units (ug/L or mg/kg dry weight): mg/kg-dry

CAS No.	Analyte	Concentration	C
7429-90-5	Aluminum	9800	
7440-36-0	Antimony	3.5	U
7440-38-2	Arsenic	13.9	
7440-39-3	Barium	53.0	
7440-41-7	Beryllium	0.30	U
7440-43-9	Cadmium	0.14	U
7440-70-2	Calcium	4980	
7440-47-3	Chromium	9.8	
7440-48-4	Cobalt	5.4	
7440-50-8	Copper	16.9	
7439-89-6	Iron	15000	
7439-92-1	Lead	10.4	
7439-95-4	Magnesium	7630	
7439-96-5	Manganese	333	
7439-97-6	Mercury		
7440-02-0	Nickel	8.9	
7440-09-7	Potassium	1770	
7782-49-2	Selenium	4.2	
7440-22-4	Silver	0.21	U
7440-23-5	Sodium	162	
7440-28-0	Thallium	3.5	U
7440-62-2	Vanadium	13.7	
7440-66-6	Zinc	34.8	
	Cyanide		

Color Before:

Clarity Before:

Texture:

Color After:

Clarity After:

Artifacts:

Comments:

JL 6-25-91

INORGANIC ANALYSIS DATA SHEET

Client: E&E

Lab Name: Analytical Resources, Inc.

Client's Sample Number

Matrix (soil/water): Soil

MW4-2

Lab Sample ID: 8290 A

% Solids: 95.73

Date Received: 05/17/91

Concentration Units (ug/L or mg/kg dry weight): mg/kg-dry

CAS No.	Analyte	Concentration	C
7429-90-5	Aluminum	6720	
7440-36-0	Antimony	4.1	J
7440-38-2	Arsenic	4.0	U
7440-39-3	Barium	20.2	
7440-41-7	Beryllium	0.24	U J
7440-43-9	Cadmium	0.16	U
7440-70-2	Calcium	31200	
7440-47-3	Chromium	6.6	U J
7440-48-4	Cobalt	2.1	U J
7440-50-8	Copper	20.1	
7439-89-6	Iron	9740	
7439-92-1	Lead	4.7	
7439-95-4	Magnesium	9920	
7439-96-5	Manganese	283	
7439-97-6	Mercury		
7440-02-0	Nickel	6.6	
7440-09-7	Potassium	1100	J
7782-49-2	Selenium	5.1	
7440-22-4	Silver	0.24	U
7440-23-5	Sodium	93.2	J
7440-28-0	Thallium	4.2	
7440-62-2	Vanadium	5.7	
7440-66-6	Zinc	24.9	
	Cyanide		

Color Before:

Clarity Before:

Texture:

Color After:

Clarity After:

Artifacts:

Comments:

[Signature] 6-25-91

INORGANIC ANALYSIS DATA SHEET

Client: E&E

Lab Name: Analytical Resources, Inc.

Client's Sample Number

Matrix (soil/water): Water

MW-1

Lab Sample ID: 8358 A

% Solids:

Date Received: 05/24/91

Concentration Units (ug/L or mg/kg dry weight): ug/L

CAS No.	Analyte	Concentration	C
7429-90-5	Aluminum	9080	
7440-36-0	Antimony	50.0	U
7440-38-2	Arsenic	50.0	U
7440-39-3	Barium	128	U
7440-41-7	Beryllium	1.0	U
7440-43-9	Cadmium	2.0	U
7440-70-2	Calcium	53300	
7440-47-3	Chromium	10.8	
7440-48-4	Cobalt	3.9	
7440-50-8	Copper	21.6	
7439-89-6	Iron	14000	
7439-92-1	Lead	25.0	U
7439-95-4	Magnesium	19000	
7439-96-5	Manganese	282	
7439-97-6	Mercury		
7440-02-0	Nickel	10.0	U
7440-09-7	Potassium	4920	U
7782-49-2	Selenium	50.0	U
7440-22-4	Silver	3.0	U
7440-23-5	Sodium	5250	
7440-28-0	Thallium	50.0	U
7440-62-2	Vanadium	10.9	
7440-66-6	Zinc	57.4	
	Cyanide		

Color Before:

Clarity Before:

Texture:

Color After:

Clarity After:

Artifacts:

Comments:

INORGANIC ANALYSIS DATA SHEET

ient: E&E

Lab Name: Analytical Resources, Inc.

Client's Sample Number

Matrix (soil/water): Water

MW-2

Lab Sample ID: 8358 B

% Solids:

Date Received: 05/24/91

Concentration Units (ug/L or mg/kg dry weight): ug/L

CAS No.	Analyte	Concentration	C
7429-90-5	Aluminum	20500	
7440-36-0	Antimony	50.0	U
7440-38-2	Arsenic	50.0	U
7440-39-3	Barium	233	
7440-41-7	Beryllium	1.1	J
7440-43-9	Cadmium	2.0	U
7440-70-2	Calcium	67600	
7440-47-3	Chromium	27.4	
7440-48-4	Cobalt	9.2	J
7440-50-8	Copper	29.4	
7439-89-6	Iron	33400	
7439-92-1	Lead	32.1	
7439-95-4	Magnesium	26400	
7439-96-5	Manganese	607	
7439-97-6	Mercury		
7440-02-0	Nickel	17.5	J
7440-09-7	Potassium	7870	
7782-49-2	Selenium	50.0	U
7440-22-4	Silver	3.0	U
7440-23-5	Sodium	6040	
7440-28-0	Thallium	50.0	U
7440-62-2	Vanadium	27.5	J
7440-66-6	Zinc	115	
	Cyanide		

MTCA

Background

20.0

2.3

25.26

66.4

Color Before:

Clarity Before:

Texture:

Color After:

Clarity After:

Artifacts:

Comments:

12-16-75-91

INORGANIC ANALYSIS DATA SHEET

Client: E&E

Lab Name: Analytical Resources, Inc.

Client's Sample Number

Matrix (soil/water): Water

MW-3

Lab Sample ID: 8358 C

% Solids:

Date Received: 05/24/91

Concentration Units (ug/L or mg/kg dry weight): ug/L

CAS No.	Analyte	Concentration	C
7429-90-5	Aluminum	18800	
7440-36-0	Antimony	50.0	U
7440-38-2	Arsenic	50.0	U
7440-39-3	Barium	223	
7440-41-7	Beryllium	1.3	J
7440-43-9	Cadmium	2.0	U
7440-70-2	Calcium	70300	
7440-47-3	Chromium	16.3	
7440-48-4	Cobalt	13.4	J
7440-50-8	Copper	44.6	
7439-89-6	Iron	27900	
7439-92-1	Lead	43.4	
7439-95-4	Magnesium	27700	
7439-96-5	Manganese	610	
7439-97-6	Mercury		
7440-02-0	Nickel	22.2	J
7440-09-7	Potassium	6780	
7782-49-2	Selenium	50.0	U
7440-22-4	Silver	3.0	U
7440-23-5	Sodium	6530	
7440-28-0	Thallium	50.0	U
7440-62-2	Vanadium	22.0	J
7440-66-6	Zinc	114	
	Cyanide		

MTCA

Background

20.0

7.34

16.19

66.4

Color Before:

Clarity Before:

Texture:

Color After:

Clarity After:

Artifacts:

Comments:

for 6.25, 91

INORGANIC ANALYSIS DATA SHEET

ient: E&E

Lab Name: Analytical Resources, Inc.

Client's Sample Number

Matrix (soil/water): Water

MW-4

Lab Sample ID: 8358 D

% Solids:

Date Received: 05/24/91

Concentration Units (ug/L or mg/kg dry weight): ug/L

CAS No.	Analyte	Concentration	C
7429-90-5	Aluminum	36400	
7440-36-0	Antimony	50.0	U
7440-38-2	Arsenic	50.0	U
7440-39-3	Barium	352	
7440-41-7	Beryllium	2.2	J
7440-43-9	Cadmium	2.0	U
7440-70-2	Calcium	84100	
7440-47-3	Chromium	34.5	
7440-48-4	Cobalt	21.6	J
7440-50-8	Copper	52.3	
7439-89-6	Iron	61200	
7439-92-1	Lead	55.8	
7439-95-4	Magnesium	36400	
7439-96-5	Manganese	1040	
7439-97-6	Mercury		
7440-02-0	Nickel	35.8	J
7440-09-7	Potassium	11000	
7782-49-2	Selenium	50.0	U
7440-22-4	Silver	3.0	U
7440-23-5	Sodium	6570	
7440-28-0	Thallium	50.0	U
7440-62-2	Vanadium	48.1	J
7440-66-6	Zinc	163	
	Cyanide		

MTCR

Background
21,376

20.0

9.81

2.0

0.84

25,026

663.44

16.19

50.1

Color Before:

Clarity Before:

Texture:

Color After:

Clarity After:

Artifacts:

Comments:

11-6-91



ANALYTICAL
RESOURCES
INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Method 624/8240

Sample No: MW1-1

Analytical
Chemists &
Consultants

Lab ID: 8263B
Matrix: Soils/Sediments

QC Report No: 8263 - E&E
Project No: WZ6030
Old Inland Pit
VTSR: 05/15/91

333 Ninth Ave. North
Seattle, WA 98109-5187
(206) 621-6490
(206) 621-7523 (FAX)

Data Release Authorized: [Signature]
Report prepared 05/31/91 - MAC:K kas

Instrument: FINN I
Date Analyzed: 5/20/91

Amount Analyzed: 4.9 g (dry wt.)
Percent Moisture: 3.6%
pH: NA

CAS Number		µg/Kg	CAS Number		µg/Kg
74-87-3	Chloromethane	2.0 U	78-87-5	1,2-Dichloropropane	1.0 U
74-83-9	Bromomethane	2.0 U	10061-01-5	cis-1,3-Dichloropropene	2.0 U
75-01-4	Vinyl Chloride	3.1 U	79-01-6	Trichloroethene	1.0 U
75-00-3	Chloroethane	3.1 U	124-48-1	Dibromochloromethane	1.0 U
75-09-2	Methylene Chloride	1.5 uJ	79-00-5	1,1,2-Trichloroethane	1.0 U
67-64-1	Acetone	21	71-43-2	Benzene	1.0 U
75-15-0	Carbon Disulfide	2.0 U	10061-02-6	Trans-1,3-Dichloropropene	1.0 U
75-35-4	1,1-Dichloroethene	1.0 U	110-75-8	2-Chloroethylvinylether	2.0 U
75-34-3	1,1-Dichloroethane	1.0 U	75-25-2	Bromoform	3.1 U
540-59-0	1,2-Dichloroethene (total)	1.0 U	108-10-1	4-Methyl-2-Pentanone	2.0 U
67-66-3	Chloroform	1.0 U	591-78-6	2-Hexanone	2.0 U
107-06-2	1,2-Dichloroethane	2.0 U	127-18-4	Tetrachloroethene	1.0 U
78-93-3	2-Butanone	7.6 U	79-34-5	1,1,2,2-Tetrachloroethane	2.0 U
71-55-6	1,1,1-Trichloroethane	1.0 U	108-88-3	Toluene	1.0 U
56-23-5	Carbon Tetrachloride	2.0 U	108-90-7	Chlorobenzene	1.0 U
108-05-4	Vinyl Acetate	2.0 U	100-41-4	Ethylbenzene	1.0 U
75-27-4	Bromodichloromethane	1.0 U	100-42-5	Styrene	1.0 U
75-69-4	Trichlorofluoromethane	2.0 U	1330-20-7	Total Xylenes	2.0 U
1,1,2-Trichloro-1,2,2-trifluoroethane		2.0 U	Total Dichlorobenzenes		5.1 U

Surrogate Recoveries

d8-Toluene	101%
Bromofluorobenzene	91.8%
d4-1,2-Dichloroethane	99.7%

fa) 6-25-91

Data Reporting Qualifiers

Value If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected at the given detection limit.

J Indicates an estimated value when result is less than specified detection limit.

NR Analysis not required.

B This flag is used when the analyte is found in the blank as well as a sample. Indicates possible/probable blank contamination.

K This flag is used when quantitated value falls above the limit of the calibration curve and dilution should be run.

M Indicates an estimated value of analyte found and confirmed by analyst but with low spectral match parameters.



ANALYTICAL
RESOURCES
INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Method 624/8240

Sample No: MW2-1

Analytical
Chemists &
Consultants

Lab ID: 8290B
Matrix: Soils/Sediments

QC Report No: 8290 - E&E
Project No: WZ6030
Old Inland Pit
VTSR: 05/17/91

333 Ninth Ave. North
Seattle, WA 98109-51
(206) 621-6490
(206) 621-7523 (FAX)

Data Release Authorized: *[Signature]*
Report prepared 6/5/91 - MAC:K kas

Instrument: FINN 5
Date Analyzed: 5/21/91

Amount Analyzed: 4.9 gm (Dry Weight)
Percent Moisture: 3.1%
pH: NA

CAS Number		µg/Kg	CAS Number		µg/Kg
74-87-3	Chloromethane	5.1 U	78-87-5	1,2-Dichloropropane	1.0 U
74-83-9	Bromomethane	3.1 U	10061-02-6	Trans-1,3-Dichloropropene	1.0 U
75-01-4	Vinyl Chloride	3.1 U	79-01-6	Trichloroethene	1.0 U
75-00-3	Chloroethane	3.1 U	124-48-1	Dibromochloromethane	1.0 U
75-09-2	Methylene Chloride	1.4 U	79-00-5	1,1,2-Trichloroethane	1.0 U
67-64-1	Acetone	2.3 U	71-43-2	Benzene	1.0 U
75-15-0	Carbon Disulfide	2.1 U	10061-01-5	cis-1,3-Dichloropropene	1.0 U
75-35-4	1,1-Dichloroethene	2.1 U	110-75-8	2-Chloroethylvinylether	1.0 U
75-34-3	1,1-Dichloroethane	1.0 U	75-25-2	Bromoform	1.0 U
156-60-5	Trans-1,2-Dichloroethene	1.0 U	108-10-1	4-Methyl-2-Pentanone	2.1 U
156-59-2	Cis-1,2-Dichloroethene	1.0 U	591-78-6	2-Hexanone	4.1 U
67-66-3	Chloroform	1.0 U	127-18-4	Tetrachloroethene	1.0 U
107-06-2	1,2-Dichloroethane	1.0 U	79-34-5	1,1,2,2-Tetrachloroethane	1.0 U
78-93-3	2-Butanone	7.7 U	108-88-3	Toluene	1.0 U
71-55-6	1,1,1-Trichloroethane	1.0 U	108-90-7	Chlorobenzene	1.0 U
56-23-5	Carbon Tetrachloride	1.0 U	100-41-4	Ethylbenzene	1.0 U
108-05-4	Vinyl Acetate	1.0 U	100-42-5	Styrene	1.0 U
75-27-4	Bromodichloromethane	1.0 U	1330-20-7	Total Xylenes	2.1 U
75-69-4	Trichlorofluoromethane	1.0 U		1,1,2-Trichloro-1,2,2-trifluoroethane	5.1 U

Surrogate Recoveries

d8-Toluene	97.7%
Bromofluorobenzene	95.7%
d4-1,2-Dichloroethane	102%

Lab 10-25-91

Data Reporting Qualifiers

Value If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected at the given detection limit.

J Indicates an estimated value when result is less than specified detection limit.

NR Analysis not required.

B This flag is used when the analyte is found in the blank as well as a sample. Indicates possible/probable blank contamination.

K This flag is used when quantitated value falls above the limit of the calibration curve and dilution should be run.

M Indicates an estimated value of analyte found and confirmed by analyst but with low spectral match parameters.



ORGANICS ANALYSIS DATA SHEET
Volatiles by Method 624/8240

ANALYTICAL
RESOURCES
INCORPORATED

Lab ID: 8302 A
Matrix: Soil/Sediments

Sample No: MW 2-2

Analytical
Chemists &
Consultants

QC Report No: 8302-Ecology & Environment

Project No: WZ6030

333 Ninth Ave. North
Seattle, WA 98109-518
(206) 621-6490
(206) 621-7523 (FAX)

Data Release Authorized: *[Signature]*
Report prepared: 06/06/91 - MAC:D JV

Old Inland Pit

Date Received: 05/20/91

Amount Analyzed: 5.1 g (Dry wt.)

Percent Moisture: 2.8%

pH: NA

Instrument: FINN I
Date Analyzed: 05/22/91

CAS Number		µg/Kg
74-87-3	Chloromethane	2.0 U
74-83-9	Bromomethane	2.0 U
75-01-4	Vinyl Chloride	2.9 U
75-00-3	Chloroethane	2.9 U
75-09-2	Methylene Chloride	6.1 U
67-64-1	Acetone	8.9 U
75-15-0	Carbon Disulfide	2.0 U
75-35-4	1,1-Dichloroethene	1.0 U
75-34-3	1,1-Dichloroethane	1.0 U
540-59-0	1,2-Dichloroethene (total)	1.0 U
67-66-3	Chloroform	1.0 U
107-06-2	1,2-Dichloroethane	2.0 U
78-93-3	2-Butanone	7.3 U
71-55-6	1,1,1-Trichloroethane	1.0 U
56-23-5	Carbon Tetrachloride	2.0 U
108-05-4	Vinyl Acetate	2.0 U
75-27-4	Bromodichloromethane	1.0 U
75-69-4	Trichlorofluoromethane	2.0 U

CAS Number		µg/Kg
78-87-5	1,2-Dichloropropane	1.0 U
10061-02-6	Trans-1,3-Dichloropropene	2.0 U
79-01-6	Trichloroethene	1.0 U
124-48-1	Dibromochloromethane	1.0 U
79-00-5	1,1,2-Trichloroethane	1.0 U
71-43-2	Benzene	1.0 U
10061-01-5	cis-1,3-Dichloropropene	1.0 U
110-75-8	2-Chloroethylvinylether	2.0 U
75-25-2	Bromoform	2.9 U
108-10-1	4-Methyl-2-Pentanone	2.0 U
591-78-6	2-Hexanone	2.9 U
127-18-4	Tetrachloroethene	1.0 U
79-34-5	1,1,2,2-Tetrachloroethane	2.0 U
108-88-3	Toluene	1.0 U
108-90-7	Chlorobenzene	1.0 U
100-41-4	Ethylbenzene	1.0 U
100-42-5	Styrene	1.0 U
1330-20-7	Total Xylenes	2.0 U
	1,1,2-Trichloro-1,2,2-trifluoroethane	0.7 M

Surrogate Recoveries

d8-Toluene	96.0%
Bromofluorobenzene	101%
d4-1,2-Dichloroethane	101%

QC Limits

81-117
74-121
70-121

Jan 6-25-91

Data Reporting Qualifiers

Value If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected at the given detection limit.

J Indicates an estimated value when result is less than specified detection limit.

NR Analysis not required.

B This flag is used when the analyte is found in the blank as well as a sample. Indicates possible/probable blank contamination.

K This flag is used when quantitated value falls above the limit of the calibration curve and dilution should be run.

M Indicates an estimated value of analyte found and confirmed by analyst but with low spectral match parameters.

ecology and environment



ANALYTICAL
RESOURCES
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ORGANICS ANALYSIS DATA SHEET
Volatiles by Method 624/8240

Sample No: MW4-1

Analytical
Chemists &
Consultants

Lab ID: 8263A
Matrix: Soils/Sediments

QC Report No: 8263 - E&E
Project No: WZ6030
Old Inland Pit
VTSR: 05/15/91

333 Ninth Ave. North
Seattle, WA 98109-5187
(206) 621-6490
(206) 621-7523 (FAX)

Data Release Authorized: [Signature]
Report prepared 05/31/91 - MAC:K kas

Amount Analyzed: 4.9 g (dry wt.)
Percent Moisture: 3.0%
pH: NA

Instrument: FINN I
Date Analyzed: 5/20/91

CAS Number		µg/Kg	CAS Number		µg/Kg
74-87-3	Chloromethane	2.0 U	78-87-5	1,2-Dichloropropane	1.0 U
74-83-9	Bromomethane	2.0 U	10061-01-5	cis-1,3-Dichloropropene	2.0 U
75-01-4	Vinyl Chloride	3.0 U	79-01-6	Trichloroethene	1.0 U
75-00-3	Chloroethane	3.0 U	124-48-1	Dibromochloromethane	1.0 U
75-09-2	Methylene Chloride	1.5 U	79-00-5	1,1,2-Trichloroethane	1.0 U
67-64-1	Acetone	3.0 U	71-43-2	Benzene	1.0 U
75-15-0	Carbon Disulfide	2.0 U	10061-01-5	Trans-1,3-Dichloropropene	1.0 U
75-35-4	1,1-Dichloroethene	1.0 U	110-75-8	2-Chloroethylvinylether	2.0 U
75-34-3	1,1-Dichloroethane	1.0 U	75-25-2	Bromoform	3.0 U
540-59-0	1,2-Dichloroethene (total)	1.0 U	108-10-1	4-Methyl-2-Pentanone	2.0 U
7-66-3	Chloroform	1.0 U	591-78-6	2-Hexanone	2.0 U
107-06-2	1,2-Dichloroethane	2.0 U	127-18-4	Tetrachloroethene	1.0 U
78-93-3	2-Butanone	7.6 U	79-34-5	1,1,2,2-Tetrachloroethane	2.0 U
71-55-6	1,1,1-Trichloroethane	1.0 U	108-88-3	Toluene	1.0 U
56-23-5	Carbon Tetrachloride	2.0 U	108-90-7	Chlorobenzene	1.0 U
108-05-4	Vinyl Acetate	2.0 U	100-41-4	Ethylbenzene	1.0 U
75-27-4	Bromodichloromethane	1.0 U	100-42-5	Styrene	1.0 U
75-69-4	Trichlorofluoromethane	2.0 U	1330-20-7	Total Xylenes	2.0 U
1,1,2-Trichloro-1,2,2-trifluoroethane		2.0 U	Total Dichlorobenzenes		5.1 U

Surrogate Recoveries

d8-Toluene	101%
Bromofluorobenzene	96.7%
d4-1,2-Dichloroethane	97.6%

6-25-91

Data Reporting Qualifiers

Value If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected at the given detection limit.

J Indicates an estimated value when result is less than specified detection limit.

IR Analysis not required.

B This flag is used when the analyte is found in the blank as well as a sample. Indicates possible/probable blank contamination.

K This flag is used when quantitated value falls above the limit of the calibration curve and dilution should be run.

M Indicates an estimated value of analyte found and confirmed by analyst but with low spectral match parameters.

ORGANICS ANALYSIS DATA SHEET
Volatiles by Method 624/8240



Sample No: MW 3-1

ANALYTICAL
RESOURCES
INCORPORATED

Lab ID: 8358 E
Matrix: Soil/Sediments

QC Report No: 8358
Ecology & Environment
Project No: WZ 6030
Old Inlet Pit

Analytical
Chemists &
Consultants

333 Ninth Ave North
Seattle, WA 98109-5187
(206) 621-6490
(206) 621-7523 (FAX)

Data Release Authorized: *[Signature]*
Report prepared: 06/12/91 - MAC:D jv

Date Received: 05/24/91
Amount Analyzed: 5.0 g (Dry wt.)
Percent Moisture: 4.0%
pH: NA

Instrument: FINN I
Date Analyzed: 05/30/91

CAS Number		µg/Kg
74-87-3	Chloromethane	2.0 U
74-83-9	Bromomethane	2.0 U
75-01-4	Vinyl Chloride	3.0 U
75-00-3	Chloroethane	3.0 U
75-09-2	Methylene Chloride	3.3 UJ
67-64-1	Acetone	9.7 UJ
75-15-0	Carbon Disulfide	2.0 U
75-35-4	1,1-Dichloroethene	1.0 U
75-34-3	1,1-Dichloroethane	1.0 U
540-59-0	1,2-Dichloroethene (total)	1.0 U
67-66-3	Chloroform	1.0 U
107-06-2	1,2-Dichloroethane	2.0 U
78-93-3	2-Butanone	7.5 U
71-55-6	1,1,1-Trichloroethane	1.0 U
56-23-5	Carbon Tetrachloride	2.0 U
108-05-4	Vinyl Acetate	2.0 U
75-27-4	Bromodichloromethane	1.0 U
75-69-4	Trichlorofluoromethane	2.0 U

CAS Number		µg/Kg
78-87-5	1,2-Dichloropropane	1.0 U
10061-02-6	Trans-1,3-Dichloropropene	2.0 U
79-01-6	Trichloroethene	1.0 U
124-48-1	Dibromochloromethane	1.0 U
79-00-5	1,1,2-Trichloroethane	1.0 U
71-43-2	Benzene	1.0 U
10061-01-5	cis-1,3-Dichloropropene	1.0 U
110-75-8	2-Chloroethylvinylether	2.0 U
75-25-2	Bromoform	3.0 U
108-10-1	4-Methyl-2-Pentanone	2.0 U
591-78-6	2-Hexanone	2.0 U
127-18-4	Tetrachloroethene	1.0 U
79-34-5	1,1,2,2-Tetrachloroethane	2.0 U
108-88-3	Toluene	1.0 U
108-90-7	Chlorobenzene	1.0 U
100-41-4	Ethylbenzene	1.0 U
100-42-5	Styrene	1.0 U
1330-20-7	Total Xylenes	2.0 U
1,1,2-Trichloro-1,2,2-trifluoroethane		2.0 U

Surrogate Recoveries

d8-Toluene	98.6%
Bromofluorobenzene	95.4%
d4-1,2-Dichloroethane	101%

QC Limits

81-117
74-121
70-121

Log 10-25-91

Data Reporting Qualifiers

Value If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected at the given detection limit.

J Indicates an estimated value when result is less than specified detection limit.

NR Analysis not required.

B This flag is used when the analyte is found in the blank as well as a sample. Indicates possible/probable blank contamination.

K This flag is used when quantitated value falls above the limit of the calibration curve and dilution should be run.

M Indicates an estimated value of analyte found and confirmed by analyst but with low spectral match parameters.



**ANALYTICAL
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ORGANICS ANALYSIS DATA SHEET
Volatiles by Method 624/8240

Sample No: MW4-2

Analytical
Chemists &
Consultants

Lab ID: 8290A
Matrix: Soils/Sediments

QC Report No: 8290 - E&E
Project No: WZ6030
Old Inland Pit
VTSR: 05/17/91

333 Ninth Ave. North
Seattle, WA 98109-5115
(206) 621-6490
(206) 621-7523 (FAX)

Data Release Authorized: *[Signature]*
Report prepared 6/5/91 - MAC:K kas

Instrument: FINN 5
Date Analyzed: 5/21/91

Amount Analyzed: 5.1 gm (Dry Weight)
Percent Moisture: 2.4%
pH: NA

CAS Number		µg/Kg
74-87-3	Chloromethane	4.9 U
74-83-9	Bromomethane	3.0 U
75-01-4	Vinyl Chloride	3.0 U
75-00-3	Chloroethane	3.0 U
75-09-2	Methylene Chloride	1.5 U
67-64-1	Acetone	1.9 U
75-15-0	Carbon Disulfide	2.0 U
75-35-4	1,1-Dichloroethene	2.0 U
75-34-3	1,1-Dichloroethane	1.0 U
156-60-5	Trans-1,2-Dichloroethene	1.0 U
156-59-2	Cis-1,2-Dichloroethene	1.0 U
67-66-3	Chloroform	1.0 U
107-06-2	1,2-Dichloroethane	1.0 U
78-93-3	2-Butanone	7.4 U
71-55-6	1,1,1-Trichloroethane	1.0 U
56-23-5	Carbon Tetrachloride	1.0 U
108-05-4	Vinyl Acetate	1.0 U
75-27-4	Bromodichloromethane	1.0 U
75-69-4	Trichlorofluoromethane	1.0 U

CAS Number		µg/Kg
78-87-5	1,2-Dichloropropane	1.0 U
10061-02-6	Trans-1,3-Dichloropropene	1.0 U
79-01-6	Trichloroethene	1.0 U
124-48-1	Dibromochloromethane	1.0 U
79-00-5	1,1,2-Trichloroethane	1.0 U
71-43-2	Benzene	1.0 U
10061-01-5	cis-1,3-Dichloropropene	1.0 U
110-75-8	2-Chloroethylvinylether	1.0 U
75-25-2	Bromoform	1.0 U
108-10-1	4-Methyl-2-Pentanone	2.0 U
591-78-6	2-Hexanone	4.0 U
127-18-4	Tetrachloroethene	1.0 U
79-34-5	1,1,2,2-Tetrachloroethane	1.0 U
108-88-3	Toluene	1.0 U
108-90-7	Chlorobenzene	1.0 U
100-41-4	Ethylbenzene	1.0 U
100-42-5	Styrene	1.0 U
1330-20-7	Total Xylenes	2.0 U
1,1,2-Trichloro-1,2,2-trifluoroethane		4.9 U

Surrogate Recoveries

d8-Toluene	96.8%
Bromofluorobenzene	91.9%
d4-1,2-Dichloroethane	102%

See 6-25-91

Data Reporting Qualifiers

Value If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected at the given detection limit.

J Indicates an estimated value when result is less than specified detection limit.

NR Analysis not required.

B This flag is used when the analyte is found in the blank as well as a sample. Indicates possible/probable blank contamination.

K This flag is used when quantitated value falls above the limit of the calibration curve and dilution should be run.

M Indicates an estimated value of analyte found and confirmed by analyst but with low spectral match parameters.

ORGANICS ANALYSIS DATA SHEET
Volatiles by Method 624/524/8240



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Analytical
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333 Ninth Ave. North
Seattle, WA 98109-5187
(206) 621-6490
(206) 621-7523 (FAX)

Lab ID: 8358-A
Matrix: Waters

Sample: MW-1

QC Report No: 8358-E&E
Project: WZ 6000, Old Inland Pit
VTSR: 05/24/91

Data Release Authorized: *Dennis B. Pelt*
Report prepared: 06/06/91 - MAC:C PAT

Instrument: FINN I
Date Analyzed: 05/31/91

Amount Analyzed: 5 ml
Conc/Dil: 1 to 1
pH: N/A

CAS Number		µg/L
74-87-3	Chloromethane	2.0 U
74-83-9	Bromomethane	2.0 U
75-01-4	Vinyl Chloride	3.0 U
75-00-3	Chloroethane	3.0 U
75-09-2	Methylene Chloride	1.2 UJ
67-64-1	Acetone	5.8 uJ
75-15-0	Carbon Disulfide	2.0 U
75-35-4	1,1-Dichloroethene	1.0 U
75-34-3	1,1-Dichloroethane	1.0 U
156-60-5	1,2-Dichloroethene (total)	1.0 U
67-66-3	Chloroform	1.0 U
107-06-2	1,2-Dichloroethane	2.0 U
78-93-3	2-Butanone	7.5 U
71-55-6	1,1,1-Trichloroethane	1.0 U
56-23-5	Carbon Tetrachloride	2.0 U
108-05-4	Vinyl Acetate	2.0 U
75-27-4	Bromodichloromethane	1.0 U
75-69-4	Trichlorofluoromethane	2.0 U

CAS Number		µg/L
78-87-5	1,2-Dichloropropane	1.0 U
10061-02-6	Trans-1,3-Dichloropropene	2.0 U
79-01-6	Trichloroethene	1.0 U
124-48-1	Dibromochloromethane	1.0 U
79-00-5	1,1,2-Trichloroethane	1.0 U
71-43-2	Benzene	1.0 U
10061-01-5	cis-1,3-Dichloropropene	1.0 U
110-75-8	2-Chloroethylvinylether	2.0 U
75-25-2	Bromoform	3.0 U
108-10-1	4-Methyl-2-Pentanone	2.0 U
591-78-6	2-Hexanone	2.0 U
127-18-4	Tetrachloroethene	1.0 U
79-34-5	1,1,2,2-Tetrachloroethane	2.0 U
108-88-3	Toluene	1.0 U
108-90-7	Chlorobenzene	1.0 U
100-41-4	Ethylbenzene	1.0 U
100-42-5	Styrene	1.0 U
1330-20-7	Total Xylenes	2.0 U
	1,1,2-Trichloro-1,2,2-trifluoroethane	2.0 U

Surrogate Recoveries

d8-Toluene	97.6%
Bromofluorobenzene	97.6%
d4-1,2-Dichloroethane	103%

Jan 6-25-91

Data Reporting Qualifiers

Value If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected at the given detection limit.

J Indicates an estimated value when result is less than specified detection limit.

B This flag is used when the analyte is found in the blank as well as a sample. Indicates possible/probable blank contamination.

K This flag is used when quantitated value falls above the limit of the calibration curve and dilution should be run.

M Indicates an estimated value of analyte found and confirmed by analyst but with low spectral match parameters.



ANALYTICAL
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ORGANICS ANALYSIS DATA SHEET

Volatiles by Method 624/524/8240

Sample: MW-2

Lab-ID: 8358-B
Matrix: Waters

QC Report No: 8358-E&E
Project: WZ 6030/Old Inland Pit
VTSR: 05/24/91

Analytical
Chemists &
Consultants

333 Ninth Ave. North
Seattle, WA 98109-5111
(206) 621-6490
(206) 621-7523 (FAX)

Data Release Authorized: *Don B. Roth*
Report prepared: 06/06/91 - MAC: C PAT

Instrument: FINN I
Date Analyzed: 05/31/91

Amount Analyzed: 5 ml
Conc/Dil: 1 to 1
pH: N/A

CAS Number		µg/L
74-87-3	Chloromethane	2.0 U
74-83-9	Bromomethane	2.0 U
75-01-4	Vinyl Chloride	3.0 U
75-00-3	Chloroethane	3.0 U
75-09-2	Methylene Chloride	1.3 UJ
67-64-1	Acetone	3.9 UJ
75-15-0	Carbon Disulfide	2.0 U
75-35-4	1,1-Dichloroethene	1.0 U
75-34-3	1,1-Dichloroethane	1.0 U
156-60-5	1,2-Dichloroethene (total)	1.0 U
67-66-3	Chloroform	1.0 U
77-06-2	1,2-Dichloroethane	2.0 U
93-3	2-Butanone	7.5 U
1155-6	1,1,1-Trichloroethane	1.0 U
56-23-5	Carbon Tetrachloride	2.0 U
108-05-4	Vinyl Acetate	2.0 U
75-27-4	Bromodichloromethane	1.0 U
75-69-4	Trichlorofluoromethane	2.0 U

CAS Number		µg/L
78-87-5	1,2-Dichloropropane	1.0 U
10061-02-6	Trans-1,3-Dichloropropene	2.0 U
79-01-6	Trichloroethene	1.0 U
124-48-1	Dibromochloromethane	1.0 U
79-00-5	1,1,2-Trichloroethane	1.0 U
71-43-2	Benzene	1.1
10061-01-5	cis-1,3-Dichloropropene	1.0 U
110-75-8	2-Chloroethylvinylether	2.0 U
75-25-2	Bromoform	3.0 U
108-10-1	4-Methyl-2-Pentanone	2.0 U
591-78-6	2-Hexanone	2.0 U
127-18-4	Tetrachloroethene	1.0 U
79-34-5	1,1,2,2-Tetrachloroethane	2.0 U
108-88-3	Toluene	1.0 U
108-90-7	Chlorobenzene	1.0 U
100-41-4	Ethylbenzene	1.0 U
100-42-5	Styrene	1.0 U
1330-20-7	Total Xylenes	2.0 U
	1,1,2-Trichloro-1,2,2-trifluoroethane	2.0 U

Surrogate Recoveries

d8-Toluene	97.1%
Bromofluorobenzene	97.6%
d4-1,2-Dichloroethane	102%

Lab 6-25-91

Data Reporting Qualifiers

- Value If the result is a value greater than or equal to the detection limit, report the value.
- U Indicates compound was analyzed for but not detected at the given detection limit.
- J Indicates an estimated value when result is less than specified detection limit.

- B This flag is used when the analyte is found in the blank as well as a sample. Indicates possible/probable blank contamination.
- K This flag is used when quantitated value falls above the limit of the calibration curve and dilution should be run.
- M Indicates an estimated value of analyte found and confirmed by analyst but with low spectral match parameters.

ORGANICS ANALYSIS DATA SHEET

Volatiles by Method 624/524/8240



Sample: MW-3

ANALYTICAL
RESOURCES
INCORPORATED

Lab ID: 8358-C

Matrix: Waters

QC Report No: 8358-E&E

Project: WZ 6030/Old Inland Pit

VTSR: 05/24/91

Analytical
Chemists &
Consultants333 Ninth Ave. North
Seattle, WA 98109-518
(206) 621-6490
(206) 621-7523 (FAX)Data Release Authorized: *Don B. Puth*

Report prepared: 06/06/91 - MAC: C PAT

Amount Analyzed: 5 ml

Conc/Dil: 1 to 1

pH: N/A

Instrument: FINN I
Date Analyzed: 05/31/91

CAS Number		µg/L
74-87-3	Chloromethane	2.0 U
74-83-9	Bromomethane	2.0 U
75-01-4	Vinyl Chloride	3.0 U
75-00-3	Chloroethane	3.0 U
75-09-2	Methylene Chloride	1.4 UJ
67-64-1	Acetone	3.5 UJ
75-15-0	Carbon Disulfide	2.0 U
75-35-4	1,1-Dichloroethene	1.0 U
75-34-3	1,1-Dichloroethane	1.0 U
156-60-5	1,2-Dichloroethene (total)	1.0 U
67-66-3	Chloroform	1.0 U
107-06-2	1,2-Dichloroethane	2.0 U
78-93-3	2-Butanone	7.5 U
71-55-6	1,1,1-Trichloroethane	1.0 U
56-23-5	Carbon Tetrachloride	2.0 U
108-05-4	Vinyl Acetate	2.0 U
75-27-4	Bromodichloromethane	1.0 U
75-69-4	Trichlorofluoromethane	2.0 U

CAS Number		µg/L
78-87-5	1,2-Dichloropropane	1.0 U
10061-02-6	Trans-1,3-Dichloropropene	2.0 U
79-01-6	Trichloroethene	1.0 U
124-48-1	Dibromochloromethane	1.0 U
79-00-5	1,1,2-Trichloroethane	1.0 U
71-43-2	Benzene	1.0 U
10061-01-5	cis-1,3-Dichloropropene	1.0 U
110-75-8	2-Chloroethylvinylether	2.0 U
75-25-2	Bromoform	3.0 U
108-10-1	4-Methyl-2-Pentanone	2.0 U
591-78-6	2-Hexanone	2.0 U
127-18-4	Tetrachloroethene	1.0 U
79-34-5	1,1,2,2-Tetrachloroethane	2.0 U
108-88-3	Toluene	1.0 U
108-90-7	Chlorobenzene	1.0 U
100-41-4	Ethylbenzene	1.0 U
100-42-5	Styrene	1.0 U
1330-20-7	Total Xylenes	2.0 U
	1,1,2-Trichloro-1,2,2-trifluoroethane	2.0 U

Surrogate Recoveries

d8-Toluene	98.8%
Bromofluorobenzene	98.5%
d4-1,2-Dichloroethane	103%

22 6-25-91

Data Reporting Qualifiers

Value If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected at the given detection limit.

J Indicates an estimated value when result is less than specified detection limit.

B This flag is used when the analyte is found in the blank as well as a sample. Indicates possible/probable blank contamination.

K This flag is used when quantitated value falls above the limit of the calibration curve and dilution should be run.

M Indicates an estimated value of analyte found and confirmed by analyst but with low spectral match parameters.

ORGANICS ANALYSIS DATA SHEET

Volatiles by Method 624/524/8240

ANALYTICAL
RESOURCES
INCORPORATEDLab ID: 8358-D
Matrix: Waters

Sample: MW-4

QC Report No: 8358-E&E
Project: WZ 6030/Old Inland Pit
VTSR: 05/24/91Analytical
Chemists &
Consultants333 Ninth Ave. North
Seattle, WA 98109-5111
(206) 621-6490
(206) 621-7523 (FAX)Data Release Authorized: *[Signature]*
Report prepared: 06/06/91 - MAC:C PATInstrument: FINN I
Date Analyzed: 05/31/91Amount Analyzed: 5 mls
Conc/Dil: 1 to 1
pH: N/A

CAS Number		µg/L
74-87-3	Chloromethane	2.0 U
74-83-9	Bromomethane	2.0 U
75-01-4	Vinyl Chloride	3.0 U
75-00-3	Chloroethane	3.0 U
75-09-2	Methylene Chloride	1.3 U
67-64-1	Acetone	3.0 U
75-15-0	Carbon Disulfide	2.0 U
75-35-4	1,1-Dichloroethene	1.0 U
75-34-3	1,1-Dichloroethane	1.0 U
156-60-5	1,2-Dichloroethene (total)	1.0 U
67-66-3	Chloroform	1.0 U
97-06-2	1,2-Dichloroethane	2.0 U
93-3	2-Butanone	7.5 U
71-55-6	1,1,1-Trichloroethane	1.0 U
56-23-5	Carbon Tetrachloride	2.0 U
108-05-4	Vinyl Acetate	2.0 U
75-27-4	Bromodichloromethane	1.0 U
75-69-4	Trichlorofluoromethane	2.0 U

CAS Number		µg/L
78-87-5	1,2-Dichloropropane	1.0 U
10061-02-6	Trans-1,3-Dichloropropene	2.0 U
79-01-6	Trichloroethene	1.0 U
124-48-1	Dibromochloromethane	1.0 U
79-00-5	1,1,2-Trichloroethane	1.0 U
71-43-2	Benzene	1.0 U
10061-01-5	cis-1,3-Dichloropropene	1.0 U
110-75-8	2-Chloroethylvinylether	2.0 U
75-25-2	Bromoform	3.0 U
108-10-1	4-Methyl-2-Pentanone	2.0 U
591-78-6	2-Hexanone	2.0 U
127-18-4	Tetrachloroethene	1.0 U
79-34-5	1,1,2,2-Tetrachloroethane	2.0 U
108-88-3	Toluene	1.0 U
108-90-7	Chlorobenzene	1.0 U
100-41-4	Ethylbenzene	1.0 U
100-42-5	Styrene	1.0 U
1330-20-7	Total Xylenes	2.0 U
	1,1,2-Trichloro-1,2,2-trifluoroethane	2.0 U

Surrogate Recoveries

d8-Toluene	97.4%
Bromofluorobenzene	97.5%
d4-1,2-Dichloroethane	102%

[Handwritten signature] 6-25-91

Data Reporting Qualifiers

Value If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected at the given detection limit.

J Indicates an estimated value when result is less than specified detection limit.

B This flag is used when the analyte is found in the blank as well as a sample. Indicates possible/probable blank contamination.

K This flag is used when quantitated value falls above the limit of the calibration curve and dilution should be run.

M Indicates an estimated value of analyte found and confirmed by analyst but with low spectral match parameters.

ORGANICS ANALYSIS DATA SHEET
Volatiles by Method 624/8240



Sample No: Trip Blank

ANALYTICAL
RESOURCES
INCORPORATED

Lab ID: 8358-F
Matrix: Waters

QC Report No: 8358-E&E
Project No: Old Inland Pit
VTSR: 05/24/91

Analytical
Chemists &
Consultants

333 Ninth Ave North
Seattle, WA 98109-5187
(206) 621-6490
(206) 621-7523 (FAX)

Data Release Authorized: *Ann B. Keith*
Report prepared 06/06/91 - MAC:C PAT

Instrument: FINN 5
Date Analyzed: 05/31/91

Amount Analyzed: 5 ml
Conc/Dil: 1 to 1
pH: NA

CAS Number		µg/L
74-87-3	Chloromethane	5.0 U
74-83-9	Bromomethane	3.0 U
75-01-4	Vinyl Chloride	3.0 U
75-00-3	Chloroethane	3.0 U
75-09-2	Methylene Chloride	1.1 U
67-64-1	Acetone	5.0 U
75-15-0	Carbon Disulfide	2.0 U
75-35-4	1,1-Dichloroethene	2.0 U
75-34-3	1,1-Dichloroethane	1.0 U
156-60-5	Trans-1,2-Dichloroethene	1.0 U
156-59-2	Cis-1,2-Dichloroethene	1.0 U
67-66-3	Chloroform	1.0 U
107-06-2	1,2-Dichloroethane	1.0 U
78-93-3	2-Butanone	7.5 U
71-55-6	1,1,1-Trichloroethane	1.0 U
56-23-5	Carbon Tetrachloride	1.0 U
108-05-4	Vinyl Acetate	1.0 U
75-27-4	Bromodichloromethane	1.0 U
75-69-4	Trichlorofluoromethane	1.0 U

CAS Number		µg/L
78-87-5	1,2-Dichloropropane	1.0 U
10061-02-6	Trans-1,3-Dichloropropene	1.0 U
79-01-6	Trichloroethene	1.0 U
124-48-1	Dibromochloromethane	1.0 U
79-00-5	1,1,2-Trichloroethane	1.0 U
71-43-2	Benzene	1.0 U
10061-01-5	cis-1,3-Dichloropropene	1.0 U
110-75-8	2-Chloroethylvinylether	1.0 U
75-25-2	Bromoform	1.0 U
108-10-1	4-Methyl-2-Pentanone	2.0 U
591-78-6	2-Hexanone	4.0 U
127-18-4	Tetrachloroethene	1.0 U
79-34-5	1,1,2,2-Tetrachloroethane	1.0 U
108-88-3	Toluene	1.0 U
108-90-7	Chlorobenzene	1.0 U
100-41-4	Ethylbenzene	1.0 U
100-42-5	Styrene	1.0 U
1330-20-7	Total Xylenes	2.0 U
1,1,2-Trichloro-1,2,2-trifluoroethane		5.0 U

Surrogate Recoveries

d8-Toluene	93.5%
Bromofluorobenzene	94.3%
d4-1,2-Dichloroethane	105%

See 6-25-91

Data Reporting Qualifiers

Value If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected at the given detection limit.

J Indicates an estimated value when result is less than specified detection limit.

NR Analysis not required.

B This flag is used when the analyte is found in the blank as well as a sample. Indicates possible/probable blank contamination.

K This flag is used when quantitated value falls above the limit of the calibration curve and dilution should be run.

M Indicates an estimated value of analyte found and confirmed by analyst but with low spectral match parameters.



ANALYTICAL
RESOURCES
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

Semivolatiles by Methods 625/8270

Lab ID: 8263 B

Matrix: Soils/Sediments

Sample No: MW 1-1

QC Report No: 8263-Ecology & Environment

Project No: WZ 6030

Old Inland Pit

VTSR: 05/15/91

Analytical
Chemists &
Consultants

333 Ninth Ave. North
Seattle, WA 98109-5187
(206) 621-6490
(206) 621-7523 (FAX)

Date Release Authorized: *[Signature]*

Report prepared: 06/05/91-MAC:D jv

Sample Wt: 33.6 gm (Dry Weight)

Date extracted: 05/20/91

Percent Moisture: 4.3%

Analyzed (FINN 4): 05/24/91

pH: 11.6

GPC Clean-up: Yes (1 of 2)

Conc/Dilution: 1 to 1

CAS Number		µg/Kg	CAS Number		µg/Kg
108-95-2	Phenol	120 U _R	83-32-9	Acenaphthene	55 J
111-44-4	bis(2-Chloroethyl)Ether	60 U	51-28-5	2,4-Dinitrophenol	590 U _R
95-57-8	2-Chlorophenol	60 U _R	100-02-7	4-Nitrophenol	300 U _R
541-73-1	1,3-Dichlorobenzene	60 U	132-64-9	Dibenzofuran	35 M
106-46-7	1,4-Dichlorobenzene	60 U	121-14-2	2,4-Dinitrotoluene	300 U
100-51-6	Benzyl Alcohol	300 U _R	606-20-2	2,6-Dinitrotoluene	300 U
95-50-1	1,2-Dichlorobenzene	60 U	84-66-2	Diethylphthalate	60 U
95-48-7	2-Methylphenol	60 U _R	7005-72-3	4-Chlorophenyl-phenylether	60 U
108-60-1	bis(2-chloroisopropyl)Ether	60 U	86-73-7	Fluorene	60 U
106-44-5	4-Methylphenol	60 U _R	100-01-6	4-Nitroaniline	300 U
106-64-7	N-Nitroso-Di-n-Propylamine	60 U	534-52-1	4,6-Dinitro-2-Methylphenol	590 U _R
107-72-1	Hexachloroethane	120 U	86-30-6	N-Nitrosodiphenylamine(1)	60 U
98-95-3	Nitrobenzene	60 U	101-55-3	4-Bromophenyl-phenylether	60 U
78-59-1	Isophorone	60 U	118-74-1	Hexachlorobenzene	60 U
88-75-5	2-Nitrophenol	300 U _R	87-86-5	Pentachlorophenol	300 U _R
105-67-9	2,4-Dimethylphenol	120 U _R	85-01-8	Phenanthrene	180
65-85-0	Benzoic Acid	590 U _R	120-12-7	Anthracene	60 U
111-91-1	bis(2-Chloroethoxy)Methane	60 U	84-74-2	Di-n-Butylphthalate	60 U
120-83-2	2,4-Dichlorophenol	180 U _R	206-44-0	Fluoranthene	100
120-82-1	1,2,4-Trichlorobenzene	60 U	129-00-0	Pyrene	65
91-20-3	Naphthalene	60 U	85-68-7	Butylbenzylphthalate	60 U
106-47-8	4-Chloroaniline	180 U	91-94-1	3,3'-Dichlorobenzidine	300 U
87-68-3	Hexachlorobutadiene	120 U	56-55-3	Benzo(a)Anthracene	28 M
59-50-7	4-Chloro-3-Methylphenol	120 U _R	117-81-7	bis(2-Ethylhexyl)Phthalate	60 U
91-57-6	2-Methylnaphthalene	60 U	218-01-9	Chrysene	34 M
77-47-4	Hexachlorocyclopentadiene	300 U	117-84-0	Di-n-Octyl Phthalate	60 U
88-06-2	2,4,6-Trichlorophenol	300 U _R	205-99-2	Benzo(b)Fluoranthene	60 U
95-95-4	2,4,5-Trichlorophenol	300 U _R	207-08-9	Benzo(k)Fluoranthene	60 U
91-58-7	2-Chloronaphthalene	60 U	50-32-8	Benzo(a)Pyrene	60 U
88-74-4	2-Nitroaniline	300 U	193-39-5	Indeno(1,2,3-cd)Pyrene	60 U
131-11-3	Dimethyl Phthalate	60 U	53-70-3	Dibenz(a,h)Anthracene	60 U
208-96-8	Acenaphthylene	60 U	191-24-2	Benzo(ghi)Perylene	60 U
199-2	3-Nitroaniline	300 U			

(1) Cannot be separated from diphenylamine

*Base/neutral surrogate recoveries

d5-Nitrobenzene	32.2%
2-Fluorobiphenyl	54.4%
d14-p-Terphenyl	41.3%

recycled paper

*Acid surrogate recoveries

d5-Phenol	44.0%
2-Fluorophenol	13.0%
2,4,6-Tribromophenol	0.7%

ecology and environment



ANALYTICAL
RESOURCES
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

Semivolatiles by Methods 625/8270

Lab ID: 8263 C

Matrix: Soils/Sediments

Sample No: MW 1-2

QC Report No: 8263-Ecology & Environment

Project No: WZ 6030

Old Inland Pit

VTSR: 05/15/91

Analytical
Chemists &
Consultants

333 Ninth Ave North
Seattle, WA 98109-518
(206) 621-6490
(206) 621-7523 (FAX)

Date Release Authorized: *[Signature]*

Report prepared: 06/05/91-MAC:D jv

Sample Wt: 34.8 gm (Dry Weight)

Percent Moisture: 5.8%

pH: 8.8

Date extracted: 05/20/91

Analyzed (FINN 4): 05/24/91

GPC Clean-up: Yes (1 of 2)

Conc/Dilution: 1 to 1

CAS Number		µg/Kg	CAS Number		µg/Kg
108-95-2	Phenol	120 U	83-32-9	Acenaphthene	58 U
111-44-4	bis(2-Chloroethyl)Ether	58 U	51-28-5	2,4-Dinitrophenol	580 U
95-57-8	2-Chlorophenol	58 U	100-02-7	4-Nitrophenol	290 U
541-73-1	1,3-Dichlorobenzene	58 U	132-64-9	Dibenzofuran	58 U
106-46-7	1,4-Dichlorobenzene	58 U	121-14-2	2,4-Dinitrotoluene	290 U
100-51-6	Benzyl Alcohol	290 U	606-20-2	2,6-Dinitrotoluene	290 U
95-50-1	1,2-Dichlorobenzene	58 U	84-66-2	Diethylphthalate	58 U
95-48-7	2-Methylphenol	58 U	7005-72-3	4-Chlorophenyl-phenylether	58 U
108-60-1	bis(2-chloroisopropyl)Ether	58 U	86-73-7	Fluorene	58 U
106-44-5	4-Methylphenol	58 U	100-01-6	4-Nitroaniline	290 U
621-64-7	N-Nitroso-Di-n-Propylamine	58 U	534-52-1	4,6-Dinitro-2-Methylphenol	580 U
67-72-1	Hexachloroethane	120 U	86-30-6	N-Nitrosodiphenylamine(1)	58 U
98-95-3	Nitrobenzene	58 U	101-55-3	4-Bromophenyl-phenylether	58 U
78-59-1	Isophorone	58 U	118-74-1	Hexachlorobenzene	58 U
88-75-5	2-Nitrophenol	290 U	87-86-5	Pentachlorophenol	290 U
105-67-9	2,4-Dimethylphenol	120 U	85-01-8	Phenanthrene	58 U
65-85-0	Benzoic Acid	580 U	120-12-7	Anthracene	58 U
111-91-1	bis(2-Chloroethoxy)Methane	58 U	84-74-2	Di-n-Butylphthalate	58 U
120-83-2	2,4-Dichlorophenol	170 U	206-44-0	Fluoranthene	58 U
120-82-1	1,2,4-Trichlorobenzene	58 U	129-00-0	Pyrene	58 U
91-20-3	Naphthalene	58 U	85-68-7	Butylbenzylphthalate	58 U
106-47-8	4-Chloroaniline	170 U	91-94-1	3,3'-Dichlorobenzidine	290 U
87-68-3	Hexachlorobutadiene	120 U	56-55-3	Benzo(a)Anthracene	58 U
59-50-7	4-Chloro-3-Methylphenol	120 U	117-81-7	bis(2-Ethylhexyl)Phthalate	58 U
91-57-6	2-Methylnaphthalene	58 U	218-01-9	Chrysene	58 U
77-47-4	Hexachlorocyclopentadiene	290 U	117-84-0	Di-n-Octyl Phthalate	58 U
88-06-2	2,4,6-Trichlorophenol	290 U	205-99-2	Benzo(b)Fluoranthene	58 U
95-95-4	2,4,5-Trichlorophenol	290 U	207-08-9	Benzo(k)Fluoranthene	58 U
91-58-7	2-Chloronaphthalene	58 U	50-32-8	Benzo(a)Pyrene	58 U
88-74-4	2-Nitroaniline	290 U	193-39-5	Indeno(1,2,3-cd)Pyrene	58 U
131-11-3	Dimethyl Phthalate	58 U	53-70-3	Dibenz(a,h)Anthracene	58 U
208-96-8	Acenaphthylene	58 U	191-24-2	Benzo(ghi)Perylene	58 U
99-09-2	3-Nitroaniline	290 U			

(1) Cannot be separated from diphenylamine

*Base/neutral surrogate recoveries

d5-Nitrobenzene	33.8%
2-Fluorobiphenyl	56.1%
d14-p-Terphenyl	38.5%

recycled paper

*Acid surrogate recoveries

d5-Phenol	49.1%
2-Fluorophenol	24.3%
2,4,6-Tribromophenol	21.0%

recycled paper



ANALYTICAL
RESOURCES
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

Semivolatiles by Methods 625/8270

Lab ID: 8290 B

Matrix: Soils/Sediments

Sample No: MW 2-1

QC Report No: 8290-Ecology & Environment

Project No: WZ 6030

Old Inland Pit

VTSR: 05/17/91

Analytical
Chemists &
Consultants

333 Ninth Ave. North
Seattle, WA 98109-5187
(206) 621-6490
(206) 621-7523 (FAX)

Date Release Authorized: *[Signature]*

Report prepared: 06/06/91-MAC:D JV

Sample Wt: 34.5 gm (Dry Weight)

Percent Moisture: 2.9%

pH: 8.5

Date extracted: 05/21/91

Analyzed (FINN 4): 05/24/91

GPC Clean-up: Yes (1 of 2)

Conc/Dilution: 1 to 1

CAS Number		µg/Kg	CAS Number		µg/Kg
108-95-2	Phenol	120 U	83-32-9	Acenaphthene	58 U
111-44-4	bis(2-Chloroethyl)Ether	58 U	51-28-5	2,4-Dinitrophenol	580 U
95-57-8	2-Chlorophenol	58 U	100-02-7	4-Nitrophenol	290 U
541-73-1	1,3-Dichlorobenzene	58 U	132-64-9	Dibenzofuran	58 U
106-46-7	1,4-Dichlorobenzene	58 U J	121-14-2	2,4-Dinitrotoluene	290 U J
100-51-6	Benzyl Alcohol	290 U	606-20-2	2,6-Dinitrotoluene	290 U
95-50-1	1,2-Dichlorobenzene	58 U	84-66-2	Diethylphthalate	58 U
95-48-7	2-Methylphenol	58 U	7005-72-3	4-Chlorophenyl-phenylether	58 U
108-60-1	bis(2-chloroisopropyl)Ether	58 U	86-73-7	Fluorene	58 U
106-44-5	4-Methylphenol	58 U	100-01-6	4-Nitroaniline	290 U
91-64-7	N-Nitroso-Di-n-Propylamine	58 U J	534-52-1	4,6-Dinitro-2-Methylphenol	580 U
72-1	Hexachloroethane	120 U	86-30-6	N-Nitrosodiphenylamine(1)	58 U
98-95-3	Nitrobenzene	58 U	101-55-3	4-Bromophenyl-phenylether	58 U
78-59-1	Isophorone	58 U	118-74-1	Hexachlorobenzene	58 U
88-75-5	2-Nitrophenol	290 U	87-86-5	Pentachlorophenol	290 U
105-67-9	2,4-Dimethylphenol	120 U	85-01-8	Phenanthrene	58 U
65-85-0	Benzoic Acid	580 U	120-12-7	Anthracene	58 U
111-91-1	bis(2-Chloroethoxy)Methane	58 U	84-74-2	Di-n-Butylphthalate	58 U
120-83-2	2,4-Dichlorophenol	170 U	206-44-0	Fluoranthene	58 U
120-82-1	1,2,4-Trichlorobenzene	58 U J	129-00-0	Pyrene	58 U
91-20-3	Naphthalene	58 U	85-68-7	Butylbenzylphthalate	58 U
106-47-8	4-Chloroaniline	170 U	91-94-1	3,3'-Dichlorobenzidine	290 U
87-68-3	Hexachlorobutadiene	120 U	56-55-3	Benzo(a)Anthracene	58 U
59-50-7	4-Chloro-3-Methylphenol	120 U J	117-81-7	bis(2-Ethylhexyl)Phthalate	58 U
91-57-6	2-Methylnaphthalene	58 U	218-01-9	Chrysene	58 U
77-47-4	Hexachlorocyclopentadiene	290 U	117-84-0	Di-n-Octyl Phthalate	58 U
88-06-2	2,4,6-Trichlorophenol	290 U	205-99-2	Benzo(b)Fluoranthene	58 U
95-95-4	2,4,5-Trichlorophenol	290 U	207-08-9	Benzo(k)Fluoranthene	58 U
91-58-7	2-Chloronaphthalene	58 U	50-32-8	Benzo(a)Pyrene	58 U
88-74-4	2-Nitroaniline	290 U	193-39-5	Indeno(1,2,3-cd)Pyrene	58 U
131-11-3	Dimethyl Phthalate	58 U	53-70-3	Dibenz(a,h)Anthracene	58 U
208-96-8	Acenaphthylene	58 U J	191-24-2	Benzo(ghi)Perylene	58 U
99-09-2	3-Nitroaniline	290 U			

(1) Cannot be separated from diphenylamine

*Base/neutral surrogate recoveries

d5-Nitrobenzene	39.4%
2-Fluorobiphenyl	59.7%
d14-p-Terphenyl	45.4%

recycled paper

*Acid surrogate recoveries

d5-Phenol	58.8%
2-Fluorophenol	31.9%
2,4,6-Tribromophenol	31.5%

ecology and environment



ANALYTICAL
RESOURCES
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

Semivolatiles by Methods 625/8270

Lab ID: 8302 A
Matrix: Soils/Sediments

Sample No: MW 2-2

QC Report No: 8302-Ecology & Environment

Project No: WZ 6030

Old Inland Pit

VTSR: 05/20/91

Analytical
Chemists &
Consultants

333 Ninth Ave. North
Seattle, WA 98109-51E
(206) 621-6490
(206) 621-7523 (FAX)

Date Release Authorized: [Signature]
Report prepared: 06/06/91-MAC:D JV

Date extracted: 05/21/91
Analyzed (FINN 4): 05/24/91
GPC Clean-up: Yes (1 of 2)

Sample Wt: 34.7 gm (Dry Weight)
Percent Moisture: 2.7%
pH: 8.8
Conc/Dilution: 1 to 1

CAS Number		µg/Kg	CAS Number		µg/Kg
108-95-2	Phenol	120 U	83-32-9	Acenaphthene	58 U
111-44-4	bis(2-Chloroethyl)Ether	58 U	51-28-5	2,4-Dinitrophenol	580 U
95-57-8	2-Chlorophenol	58 U	100-02-7	4-Nitrophenol	290 U
541-73-1	1,3-Dichlorobenzene	58 U	132-64-9	Dibenzofuran	58 U
106-46-7	1,4-Dichlorobenzene	58 U	121-14-2	2,4-Dinitrotoluene	290 U
100-51-6	Benzyl Alcohol	290 U	606-20-2	2,6-Dinitrotoluene	290 U
95-50-1	1,2-Dichlorobenzene	58 U	84-66-2	Diethylphthalate	58 U
95-48-7	2-Methylphenol	58 U	7005-72-3	4-Chlorophenyl-phenylether	58 U
108-60-1	bis(2-chloroisopropyl)Ether	58 U	86-73-7	Fluorene	58 U
106-44-5	4-Methylphenol	58 U	100-01-6	4-Nitroaniline	290 U
621-64-7	N-Nitroso-Di-n-Propylamine	58 U	534-52-1	4,6-Dinitro-2-Methylphenol	580 U
67-72-1	Hexachloroethane	120 U	86-30-6	N-Nitrosodiphenylamine(1)	58 U
98-95-3	Nitrobenzene	58 U	101-55-3	4-Bromophenyl-phenylether	58 U
78-59-1	Isophorone	58 U	118-74-1	Hexachlorobenzene	58 U
88-75-5	2-Nitrophenol	290 U	87-86-5	Pentachlorophenol	290 U
105-67-9	2,4-Dimethylphenol	120 U	85-01-8	Phenanthrene	58 U
65-85-0	Benzoic Acid	580 U	120-12-7	Anthracene	58 U
111-91-1	bis(2-Chloroethoxy)Methane	58 U	84-74-2	Di-n-Butylphthalate	58 U
120-83-2	2,4-Dichlorophenol	170 U	206-44-0	Fluoranthene	58 U
120-82-1	1,2,4-Trichlorobenzene	58 U	129-00-0	Pyrene	58 U
91-20-3	Naphthalene	58 U	85-68-7	Butylbenzylphthalate	58 U
106-47-8	4-Chloroaniline	170 U	91-94-1	3,3'-Dichlorobenzidine	290 U
87-68-3	Hexachlorobutadiene	120 U	56-55-3	Benzo(a)Anthracene	58 U
59-50-7	4-Chloro-3-Methylphenol	120 U	117-81-7	bis(2-Ethylhexyl)Phthalate	58 U
91-57-6	2-Methylnaphthalene	58 U	218-01-9	Chrysene	58 U
77-47-4	Hexachlorocyclopentadiene	290 U	117-84-0	Di-n-Octyl Phthalate	58 U
88-06-2	2,4,6-Trichlorophenol	290 U	205-99-2	Benzo(b)Fluoranthene	58 U
95-95-4	2,4,5-Trichlorophenol	290 U	207-08-9	Benzo(k)Fluoranthene	58 U
91-58-7	2-Chloronaphthalene	58 U	50-32-8	Benzo(a)Pyrene	58 U
88-74-4	2-Nitroaniline	290 U	193-39-5	Indeno(1,2,3-cd)Pyrene	58 U
131-11-3	Dimethyl Phthalate	58 U	53-70-3	Dibenz(a,h)Anthracene	58 U
208-96-8	Acenaphthylene	58 U	191-24-2	Benzo(ghi)Perylene	58 U
99-09-2	3-Nitroaniline	290 U			

(1) Cannot be separated from diphenylamine

*Base/neutral surrogate recoveries

d5-Nitrobenzene	34.4%
2-Fluorobiphenyl	57.3%
d14-p-Terphenyl	36.1%

ecology, up to 2000/01/01

*Acid surrogate recoveries

d5-Phenol	51.0%
2-Fluorophenol	22.8%
2,4,6-Tribromophenol	23.5%

ecology, up to 2000/01/01



ANALYTICAL
RESOURCES
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

Semivolatiles by Methods 625/8270

Lab ID: 8358E

Matrix: Soils/Sediments

Date Release Authorized: *[Signature]*

Report prepared 6/12/91 - MAC:K kas

Sample No: MW-3-1

QC Report No: 8358 - E&E

Project No: WZ6030

Old Inland Pit

VTSR: 05/24/91

Analytical
Chemists &
Consultants

333 Ninth Ave. North
Seattle, WA 98109-518
(206) 621-6490
(206) 621-7523 (FAX)

Date extracted: 6/3/91

Analyzed (FINN 4): 6/7/91

GPC Clean-up: No

Sample Wt: 32.7 gm (Dry Weight)

Percent Moisture: 3.9%

pH: 10.0

Conc/Dilution: 1 to 2

CAS Number		µg/Kg
108-95-2	Phenol	120 U
111-44-4	bis(2-Chloroethyl)Ether	61 U
95-57-8	2-Chlorophenol	61 U
541-73-1	1,3-Dichlorobenzene	61 U
106-46-7	1,4-Dichlorobenzene	61 U
100-51-6	Benzyl Alcohol	310 U
95-50-1	1,2-Dichlorobenzene	61 U
95-48-7	2-Methylphenol	61 U
108-60-1	bis(2-chloroisopropyl)Ether	61 U
106-44-5	4-Methylphenol	61 U
521-64-7	N-Nitroso-Di-n-Propylamine	61 U
67-72-1	Hexachloroethane	120 U
98-95-3	Nitrobenzene	61 U
78-59-1	Isophorone	61 U
88-75-5	2-Nitrophenol	310 U
105-67-9	2,4-Dimethylphenol	120 U
65-85-0	Benzoic Acid	610 U
111-91-1	bis(2-Chloroethoxy)Methane	61 U
120-83-2	2,4-Dichlorophenol	180 U
120-82-1	1,2,4-Trichlorobenzene	61 U
91-20-3	Naphthalene	61 U
106-47-8	4-Chloroaniline	180 U
87-68-3	Hexachlorobutadiene	120 U
59-50-7	4-Chloro-3-Methylphenol	120 U
91-57-6	2-Methylnaphthalene	61 U
77-47-4	Hexachlorocyclopentadiene	310 U
88-06-2	2,4,6-Trichlorophenol	310 U
95-95-4	2,4,5-Trichlorophenol	310 U
91-58-7	2-Chloronaphthalene	61 U
88-74-4	2-Nitroaniline	310 U
131-11-3	Dimethyl Phthalate	61 U
208-96-8	Acenaphthylene	61 U
99-09-2	3-Nitroaniline	310 U

CAS Number		µg/Kg
83-32-9	Acenaphthene	61 U
51-28-5	2,4-Dinitrophenol	610 U
100-02-7	4-Nitrophenol	310 U
132-64-9	Dibenzofuran	61 U
121-14-2	2,4-Dinitrotoluene	310 U
606-20-2	2,6-Dinitrotoluene	310 U
84-66-2	Diethylphthalate	61 U
7005-72-3	4-Chlorophenyl-phenylether	61 U
86-73-7	Fluorene	61 U
100-01-6	4-Nitroaniline	310 U
534-52-1	4,6-Dinitro-2-Methylphenol	610 U
86-30-6	N-Nitrosodiphenylamine(1)	61 U
101-55-3	4-Bromophenyl-phenylether	61 U
118-74-1	Hexachlorobenzene	61 U
87-86-5	Pentachlorophenol	310 U
85-01-8	Phenanthrene	61 U
120-12-7	Anthracene	61 U
84-74-2	Di-n-Butylphthalate	61 U
206-44-0	Fluoranthene	61 U
129-00-0	Pyrene	61 U
85-68-7	Butylbenzylphthalate	61 U
91-94-1	3,3'-Dichlorobenzidine	310 U
56-55-3	Benzo(a)Anthracene	61 U
117-81-7	bis(2-Ethylhexyl)Phthalate	61 U
218-01-9	Chrysene	61 U
117-84-0	Di-n-Octyl Phthalate	61 U
205-99-2	Benzo(b)Fluoranthene	61 U
207-08-9	Benzo(k)Fluoranthene	61 U
50-32-8	Benzo(a)Pyrene	61 U
193-39-5	Indeno(1,2,3-cd)Pyrene	61 U
53-70-3	Dibenz(a,h)Anthracene	61 U
191-24-2	Benzo(ghi)Perylene	61 U

(1) Cannot be separated from diphenylamine

*Base/neutral surrogate recoveries

d5-Nitrobenzene	67.2%
2-Fluorobiphenyl	89.5%
d14-p-Terphenyl	85.4%

*Acid surrogate recoveries

d5-Phenol	84.0%
2-Fluorophenol	56.5%
2,4,6-Tribromophenol	76.8%



ANALYTICAL
RESOURCES
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

Semivolatiles by Methods 625/8270

Lab ID: 8263 A
Matrix: Soils/Sediments

Sample No: MW 4-1

QC Report No: 8263-Ecology & Environment

Project No: WZ 6030

Old Inland Pit

VTSR: 05/15/91

Analytical
Chemists &
Consultants

333 Ninth Ave. North
Seattle, WA 98109-5187
(206) 621-6490
(206) 621-7523 (FAX)

Date Release Authorized: *[Signature]*
Report prepared: 06/05/91-MAC:D JV

Date extracted: 05/20/91
Analyzed (FINN 4): 05/24/91
GPC Clean-up: Yes (1 of 2)

Sample Wt: 36.1 gm (Dry Weight)
Percent Moisture: 3.2%
pH: 8.6
Conc/Dilution: 1 to 1

CAS Number		µg/Kg
108-95-2	Phenol	110 U
111-44-4	bis(2-Chloroethyl)Ether	55 U
95-57-8	2-Chlorophenol	55 U
541-73-1	1,3-Dichlorobenzene	55 U
106-46-7	1,4-Dichlorobenzene	55 U
100-51-6	Benzyl Alcohol	280 U
95-50-1	1,2-Dichlorobenzene	55 U
95-48-7	2-Methylphenol	55 U
108-60-1	bis(2-chloroisopropyl)Ether	55 U
106-44-5	4-Methylphenol	55 U
621-64-7	N-Nitroso-Di-n-Propylamine	55 U
67-72-1	Hexachloroethane	110 U
98-95-3	Nitrobenzene	55 U
78-59-1	Isophorone	55 U
88-75-5	2-Nitrophenol	280 U
105-67-9	2,4-Dimethylphenol	110 U
65-85-0	Benzoic Acid	550 U
111-91-1	bis(2-Chloroethoxy)Methane	55 U
120-83-2	2,4-Dichlorophenol	170 U
120-82-1	1,2,4-Trichlorobenzene	55 U
91-20-3	Naphthalene	55 U
106-47-8	4-Chloroaniline	170 U
87-68-3	Hexachlorobutadiene	110 U
59-50-7	4-Chloro-3-Methylphenol	110 U
91-57-6	2-Methylnaphthalene	55 U
77-47-4	Hexachlorocyclopentadiene	280 U
88-06-2	2,4,6-Trichlorophenol	280 U
95-95-4	2,4,5-Trichlorophenol	280 U
91-58-7	2-Chloronaphthalene	55 U
88-74-4	2-Nitroaniline	280 U
131-11-3	Dimethyl Phthalate	55 U
208-96-8	Acenaphthylene	55 U
99-09-2	3-Nitroaniline	280 U

CAS Number		µg/Kg
83-32-9	Acenaphthene	55 U
51-28-5	2,4-Dinitrophenol	550 U
100-02-7	4-Nitrophenol	280 U
132-64-9	Dibenzofuran	55 U
121-14-2	2,4-Dinitrotoluene	280 U
606-20-2	2,6-Dinitrotoluene	280 U
84-66-2	Diethylphthalate	55 U
7005-72-3	4-Chlorophenyl-phenylether	55 U
86-73-7	Fluorene	55 U
100-01-6	4-Nitroaniline	280 U
534-52-1	4,6-Dinitro-2-Methylphenol	550 U
86-30-6	N-Nitrosodiphenylamine(1)	55 U
101-55-3	4-Bromophenyl-phenylether	55 U
118-74-1	Hexachlorobenzene	55 U
87-86-5	Pentachlorophenol	280 U
85-01-8	Phenanthrene	55 U
120-12-7	Anthracene	55 U
84-74-2	Di-n-Butylphthalate	55 U
206-44-0	Fluoranthene	55 U
129-00-0	Pyrene	55 U
85-68-7	Butylbenzylphthalate	55 U
91-94-1	3,3'-Dichlorobenzidine	280 U
56-55-3	Benzo(a)Anthracene	55 U
117-81-7	bis(2-Ethylhexyl)Phthalate	55 U
218-01-9	Chrysene	55 U
117-84-0	Di-n-Octyl Phthalate	55 U
205-99-2	Benzo(b)Fluoranthene	55 U
207-08-9	Benzo(k)Fluoranthene	55 U
50-32-8	Benzo(a)Pyrene	55 U
193-39-5	Indeno(1,2,3-cd)Pyrene	55 U
53-70-3	Dibenz(a,h)Anthracene	55 U
191-24-2	Benzo(ghi)Perylene	55 U

(1) Cannot be separated from diphenylamine

*Base/neutral surrogate recoveries

d5-Nitrobenzene	33.7%
2-Fluorobiphenyl	59.4%
d14-p-Terphenyl	36.5%

*Acid surrogate recoveries

d5-Phenol	52.9%
2-Fluorophenol	26.7%
2,4,6-Tribromophenol	25.6%



ANALYTICAL
RESOURCES
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

Semivolatiles by Methods 625/8270

Lab ID: 8290 A

Matrix: Soils/Sediments

Sample No: MW 4-2

QC Report No: 8290-Ecology & Environment

Project No: WZ 6030

Old Inland Pit

VTSR: 05/17/91

Analytical
Chemists &
Consultants

333 Ninth Ave. North
Seattle, WA 98109-518
(206) 621-6490
(206) 621-7523 (FAX)

Date Release Authorized: *[Signature]*

Report prepared: 06/06/91-MAC:D jv

Date extracted: 05/21/91

Analyzed (FINN 4): 05/24/91

GPC Clean-up: Yes (1 of 2)

Sample Wt: 36.3 gm (Dry Weight)

Percent Moisture: 3.1%

pH: 8.8

Conc/Dilution: 1 to 1

CAS Number		µg/Kg	CAS Number		µg/Kg
108-95-2	Phenol	110 U	83-32-9	Acenaphthene	55 U
111-44-4	bis(2-Chloroethyl)Ether	55 U	51-28-5	2,4-Dinitrophenol	550 U
95-57-8	2-Chlorophenol	55 U	100-02-7	4-Nitrophenol	280 U
541-73-1	1,3-Dichlorobenzene	55 U	132-64-9	Dibenzofuran	55 U
106-46-7	1,4-Dichlorobenzene	55 U	121-14-2	2,4-Dinitrotoluene	280 U
100-51-6	Benzyl Alcohol	280 U	606-20-2	2,6-Dinitrotoluene	280 U
95-50-1	1,2-Dichlorobenzene	55 U	84-66-2	Diethylphthalate	55 U
95-48-7	2-Methylphenol	55 U	7005-72-3	4-Chlorophenyl-phenylether	55 U
108-60-1	bis(2-chloroisopropyl)Ether	55 U	86-73-7	Fluorene	55 U
106-44-5	4-Methylphenol	55 U	100-01-6	4-Nitroaniline	280 U
1-64-7	N-Nitroso-Di-n-Propylamine	55 U	534-52-1	4,6-Dinitro-2-Methylphenol	550 U
72-1	Hexachloroethane	110 U	86-30-6	N-Nitrosodiphenylamine(1)	55 U
98-95-3	Nitrobenzene	55 U	101-55-3	4-Bromophenyl-phenylether	55 U
78-59-1	Isophorone	55 U	118-74-1	Hexachlorobenzene	55 U
88-75-5	2-Nitrophenol	280 U	87-86-5	Pentachlorophenol	280 U
105-67-9	2,4-Dimethylphenol	110 U	85-01-8	Phenanthrene	55 U
65-85-0	Benzoic Acid	550 U	120-12-7	Anthracene	55 U
111-91-1	bis(2-Chloroethoxy)Methane	55 U	84-74-2	Di-n-Butylphthalate	55 U
120-83-2	2,4-Dichlorophenol	170 U	206-44-0	Fluoranthene	55 U
120-82-1	1,2,4-Trichlorobenzene	55 U	129-00-0	Pyrene	55 U
91-20-3	Naphthalene	55 U	85-68-7	Butylbenzylphthalate	55 U
106-47-8	4-Chloroaniline	170 U	91-94-1	3,3'-Dichlorobenzidine	280 U
87-68-3	Hexachlorobutadiene	110 U	56-55-3	Benzo(a)Anthracene	55 U
59-50-7	4-Chloro-3-Methylphenol	110 U	117-81-7	bis(2-Ethylhexyl)Phthalate	55 U
91-57-6	2-Methylnaphthalene	55 U	218-01-9	Chrysene	55 U
77-47-4	Hexachlorocyclopentadiene	280 U	117-84-0	Di-n-Octyl Phthalate	55 U
88-06-2	2,4,6-Trichlorophenol	280 U	205-99-2	Benzo(b)Fluoranthene	55 U
95-95-4	2,4,5-Trichlorophenol	280 U	207-08-9	Benzo(k)Fluoranthene	55 U
91-58-7	2-Chloronaphthalene	55 U	50-32-8	Benzo(a)Pyrene	55 U
88-74-4	2-Nitroaniline	280 U	193-39-5	Indeno(1,2,3-cd)Pyrene	55 U
131-11-3	Dimethyl Phthalate	55 U	53-70-3	Dibenz(a,h)Anthracene	55 U
208-96-8	Acenaphthylene	55 U	191-24-2	Benzo(ghi)Perylene	55 U
on 99-2	3-Nitroaniline	280 U			

(1) Cannot be separated from diphenylamine

*Base/neutral surrogate recoveries

d5-Nitrobenzene	36.8%
2-Fluorobiphenyl	55.3%
d14-p-Terphenyl	39.5%

recycled paper

*Acid surrogate recoveries

d5-Phenol	51.9%
2-Fluorophenol	28.1%
2,4,6-Tribromophenol	27.2%

ecology and environment



ANALYTICAL
RESOURCES
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

ABN Semivolatiles by Method 625/8270

Sample ID: 8358A
Matrix: Waters

Data Release Authorized: *[Signature]*
Report prepared 6/12/91 MAC:K KAS

Date extracted: 6/3/91
Date Analyzed (FINN 4): 6/6/91

Sample No: MW-1

QC Report No: 8358 - E&E
Project No: WZ6030
Old Inland Pit
VTSR: 05/24/91

Analytical
Chemists &
Consultants

333 Ninth Ave. North
Seattle, WA 98109-5116
(206) 621-6490
(206) 621-7523 (FAX)

Sample Volume: 1000 ml
Final extract Volume: 1.0 ml
Conc/Dilution: 1 to 1

CAS Number		µg/L
108-95-2	Phenol	2 U
111-44-4	bis(2-Chloroethyl)Ether	1 U
95-57-8	2-Chlorophenol	1 U
541-73-1	1,3-Dichlorobenzene	1 U
106-46-7	1,4-Dichlorobenzene	1 U
100-51-6	Benzyl Alcohol	5 U
95-50-1	1,2-Dichlorobenzene	1 U
95-48-7	2-Methylphenol	1 U
108-60-1	bis(2-chloroisopropyl)Ether	1 U
106-44-5	4-Methylphenol	1 U
621-64-7	N-Nitroso-Di-n-Propylamine	1 U
67-72-1	Hexachloroethane	2 U
98-95-3	Nitrobenzene	1 U
78-59-1	Isophorone	1 U
88-75-5	2-Nitrophenol	5 U
105-67-9	2,4-Dimethylphenol	2 U
65-85-0	Benzoic Acid	10 U
111-91-1	bis(2-Chloroethoxy)Methane	1 U
120-83-2	2,4-Dichlorophenol	3 U
120-82-1	1,2,4-Trichlorobenzene	1 U
91-20-3	Naphthalene	1 U
106-47-8	4-Chloroaniline	3 U
87-68-3	Hexachlorobutadiene	2 U
59-50-7	4-Chloro-3-Methylphenol	2 U
91-57-6	2-Methylnaphthalene	1 U
77-47-4	Hexachlorocyclopentadiene	5 U
88-06-2	2,4,6-Trichlorophenol	5 U
95-95-4	2,4,5-Trichlorophenol	5 U
91-58-7	2-Chloronaphthalene	1 U
88-74-4	2-Nitroaniline	5 U
131-11-3	Dimethyl Phthalate	1 U
208-96-8	Acenaphthylene	1 U
99-09-2	3-Nitroaniline	5 U

CAS Number		µg/L
83-32-9	Acenaphthene	1 U
51-28-5	2,4-Dinitrophenol	10 U
100-02-7	4-Nitrophenol	5 U
132-64-9	Dibenzofuran	1 U
121-14-2	2,4-Dinitrotoluene	5 U
606-20-2	2,6-Dinitrotoluene	5 U
84-66-2	Diethylphthalate	1 U
7005-72-3	4-Chlorophenyl-phenylether	1 U
86-73-7	Fluorene	1 U
100-01-6	4-Nitroaniline	5 U
534-52-1	4,6-Dinitro-2-Methylphenol	10 U
86-30-6	N-Nitrosodiphenylamine(1)	1 U
101-55-3	4-Bromophenyl-phenylether	1 U
118-74-1	Hexachlorobenzene	1 U
87-86-5	Pentachlorophenol	5 U
85-01-8	Phenanthrene	1 U
120-12-7	Anthracene	1 U
84-74-2	Di-n-Butylphthalate	1 U
206-44-0	Fluoranthene	1 U
129-00-0	Pyrene	1 U
85-68-7	Butylbenzylphthalate	1 U
91-94-1	3,3'-Dichlorobenzidine	5 U
56-55-3	Benzo(a)Anthracene	1 U
117-81-7	bis(2-Ethylhexyl)Phthalate	8.0
218-01-9	Chrysene	1 U
117-84-0	Di-n-Octyl Phthalate	1.1
205-99-2	Benzo(b)Fluoranthene	1 U
207-08-9	Benzo(k)Fluoranthene	1 U
50-32-8	Benzo(a)Pyrene	1 U
193-39-5	Indeno(1,2,3-cd)Pyrene	1 U
53-70-3	Dibenz(a,h)Anthracene	1 U
191-24-2	Benzo(ghi)Perylene	1 U

(1) Cannot be separated from diphenylamine

*Base/neutral surrogate recoveries

d5-Nitrobenzene	82.9%
2-Fluorobiphenyl	87.0%
d14-p-Terphenyl	91.4%

*Acid surrogate recoveries

d5-Phenol	44.5%
2-Fluorophenol	48.7%
2,4,6-Tribromophenol	121%



ANALYTICAL
RESOURCES
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

ABN Semivolatiles by Method 625/8270

Sample ID: 8358B

Matrix: Waters

Data Release Authorized: *[Signature]*
Report prepared 6/12/91 MAC:K KAS

Sample No: MW-2

QC Report No: 8358 - E&E

Project No: WZ6030

Old Inland Pit

VTSR: 05/24/91

Analytical
Chemists &
Consultants

333 Ninth Ave. North
Seattle, WA 98109-516
(206) 621-6490
(206) 621-7523 (FAX)

Date extracted: 6/3/91
Date Analyzed (FINN 4): 6/6/91

Sample Volume: 1000 mls
Final extract Volume: 1.0 mls
Conc/Dilution: 1 to 1

CAS Number		µg/L
108-95-2	Phenol	2 U J
111-44-4	bis(2-Chloroethyl)Ether	1 U
95-57-8	2-Chlorophenol	1 U
541-73-1	1,3-Dichlorobenzene	1 U
106-46-7	1,4-Dichlorobenzene	1 U
100-51-6	Benzyl Alcohol	5 U
95-50-1	1,2-Dichlorobenzene	1 U
95-48-7	2-Methylphenol	1 U
108-60-1	bis(2-chloroisopropyl)Ether	1 U
106-44-5	4-Methylphenol	1 U
621-64-7	N-Nitroso-Di-n-Propylamine	1 U
57-72-1	Hexachloroethane	2 U
98-95-3	Nitrobenzene	1 U
78-59-1	Isophorone	1 U
88-75-5	2-Nitrophenol	5 U
105-67-9	2,4-Dimethylphenol	2 U
65-85-0	Benzoic Acid	10 U
111-91-1	bis(2-Chloroethoxy)Methane	1 U
120-83-2	2,4-Dichlorophenol	3 U
120-82-1	1,2,4-Trichlorobenzene	1 U
91-20-3	Naphthalene	1 U
106-47-8	4-Chloroaniline	3 U
87-68-3	Hexachlorobutadiene	2 U
59-50-7	4-Chloro-3-Methylphenol	2 U
91-57-6	2-Methylnaphthalene	1 U
77-47-4	Hexachlorocyclopentadiene	5 U
88-06-2	2,4,6-Trichlorophenol	5 U
95-95-4	2,4,5-Trichlorophenol	5 U
91-58-7	2-Chloronaphthalene	1 U
88-74-4	2-Nitroaniline	5 U
131-11-3	Dimethyl Phthalate	1 U
208-96-8	Acenaphthylene	1 U
99-09-2	3-Nitroaniline	5 U J

CAS Number		µg/L
83-32-9	Acenaphthene	1 U J
51-28-5	2,4-Dinitrophenol	10 U
100-02-7	4-Nitrophenol	5 U
132-64-9	Dibenzofuran	1 U
121-14-2	2,4-Dinitrotoluene	5 U
606-20-2	2,6-Dinitrotoluene	5 U
84-66-2	Diethylphthalate	1 U
7005-72-3	4-Chlorophenyl-phenylether	1 U
86-73-7	Fluorene	1 U
100-01-6	4-Nitroaniline	5 U
534-52-1	4,6-Dinitro-2-Methylphenol	10 U
86-30-6	N-Nitrosodiphenylamine(1)	1 U
101-55-3	4-Bromophenyl-phenylether	1 U
118-74-1	Hexachlorobenzene	1 U
87-86-5	Pentachlorophenol	5 U
85-01-8	Phenanthrene	1 U
120-12-7	Anthracene	1 U J
84-74-2	Di-n-Butylphthalate	0.5 J
206-44-0	Fluoranthene	1 U J
129-00-0	Pyrene	1 U
85-68-7	Butylbenzylphthalate	1 U
91-94-1	3,3'-Dichlorobenzidine	5 U
56-55-3	Benzo(a)Anthracene	1 U
117-81-7	bis(2-Ethylhexyl)Phthalate	15
218-01-9	Chrysene	1 U
117-84-0	Di-n-Octyl Phthalate	3.3
205-99-2	Benzo(b)Fluoranthene	1 U
207-08-9	Benzo(k)Fluoranthene	1 U
50-32-8	Benzo(a)Pyrene	1 U
193-39-5	Indeno(1,2,3-cd)Pyrene	1 U
53-70-3	Dibenz(a,h)Anthracene	1 U
191-24-2	Benzo(ghi)Perylene	1 U J

(1) Cannot be separated from diphenylamine

*Base/neutral surrogate recoveries

d5-Nitrobenzene	86.0%
2-Fluorobiphenyl	89.2%
d14-p-Terphenyl	89.5%

*Acid surrogate recoveries

d5-Phenol	46.5%
2-Fluorophenol	48.3%
2,4,6-Tribromophenol	122%



ANALYTICAL
RESOURCES
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

ABN Semivolatiles by Method 625/8270

Sample No: MW-3

Sample ID: 8358C

QC Report No: 8358 - E&E

Analytical
Chemists &
Consultants

Matrix: Waters

Project No: WZ6030

Old Inland Plt

Data Release Authorized: *Ann B. Patton*

VTSR: 05/24/91

Report prepared 6/12/91 MAC:K KAS

333 Ninth Ave. North
Seattle, WA 98109-5187
(206) 621-6490
(206) 621-7523 (FAX)

Date extracted: 6/3/91
Date Analyzed (FINN 4): 6/6/91

Sample Volume: 1000 mls
Final extract Volume: 1.0 mls
Conc/Dilution: 1 to 1

CAS Number		µg/L	CAS Number		µg/L
108-95-2	Phenol	2 U	83-32-9	Acenaphthene	1 U
111-44-4	bis(2-Chloroethyl)Ether	1 U	51-28-5	2,4-Dinitrophenol	10 U
95-57-8	2-Chlorophenol	1 U	100-02-7	4-Nitrophenol	5 U
541-73-1	1,3-Dichlorobenzene	1 U	132-64-9	Dibenzofuran	1 U
106-46-7	1,4-Dichlorobenzene	1 U	121-14-2	2,4-Dinitrotoluene	5 U
100-51-6	Benzyl Alcohol	5 U	606-20-2	2,6-Dinitrotoluene	5 U
95-50-1	1,2-Dichlorobenzene	1 U	84-66-2	Diethylphthalate	1 U
95-48-7	2-Methylphenol	1 U	7005-72-3	4-Chlorophenyl-phenylether	1 U
108-60-1	bis(2-chloroisopropyl)Ether	1 U	86-73-7	Fluorene	1 U
106-44-5	4-Methylphenol	1 U	100-01-6	4-Nitroaniline	5 U
621-64-7	N-Nitroso-Di-n-Propylamine	1 U	534-52-1	4,6-Dinitro-2-Methylphenol	10 U
67-72-1	Hexachloroethane	2 U	86-30-6	N-Nitrosodiphenylamine(1)	1 U
98-95-3	Nitrobenzene	1 U	101-55-3	4-Bromophenyl-phenylether	1 U
78-59-1	Isophorone	1 U	118-74-1	Hexachlorobenzene	1 U
88-75-5	2-Nitrophenol	5 U	87-86-5	Pentachlorophenol	5 U
105-67-9	2,4-Dimethylphenol	2 U	85-01-8	Phenanthrene	1 U
65-85-0	Benzoic Acid	10 U	120-12-7	Anthracene	1 U
111-91-1	bis(2-Chloroethoxy)Methane	1 U	84-74-2	Di-n-Butylphthalate	1 U
120-83-2	2,4-Dichlorophenol	3 U	206-44-0	Fluoranthene	1 U
120-82-1	1,2,4-Trichlorobenzene	1 U	129-00-0	Pyrene	1 U
91-20-3	Naphthalene	1 U	85-68-7	Butylbenzylphthalate	1 U
106-47-8	4-Chloroaniline	3 U	91-94-1	3,3'-Dichlorobenzidine	5 U
87-68-3	Hexachlorobutadiene	2 U	56-55-3	Benzo(a)Anthracene	1 U
59-50-7	4-Chloro-3-Methylphenol	2 U	117-81-7	bis(2-Ethylhexyl)Phthalate	2.2
91-57-6	2-Methylnaphthalene	1 U	218-01-9	Chrysene	1 U
77-47-4	Hexachlorocyclopentadiene	5 U	117-84-0	Di-n-Octyl Phthalate	1 U
88-06-2	2,4,6-Trichlorophenol	5 U	205-99-2	Benzo(b)Fluoranthene	1 U
95-95-4	2,4,5-Trichlorophenol	5 U	207-08-9	Benzo(k)Fluoranthene	1 U
91-58-7	2-Chloronaphthalene	1 U	50-32-8	Benzo(a)Pyrene	1 U
88-74-4	2-Nitroaniline	5 U	193-39-5	Indeno(1,2,3-cd)Pyrene	1 U
131-11-3	Dimethyl Phthalate	1 U	53-70-3	Dibenz(a,h)Anthracene	1 U
208-96-8	Acenaphthylene	1 U	191-24-2	Benzo(ghi)Perylene	1 U
99-09-2	3-Nitroaniline	5 U			

(1) Cannot be separated from diphenylamine

*Base/neutral surrogate recoveries

d5-Nitrobenzene	87.6%
2-Fluorobiphenyl	84.9%
d14-p-Terphenyl	96.1%

*Acid surrogate recoveries

d5-Phenol	45.6%
2-Fluorophenol	47.6%
2,4,6-Tribromophenol	130%



ANALYTICAL
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ORGANICS ANALYSIS DATA SHEET

ABN Semivolatiles by Method 625/8270

Sample ID: 8358D

Matrix: Waters

Data Release Authorized: *Lin B. Patton*

Report prepared 6/12/91 MAC:K KAS

Sample No: MW-4

QC Report No: 8358 - E&E

Project No: WZ6030

Old Inland Pit

VTSR: 05/24/91

Analytical
Chemists &
Consultants

333 Ninth Ave North
Seattle, WA 98109-5111
(206) 621-6490
(206) 621-7523 FAX

Date extracted: 6/3/91
Date Analyzed (FINN 4): 6/6/91

Sample Volume: 690 mls
Final extract Volume: 1.0 mls
Conc/Dilution: 1 to 1

CAS Number		µg/L
108-95-2	Phenol	3 U
111-44-4	bis(2-Chloroethyl)Ether	1 U
95-57-8	2-Chlorophenol	1 U
541-73-1	1,3-Dichlorobenzene	1 U
106-46-7	1,4-Dichlorobenzene	1 U
100-51-6	Benzyl Alcohol	7 U
95-50-1	1,2-Dichlorobenzene	1 U
95-48-7	2-Methylphenol	1 U
108-60-1	bis(2-chloroisopropyl)Ether	1 U
106-44-5	4-Methylphenol	1 U
621-64-7	N-Nitroso-Di-n-Propylamine	1 U
77-72-1	Hexachloroethane	3 U
98-95-3	Nitrobenzene	1 U
78-59-1	Isophorone	1 U
88-75-5	2-Nitrophenol	7 U
105-67-9	2,4-Dimethylphenol	3 U
65-85-0	Benzoic Acid	10 U
111-91-1	bis(2-Chloroethoxy)Methane	1 U
120-83-2	2,4-Dichlorophenol	4 U
120-82-1	1,2,4-Trichlorobenzene	1 U
91-20-3	Naphthalene	1 U
106-47-8	4-Chloroaniline	4 U
87-68-3	Hexachlorobutadiene	3 U
59-50-7	4-Chloro-3-Methylphenol	3 U
91-57-6	2-Methylnaphthalene	1 U
77-47-4	Hexachlorocyclopentadiene	7 U
88-06-2	2,4,6-Trichlorophenol	7 U
95-95-4	2,4,5-Trichlorophenol	7 U
91-58-7	2-Chloronaphthalene	1 U
88-74-4	2-Nitroaniline	7 U
131-11-3	Dimethyl Phthalate	1 U
208-96-8	Acenaphthylene	1 U
99-09-2	3-Nitroaniline	7 U

CAS Number		µg/L
83-32-9	Acenaphthene	1 U
51-28-5	2,4-Dinitrophenol	10 U
100-02-7	4-Nitrophenol	7 U
132-64-9	Dibenzofuran	1 U
121-14-2	2,4-Dinitrotoluene	7 U
606-20-2	2,6-Dinitrotoluene	7 U
84-66-2	Diethylphthalate	1 U
7005-72-3	4-Chlorophenyl-phenylether	1 U
86-73-7	Fluorene	1 U
100-01-6	4-Nitroaniline	7 U
534-52-1	4,6-Dinitro-2-Methylphenol	10 U
86-30-6	N-Nitrosodiphenylamine(1)	1 U
101-55-3	4-Bromophenyl-phenylether	1 U
118-74-1	Hexachlorobenzene	1 U
87-86-5	Pentachlorophenol	7 U
85-01-8	Phenanthrene	1 U
120-12-7	Anthracene	1 U
84-74-2	Di-n-Butylphthalate	1 U
206-44-0	Fluoranthene	1 U
129-00-0	Pyrene	1 U
85-68-7	Butylbenzylphthalate	1 U
91-94-1	3,3'-Dichlorobenzidine	7 U
56-55-3	Benzo(a)Anthracene	1 U
117-81-7	bis(2-Ethylhexyl)Phthalate	1.4 U
218-01-9	Chrysene	1 U
117-84-0	Di-n-Octyl Phthalate	1 U
205-99-2	Benzo(b)Fluoranthene	1 U
207-08-9	Benzo(k)Fluoranthene	1 U
50-32-8	Benzo(a)Pyrene	1 U
193-39-5	Indeno(1,2,3-cd)Pyrene	1 U
53-70-3	Dibenz(a,h)Anthracene	1 U
191-24-2	Benzo(ghi)Perylene	1 U

(1) Cannot be separated from diphenylamine

*Base/neutral surrogate recoveries

d5-Nitrobenzene	81.5%
2-Fluorobiphenyl	85.4%
d14-p-Terphenyl	95.6%

*Acid surrogate recoveries

d5-Phenol	57.5%
2-Fluorophenol	54.7%
2,4,6-Tribromophenol	116%

ORGANICS ANALYSIS DATA SHEET
Pesticides/PCBs by Method 608/8080



Sample No: MW1-1

ANALYTICAL
RESOURCES
INCORPORATED

Lab Sample ID: 8263B

Matrix: Soils/Sediments

QC Report No: 8263 - E&E

Project: WZ6030

Old Inland Pit

Analytical
Chemists &
Consultants

Data Release Authorized: *[Signature]*

VTSR: 05/15/91

Report prepared 6/5/91 - MAC:K kas

333 Ninth Ave. North
Seattle, WA 98109-5187
(206) 621-6490
(206) 621-7523 (FAX)

Date Extracted: 5/20/91

Date Analyzed: 5/24/91

Sample Amount: 33.6 gms

Final Ext. Volume: 20 ml

GPC Cleanup: YES

Alumina Cleanup: YES

Sulfur Cleanup: NO

Conc/Dil Factor: 1 to 1

CAS Number		µg/Kg
319-84-6	Alpha-BHC	2.5 U
319-85-7	Beta-BHC	2.5 U
319-86-8	Delta-BHC	4.0 U
58-89-9	Gamma-BHC (Lindane)	2.5 U
76-44-8	Heptachlor	2.5 U
309-00-2	Aldrin	2.5 U
1024-57-3	Heptachlor Epoxide	2.5 U
959-98-8	Endosulfan I	2.5 U
60-57-1	Dieldrin	5.0 U
72-55-9	4,4'-DDE	5.0 U
72-20-8	Endrin	5.0 U
33212-65-9	Endosulfan II	5.0 U
72-54-8	4,4'-DDD	5.0 U
1031-07-8	Endosulfan Sulfate	10 U
50-29-3	4,4'-DDT	5.0 U
72-43-5	Methoxychlor	10 U
53494-70-5	Endrin Ketone	8.0 U
5103-74-2	Gamma-Chlordane	4.0 U
5103-71-9	Alpha-Chlordane	4.0 U
8001-35-2	Toxaphene	400 U
-	Aroclor-1242/1016	50 U
12672-29-6	Aroclor-1248	50 U
11097-69-1	Aroclor-1254	20 J
11096-82-5	Aroclor-1260	50 U
-	Aroclor-1221	50 U
-	Aroclor-1232	50 U

* Pesticide Surrogate Recovery %Rec

Dibutylchloroendate	37%
Dibromooctafluorobiphenyl	35%

July 6-25-91

Data Qualifiers

Value	If the result is a value greater than or equal to the detection limit, report the value.
J	Indicates an estimated value when that value is less than the calculated detection limit.
X	Indicates a value above the linear range of the detector. Dilution required.
S	Indicates no value reported due to saturation of the detector.
D	Indicates surrogate was diluted out.
U	Indicates compound was analyzed for, but not detected at the given detection limit.
NA	Indicates compound not analyzed.

ecology and environment

ORGANICS ANALYSIS DATA SHEET
Pesticides/PCBs by Method 608/8080



Sample No: MW1-2

ANALYTICAL
RESOURCES
INCORPORATED

Lab Sample ID: 8263C
Matrix: Soils/Sediments

QC Report No: 8263 - E&E
Project: WZ6030
Old Inland Pit
VTSR: 05/15/91

Analytical
Chemists &
Consultants

333 Ninth Ave. North
Seattle, WA 98109-5187
(206) 621-6490
(206) 621-7523 (FAX)

Data Release Authorized: *[Signature]*
Report prepared 6/5/91 - MAC:K kas

Date Extracted: 5/20/91
Date Analyzed: 5/24/91
Sample Amount: 34.8 gms
Final Ext. Volume: 20 ml

GPC Cleanup: YES
Alumina Cleanup: YES
Sulfur Cleanup: NO
Conc/Dil Factor: 1 to 1

CAS Number		µg/Kg
319-84-6	Alpha-BHC	2.5 U
319-85-7	Beta-BHC	2.5 U
319-86-8	Delta-BHC	4.0 U
58-89-9	Gamma-BHC (Lindane)	2.5 U J
76-44-8	Heptachlor	2.5 U
309-00-2	Aldrin	2.5 U J
1024-57-3	Heptachlor Epoxide	2.5 U
959-98-8	Endosulfan I	2.5 U
60-57-1	Dieldrin	5.0 U
72-55-9	4,4'-DDE	5.0 U
72-20-8	Endrin	5.0 U
33212-65-9	Endosulfan II	5.0 U
72-54-8	4,4'-DDD	5.0 U
1031-07-8	Endosulfan Sulfate	10 U
50-29-3	4,4'-DDT	5.0 U
72-43-5	Methoxychlor	10 U
53494-70-5	Endrin Ketone	8.0 U
5103-74-2	Gamma-Chlordane	4.0 U
5103-71-9	Alpha-Chlordane	4.0 U
8001-35-2	Toxaphene	400 U
-	Aroclor-1242/1016	50 U
12672-29-6	Aroclor-1248	50 U
11097-69-1	Aroclor-1254	50 U
11096-82-5	Aroclor-1260	50 U
-	Aroclor-1221	50 U
-	Aroclor-1232	50 U

* Pesticide Surrogate Recovery	%Rec
Dibutylchlorodate	34%
Dibromooctafluorobiphenyl	33%

[Handwritten signature]
6-25-91

Data Qualifiers

Value	If the result is a value greater than or equal to the detection limit, report the value.
J	Indicates an estimated value when that value is less than the calculated detection limit.
X	Indicates a value above the linear range of the detector. Dilution required.
S	Indicates no value reported due to saturation of the detector.
D	Indicates the surrogate was diluted out.
U	Indicates compound was analyzed for, but not detected at the given detection limit.
NA	Indicates compound not analyzed.



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Seattle, WA 98109-5111
(206) 621-6490
(206) 621-7523 (FAX)

ORGANICS ANALYSIS DATA SHEET - Method 8080- PESTICIDE/PCB

Lab Sample ID: 82908
Matrix: Soil/Sediment

Sample No.: MW2-1

QC Report No.: 8290-E&E
Project: WZ6030

Data Release Authorized: *[Signature]*
DATA PREPARED: (06/18/91) MAC: E

VTSR: 05/17/91

Date Extracted: 06/10/91
Date Analyzed: 06/14/91
Dry Weight: 34.3 g
Final Volume: 20 mls
Conc/Dil Factor: 1:1

GPC Cleanup: No
Alumina Cleanup: Yes
Sulfur Cleanup: No

CAS Number		µg/Kg
319-84-6	Alpha-BHC	2.5 U
319-85-7	Beta-BHC	2.5 U
319-86-8	Delta-BHC	3.8 U
58-89-9	Gamma-BHC (Lindane)	2.5 U
76-44-8	Heptachlor	2.5 U
309-00-2	Aldrin	2.5 U
1024-57-3	Heptachlor Epoxide	2.5 U
959-98-8	Endosulfan I	2.5 U
60-57-1	Dieldrin	5.0 U
72-55-9	4,4'-DDE	5.0 U
72-20-8	Endrin	5.0 U
33212-65-9	Endosulfan II	5.0 U
72-54-8	4,4'-DDD	5.0 U
1031-07-8	Endosulfan Sulfate	10 U
50-29-3	4,4'-DDT	5.0 U
72-43-5	Methoxychlor	10 U
53494-70-5	Endrin Ketone	7.6 U
5103-74-2	Gamma-Chlordane	3.8 U
5103-71-9	Alpha-Chlordane	3.8 U
8001-35-2	Toxaphene	380 U
-	Aroclor-1242/1016	50 U
12672-29-6	Aroclor-1248	50 U
11097-69-1	Aroclor-1254	50 U
11096-82-5	Aroclor-1260	50 U

Pesticide Surrogate Recovery

Dibromooctafluorobiphenyl	90%
Dibutylchlorodate	100%

Data Qualifiers

U Indicates compound was analyzed for but not detected at the given detection limit.
J Indicates an estimated value when the result is less than the calculated detection limit.
NA Indicates not analyzed.



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ORGANICS ANALYSIS DATA SHEET - PESTICIDE/PCB
EPA Method 8080

Lab Sample ID: 8302 A2
Matrix: Soil/Sediments

Date Extracted: 06/03/91

Date Analyzed: 06/04/91

Dry Weight: 34.7 g

Final Volume: 20 ml

Conc/Dilution: 1 to 1

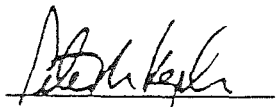
Sample No: MW 2-2
QC Report No: 8302
Ecology & Environment

Analytical
Chemists &
Consultants

Project: WZ 6030
Old Inland Pit
VTSR: 05/20/91

333 Ninth Ave North
Seattle, WA 98109-518
(206) 621-6490
(206) 621-7523 (FAX)

GPC Cleanup: Yes
Alumina Cleanup: Yes
Sulfur Cleanup: No

Data Release Authorized: 

Data Prepared: 06/07/91 MAC:D jv

CAS Number		µg/Kg
319-84-6	Alpha-BHC	2.5 U ✓
319-85-7	Beta-BHC	2.5 U ✓
319-86-8	Delta-BHC	3.5 U ✓
58-89-9	Gamma-BHC (Lindane)	2.5 U ✓
76-44-8	Heptachlor	2.5 U ✓
309-00-2	Aldrin	2.5 U ✓
1024-57-3	Heptachlor Epoxide	2.5 U ✓
959-98-8	Endosulfan I	2.5 U ✓
60-57-1	Dieldrin	5.0 U ✓
72-55-9	4,4'-DDE	5.0 U ✓
72-20-8	Endrin	5.0 U ✓
33212-65-9	Endosulfan II	5.0 U ✓
72-54-8	4,4'-DDD	5.0 U ✓
1031-07-8	Endosulfan Sulfate	10 U ✓
50-29-3	4,4'-DDT	5.0 U ✓
72-43-5	Methoxychlor	10 U ✓
53494-70-5	Endrin Ketone	7.0 U ✓
5103-74-2	Gamma-Chlordane	3.5 U ✓
5103-71-9	Alpha-Chlordane	3.5 U ✓
8001-35-2	Toxaphene	350 U ✓
-	Aroclor-1242/1016	50 U ✓
12672-29-6	Aroclor-1248	50 U ✓
11097-69-1	Aroclor-1254	50 U ✓
11096-82-5	Aroclor-1260	50 U ✓

* Pesticide Surrogate Recovery

DiButylchlorodate	99%
DiBromooctafluorobiphenyl	107%

 6-25-91

Value If the result is a value greater than or equal to the detection limit, report the value. X Indicates a value above the linear range of the detector. Dilution required

U Indicates compound was analyzed for but not detected at the given detection limit. S Indicates no value reported due to saturation of the detector.

J Indicates an estimated value when result is less than specified detection limit. D Indicates the surrogate(s) was diluted out.

ND Not recovered



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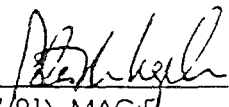
333 Ninth Ave. North
Seattle, WA 98109-5110
(206) 621-6490
(206) 621-7523 (FAX)

ORGANICS ANALYSIS DATA SHEET - Method 8080- PESTICIDE/PCB

Lab Sample ID: 8358E
Matrix: Soil/Sediment

Sample No.: MW3-1

QC Report No.: 8358-E&E
Project: WZ6030

Data Release Authorized: 
DATA PREPARED: (06/17/91) MAC: E

VTSR: 05/24/91

Date Extracted: 06/03/91
Date Analyzed: 06/08/91
Dry Weight: 32.7 g
Final Volume: 20 mls
Conc/Dil Factor: 1:1

GPC Cleanup: Yes
Alumina Cleanup: Yes
Sulfur Cleanup: No

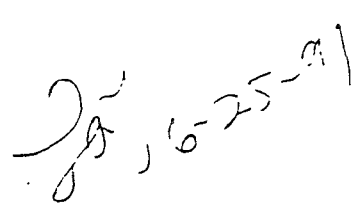
CAS Number		µg/Kg
319-84-6	Alpha-BHC	2.5 U
319-85-7	Beta-BHC	2.5 U
319-86-8	Delta-BHC	3.8 U
58-89-9	Gamma-BHC (Lindane)	2.5 U
76-44-8	Heptachlor	2.5 U
309-00-2	Aldrin	2.5 U
1024-57-3	Heptachlor Epoxide	2.5 U
959-98-8	Endosulfan I	2.5 U
60-57-1	Dieldrin	5.0 U
72-55-9	4,4'-DDE	5.0 U
72-20-8	Endrin	5.0 U
33212-65-9	Endosulfan II	5.0 U
72-54-8	4,4'-DDD	5.0 U
1031-07-8	Endosulfan Sulfate	10 U
50-29-3	4,4'-DDT	5.0 U
72-43-5	Methoxychlor	10 U
53494-70-5	Endrin Ketone	7.6 U
5103-74-2	Gamma-Chlordane	3.8 U
5103-71-9	Alpha-Chlordane	3.8 U
8001-35-2	Toxaphene	380 U

Pesticide Surrogate Recovery

Dibromooctafluorobiphenyl	97%
Dibutylchlorodate	97%

Data Qualifiers

- U Indicates compound was analyzed for but not detected at the given detection limit.
J Indicates an estimated value when the result is less than the calculated detection limit.
NA Indicates not analyzed.



ORGANICS ANALYSIS DATA SHEET
Pesticides/PCBs by Method 608/8080



Sample No: MW4-1

ANALYTICAL
RESOURCES
INCORPORATED

Lab Sample ID: 8263A

Matrix: Soils/Sediments

QC Report No: 8263 - E&E

Project: WZ6030

Old Inland Pit

VTSR: 05/15/91

Analytical
Chemists &
Consultants

333 Ninth Ave. North
Seattle, WA 98109-5187
(206) 621-6490
(206) 621-7523 (FAX)

Data Release Authorized: *[Signature]*
Report prepared 6/5/91 - MAC:K kas

Date Extracted: 5/20/91

Date Analyzed: 5/24/91

Sample Amount: 35.4 gms

Final Ext. Volume: 20 mls

GPC Cleanup: YES

Alumina Cleanup: YES

Sulfur Cleanup: NO

Conc/Dil Factor: 1 to 1

CAS Number		µg/Kg
319-84-6	Alpha-BHC	2.5 U
319-85-7	Beta-BHC	2.5 U
319-86-8	Delta-BHC	4.0 U
58-89-9	Gamma-BHC (Lindane)	2.5 U
76-44-8	Heptachlor	2.5 U
309-00-2	Aldrin	2.5 U
1024-57-3	Heptachlor Epoxide	2.5 U
959-98-8	Endosulfan I	2.5 U
60-57-1	Dieldrin	5.0 U
72-55-9	4,4'-DDE	5.0 U
72-20-8	Endrin	5.0 U
33212-65-9	Endosulfan II	5.0 U
72-54-8	4,4'-DDD	5.0 U
1031-07-8	Endosulfan Sulfate	10 U
50-29-3	4,4'-DDT	5.0 U
72-43-5	Methoxychlor	10 U
53494-70-5	Endrin Ketone	8.0 U
5103-74-2	Gamma-Chlordane	4.0 U
5103-71-9	Alpha-Chlordane	4.0 U
8001-35-2	Toxaphene	400 U
-	Aroclor-1242/1016	50 U
12672-29-6	Aroclor-1248	50 U
11097-69-1	Aroclor-1254	50 U
11096-82-5	Aroclor-1260	50 U
-	Aroclor-1221	50 U
-	Aroclor-1232	50 U

* Pesticide Surrogate Recovery %Rec

Dibutylchloroendate	34%
Dibromooctafluorobiphenyl	32%

Data Qualifiers

Value	If the result is a value greater than or equal to the detection limit, report the value.
J	Indicates an estimated value when that value is less than the calculated detection limit.
X	Indicates a value above the linear range of the detector. Dilution required.
S	Indicates no value reported due to saturation of the detector.
D	Indicates surrogate was diluted out.
U	Indicates compound was analyzed for, but not detected at the given detection limit.
NA	Indicates compound not analyzed.

76-75-91



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(206) 621-6490
(206) 621-7523 (FAX)

ORGANICS ANALYSIS DATA SHEET - Method 8080- PESTICIDE/PCB

Lab Sample ID: 8290A
Matrix: Soil/Sediment

Sample No.: MW4-2

QC Report No.: 8290-E&E
Project: WZ6030

Data Release Authorized: *[Signature]*
DATA PREPARED: (06/18/91) MAC: *[Signature]*

VTSR: 05/17/91

Date Extracted: 06/10/91
Date Analyzed: 06/14/91
Dry Weight: 32.7 g
Final Volume: 20 ml
Conc/Dil Factor: 1:1

GPC Cleanup: No
Alumina Cleanup: Yes
Sulfur Cleanup: No

CAS Number		µg/Kg
319-84-6	Alpha-BHC	2.5 U J
319-85-7	Beta-BHC	2.5 U
319-86-8	Delta-BHC	3.8 U
58-89-9	Gamma-BHC (Lindane)	2.5 U
76-44-8	Heptachlor	2.5 U
309-00-2	Aldrin	2.5 U
1024-57-3	Heptachlor Epoxide	2.5 U
959-98-8	Endosulfan I	2.5 U
60-57-1	Dieldrin	5.0 U
72-55-9	4,4'-DDE	5.0 U
72-20-8	Endrin	5.0 U
33212-65-9	Endosulfan II	5.0 U
72-54-8	4,4'-DDD	5.0 U
1031-07-8	Endosulfan Sulfate	10 U
50-29-3	4,4'-DDT	5.0 U
72-43-5	Methoxychlor	10 U
53494-70-5	Endrin Ketone	7.6 U
5103-74-2	Gamma-Chlordane	3.8 U
5103-71-9	Alpha-Chlordane	3.8 U
8001-35-2	Toxaphene	380 U
-	Aroclor-1242/1016	50 U
12672-29-6	Aroclor-1248	50 U
11097-69-1	Aroclor-1254	50 U
11096-82-5	Aroclor-1260	50 U ✓

Pesticide Surrogate Recovery

Dibromooctafluorobiphenyl	95%
Dibutylchlorodane	99%

for 6/25/91

Data Qualifiers

- U Indicates compound was analyzed for but not detected at the given detection limit.
J Indicates an estimated value when the result is less than the calculated detection limit.
NA Indicates not analyzed.



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ORGANICS ANALYSIS DATA SHEET - Method 8080- PESTICIDE/PCB

Lab Sample ID: 8358A
Matrix: Water

Sample No.: MW-1

QC Report No.: 8358-E&E
Project: WZ6030

Data Release Authorized: *[Signature]*
DATA PREPARED: (06/17/91) MAC:E

VTSR: 05/24/91

Date Extracted: 06/03/91
Date Analyzed: 06/08/91
Volume Extracted: 1000 mls
Final Volume: 10 mls
Conc/Dil Factor: 1:1

GPC Cleanup: No
Alumina Cleanup: Yes
Sulfur Cleanup: No

CAS Number		µg/L
319-84-6	Alpha-BHC	0.04 U
319-85-7	Beta-BHC	0.04 U
319-86-8	Delta-BHC	0.06 U
58-89-9	Gamma-BHC (Lindane)	0.04 U
76-44-8	Heptachlor	0.04 U
309-00-2	Aldrin	0.04 U
1024-57-3	Heptachlor Epoxide	0.04 U
959-98-8	Endosulfan I	0.04 U
60-57-1	Dieldrin	0.08 U
72-55-9	4,4'-DDE	0.08 U
72-20-8	Endrin	0.08 U
33212-65-9	Endosulfan II	0.08 U
72-54-8	4,4'-DDD	0.08 U
1031-07-8	Endosulfan Sulfate	0.16 U
50-29-3	4,4'-DDT	0.08 U
72-43-5	Methoxychlor	0.16 U
53494-70-5	Endrin Ketone	0.12 U
5103-74-2	Gamma-Chlordane	0.06 U
5103-71-9	Alpha-Chlordane	0.06 U
8001-35-2	Toxaphene	6.0 U

Pesticide Surrogate Recovery

Dibromooctafluorobiphenyl	51%
Dibutylchlorodane	61%

for 6-25-91

Data Qualifiers

- U Indicates compound was analyzed for but not detected at the given detection limit.
J Indicates an estimated value when the result is less than the calculated detection limit.
NA Indicates not analyzed.



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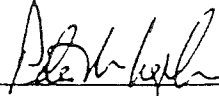
333 Ninth Ave. North
Seattle, WA 98109-516
(206) 621-6490
(206) 621-7523 (FAX)

ORGANICS ANALYSIS DATA SHEET -Method 8080- PESTICIDE/PCB

Lab Sample ID: 8358B
Matrix: Water

Sample No.: MW-2

QC Report No.: 8358-E&E
Project: WZ6030

Data Release Authorized: 
DATA PREPARED: (06/17/91) MAC:EI

VTSR: 05/24/91

Date Extracted: 06/03/91
Date Analyzed: 06/08/91
Volume Extracted: 1000 mls
Final Volume: 10 mls
Conc/Dil Factor: 1:1

GPC Cleanup: No
Alumina Cleanup: Yes
Sulfur Cleanup: No

CAS Number		µg/L
319-84-6	Alpha-BHC	0.04 U J
319-85-7	Beta-BHC	0.04 U J
319-86-8	Delta-BHC	0.06 U J
58-89-9	Gamma-BHC (Lindane)	0.04 U J
76-44-8	Heptachlor	0.04 U J
309-00-2	Aldrin	0.04 U J
1024-57-3	Heptachlor Epoxide	0.04 U J
959-98-8	Endosulfan I	0.04 U J
60-57-1	Dieldrin	0.08 U J
72-55-9	4,4'-DDE	0.08 U J
72-20-8	Endrin	0.08 U J
33212-65-9	Endosulfan II	0.08 U J
72-54-8	4,4'-DDD	0.08 U J
1031-07-8	Endosulfan Sulfate	0.16 U J
50-29-3	4,4'-DDT	0.08 U J
72-43-5	Methoxychlor	0.16 U J
53494-70-5	Endrin Ketone	0.12 U J
5103-74-2	Gamma-Chlordane	0.06 U J
5103-71-9	Alpha-Chlordane	0.06 U J
8001-35-2	Toxaphene	6.0 U J

Pesticide Surrogate Recovery

Dibromooctafluorobiphenyl	59%
Dibutylchlorodate	70%

Data Qualifiers

U Indicates compound was analyzed for but not detected at the given detection limit.
J Indicates an estimated value when the result is less than the calculated detection limit.
NA Indicates not analyzed.

for 6-25-91



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ORGANICS ANALYSIS DATA SHEET -Method 8080- PESTICIDE/PCB

Lab Sample ID: 8358C
Matrix: Water

Sample No.: MW-3

QC Report No.: 8358-E&E
Project: WZ6030

Data Release Authorized: *[Signature]*

DATA PREPARED: (06/17/91) MAC:E

VTSR: 05/24/91

Date Extracted: 06/03/91
Date Analyzed: 06/08/91
Volume Extracted: 1000 mls
Final Volume: 10 mls
Conc/Dil Factor: 1:1

GPC Cleanup: No
Alumina Cleanup: Yes
Sulfur Cleanup: No

CAS Number		µg/L
319-84-6	Alpha-BHC	0.04 U J
319-85-7	Beta-BHC	0.04 U
319-86-8	Delta-BHC	0.06 U
58-89-9	Gamma-BHC (Lindane)	0.04 U
76-44-8	Heptachlor	0.04 U
309-00-2	Aldrin	0.04 U
1024-57-3	Heptachlor Epoxide	0.04 U
959-98-8	Endosulfan I	0.04 U
60-57-1	Dieldrin	0.08 U
72-55-9	4,4'-DDE	0.08 U
72-20-8	Endrin	0.08 U
33212-65-9	Endosulfan II	0.08 U
72-54-8	4,4'-DDD	0.08 U
1031-07-8	Endosulfan Sulfate	0.16 U
50-29-3	4,4'-DDT	0.08 U
72-43-5	Methoxychlor	0.16 U
53494-70-5	Endrin Ketone	0.12 U
5103-74-2	Gamma-Chlordane	0.06 U
5103-71-9	Alpha-Chlordane	0.06 U
8001-35-2	Toxaphene	6.0 U J

Pesticide Surrogate Recovery

Dibromooctafluorobiphenyl	57%
Dibutylchlorodate	59%

Data Qualifiers

- U Indicates compound was analyzed for but not detected at the given detection limit.
J Indicates an estimated value when the result is less than the calculated detection limit.
NA Indicates not analyzed.

[Handwritten signature] 6-25-91



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ORGANICS ANALYSIS DATA SHEET -Method 8080- PESTICIDE/PCB

Lab Sample ID: 8358D
Matrix: Water

Sample No.: MW-4

QC Report No.: 8358-E&E
Project: WZ6030

Data Release Authorized: *[Signature]*
DATA PREPARED: (06/17/91) MAC: E

VTSR: 05/24/91

Date Extracted: 06/03/91
Date Analyzed: 06/08/91
Volume Extracted: 690 mls
Final Volume: 10 mls
Conc/Dil Factor: 1:1

GPC Cleanup: No
Alumina Cleanup: Yes
Sulfur Cleanup: No

CAS Number		µg/L
319-84-6	Alpha-BHC	0.04 U J
319-85-7	Beta-BHC	0.04 U
319-86-8	Delta-BHC	0.06 U
58-89-9	Gamma-BHC (Lindane)	0.04 U
76-44-8	Heptachlor	0.04 U
309-00-2	Aldrin	0.04 U
1024-57-3	Heptachlor Epoxide	0.04 U
959-98-8	Endosulfan I	0.04 U
60-57-1	Dieldrin	0.08 U
72-55-9	4,4'-DDE	0.08 U
72-20-8	Endrin	0.08 U
33212-65-9	Endosulfan II	0.08 U
72-54-8	4,4'-DDD	0.08 U
1031-07-8	Endosulfan Sulfate	0.16 U
50-29-3	4,4'-DDT	0.08 U
72-43-5	Methoxychlor	0.16 U
53494-70-5	Endrin Ketone	0.12 U
5103-74-2	Gamma-Chlordane	0.06 U
5103-71-9	Alpha-Chlordane	0.06 U
8001-35-2	Toxaphene	6.0 U J

Pesticide Surrogate Recovery

Dibromooctafluorobiphenyl	70%
Diethylchlorobiphenyl	73%

Data Qualifiers

- U Indicates compound was analyzed for but not detected at the given detection limit.
J Indicates an estimated value when the result is less than the calculated detection limit.
NA Indicates not analyzed.

1993 Ecology Analytical Reports

• **Groundwater Analyses**

State of Washington Department of Ecology
Manchester Environmental Laboratory
7411 Beach Dr. East Port Orchard WA. 98366

APR 30 1993

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Data Review
April 26, 1993

Project: **Old Inland Pit**
Sample(s): 158030, 158031, 158032, 158033, 158034
Laboratory: Weyerhaeuser Analytical and Testing Services 11548
By: Karin Feddersen KF

Case Summary

These samples were received at the Manchester Environmental Laboratory on April 8, 1993, and transported to Weyerhaeuser on April 12, 1993 for VOC analysis.

This data was reviewed for qualitative and quantitative accuracy, validity, and usefulness.

There is no need to assimilate the "dilution factor" or "sample wt/vol" into the final values reported; these calculations have already been figured into the reported values.

"EPA SAMPLE NO." should read as "DOE SAMPLE NO."

DATA QUALIFIER DEFINITIONS

- U - The analyte was not detected at or above the reported result.
- UJ - The analyte was not detected at or above the reported estimated result.
- J - The associated numerical result is an estimated quantity.
- NJ or JN - There is evidence that the analyte is present. The associated numerical result is an estimate.

VOA

Holding Times:

These samples were analyzed within the SW-846 recommended holding time.

Method Blank:

No target analytes were detected in the method blank.

GC/MS Tuning and Calibration:

Calibration against Bromofluorobenzene (BFB) is acceptable for the initial calibration, continuing calibration and all associated sample analyses.

Initial Calibration:

The initial calibration met the minimum response criteria of greater than 0.05 for the average relative response. The % Relative Standard Deviations were within the maximum of 30%.

Continuing Calibration:

The average relative response factor for all the target analytes were above the minimums, and the percent deviations between the initial and continuing calibration standards were within the maximum of 25% with several exceptions, Chloromethane, Acetone, 2-Butanone, 4-Methyl-2-Pentanone, 2-Hexanone, none of which were detected in the samples. Results for these analytes have been qualified with a "UJ".

Surrogates:

All surrogate recoveries for these samples and the associated method blank are reasonable, acceptable, and within QC limits.

Sample Data:

This data is acceptable for use as amended.



32901 Weyerhaeuser Way South
Federal Way, Washington 98003
Analytical Chemistry Laboratories
Tacoma, Washington 98477
Tel (206) 924 6872
Fax (206) 924 6654

CASE NARRATIVE

WEYERHAEUSER (WEYER) ANALYTICAL AND TESTING SERVICES

Case Number: 11548
SDG Number: 158030
Contract Number: WDOE Waters - Old Inland Pit

Samples from this case (11548) were received on 4/12/93. This case was comprised of waters for VOAs. The requested analyses were as follows:

<u>SAMPLE ID</u>	<u>MATRIX</u>	<u>ANALYSIS REQUESTED</u>
158030 MW1	Water	VOA
158031 MW3	Water	VOA
158032 MW3A	Water	VOA
158033 MW2	Water	VOA
158034 MW4	Water	VOA

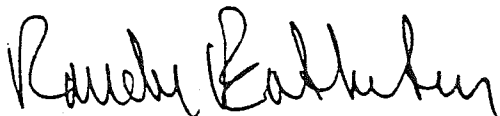
Several anomalies existed with this sample set that are listed below. The anomalies are broken up into categories for ease of explanation.

1. VOA

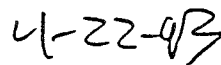
- a) All samples and blanks contain a peak at approximately scan #150 that is >10% of the nearest internal standard. This peak is carbon dioxide and is not searched in any of the samples. A spectra of this peak is on file at the laboratory for review.

Samples 158030 and 158032 contained siloxane compounds usually associated with antifoaming agents we use to protect our instruments. In this case, they could be present in the samples. Results for 158031 and 158033 which were analyzed immediately after 158030 and 158032, respectively, contain a TIC apparently of silylated salicylic acid which is likely to have come from the previously run sample.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.



Randy Eatherton
VOA/Dioxin Team Leader



Date

Please feel free to contact me with any questions concerning this data report. I can be reached at (206) 924-6431.

Sincerely,



Randy Eatherton
Weyerhaeuser Analytical & Testing Services

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

158030

Lab Name: WEYERHAEUSER

Contract: 046-5751

Lab Code: WEYER

Case No.: 11548

SAS No.:

SDG No.: 158030

Matrix: (soil/water) WATER

Lab Sample ID: 7196

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: B0104

Level: (low/med) LOW

Date Received: 04/12/93

% Moisture: not dec.

Date Analyzed: 04/13/93

GC Column: CAP

ID: 0.530 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
---------	----------	--	---

74-87-3-----	Chloromethane	10	UJ	KF
74-83-9-----	Bromomethane	10	U	
75-01-4-----	Vinyl Chloride	10	U	
75-00-3-----	Chloroethane	10	U	
75-09-2-----	Methylene Chloride	10	U	KF
67-64-1-----	Acetone	10	UJ	
75-15-0-----	Carbon Disulfide	10	U	
75-35-4-----	1,1-Dichloroethene	10	U	
75-34-3-----	1,1-Dichloroethane	10	U	KF
540-59-0-----	1,2-Dichloroethene (total)	10	U	
67-66-3-----	Chloroform	10	U	
107-06-2-----	1,2-Dichloroethane	10	U	
78-93-3-----	2-Butanone	10	UJ	KF
71-55-6-----	1,1,1-Trichloroethane	10	U	
56-23-5-----	Carbon Tetrachloride	10	U	
75-27-4-----	Bromodichloromethane	10	U	
78-87-5-----	1,2-Dichloropropane	10	U	KF
10061-01-5-----	cis-1,3-Dichloropropene	10	U	
79-01-6-----	Trichloroethene	10	U	
124-48-1-----	Dibromochloromethane	10	U	
79-00-5-----	1,1,2-Trichloroethane	10	U	KF
71-43-2-----	Benzene	10	U	
10061-02-6-----	Trans-1,3-Dichloropropene	10	U	
75-25-2-----	Bromoform	10	U	
108-10-1-----	4-Methyl-2-Pentanone	10	UJ	KF
591-78-6-----	2-Hexanone	10	UJ	
127-18-4-----	Tetrachloroethene	10	U	
79-34-5-----	1,1,2,2-Tetrachloroethane	10	U	
108-88-3-----	Toluene	10	U	
108-90-7-----	Chlorobenzene	10	U	
100-41-4-----	Ethylbenzene	10	U	
100-42-5-----	Styrene	10	U	
1330-20-7-----	Total Xylenes	10	U	

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

158030

Lab Name: WEYERHAEUSER

Contract: 046-5751

Lab Code: WEYER

Case No.: 11548

SAS No.:

SDG No.: 158030

Matrix: (soil/water) WATER

Lab Sample ID: 7196

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: B0104

Level: (low/med) LOW

Date Received: 04/12/93

% Moisture: not dec.

Date Analyzed: 04/13/93

GC Column: CAP ID: 0.530 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
---------	----------	--	---

541-73-1-----1,3-Dichlorobenzene	10	U
106-46-7-----1,4-Dichlorobenzene	10	U
95-50-1-----1,2-Dichlorobenzene	10	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

158030

Name: WEYERHAEUSER

Contract: 046-5751

Lab Code: WEYER

Case No.: 11548

SAS No.:

SDG No.: 158030

Matrix: (soil/water) WATER

Lab Sample ID: 7196

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: B0104

Level: (low/med) LOW

Date Received: 04/12/93

% Moisture: not dec.

Date Analyzed: 04/13/93

GC Column: CAP ID: 0.530 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

Number TICs found: 2

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 541059	HEXAMETHYLCYCLOTRISILOXANE	21.82	64	JN
2. 556672	Cyclotetrasiloxane, octameth	28.66	180	JN

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

158031

Lab Name: WEYERHAEUSER

Contract: 046-5751

Lab Code: WEYER

Case No.: 11548

SAS No.:

SDG No.: 158030

Matrix: (soil/water) WATER

Lab Sample ID: 7197

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: B0105

Level: (low/med) LOW

Date Received: 04/12/93

% Moisture: not dec.

Date Analyzed: 04/13/93

GC Column: CAP

ID: 0.530 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NO.

COMPOUND

Q

74-87-3-----	Chloromethane	10	UJ	KF
74-83-9-----	Bromomethane	10	U	
75-01-4-----	Vinyl Chloride	10	U	
75-00-3-----	Chloroethane	10	U	
75-09-2-----	Methylene Chloride	10	U	
67-64-1-----	Acetone	10	UJ	KF
75-15-0-----	Carbon Disulfide	10	U	
75-35-4-----	1,1-Dichloroethene	10	U	
75-34-3-----	1,1-Dichloroethane	10	U	
540-59-0-----	1,2-Dichloroethene (total)	10	U	
67-66-3-----	Chloroform	10	U	
107-06-2-----	1,2-Dichloroethane	10	U	
78-93-3-----	2-Butanone	10	UJ	KF
71-55-6-----	1,1,1-Trichloroethane	10	U	
56-23-5-----	Carbon Tetrachloride	10	U	
75-27-4-----	Bromodichloromethane	10	U	
78-87-5-----	1,2-Dichloropropane	10	U	
10061-01-5-----	cis-1,3-Dichloropropene	10	U	
79-01-6-----	Trichloroethene	10	U	
124-48-1-----	Dibromochloromethane	10	U	
79-00-5-----	1,1,2-Trichloroethane	10	U	
71-43-2-----	Benzene	10	U	
10061-02-6-----	Trans-1,3-Dichloropropene	10	U	
75-25-2-----	Bromoform	10	U	
108-10-1-----	4-Methyl-2-Pentanone	10	UJ	KF
591-78-6-----	2-Hexanone	10	UJ	KF
127-18-4-----	Tetrachloroethene	10	U	
79-34-5-----	1,1,2,2-Tetrachloroethane	10	U	
108-88-3-----	Toluene	10	U	
108-90-7-----	Chlorobenzene	10	U	
100-41-4-----	Ethylbenzene	10	U	
100-42-5-----	Styrene	10	U	
1330-20-7-----	Total Xylenes	10	U	

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

158031

Lab Name: WEYERHAEUSER

Contract: 046-5751

Lab Code: WEYER

Case No.: 11548

SAS No.:

SDG No.: 158030

Matrix: (soil/water) WATER

Lab Sample ID: 7197

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: B0105

Level: (low/med) LOW

Date Received: 04/12/93

% Moisture: not dec.

Date Analyzed: 04/13/93

GC Column: CAP

ID: 0.530 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
---------	----------	--	---

541-73-1-----	1,3-Dichlorobenzene	10	U
106-46-7-----	1,4-Dichlorobenzene	10	U
95-50-1-----	1,2-Dichlorobenzene	10	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

158031

Client Name: WEYERHAEUSER

Contract: 046-5751

Lab Code: WEYER

Case No.: 11548

SAS No.:

SDG No.: 158030

Matrix: (soil/water) WATER

Lab Sample ID: 7197

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: B0105

Level: (low/med) LOW

Date Received: 04/12/93

% Moisture: not dec.

Date Analyzed: 04/13/93

GC Column: CAP ID: 0.530 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

Number TICs found: 1

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 3789853	Benzoic acid, 2-[(trimethyls	26.81	110	JN

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

158032

b Name: WEYERHAEUSER

Contract: 046-5751

Lab Code: WEYER

Case No.: 11548

SAS No.:

SDG No.: 158030

Matrix: (soil/water) WATER

Lab Sample ID: 7198

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: B0106

Level: (low/med) LOW

Date Received: 04/12/93

% Moisture: not dec.

Date Analyzed: 04/13/93

GC Column: CAP

ID: 0.530 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NO.

COMPOUND

Q

74-87-3-----	Chloromethane	10	U ³	K ^F
74-83-9-----	Bromomethane	10	U	
75-01-4-----	Vinyl Chloride	10	U	
75-00-3-----	Chloroethane	10	U	
75-09-2-----	Methylene Chloride	10	U	
67-64-1-----	Acetone	10	U ³	K ^F
75-15-0-----	Carbon Disulfide	10	U	
75-35-4-----	1,1-Dichloroethene	10	U	
75-34-3-----	1,1-Dichloroethane	10	U	
540-59-0-----	1,2-Dichloroethene (total)	10	U	
67-66-3-----	Chloroform	10	U	
107-06-2-----	1,2-Dichloroethane	10	U	
78-93-3-----	2-Butanone	10	U ³	K ^F
71-55-6-----	1,1,1-Trichloroethane	10	U	
56-23-5-----	Carbon Tetrachloride	10	U	
75-27-4-----	Bromodichloromethane	10	U	
78-87-5-----	1,2-Dichloropropane	10	U	
10061-01-5-----	cis-1,3-Dichloropropene	10	U	
79-01-6-----	Trichloroethene	10	U	
124-48-1-----	Dibromochloromethane	10	U	
79-00-5-----	1,1,2-Trichloroethane	10	U	
71-43-2-----	Benzene	10	U	
10061-02-6-----	Trans-1,3-Dichloropropene	10	U	
75-25-2-----	Bromoform	10	U	
108-10-1-----	4-Methyl-2-Pentanone	10	U ³	K ^F
591-78-6-----	2-Hexanone	10	U ³	K ^F
127-18-4-----	Tetrachloroethene	10	U	
79-34-5-----	1,1,2,2-Tetrachloroethane	10	U	
108-88-3-----	Toluene	10	U	
108-90-7-----	Chlorobenzene	10	U	
100-41-4-----	Ethylbenzene	10	U	
100-42-5-----	Styrene	10	U	
1330-20-7-----	Total Xylenes	10	U	

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

158032

Lab Name: WEYERHAEUSER

Contract: 046-5751

Lab Code: WEYER

Case No.: 11548

SAS No.:

SDG No.: 158030

Matrix: (soil/water) WATER

Lab Sample ID: 7198

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: B0106

Level: (low/med) LOW

Date Received: 04/12/93

% Moisture: not dec.

Date Analyzed: 04/13/93

GC Column: CAP ID: 0.530 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
---------	----------	--	---

541-73-1-----	1,3-Dichlorobenzene	10	U
106-46-7-----	1,4-Dichlorobenzene	10	U
95-50-1-----	1,2-Dichlorobenzene	10	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

158032

Client Name: WEYERHAEUSER

Contract: 046-5751

Lab Code: WEYER

Case No.: 11548

SAS No.:

SDG No.: 158030

Matrix: (soil/water) WATER

Lab Sample ID: 7198

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: B0106

Level: (low/med) LOW

Date Received: 04/12/93

% Moisture: not dec.

Date Analyzed: 04/13/93

GC Column: CAP ID: 0.530 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

Number TICs found: 2

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 541059	HEXAMETHYLCYCLOTRISILOXANE	21.90	23	JN
2. 556672	Cyclotetrasiloxane, octameth	28.72	51	JN

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

158033

Lab Name: WEYERHAEUSER Contract: 046-5751

Lab Code: WEYER Case No.: 11548 SAS No.: SDG No.: 158030

Matrix: (soil/water) WATER Lab Sample ID: 7199

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: B0107

Level: (low/med) LOW Date Received: 04/12/93

% Moisture: not dec. Date Analyzed: 04/13/93

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q	
74-87-3	-----Chloromethane	10	UJ	KF
74-83-9	-----Bromomethane	10	U	
75-01-4	-----Vinyl Chloride	10	U	
75-00-3	-----Chloroethane	10	U	
75-09-2	-----Methylene Chloride	10	U	
67-64-1	-----Acetone	10	US	KF
75-15-0	-----Carbon Disulfide	10	U	
75-35-4	-----1,1-Dichloroethene	10	U	
75-34-3	-----1,1-Dichloroethane	10	U	
540-59-0	-----1,2-Dichloroethene (total)	10	U	
67-66-3	-----Chloroform	10	U	
107-06-2	-----1,2-Dichloroethane	10	U	
78-93-3	-----2-Butanone	10	UJ	KF
71-55-6	-----1,1,1-Trichloroethane	10	U	
56-23-5	-----Carbon Tetrachloride	10	U	
75-27-4	-----Bromodichloromethane	10	U	
78-87-5	-----1,2-Dichloropropane	10	U	
10061-01-5	-----cis-1,3-Dichloropropene	10	U	
79-01-6	-----Trichloroethene	10	U	
124-48-1	-----Dibromochloromethane	10	U	
79-00-5	-----1,1,2-Trichloroethane	10	U	
71-43-2	-----Benzene	10	U	
10061-02-6	-----Trans-1,3-Dichloropropene	10	U	
75-25-2	-----Bromoform	10	U	
108-10-1	-----4-Methyl-2-Pentanone	10	US	KF
591-78-6	-----2-Hexanone	10	UJ	KF
127-18-4	-----Tetrachloroethene	10	U	
79-34-5	-----1,1,2,2-Tetrachloroethane	10	U	
108-88-3	-----Toluene	10	U	
108-90-7	-----Chlorobenzene	10	U	
100-41-4	-----Ethylbenzene	10	U	
100-42-5	-----Styrene	10	U	
1330-20-7	-----Total Xylenes	10	U	

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

158033

b Name: WEYERHAEUSER

Contract: 046-5751

Lab Code: WEYER

Case No.: 11548

SAS No.:

SDG No.: 158030

Matrix: (soil/water) WATER

Lab Sample ID: 7199

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: B0107

Level: (low/med) LOW

Date Received: 04/12/93

% Moisture: not dec.

Date Analyzed: 04/13/93

GC Column: CAP ID: 0.530 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
---------	----------	--	---

541-73-1-----1,3-Dichlorobenzene	10	U
106-46-7-----1,4-Dichlorobenzene	10	U
95-50-1-----1,2-Dichlorobenzene	10	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

158033

o Name: WEYERHAEUSER

Contract: 046-5751

Lab Code: WEYER

Case No.: 11548

SAS No.:

SDG No.: 158030

Matrix: (soil/water) WATER

Lab Sample ID: 7199

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: B0107

Level: (low/med) LOW

Date Received: 04/12/93

% Moisture: not dec.

Date Analyzed: 04/13/93

GC Column: CAP ID: 0.530 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

Number TICs found: 1

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 3789853	Benzoic acid, 2-[(trimethyls	26.93	10	JN

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

158034

Lab Name: WEYERHAEUSER

Contract: 046-5751

Lab Code: WEYER

Case No.: 11548

SAS No.:

SDG No.: 158030

Matrix: (soil/water) WATER

Lab Sample ID: 7200

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: B0108

Level: (low/med) LOW

Date Received: 04/12/93

% Moisture: not dec.

Date Analyzed: 04/13/93

GC Column: CAP

ID: 0.530 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q	
74-87-3	-----Chloromethane	10	UJ	KF
74-83-9	-----Bromomethane	10	U	
75-01-4	-----Vinyl Chloride	10	U	
75-00-3	-----Chloroethane	10	U	
75-09-2	-----Methylene Chloride	10	U	
67-64-1	-----Acetone	10	UJ	KF
75-15-0	-----Carbon Disulfide	10	U	
75-35-4	-----1,1-Dichloroethene	10	U	
75-34-3	-----1,1-Dichloroethane	10	U	
540-59-0	-----1,2-Dichloroethene (total)	10	U	
67-66-3	-----Chloroform	10	U	
107-06-2	-----1,2-Dichloroethane	10	U	
78-93-3	-----2-Butanone	10	UJ	KF
71-55-6	-----1,1,1-Trichloroethane	10	U	
56-23-5	-----Carbon Tetrachloride	10	U	
75-27-4	-----Bromodichloromethane	10	U	
78-87-5	-----1,2-Dichloropropane	10	U	
10061-01-5	-----cis-1,3-Dichloropropene	10	U	
79-01-6	-----Trichloroethene	10	U	
124-48-1	-----Dibromochloromethane	10	U	
79-00-5	-----1,1,2-Trichloroethane	10	U	
71-43-2	-----Benzene	10	U	
10061-02-6	-----Trans-1,3-Dichloropropene	10	U	
75-25-2	-----Bromoform	10	U	
108-10-1	-----4-Methyl-2-Pentanone	10	UJ	KF
591-78-6	-----2-Hexanone	10	UJ	KF
127-18-4	-----Tetrachloroethene	10	U	
79-34-5	-----1,1,2,2-Tetrachloroethane	10	U	
108-88-3	-----Toluene	10	U	
108-90-7	-----Chlorobenzene	10	U	
100-41-4	-----Ethylbenzene	10	U	
100-42-5	-----Styrene	10	U	
1330-20-7	-----Total Xylenes	10	U	

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

158034

Name: WEYERHAEUSER

Contract: 046-5751

Lab Code: WEYER

Case No.: 11548

SAS No.:

SDG No.: 158030

Matrix: (soil/water) WATER

Lab Sample ID: 7200

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: B0108

Level: (low/med) LOW

Date Received: 04/12/93

% Moisture: not dec.

Date Analyzed: 04/13/93

GC Column: CAP ID: 0.530 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
---------	----------	--	---

541-73-1-----1,3-Dichlorobenzene	10	U
106-46-7-----1,4-Dichlorobenzene	10	U
95-50-1-----1,2-Dichlorobenzene	10	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

158034

Lab Name: WEYERHAEUSER

Contract: 046-5751

Lab Code: WEYER

Case No.: 11548

SAS No.:

SDG No.: 158030

Matrix: (soil/water) WATER

Lab Sample ID: 7200

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: B0108

Level: (low/med) LOW

Date Received: 04/12/93

% Moisture: not dec.

Date Analyzed: 04/13/93

GC Column: CAP ID: 0.530 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
=====	=====	=====	=====	=====

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLKW1

Lab Name: WEYERHAEUSER

Contract: 046-5751

Lab Code: WEYER

Case No.: 11548

SAS No.:

SDG No.: 158030

Matrix: (soil/water) WATER

Lab Sample ID: VBLKW1

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: B0098

Level: (low/med) LOW

Date Received:

% Moisture: not dec.

Date Analyzed: 04/13/93

GC Column: CAP

ID: 0.530 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q	
74-87-3	Chloromethane	10	UJ	KF
74-83-9	Bromomethane	10	U	
75-01-4	Vinyl Chloride	10	U	
75-00-3	Chloroethane	10	U	
75-09-2	Methylene Chloride	10	U	
67-64-1	Acetone	10	UJ	KF
75-15-0	Carbon Disulfide	10	U	
75-35-4	1,1-Dichloroethene	10	U	
75-34-3	1,1-Dichloroethane	10	U	
540-59-0	1,2-Dichloroethene (total)	10	U	
67-66-3	Chloroform	10	U	
107-06-2	1,2-Dichloroethane	10	U	
78-93-3	2-Butanone	10	UJ	KF
71-55-6	1,1,1-Trichloroethane	10	U	
56-23-5	Carbon Tetrachloride	10	U	
75-27-4	Bromodichloromethane	10	U	
78-87-5	1,2-Dichloropropane	10	U	
10061-01-5	cis-1,3-Dichloropropene	10	U	
79-01-6	Trichloroethene	10	U	
124-48-1	Dibromochloromethane	10	U	
79-00-5	1,1,2-Trichloroethane	10	U	
71-43-2	Benzene	10	U	
10061-02-6	Trans-1,3-Dichloropropene	10	U	
75-25-2	Bromoform	10	U	
108-10-1	4-Methyl-2-Pentanone	10	UJ	KF
591-78-6	2-Hexanone	10	UJ	KF
127-18-4	Tetrachloroethene	10	U	
79-34-5	1,1,2,2-Tetrachloroethane	10	U	
108-88-3	Toluene	10	U	
108-90-7	Chlorobenzene	10	U	
100-41-4	Ethylbenzene	10	U	
100-42-5	Styrene	10	U	
1330-20-7	Total Xylenes	10	U	

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLKW1

Lab Name: WEYERHAEUSER

Contract: 046-5751

Lab Code: WEYER

Case No.: 11548

SAS No.:

SDG No.: 158030

Matrix: (soil/water) WATER

Lab Sample ID: VBLKW1

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: B0098

Level: (low/med) LOW

Date Received:

% Moisture: not dec.

Date Analyzed: 04/13/93

GC Column: CAP ID: 0.530 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
---------	----------	--	---

541-73-1-----1,3-Dichlorobenzene	10	U
106-46-7-----1,4-Dichlorobenzene	10	U
95-50-1-----1,2-Dichlorobenzene	10	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLKW1

o Name: WEYERHAEUSER

Contract: 046-5751

Lab Code: WEYER

Case No.: 11548

SAS No.:

SDG No.: 158030

Matrix: (soil/water) WATER

Lab Sample ID: VBLKW1

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: B0098

Level: (low/med) LOW

Date Received:

% Moisture: not dec.

Date Analyzed: 04/13/93

GC Column: CAP ID: 0.530 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
=====	=====	=====	=====	=====

2A
WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: WEYERHAEUSER

Contract: 046-5751

Lab Code: WEYER

Case No.: 11548

SAS No.:

SDG No.: 158030

	EPA SAMPLE NO.	SMC1 (TOL) #	SMC2 (BFB) #	SMC3 (DCE) #	OTHER	TOT OUT
01	158030	105	99	99	0	0
02	158031	104	100	103	0	0
03	158032	105	100	103	0	0
04	158033	104	97	103	0	0
05	158034	106	97	103	0	0
06	VBLKW1	101	95	92	0	0

QC LIMITS

SMC1 (TOL) = Toluene-d8 (88-110)

SMC2 (BFB) = Bromofluorobenzene (86-115)

SMC3 (DCE) = 1,2-Dichloroethane-d4 (76-114)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

4A
VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLKW1

Lab Name: WEYERHAEUSER Contract: 046-5751

Lab Code: WEYER Case No.: 11548 SAS No.: SDG No.: 158030

Lab File ID: B0098 Lab Sample ID: VBLKW1

Date Analyzed: 04/13/93 Time Analyzed: 1249

GC Column: CAP ID: 0.530(mm) Heated Purge: (Y/N) N

Instrument ID: VOA2

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	158030 MW-1	7196	B0104	1650
02	158031 MW-3	7197	B0105	1731
03	158032 MW3A	7198	B0106	1812
04	158033 MW2	7199	B0107	1853
05	158034 MW4	7200	B0108	1934

COMMENTS:

MANCHESTER ENVIRONMENTAL LABORATORY

7411 Beach Drive E, Port Orchard Washington 98366

CASE NARRATIVE

May 3, 1993

MAY - 3 1993

REGIONAL OFFICE

Subject: Old Inland Pit
Samples: 93 - 158030 to -158031, -158033 to -158035
Case No. DOE-700Y
Officer: Roxane Broadhead
By: Dickey D. Huntamer (Signature)
Organics Analysis Unit

SEMIVOLATILE ORGANICS

ANALYTICAL METHODS:

The semivolatile water samples were extracted with methylene chloride following the Manchester modification of the EPA CLP and SW 846 8270 procedure with capillary GC/MS analysis of the sample extracts. Normal QA/QC procedures were performed with the analyses.

HOLDING TIMES:

All sample and extraction holding times were within the recommended limits.

BLANKS:

Low levels of some target compounds were detected in the laboratory blanks. The EPA five times rule was applied to all target compounds which were found in the blank. Compounds that were found in the sample and in the blank were considered real and not the result of contamination if the levels in the sample are greater than or equal to five times the amount of compounds in the associated method blank.

SURROGATES:

The normal Manchester Laboratory surrogates were added to the sample prior to extraction. One surrogate, 2,4,6-tribromophenol was not added and is reported as no analyte found (NAF). All surrogate spike recoveries were within acceptable QC limits. No additional data qualifiers were added because of surrogate recoveries.

MATRIX SPIKE AND MATRIX SPIKE DUPLICATE:

Matrix spike recoveries were within acceptable limits for all compounds except benzoic acid where one spike recovery was low, (<50%).

ANALYTICAL COMMENTS:

No special analytical problems were encountered in the semivolatile analyses. The data is acceptable for use as qualified.

DATA QUALIFIER CODES:

U	-	The analyte was not detected at or above the reported value.
J	-	The analyte was positively identified. The associated numerical value is an <u>estimate</u> .
UJ	-	The analyte was not detected at or above the reported estimated result.
REJ	-	The data are <u>unusable</u> for all purposes.
EXP	-	The result is equal to the number before EXP times 10 to the power of the number after EXP. As an example 3EXP6 equals 3×10^6 .
NAF	-	Not analyzed for.
N	-	For organic analytes there is evidence the analyte is present in this sample.
NJ	-	There is evidence that the analyte is present. The associated numerical result is an estimate.
E	-	This qualifier is used when the concentration of the associated value exceeds the known calibration range.
*	-	The analyte was present in the sample. (Visual Aid to locate detected compound on report sheet.)

Project: DOE-700Y OLD INLAND PIT

Officer: RXB

Account: J1B04

Laboratory: Ecology, Manchester

Sample No: 93 158030

Description: MW01

Source: Well (Test/Observation)

Begin Date: 93/04/07

Gen Inorg/Phys-Speci			Metals - ICP Scan			B/N/Acid Scan		
Water-Total			*** Continued ***			Water-Total		
Result Units			Result Units			Result Units		
Cond@25C	Meter	623 * umho/cm	Titanium	Ti-Total	1040 * ug/l	Benzo(a)pyrene	0.28U	ug/l
pH LAB	Meter	7.3 * Std Unts	Calcium	Ca-Total	127000 * ug/l	2,4-Dinitrophenol	2.8U	ug/l
			Mgnsium	Mg-Total	42000 * ug/l	Dibenzo(a,h)anthracene	0.28U	ug/l
			Potssium	K -Total	8380 * ug/l	Benzo(a)anthracene	0.28U	ug/l
			Sodium	Na-Total	6960 * ug/l	4-Chloro-3-Methylphenol	0.28U	ug/l
						Aniline	0.28U	ug/l
Metals - Specified	Water-Total					Benzoic acid	0.71UJ	ug/l
	Result Units					Hexachloroethane	0.28U	ug/l
Thallium	Tl-Total	2.5U ug/l				Hexachlorocyclopentadi+	1.4UJ	ug/l
Antimony	Sb-Total	2.8P* ug/l				Isophorone	0.28U	ug/l
						Acenaphthene	0.28U	ug/l
Metals - Specified	Water-Filtere					Diethylphthalate	0.28U	ug/l
	Result Units					Di-n-Butylphthalate	0.28U	ug/l
Thallium	Tl-Diss	2.5U ug/l				Phenanthrene	0.28U	ug/l
Antimony	Sb-Diss	2.0U ug/l				Butylbenzylphthalate	0.28U	ug/l
Selenium	Se-Diss	2.0U ug/l				N-Nitrosodiphenylamine	0.28U	ug/l
						Fluorene	0.28U	ug/l
Metals - ICP Scan	Water-Total					Carbazole	0.28U	ug/l
	Result Units					Hexachlorobutadiene	0.28U	ug/l
Arsenic	As-Total	70P* ug/l				Pentachlorophenol	0.71U	ug/l
Barium	Ba-Total	356 * ug/l				2,4,6-Trichlorophenol	0.28U	ug/l
Beryllium	Be-Total	1.7P* ug/l				2-Nitroaniline	0.28U	ug/l
Boron	B -Total	58J* ug/l				2-Nitrophenol	0.28U	ug/l
Cadmium	Cd-Total	2U ug/l				Naphthalene, 1-Methyl-	0.28U	ug/l
Chromium	Cr-Total	21P* ug/l				Naphthalene	0.28U	ug/l
Cobalt	Co-Total	20P* ug/l				2-Methylnaphthalene	0.28U	ug/l
Copper	Cu-Total	80.5 * ug/l				2-Chloronaphthalene	0.28U	ug/l
Iron	Fe-Total	43800 * ug/l				3,3'-Dichlorobenzidine	0.28U	ug/l
Lead	Pb-Total	70P* ug/l				Benzidine	0.28U	ug/l
Manganese	Mn-Total	904 * ug/l				2-Methylphenol	0.28U	ug/l
Thallium	Tl-Total	50U ug/l				1,2-Dichlorobenzene	0.28U	ug/l
Molybdenm	Mo-Total	5U ug/l				o-Chlorophenol (2-Chlo+	0.28U	ug/l
Nickel	Ni-Total	33P* ug/l				2,4,5-Trichlorophenol	0.28U	ug/l
Silver	Ag-Total	3U ug/l				Nitrobenzene	0.28U	ug/l
Strntium	Sr-Total	301 * ug/l				3-Nitroaniline	0.28U	ug/l
Vanadium	V -Total	28.7 * ug/l				4-Nitroaniline	0.71U	ug/l
Zinc	Zn-Total	191 * ug/l				4-Nitrophenol	1.4U	ug/l
Antimony	Sb-Total	30U ug/l				Benzyl Alcohol	0.28U	ug/l
Tin	Sn-Total	NAR ug/l				4-Bromophenyl-phenylet+	0.28U	ug/l
Aluminum	Al-Total	23200 * ug/l				2,4-Dimethylphenol	0.28U	ug/l
Silicon	Si-Total	NAR ug/l				4-Methylphenol	0.28U	ug/l
Selenium	Se-Total	50U ug/l				1,4-Dichlorobenzene	0.28U	ug/l
						4-Chloroaniline	0.28U	ug/l
						Phenol	0.28U	ug/l
						bis(2-Chloroethyl)Ether	0.28U	ug/l

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Washington State Department of Ecology
Sample/Project Analysis Results

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Project: DOE-700Y OLD INLAND PIT

Officer: RXB

Account: J1B04

Laboratory: Ecology, Manchester

Sample No: 93 158030

Description: MW01

Source: Well (Test/Observation)

Begin Date: 93/04/07 :

B/N/Acid Scan			Tent Ident - B/N/Aci		
*** Continued ***			*** Continued ***		
	Water-Total			Water-Total	
	Result	Units		Result	Units
bis(2-Chloroethoxy)Met+	0.28U	ug/l	NONANAL	0.27NJ*	ug/l
BIS(2-ETHYLHEXYL) PHTH+	0.76U	ug/l	1-Penten-3-ol, 2-methyl	0.30NJ*	ug/l
Di-n-Octyl Phthalate	0.71U	ug/l	UNKNOWN HYDROCARBON 1	0.17NJ*	ug/l
HEXACHLOROBENZENE	0.28U	ug/l	UNKNOWN HYDROCARBON 3	0.22NJ*	ug/l
Anthracene	0.28U	ug/l	UNKNOWN HYDROCARBON 4	0.21NJ*	ug/l
1,2,4-Trichlorobenzene	0.28U	ug/l	UNKNOWN HYDROCARBON 5	0.18NJ*	ug/l
2,4-Dichlorophenol	0.28U	ug/l	UNKNOWN HYDROCARBON 6	0.50NJ*	ug/l
2,4-Dinitrotoluene	0.71U	ug/l	SULFUR, MOL. (S8)	0.18NJ*	ug/l
Pyrene	0.28U	ug/l			
Dimethylphthalate	0.28U	ug/l			
Dibenzofuran	0.28U	ug/l	Contract Laboratory		
Benzo(ghi)perylene	0.28U	ug/l	Contract Lab Program	Water-Total	
Indeno(1,2,3-cd)pyrene	0.28U	ug/l		Result	Units
Benzo(b)fluoranthene	0.28U	ug/l			
Fluoranthene	0.28U	ug/l	VOA	GC/MS	ANALYZED CLP
Benzo(k)fluoranthene	0.28U	ug/l			
Acenaphthylene	0.28U	ug/l			
Chrysene	0.28U	ug/l			
Retene	0.28U	ug/l			
4,6-Dinitro-2-methylph+	2.8U	ug/l			
1,3-Dichlorobenzene	0.28U	ug/l			
2,6-Dinitrotoluene	0.71U	ug/l			
N-Nitroso-di-n-Propyla+	0.28U	ug/l			
4-Chlorophenyl-phenyle+	0.28U	ug/l			
1,2-Diphenylhydrazine	0.28U	ug/l			
BIS(20CHLOROISOPROPYL)+	0.28U	ug/l			
Surrog: 2-Fluorobiphen+	78	% Recov			
2-Fluorophenol	48	% Recov			
Surrog: 2,4,6-Tribromo+	NAF	% Recov			
Terphenyl-d14	83	% Recov			
Pyrene-d10	95	% Recov			
1,2-DICHLOROBENZENE-D4	72	% Recov			
Surrog: D5-Nitrobenzene	84	% Recov			
Surrog: Phenol D5	32	% Recov			
D4-2-CHLOROPHENOL (SS)	82	% Recov			
Tent Ident - B/N/Aci					
	Water-Total				
	Result	Units			
Decanoic Acid, Hexa-	0.38NJ*	ug/l			
PHENOL, 4,4'-BUTYLIDEN+	0.25NJ*	ug/l			
Benzothiazole	0.32NJ*	ug/l			
CAPROLACTAM (2H-AZEPIN+	0.94NJ*	ug/l			

(Sample Complete)

Project: DOE-700Y OLD INLAND PIT

Officer: RXB

Account: J1B04

Laboratory: Ecology, Manchester

Sample No: 93 158031

Description: MW03

Source: Well (Test/Observation)

Begin Date: 93/04/07 :

Gen Inorg/Phys-Speci			Metals - ICP Scan			B/N/Acid Scan		
Water-Total			*** Continued ***			Water-Total		
Result Units			Result Units			Result Units		
Cond@25C	Meter	445 * umho/cm	Titanium	Ti-Total	153 * ug/l	Benzo(a)pyrene	0.44U	ug/l
pH LAB	Meter	7.6 * Std Unts	Calcium	Ca-Total	65800 * ug/l	2,4-Dinitrophenol	4.4U	ug/l
			Magnesium	Mg-Total	22000 * ug/l	Dibenzo(a,h)anthracene	0.44U	ug/l
			Potassium	K-Total	3400P * ug/l	Benzo(a)anthracene	0.44U	ug/l
			Sodium	Na-Total	6960 * ug/l	4-Chloro-3-Methylphenol	0.44U	ug/l
						Aniline	0.44U	ug/l
						Benzoic acid	1.1UJ	ug/l
Thallium	Tl-Total	2.5U ug/l				Hexachloroethane	0.44U	ug/l
Antimony	Sb-Total	2.0U ug/l				Hexachlorocyclopentadi+	2.2UJ	ug/l
						Isophorone	0.44U	ug/l
						Acenaphthene	0.44U	ug/l
						Diethylphthalate	0.44U	ug/l
						Di-n-Butylphthalate	0.44U	ug/l
						Phenanthrene	0.44U	ug/l
Thallium	Tl-Diss	2.5U ug/l				Butylbenzylphthalate	0.44U	ug/l
Antimony	Sb-Diss	2.0U ug/l				N-Nitrosodiphenylamine	0.44U	ug/l
Selenium	Se-Diss	2.0U ug/l				Fluorene	0.44U	ug/l
						Carbazole	0.44U	ug/l
						Hexachlorobutadiene	0.44U	ug/l
						Pentachlorophenol	1.1U	ug/l
						2,4,6-Trichlorophenol	0.44U	ug/l
						2-Nitroaniline	0.44U	ug/l
						2-Nitrophenol	0.44U	ug/l
						Naphthalene, 1-Methyl-	0.44U	ug/l
						Naphthalene	0.44U	ug/l
						2-Methylnaphthalene	0.44U	ug/l
						2-Chloronaphthalene	0.44U	ug/l
						3,3'-Dichlorobenzidine	0.44U	ug/l
						Benzidine	0.44U	ug/l
						2-Methylphenol	0.44U	ug/l
						1,2-Dichlorobenzene	0.44U	ug/l
						o-Chlorophenol (2-Chlo+	0.44U	ug/l
						2,4,5-Trichlorophenol	0.44U	ug/l
						Nitrobenzene	0.44U	ug/l
						3-Nitroaniline	0.44U	ug/l
						4-Nitroaniline	1.1U	ug/l
						4-Nitrophenol	2.2U	ug/l
						Benzyl Alcohol	0.44U	ug/l
						4-Bromophenyl-phenylet+	0.44U	ug/l
						2,4-Dimethylphenol	0.44U	ug/l
						4-Methylphenol	0.44U	ug/l
						1,4-Dichlorobenzene	0.44U	ug/l
						4-Chloroaniline	0.44U	ug/l
						Phenol	0.44U	ug/l
						bis(2-Chloroethyl)Ether	0.44U	ug/l

(Continued on next page)

Account: J1B04

Source: Well (Test/Observation)

Tent Ident - B/N/Aci	Water-Total Result Units
Decanoic Acid, Hexa-	0.24NJ* ug/l
CAPROLACTAM (2H-AZEPIN+	8.4NJ* ug/l
Decanoic Acid, Di-	0.83NJ* ug/l
UNKNOWN HYDROCARBON 1	0.19NJ* ug/l

(Sample Complete)

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Washington State Department of Ecology
Sample/Project Analysis Results

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Project: DOE-700Y OLD INLAND PIT

Officer: RXB

Account: J1B04

Laboratory: Ecology, Manchester

Sample No: 93 158032

Description: MW03A

Source: Well (Test/Observation)

Begin Date: 93/04/07

Gen Inorg/Phys-Speci			Metals - Specified			Metals - ICP Scan		
Water-Total			Water-Filtere			Water-Total		
Result Units			Result Units			Result Units		
Matrix Spike #2			Matrix Spike #1			Matrix Spike #2		
Cond@25C	Meter	449 * umho/cm	Thallium	Tl-Diss	81 % Recov	Arsenic	As-Total	95 % Recov
pH LAB	Meter	7.7 * Std Unts	Antimony	Sb-Diss	105 % Recov	Barium	Ba-Total	99 % Recov
			Selenium	Se-Diss	100 % Recov	Beryllium	Be-Total	100 % Recov
Metals - Specified			Metals - ICP Scan			Metals - ICP Scan		
Water-Total			Water-Total			Water-Total		
Result Units			Result Units			Result Units		
Thallium	Tl-Total	2.5U ug/l	Arsenic	As-Total	30U ug/l	Thallium	Tl-Total	95 % Recov
Antimony	Sb-Total	2.0U ug/l	Barium	Ba-Total	76.1 * ug/l	Barium	Ba-Total	99 % Recov
			Beryllium	Be-Total	1U ug/l	Beryllium	Be-Total	100 % Recov
			Boron	B -Total	95J* ug/l	Boron	B -Total	NAF % Recov
			Cadmium	Cd-Total	2U ug/l	Cadmium	Cd-Total	104 % Recov
			Chromium	Cr-Total	5U ug/l	Chromium	Cr-Total	97 % Recov
			Cobalt	Co-Total	5.4P* ug/l	Cobalt	Co-Total	95 % Recov
			Copper	Cu-Total	17PJ* ug/l	Copper	Cu-Total	99 % Recov
			Iron	Fe-Total	4160 * ug/l	Iron	Fe-Total	NAF % Recov
			Lead	Pb-Total	20U ug/l	Lead	Pb-Total	96 % Recov
			Manganese	Mn-Total	113 * ug/l	Manganese	Mn-Total	96 % Recov
			Thallium	Tl-Total	50U ug/l	Thallium	Tl-Total	99 % Recov
			Molybdenm	Mo-Total	5U ug/l	Molybdenm	Mo-Total	NAF % Recov
			Nickel	Ni-Total	10U ug/l	Nickel	Ni-Total	96 % Recov
			Silver	Ag-Total	3U ug/l	Silver	Ag-Total	98 % Recov
			Strntium	Sr-Total	175 * ug/l			
			Vanadium	V -Total	2U ug/l			
			Zinc	Zn-Total	27P* ug/l			
			Antimony	Sb-Total	30U ug/l			
			Tin	Sn-Total	NAR ug/l			
			Aluminum	Al-Total	2430 * ug/l			
			Silicon	Si-Total	NAR ug/l			
			Selenium	Se-Total	50U ug/l			
			Titanium	Ti-Total	130 * ug/l			
			Calcium	Ca-Total	65400 * ug/l			
			Mgnsium	Mg-Total	21800 * ug/l			
			Potssium	K -Total	3200P* ug/l			
			Sodium	Na-Total	7000 * ug/l			
Metals - Specified			Metals - ICP Scan			Metals - ICP Scan		
Water-Filtere			Water-Total			Water-Total		
Result Units			Result Units			Result Units		
Thallium	Tl-Diss	81 % Recov	Matrix Spike #1			Matrix Spike #1		
Antimony	Sb-Diss	106 % Recov						
Selenium	Se-Diss	101 % Recov						

(Continued on next page)

Account: J1B04

Source: Well (Test/Observation)

:

(Sample Complete)

Project: DOE-700Y OLD INLAND PIT

Officer: RXB

Account: J1B04

Laboratory: Ecology, Manchester

Sample No: 93 158033

Description: MW2

Source: Well (Test/Observation)

Begin Date: 93/04/07 :

Gen Inorg/Phys-Speci			Metals - ICP Scan			B/N/Acid Scan		
Water-Total			Water-Total			Water-Total		
Result Units			Result Units			Result Units		
			*** Continued ***					
Cond@25C	Meter	414 * umho/cm	Titanium	Ti-Total	511 * ug/l	Benzo(a)pyrene	0.27U	ug/l
pH LAB	Meter	7.7 * Std Unts	Calcium	Ca-Total	74600 * ug/l	2,4-Dinitrophenol	2.7U	ug/l
			Magnesium	Mg-Total	25200 * ug/l	Dibenzo(a,h)anthracene	0.27U	ug/l
			Potassium	K-Total	5350 * ug/l	Benzo(a)anthracene	0.27U	ug/l
			Sodium	Na-Total	6010 * ug/l	4-Chloro-3-Methylphenol	0.27U	ug/l
						Aniline	0.27U	ug/l
						Benzoic acid	0.67UJ	ug/l
Thallium	Tl-Total	2.5U ug/l				Hexachloroethane	0.27U	ug/l
Antimony	Sb-Total	2.0U ug/l				Hexachlorocyclopentadi+	1.30U	ug/l
						Isophorone	0.27U	ug/l
						Acenaphthene	0.27U	ug/l
						Diethylphthalate	0.27U	ug/l
						Di-n-Butylphthalate	0.34U	ug/l
						Phenanthrene	0.27U	ug/l
						Butylbenzylphthalate	0.27U	ug/l
						N-Nitrosodiphenylamine	0.27U	ug/l
						Fluorene	0.27U	ug/l
						Carbazole	0.27U	ug/l
						Hexachlorobutadiene	0.27U	ug/l
						Pentachlorophenol	0.67U	ug/l
						2,4,6-Trichlorophenol	0.27U	ug/l
						2-Nitroaniline	0.27U	ug/l
						2-Nitrophenol	0.27U	ug/l
						Naphthalene, 1-Methyl-	0.27U	ug/l
						Naphthalene	0.27U	ug/l
						2-Methylnaphthalene	0.27U	ug/l
						2-Chloronaphthalene	0.27U	ug/l
						3,3'-Dichlorobenzidine	0.27U	ug/l
						Benzidine	0.27U	ug/l
						2-Methylphenol	0.27U	ug/l
						1,2-Dichlorobenzene	0.27U	ug/l
						o-Chlorophenol (2-Chlo+	0.27U	ug/l
						2,4,5-Trichlorophenol	0.27U	ug/l
						Nitrobenzene	0.27U	ug/l
						3-Nitroaniline	0.27U	ug/l
						4-Nitroaniline	0.67U	ug/l
						4-Nitrophenol	1.3U	ug/l
						Benzyl Alcohol	0.27U	ug/l
						4-Bromophenyl-phenylet+	0.27U	ug/l
						2,4-Dimethylphenol	0.27U	ug/l
						4-Methylphenol	0.27U	ug/l
						1,4-Dichlorobenzene	0.27U	ug/l
						4-Chloroaniline	0.27U	ug/l
						Phenol	0.27U	ug/l
						bis(2-Chloroethyl)Ether	0.27U	ug/l

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Washington State Department of Ecology
Sample/Project Analysis Results

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Project: DOE-700Y OLD INLAND PIT

Officer: RXB

Account: J1B04

Laboratory: Ecology, Manchester

Sample No: 93 158033

Description: MW2

Source: Well (Test/Observation)

Begin Date: 93/04/07

B/N/Acid Scan *** Continued ***			Tent Ident - B/N/Aci *** Continued ***		
Water-Total			Water-Total		
Result	Units		Result	Units	
bis(2-Chloroethoxy)Met+	0.27U	ug/l	2-PROPANOL, 1,1'(1-MET+	1.7NJ*	ug/l
BIS(2-ETHYLHEXYL) PHTH+	0.60U	ug/l	UNKNOWN COMPOUND 1	1.1NJ*	ug/l
Di-n-Octyl Phthalate	0.67U	ug/l	UNKNOWN COMPOUND 2	0.44NJ*	ug/l
HEXACHLOROBENZENE	0.27U	ug/l	UNKNOWN COMPOUND 3	0.22NJ*	ug/l
Anthracene	0.27U	ug/l	UNKNOWN COMPOUND 4	1.5NJ*	ug/l
1,2,4-Trichlorobenzene	0.27U	ug/l	UNKNOWN COMPOUND 5	2.6NJ*	ug/l
2,4-Dichlorophenol	0.27U	ug/l	UNKNOWN COMPOUND 6	1.4NJ*	ug/l
2,4-Dinitrotoluene	0.67U	ug/l	UNKNOWN COMPOUND 7	11.4NJ*	ug/l
Pyrene	0.27U	ug/l	UNKNOWN COMPOUND 8	12.2NJ*	ug/l
Dimethylphthalate	0.27U	ug/l	UNKNOWN COMPOUND 9	31.1NJ*	ug/l
Dibenzofuran	0.27U	ug/l	UNKNOWN COMPOUND 10	15.7NJ*	ug/l
Benzo(ghi)perylene	0.27U	ug/l	Phenol, (1,1-dimethyle+	0.33NJ*	ug/l
Indeno(1,2,3-cd)pyrene	0.27U	ug/l	2-Propanol, 1-{1-methy+	2.0NJ*	ug/l
Benzo(b)fluoranthene	0.27U	ug/l			
Fluoranthene	0.27U	ug/l	Contract Laboratory		
Benzo(k)fluoranthene	0.27U	ug/l	Contract Lab Program		Water-Total
Acenaphthylene	0.27U	ug/l			Result Units
Chrysene	0.27U	ug/l			
Retene	0.27U	ug/l			
4,6-Dinitro-2-methylph+	2.7U	ug/l	VOA	GC/MS	ANALYZED CLP
1,3-Dichlorobenzene	0.27U	ug/l			
2,6-Dinitrotoluene	0.67U	ug/l			
N-Nitroso-di-n-Propyla+	0.27U	ug/l			
4-Chlorophenyl-phenyle+	0.27U	ug/l			
1,2-Diphenylhydrazine	0.27U	ug/l			
BIS(20CHLOROISOPROPYL)+	0.27U	ug/l			
Surrog: 2-Fluorobiphen+	72	% Recov			
2-Fluorophenol	54	% Recov			
Surrog: 2,4,6-Tribromo+	NAF	% Recov			
Terphenyl-d14	82	% Recov			
Pyrene-d10	97	% Recov			
1,2-DICHLOROBENZENE-D4	70	% Recov			
Surrog: D5-Nitrobenzene	79	% Recov			
Surrog: Phenol D5	38	% Recov			
D4-2-CHLOROPHENOL (SS)	85	% Recov			
Tent Ident - B/N/Aci			Water-Total		
			Result	Units	
Benzothiazole	0.70NJ*	ug/l			
Phenol, 2,4-Bis(1,1-Di+	1.1NJ*	ug/l			
CAPROLACTAM (2H-AZEPIN+	13.1NJ*	ug/l			
2-Mercaptobenzothiazole	0.51NJ*	ug/l			

(Sample Complete)

Project: DOE-700Y OLD INLAND PIT

Officer: RXB

Account: J1B04

Laboratory: Ecology, Manchester

Sample No: 93 158034

Description: MW4

Source: Well (Test/Observation)

Begin Date: 93/04/07 :

Gen Inorg/Phys-Speci		Water-Total		Metals - ICP Scan		Water-Total		B/N/Acid Scan		Water-Total	
		Result	Units	*** Continued ***		Result	Units			Result	Units
Cond@25C	Meter	358	* umho/cm	Titanium	Ti-Total	432	* ug/l	Benzo(a)pyrene	0.31U	ug/l	
pH LAB	Meter	8.0	* Std Unts	Calcium	Ca-Total	63200	* ug/l	2,4-Dinitrophenol	3.1U	ug/l	
				Mgnsium	Mg-Total	23000	* ug/l	Dibenzo(a,h)anthracene	0.31U	ug/l	
				Potssium	K -Total	4800	* ug/l	Benzo(a)anthracene	0.31U	ug/l	
				Sodium	Na-Total	6830	* ug/l	4-Chloro-3-Methylphenol	0.31U	ug/l	
								Aniline	0.31U	ug/l	
								Benzoic acid	0.78UJ	ug/l	
Metals - Specified		Water-Total						Hexachloroethane	0.31U	ug/l	
		Result	Units					Hexachlorocyclopentadi+	1.6UJ	ug/l	
Thallium	Tl-Total	2.5U	ug/l					Isophorone	0.31U	ug/l	
Antimony	Sb-Total	2.0U	ug/l					Acenaphthene	0.31U	ug/l	
								Diethylphthalate	0.31U	ug/l	
Metals - Specified		Water-Filtere		Arsenic	As-Diss	30U	ug/l	Di-n-Butylphthalate	0.31U	ug/l	
		Result	Units	Barium	Ba-Diss	30.7	* ug/l	Phenanthrene	0.31U	ug/l	
Thallium	Tl-Diss	2.5U	ug/l	Beryllium	Be-Diss	1U	ug/l	Butylbenzylphthalate	0.31U	ug/l	
Antimony	Sb-Diss	2.0U	ug/l	Boron	B -Diss	51J*	ug/l	N-Nitrosodiphenylamine	0.31U	ug/l	
Selenium	Se-Diss	2.0U	ug/l	Cadmium	Cd-Diss	2U	ug/l	Fluorene	0.31U	ug/l	
				Chromium	Cr-Diss	5U	ug/l	Carbazole	0.31U	ug/l	
				Cobalt	Co-Diss	3U	ug/l	Hexachlorobutadiene	0.31U	ug/l	
				Copper	Cu-Diss	10PJ*	ug/l	Pentachlorophenol	0.78U	ug/l	
Metals - ICP Scan		Water-Total		Iron	Fe-Diss	5U	ug/l	2,4,6-Trichlorophenol	0.31U	ug/l	
		Result	Units	Lead	Pb-Diss	20U	ug/l	2-Nitroaniline	0.31U	ug/l	
Arsenic	As-Total	30U	ug/l	Manganese	Mn-Diss	11.1	* ug/l	2-Nitrophenol	0.31U	ug/l	
Barium	Ba-Total	122	* ug/l	Thallium	Tl-Diss	50U	ug/l	Naphthalene, 1-Methyl-	0.31U	ug/l	
Beryllium	Be-Total	1U	ug/l	Molybdnm	Mo-Diss	5U	ug/l	Naphthalene	0.31U	ug/l	
Boron	B -Total	47J*	ug/l	Nickel	Ni-Diss	10U	ug/l	2-Methylnaphthalene	0.31U	ug/l	
Cadmium	Cd-Total	2U	ug/l	Silver	Ag-Diss	3U	ug/l	2-Chloronaphthalene	0.31U	ug/l	
Chromium	Cr-Total	5U	ug/l	Strntium	Sr-Diss	132	* ug/l	3,3'-Dichlorobenzidine	0.31U	ug/l	
Cobalt	Co-Total	7.6P*	ug/l	Vanadium	V -Diss	2U	ug/l	Benzidine	0.31U	ug/l	
Copper	Cu-Total	31.7	* ug/l	Zinc	Zn-Diss	4U	ug/l	2-Methylphenol	0.31U	ug/l	
Iron	Fe-Total	15300	* ug/l	Antimony	Sb-Diss	30U	ug/l	1,2-Dichlorobenzene	0.31U	ug/l	
Lead	Pb-Total	20U	ug/l	Tin	Sn-Diss	NAR	ug/l	o-Chlorophenol (2-Chlo+	0.31U	ug/l	
Manganese	Mn-Total	322	* ug/l	Aluminum	Al-Diss	54P*	ug/l	2,4,5-Trichlorophenol	0.31U	ug/l	
Thallium	Tl-Total	50U	ug/l	Silicon	Si-Diss	NAR	ug/l	Nitrobenzene	0.31U	ug/l	
Molybdnm	Mo-Total	5U	ug/l	Selenium	Se-Diss	50U	ug/l	3-Nitroaniline	0.31U	ug/l	
Nickel	Ni-Total	15P*	ug/l	Titanium	Ti-Diss	5U	ug/l	4-Nitroaniline	0.78U	ug/l	
Silver	Ag-Total	3U	ug/l	Calcium	Ca-Diss	43700	* ug/l	4-Nitrophenol	1.6U	ug/l	
Strntium	Sr-Total	160	* ug/l	Mgnsium	Mg-Diss	15800	* ug/l	Benzyl Alcohol	0.31U	ug/l	
Vanadium	V -Total	9.8P*	ug/l	Potssium	K -Diss	2500P*	ug/l	4-Bromophenyl-phenylet+	0.31U	ug/l	
Zinc	Zn-Total	62	* ug/l	Sodium	Na-Diss	6200	* ug/l	2,4-Dimethylphenol	0.31U	ug/l	
Antimony	Sb-Total	30U	ug/l					4-Methylphenol	0.31U	ug/l	
Tin	Sn-Total	NAR	ug/l					1,4-Dichlorobenzene	0.31U	ug/l	
Aluminum	Al-Total	8140	* ug/l					4-Chloroaniline	0.31U	ug/l	
Silicon	Si-Total	NAR	ug/l					Phenol	0.31U	ug/l	
Selenium	Se-Total	50U	ug/l					bis(2-Chloroethyl)Ether	0.31U	ug/l	

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Washington State Department of Ecology
Sample/Project Analysis Results

Page 10

Project: DOE-700Y OLD INLAND PIT

Officer: RXB

Account: J1B04

Laboratory: Ecology, Manchester

Sample No: 93 158034

Description: MW4

Source: Well (Test/Observation)

Begin Date: 93/04/07 :

B/N/Acid Scan			Water-Total		Tent Ident - B/N/Aci			Water-Total	
*** Continued ***			Result	Units	*** Continued ***			Result	Units
bis(2-Chloroethoxy)Met+	0.31U	ug/l			NONANAL	0.22NJ*	ug/l		
BIS(2-ETHYLHEXYL) PHTH+	0.51U	ug/l			PHENOL, 2,6-BIS(1,1-DI+	0.65NJ*	ug/l		
Di-n-Octyl Phthalate	0.78U	ug/l			Decanoic Acid, Di-	0.22NJ*	ug/l		
HEXACHLOROBENZENE	0.31U	ug/l			PHENOL, 2,4,6-TRIS(1,1+	0.20NJ*	ug/l		
Anthracene	0.31U	ug/l			Prometon (Pramitol 5P)	0.19NJ*	ug/l		
1,2,4-Trichlorobenzene	0.31U	ug/l			PHENOL, 2,5-BIS(1,1-DI+	0.20NJ*	ug/l		
2,4-Dichlorophenol	0.31U	ug/l			UNKNOWN COMPOUND 2	0.51NJ*	ug/l		
2,4-Dinitrotoluene	0.78U	ug/l			UNKNOWN COMPOUND 3	0.29NJ*	ug/l		
Pyrene	0.31U	ug/l							
Dimethylphthalate	0.31U	ug/l							
Dibenzofuran	0.31U	ug/l			Contract Laboratory				
Benzo(ghi)perylene	0.31U	ug/l			Contract Lab Program	Water-Total			
Indeno(1,2,3-cd)pyrene	0.31U	ug/l				Result	Units		
Benzo(b)fluoranthene	0.31U	ug/l							
Fluoranthene	0.31U	ug/l			VOA	GC/MS	ANALYZED	CLP	
Benzo(k)fluoranthene	0.31U	ug/l							
Acenaphthylene	0.31U	ug/l							
Chrysene	0.31U	ug/l							
Retene	0.31U	ug/l							
4,6-Dinitro-2-methylph+	3.1U	ug/l							
1,3-Dichlorobenzene	0.31U	ug/l							
2,6-Dinitrotoluene	0.78U	ug/l							
N-Nitroso-di-n-Propyla+	0.31U	ug/l							
4-Chlorophenyl-phenyle+	0.31U	ug/l							
1,2-Diphenylhydrazine	0.31U	ug/l							
BIS(20CHLOROISOPROPYL)+	0.31U	ug/l							
Surrog: 2-Fluorobiphen+	82	% Recov							
2-Fluorophenol	64	% Recov							
Surrog: 2,4,6-Tribromo+	NAF	% Recov							
Terphenyl-d14	85	% Recov							
Pyrene-d10	99	% Recov							
1,2-DICHLOROBENZENE-D4	86	% Recov							
Surrog: D5-Nitrobenzene	90	% Recov							
Surrog: Phenol D5	44	% Recov							
D4-2-CHLOROPHENOL (SS)	91	% Recov							
Tent Ident - B/N/Aci			Water-Total						
			Result	Units					
Decanoic Acid, Hexa-	0.32NJ*	ug/l							
Benzothiazole	0.80NJ*	ug/l							
CAPROLACTAM (2H-AZEPIN+	1.9NJ*	ug/l							
TERTIO BUTYL HYDROXY A+	0.37NJ*	ug/l							

(Sample Complete)

Project: DOE-700Y OLD INLAND PIT

Officer: RXB

Account: J1B04

Laboratory: Ecology, Manchester

Sample No: 93 158035

Description: MW3A

Source: Well (Test/Observation)

Begin Date: 93/04/07

B/N/Acid Scan			Water-Total			B/N/Acid Scan			Water-Total			B/N/Acid Scan			Water-Total		
			Result			*** Continued ***			Result			*** Continued ***			Result		
			Units						Units			Matrix Spike #1			Units		
Benzo(a)pyrene	0.28U	ug/l				bis(2-Chloroethoxy)Met+	0.28U	ug/l				4-Chloro-3-Methylphenol	92	% Recov			
2,4-Dinitrophenol	2.8U	ug/l				BIS(2-ETHYLHEXYL) PHTH+	0.28U	ug/l				Aniline	NAR	% Recov			
Dibenzo(a,h)anthracene	0.28U	ug/l				Di-n-Octyl Phthalate	0.71U	ug/l				Benzoic acid	44J	% Recov			
Benzo(a)anthracene	0.28U	ug/l				HEXACHLOROBENZENE	0.28U	ug/l				Hexachloroethane	51	% Recov			
4-Chloro-3-Methylphenol	0.28U	ug/l				Anthracene	0.28U	ug/l				Hexachlorocyclopentadi+	69J	% Recov			
Aniline	0.28U	ug/l				1,2,4-Trichlorobenzene	0.28U	ug/l				Isophorone	85	% Recov			
Benzoic acid	0.71UJ	ug/l				2,4-Dichlorophenol	0.28U	ug/l				Acenaphthene	84	% Recov			
Hexachloroethane	0.28U	ug/l				2,4-Dinitrotoluene	0.71U	ug/l				Diethylphthalate	96	% Recov			
Hexachlorocyclopentadi+	1.4UJ	ug/l				Pyrene	0.28U	ug/l				Di-n-Butylphthalate	91	% Recov			
Isophorone	0.28U	ug/l				Dimethylphthalate	0.28U	ug/l				Phenanthrene	90	% Recov			
Acenaphthene	0.28U	ug/l				Dibenzofuran	0.28U	ug/l				Butylbenzylphthalate	96	% Recov			
Diethylphthalate	0.28U	ug/l				Benzo(ghi)perylene	0.28U	ug/l				N-Nitrosodiphenylamine	96	% Recov			
Di-n-Butylphthalate	0.28U	ug/l				Indeno(1,2,3-cd)pyrene	0.28U	ug/l				Fluorene	89	% Recov			
Phenanthrene	0.28U	ug/l				Benzo(b)fluoranthene	0.28U	ug/l				Carbazole	NAR	% Recov			
Butylbenzylphthalate	0.28U	ug/l				Fluoranthene	0.28U	ug/l				Hexachlorobutadiene	57	% Recov			
N-Nitrosodiphenylamine	0.28U	ug/l				Benzo(k)fluoranthene	0.28U	ug/l				Pentachlorophenol	100	% Recov			
Fluorene	0.28U	ug/l				Acenaphthylene	0.28U	ug/l				2,4,6-Trichlorophenol	93	% Recov			
Carbazole	0.28U	ug/l				Chrysene	0.28U	ug/l				2-Nitroaniline	93	% Recov			
Hexachlorobutadiene	0.28U	ug/l				Retene	0.28U	ug/l				2-Nitrophenol	90	% Recov			
Pentachlorophenol	0.71U	ug/l				4,6-Dinitro-2-methylph+	2.8U	ug/l				Naphthalene, 1-Methyl-	NAR	% Recov			
2,4,6-Trichlorophenol	0.28U	ug/l				1,3-Dichlorobenzene	0.28U	ug/l				Naphthalene	78	% Recov			
2-Nitroaniline	0.28U	ug/l				2,6-Dinitrotoluene	0.71U	ug/l				2-Methylnaphthalene	59	% Recov			
2-Nitrophenol	0.28U	ug/l				N-Nitroso-di-n-Propyla+	0.28U	ug/l				2-Chloronaphthalene	82	% Recov			
Naphthalene, 1-Methyl-	0.28U	ug/l				4-Chlorophenyl-phenyle+	0.28U	ug/l				3,3'-Dichlorobenzidine	NAR	% Recov			
Naphthalene	0.28U	ug/l				1,2-Diphenylhydrazine	0.28U	ug/l				Benzidine	NAR	% Recov			
2-Methylnaphthalene	0.28U	ug/l				BIS(20CHLOROISOPROPYL)+	0.28U	ug/l				2-Methylphenol	83	% Recov			
2-Chloronaphthalene	0.28U	ug/l				Surrog: 2-Fluorobiphen+	74	% Recov				1,2-Dichlorobenzene	63	% Recov			
3,3'-Dichlorobenzidine	0.28U	ug/l				2-Fluorophenol	49	% Recov				o-Chlorophenol (2-Chlo+	86	% Recov			
Benzidine	0.28U	ug/l				Surrog: 2,4,6-Tribromo+	NAF	% Recov				2,4,5-Trichlorophenol	94	% Recov			
2-Methylphenol	0.28U	ug/l				Terphenyl-d14	100	% Recov				Nitrobenzene	87	% Recov			
1,2-Dichlorobenzene	0.28U	ug/l				Pyrene-d10	104	% Recov				3-Nitroaniline	82	% Recov			
o-Chlorophenol (2-Chlo+	0.28U	ug/l				1,2-DICHLOROBENZENE-D4	71	% Recov				4-Nitroaniline	78	% Recov			
2,4,5-Trichlorophenol	0.28U	ug/l				Surrog: D5-Nitrobenzene	78	% Recov				4-Nitrophenol	70	% Recov			
Nitrobenzene	0.28U	ug/l				Surrog: Phenol D5	34	% Recov				Benzyl Alcohol	78	% Recov			
3-Nitroaniline	0.28U	ug/l				D4-2-CHLOROPHENOL (SS)	78	% Recov				4-Bromophenyl-phenylet+	90	% Recov			
4-Nitroaniline	0.71U	ug/l										2,4-Dimethylphenol	78	% Recov			
4-Nitrophenol	1.4U	ug/l										4-Methylphenol	82	% Recov			
Benzyl Alcohol	0.28U	ug/l										1,4-Dichlorobenzene	63	% Recov			
4-Bromophenyl-phenylet+	0.28U	ug/l										4-Chloroaniline	84	% Recov			
2,4-Dimethylphenol	0.28U	ug/l										Phenol	78	% Recov			
4-Methylphenol	0.28U	ug/l										bis(2-Chloroethyl)Ether	80	% Recov			
1,4-Dichlorobenzene	0.28U	ug/l										bis(2-Chloroethoxy)Met+	88	% Recov			
4-Chloroaniline	0.28U	ug/l										BIS(2-ETHYLHEXYL) PHTH+	77	% Recov			
Phenol	0.28U	ug/l										Di-n-Octyl Phthalate	85	% Recov			
bis(2-Chloroethyl)Ether	0.28U	ug/l															

(Continued on next page)

Account: J1B04

Source: Well (Test/Observation)

Begin Date: 93/04/07 :

B/N/Acid Scan			Water-Total		B/N/Acid Scan			Water-Total		B/N/Acid Scan			Water-Total	
*** Continued ***					*** Continued ***					*** Continued ***				
Matrix	Spike #1		Result	Units	Matrix	Spike #2		Result	Units	Matrix	Spike #2		Result	Units
HEXACHLORO BENZENE		91	%	Recov	Hexachlorocyclopentadi+		64	%	Recov	2,4-Dinitrotoluene		93	%	Recov
Anthracene		90	%	Recov	Isophorone		82	%	Recov	Pyrene		89	%	Recov
1,2,4-Trichlorobenzene		68	%	Recov	Acenaphthene		80	%	Recov	Dimethylphthalate		89	%	Recov
2,4-Dichlorophenol		89	%	Recov	Diethylphthalate		94	%	Recov	Dibenzofuran		84	%	Recov
2,4-Dinitrotoluene		96	%	Recov	Di-n-Butylphthalate		88	%	Recov	Benzo(ghi)perylene		91	%	Recov
Pyrene		91	%	Recov	Phenanthrene		87	%	Recov	Indeno(1,2,3-cd)pyrene		93	%	Recov
Dimethylphthalate		92	%	Recov	Butylbenzylphthalate		93	%	Recov	Benzo(b)fluoranthene		90	%	Recov
Dibenzofuran		89	%	Recov	N-Nitrosodiphenylamine		93	%	Recov	Fluoranthene		89	%	Recov
Benzo(ghi)perylene		91	%	Recov	Fluorene		86	%	Recov	Benzo(k)fluoranthene		88	%	Recov
Indeno(1,2,3-cd)pyrene		93	%	Recov	Carbazole		NAR	%	Recov	Acenaphthylene		81	%	Recov
Benzo(b)fluoranthene		89	%	Recov	Hexachlorobutadiene		61J	%	Recov	Chrysene		93	%	Recov
Fluoranthene		91	%	Recov	Pentachlorophenol		99	%	Recov	Surrog: 2-Fluorobiphen+		87	%	Recov
Benzo(k)fluoranthene		91	%	Recov	2,4,6-Trichlorophenol		91	%	Recov	2-Fluorophenol		88	%	Recov
Acenaphthylene		84	%	Recov	2-Nitroaniline		91	%	Recov	Retene		NAR	%	Recov
Chrysene		94	%	Recov	2-Nitrophenol		88	%	Recov	4,6-Dinitro-2-methylph+		102	%	Recov
Surrog: 2-Fluorobiphen+		91	%	Recov	Naphthalene, 1-Methyl-		NAR	%	Recov	1,3-Dichlorobenzene		60	%	Recov
2-Fluorophenol		88	%	Recov	Naphthalene		74	%	Recov	2,6-Dinitrotoluene		95	%	Recov
Retene		NAR	%	Recov	2-Methylnaphthalene		53	%	Recov	N-Nitroso-di-n-Propyla+		84	%	Recov
4,6-Dinitro-2-methylph+		103	%	Recov	2-Chloronaphthalene		77	%	Recov	Terphenyl-d14		95	%	Recov
1,3-Dichlorobenzene		57	%	Recov	3,3'-Dichlorobenzidine		NAR	%	Recov	Pyrene-d10		97	%	Recov
2,6-Dinitrotoluene		98	%	Recov	Benazidine		NAR	%	Recov	1,2-DICHLORO BENZENE-D4		89	%	Recov
N-Nitroso-di-n-Propyla+		84	%	Recov	2-Methylphenol		84	%	Recov	Surrog: D5-Nitrobenzene		92	%	Recov
Terphenyl-d14		99	%	Recov	1,2-Dichlorobenzene		64	%	Recov	Surrog: Phenol D5		83	%	Recov
Pyrene-d10		103	%	Recov	o-Chlorophenol (2-Chlo+		86	%	Recov	4-Chlorophenyl-phenyle+		83	%	Recov
1,2-DICHLORO BENZENE-D4		84	%	Recov	2,4,5-Trichlorophenol		93	%	Recov	1,2-Diphenylhydrazine		NAR	%	Recov
Surrog: D5-Nitrobenzene		99	%	Recov	Nitrobenzene		85	%	Recov	BIS(20CHLOROISOPROPYL)+		84	%	Recov
Surrog: Phenol D5		83	%	Recov	3-Nitroaniline		80	%	Recov	D4-2-CHLOROPHENOL (SS)		93	%	Recov
4-Chlorophenyl-phenyle+		86	%	Recov	4-Nitroaniline		75	%	Recov					
1,2-Diphenylhydrazine		NAR	%	Recov	4-Nitrophenol		73	%	Recov					
BIS(20CHLOROISOPROPYL)+		83	%	Recov	Benzyl Alcohol		75	%	Recov					
D4-2-CHLOROPHENOL (SS)		96	%	Recov	4-Bromophenyl-phenylet+		87	%	Recov					
					2,4-Dimethylphenol		76	%	Recov					
					4-Methylphenol		83	%	Recov					
					1,4-Dichlorobenzene		66	%	Recov					
					4-Chloroaniline		79	%	Recov					
					Phenol		79	%	Recov					
					bis(2-Chloroethyl)Ether		80	%	Recov					
					bis(2-Chloroethoxy)Met+		85	%	Recov					
					BIS(2-ETHYLHEXYL) PHTH+		76	%	Recov					
					Di-n-Octyl Phthalate		85	%	Recov					
					HEXACHLORO BENZENE		89	%	Recov					
					Anthracene		87	%	Recov					
					1,2,4-Trichlorobenzene		63	%	Recov					
					2,4-Dichlorophenol		87	%	Recov					

(Sample Complete)

Project: DOE-700Y OLD INLAND PIT

Officer: RXB

Account: J1B04

Blank ID: BW3103

B/N/Acid Scan			Water-Total			B/N/Acid Scan			Water-Total			Tent Ident - B/N/Aci			Water-Total		
Blank #2			Result	Units		*** Continued ***			Result	Units		*** Continued ***			Result	Units	
Blank #2						Blank #2						Blank #2					
Benzo(a)pyrene			0.80U	ug/l		bis(2-Chloroethoxy)Met+			0.80U	ug/l		Naphthalene, 1,7-diphe+			0.45NJ*	ug/l	
2,4-Dinitrophenol			8.0U	ug/l		BIS(2-ETHYLHEXYL) PHTH+			0.10J*	ug/l		CYCLIC SULPHATE OF BUT+			1.7NJ*	ug/l	
Dibenzo(a,h)anthracene			0.80U	ug/l		Di-n-Octyl Phthalate			2.0U	ug/l		UNKNOWN HYDROCARBON 1			0.22NJ*	ug/l	
Benzo(a)anthracene			0.80U	ug/l		HEXACHLOROBENZENE			0.80U	ug/l		UNKNOWN COMPOUND 1			0.47NJ*	ug/l	
4-Chloro-3-Methylphenol			0.80U	ug/l		Anthracene			0.80U	ug/l		UNKNOWN COMPOUND 1			0.26NJ*	ug/l	
Aniline			0.80U	ug/l		1,2,4-Trichlorobenzene			0.80U	ug/l							
Benzoic acid			2.00J	ug/l		2,4-Dichlorophenol			0.80U	ug/l							
Hexachloroethane			0.80U	ug/l		2,4-Dinitrotoluene			2.0U	ug/l							
Hexachlorocyclopentadi+			4.00J	ug/l		Pyrene			0.80U	ug/l							
Isophorone			0.80U	ug/l		Dimethylphthalate			0.80U	ug/l							
Acenaphthene			0.80U	ug/l		Dibenzofuran			0.80U	ug/l							
Diethylphthalate			0.10J*	ug/l		Benzo(ghi)perylene			0.80U	ug/l							
Di-n-Butylphthalate			0.10J*	ug/l		Indeno(1,2,3-cd)pyrene			0.80U	ug/l							
Phenanthrene			0.80U	ug/l		Benzo(b)fluoranthene			0.80U	ug/l							
Butylbenzylphthalate			0.80U	ug/l		Fluoranthene			0.80U	ug/l							
N-Nitrosodiphenylamine			0.80U	ug/l		Benzo(k)fluoranthene			0.80U	ug/l							
Fluorene			0.80U	ug/l		Acenaphthylene			0.80U	ug/l							
Carbazole			0.80U	ug/l		Chrysene			0.80U	ug/l							
Hexachlorobutadiene			0.80U	ug/l		Retene			0.80U	ug/l							
Pentachlorophenol			2.0U	ug/l		4,6-Dinitro-2-methylph+			8.0U	ug/l							
2,4,6-Trichlorophenol			0.80U	ug/l		1,3-Dichlorobenzene			0.80U	ug/l							
2-Nitroaniline			0.80U	ug/l		2,6-Dinitrotoluene			2.0U	ug/l							
2-Nitrophenol			0.80U	ug/l		N-Nitroso-di-n-Propyla+			0.80U	ug/l							
Naphthalene, 1-Methyl-			0.80U	ug/l		4-Chlorophenyl-phenyle+			0.80U	ug/l							
Naphthalene			0.80U	ug/l		1,2-Diphenylhydrazine			0.80U	ug/l							
2-Methylnaphthalene			0.80U	ug/l		BIS(20CHLOROISOPROPYL)+			0.80U	ug/l							
2-Chloronaphthalene			0.80U	ug/l		Surrog: 2-Fluorobiphen+			84	% Recov							
3,3'-Dichlorobenzidine			0.80U	ug/l		2-Fluorophenol			88	% Recov							
Benzidine			0.80U	ug/l		Surrog: 2,4,6-Tribromo+			NAF	% Recov							
2-Methylphenol			0.80U	ug/l		Terphenyl-d14			97	% Recov							
1,2-Dichlorobenzene			0.80U	ug/l		Pyrene-d10			99	% Recov							
o-Chlorophenol (2-Chlo+			0.80U	ug/l		1,2-DICHLOROBENZENE-D4			79	% Recov							
2,4,5-Trichlorophenol			0.80U	ug/l		Surrog: D5-Nitrobenzene			95	% Recov							
Nitrobenzene			0.80U	ug/l		Surrog: Phenol D5			82	% Recov							
3-Nitroaniline			0.80U	ug/l		D4-2-CHLOROPHENOL (SS)			92	% Recov							
4-Nitroaniline			2.0U	ug/l													
4-Nitrophenol			4.0U	ug/l													
Benzyl Alcohol			0.80U	ug/l													
4-Bromophenyl-phenylet+			0.80U	ug/l													
2,4-Dimethylphenol			0.80U	ug/l													
4-Methylphenol			0.80U	ug/l													
1,4-Dichlorobenzene			0.80U	ug/l													
4-Chloroaniline			0.80U	ug/l													
Phenol			0.80U	ug/l													
bis(2-Chloroethyl)Ether			0.80U	ug/l													

(Sample Complete)

Project: DOE-700Y OLD INLAND PIT

Officer: RXB

Account: J1B04

Blank ID: BW3103D

B/N/Acid Scan			Water-Total			B/N/Acid Scan			Water-Total			Tent Ident - B/N/Aci			Water-Total		
Blank #1			Result	Units		*** Continued ***			Result	Units		*** Continued ***			Result	Units	
Benzo(a)pyrene			0.80U	ug/l		Blank #1						Blank #1					
2,4-Dinitrophenol			8.0U	ug/l		bis(2-Chloroethoxy)Met+			0.80U	ug/l		2-CYCLOHEXEN-1-ONE			0.69NJ*	ug/l	
Dibenzo(a,h)anthracene			0.80U	ug/l		BIS(2-ETHYLHEXYL) PHTH+			0.11J*	ug/l		Naphthalene, 1,7-diphe+			0.65NJ*	ug/l	
Benzo(a)anthracene			0.80U	ug/l		Di-n-Octyl Phthalate			2.0U	ug/l		CYCLIC SULPHATE OF BUT+			1.0NJ*	ug/l	
4-Chloro-3-Methylphenol			0.80U	ug/l		HEXACHLOROBENZENE			0.80U	ug/l		UNKNOWN COMPOUND 1			0.21NJ*	ug/l	
Aniline			0.80U	ug/l		Anthracene			0.80U	ug/l		UNKNOWN COMPOUND 2			0.21NJ*	ug/l	
Benzoic acid			2.0UJ	ug/l		1,2,4-Trichlorobenzene			0.80U	ug/l		UNKNOWN COMPOUND 3			0.53NJ*	ug/l	
Hexachloroethane			0.80U	ug/l		2,4-Dichlorophenol			0.80U	ug/l		UNKNOWN COMPOUND 4			0.20NJ*	ug/l	
Hexachlorocyclopentadi+			4.0UJ	ug/l		2,4-Dinitrotoluene			2.0U	ug/l		UNKNOWN COMPOUND 5			0.41NJ*	ug/l	
Isophorone			0.80U	ug/l		Pyrene			0.80U	ug/l							
Acenaphthene			0.80U	ug/l		Dimethylphthalate			0.80U	ug/l							
Diethylphthalate			0.21J*	ug/l		Dibenzofuran			0.80U	ug/l							
Di-n-Butylphthalate			0.20J*	ug/l		Benzo(ghi)perylene			0.80U	ug/l							
Phenanthrene			0.80U	ug/l		Indeno(1,2,3-cd)pyrene			0.80U	ug/l							
Butylbenzylphthalate			0.80U	ug/l		Benzo(b)fluoranthene			0.80U	ug/l							
N-Nitrosodiphenylamine			0.80U	ug/l		Fluoranthene			0.80U	ug/l							
Fluorene			0.80U	ug/l		Benzo(k)fluoranthene			0.80U	ug/l							
Carbazole			0.80U	ug/l		Acenaphthylene			0.80U	ug/l							
Hexachlorobutadiene			0.80U	ug/l		Chrysene			0.80U	ug/l							
Pentachlorophenol			2.0U	ug/l		Retene			0.80U	ug/l							
2,4,6-Trichlorophenol			0.80U	ug/l		4,6-Dinitro-2-methylph+			8.0U	ug/l							
2-Nitroaniline			0.80U	ug/l		1,3-Dichlorobenzene			0.80U	ug/l							
2-Nitrophenol			0.80U	ug/l		2,6-Dinitrotoluene			2.0U	ug/l							
Naphthalene, 1-Methyl-			0.80U	ug/l		N-Nitroso-di-n-Propyla+			0.80U	ug/l							
Naphthalene			0.80U	ug/l		4-Chlorophenyl-phenyle+			0.80U	ug/l							
2-Methylnaphthalene			0.80U	ug/l		1,2-Diphenylhydrazine			0.80U	ug/l							
2-Chloronaphthalene			0.80U	ug/l		BIS(20CHLOROISOPROPYL)+			0.80U	ug/l							
3,3'-Dichlorobenzidine			0.80U	ug/l		Surrog: 2-Fluorobiphen+			77	% Recov							
Benzidine			0.80U	ug/l		2-Fluorophenol			78	% Recov							
2-Methylphenol			0.80U	ug/l		Surrog: 2,4,6-Tribromo+			NAF	% Recov							
1,2-Dichlorobenzene			0.80U	ug/l		Terphenyl-d14			90	% Recov							
o-Chlorophenol (2-Chlo+			0.80U	ug/l		Pyrene-d10			91	% Recov							
2,4,5-Trichlorophenol			0.80U	ug/l		1,2-DICHLOROBENZENE-D4			70	% Recov							
Nitrobenzene			0.80U	ug/l		Surrog: D5-Nitrobenzene			83	% Recov							
3-Nitroaniline			0.80U	ug/l		Surrog: Phenol D5			73	% Recov							
4-Nitroaniline			2.0U	ug/l		D4-2-CHLOROPHENOL (SS)			83	% Recov							
4-Nitrophenol			4.0U	ug/l													
Benzyl Alcohol			0.80U	ug/l													
4-Bromophenyl-phenylet+			0.80U	ug/l		Tent Ident - B/N/Aci			Water-Total								
2,4-Dimethylphenol			0.80U	ug/l		Blank #1			Result	Units							
4-Methylphenol			0.80U	ug/l													
1,4-Dichlorobenzene			0.80U	ug/l		2/2/2 METHOXYETHOXY ET+			0.97NJ*	ug/l							
4-Chloroaniline			0.80U	ug/l		11H-BENZO[B]FLUORENE			0.58NJ*	ug/l							
Phenol			0.80U	ug/l		7-OXABICYCLO[4.1.0]HEP+			1.3NJ*	ug/l							
bis(2-Chloroethyl)Ether			0.80U	ug/l		2-CYCLOHEXEN-1-OL			0.63NJ*	ug/l							

(Sample Complete)

17-JUN-93
09:57:46

Washington State Department of Ecology
Sample/Project Analysis Results

Page 15

Project: DOE-700Y OLD INLAND PIT

Officer: RXB

Account: J1B04

Blank ID: EWPB 16.87

Metals - Specified		Water-Total	
Blank #1		Result	Units
Thallium	Tl-Total	2.5U	ug/l
Antimony	Sb-Total	2.0U	ug/l

Metals - Specified		Water-Filtere	
Blank #1		Result	Units
Thallium	Tl-Diss	2.5U	ug/l
Antimony	Sb-Diss	2.0U	ug/l
Selenium	Se-Diss	2.0U	ug/l

Metals - ICP Scan		Water-Filtere	
Blank #1		Result	Units
Arsenic	As-Diss	30U	ug/l
Barium	Ba-Diss	1U	ug/l
Beryllium	Be-Diss	1U	ug/l
Boron	B -Diss	26P*	ug/l
Cadmium	Cd-Diss	2U	ug/l
Chromium	Cr-Diss	5U	ug/l
Cobalt	Co-Diss	3U	ug/l
Copper	Cu-Diss	3U	ug/l
Iron	Fe-Diss	5U	ug/l
Lead	Pb-Diss	20U	ug/l
Manganese	Mn-Diss	1U	ug/l
Thallium	Tl-Diss	50U	ug/l
Molybdenm	Mo-Diss	5U	ug/l
Nickel	Ni-Diss	10U	ug/l
Silver	Ag-Diss	3U	ug/l
Strontium	Sr-Diss	1U	ug/l
Vanadium	V -Diss	2U	ug/l
Zinc	Zn-Diss	4U	ug/l
Antimony	Sb-Diss	30U	ug/l
Tin	Sn-Diss	NAR	ug/l
Aluminum	Al-Diss	20U	ug/l
Silicon	Si-Diss	NAR	ug/l
Selenium	Se-Diss	50U	ug/l
Titanium	Ti-Diss	5U	ug/l
Calcium	Ca-Diss	4.6P*	ug/l
Magnesium	Mg-Diss	2.3P*	ug/l
Potassium	K -Diss	400U	ug/l
Sodium	Na-Diss	50P*	ug/l

(Sample Complete)

1995-96 Dames & Moore Analytical Reports

- **Soils Analyses**
- **Groundwater Analyses**
- **Fish Bioassay**



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East 11115 Montgomery, Suite B • Spokane, WA 99206-4776 (509) 924-9200 • FAX 924-9290
9405 S.W. Nimbus Avenue • Beaverton, OR 97008-7132 (503) 643-9200 • FAX 644-2202

Dames & Moore
E. 808 Sprague, #A
Spokane, WA 99202
Attention: Bill Fees

Project Name: CH&E, Old Inland Pit
Client Project: #29910-001-5308-113
NCA Project #: B512345

Received: Dec 20, 1995
Reported: Jan 5, 1996

PROJECT SUMMARY PAGE

Laboratory Sample Number	Sample Description	Sample Matrix	Date Sampled
B512345-01	DMW121895-1-02	Water	12/18/95
B512345-02	DMW121895-2-02	Water	12/18/95
B512345-03	DMW121895-3-02	Water	12/19/95
B512345-04	DMW121895-4-02	Water	12/19/95
B512345-05	DMW121895-4-2A	Water	12/19/95

The results in this report apply to the samples analyzed in accordance with the chain of custody document.
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NORTH CREEK ANALYTICAL Inc.

Laura Dutton
Project Manager

512345.DDD <1>



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East 11115 Montgomery, Suite B • Spokane, WA 99206-4776 (509) 924-9200 • FAX 924-9290
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Dames & Moore
E. 808 Sprague, #A
Spokane, WA 99202
Attention: Bill Fees

Client Project ID: CH&E, Old Inland Pit
Sample Descript: DMW121895-1-02
Sample Matrix: Water
Sample Number: B512345-01

Sampled: Dec 18, 199
Received: Dec 19, 199
Digested: Dec 21-26, 1995
Analyzed: Jan 3-5, 199
Reported: Jan 5, 199

TOTAL METALS ANALYSIS

Analyte	EPA Method	Reporting Limit µg/L (ppb)	Sample Results µg/L (ppb)
Aluminum.....	6010	150	2,500
Antimony.....	7041	5.0	N.D.
Arsenic.....	7060	4.0	4.1
Beryllium.....	6010	5.0	N.D.
Cadmium.....	6010	5.0	N.D.
Chromium.....	6010	10	100
Copper.....	6010	30	N.D.
Iron.....	6010	100	4,200
Lead.....	7421	2.0	19
Magnesium.....	6010	100	18,000
Manganese.....	6010	5.0	86
Mercury.....	7470 Modified	1.0	N.D.
Nickel.....	6010	30	N.D.
Selenium.....	7740	5.0	N.D.
Silver.....	7760	20	N.D.
Thallium.....	7841	2.0	N.D.
Zinc.....	6010	150	N.D.

Analytes reported as N.D. were not detected above the stated Reporting Limit.

NORTH CREEK ANALYTICAL Inc.

Laura Dutton

Laura Dutton
Project Manager

512345.DDD <2>



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East 11115 Montgomery, Suite B • Spokane, WA 99206-4776 (509) 924-9200 • FAX 924-9290
9405 S.W. Nimbus Avenue • Beaverton, OR 97008-7132 (503) 643-9200 • FAX 644-2202

Dames & Moore
E. 808 Sprague, #A
Spokane, WA 99202
Attention: Bill Fees

Client Project ID: CH&E, Old Inland Pit
Sample Descript: DMW121895-2-02
Sample Matrix: Water
Sample Number: B512345-02

Sampled: Dec 18, 1995
Received: Dec 19, 1995
Digested: Dec 21-26, 1995
Analyzed: Jan 3-5, 1996
Reported: Jan 5, 1996

TOTAL METALS ANALYSIS

Analyte	EPA Method	Reporting Limit µg/L (ppb)	Sample Results µg/L (ppb)
Aluminum.....	6010	150	1,800
Antimony.....	7041	5.0	N.D.
Arsenic.....	7060	4.0	N.D.
Beryllium.....	6010	5.0	N.D.
Cadmium.....	6010	5.0	N.D.
Chromium.....	6010	10	20
Copper.....	6010	30	N.D.
Iron.....	6010	100	3,100
Lead.....	7421	2.0	10
Magnesium.....	6010	100	18,000
Manganese.....	6010	5.0	180
Mercury.....	7470 Modified	1.0	N.D.
Nickel.....	6010	30	32
Selenium.....	7740	5.0	N.D.
Silver.....	7760	20	N.D.
Thallium.....	7841	2.0	N.D.
Zinc.....	6010	150	N.D.

Analytes reported as N.D. were not detected above the stated Reporting Limit.

NORTH CREEK ANALYTICAL Inc.

Laura Dutton
Project Manager

Dames & Moore
E. 808 Sprague, #A
Spokane, WA 99202
Attention: Bill Fees

Client Project ID: CH&E, Old Inland Pit
Sample Descript: DMW121895-3-02
Sample Matrix: Water
Sample Number: B512345-03

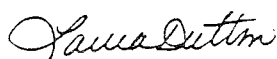
Sampled: Dec 18, 1995
Received: Dec 19, 1995
Digested: Dec 21-26, 1995
Analyzed: Jan 3-5, 1996
Reported: Jan 5, 1996

TOTAL METALS ANALYSIS

Analyte	EPA Method	Reporting Limit µg/L (ppb)	Sample Results µg/L (ppb)
Aluminum.....	6010	150	980
Antimony.....	7041	5.0	N.D.
Arsenic.....	7060	4.0	4.6
Beryllium.....	6010	5.0	N.D.
Cadmium.....	6010	5.0	N.D.
Chromium.....	6010	10	N.D.
Copper.....	6010	30	N.D.
Iron.....	6010	100	1,400
Lead.....	7421	2.0	10
Magnesium.....	6010	100	24,000
Manganese.....	6010	5.0	190
Mercury.....	7470 Modified	1.0	N.D.
Nickel.....	6010	30	N.D.
Selenium.....	7740	5.0	N.D.
Silver.....	7760	20	N.D.
Thallium.....	7841	2.0	N.D.
Zinc.....	6010	150	N.D.

Analytes reported as N.D. were not detected above the stated Reporting Limit.

NORTH CREEK ANALYTICAL Inc.



Laura Dutton
Project Manager



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East 11115 Montgomery, Suite B • Spokane, WA 99206-4776 (509) 924-9200 • FAX 924-9290
9405 S.W. Nimbus Avenue • Beaverton, OR 97006-7132 (503) 643-9200 • FAX 644-2202

Dames & Moore
E. 808 Sprague, #A
Spokane, WA 99202
Attention: Bill Fees

Client Project ID: CH&E, Old Inland Pit
Sample Descript: DMW121895-4-02
Sample Matrix: Water
Sample Number: B512345-04

Sampled: Dec 18, 1995
Received: Dec 19, 1995
Digested: Dec 21-26, 1995
Analyzed: Jan 3-5, 1996
Reported: Jan 5, 1996

TOTAL METALS ANALYSIS

Analyte	EPA Method	Reporting Limit µg/L (ppb)	Sample Results µg/L (ppb)
Aluminum.....	6010	150	5,100
Antimony.....	7041	5.0	N.D.
Arsenic.....	7060	4.0	6.4
Beryllium.....	6010	5.0	N.D.
Cadmium.....	6010	5.0	N.D.
Chromium.....	6010	10	24
Copper.....	6010	30	N.D.
Iron.....	6010	100	8,600
Lead.....	7421	2.0	60
Magnesium.....	6010	100	21,000
Manganese.....	6010	5.0	N.D.
Mercury.....	7470 Modified	1.0	N.D.
Nickel.....	6010	30	N.D.
Selenium.....	7740	5.0	N.D.
Silver.....	7760	20	N.D.
Thallium.....	7841	2.0	N.D.
Zinc.....	6010	150	N.D.

Analytes reported as N.D. were not detected above the stated Reporting Limit.

NORTH CREEK ANALYTICAL Inc.

Laura Dutton
Project Manager

Dames & Moore
E. 808 Sprague, #A
Spokane, WA 99202
Attention: Bill Fees

Client Project ID: CH&E, Old Inland Pit
Sample Descript: DMW121895-4-2A
Sample Matrix: Water
Sample Number: B512345-05

Sampled: Dec 18, 1995
Received: Dec 19, 1995
Digested: Dec 21-26, 1995
Analyzed: Jan 3-5, 1996
Reported: Jan 5, 1996

TOTAL METALS ANALYSIS

Analyte	EPA Method	Reporting Limit µg/L (ppb)	Sample Results µg/L (ppb)
Aluminum.....	6010	150	5,000
Antimony.....	7041	5.0	N.D.
Arsenic.....	7060	4.0	5.6
Beryllium.....	6010	5.0	N.D.
Cadmium.....	6010	5.0	N.D.
Chromium.....	6010	10	24
Copper.....	6010	30	N.D.
Iron.....	6010	100	8,900
Lead.....	7421	2.0	59
Magnesium.....	6010	100	22,000
Manganese.....	6010	5.0	N.D.
Mercury.....	7470 Modified	1.0	N.D.
Nickel.....	6010	30	N.D.
Selenium.....	7740	5.0	N.D.
Silver.....	7760	20	N.D.
Thallium.....	7841	2.0	N.D.
Zinc.....	6010	150	N.D.

Analytes reported as N.D. were not detected above the stated Reporting Limit.

NORTH CREEK ANALYTICAL Inc.



Laura Dutton
Project Manager

Dames & Moore
E. 808 Sprague, #A
Spokane, WA 99202
Attention: Bill Fees

Client Project ID: CH&E, Old Inland Pit
Sample Descript: Method Blank
Sample Matrix: Water
Sample Number: BLK1221-122695

Digested: Dec 21-26, 1995
Analyzed: Jan 3-5, 1996
Reported: Jan 5, 1996

TOTAL METALS ANALYSIS

Analyte	EPA Method	Reporting Limit µg/L (ppb)	Sample Results µg/L (ppb)
Aluminum.....	6010	150	N.D.
Antimony.....	7041	5.0	N.D.
Arsenic.....	7060	4.0	N.D.
Beryllium.....	6010	5.0	N.D.
Cadmium.....	6010	5.0	N.D.
Chromium.....	6010	10	N.D.
Copper.....	6010	30	N.D.
Iron.....	6010	100	N.D.
Lead.....	7421	2.0	N.D.
Magnesium.....	6010	100	N.D.
Manganese.....	6010	5.0	N.D.
Mercury.....	7470 Modified	1.0	N.D.
Nickel.....	6010	30	N.D.
Selenium.....	7740	5.0	N.D.
Silver.....	7760	20	N.D.
Thallium.....	7841	2.0	N.D.
Zinc.....	6010	150	N.D.

Analytes reported as N.D. were not detected above the stated Reporting Limit.

NORTH CREEK ANALYTICAL Inc.



Laura Dutton
Project Manager

Dames & Moore
E. 808 Sprague, #A
Spokane, WA 99202
Attention: Bill Fees

Client Project ID: CH&E, Old Inland Pit
Sample Matrix : Water
Units: µg/L (ppb)

Digested: Dec 21-26, 1995
Reported: Jan 5, 1996

METALS QUALITY CONTROL DATA REPORT

ANALYTE	Al	Sb	As	Be	Cd	Cr	Cu
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EPA Method:	6010	7041	7060	6010	6010	6010	6010
Date Analyzed:	Jan 4, 1996	Jan 5, 1996	Jan 3, 1996	Jan 4, 1996	Jan 4, 1996	Jan 4, 1996	Jan 4, 1996

ACCURACY ASSESSMENT

LCS Spike Conc. Added:	1,000	50.0	50	1,000	1,000	1,000	1,000
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LCS Spike Result:	1,080	51.3	49	770	850	790	900
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LCS Spike % Recovery:	108	103	98	77	85	79	90
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Upper Control Limit:	149	166	132	102	96	102	105
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Lower Control Limit:	66	31	84	58	66	68	57
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Matrix Spike Sample #:	B512410-01	B512345-01	B512345-01	B512410-01	B512410-01	B512410-01	B512410-01
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Matrix Spike % Recovery:	118	122	99	78	97	86	100
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PRECISION ASSESSMENT

Sample #:	B512410-01	B512345-01	B512345-01	B512410-01	B512410-01	B512410-01	B512410-01
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Original:	3,200	N.D.	4.1	N.D.	150	32	120
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Duplicate:	3,200	N.D.	5.1	N.D.	150	35	120
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Relative % Difference:	0.0	Q-5	Q-5	Q-5	0.0	Q-5	Q-5
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NORTH CREEK ANALYTICAL Inc.

Please Note:

Q-5 = RPD values are not reported at sample concentrations <10 X the Reporting Limit.



Laura Dutton
Project Manager

Dames & Moore
E. 808 Sprague, #A
Spokane, WA 99202
Attention: Bill Fees

Client Project ID: CH&E, Old Inland Pit
Sample Matrix : Water
Units: µg/L (ppb)

Digested: Dec 21-26, 1995
Reported: Jan 5, 1996

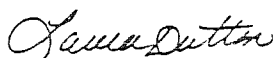
METALS QUALITY CONTROL DATA REPORT

ANALYTE	Fe	Pb	Mg	Mn	Hg	Ni	Se
EPA Method:	6010	7421	6010	6010	7470 Modified	6010	7740
Date Analyzed:	Jan 4, 1996	Dec 26, 1995	Jan 4, 1996	Jan 5, 1996	Jan 4, 1996	Jan 4, 1996	Jan 4, 1996
ACCURACY ASSESSMENT							
LCS Spike Conc. Added:	1,000	25	1,000	1,000	5.0	1,000	25.0
LCS Spike Result:	890	25	820	930	4.4	810	27.6
LCS Spike % Recovery:	89	100	82	93	88	81	110
Upper Control Limit:	125	122	115	118	114	115	136
Lower Control Limit:	72	88	63	58	75	48	66
Matrix Spike Sample #:	B512410-01	B512345-01	B512410-01	B512345-02	B512345-01	B512410-01	B512345-01
Matrix Spike % Recovery:	80	96	90	93	88	85	97
PRECISION ASSESSMENT							
Sample #:	B512410-01	B512345-01	B512410-01	B512345-02	B512345-01	B512410-01	B512345-01
Original:	3,400	19	2,800	N.D.	N.D.	N.D.	N.D.
Duplicate:	3,400	19	2,800	N.D.	N.D.	N.D.	N.D.
Relative % Difference:	0.0	Q-5	0.0	Q-5	Q-5	Q-5	Q-5

ORTH CREEK ANALYTICAL Inc.

Please Note:

Q-5 = RPD values are not reported at sample concentrations <10 X the Reporting Limit.



Laura Dutton
Project Manager

Dames & Moore
E. 808 Sprague, #A
Spokane, WA 99202
Attention: Bill Fees

Client Project ID: CH&E, Old Inland Pit
Sample Matrix : Water
Units: µg/L (ppb)

Digested: Dec 21-26, 1995
Reported: Jan 5, 1996

METALS QUALITY CONTROL DATA REPORT

ANALYTE	Ag	Tl	Zn
---------	----	----	----

EPA Method:	7760	7841	6010
Date Analyzed:	Jan 4, 1996	Jan 4, 1996	Jan 4, 1996

ACCURACY ASSESSMENT

LCS Spike Conc. Added:	250	30.0	1,000
LCS Spike Result:	250	32.3	890
LCS Spike % Recovery:	100	108	89
Upper Control Limit:	109	140	109
Lower Control Limit:	75	42	55
Matrix Spike Sample #:	B512410-01	B512345-01	B512410-01
Matrix Spike % Recovery:	98	104	88

PRECISION ASSESSMENT

Sample #:	B512410-01	B512345-01	B512410-01
Original:	N.D.	N.D.	1,800
Duplicate:	N.D.	N.D.	1,800
Relative % Difference:	Q-5	Q-5	0.0

NORTH CREEK ANALYTICAL Inc.

Please Note:

Q-5 = RPD values are not reported at sample concentrations <10 X the Reporting Limit.



Laura Dutton
Project Manager



18939 120th Avenue N.E., Suite 101 • Bothell, WA 98011-9503 (206) 481-9200 • FAX 485-2992
East 11115 Montgomery, Suite B • Spokane, WA 99206-4776 (509) 924-9200 • FAX 924-9290
9405 S.W. Nimbus Avenue • Beaverton, OR 97008-7132 (503) 643-9200 • FAX 644-2202

Dames & Moore
E. 808 Sprague, #A
Spokane, WA 99202
Attention: Bill Fees

Client Project ID: CH&E, Old Inland Pit
Sample Descript: DMW121895-1-02
Sample Matrix: Water
Sample Number: B512345-01

Sampled: Dec 18, 1995
Received: Dec 19, 1995
Analyzed: Jan 3-5, 1996
Reported: Jan 5, 1996

DISSOLVED METALS ANALYSIS

Analyte	EPA Method	Reporting Limit µg/L (ppb)	Sample Results µg/L (ppb)
Aluminum.....	200.7	150	N.D.
Antimony.....	7041	5.0	N.D.
Arsenic.....	7060	4.0	N.D.
Beryllium.....	200.7	5.0	N.D.
Cadmium.....	200.7	5.0	N.D.
Chromium.....	200.7	10	130
Copper.....	200.7	30	N.D.
Iron.....	200.7	100	N.D.
Lead.....	7421	2.0	N.D.
Magnesium.....	200.7	100	16,000
Manganese.....	200.7	5.0	N.D.
Mercury.....	245.2 Modified	1.0	N.D.
Nickel.....	200.7	30	N.D.
Selenium.....	7740	5.0	N.D.
Silver.....	272.1	20	N.D.
Thallium.....	7841	2.0	N.D.
Zinc.....	200.7	150	N.D.

Analytes reported as N.D. were not detected above the stated Reporting Limit.

NORTH CREEK ANALYTICAL Inc.


Laura Dutton
Project Manager

512345.DDD <11>

Dames & Moore
E. 808 Sprague, #A
Spokane, WA 99202
Attention: Bill Fees

Client Project ID: CH&E, Old Inland Pit
Sample Descript: DMW121895-2-02
Sample Matrix: Water
Sample Number: B512345-02

Sampled: Dec 18, 1995
Received: Dec 19, 1995

Analyzed: Jan 3-5, 1996
Reported: Jan 5, 1996

DISSOLVED METALS ANALYSIS

Analyte	EPA Method	Reporting Limit µg/L (ppb)	Sample Results µg/L (ppb)
Aluminum.....	200.7	150	N.D.
Antimony.....	7041	5.0	N.D.
Arsenic.....	7060	4.0	N.D.
Beryllium.....	200.7	5.0	N.D.
Cadmium.....	200.7	5.0	N.D.
Chromium.....	200.7	10	15
Copper.....	200.7	30	N.D.
Iron.....	200.7	100	N.D.
Lead.....	7421	2.0	N.D.
Magnesium.....	200.7	100	17,000
Manganese.....	200.7	5.0	N.D.
Mercury.....	245.2 Modified	1.0	N.D.
Nickel.....	200.7	30	N.D.
Selenium.....	7740	5.0	N.D.
Silver.....	272.1	20	N.D.
Thallium.....	7841	2.0	N.D.
Zinc.....	200.7	150	N.D.

Analytes reported as N.D. were not detected above the stated Reporting Limit.

NORTH CREEK ANALYTICAL Inc.



Laura Dutton
Project Manager



18939 120th Avenue NE Suite 101 • Botne WA 99011-9508 (206) 481-9200 • FAX 485-2992
East 11115 Montgomery Suite B • Spokane WA 99206-4776 (509) 924-9200 • FAX 924-9290
9405 S.W. Nimbus Avenue • Beaverton, OR 97008-7122 (503) 643-9200 • FAX 644-2202

Dames & Moore
E. 808 Sprague, #A
Spokane, WA 99202
Attention: Bill Fees

Client Project ID: CH&E, Old Inland Pit
Sample Descript: DMW121895-3-02
Sample Matrix: Water
Sample Number: B512345-03

Sampled: Dec 18, 1995
Received: Dec 19, 1995
Analyzed: Jan 3-5, 1996
Reported: Jan 5, 1996

DISSOLVED METALS ANALYSIS

Analyte	EPA Method	Reporting Limit µg/L (ppb)	Sample Results µg/L (ppb)
Aluminum.....	200.7	150	N.D.
Antimony.....	7041	5.0	N.D.
Arsenic.....	7060	4.0	N.D.
Beryllium.....	200.7	5.0	N.D.
Cadmium.....	200.7	5.0	N.D.
Chromium.....	200.7	10	N.D.
Copper.....	200.7	30	N.D.
Iron.....	200.7	100	N.D.
Lead.....	7421	2.0	N.D.
Magnesium.....	200.7	100	22,000
Manganese.....	200.7	5.0	150
Mercury.....	245.2 Modified	1.0	N.D.
Nickel.....	200.7	30	N.D.
Selenium.....	7740	5.0	N.D.
Silver.....	272.1	20	N.D.
Thallium.....	7841	2.0	N.D.
Zinc.....	200.7	150	N.D.

Analytes reported as N.D. were not detected above the stated Reporting Limit.

NORTH CREEK ANALYTICAL Inc.

Laura Dutton
Project Manager

Dames & Moore
E. 808 Sprague, #A
Spokane, WA 99202
Attention: Bill Fees

Client Project ID: CH&E, Old Inland Pit
Sample Descript: DMW121895-4-02
Sample Matrix: Water
Sample Number: B512345-04

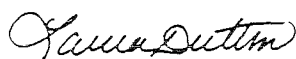
Sampled: Dec 18, 1995
Received: Dec 19, 1995
Analyzed: Jan 3-5, 1996
Reported: Jan 5, 1996

DISSOLVED METALS ANALYSIS

Analyte	EPA Method	Reporting Limit µg/L (ppb)	Sample Results µg/L (ppb)
Aluminum.....	200.7	150	N.D.
Antimony.....	7041	5.0	N.D.
Arsenic.....	7060	4.0	N.D.
Beryllium.....	200.7	5.0	N.D.
Cadmium.....	200.7	5.0	N.D.
Chromium.....	200.7	10	11
Copper.....	200.7	30	N.D.
Iron.....	200.7	100	N.D.
Lead.....	7421	2.0	N.D.
Magnesium.....	200.7	100	18,000
Manganese.....	200.7	5.0	N.D.
Mercury.....	245.2 Modified	1.0	N.D.
Nickel.....	200.7	30	N.D.
Selenium.....	7740	5.0	N.D.
Silver.....	272.1	20	N.D.
Thallium.....	7841	2.0	N.D.
Zinc.....	200.7	150	N.D.

Analytes reported as N.D. were not detected above the stated Reporting Limit.

NORTH CREEK ANALYTICAL Inc.



Laura Dutton
Project Manager



18939 120th Avenue N.E., Suite 101 • Bothell, WA 98011-9508 (206) 481-9200 • FAX 485-2992
East 11115 Montgomery, Suite B • Spokane, WA 99206-4776 (509) 924-9200 • FAX 924-9290
9405 S.W. Nimbus Avenue • Beaverton, OR 97008-7132 (503) 643-9200 • FAX 644-2202

Dames & Moore
E. 808 Sprague, #A
Spokane, WA 99202
Attention: Bill Fees

Client Project ID: CH&E, Old Inland Pit
Sample Descript: DMW121895-4-2A
Sample Matrix: Water
Sample Number: B512345-05

Sampled: Dec 18, 1995
Received: Dec 19, 1995
Analyzed: Jan 3-5, 1996
Reported: Jan 5, 1996

DISSOLVED METALS ANALYSIS

Analyte	EPA Method	Reporting Limit µg/L (ppb)	Sample Results µg/L (ppb)
Aluminum.....	200.7	150	N.D.
Antimony.....	7041	5.0	N.D.
Arsenic.....	7060	4.0	N.D.
Beryllium.....	200.7	5.0	N.D.
Cadmium.....	200.7	5.0	N.D.
Chromium.....	200.7	10	N.D.
Copper.....	200.7	30	N.D.
Iron.....	200.7	100	N.D.
Lead.....	7421	2.0	N.D.
Magnesium.....	200.7	100	18,000
Manganese.....	200.7	5.0	N.D.
Mercury.....	245.2 Modified	1.0	N.D.
Nickel.....	200.7	30	N.D.
Selenium.....	7740	5.0	N.D.
Silver.....	272.1	20	N.D.
Thallium.....	7841	2.0	N.D.
Zinc.....	200.7	150	N.D.

Analytes reported as N.D. were not detected above the stated Reporting Limit.

NORTH CREEK ANALYTICAL Inc.

Laura Dutton
Project Manager



18939 120th Avenue N.E., Suite 101 • Bothell, WA 98011-9508 (206) 481-9200 • FAX 485-2992
East 11115 Montgomery, Suite B • Spokane, WA 99206-4776 (509) 924-9200 • FAX 924-9290
9405 S.W. Nimbus Avenue • Beaverton, OR 97008-7132 (503) 643-9200 • FAX 644-2202

Dames & Moore
E. 808 Sprague, #A
Spokane, WA 99202
Attention: Bill Fees

Client Project ID: CH&E, Old Inland Pit
Sample Descript: Method Blank
Sample Matrix: Water
Sample Number: BLK0103-010596

Analyzed: Jan 3-5, 1996
Reported: Jan 5, 1996

DISSOLVED METALS ANALYSIS

Analyte	EPA Method	Reporting Limit µg/L (ppb)	Sample Results µg/L (ppb)
Aluminum.....	200.7	150	N.D.
Antimony.....	7041	5.0	N.D.
Arsenic.....	7060	4.0	N.D.
Beryllium.....	200.7	5.0	N.D.
Cadmium.....	200.7	5.0	N.D.
Chromium.....	200.7	10	N.D.
Copper.....	200.7	30	N.D.
Iron.....	200.7	100	N.D.
Lead.....	7421	2.0	N.D.
Magnesium.....	200.7	100	N.D.
Manganese.....	200.7	5.0	N.D.
Mercury.....	245.2 Modified	1.0	N.D.
Nickel.....	200.7	30	N.D.
Selenium.....	7740	5.0	N.D.
Silver.....	272.1	20	N.D.
Thallium.....	7841	2.0	N.D.
Zinc.....	200.7	150	N.D.

Analytes reported as N.D. were not detected above the stated Reporting Limit.

NORTH CREEK ANALYTICAL Inc.

Laura Dutton
Project Manager

Dames & Moore
E. 808 Sprague, #A
Spokane, WA 99202
Attention: Bill Fees

Client Project ID: CH&E, Old Inland Pit
Sample Matrix : Water
Units: µg/L (ppb)

Reported: Jan 5, 1996

METALS QUALITY CONTROL DATA REPORT

ANALYTE	Al	Sb	As	Be	Cd	Cr	Cu
EPA Method:	200.7	7041	7060	200.7	200.7	200.7	200.7
Date Analyzed:	Jan 4, 1996	Jan 5, 1996	Jan 3, 1996	Jan 4, 1996	Jan 4, 1996	Jan 4, 1996	Jan 4, 1996

ACCURACY ASSESSMENT

LCS Spike Conc. Added:	1,000	50.0	50.0	1,000	1,000	1,000	1,000
LCS Spike Result:	1,290	62.9	53.5	1,050	1,050	1,070	1,030
LCS Spike % Recovery:	129	126	107	105	105	107	103
Upper Control Limit:	130	166	132	125	125	125	125
Lower Control Limit:	70	31	84	75	75	75	75
Matrix Spike Sample #:	B512345-01	B512345-01	B512345-01	B512345-01	B512345-01	B512345-01	B512345-01
Matrix Spike % Recovery:	142	136	104	102	108	112	106

PRECISION ASSESSMENT

Sample #:	B512345-01	B512345-01	B512345-01	B512345-01	B512345-01	B512345-01	B512345-01
Original:	N.D.	N.D.	N.D.	N.D.	N.D.	15	N.D.
Duplicate:	N.D.	N.D.	N.D.	N.D.	N.D.	11	N.D.

Relative % Difference: Relative Percent Difference values are not reported at sample concentration levels less than 10 X the Reporting Limit.

NORTH CREEK ANALYTICAL Inc.

Lab Control Sample	Conc. of L.C.S.	x 100
% Recovery:	L.C.S. Spike Conc. Added	
Relative % Difference:	Original Result - Duplicate Result	x 100
	(Original Result + Duplicate Result) / 2	



Laura Dutton
Project Manager

Dames & Moore
E. 808 Sprague, #A
Spokane, WA 99202
Attention: Bill Fees

Client Project ID: CH&E, Old Inland Pit
Sample Matrix : Water
Units: µg/L (ppb)

Reported: Jan 5, 1996

METALS QUALITY CONTROL DATA REPORT

ANALYTE	Fe	Pb	Mg	Mn	Hg	Ni	Se
---------	----	----	----	----	----	----	----

EPA Method:	200.7	7421	200.7	200.7	245.2 Modified	200.7	7740
Date Analyzed:	Jan 4, 1996	Jan 4, 1996	Jan 4, 1996	Jan 5, 1996	Jan 4, 1996	Jan 4, 1996	Jan 4, 1996

ACCURACY ASSESSMENT

LCS Spike Conc. Added:	1,000	25	1,000	1,000	5.0	1,000	25.0
LCS Spike Result:	1,040	24	1,050	930	4.4	1,020	32.5
LCS Spike % Recovery:	104	96	105	93	88	102	130
Upper Control Limit:	125	122	125	125	114	125	136
Lower Control Limit:	75	88	75	75	75	75	66
Matrix Spike Sample #:	B512345-02	B512345-01	B512345-02	B512345-02	B512345-01	B512345-02	B512345-01
Matrix Spike % Recovery:	104	98	Q-3	93	88	104	59

PRECISION ASSESSMENT

Sample #:	B512345-02	B512345-01	B512345-02	B512345-02	B512345-01	B512345-02	B512345-01
Original:	N.D.	N.D.	17,000	N.D.	N.D.	N.D.	N.D.
Duplicate:	N.D.	N.D.	17,000	N.D.	N.D.	N.D.	N.D.
Relative % Difference:	Q-5	Q-5	0.0	Q-5	Q-5	Q-5	Q-5

NORTH CREEK ANALYTICAL Inc.

Please Note:

Q-3 = The Spike Recovery for this QC sample cannot be accurately calculated due to high concentration of analyte in the sample.

Q-5 = RPD values are not reported at sample concentrations <10 X the Reporting Limit.



Laura Dutton
Project Manager

Dames & Moore
E. 808 Sprague, #A
Spokane, WA 99202
Attention: Bill Fees

Client Project ID: CH&E, Old Inland Pit
Sample Matrix : Water
Units: µg/L (ppb)

Reported: Jan 5, 1996

METALS QUALITY CONTROL DATA REPORT

ANALYTE

Ag

Ti

Zn

EPA Method:	272.1	7841	200.7
Date Analyzed:	Jan 4, 1996	Jan 4, 1996	Jan 4, 1996

ACCURACY ASSESSMENT

LCS Spike			
Conc. Added:	250	30.0	1,000
LCS Spike			
Result:	240	36.3	1,040
LCS Spike			
% Recovery:	96	121	104
Upper Control			
Limit:	109	140	125
Lower Control			
Limit:	75	42	72
Matrix Spike			
Sample #:	B512345-02	B512345-01	B512345-02
Matrix Spike			
% Recovery:	98	87	107

PRECISION ASSESSMENT

Sample #:	B512345-02	B512345-01	B512345-02
Original:	N.D.	N.D.	N.D.
Duplicate:	N.D.	N.D.	N.D.

Relative % Difference: RPD values are not reported at sample concentration levels <10 X the Reporting Limit.

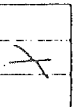
NORTH CREEK ANALYTICAL Inc.

Lab Control Sample	Conc. of L.C.S.	x 100
% Recovery:	L.C.S. Spike Conc. Added	
Relative % Difference:	Original Result - Duplicate Result	x 100
	(Original Result + Duplicate Result) / 2	


Laura Dutton
Project Manager



18939 120th Avenue N.E., Suite 101, Bothell, WA 98011-9508 (206) 481-9200 FAX 485-2992
East 11115 Montgomery, Suite B, Spokane, WA 98206-4779 (509) 924-9200 FAX 924-9290
15055 S.W. Sequoia Parkway, Suite 110, Portland, OR 97224-7155 (503) 624-9800 FAX 684-3782



CHAIN OF CUSTODY REPORT

CLIENT: <u>DAMES & MOORE</u>				REPORT TO: <u>Bell Firms</u>								SAME DAY RUSH (+150%)		
ADDRESS: <u>E. 808 SPRAGUE, SUITE A</u> <u>SPOKANE, WA 99202</u>				BILLING TO:								NEXT BUSINESS DAY RUSH (+100%)		
PHONE: <u>(509) 938-7430</u> FAX: <u>(509) 456-7317</u>				P.O. NUMBER:								2 BUSINESS DAY RUSH (+80%)		
PROJECT NAME: <u>CIT & E - OLD ELLIOTT RES</u>				NCA QUOTE #: <u>PRICE PER SCOT ARNO</u>								3 BUSINESS DAY RUSH (+60%)		
PROJECT NUMBER: <u>29910-001-5308-113</u>				Analysis Request: <u>TOTAL METALS</u> <u>DISSOLVED METALS</u>								5 BUSINESS DAY RUSH (+40%)		
SAMPLED BY:												10 BUSINESS DAY STANDARD (LIST PRICE)		X
												5 BUS. DAY HYDROCARBONS (LIST PRICE)		
SAMPLE IDENTIFICATION: (NUMBER OR DESCRIPTION)		SAMPLING DATE / TIME	MATRIX (W,S,O)	# OF CONT.									COMMENTS & PRESERVATIVES USED	NORTH CREEK SAMPLE NUMBER
1. DMW 121895-1-02	12/18/95/1805	W	2	X	X							PLEASE FEELEA	B512345-01	
2. DMW 121895-2-02	12/18/95/1750			X	X							DISSOLVED IN LAB.	-02	
3. DMW 121895-3-02	12/18/95/1035			X	X							4/50/sample	-03	
4. DMW 121895-4-02	12/18/95/1210			X	X								-04	
5. DMW 121895-4-2A	12/18/95/1310			X	X								-05	
6.														
7.														
8.														
9.														
10.														
RELINQUISHED BY: <u>Mary Shanks</u>				DATE: <u>12/19/95</u>				RECEIVED BY: <u>Lat 2</u>				DATE: <u>12-19-95</u>		
FIRM: <u>DA-M</u>				TIME: <u>1245</u>				FIRM: <u>NCA-1</u>				TIME: <u>1245</u>		
RELINQUISHED BY: <u>Lat 2</u>				DATE: <u>12-19-95</u>				RECEIVED BY:				DATE:		
FIRM: <u>NCA-1</u>				TIME: <u>1330</u>				FIRM:				TIME:		
ADDITIONAL MARKS: <u>METALS: Ag, Al, As, Be, Cd, Cr, Cu, Fe, Hg, Mg, Ni, Sb, Se, Si, Zn, Pb</u>														



NORTH CREEK ANALYTICAL

Environmental Laboratory Services

APR 11 1996

BOTHELL ■ (206) 481-9200 ■ FAX 485-2992
SPOKANE ■ (509) 924-9200 ■ FAX 924-9290
PORTLAND ■ (503) 543-9200 ■ FAX 644-2202

Dames & Moore
808 East Sprague
Spokane, WA 99202
Attention: Dave Godlewski

Project Name: CHE
Client Project : Not Provided
NCA Project #: B603461

Received: Mar 26, 1996
Reported: Apr 2, 1996

PROJECT SUMMARY PAGE

Laboratory Sample Number	Sample Description	Sample Matrix	Date Sampled
B603461-01	DMW032196-1-03	Water	3/21/96
B603461-02	DMW032196-2-03	Water	3/21/96
B603461-03	DMW032196-3-03	Water	3/21/96
B603461-04	DMW032196-4-03	Water	3/21/96
B603461-05	DMW032196-4-03A	Water	3/21/96

The results in this report apply to the samples analyzed in accordance with the chain of custody document.
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NORTH CREEK ANALYTICAL Inc.

Laura Dutton

Laura Dutton
Project Manager

603461.DDD <1>



NORTH CREEK ANALYTICAL

Environmental Laboratory Services

BOTHELL ■ (206) 481-9200 ■ FAX 485-2992
SPOKANE ■ (509) 924-9200 ■ FAX 924-9290
PORTLAND ■ (503) 643-9200 ■ FAX 644-2202

Dames & Moore
808 East Sprague
Spokane, WA 99202
Attention: Dave Godlewski

Client Project ID: CHE
Sample Descript: DMW032196-1-03
Analysis Method: EPA 6010/7000
Sample Number: B603461-01
Sample Matrix: Water

Sampled: Mar 21, 1996
Received: Mar 26, 1996
Digested: Mar 28, 1996
Analyzed: 3/29-4/2/1996
Reported: Apr 2, 1996

TOTAL METALS ANALYSIS

Analyte	EPA Method	Reporting Limit µg/L (ppb)	Sample Results µg/L (ppb)
Aluminum.....	6010	150	2,800
Antimony.....	6010	5.0	N.D.
Arsenic.....	7060	4.0	6.7
Beryllium.....	6010	5.0	N.D.
Cadmium.....	6010	5.0	N.D.
Chromium.....	6010	10	46
Copper.....	6010	30	N.D.
Lead.....	7421	2.0	12
Magnesium.....	6010	100	15,000
Mercury.....	7470 Modified	1.0	N.D.
Nickel.....	6010	30	N.D.
Selenium.....	7740	5.0	N.D.
Silver.....	7760	20	N.D.
Thallium.....	7841	6.0	N.D.
Zinc.....	6010	25	32

Analytes reported as N.D. were not detected above the stated Reporting Limit.

NORTH CREEK ANALYTICAL Inc.

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Project Manager



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Environmental Laboratory Services

BOTHELL ■ (206) 481-9200 ■ FAX 485-2992
SPOKANE ■ (509) 924-9200 ■ FAX 924-9290
PORTLAND ■ (503) 643-9200 ■ FAX 644-2202

Dames & Moore
808 East Sprague
Spokane, WA 99202
Attention: Dave Godlewski

Client Project ID: CHE
Sample Descript: DMW032196-2-03
Analysis Method: EPA 6010/7000
Sample Number: B603461-02
Sample Matrix: Water

Sampled: Mar 21, 1996
Received: Mar 26, 1996
Digested: Mar 28, 1996
Analyzed: 3/29-4/2/1996
Reported: Apr 2, 1996

TOTAL METALS ANALYSIS

Analyte	EPA Method	Reporting Limit µg/L (ppb)	Sample Results µg/L (ppb)
Aluminum.....	6010	150	1,100
Antimony.....	6010	5.0	N.D.
Arsenic.....	7060	4.0	4.1
Beryllium.....	6010	5.0	N.D.
Cadmium.....	6010	5.0	N.D.
Chromium.....	6010	10	N.D.
Copper.....	6010	30	N.D.
Lead.....	7421	2.0	5.4
Magnesium.....	6010	100	16,000
Mercury.....	7470 Modified	1.0	N.D.
Nickel.....	6010	30	N.D.
Selenium.....	7740	5.0	N.D.
Silver.....	7760	20	N.D.
Sodium.....	7841	6.0	N.D.
Zinc.....	6010	25	N.D.

Analytes reported as N.D. were not detected above the stated Reporting Limit.

NORTH CREEK ANALYTICAL Inc.

Laura Dutton

Laura Dutton
Project Manager

603461.DDD <3>



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SPOKANE ■ (509) 924-9200 ■ FAX 924-9290
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Dames & Moore
808 East Sprague
Spokane, WA 99202
Attention: Dave Godlewski

Client Project ID: CHE
Sample Descript: DMW032196-3-03
Analysis Method: EPA 6010/7000
Sample Number: B603461-03
Sample Matrix: Water

Sampled: Mar 21, 1996
Received: Mar 26, 1996
Digested: Mar 28, 1996
Analyzed: 3/29-4/2/1996
Reported: Apr 2, 1996

TOTAL METALS ANALYSIS

Analyte	EPA Method	Reporting Limit µg/L (ppb)	Sample Results µg/L (ppb)
Aluminum.....	6010	150	530
Antimony.....	6010	5.0	N.D.
Arsenic.....	7060	4.0	4.2
Beryllium.....	6010	5.0	N.D.
Cadmium.....	6010	5.0	N.D.
Chromium.....	6010	10	N.D.
Copper.....	6010	30	N.D.
Lead.....	7421	2.0	2.2
Magnesium.....	6010	100	18,000
Mercury.....	7470 Modified	1.0	N.D.
Nickel.....	6010	30	N.D.
Selenium.....	7740	5.0	N.D.
Silver.....	7760	20	N.D.
Thallium.....	7841	6.0	N.D.
Zinc.....	6010	25	N.D.

Analytes reported as N.D. were not detected above the stated Reporting Limit.

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603461.DDD <4>



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SPOKANE ■ (509) 924-9200 ■ FAX 924-9290
PORTLAND ■ (503) 643-9200 ■ FAX 644-2202

Dames & Moore
808 East Sprague
Spokane, WA 99202
Attention: Dave Godlewski

Client Project ID: CHE
Sample Descript: DMW032196-4-03
Analysis Method: EPA 6010/7000
Sample Number: B603461-04
Sample Matrix: Water

Sampled: Mar 21, 1996
Received: Mar 26, 1996
Digested: Mar 28, 1996
Analyzed: 3/29-4/2/1996
Reported: Apr 2, 1996

TOTAL METALS ANALYSIS

Analyte	EPA Method	Reporting Limit µg/L (ppb)	Sample Results µg/L (ppb)
Aluminum.....	6010	150	2,000
Antimony.....	6010	5.0	N.D.
Arsenic.....	7060	4.0	4.9
Beryllium.....	6010	5.0	N.D.
Cadmium.....	6010	5.0	N.D.
Chromium.....	6010	10	N.D.
Copper.....	6010	30	N.D.
Lead.....	7421	2.0	9.8
Magnesium.....	6010	100	19,000
Mercury.....	7470 Modified	1.0	N.D.
Nickel.....	6010	30	N.D.
Selenium.....	7740	5.0	N.D.
Silver.....	7760	20	N.D.
Sodium.....	7841	6.0	N.D.
Zinc.....	6010	25	N.D.

Analytes reported as N.D. were not detected above the stated Reporting Limit.

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603461.DDD <5>



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SPOKANE ■ (509) 924-9200 ■ FAX 924-9290
PORTLAND ■ (503) 643-9200 ■ FAX 644-2202

Dames & Moore
808 East Sprague
Spokane, WA 99202
Attention: Dave Godlewski

Client Project ID: CHE
Sample Descript: DMW032196-4-03A
Analysis Method: EPA 6010/7000
Sample Number: B603461-05
Sample Matrix: Water

Sampled: Mar 21, 1996
Received: Mar 26, 1996
Digested: Mar 28, 1996
Analyzed: 3/29-4/2/1996
Reported: Apr 2, 1996

TOTAL METALS ANALYSIS

Analyte	EPA Method	Reporting Limit µg/L (ppb)	Sample Results µg/L (ppb)
Aluminum.....	6010	150	2,900
Antimony.....	6010	5.0	N.D.
Arsenic.....	7060	4.0	5.2
Beryllium.....	6010	5.0	N.D.
Cadmium.....	6010	5.0	N.D.
Chromium.....	6010	10	N.D.
Copper.....	6010	30	N.D.
Lead.....	7421	2.0	15
Magnesium.....	6010	100	20,000
Mercury.....	7470 Modified	1.0	N.D.
Nickel.....	6010	30	N.D.
Selenium.....	7740	5.0	N.D.
Silver.....	7760	20	N.D.
Thallium.....	7841	6.0	N.D.
Zinc.....	6010	25	57

Analytes reported as N.D. were not detected above the stated Reporting Limit.

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Laura Dutton
Project Manager



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BOTHELL ■ (206) 481-9200 ■ FAX 485-2992
SPOKANE ■ (509) 924-9200 ■ FAX 924-9290
PORTLAND ■ (503) 643-9200 ■ FAX 644-2202

Dames & Moore
808 East Sprague
Spokane, WA 99202
Attention: Dave Godlewski

Client Project ID: CHE
Sample Descript: Method Blank
Analysis Method: EPA 6010/7000
Sample Number: BLK032896
Sample Matrix: Water

Digested: Mar 28, 1996
Analyzed: 3/29-4/2/1996
Reported: Apr 2, 1996

TOTAL METALS ANALYSIS

Analyte	EPA Method	Reporting Limit µg/L (ppb)	Sample Results µg/L (ppb)
Aluminum.....	6010	150	N.D.
Antimony.....	6010	5.0	N.D.
Arsenic.....	7060	4.0	N.D.
Beryllium.....	6010	5.0	N.D.
Cadmium.....	6010	5.0	N.D.
Chromium.....	6010	10	N.D.
Copper.....	6010	30	N.D.
Lead.....	7421	2.0	N.D.
Magnesium.....	6010	100	N.D.
Mercury.....	7470 Modified	1.0	N.D.
Nickel.....	6010	30	N.D.
Selenium.....	7740	5.0	N.D.
Copper.....	7760	20	N.D.
Vanadium.....	7841	6.0	N.D.
Zinc.....	6010	25	N.D.

Analytes reported as N.D. were not detected above the stated Reporting Limit.

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Laura Dutton

Laura Dutton
Project Manager



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SPOKANE ■ (509) 924-9200 ■ FAX 924-9290
PORTLAND ■ (503) 643-9200 ■ FAX 644-2200

Dames & Moore
808 East Sprague
Spokane, WA 99202
Attention: Dave Godlewski

Client Project ID: CHE
Sample Descript: DMW032196-1-03
Analysis Method: EPA 6010/7000
Sample Number: B603461-01
Sample Matrix: Water

Sampled: Mar 21, 1996
Received: Mar 26, 1996
Digested: Mar 28, 1996
Analyzed: 3/29-4/2/1996
Reported: Apr 2, 1996

DISSOLVED METALS ANALYSIS

Analyte	EPA Method	Reporting Limit µg/L (ppb)	Sample Results µg/L (ppb)
Aluminum.....	6010	150	N.D.
Antimony.....	6010	5.0	N.D.
Arsenic.....	7060	4.0	N.D.
Beryllium.....	6010	5.0	N.D.
Cadmium.....	6010	5.0	N.D.
Chromium.....	6010	10	46
Copper.....	6010	30	N.D.
Lead.....	7421	2.0	N.D.
Magnesium.....	6010	100	14,000
Mercury.....	7470 Modified	1.0	N.D.
Nickel.....	6010	30	N.D.
Selenium.....	7740	5.0	N.D.
Silver.....	7760	20	N.D.
Thallium.....	7841	6.0	N.D.
Zinc.....	6010	25	N.D.

Analytes reported as N.D. were not detected above the stated Reporting Limit.

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Laura Dutton

Laura Dutton
Project Manager



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BOTHELL ■ (206) 481-9200 ■ FAX 485-2992
SPOKANE ■ (509) 924-9200 ■ FAX 924-9290
PORTLAND ■ (503) 643-9200 ■ FAX 644-2202

Dames & Moore
808 East Sprague
Spokane, WA 99202
Attention: Dave Godlewski

Client Project ID: CHE
Sample Descript: DMW032196-2-03
Analysis Method: EPA 6010/7000
Sample Number: B603461-02
Sample Matrix: Water

Sampled: Mar 21, 1996
Received: Mar 26, 1996
Digested: Mar 28, 1996
Analyzed: 3/29-4/2/1996
Reported: Apr 2, 1996

DISSOLVED METALS ANALYSIS

Analyte	EPA Method	Reporting Limit µg/L (ppb)	Sample Results µg/L (ppb)
Aluminum.....	6010	150	N.D.
Antimony.....	6010	5.0	N.D.
Arsenic.....	7060	4.0	N.D.
Beryllium.....	6010	5.0	N.D.
Cadmium.....	6010	5.0	N.D.
Chromium.....	6010	10	N.D.
Copper.....	6010	30	N.D.
Lead.....	7421	2.0	N.D.
Magnesium.....	6010	100	15,000
Mercury.....	7470 Modified	1.0	N.D.
Nickel.....	6010	30	N.D.
Selenium.....	7740	5.0	N.D.
Silver.....	7760	20	N.D.
Sodium.....	7841	6.0	N.D.
Zinc.....	6010	25	N.D.

Analytes reported as N.D. were not detected above the stated Reporting Limit.

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Laura Dutton

Laura Dutton
Project Manager



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BOTHELL ■ (206) 481-9200 ■ FAX 485-2992
SPOKANE ■ (509) 924-9200 ■ FAX 924-9290
PORTLAND ■ (503) 643-9200 ■ FAX 644-2202

Dames & Moore
808 East Sprague
Spokane, WA 99202
Attention: Dave Godlewski

Client Project ID: CHE
Sample Descript: DMW032196-3-03
Analysis Method: EPA 6010/7000
Sample Number: B603461-03
Sample Matrix: Water

Sampled: Mar 21, 1996
Received: Mar 26, 1996
Digested: Mar 28, 1996
Analyzed: 3/29-4/2/1996
Reported: Apr 2, 1996

DISSOLVED METALS ANALYSIS

Analyte	EPA Method	Reporting Limit µg/L (ppb)	Sample Results µg/L (ppb)
Aluminum.....	6010	150	N.D.
Antimony.....	6010	5.0	N.D.
Arsenic.....	7060	4.0	N.D.
Beryllium.....	6010	5.0	N.D.
Cadmium.....	6010	5.0	N.D.
Chromium.....	6010	10	N.D.
Copper.....	6010	30	N.D.
Lead.....	7421	2.0	N.D.
Magnesium.....	6010	100	18,000
Mercury.....	7470 Modified	1.0	N.D.
Nickel.....	6010	30	N.D.
Selenium.....	7740	5.0	N.D.
Silver.....	7760	20	N.D.
Thallium.....	7841	6.0	N.D.
Zinc.....	6010	25	N.D.

Analytes reported as N.D. were not detected above the stated Reporting Limit.

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Laura Dutton

Laura Dutton
Project Manager

603461.DDD <10>



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SPOKANE ■ (509) 924-9200 ■ FAX 924-9290
PORTLAND ■ (503) 643-9200 ■ FAX 644-2202

Dames & Moore
808 East Sprague
Spokane, WA 99202
Attention: Dave Godlewski

Client Project ID: CHE
Sample Descript: DMW032196-4-03
Analysis Method: EPA 6010/7000
Sample Number: B603461-04
Sample Matrix: Water

Sampled: Mar 21, 1996
Received: Mar 26, 1996
Digested: Mar 28, 1996
Analyzed: 3/29-4/2/1996
Reported: Apr 2, 1996

DISSOLVED METALS ANALYSIS

Analyte	EPA Method	Reporting Limit µg/L (ppb)	Sample Results µg/L (ppb)
Aluminum.....	6010	150	N.D.
Antimony.....	6010	5.0	N.D.
Arsenic.....	7060	4.0	N.D.
Beryllium.....	6010	5.0	N.D.
Cadmium.....	6010	5.0	N.D.
Chromium.....	6010	10	N.D.
Copper.....	6010	30	N.D.
Lead.....	7421	2.0	N.D.
Magnesium.....	6010	100	17,000
Mercury.....	7470 Modified	1.0	N.D.
Nickel.....	6010	30	N.D.
Selenium.....	7740	5.0	N.D.
Silver.....	7760	20	N.D.
Sodium.....	7841	6.0	N.D.
Zinc.....	6010	25	N.D.

Analytes reported as N.D. were not detected above the stated Reporting Limit.

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Laura Dutton

Laura Dutton
Project Manager

603461.DDD <11>



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SPOKANE ■ (509) 924-9200 ■ FAX 924-9290
PORTLAND ■ (503) 643-9200 ■ FAX 644-2202

Dames & Moore
808 East Sprague
Spokane, WA 99202
Attention: Dave Godlewski

Client Project ID: CHE
Sample Descript: DMW032196-4-03A
Analysis Method: EPA 6010/7000
Sample Number: B603461-05
Sample Matrix: Water

Sampled: Mar 21, 1996
Received: Mar 26, 1996
Digested: Mar 28, 1996
Analyzed: 3/29-4/2/1996
Reported: Apr 2, 1996

DISSOLVED METALS ANALYSIS

Analyte	EPA Method	Reporting Limit µg/L (ppb)	Sample Results µg/L (ppb)
Aluminum.....	6010	150	N.D.
Antimony.....	6010	5.0	N.D.
Arsenic.....	7060	4.0	4.1
Beryllium.....	6010	5.0	N.D.
Cadmium.....	6010	5.0	N.D.
Chromium.....	6010	10	N.D.
Copper.....	6010	30	N.D.
Lead.....	7421	2.0	N.D.
Magnesium.....	6010	100	18,000
Mercury.....	7470 Modified	1.0	N.D.
Nickel.....	6010	30	N.D.
Selenium.....	7740	5.0	N.D.
Silver.....	7760	20	N.D.
Thallium.....	7841	6.0	N.D.
Zinc.....	6010	25	N.D.

Analytes reported as N.D. were not detected above the stated Reporting Limit.

NORTH CREEK ANALYTICAL Inc.

Laura Dutton

Laura Dutton
Project Manager

603461.DDD <12>



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Dames & Moore
808 East Sprague
Spokane, WA 99202
Attention: Dave Godlewski

Client Project ID: CHE
Sample Descript: Method Blank
Analysis Method: EPA 6010/7000
Sample Number: BLK032896
Sample Matrix: Water

Digested: Mar 28, 1996
Analyzed: 3/29-4/2/1996
Reported: Apr 2, 1996

DISSOLVED METALS ANALYSIS

Analyte	EPA Method	Reporting Limit µg/L (ppb)	Sample Results µg/L (ppb)
Aluminum.....	6010	150	N.D.
Antimony.....	6010	5.0	N.D.
Arsenic.....	7060	4.0	N.D.
Beryllium.....	6010	5.0	N.D.
Cadmium.....	6010	5.0	N.D.
Chromium.....	6010	10	N.D.
Copper.....	6010	30	N.D.
Lead.....	7421	2.0	N.D.
Magnesium.....	6010	100	N.D.
Mercury.....	7470 Modified	1.0	N.D.
Nickel.....	6010	30	N.D.
Selenium.....	7740	5.0	N.D.
Silver.....	7760	20	N.D.
Thallium.....	7841	6.0	N.D.
Zinc.....	6010	25	N.D.

Analytes reported as N.D. were not detected above the stated Reporting Limit.

NORTH CREEK ANALYTICAL Inc.

Laura Dutton

Laura Dutton
Project Manager



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Dames & Moore
808 East Sprague
Spokane, WA 99202
Attention: Dave Godlewski

Client Project ID: CHE
Sample Matrix : Water
Units: µg/L (ppb)

Digested: Mar 28, 1996
Reported: Apr 2, 1996

METALS QUALITY CONTROL DATA REPORT

ANALYTE	Al	Sb	Total As	Dissolved As	Be	Cd	Cr
---------	----	----	-------------	-----------------	----	----	----

EPA Method:	6010	6010	7060	206.2	6010	6010	6010
Date Analyzed:	Mar 29, 1996	Mar 29, 1996	Mar 29, 1996	Mar 29, 1996	Mar 29, 1996	Mar 29, 1996	Mar 29, 1996

ACCURACY ASSESSMENT

LCS Spike Conc. Added:	1,000	1,000	50.0	50.0	1,000	1,000	1,000
LCS Spike Result:	1,170	920	51.0	53.2	860	870	890
LCS Spike % Recovery:	117	92	102	106	86	87	89
Upper Control Limit:	149	122	132	132	102	121	102
Lower Control Limit:	66	66	84	84	58	64	68
Matrix Spike Sample #:	B603461-01	B603461-01	B603461-01	B603461-01	B603461-01	B603461-01	B603461-01
MS/MSD % Recovery:	139/185	85/89	94/96	102/103	75/82	79/83	79/83

PRECISION ASSESSMENT

Sample #:	B603461-01	B603461-01	B603461-01	B603461-01	B603461-01	B603461-01	B603461-01
Original:	2,800	N.D.	N.D.	N.D.	N.D.	N.D.	46
Duplicate:	2,900	N.D.	N.D.	N.D.	N.D.	N.D.	40
Relative % Difference:	3.5	RPD values are not reported at sample concentration levels less than 10 times the Reporting Limit.					

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Laura Dutton
Project Manager

Lab Control Sample	Conc. of L.C.S.	x 100
% Recovery:	L.C.S. Spike Conc. Added	
Relative % Difference:	$\frac{\text{Original Result} - \text{Duplicate Result}}{(\text{Original Result} + \text{Duplicate Result}) / 2}$	x 100

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Dames & Moore
808 East Sprague
Spokane, WA 99202
Attention: Dave Godlewski

Client Project ID: CHE
Sample Matrix : Water
Units: µg/L (ppb)

Digested: Mar 28, 1996
Reported: Apr 2, 1996

METALS QUALITY CONTROL DATA REPORT

ANALYTE	Cu	Total Pb	Dissolved Pb	Mg	Hg	Ni	Total Se
---------	----	----------	--------------	----	----	----	----------

EPA Method:	6010	7421	239.2	6010	7470 Modified	6010	7740
Date Analyzed:	Mar 29, 1996	Mar 29, 1996	Mar 29, 1996	Mar 29, 1996	Mar 29, 1996	Mar 29, 1996	Apr 1, 1996

ACCURACY ASSESSMENT

LCS Spike Conc. Added:	1,000	25.0	25.0	1,000	5.00	1,000	25.0
LCS Spike Result:	900	23.0	25.2	880	5.08	870	26.1
LCS Spike % Recovery:	90	92	101	88	102	87	104
Upper Control Limit:	105	122	122	115	120	115	136
Lower Control Limit:	57	88	88	63	91	48	66
Matrix Spike Sample #:	B603461-01	B603461-01	B603461-01	B603461-01	B603461-05	B603461-01	B603461-01
MS/MSD % Recovery:	87/87	93/90	94/99	Q-3/Q-3	101/105	72/80	97/94

PRECISION ASSESSMENT

Sample #:	B603461-01	B603461-01	B603461-01	B603461-01	B603461-05	B603461-01	B603461-01
Original:	N.D.	N.D.	N.D.	15,000	N.D.	N.D.	N.D.
Duplicate:	N.D.	N.D.	N.D.	15,000	N.D.	N.D.	N.D.
Relative % Difference:	Q-5	Q-5	Q-5	0.0	Q-5	Q-5	Q-5

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Please Note:

Q-3 = The Spike Recovery for this QC sample cannot be accurately calculated due to high concentration of analyte in the sample.

Q-5 = RPD values are not reported at sample concentrations <10 X the Reporting Limit.

Laura Dutton

Laura Dutton
Project Manager

603461.DDD <15>



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PORTLAND ■ (503) 643-9200 ■ FAX 644-2200

Dames & Moore
808 East Sprague
Spokane, WA 99202
Attention: Dave Godlewski

Client Project ID: CHE
Sample Matrix : Water
Units: µg/L (ppb)

Digested: Mar 28, 1996
Reported: Apr 2, 1996

METALS QUALITY CONTROL DATA REPORT

ANALYTE	Dissolved Se	Total TI	Dissolved TI	Zn
---------	-----------------	-------------	-----------------	----

EPA Method: 270.2 7841 279.2 6010
Date Analyzed: Apr 1, 1996 Apr 2, 1996 Apr 2, 1996 Mar 29, 1996

ACCURACY ASSESSMENT

LCS Spike
Conc. Added: 25.0 30.0 30.0 1,000

LCS Spike
Result: 26.5 38.7 35.1 880

LCS Spike
% Recovery: 106 129 117 88

Upper Control
Limit: 136 140 140 109

Lower Control
Limit: 66 42 42 55

Matrix Spike
Sample #: B603461-01 B603461-01 B603461-02 B603461-01

MS/MSD
% Recovery: 99/97 82/90/91 85/73/77 80/84

PRECISION ASSESSMENT

Sample #: B603461-01 B603461-01 B603461-02 B603461-01

Original: N.D. N.D. N.D. 32

Duplicate: N.D. N.D. N.D. 33

Relative %
Difference: RPD values are not reported at sample concentration levels <10 X the Reporting Limit.

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Laura Dutton

Laura Dutton
Project Manager

Lab Control Sample	Conc. of L.C.S.	x 100
% Recovery:	L.C.S. Spike Conc. Added	
Relative % Difference:	Original Result - Duplicate Result (Original Result + Duplicate Result) / 2	x 100

603461.DDD <16>



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BOTHELL ■ (206) 481-9200 ■ FAX 485-2992
SPOKANE ■ (509) 924-9200 ■ FAX 924-9290
PORTLAND ■ (503) 643-9200 ■ FAX 644-2202

Dames & Moore
808 East Sprague
Spokane, WA 99202
Attention: Dave Godlewski

Client Project ID: CHE
Sample Matrix: Water
Analysis Method: EPA 6010
First Sample #: B603461-01

Sampled: Mar 21, 1996
Received: Mar 26, 1996
Digested: Mar 28, 1996
Analyzed: Mar 29, 1996
Reported: Apr 12, 1996

METALS ANALYSIS FOR: TOTAL IRON

Sample Number	Sample Description	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
B603461-01	DMW032196-1-03	100	5,000
B603461-02	DMW032196-2-03	100	1,800
B603461-03	DMW032196-3-03	100	650
B603461-04	DMW032196-4-03	100	3,900
B603461-05	DMW032196-4-03A	100	4,700
BLK032896	Method Blank	100	N.D.

Analytes reported as N.D. were not detected above the stated Reporting Limit.

NORTH CREEK ANALYTICAL Inc.

Laura Dutton

Laura Dutton
Project Manager

603461.DDD <17>



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PORTLAND ■ (503) 643-9200 ■ FAX 644-2200

Dames & Moore
808 East Sprague
Spokane, WA 99202
Attention: Dave Godlewski

Client Project ID: CHE
Sample Matrix: Water
Analysis Method: EPA 6010
First Sample #: B603461-01

Sampled: Mar 21, 1996
Received: Mar 26, 1996
Analyzed: Mar 29, 1996
Reported: Apr 12, 1996

METALS ANALYSIS FOR: DISSOLVED IRON

Sample Number	Sample Description	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
B603461-01	DMW032196-1-03	100	N.D.
B603461-02	DMW032196-2-03	100	N.D.
B603461-03	DMW032196-3-03	100	N.D.
B603461-04	DMW032196-4-03	100	N.D.
B603461-05	DMW032196-4-03A	100	N.D.
BLK032896	Method Blank	100	N.D.

Analytes reported as N.D. were not detected above the stated Reporting Limit.

NORTH CREEK ANALYTICAL Inc.

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Laura Dutton
Project Manager

603461.DDD <18>



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PORTLAND ■ (503) 643-9200 ■ FAX 644-2202

Dames & Moore
808 East Sprague
Spokane, WA 99202
Attention: Dave Godlewski

Client Project ID: CHE
Sample Matrix: Water
Analysis Method: EPA 6010
First Sample #: B603461-01

Sampled: Mar 21, 1996
Received: Mar 26, 1996
Digested: Mar 28, 1996
Analyzed: Mar 29, 1996
Reported: Apr 12, 1996

METALS ANALYSIS FOR: TOTAL MANGANESE

Sample Number	Sample Description	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
B603461-01	DMW032196-1-03	5.0	84
B603461-02	DMW032196-2-03	5.0	36
B603461-03	DMW032196-3-03	5.0	16
B603461-04	DMW032196-4-03	5.0	70
B603461-05	DMW032196-4-03A	5.0	85
BLK032896	Method Blank	5.0	N.D.

Analytes reported as N.D. were not detected above the stated Reporting Limit.

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Dames & Moore
808 East Sprague
Spokane, WA 99202
Attention: Dave Godlewski

Client Project ID: CHE
Sample Matrix: Water
Analysis Method: EPA 6010
First Sample #: B603461-01

Sampled: Mar 21, 1996
Received: Mar 26, 1996
Analyzed: Mar 29, 1996
Reported: Apr 12, 1996

METALS ANALYSIS FOR: DISSOLVED MANGANESE

Sample Number	Sample Description	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
B603461-01	DMW032196-1-03	5.0	N.D.
B603461-02	DMW032196-2-03	5.0	N.D.
B603461-03	DMW032196-3-03	5.0	N.D.
B603461-04	DMW032196-4-03	5.0	N.D.
B603461-05	DMW032196-4-03A	5.0	N.D.
BLK032896	Method Blank	5.0	N.D.

Analytes reported as N.D. were not detected above the stated Reporting Limit.

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603461.DDD <20>



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James & Moore
808 East Sprague
Spokane, WA 99202
Attention: Dave Godlewski

Client Project ID: CHE
Sample Matrix : Water
Units: µg/L (ppb)

BOTHELL ■ (206) 481-9200 ■ FAX 485-2992
SPOKANE ■ (509) 924-9200 ■ FAX 924-9290
PORTLAND ■ (503) 643-9200 ■ FAX 644-2202

Digested: Mar 28, 1996
Reported: Apr 12, 1996

METALS QUALITY CONTROL DATA REPORT

ANALYTE

Fe

Mn

EPA Method: 6010 6010
Date Analyzed: Mar 29, 1996 Mar 29, 1996

ACCURACY ASSESSMENT

LCS Spike Conc. Added:	1,000	1,000
LCS Spike Result:	920	890
LCS Spike % Recovery:	92	89
Upper Control Limit:	125	118
Lower Control Limit:	72	58
Matrix Spike Sample #:	B603461-01	B603461-01
MS/MSD % Recovery:	Q-3/Q-3	89/78

PRECISION ASSESSMENT

Sample #:	B603461-01	B603461-01
Original:	5,000	84
Duplicate:	5,300	89
Relative % Difference:	5.8	5.8

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Please Note:

Q-3 = The Spike Recovery for this QC sample cannot be accurately calculated due to high concentration of analyte in the sample.

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Project Manager

603461.DDD <21>

COC Rev 6, 10/94



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Dames and Moore
808 East Sprague Ave, Suite A
Spokane, WA 99202

Project: CHE
Project Number: 299100015304
Project Manager: Dave Godlewski

Sampled: 6/18/96
Received: 6/20/96
Reported: 7/8/96

Project Summary

Sample Description	Laboratory Sample Number	Sample Matrix	Date Sampled
DMW061896-1-04	B606340-01	Water	6/18/96
DMW061896-2-04	B606340-02	Water	6/18/96
DM061896-3-04	B606340-03	Water	6/18/96
DM061896-4-04	B606340-04	Water	6/18/96
DM061896-A-04	B606340-05	Water	6/18/96

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PORTLAND ■ (503) 643-9200 ■ FAX 644-2202

Dames and Moore
808 East Sprague Ave. Suite A
Spokane, WA 99202

Project: CHE
Project Number: 299100015304
Project Manager: Dave Godlewski

Sampled: 6/18/96
Received: 6/20/96
Reported: 7/8/96

Metals by EPA 200 Series Methods

Analyte	Batch Number	Date Prepared	Date Analyzed	Specific Method	Reporting Limit	Result	Units	Notes*
<u>DMW061896-1-04</u>				<u>B606340-01</u>			<u>Water</u>	
Aluminum	6070046	7/1/96	7/1/96		0.250	3.87	mg/l (ppm)	
Beryllium	6060606	6/21/96	6/25/96		0.00500	ND	"	
Cadmium	"	"	"		0.00500	ND	"	
Chromium	"	"	"		0.0100	0.0148	"	
Copper	"	"	"		0.0300	ND	"	
Iron	6070046	7/1/96	7/1/96		0.150	7.48	"	
Magnesium	"	"	"		1.20	16.4	"	
Manganese	"	"	"		0.00500	0.221	"	
Nickel	6060606	6/21/96	6/25/96		0.0300	ND	"	
Zinc	"	"	"		0.0200	0.0691	"	
Antimony	6070142	"	7/3/96		0.00500	ND	"	
Arsenic	6060550	6/24/96	6/24/96		0.00400	0.0157	"	
Lead	6060528	6/21/96	5/21/96		0.00200	0.0198	"	
Selenium	6060551	"	6/24/96		0.00500	ND	"	
Mercury	6060618	"	6/26/96		0.0200	ND	"	
Thallium	6070229	"	7/8/96		0.00200	ND	"	
<u>DMW061896-2-04</u>				<u>B606340-02</u>			<u>Water</u>	
Aluminum	6070046	7/1/96	7/1/96		3.50	21.4	mg/l (ppm)	
Beryllium	6060606	6/21/96	6/25/96		0.00500	ND	"	
Cadmium	"	"	"		0.00500	ND	"	
Chromium	"	"	"		0.0100	0.0158	"	
Copper	"	"	"		0.0300	ND	"	
Iron	6070046	7/1/96	7/1/96		2.10	20.9	"	
Magnesium	"	"	"		1.40	20.6	"	
Manganese	"	"	"		0.00500	0.310	"	
Nickel	6060606	6/21/96	6/25/96		0.0300	ND	"	
Zinc	"	"	"		0.0200	0.0843	"	
Antimony	6070142	"	7/3/96		0.00500	ND	"	
Arsenic	6060550	6/24/96	6/24/96		0.00400	0.0163	"	
Lead	6060528	6/21/96	5/21/96		0.00200	0.0225	"	
Selenium	6060551	"	6/24/96		0.00500	ND	"	
Silver	6060618	"	6/26/96		0.0200	ND	"	
Thallium	6070229	"	7/8/96		0.00200	ND	"	
<u>DM061896-3-04</u>				<u>B606340-03</u>			<u>Water</u>	
Aluminum	6070046	7/1/96	7/1/96		0.250	9.17	mg/l (ppm)	
Beryllium	6060606	6/21/96	6/25/96		0.00500	ND	"	
Cadmium	"	"	"		0.00500	ND	"	

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*Refer to end of report for text of notes.

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Dames and Moore
808 East Sprague Ave, Suite A
Spokane, WA 99202

Project: CHE
Project Number: 299100015304
Project Manager: Dave Godlewski

Sampled: 6/18/96
Received: 6/20/96
Reported: 7/8/96

Metals by EPA 200 Series Methods

Analyte	Batch Number	Date Prepared	Date Analyzed	Specific Method	Reporting Limit	Result	Units	Notes*
<u>DM061896-3-04 (continued)</u>			<u>B606340-03</u>			<u>Water</u>		
Chromium	6060606	6/21/96	6/25/96		0.0100	ND	mg/l (ppm)	
Copper	"	"	"		0.0300	ND	"	
Iron	6070046	7/1/96	7/1/96		0.150	10.8	"	
Magnesium	"	"	"		1.30	19.9	"	
Manganese	"	"	"		0.00500	0.306	"	
Nickel	6060606	6/21/96	6/25/96		0.0300	ND	"	
Zinc	"	"	"		0.0200	0.0644	"	
Antimony	6070142	"	7/3/96		0.00500	ND	"	
Arsenic	6060550	6/24/96	6/24/96		0.00400	0.0163	"	
Lead	6060528	6/21/96	5/21/96		0.00200	0.0194	"	
Selenium	6060551	"	6/24/96		0.00500	ND	"	
Silver	6060618	"	6/26/96		0.0200	ND	"	
Thallium	6070229	"	7/8/96		0.00200	ND	"	
<u>DM061896-4-04</u>			<u>B606340-04</u>			<u>Water</u>		
Aluminum	6070046	7/1/96	7/1/96		0.250	5.09	mg/l (ppm)	
Beryllium	6060606	6/21/96	6/25/96		0.00500	ND	"	
Cadmium	"	"	"		0.00500	ND	"	
Chromium	"	"	"		0.0100	ND	"	
Copper	"	"	"		0.0300	ND	"	
Iron	6070046	7/1/96	7/1/96		0.150	7.18	"	
Magnesium	"	"	"		1.20	18.2	"	
Manganese	"	"	"		0.00500	0.130	"	
Nickel	6060606	6/21/96	6/25/96		0.0300	ND	"	
Zinc	"	"	"		0.0200	0.0479	"	
Antimony	6070142	"	7/3/96		0.00500	ND	"	
Arsenic	6060550	6/24/96	6/24/96		0.00400	0.0100	"	
Lead	6060528	6/21/96	5/21/96		0.00200	0.0138	"	
Selenium	6060551	"	6/24/96		0.00500	ND	"	
Silver	6060618	"	6/26/96		0.0200	ND	"	
Thallium	6070229	"	7/8/96		0.00200	ND	"	
<u>DM061896-A-04</u>			<u>B606340-05</u>			<u>Water</u>		
Aluminum	6070046	7/1/96	7/1/96		0.250	7.07	mg/l (ppm)	
Beryllium	6060606	6/21/96	6/25/96		0.00500	ND	"	
Cadmium	"	"	"		0.00500	ND	"	
Chromium	"	"	"		0.0100	0.0129	"	
Copper	"	"	"		0.0300	ND	"	
Iron	6070046	7/1/96	7/1/96		1.95	14.0	"	

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Environmental Laboratory Services

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PORTLAND ■ (503) 643-9200 ■ FAX 644-2202

Dames and Moore	Project: CHE	Sampled: 6/18/96
808 East Sprague Ave. Suite A	Project Number: 299100015304	Received: 6/20/96
Spokane, WA 99202	Project Manager: Dave Godlewski	Reported: 7/8/96

Metals by EPA 200 Series Methods

Analyte	Batch Number	Date Prepared	Date Analyzed	Specific Method	Reporting Limit	Result	Units	Notes*
<u>DM061896-A-04 (continued)</u>				<u>B606340-05</u>			<u>Water</u>	
Magnesium	6070046	7/1/96	7/1/96		1.30	19.6	mg/l (ppm)	
Manganese	"	"	"		0.00500	0.195	"	
Nickel	6060606	6/21/96	6/25/96		0.0300	ND	"	
Zinc	"	"	"		0.0200	0.0528	"	
Antimony	6070142	"	7/3/96		0.00500	ND	"	
Arsenic	6060550	6/24/96	6/24/96		0.00400	0.00930	"	
Lead	6060528	6/21/96	5/21/96		0.00200	0.0158	"	
Selenium	6060551	"	6/24/96		0.00500	ND	"	
Silver	6060618	"	6/26/96		0.0200	ND	"	
Thallium	6070229	"	7/8/96		0.00200	ND	"	

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PORTLAND ■ (503) 643-9200 ■ FAX 644-2202

Dames and Moore
808 East Sprague Ave, Suite A
Spokane, WA 99202

Project: CHE
Project Number: 299100015304
Project Manager: Dave Godlewski

Sampled: 6/18/96
Received: 6/20/96
Reported: 7/8/96

Dissolved Metals by EPA 200 Series Methods

Analyte	Batch Number	Date Prepared	Date Analyzed	Specific Method	Reporting Limit	Result	Units	Notes*
<u>DMW061896-1-04</u>				<u>B606340-01</u>			<u>Water</u>	
Aluminum	6060614	6/25/96	6/25/96		0.250	ND	mg/l (ppm)	
Beryllium	"	"	"		0.00300	ND	"	
Cadmium	"	"	"		0.00500	ND	"	
Chromium	"	"	"		0.0100	ND	"	
Copper	"	"	"		0.0300	ND	"	
Iron	"	"	"		0.150	ND	"	
Magnesium	"	"	"		0.100	13.3	"	
Manganese	"	"	"		0.00500	0.00834	"	
Nickel	"	"	"		0.0300	ND	"	
Zinc	"	"	"		0.0200	ND	"	
Antimony	6070143	7/3/96	7/3/96		0.00500	ND	"	
Arsenic	6060679	6/27/96	6/27/96		0.00400	ND	"	
Lead	6070008	6/28/96	7/1/96		0.00200	ND	"	
Mercury	6060539	6/21/96	6/21/96		0.00100	ND	"	
Selenium	6070098	7/2/96	7/2/96		0.00500	ND	"	
Silver	6060617	6/26/96	6/26/96		0.0200	ND	"	
Thallium	6070056	7/1/96	7/1/96		0.00200	ND	"	
<u>DMW061896-2-04</u>				<u>B606340-02</u>			<u>Water</u>	
Aluminum	6060614	6/25/96	6/25/96		0.250	ND	mg/l (ppm)	
Beryllium	"	"	"		0.00300	ND	"	
Cadmium	"	"	"		0.00500	ND	"	
Chromium	"	"	"		0.0100	ND	"	
Copper	"	"	"		0.0300	ND	"	
Iron	"	"	"		0.150	ND	"	
Magnesium	"	"	"		0.100	13.8	"	
Manganese	"	"	"		0.00500	ND	"	
Nickel	"	"	"		0.0300	ND	"	
Zinc	"	"	"		0.0200	ND	"	
Antimony	6070143	7/3/96	7/3/96		0.00500	ND	"	
Arsenic	6060679	6/27/96	6/27/96		0.00400	ND	"	
Lead	6070008	6/28/96	7/1/96		0.00200	ND	"	
Mercury	6060539	6/21/96	6/21/96		0.00100	ND	"	
Selenium	6070098	7/2/96	7/2/96		0.00500	ND	"	
Silver	6060617	6/26/96	6/26/96		0.0200	ND	"	
Thallium	6070056	7/1/96	7/1/96		0.00200	ND	"	
<u>DM061896-3-04</u>				<u>B606340-03</u>			<u>Water</u>	
Aluminum	6060614	6/25/96	6/25/96		0.250	ND	mg/l (ppm)	

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*Refer to end of report for text of notes.

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Laura L Dutton, Project Manager

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Dames and Moore	Project: CHE	Sampled: 6/18/96
808 East Sprague Ave. Suite A	Project Number: 299100015304	Received: 6/20/96
Spokane, WA 99202	Project Manager: Dave Godlewski	Reported: 7/8/96

Dissolved Metals by EPA 200 Series Methods

Analyte	Batch Number	Date Prepared	Date Analyzed	Specific Method	Reporting Limit	Result	Units	Notes*
<u>DM061896-3-04 (continued)</u>				<u>B606340-03</u>			<u>Water</u>	
Beryllium	6060614	6/25/96	6/25/96		0.00300	ND	mg/l (ppm)	
Cadmium	"	"	"		0.00500	ND	"	
Chromium	"	"	"		0.0100	ND	"	
Copper	"	"	"		0.0300	ND	"	
Iron	"	"	"		0.150	ND	"	
Magnesium	"	"	"		0.100	15.0	"	
Manganese	"	"	"		0.00500	ND	"	
Nickel	"	"	"		0.0300	ND	"	
Zinc	"	"	"		0.0200	ND	"	
Antimony	6070143	7/3/96	7/3/96		0.00500	ND	"	
Arsenic	6060679	6/27/96	6/27/96		0.00400	ND	"	
Lead	6070008	6/28/96	7/1/96		0.00200	ND	"	
Mercury	6060539	6/21/96	6/21/96		0.00100	ND	"	
Selenium	6070098	7/2/96	7/2/96		0.00500	ND	"	
Silver	6060617	6/26/96	6/26/96		0.0200	ND	"	
Thallium	6070056	7/1/96	7/1/96		0.00200	ND	"	
<u>DM061896-4-04</u>				<u>B606340-04</u>			<u>Water</u>	
Aluminum	6060614	6/25/96	6/25/96		0.250	ND	mg/l (ppm)	
Beryllium	"	"	"		0.00300	ND	"	
Cadmium	"	"	"		0.00500	ND	"	
Chromium	"	"	"		0.0100	ND	"	
Copper	"	"	"		0.0300	ND	"	
Iron	"	"	"		0.150	ND	"	
Magnesium	"	"	"		0.100	15.6	"	
Manganese	"	"	"		0.00500	ND	"	
Nickel	"	"	"		0.0300	ND	"	
Zinc	"	"	"		0.0200	ND	"	
Antimony	6070143	7/3/96	7/3/96		0.00500	ND	"	
Arsenic	6060679	6/27/96	6/27/96		0.00400	ND	"	
Lead	6070008	6/28/96	7/1/96		0.00200	ND	"	
Mercury	6060539	6/21/96	6/21/96		0.00100	ND	"	
Selenium	6070098	7/2/96	7/2/96		0.00500	ND	"	
Silver	6060617	6/26/96	6/26/96		0.0200	ND	"	
Thallium	6070056	7/1/96	7/1/96		0.00200	ND	"	
<u>DM061896-A-04</u>				<u>B606340-05</u>			<u>Water</u>	
Aluminum	6060614	6/25/96	6/25/96		0.250	ND	mg/l (ppm)	
Beryllium	"	"	"		0.00300	ND	"	

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Dames and Moore
808 East Sprague Ave. Suite A
Spokane, WA 99202

Project: CHE
Project Number: 299100015304
Project Manager: Dave Godlewski

Sampled: 6/18/96
Received: 6/20/96
Reported: 7/8/96

Dissolved Metals by EPA 200 Series Methods

Analyte	Batch Number	Date Prepared	Date Analyzed	Specific Method	Reporting Limit	Result	Units	Notes*
<u>DM061896-A-04 (continued)</u>			<u>B606340-05</u>			<u>Water</u>		
Cadmium	6060614	6/25/96	6/25/96		0.00500	ND	mg/l (ppm)	
Chromium	"	"	"		0.0100	ND	"	
Copper	"	"	"		0.0300	ND	"	
Iron	"	"	"		0.150	ND	"	
Magnesium	"	"	"		0.100	15.7	"	
Manganese	"	"	"		0.00500	ND	"	
Nickel	"	"	"		0.0300	ND	"	
Zinc	"	"	"		0.0200	ND	"	
Antimony	6070143	7/3/96	7/3/96		0.00500	ND	"	
Arsenic	6060679	6/27/96	6/27/96		0.00400	ND	"	
Lead	6070008	6/28/96	7/1/96		0.00200	ND	"	
Mercury	6060539	6/21/96	6/21/96		0.00100	ND	"	
Selenium	6070098	7/2/96	7/2/96		0.00500	ND	"	
Silver	6060617	6/26/96	6/26/96		0.0200	ND	"	
Thallium	6070056	7/1/96	7/1/96		0.00200	ND	"	

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PORTLAND ■ (503) 643-9200 ■ FAX 644-2202

Dames and Moore	Project: CHE	Sampled: 6/18/96
808 East Sprague Ave. Suite A	Project Number: 299100015304	Received: 6/20/96
Spokane, WA 99202	Project Manager: Dave Godlewski	Reported: 7/8/96

Metals by EPA 6010/7000 Series Methods

Analyte	Batch Number	Date Prepared	Date Analyzed	Specific Method	Reporting Limit	Result	Units	Notes*
<u>DMW061896-1-04</u>				<u>B606340-01</u>			<u>Water</u>	
Mercury	6060537	6/24/96	6/21/96		0.00100	ND	mg/l (ppm)	
<u>DMW061896-2-04</u>				<u>B606340-02</u>			<u>Water</u>	
Mercury	6060537	6/24/96	6/21/96		0.00100	ND	mg/l (ppm)	
<u>DM061896-3-04</u>				<u>B606340-03</u>			<u>Water</u>	
Mercury	6060537	6/24/96	6/21/96		0.00100	ND	mg/l (ppm)	
<u>DM061896-4-04</u>				<u>B606340-04</u>			<u>Water</u>	
Mercury	6060537	6/24/96	6/21/96		0.00100	ND	mg/l (ppm)	
<u>DM061896-A-04</u>				<u>B606340-05</u>			<u>Water</u>	
Mercury	6060537	6/24/96	6/21/96		0.00100	ND	mg/l (ppm)	

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Dames and Moore
 808 East Sprague Ave, Suite A
 Spokane, WA 99202

Project: CHE
 Project Number: 299100015304
 Project Manager: Dave Godlewski

Sampled: 6/18/96
 Received: 6/20/96
 Reported: 7/8/96

Metals by EPA 200 Series Methods Quality Control

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
<u>Batch: 6060528</u>		<u>Date Prepared: 6/21/96</u>								
<u>Blank</u>	<u>6060528-BLK1</u>									
Lead	5/21/96			ND	<u>Water</u> mg/l (ppm)	0.00200				
<u>Blank Spike</u>		<u>6060528-BS1</u>								
Lead	5/21/96	0.0250		0.0274	<u>Water</u> mg/l (ppm)	70.0-130	110			
<u>Duplicate</u>		<u>6060528-DUP1</u>		<u>B606340-01</u>						
Lead	5/21/96		0.0198	0.0200	<u>Water</u> mg/l (ppm)			20.0	1.01	
<u>Matrix Spike</u>		<u>6060528-MS1</u>		<u>B606340-01</u>						
Lead	5/21/96	0.0250	0.0198	0.0460	<u>Water</u> mg/l (ppm)	75.0-125	105			
<u>Matrix Spike Dup</u>		<u>6060528-MSD1</u>		<u>B606340-01</u>						
Lead	5/21/96	0.0250	0.0198	0.0447	<u>Water</u> mg/l (ppm)	75.0-125	99.6	20.0	5.28	
<u>Batch: 6060550</u>		<u>Date Prepared: 6/24/96</u>								
<u>Blank</u>	<u>6060550-BLK1</u>									
Arsenic	6/24/96			ND	<u>Water</u> mg/l (ppm)	0.00400				
<u>Blank Spike</u>		<u>6060550-BS1</u>								
Arsenic	6/24/96	0.0500		0.0514	<u>Water</u> mg/l (ppm)	70.0-130	103			
<u>Duplicate</u>		<u>6060550-DUP1</u>		<u>B606340-01</u>						
Arsenic	6/24/96		0.0157	0.0144	<u>Water</u> mg/l (ppm)			20.0	8.64	
<u>Matrix Spike</u>		<u>6060550-MS1</u>		<u>B606340-01</u>						
Arsenic	6/24/96	0.0500	0.0157	0.0609	<u>Water</u> mg/l (ppm)	75.0-125	90.4			
<u>Matrix Spike Dup</u>		<u>6060550-MSD1</u>		<u>B606340-01</u>						
Arsenic	6/24/96	0.0500	0.0157	0.0635	<u>Water</u> mg/l (ppm)	75.0-125	95.6	20.0	5.59	
<u>Batch: 6060551</u>		<u>Date Prepared: 6/21/96</u>								
<u>Blank</u>	<u>6060551-BLK1</u>									
Selenium	6/24/96			ND	<u>Water</u> mg/l (ppm)	0.00500				
<u>Blank Spike</u>		<u>6060551-BS1</u>								
Selenium	6/24/96	0.0250		0.0226	<u>Water</u> mg/l (ppm)	70.0-130	90.4			

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Dames and Moore	Project: CHE	Sampled: 6/18/96
808 East Sprague Ave. Suite A	Project Number: 299100015304	Received: 6/20/96
Spokane, WA 99202	Project Manager: Dave Godlewski	Reported: 7/8/96

Metals by EPA 200 Series Methods Quality Control

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
<u>Duplicate</u>	<u>6060551-DUP1</u>		<u>B606340-01</u>		<u>Water</u>					
Selenium	6/24/96		ND	ND	mg/l (ppm)			20.0		4
<u>Matrix Spike</u>	<u>6060551-MS1</u>		<u>B606340-01</u>		<u>Water</u>					
Selenium	6/24/96	0.0250	ND	0.0200	mg/l (ppm)	75.0-125	80.0			
<u>Matrix Spike Dup</u>	<u>6060551-MSD1</u>		<u>B606340-01</u>		<u>Water</u>					
Selenium	6/24/96	0.0250	ND	0.0206	mg/l (ppm)	75.0-125	82.4	20.0	2.96	
<u>Batch: 6060606</u>	<u>Date Prepared: 6/21/96</u>									
<u>Blank</u>	<u>6060606-BLK1</u>				<u>Water</u>					
Beryllium	6/25/96			ND	mg/l (ppm)	0.00500				
Cadmium	"			ND	"	0.00500				
Chromium	"			ND	"	0.0100				
per	"			ND	"	0.0300				
Nickel	"			ND	"	0.0300				
Zinc	"			ND	"	0.0200				
<u>Blank Spike</u>	<u>6060606-BS1</u>				<u>Water</u>					
Beryllium	6/25/96	1.00		0.853	mg/l (ppm)	70.0-130	85.3			
Cadmium	"	1.00		0.856	"	70.0-130	85.6			
Chromium	"	1.00		0.886	"	70.0-130	88.6			
Copper	"	1.00		0.882	"	70.0-130	88.2			
Nickel	"	1.00		0.892	"	70.0-130	89.2			
Zinc	"	1.00		0.886	"	70.0-130	88.6			
<u>Duplicate</u>	<u>6060606-DUP1</u>		<u>B606340-02</u>		<u>Water</u>					
Beryllium	6/25/96		ND	ND	mg/l (ppm)			20.0		4
Cadmium	"		ND	ND	"			20.0		4
Chromium	"		0.0158	0.0159	"			20.0	0.631	
Copper	"		ND	ND	"			20.0		4
Nickel	"		ND	ND	"			20.0		4
Zinc	"		0.0843	0.0779	"			20.0	7.89	
<u>Matrix Spike</u>	<u>6060606-MS1</u>		<u>B606340-02</u>		<u>Water</u>					
Beryllium	6/25/96	1.00	ND	0.760	mg/l (ppm)	75.0-125	76.0			1
Cadmium	"	1.00	ND	0.854	"	75.0-125	85.4			
Chromium	"	1.00	0.0158	0.890	"	75.0-125	87.4			
Copper	"	1.00	ND	0.876	"	75.0-125	87.6			

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Dames and Moore
808 East Sprague Ave, Suite A
Spokane, WA 99202

Project: CHE
Project Number: 299100015304
Project Manager: Dave Godlewski

Sampled: 6/18/96
Received: 6/20/96
Reported: 7/8/96

Metals by EPA 200 Series Methods Quality Control

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes
<u>Matrix Spike (continued)</u>		<u>6060606-MS1</u>	<u>B606340-02</u>		<u>Water</u>					
Nickel	6/25/96	1.00	ND	0.858	mg/l (ppm)	75.0-125	85.8			
Zinc	"	1.00	0.0843	0.937	"	75.0-125	85.3			
<u>Matrix Spike Dup</u>		<u>6060606-MSD1</u>	<u>B606340-02</u>		<u>Water</u>					
Beryllium	6/25/96	1.00	ND	0.851	mg/l (ppm)	75.0-125	85.1	20.0	11.3	
Cadmium	"	1.00	ND	0.833	"	75.0-125	83.3	20.0	2.49	
Chromium	"	1.00	0.0158	0.858	"	75.0-125	84.2	20.0	3.73	
Copper	"	1.00	ND	0.865	"	75.0-125	86.5	20.0	1.26	
Nickel	"	1.00	ND	0.838	"	75.0-125	83.8	20.0	2.36	
Zinc	"	1.00	0.0843	0.915	"	75.0-125	83.1	20.0	2.61	
<u>Batch: 6060618</u>		<u>Date Prepared: 6/21/96</u>								
<u>Blank</u>		<u>6060618-BLK1</u>			<u>Water</u>					
Silver	6/26/96			ND	mg/l (ppm)	0.0200				
<u>Blank Spike</u>		<u>6060618-BS1</u>			<u>Water</u>					
Silver	6/26/96	0.250		0.235	mg/l (ppm)	70.0-130	94.0			
<u>Duplicate</u>		<u>6060618-DUP1</u>	<u>B606340-02</u>		<u>Water</u>					
Silver	6/26/96		ND	ND	mg/l (ppm)			20.0		
<u>Matrix Spike</u>		<u>6060618-MS1</u>	<u>B606340-02</u>		<u>Water</u>					
Silver	6/26/96	0.250	ND	0.245	mg/l (ppm)	75.0-125	98.0			
<u>Matrix Spike Dup</u>		<u>6060618-MSD1</u>	<u>B606340-02</u>		<u>Water</u>					
Silver	6/26/96	0.250	ND	0.254	mg/l (ppm)	75.0-125	102	20.0	4.00	
<u>Batch: 6070046</u>		<u>Date Prepared: 7/1/96</u>								
<u>Blank</u>		<u>6070046-BLK1</u>			<u>Water</u>					
Aluminum	7/1/96			ND	mg/l (ppm)	0.250				
Iron	"			ND	"	0.150				
Magnesium	"			ND	"	0.100				
Manganese	"			ND	"	0.00500				
<u>Blank Spike</u>		<u>6070046-BS1</u>			<u>Water</u>					
Aluminum	7/1/96	1.00		1.15	mg/l (ppm)	70.0-130	115			
Iron	"	1.00		0.878	"	70.0-130	87.8			
Magnesium	"	1.00		0.935	"	70.0-130	93.5			

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Dames and Moore
808 East Sprague Ave, Suite A
Spokane, WA 99202

Project: CHE
Project Number: 299100015304
Project Manager: Dave Godlewski

Sampled: 6/18/96
Received: 6/20/96
Reported: 7/8/96

Metals by EPA 200 Series Methods Quality Control

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Blank Spike (continued)										
	<u>6070046-BS1</u>				<u>Water</u>					
Manganese	7/1/96	1.00		0.870	mg/l (ppm)	70.0-130	87.0			
Duplicate										
	<u>6070046-DUP1</u>		<u>B606340-03</u>		<u>Water</u>					
Aluminum	7/1/96		9.17	9.31	mg/l (ppm)			20.0	1.52	
Iron	"		10.8	13.6	"			20.0	23.0	2
Magnesium	"		19.9	20.2	"			20.0	1.50	
Manganese	"		0.306	0.248	"			20.0	20.9	2
Matrix Spike										
	<u>6070046-MS1</u>		<u>B606340-03</u>		<u>Water</u>					
Aluminum	7/1/96	1.00	9.17	15.7	mg/l (ppm)	75.0-125	653			3
Iron	"	1.00	10.8	15.1	"	75.0-125	430			3
Magnesium	"	1.00	19.9	21.6	"	75.0-125	170			3
Manganese	"	1.00	0.306	1.10	"	75.0-125	79.4			
Matrix Spike Dup										
	<u>6070046-MSD1</u>		<u>B606340-03</u>		<u>Water</u>					
Aluminum	7/1/96	1.00	9.17	10.7	mg/l (ppm)	75.0-125	153	20.0	124	3
Iron	"	1.00	10.8	14.4	"	75.0-125	360	20.0	17.7	3
Magnesium	"	1.00	19.9	21.4	"	75.0-125	150	20.0	12.5	3
Manganese	"	1.00	0.306	1.09	"	75.0-125	78.4	20.0	1.27	
Batch: 6070142										
	<u>6070142-BLK1</u>				<u>Water</u>					
Antimony	7/3/96			ND	mg/l (ppm)	0.00500				
Blank Spike										
	<u>6070142-BS1</u>				<u>Water</u>					
Antimony	7/3/96	0.0500		0.0474	mg/l (ppm)	70.0-130	94.8			
Duplicate										
	<u>6070142-DUP1</u>		<u>B606340-01</u>		<u>Water</u>					
Antimony	7/3/96		ND	ND	mg/l (ppm)			20.0		4
Matrix Spike										
	<u>6070142-MS1</u>		<u>B606340-01</u>		<u>Water</u>					
Antimony	7/3/96	0.0500	ND	0.0483	mg/l (ppm)	75.0-125	96.6			
Matrix Spike Dup										
	<u>6070142-MSD1</u>		<u>B606340-01</u>		<u>Water</u>					
Antimony	7/3/96	0.0500	ND	0.0489	mg/l (ppm)	75.0-125	97.8	20.0	1.23	

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PORTLAND ■ (503) 643-9200 ■ FAX 644-2202

Dames and Moore	Project: CHE	Sampled: 6/18/96
808 East Sprague Ave, Suite A	Project Number: 299100015304	Received: 6/20/96
Spokane, WA 99202	Project Manager: Dave Godlewski	Reported: 7/8/96

Metals by EPA 200 Series Methods Quality Control

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Reporting Limit Units	Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 6070229										
Date Prepared: 6/21/96										
Blank										
6070229-BLK1										
Thallium	7/8/96			ND	Water mg/l (ppm)	0.00200				
Blank Spike										
6070229-BS1										
Thallium	7/8/96	0.0300		0.0300	Water mg/l (ppm)	70.0-130	100			
Duplicate										
6070229-DUP1 B606340-01										
Thallium	7/8/96		ND	ND	Water mg/l (ppm)			20.0		4
Matrix Spike										
6070229-MS1 B606340-01										
Thallium	7/8/96	0.0300	ND	0.0141	Water mg/l (ppm)	75.0-125	47.0			1
Matrix Spike Dup										
6070229-MSD1 B606340-01										
Thallium	7/8/96	0.0300	ND	0.0153	Water mg/l (ppm)	75.0-125	51.0	20.0	8.16	1

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PORTLAND ■ (503) 643-9200 ■ FAX 644-2202

Dames and Moore	Project: CHE	Sampled: 6/18/96
808 East Sprague Ave, Suite A	Project Number: 299100015304	Received: 6/20/96
Spokane, WA 99202	Project Manager: Dave Godlewski	Reported: 7/8/96

Dissolved Metals by EPA 200 Series Methods Quality Control

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Reporting Limit Units	Recovery Limits	Recovery %	RPD Limit	RPD %	Notes*
Batch: 6060539										
Blank										
Mercury	6/21/96			ND	mg/l (ppm)	0.00100				
Blank Spike										
Mercury	6/21/96	0.00500		0.00498	mg/l (ppm)	70.0-130	99.6			
Duplicate										
Mercury	6/21/96		B606340-01 ND	ND	mg/l (ppm)			20.0		4
Matrix Spike										
Mercury	6/21/96	0.00500	B606340-01 ND	0.00490	mg/l (ppm)	80.0-120	98.0			
Matrix Spike Dup										
Mercury	6/21/96	0.00500	B606340-01 ND	0.00491	mg/l (ppm)	80.0-120	98.2	20.0	0.204	
Batch: 6060614										
Blank										
Aluminum	6/25/96			ND	mg/l (ppm)	0.250				
Beryllium	"			ND	"	0.00300				
Cadmium	"			ND	"	0.00500				
Chromium	"			ND	"	0.0100				
Copper	"			ND	"	0.0300				
Iron	"			ND	"	0.150				
Magnesium	"			ND	"	0.100				
Manganese	"			ND	"	0.00500				
Nickel	"			ND	"	0.0300				
Zinc	"			ND	"	0.0200				
Blank Spike										
Aluminum	6/25/96	1.00		1.24	mg/l (ppm)	70.0-130	124			
Beryllium	"	1.00		0.948	"	70.0-130	94.8			
Cadmium	"	1.00		0.965	"	70.0-130	96.5			
Chromium	"	1.00		0.987	"	70.0-130	98.7			
Copper	"	1.00		0.988	"	70.0-130	98.8			
Iron	"	1.00		0.998	"	70.0-130	99.8			
Magnesium	"	1.00		0.971	"	70.0-130	97.1			
Manganese	"	1.00		0.962	"	70.0-130	96.2			
Nickel	"	1.00		1.00	"	70.0-130	100			

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Laura Dutton

Laura L Dutton, Project Manager



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SPOKANE ■ (509) 924-9200 ■ FAX 924-9290
PORTLAND ■ (503) 643-9200 ■ FAX 644-2202

Dames and Moore	Project: CHE	Sampled: 6/18/96
808 East Sprague Ave, Suite A	Project Number: 299100015304	Received: 6/20/96
Spokane, WA 99202	Project Manager: Dave Godlewski	Reported: 7/8/96

Dissolved Metals by EPA 200 Series Methods Quality Control

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Reporting Limit Units	Recovery Limits	Recovery %	RPD Limit	RPD %	Notes*
Blank Spike (continued)										
	6060614-BS1				Water					
Zinc	6/25/96	1.00		0.985	mg/l (ppm)	70.0-130	98.5			
Duplicate										
	6060614-DUP1		B606340-01		Water					
Aluminum	6/25/96		ND	ND	mg/l (ppm)			20.0		4
Beryllium	"		ND	ND	"			20.0		4
Cadmium	"		ND	ND	"			20.0		4
Chromium	"		ND	ND	"			20.0		4
Copper	"		ND	ND	"			20.0		4
Iron	"		ND	ND	"			20.0		4
Magnesium	"		13.3	13.4	"			20.0	0.749	
Manganese	"		0.00834	0.00798	"			20.0	4.41	
Nickel	"		ND	ND	"			20.0		4
Zinc	"		ND	ND	"			20.0		4
Matrix Spike										
	6060614-MS1		B606340-01		Water					
Aluminum	6/25/96	1.00	ND	1.32	mg/l (ppm)	75.0-125	132			1
Beryllium	"	1.00	ND	0.971	"	75.0-125	97.1			
Cadmium	"	1.00	ND	1.02	"	75.0-125	102			
Chromium	"	1.00	ND	1.03	"	75.0-125	103			
Copper	"	1.00	ND	0.993	"	75.0-125	99.3			
Iron	"	1.00	ND	1.03	"	75.0-125	103			
Magnesium	"	1.00	13.3	13.3	"	75.0-125	0			3
Manganese	"	1.00	0.00834	0.990	"	75.0-125	98.2			
Nickel	"	1.00	ND	1.03	"	75.0-125	103			
Zinc	"	1.00	ND	1.05	"	75.0-125	105			
Matrix Spike Dup										
	6060614-MSD1		B606340-01		Water					
Aluminum	6/25/96	1.00	ND	1.30	mg/l (ppm)	75.0-125	130	20.0	1.53	
Beryllium	"	1.00	ND	0.987	"	75.0-125	98.7	20.0	1.63	
Cadmium	"	1.00	ND	1.03	"	75.0-125	103	20.0	0.976	
Chromium	"	1.00	ND	1.04	"	75.0-125	104	20.0	0.966	
Copper	"	1.00	ND	1.00	"	75.0-125	100	20.0	0.702	
Iron	"	1.00	ND	1.02	"	75.0-125	102	20.0	0.976	
Magnesium	"	1.00	13.3	13.4	"	75.0-125	10.0	20.0	200	1.2
Manganese	"	1.00	0.00834	0.990	"	75.0-125	98.2	20.0	0	
Nickel	"	1.00	ND	1.02	"	75.0-125	102	20.0	0.976	
Zinc	"	1.00	ND	1.05	"	75.0-125	105	20.0	0	

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*Refer to end of report for text of notes.

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Laura L Dutton, Project Manager

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NORTH CREEK ANALYTICAL

Environmental Laboratory Services

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Dames and Moore
808 East Sprague Ave, Suite A
Spokane, WA 99202

Project: CHE
Project Number: 299100015304
Project Manager: Dave Godlewski

Sampled: 6/18/96
Received: 6/20/96
Reported: 7/8/96

Dissolved Metals by EPA 200 Series Methods Quality Control

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 6060617										
Date Prepared: 6/26/96										
<u>Blank</u>										
Silver	6/26/96			ND	Water mg/l (ppm)	0.0200				
<u>Blank Spike</u>										
Silver	6/26/96	0.250		0.232	Water mg/l (ppm)	70.0-130	92.8			
<u>Duplicate</u>										
Silver	6/26/96		B606340-02 ND	ND	Water mg/l (ppm)			20.0		4
<u>Matrix Spike</u>										
Silver	6/26/96	0.250	B606340-02 ND	0.232	Water mg/l (ppm)	75.0-125	92.8			
<u>Matrix Spike Dup</u>										
er	6/26/96	0.250	B606340-02 ND	0.234	Water mg/l (ppm)	75.0-125	93.6	20.0	0.858	
Batch: 6060679										
Date Prepared: 6/27/96										
<u>Blank</u>										
Arsenic	6/27/96			ND	Water mg/l (ppm)	0.00400				
<u>Blank Spike</u>										
Arsenic	6/27/96	0.0500		0.0546	Water mg/l (ppm)	70.0-130	109			
<u>Duplicate</u>										
Arsenic	6/27/96		B606340-01 ND	ND	Water mg/l (ppm)			20.0		4
<u>Matrix Spike</u>										
Arsenic	6/27/96	0.0500	B606340-01 ND	0.0483	Water mg/l (ppm)	75.0-125	96.6			
<u>Matrix Spike Dup</u>										
Arsenic	6/27/96	0.0500	B606340-01 ND	0.0469	Water mg/l (ppm)	75.0-125	93.8	20.0	2.94	
Batch: 6070008										
Date Prepared: 6/28/96										
<u>Blank</u>										
Lead	7/1/96			ND	Water mg/l (ppm)	0.00200				
<u>Blank Spike</u>										
Lead	7/1/96	0.0250		0.0248	Water mg/l (ppm)	70.0-130	99.2			

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Dames and Moore
808 East Sprague Ave. Suite A
Spokane, WA 99202

Project: CHE
Project Number: 299100015304
Project Manager: Dave Godlewski

Sampled: 6/18/96
Received: 6/20/96
Reported: 7/8/96

Dissolved Metals by EPA 200 Series Methods Quality Control

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Reporting Limit Units	Recovery Limits	Recovery %	RPD Limit	RPD %	Notes*
<u>Duplicate</u>	<u>6070008-DUP1</u>		<u>B606340-01</u>		<u>Water</u>					
Lead	7/1/96		ND	ND	mg/l (ppm)			20.0		4
<u>Matrix Spike</u>	<u>6070008-MS1</u>		<u>B606340-01</u>		<u>Water</u>					
Lead	7/1/96	0.0250	ND	0.0237	mg/l (ppm)	75.0-125	94.8			
<u>Matrix Spike Dup</u>	<u>6070008-MSD1</u>		<u>B606340-01</u>		<u>Water</u>					
Lead	7/1/96	0.0250	ND	0.0248	mg/l (ppm)	75.0-125	99.2	20.0	4.54	
<u>Batch: 6070056</u>	<u>Date Prepared: 7/1/96</u>									
<u>Blank</u>	<u>6070056-BLK1</u>				<u>Water</u>					
Thallium	7/1/96			ND	mg/l (ppm)	0.00200				
<u>Blank Spike</u>	<u>6070056-BS1</u>				<u>Water</u>					
Thallium	7/1/96	0.0300		0.0296	mg/l (ppm)	70.0-130	98.7			
<u>Duplicate</u>	<u>6070056-DUP1</u>		<u>B606340-01</u>		<u>Water</u>					
Thallium	7/1/96		ND	ND	mg/l (ppm)			20.0		4
<u>Matrix Spike</u>	<u>6070056-MS1</u>		<u>B606340-01</u>		<u>Water</u>					
Thallium	7/1/96	0.0300	ND	0.0295	mg/l (ppm)	75.0-125	98.3			
<u>Matrix Spike Dup</u>	<u>6070056-MSD1</u>		<u>B606340-01</u>		<u>Water</u>					
Thallium	7/1/96	0.0300	ND	0.0294	mg/l (ppm)	75.0-125	98.0	20.0	0.306	
<u>Batch: 6070098</u>	<u>Date Prepared: 7/2/96</u>									
<u>Blank</u>	<u>6070098-BLK1</u>				<u>Water</u>					
Selenium	7/2/96			ND	mg/l (ppm)	0.00500				
<u>Blank Spike</u>	<u>6070098-BS1</u>				<u>Water</u>					
Selenium	7/2/96	0.0250		0.0270	mg/l (ppm)	70.0-130	108			
<u>Duplicate</u>	<u>6070098-DUP1</u>		<u>B606340-01</u>		<u>Water</u>					
Selenium	7/2/96		ND	ND	mg/l (ppm)			20.0		4
<u>Matrix Spike</u>	<u>6070098-MS1</u>		<u>B606340-01</u>		<u>Water</u>					
Selenium	7/2/96	0.0250	ND	0.0191	mg/l (ppm)	75.0-125	76.4			

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Dames and Moore	Project: CHE	Sampled: 6/18/96
808 East Sprague Ave, Suite A	Project Number: 299100015304	Received: 6/20/96
Spokane, WA 99202	Project Manager: Dave Godlewski	Reported: 7/8/96

Dissolved Metals by EPA 200 Series Methods Quality Control

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Reporting Limit Units	Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
<u>Matrix Spike Dup</u>	<u>6070098-MSD1</u>		<u>B606340-01</u>		<u>Water</u>					
Selenium	7/2/96	0.0250	ND	0.0214	mg/l (ppm)	75.0-125	85.6	20.0	11.4	
<u>Batch: 6070143</u>	<u>Date Prepared: 7/3/96</u>									
<u>Blank</u>	<u>6070143-BLK1</u>				<u>Water</u>					
Antimony	7/3/96			ND	mg/l (ppm)	0.00500				
<u>Blank Spike</u>	<u>6070143-BS1</u>				<u>Water</u>					
Antimony	7/3/96	0.0500		0.0497	mg/l (ppm)	70.0-130	99.4			
<u>Duplicate</u>	<u>6070143-DUP1</u>		<u>B606340-01</u>		<u>Water</u>					
Antimony	7/3/96		ND	ND	mg/l (ppm)			20.0		4
<u>Matrix Spike</u>	<u>6070143-MS1</u>		<u>B606340-01</u>		<u>Water</u>					
Antimony	7/3/96	0.0500	ND	0.0465	mg/l (ppm)	75.0-125	93.0			
<u>Matrix Spike Dup</u>	<u>6070143-MSD1</u>		<u>B606340-01</u>		<u>Water</u>					
Antimony	7/3/96	0.0500	ND	0.0456	mg/l (ppm)	75.0-125	91.2	20.0	1.95	

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PORTLAND ■ (503) 643-9200 ■ FAX 644-2202

Dames and Moore	Project: CHE	Sampled: 6/18/96
808 East Sprague Ave, Suite A	Project Number: 299100015304	Received: 6/20/96
Spokane, WA 99202	Project Manager: Dave Godlewski	Reported: 7/8/96

Metals by EPA 6010/7000 Series Methods Quality Control

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Reporting Limit Units	Recovery Limits	Recovery %	RPD Limit	RPD %	Notes*
<u>Batch: 6060537</u>	<u>Date Prepared: 6/24/96</u>									
<u>Blank</u>	<u>6060537-BLK1</u>									
Mercury	6/21/96			ND	Water mg/l (ppm)	0.00100				
<u>Blank Spike</u>	<u>6060537-BS1</u>									
Mercury	6/21/96	0.00500		0.00482	Water mg/l (ppm)	70.0-130	96.4			
<u>Duplicate</u>	<u>6060537-DUP1</u> <u>B606340-01</u>									
Mercury	6/21/96		ND	ND	Water mg/l (ppm)			20.0		4
<u>Matrix Spike</u>	<u>6060537-MS1</u> <u>B606340-01</u>									
Mercury	6/21/96	0.00500	ND	0.00495	Water mg/l (ppm)	80.0-120	99.0			
<u>Matrix Spike Dup</u>	<u>6060537-MSD1</u> <u>B606340-01</u>									
Mercury	6/21/96	0.00500	ND	0.00491	Water mg/l (ppm)	80.0-120	98.2	20.0	0.811	

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Dames and Moore
808 East Sprague Ave. Suite A
Spokane, WA 99202

Project: CHE
Project Number: 299100015304
Project Manager: Dave Godlewski

Sampled: 6/18/96
Received: 6/20/96
Reported: 7/8/96

Notes

#	Note
---	------

- | | |
|---|---|
| 1 | The spike recovery for this QC sample is outside of NCA established control limits. |
| 2 | The RPD value for this QC sample is outside the advisory limit established by NCA. |
| 3 | The spike recovery for this QC sample cannot be accurately calculated due to high concentration of analyte in the sample. |
| 4 | RPD values are not reported at sample concentrations less than ten times the reporting limit. |

North Creek Analytical, Inc.

Laura Dutton

Laura L Dutton, Project Manager





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Offices:

BOTHELL ■ (206) 481-9200 ■ FAX 485-2992
SPOKANE ■ (509) 924-9200 ■ FAX 924-9290
PORTLAND ■ (503) 643-9200 ■ FAX 644-2202

Correspondence to: 18939 - 120th Ave. NE, #101, Bothell, WA 98011

Dames and Moore
808 East Sprague Avenue
Spokane, WA 99202

Project: CHE
Project Number: 29910 001 5304
Project Manager: Dave Godlewski

Sampled: 9/26/96
Received: 9/27/96
Reported: 10/16/96

ANALYTICAL REPORT FOR SAMPLES:

Sample Description	Laboratory Sample Number	Sample Matrix	Date Sampled
DMW092696-1-5	B609544-01	Water	9/26/96
DMW092696-2-5	B609544-02	Water	9/26/96
DMW092696-3-5	B609544-03	Water	9/26/96
DMW092696-4-5	B609544-04	Water	9/26/96
DMW092696-A-5	B609544-05	Water	9/26/96

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BOTHELL ■ (206) 481-9200 ■ FAX 485-2992
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Correspondence to: 18939 - 120th Ave. NE, #101, Bothell, WA 98011

Dames and Moore	Project: CHE	Sampled: 9/26/96
808 East Sprague Avenue	Project Number: 29910 001 5304	Received: 9/27/96
Spokane, WA 99202	Project Manager: Dave Godlewski	Reported: 10/16/96

Metals by EPA 200 Series Methods

Analyte	Batch Number	Date Prepared	Date Analyzed	Specific Method	Reporting Limit	Result	Units	Notes*
<u>DMW092696-1-5</u>				<u>B609544-01</u>			<u>Water</u>	
Aluminum	1060038	10/2/96	10/5/96	EPA 200.7	0.200	23.1	mg/l (ppm)	
Beryllium	"	"	"	EPA 200.7	0.00500	ND	"	
Cadmium	"	"	"	EPA 200.7	0.00500	ND	"	
Chromium	"	"	"	EPA 200.7	0.0100	0.0293	"	
Copper	"	"	"	EPA 200.7	0.0300	0.0579	"	
Iron	"	"	"	EPA 200.7	0.150	45.3	"	
Magnesium	"	"	"	EPA 200.7	0.100	25.5	"	
Manganese	"	"	"	EPA 200.7	0.00500	0.804	"	
Nickel	"	"	"	EPA 200.7	0.0300	ND	"	
Zinc	"	"	"	EPA 200.7	0.0200	0.196	"	
Antimony	1060053	10/1/96	10/7/96	EPA 204.2	0.00500	ND	"	
Arsenic	"	"	10/2/96	EPA 206.2	0.00400	0.0476	"	
Lead	"	"	"	EPA 239.2	0.00200	0.0484	"	
Selenium	"	"	"	EPA 270.2	0.00500	ND	"	
Silver	1060256	10/3/96	10/7/96	EPA 272.1	0.0200	ND	"	
Thallium	1060426	10/1/96	10/15/96	EPA 279.2	0.00200	ND	"	
<u>DMW092696-2-5</u>				<u>B609544-02</u>			<u>Water</u>	
Aluminum	1060038	10/2/96	10/5/96	EPA 200.7	0.200	41.8	mg/l (ppm)	
Beryllium	"	"	"	EPA 200.7	0.00500	ND	"	
Cadmium	"	"	"	EPA 200.7	0.00500	ND	"	
Chromium	"	"	"	EPA 200.7	0.0100	0.0629	"	
Copper	"	"	"	EPA 200.7	0.0300	0.112	"	
Iron	"	"	"	EPA 200.7	0.150	88.1	"	
Magnesium	"	"	"	EPA 200.7	0.100	41.3	"	
Manganese	"	"	"	EPA 200.7	0.00500	1.48	"	
Nickel	"	"	"	EPA 200.7	0.0300	0.0542	"	
Zinc	"	"	"	EPA 200.7	0.0200	0.314	"	
Antimony	1060053	10/1/96	10/7/96	EPA 204.2	0.00500	ND	"	
Arsenic	"	"	10/2/96	EPA 206.2	0.00400	0.0753	"	
Lead	"	"	"	EPA 239.2	0.00200	0.0945	"	
Selenium	"	"	"	EPA 270.2	0.00500	ND	"	
Silver	1060256	10/3/96	10/7/96	EPA 272.1	0.0200	ND	"	
Thallium	1060426	10/1/96	10/15/96	EPA 279.2	0.00200	ND	"	
<u>DMW092696-3-5</u>				<u>B609544-03</u>			<u>Water</u>	
Aluminum	1060038	10/2/96	10/5/96	EPA 200.7	0.200	26.8	mg/l (ppm)	
Beryllium	"	"	"	EPA 200.7	0.00500	ND	"	
Cadmium	"	"	"	EPA 200.7	0.00500	ND	"	

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*Refer to end of report for text of notes.

Laura Dutton

Laura L Dutton, Project Manager



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Correspondence to: 18939 - 120th Ave. NE, #101, Bothell, WA 98011

Dames and Moore	Project: CHE	Sampled: 9/26/96
808 East Sprague Avenue	Project Number: 29910 001 5304	Received: 9/27/96
Spokane, WA 99202	Project Manager: Dave Godlewski	Reported: 10/16/96

Metals by EPA 200 Series Methods

Analyte	Batch Number	Date Prepared	Date Analyzed	Specific Method	Reporting Limit	Result	Units	Notes*
<u>DMW092696-3-5 (continued)</u>				<u>B609544-03</u>			<u>Water</u>	
Chromium	1060038	10/2/96	10/5/96	EPA 200.7	0.0100	0.0312	mg/l (ppm)	
Copper	"	"	"	EPA 200.7	0.0300	0.0988	"	
Iron	"	"	"	EPA 200.7	0.150	53.0	"	
Magnesium	"	"	"	EPA 200.7	0.100	29.0	"	
Manganese	"	"	"	EPA 200.7	0.00500	1.19	"	
Nickel	"	"	"	EPA 200.7	0.0300	0.0388	"	
Zinc	"	"	"	EPA 200.7	0.0200	0.284	"	
Antimony	1060053	10/1/96	10/7/96	EPA 204.2	0.00500	ND	"	
Arsenic	"	"	10/2/96	EPA 206.2	0.00400	0.0661	"	
Lead	"	"	"	EPA 239.2	0.00200	0.0858	"	
Selenium	"	"	"	EPA 270.2	0.00500	ND	"	
Silver	1060256	10/3/96	10/7/96	EPA 272.1	0.0200	ND	"	
Thallium	1060426	10/1/96	10/15/96	EPA 279.2	0.00200	ND	"	
<u>DMW092696-4-5</u>				<u>B609544-04</u>			<u>Water</u>	
Aluminum	1060038	10/2/96	10/5/96	EPA 200.7	0.200	54.4	mg/l (ppm)	
Beryllium	"	"	"	EPA 200.7	0.00500	ND	"	
Cadmium	"	"	"	EPA 200.7	0.00500	ND	"	
Chromium	"	"	"	EPA 200.7	0.0100	0.0831	"	
Copper	"	"	"	EPA 200.7	0.0300	0.167	"	
Iron	"	"	"	EPA 200.7	0.150	127	"	
Magnesium	"	"	"	EPA 200.7	0.100	52.9	"	
Manganese	"	"	"	EPA 200.7	0.00500	2.37	"	
Nickel	"	"	"	EPA 200.7	0.0300	0.0904	"	
Zinc	"	"	"	EPA 200.7	0.0200	0.429	"	
Antimony	1060053	10/1/96	10/7/96	EPA 204.2	0.00500	ND	"	
Arsenic	"	"	10/2/96	EPA 206.2	0.00400	0.0887	"	
Lead	"	"	"	EPA 239.2	0.00200	0.131	"	
Selenium	"	"	"	EPA 270.2	0.00500	ND	"	
Silver	1060256	10/3/96	10/7/96	EPA 272.1	0.0200	ND	"	
Thallium	1060426	10/1/96	10/15/96	EPA 279.2	0.00200	ND	"	
<u>DMW092696-A-5</u>				<u>B609544-05</u>			<u>Water</u>	
Aluminum	1060038	10/2/96	10/5/96	EPA 200.7	0.200	73.3	mg/l (ppm)	
Beryllium	"	"	"	EPA 200.7	0.00500	ND	"	
Cadmium	"	"	"	EPA 200.7	0.00500	ND	"	
Chromium	"	"	"	EPA 200.7	0.0100	0.0979	"	
Copper	"	"	"	EPA 200.7	0.0300	0.176	"	
Iron	"	"	"	EPA 200.7	0.150	150	"	

North Creek Analytical, Inc.

*Refer to end of report for text of notes.

Laura Dutton

Laura L Dutton, Project Manager



NORTH CREEK ANALYTICAL

Environmental Laboratory Services

Offices:

BOTHELL ■ (206) 481-9200 ■ FAX 485-2992
SPOKANE ■ (509) 924-9200 ■ FAX 924-9290
PORTLAND ■ (503) 643-9200 ■ FAX 644-2202

Correspondence to: 18939 - 120th Ave. NE, #101, Bothell, WA 98011

Dames and Moore
808 East Sprague Avenue
Spokane, WA 99202

Project: CHE
Project Number: 29910 001 5304
Project Manager: Dave Godlewski

Sampled: 9/26/96
Received: 9/27/96
Reported: 10/16/96

Metals by EPA 200 Series Methods

Analyte	Batch Number	Date Prepared	Date Analyzed	Specific Method	Reporting Limit	Result	Units	Notes*
<u>DMW092696-A-5 (continued)</u>				<u>B609544-05</u>			<u>Water</u>	
Magnesium	1060038	10/2/96	10/5/96	EPA 200.7	0.100	65.1	mg/l (ppm)	
Manganese	"	"	"	EPA 200.7	0.00500	2.56	"	
Nickel	"	"	"	EPA 200.7	0.0300	0.0924	"	
Zinc	"	"	"	EPA 200.7	0.0200	0.478	"	
Antimony	1060053	10/1/96	10/7/96	EPA 204.2	0.00500	ND	"	
Arsenic	"	"	10/2/96	EPA 206.2	0.00400	0.0813	"	
Lead	"	"	"	EPA 239.2	0.00200	0.130	"	
Selenium	"	"	"	EPA 270.2	0.00500	ND	"	
Silver	1060256	10/3/96	10/7/96	EPA 272.1	0.0200	ND	"	
Thallium	1060426	10/1/96	10/15/96	EPA 279.2	0.00200	ND	"	

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PORTLAND ■ (503) 643-9200 ■ FAX 644-2202

Correspondence to: 18939 - 120th Ave. NE, #101, Bothell, WA 980

Dames and Moore	Project: CHE	Sampled: 9/26/96
808 East Sprague Avenue	Project Number: 29910 001 5304	Received: 9/27/96
Spokane, WA 99202	Project Manager: Dave Godlewski	Reported: 10/16/96

Dissolved Metals by EPA 200 Series Methods

Analyte	Batch Number	Date Prepared	Date Analyzed	Specific Method	Reporting Limit	Result	Units	Notes*
<u>DMW092696-1-5</u>		<u>B609544-01</u>			<u>Water</u>			
Aluminum	1060039	10/2/96	10/5/96	EPA 200.7	0.200	ND	mg/l (ppm)	
Beryllium	"	"	"	EPA 200.7	0.00300	ND	"	
Cadmium	"	"	"	EPA 200.7	0.00500	ND	"	
Chromium	"	"	"	EPA 200.7	0.0100	ND	"	
Copper	"	"	"	EPA 200.7	0.0300	ND	"	
Iron	"	"	"	EPA 200.7	0.150	ND	"	
Magnesium	"	"	"	EPA 200.7	0.100	13.5	"	
Manganese	"	"	"	EPA 200.7	0.00500	ND	"	
Nickel	"	"	"	EPA 200.7	0.0300	ND	"	
Zinc	"	"	"	EPA 200.7	0.0200	ND	"	
Antimony	1060431	10/7/96	10/14/96	EPA 204.2	0.00500	ND	"	
Arsenic	1060275	"	10/8/96	EPA 206.2	0.00400	ND	"	
Lead	1060236	"	10/7/96	EPA 239.2	0.00200	ND	"	
Mercury	1060264	10/4/96	10/8/96	EPA 245.1	0.00100	ND	"	
Selenium	1060275	10/7/96	10/7/96	EPA 270.2	0.00500	ND	"	
Silver	1060259	"	"	EPA 272.1	0.0200	ND	"	
Thallium	1060430	10/14/96	10/14/96	EPA 279.2	0.00200	ND	"	
<u>DMW092696-2-5</u>		<u>B609544-02</u>			<u>Water</u>			
Aluminum	1060039	10/2/96	10/5/96	EPA 200.7	0.200	ND	mg/l (ppm)	
Beryllium	"	"	"	EPA 200.7	0.00300	ND	"	
Cadmium	"	"	"	EPA 200.7	0.00500	ND	"	
Chromium	"	"	"	EPA 200.7	0.0100	ND	"	
Copper	"	"	"	EPA 200.7	0.0300	ND	"	
Iron	"	"	"	EPA 200.7	0.150	ND	"	
Magnesium	"	"	"	EPA 200.7	0.100	13.6	"	
Manganese	"	"	"	EPA 200.7	0.00500	ND	"	
Nickel	"	"	"	EPA 200.7	0.0300	ND	"	
Zinc	"	"	"	EPA 200.7	0.0200	ND	"	
Antimony	1060431	10/7/96	10/14/96	EPA 204.2	0.00500	ND	"	
Arsenic	1060275	"	10/8/96	EPA 206.2	0.00400	ND	"	
Lead	1060236	"	10/7/96	EPA 239.2	0.00200	0.00354	"	
Mercury	1060264	10/4/96	10/8/96	EPA 245.1	0.00100	ND	"	
Selenium	1060275	10/7/96	10/7/96	EPA 270.2	0.00500	ND	"	
Silver	1060259	"	"	EPA 272.1	0.0200	ND	"	
Thallium	1060430	10/14/96	10/14/96	EPA 279.2	0.00200	ND	"	
<u>DMW092696-3-5</u>		<u>B609544-03</u>			<u>Water</u>			
Aluminum	1060039	10/2/96	10/5/96	EPA 200.7	0.200	ND	mg/l (ppm)	

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Laura Dutton

Laura L Dutton, Project Manager



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Dames and Moore	Project: CHE	Sampled: 9/26/96
808 East Sprague Avenue	Project Number: 29910 001 5304	Received: 9/27/96
Spokane, WA 99202	Project Manager: Dave Godlewski	Reported: 10/16/96

Dissolved Metals by EPA 200 Series Methods

Analyte	Batch Number	Date Prepared	Date Analyzed	Specific Method	Reporting Limit	Result	Units	Notes*
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DMW092696-3-5 (continued)

				<u>B609544-03</u>				
							<u>Water</u>	
Beryllium	1060039	10/2/96	10/5/96	EPA 200.7	0.00300	ND	mg/l (ppm)	
Cadmium	"	"	"	EPA 200.7	0.00500	ND	"	
Chromium	"	"	"	EPA 200.7	0.0100	ND	"	
Copper	"	"	"	EPA 200.7	0.0300	ND	"	
Iron	"	"	"	EPA 200.7	0.150	ND	"	
Magnesium	"	"	"	EPA 200.7	0.100	14.3	"	
Manganese	"	"	"	EPA 200.7	0.00500	ND	"	
Nickel	"	"	"	EPA 200.7	0.0300	ND	"	
Zinc	"	"	"	EPA 200.7	0.0200	ND	"	
Antimony	1060431	10/7/96	10/14/96	EPA 204.2	0.00500	ND	"	
Arsenic	1060275	"	10/8/96	EPA 206.2	0.00400	ND	"	
Lead	1060236	"	10/7/96	EPA 239.2	0.00200	ND	"	
Mercury	1060264	10/4/96	10/8/96	EPA 245.1	0.00100	ND	"	
Thallium	1060275	10/7/96	10/7/96	EPA 270.2	0.00500	ND	"	
Copper	1060259	"	"	EPA 272.1	0.0200	ND	"	
Thallium	1060430	10/14/96	10/14/96	EPA 279.2	0.00200	ND	"	

DMW092696-4-5

				<u>B609544-04</u>				
							<u>Water</u>	
Aluminum	1060039	10/2/96	10/5/96	EPA 200.7	0.200	ND	mg/l (ppm)	
Beryllium	"	"	"	EPA 200.7	0.00300	ND	"	
Cadmium	"	"	"	EPA 200.7	0.00500	ND	"	
Chromium	"	"	"	EPA 200.7	0.0100	ND	"	
Copper	"	"	"	EPA 200.7	0.0300	ND	"	
Iron	"	"	"	EPA 200.7	0.150	ND	"	
Magnesium	"	"	"	EPA 200.7	0.100	14.1	"	
Manganese	"	"	"	EPA 200.7	0.00500	ND	"	
Nickel	"	"	"	EPA 200.7	0.0300	ND	"	
Zinc	"	"	"	EPA 200.7	0.0200	ND	"	
Antimony	1060431	10/7/96	10/14/96	EPA 204.2	0.00500	ND	"	
Arsenic	1060275	"	10/8/96	EPA 206.2	0.00400	ND	"	
Lead	1060236	"	10/7/96	EPA 239.2	0.00200	ND	"	
Mercury	1060264	10/4/96	10/8/96	EPA 245.1	0.00100	ND	"	
Selenium	1060275	10/7/96	10/7/96	EPA 270.2	0.00500	ND	"	
Silver	1060259	"	"	EPA 272.1	0.0200	ND	"	
Thallium	1060430	10/14/96	10/14/96	EPA 279.2	0.00200	ND	"	

DMW092696-A-5

				<u>B609544-05</u>				
							<u>Water</u>	
Aluminum	1060039	10/2/96	10/5/96	EPA 200.7	0.200	ND	mg/l (ppm)	
Beryllium	"	"	"	EPA 200.7	0.00300	ND	"	

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Laura L Dutton

Laura L Dutton, Project Manager



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SPOKANE ■ (509) 924-9200 ■ FAX 924-9290
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Correspondence to: 18939 - 120th Ave. NE, #101, Bothell, WA 98011

Dames and Moore
808 East Sprague Avenue
Spokane, WA 99202

Project: CHE
Project Number: 29910 001 5304
Project Manager: Dave Godlewski

Sampled: 9/26/96
Received: 9/27/96
Reported: 10/16/96

Dissolved Metals by EPA 200 Series Methods

Analyte	Batch Number	Date Prepared	Date Analyzed	Specific Method	Reporting Limit	Result	Units	Notes*
<u>DMW092696-A-5 (continued)</u>				<u>B609544-05</u>			<u>Water</u>	
Cadmium	1060039	10/2/96	10/5/96	EPA 200.7	0.00500	ND	mg/l (ppm)	
Chromium	"	"	"	EPA 200.7	0.0100	ND	"	
Copper	"	"	"	EPA 200.7	0.0300	ND	"	
Iron	"	"	"	EPA 200.7	0.150	ND	"	
Magnesium	"	"	"	EPA 200.7	0.100	14.1	"	
Manganese	"	"	"	EPA 200.7	0.00500	ND	"	
Nickel	"	"	"	EPA 200.7	0.0300	ND	"	
Zinc	"	"	"	EPA 200.7	0.0200	ND	"	
Antimony	1060431	10/7/96	10/14/96	EPA 204.2	0.00500	ND	"	
Arsenic	1060275	"	10/8/96	EPA 206.2	0.00400	ND	"	
Lead	1060236	"	10/7/96	EPA 239.2	0.00200	ND	"	
Mercury	1060264	10/4/96	10/8/96	EPA 245.1	0.00100	ND	"	
Selenium	1060275	10/7/96	10/7/96	EPA 270.2	0.00500	ND	"	
Silver	1060259	"	"	EPA 272.1	0.0200	ND	"	
Thallium	1060430	10/14/96	10/14/96	EPA 279.2	0.00200	ND	"	

Laura Dutton



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Environmental Laboratory Services

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BOTHELL ■ (206) 481-9200 ■ FAX 485-2992
SPOKANE ■ (509) 924-9200 ■ FAX 924-9290
PORTLAND ■ (503) 643-9200 ■ FAX 644-2202

Correspondence to: 18939 - 120th Ave. NE, #101, Bothell, WA 98011

Dames and Moore	Project: CHE	Sampled: 9/26/96
808 East Sprague Avenue	Project Number: 29910 001 5304	Received: 9/27/96
Spokane, WA 99202	Project Manager: Dave Godlewski	Reported: 10/16/96

Metals by EPA 6010/7000 Series Methods

Analyte	Batch Number	Date Prepared	Date Analyzed	Specific Method	Reporting Limit	Result	Units	Notes*
<u>DMW092696-1-5</u>				<u>B609544-01</u>			<u>Water</u>	
Mercury	1060262	10/4/96	10/8/96	EPA 7470A	0.00100	ND	mg/l (ppm)	
<u>DMW092696-2-5</u>				<u>B609544-02</u>			<u>Water</u>	
Mercury	1060262	10/4/96	10/8/96	EPA 7470A	0.00100	ND	mg/l (ppm)	
<u>DMW092696-3-5</u>				<u>B609544-03</u>			<u>Water</u>	
Mercury	1060262	10/4/96	10/8/96	EPA 7470A	0.00100	ND	mg/l (ppm)	
<u>DMW092696-4-5</u>				<u>B609544-04</u>			<u>Water</u>	
Mercury	1060262	10/4/96	10/8/96	EPA 7470A	0.00100	ND	mg/l (ppm)	
<u>DMW092696-A-5</u>				<u>B609544-05</u>			<u>Water</u>	
Mercury	1060262	10/4/96	10/8/96	EPA 7470A	0.00100	ND	mg/l (ppm)	

Laura Dutton



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SPOKANE ■ (509) 924-9200 ■ FAX 924-9290
PORTLAND ■ (503) 643-9200 ■ FAX 644-2202

Correspondence to: 18939 - 120th Ave. NE, #101, Bothell, WA 98071

Dames and Moore
808 East Sprague Avenue
Spokane, WA 99202

Project: CHE
Project Number: 29910 001 5304
Project Manager: Dave Godlewski

Sampled: 9/26/96
Received: 9/27/96
Reported: 10/16/96

Metals by EPA 200 Series Methods Quality Control

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
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Batch: 1060038 -

Date Prepared: 10/2/96

Blank

1060038-BLK1

					Water	
Aluminum	10/5/96		ND	mg/l (ppm)	0.250	
Beryllium	"		ND	"	0.00500	
Cadmium	"		ND	"	0.00500	
Chromium	"		ND	"	0.0100	
Copper	"		ND	"	0.0300	
Iron	"		ND	"	0.150	
Magnesium	"		ND	"	0.100	
Manganese	"		ND	"	0.00500	
Nickel	"		ND	"	0.0300	
Zinc	"		ND	"	0.0200	

Blank Spike

1060038-BS1

					Water		
Aluminum	10/5/96	1.00	1.04	mg/l (ppm)	70.0-130	104	
Beryllium	"	1.00	0.862	"	70.0-130	86.2	
Cadmium	"	1.00	0.868	"	70.0-130	86.8	
Chromium	"	1.00	0.884	"	70.0-130	88.4	
Copper	"	1.00	0.920	"	70.0-130	92.0	
Iron	"	1.00	1.01	"	70.0-130	101	
Magnesium	"	1.00	1.15	"	70.0-130	115	
Manganese	"	1.00	0.865	"	70.0-130	86.5	
Nickel	"	1.00	0.896	"	70.0-130	89.6	
Zinc	"	1.00	0.910	"	70.0-130	91.0	

Duplicate

1060038-DUP1

B609484-01

					Water			
Aluminum	10/5/96		ND	ND	mg/l (ppm)		20.0	1
Beryllium	"		ND	ND	"		20.0	1
Cadmium	"		ND	ND	"		20.0	1
Chromium	"		ND	ND	"		20.0	1
Copper	"		ND	ND	"		20.0	1
Iron	"	2.16	1.86	"		20.0	14.9	
Magnesium	"	6.96	6.13	"		20.0	12.7	
Manganese	"	0.0939	0.0778	"		20.0	18.8	
Nickel	"		ND	ND	"		20.0	1
Zinc	"		ND	0.0260	"		20.0	1

Matrix Spike

1060038-MS1

B609484-01

					Water		
Aluminum	10/5/96	1.00	ND	0.957	mg/l (ppm)	75.0-125	95.7

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Spokane, WA 99202

Project: CHE
Project Number: 29910 001 5304
Project Manager: Dave Godlewski

Sampled: 9/26/96
Received: 9/27/96
Reported: 10/16/96

Metals by EPA 200 Series Methods Quality Control

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Matrix Spike (continued)										
	1060038-MS1	B609484-01			Water					
Beryllium	10/5/96	1.00	ND	0.848	mg/l (ppm)	75.0-125	84.8			
Cadmium	"	1.00	ND	0.864	"	75.0-125	86.4			
Chromium	"	1.00	ND	0.883	"	75.0-125	88.3			
Copper	"	1.00	ND	0.896	"	75.0-125	89.6			
Iron	"	1.00	2.16	2.98	"	75.0-125	82.0			
Magnesium	"	1.00	6.96	7.76	"	75.0-125	80.0			
Manganese	"	1.00	0.0939	0.929	"	75.0-125	83.5			
Nickel	"	1.00	ND	0.840	"	75.0-125	84.0			
Zinc	"	1.00	ND	0.881	"	75.0-125	88.1			
Matrix Spike Dup										
	1060038-MSD1	B609484-01			Water					
Aluminum	10/5/96	1.00	ND	0.968	mg/l (ppm)	75.0-125	96.8	20.0	1.14	
Beryllium	"	1.00	ND	0.848	"	75.0-125	84.8	20.0	0	
Cadmium	"	1.00	ND	0.851	"	75.0-125	85.1	20.0	1.52	
Chromium	"	1.00	ND	0.886	"	75.0-125	88.6	20.0	0.339	
Copper	"	1.00	ND	0.883	"	75.0-125	88.3	20.0	1.46	
Iron	"	1.00	2.16	2.95	"	75.0-125	79.0	20.0	3.73	
Magnesium	"	1.00	6.96	7.74	"	75.0-125	78.0	20.0	2.53	
Manganese	"	1.00	0.0939	0.939	"	75.0-125	84.5	20.0	1.19	
Nickel	"	1.00	ND	0.846	"	75.0-125	84.6	20.0	0.712	
Zinc	"	1.00	ND	0.871	"	75.0-125	87.1	20.0	1.14	
Batch: 1060053										
Blank										
	1060053-BLK1				Water					
Antimony	10/7/96			ND	mg/l (ppm)	0.00500				
Arsenic	10/2/96			ND	"	0.00400				
Lead	"			ND	"	0.00200				
Selenium	"			ND	"	0.00500				
Blank Spike										
	1060053-BS1				Water					
Antimony	10/7/96	0.0500		0.0564	mg/l (ppm)	70.0-130	113			
Arsenic	10/2/96	0.0500		0.0466	"	70.0-130	93.2			
Lead	"	0.0250		0.0246	"	70.0-130	98.4			
Selenium	"	0.0250		0.0288	"	70.0-130	115			
Duplicate										
	1060053-DUP1	B609544-01			Water					
Antimony	10/7/96		ND	ND	mg/l (ppm)			20.0		1
Arsenic	10/2/96		0.0476	0.0465	"			20.0	2.34	

Laura L Dutton

Laura L Dutton, Project Manager



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PORTLAND ■ (503) 643-9200 ■ FAX 644-2202

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Dames and Moore	Project: CHE	Sampled: 9/26/96
808 East Sprague Avenue	Project Number: 29910 001 5304	Received: 9/27/96
Spokane, WA 99202	Project Manager: Dave Godlewski	Reported: 10/16/96

Metals by EPA 200 Series Methods Quality Control

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
<u>Duplicate (continued)</u>	<u>1060053-DUP1</u>	<u>B609544-01</u>			<u>Water</u>					
Lead	10/2/96		0.0484	0.0579	mg/l (ppm)			20.0	17.9	
Selenium	"		ND	ND	"			20.0		1
<u>Matrix Spike</u>	<u>1060053-MS1</u>	<u>B609544-01</u>			<u>Water</u>					
Antimony	10/7/96	0.0500	ND	0.0405	mg/l (ppm)	75.0-125	81.0			
Arsenic	10/2/96	0.0500	0.0476	0.0898	"	75.0-125	84.4			
Lead	"	0.0250	0.0484	0.0784	"	75.0-125	120			
Selenium	"	0.0250	ND	0.0207	"	75.0-125	82.8			
<u>Matrix Spike Dup</u>	<u>1060053-MSD1</u>	<u>B609544-01</u>			<u>Water</u>					
Antimony	10/7/96	0.0500	ND	0.0392	mg/l (ppm)	75.0-125	78.4	20.0	3.26	
Arsenic	10/2/96	0.0500	0.0476	0.0881	"	75.0-125	81.0	20.0	4.11	
Lead	"	0.0250	0.0484	0.0765	"	75.0-125	112	20.0	6.90	
Selenium	"	0.0250	ND	0.0212	"	75.0-125	84.8	20.0	2.39	
<u>Batch: 1060256</u>	<u>Date Prepared: 10/3/96</u>									
<u>Blank</u>	<u>1060256-BLK1</u>				<u>Water</u>					
Silver	10/7/96			ND	mg/l (ppm)	0.0200				
<u>Blank Spike</u>	<u>1060256-BS1</u>				<u>Water</u>					
Silver	10/7/96	0.250		0.258	mg/l (ppm)	70.0-130	103			
<u>Duplicate</u>	<u>1060256-DUP1</u>				<u>Water</u>					
Silver	10/7/96		ND	ND	mg/l (ppm)			20.0		1
<u>Matrix Spike</u>	<u>1060256-MS1</u>				<u>Water</u>					
Silver	10/7/96	0.250	ND	0.265	mg/l (ppm)	75.0-125	106			
<u>Matrix Spike Dup</u>	<u>1060256-MSD1</u>				<u>Water</u>					
Silver	10/7/96	0.250	ND	0.254	mg/l (ppm)	75.0-125	102	20.0	3.85	
<u>Batch: 1060426</u>	<u>Date Prepared: 10/1/96</u>									
<u>Blank</u>	<u>1060426-BLK1</u>				<u>Water</u>					
Thallium	10/15/96			ND	mg/l (ppm)	0.00200				
<u>Blank Spike</u>	<u>1060426-BS1</u>				<u>Water</u>					
Thallium	10/15/96	0.0300		0.0228	mg/l (ppm)	70.0-130	76.0			

Laura Dutton

Laura L Dutton, Project Manager



NORTH CREEK ANALYTICAL

Environmental Laboratory Services

Offices:

BOTHELL ■ (206) 481-9200 ■ FAX 485-2992
SPOKANE ■ (509) 924-9200 ■ FAX 924-9290
PORTLAND ■ (503) 643-9200 ■ FAX 644-2202

Correspondence to: 18939 - 120th Ave. NE, #101, Bothell, WA 98011

Dames and Moore	Project: CHE	Sampled: 9/26/96
808 East Sprague Avenue	Project Number: 29910 001 5304	Received: 9/27/96
Spokane, WA 99202	Project Manager: Dave Godlewski	Reported: 10/16/96

Metals by EPA 200 Series Methods Quality Control

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Reporting Limit Units	Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
<u>Duplicate</u>	<u>1060426-DUP1</u>		<u>B609544-01</u>		<u>Water</u>					
Thallium	10/15/96		ND	ND	mg/l (ppm)			20.0		1
<u>Matrix Spike</u>	<u>1060426-MS1</u>		<u>B609544-01</u>		<u>Water</u>					
Thallium	10/15/96	0.0300	ND	0.0102	mg/l (ppm)	75.0-125	34.0			2
<u>Post Spike</u>	<u>1060426-PS2</u>		<u>B609544-01</u>		<u>Water</u>					
Thallium	10/14/96	0.150	ND	0.110	mg/l (ppm)	75.0-125	73.3			
<u>Matrix Spike Dup</u>	<u>1060426-MSD1</u>		<u>B609544-01</u>		<u>Water</u>					
Thallium	10/15/96	0.0300	ND	0.0153	mg/l (ppm)	75.0-125	51.0	20.0	40.0	2

Laura L Dutton



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Environmental Laboratory Services

Offices:

BOTHELL ■ (206) 481-9200 ■ FAX 485-2992
SPOKANE ■ (509) 924-9200 ■ FAX 924-9290
PORTLAND ■ (503) 643-9200 ■ FAX 644-2202

Correspondence to: 18939 - 120th Ave. NE, #101, Bothell, WA 98017

Dames and Moore	Project: CHE	Sampled: 9/26/96
808 East Sprague Avenue	Project Number: 29910 001 5304	Received: 9/27/96
Spokane, WA 99202	Project Manager: Dave Godlewski	Reported: 10/16/96

Dissolved Metals by EPA 200 Series Methods Quality Control

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Reporting Limit Units	Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
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Batch: 1060039

Date Prepared: 10/2/96

Blank

1060039-BLK1

					Water	
Aluminum	10/5/96		ND		mg/l (ppm)	0.250
Beryllium	"		ND		"	0.00300
Cadmium	"		ND		"	0.00500
Chromium	"		ND		"	0.0100
Copper	"		ND		"	0.0300
Iron	"		ND		"	0.150
Magnesium	"		ND		"	0.100
Manganese	"		ND		"	0.00500
Nickel	"		ND		"	0.0300
Zinc	"		ND		"	0.0200

Blank Spike

1060039-BS1

					Water		
Aluminum	10/5/96	1.00	1.10		mg/l (ppm)	70.0-130	110
Beryllium	"	1.00	0.927		"	70.0-130	92.7
Cadmium	"	1.00	0.954		"	70.0-130	95.4
Chromium	"	1.00	0.987		"	70.0-130	98.7
Copper	"	1.00	1.02		"	70.0-130	102
Iron	"	1.00	1.01		"	70.0-130	101
Magnesium	"	1.00	0.920		"	70.0-130	92.0
Manganese	"	1.00	0.920		"	70.0-130	92.0
Nickel	"	1.00	1.01		"	70.0-130	101
Zinc	"	1.00	0.993		"	70.0-130	99.3

Duplicate

1060039-DUP1

B609544-01

					Water			
Aluminum	10/5/96		ND	ND	mg/l (ppm)		20.0	1
Beryllium	"		ND	ND	"		20.0	1
Cadmium	"		ND	ND	"		20.0	1
Chromium	"		ND	ND	"		20.0	1
Copper	"		ND	ND	"		20.0	1
Iron	"		ND	ND	"		20.0	1
Magnesium	"		13.5	13.5	"		20.0	0
Manganese	"		ND	ND	"		20.0	1
Nickel	"		ND	ND	"		20.0	1
Zinc	"		ND	ND	"		20.0	1

Matrix Spike

1060039-MS1

B609544-01

					Water		
Aluminum	10/5/96	1.00	ND	1.13	mg/l (ppm)	75.0-125	113

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*Refer to end of report for text of notes.

Laura Dutton

Laura L Dutton, Project Manager



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808 East Sprague Avenue	Project Number: 29910 001 5304	Received: 9/27/96
Spokane, WA 99202	Project Manager: Dave Godlewski	Reported: 10/16/96

Dissolved Metals by EPA 200 Series Methods Quality Control

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Reporting Limit Units	Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Matrix Spike (continued)										
	1060039-MS1		B609544-01		Water					
Beryllium	10/5/96	1.00	ND	0.949	mg/l (ppm)	75.0-125	94.9			
Cadmium	"	1.00	ND	0.989	"	75.0-125	98.9			
Chromium	"	1.00	ND	0.988	"	75.0-125	98.8			
Copper	"	1.00	ND	1.03	"	75.0-125	103			
Iron	"	1.00	ND	1.00	"	75.0-125	100			
Magnesium	"	1.00	13.5	13.9	"	75.0-125				3
Manganese	"	1.00	ND	0.975	"	75.0-125	97.5			
Nickel	"	1.00	ND	0.968	"	75.0-125	96.8			
Zinc	"	1.00	ND	1.05	"	75.0-125	105			
Matrix Spike Dup										
	1060039-MSD1		B609544-01		Water					
Aluminum	10/5/96	1.00	ND	1.13	mg/l (ppm)	75.0-125	113	20.0	0	
Beryllium	"	1.00	ND	0.942	"	75.0-125	94.2	20.0	0.740	
Cadmium	"	1.00	ND	0.969	"	75.0-125	96.9	20.0	2.04	
Chromium	"	1.00	ND	1.02	"	75.0-125	102	20.0	3.19	
Copper	"	1.00	ND	0.989	"	75.0-125	98.9	20.0	4.06	
Iron	"	1.00	ND	0.975	"	75.0-125	97.5	20.0	2.53	
Magnesium	"	1.00	13.5	13.4	"	75.0-125		20.0		3
Manganese	"	1.00	ND	0.967	"	75.0-125	96.7	20.0	0.824	
Nickel	"	1.00	ND	0.972	"	75.0-125	97.2	20.0	0.412	
Zinc	"	1.00	ND	1.04	"	75.0-125	104	20.0	0.957	
Batch: 1060236										
Blank										
	1060236-BLK1				Water					
Lead	10/7/96			ND	mg/l (ppm)	0.00200				
Blank Spike										
	1060236-BS1				Water					
Lead	10/7/96	0.0250		0.0262	mg/l (ppm)	70.0-130	105			
Duplicate										
	1060236-DUP1		B610091-01		Water					
Lead	10/7/96		ND	ND	mg/l (ppm)			20.0		1
Matrix Spike										
	1060236-MS1		B610091-01		Water					
Lead	10/7/96	0.0250	ND	0.0232	mg/l (ppm)	75.0-125	92.8			
Matrix Spike Dup										
	1060236-MSD1		B610091-01		Water					
Lead	10/7/96	0.0250	ND	0.0238	mg/l (ppm)	75.0-125	95.2	20.0	2.55	

Laura L Dutton



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Environmental Laboratory Services

Offices:

BOTHELL ■ (206) 481-9200 ■ FAX 485-2992
SPOKANE ■ (509) 924-9200 ■ FAX 924-9290
PORTLAND ■ (503) 643-9200 ■ FAX 644-2202

Correspondence to: 18939 - 120th Ave. NE, #101, Bothell, WA 98011

Dames and Moore	Project: CHE	Sampled: 9/26/96
808 East Sprague Avenue	Project Number: 29910 001 5304	Received: 9/27/96
Spokane, WA 99202	Project Manager: Dave Godlewski	Reported: 10/16/96

Dissolved Metals by EPA 200 Series Methods Quality Control

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
<u>Batch: 1060259</u>		<u>Date Prepared: 10/7/96</u>								
<u>Blank</u>	<u>1060259-BLK1</u>				<u>Water</u>					
Silver	10/7/96			ND	mg/l (ppm)	0.0200				
<u>Blank Spike</u>	<u>1060259-BS1</u>				<u>Water</u>					
Silver	10/7/96	0.250		0.230	mg/l (ppm)	70.0-130	92.0			
<u>Duplicate</u>	<u>1060259-DUP1</u>		<u>B609544-03</u>		<u>Water</u>					
Silver	10/7/96		ND	ND	mg/l (ppm)			20.0		
<u>Matrix Spike</u>	<u>1060259-MS1</u>		<u>B609544-03</u>		<u>Water</u>					
Silver	10/7/96	0.250	ND	0.213	mg/l (ppm)	75.0-125	85.2			
<u>Matrix Spike Dup</u>	<u>1060259-MSD1</u>		<u>B609544-03</u>		<u>Water</u>					
Silver	10/7/96	0.250	ND	0.213	mg/l (ppm)	75.0-125	85.2	20.0	0	
<u>Batch: 1060264</u>		<u>Date Prepared: 10/4/96</u>								
<u>Blank</u>	<u>1060264-BLK1</u>				<u>Water</u>					
Mercury	10/8/96			ND	mg/l (ppm)	0.00100				
<u>Blank Spike</u>	<u>1060264-BS1</u>				<u>Water</u>					
Mercury	10/8/96	0.00500		0.00607	mg/l (ppm)	70.0-130	121			
<u>Duplicate</u>	<u>1060264-DUP1</u>		<u>B609544-01</u>		<u>Water</u>					
Mercury	10/8/96		ND	ND	mg/l (ppm)			20.0		
<u>Matrix Spike</u>	<u>1060264-MS1</u>		<u>B609544-01</u>		<u>Water</u>					
Mercury	10/8/96	0.00500	ND	0.00611	mg/l (ppm)	75.0-125	122			
<u>Matrix Spike Dup</u>	<u>1060264-MSD1</u>		<u>B609544-01</u>		<u>Water</u>					
Mercury	10/8/96	0.00500	ND	0.00607	mg/l (ppm)	75.0-125	121	20.0	0.823	
<u>Batch: 1060275</u>		<u>Date Prepared: 10/7/96</u>								
<u>Blank</u>	<u>1060275-BLK1</u>				<u>Water</u>					
Arsenic	10/8/96			ND	mg/l (ppm)	0.00400				
Selenium	10/7/96			ND	"	0.00500				
<u>Blank Spike</u>	<u>1060275-BS1</u>				<u>Water</u>					
Arsenic	10/8/96	0.0500		0.0507	mg/l (ppm)	70.0-130	101			

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*Refer to end of report for text of notes.

Laura Dutton

Laura L Dutton, Project Manager

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Environmental Laboratory Services

Offices:

BOTHELL ■ (206) 481-9200 ■ FAX 485-2992
SPOKANE ■ (509) 924-9200 ■ FAX 924-9290
PORTLAND ■ (503) 643-9200 ■ FAX 644-2202

Correspondence to: 18939 - 120th Ave. NE, #101, Bothell, WA 98011

Dames and Moore	Project: CHE	Sampled: 9/26/96
808 East Sprague Avenue	Project Number: 29910 001 5304	Received: 9/27/96
Spokane, WA 99202	Project Manager: Dave Godlewski	Reported: 10/16/96

Dissolved Metals by EPA 200 Series Methods Quality Control

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Blank Spike (continued)										
1060275-BS1					Water					
Selenium	10/7/96	0.0250		0.0249	mg/l (ppm)	70.0-130	99.6			
Duplicate										
1060275-DUP1			B609544-01		Water					
Arsenic	10/8/96		ND	ND	mg/l (ppm)			20.0		1
Selenium	10/7/96		ND	ND	"			20.0		1
Matrix Spike										
1060275-MS1			B609544-01		Water					
Arsenic	10/8/96	0.0500	ND	0.0513	mg/l (ppm)	75.0-125	103			
Selenium	10/7/96	0.0250	ND	0.0204	"	75.0-125	81.6			
Matrix Spike Dup										
1060275-MSD1			B609544-01		Water					
Arsenic	10/8/96	0.0500	ND	0.0519	mg/l (ppm)	75.0-125	104	20.0	0.966	
Selenium	10/7/96	0.0250	ND	0.0210	"	75.0-125	84.0	20.0	2.90	
Batch: 1060430										
Date Prepared: 10/14/96										
1060430-BLK1					Water					
Thallium	10/14/96			ND	mg/l (ppm)	0.00200				
Blank Spike										
1060430-BS1					Water					
Thallium	10/14/96	0.0300		0.0276	mg/l (ppm)	70.0-130	92.0			
Duplicate										
1060430-DUP1			B609544-03		Water					
Thallium	10/14/96		ND	ND	mg/l (ppm)			20.0		1
Matrix Spike										
1060430-MS1			B609544-03		Water					
Thallium	10/14/96	0.0300	ND	0.0270	mg/l (ppm)	75.0-125	90.0			
Matrix Spike Dup										
1060430-MSD1			B609544-03		Water					
Thallium	10/14/96	0.0300	ND	0.0258	mg/l (ppm)	75.0-125	86.0	20.0	4.55	
Batch: 1060431										
Date Prepared: 10/7/96										
1060431-BLK1					Water					
Antimony	10/14/96			ND	mg/l (ppm)	0.00500				
Blank Spike										
1060431-BS1					Water					
Antimony	10/14/96	0.0500		0.0515	mg/l (ppm)	70.0-130	103			

Laura Dutton



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BOTHELL ■ (206) 481-9200 ■ FAX 485-2992
SPOKANE ■ (509) 924-9200 ■ FAX 924-9290
PORTLAND ■ (503) 643-9200 ■ FAX 644-2202

Correspondence to: 18939 - 120th Ave. NE, #101, Bothell, WA 9807

Dames and Moore
808 East Sprague Avenue
Spokane, WA 99202

Project: CHE
Project Number: 29910 001 5304
Project Manager: Dave Godlewski

Sampled: 9/26/96
Received: 9/27/96
Reported: 10/16/96

Dissolved Metals by EPA 200 Series Methods Quality Control

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
<u>Duplicate</u>	<u>1060431-DUP1</u>		<u>B609544-03</u>							
Antimony	10/14/96		ND	ND	mg/l (ppm)			20.0		
<u>Matrix Spike</u>	<u>1060431-MS1</u>		<u>B609544-03</u>							
Antimony	10/14/96	0.0500	ND	0.0544	mg/l (ppm)	75.0-125	109			
<u>Matrix Spike Dup</u>	<u>1060431-MSD1</u>		<u>B609544-03</u>							
Antimony	10/14/96	0.0500	ND	0.0537	mg/l (ppm)	75.0-125	107	20.0	1.85	

Laura Dutton

Laura L Dutton, Project Manager



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Environmental Laboratory Services

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BOTHELL ■ (206) 481-9200 ■ FAX 485-2992
SPOKANE ■ (509) 924-9200 ■ FAX 924-9290
PORTLAND ■ (503) 643-9200 ■ FAX 644-2202

Correspondence to: 18939 - 120th Ave. NE, #101, Bothell, WA 98011

Dames and Moore
808 East Sprague Avenue
Spokane, WA 99202

Project: CHE
Project Number: 29910 001 5304
Project Manager: Dave Godlewski

Sampled: 9/26/96
Received: 9/27/96
Reported: 10/16/96

Metals by EPA 6010/7000 Series Methods Quality Control

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 1060262										
Date Prepared: 10/4/96										
Blank										
1060262-BLK1										
Mercury	10/8/96			ND	Water mg/l (ppm)	0.00100				
Blank Spike										
1060262-BS1										
Mercury	10/8/96	0.00500		0.00599	Water mg/l (ppm)	70.0-130	120			
Duplicate										
1060262-DUP1 B609544-01										
Mercury	10/8/96		ND	ND	Water mg/l (ppm)			20.0		1
Matrix Spike										
1060262-MS1 B609544-01										
Mercury	10/8/96	0.00500	ND	0.00610	Water mg/l (ppm)	75.0-125	122			
Matrix Spike Dup										
1060262-MSD1 B609544-01										
Mercury	10/8/96	0.00500	ND	0.00588	Water mg/l (ppm)	75.0-125	118	20.0	3.33	

Laura Dutton



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Environmental Laboratory Services

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BOTHELL ■ (206) 481-9200 ■ FAX 425-2992
SPOKANE ■ (509) 924-9200 ■ FAX 924-9290
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Dames and Moore

808 East Sprague Avenue

Spokane, WA 99202

Project: CHE

Project Number: 29910 001 5304

Project Manager: Dave Godlewski

Sampled: 9/26/96

Received: 9/27/96

Reported: 10/16/96

Notes

#	Note
1	RPD values are not reported at sample concentrations less than 10 times the reporting limit.
2	Due to matrix interference, the sample cannot be accurately quantitated. The reported result is qualitative.
3	The RPD and/or percent recovery for this QC spike sample cannot be accurately calculated due to the high concentration of analyte already present in the sample.

CHAIN OF CUSTODY REPORT

Work Order # **B609544**

REPORT TO: **Dave Godlewski**
ATTENTION: **Dames & Moore**
ADDRESS: **808 E Sprague Ave
Spokane WA 99202**
PHONE: **838 7430** FAX: **456 7377**
PROJECT NAME: **CHE**
PROJECT NUMBER: **29910 001 5304**
SAMPLED BY: **MPS**

INVOICE TO:
ATTENTION: **Same**
ADDRESS:
P.O. NUMBER: NCA QUOTE #:

TURNAROUND REQUEST in Business Days *

Organic & Inorganic Analyses
☒ 7 ☐ 5 ☐ 4 ☐ 3 ☐ 2 ☐ 1 ☐ Same Day
Standard

Fuels & Hydrocarbon Analyses
☐ 5 ☐ 3-4 ☐ 2 ☐ 1 ☐ Same Day
Standard

OTHER ☐ Specify
* Turnaround Request less than standard may incur Rush Charges

CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME	NCA SAMPLE ID (Laboratory Use Only)
DMW092696-1-5	9/26/1100	B609544-01
DMW092696-2-5	9/26/1205	02
DMW092696-3-5	9/26/1255	03
DMW092696-4-5	9/26/1400	04
DMW092696-A-5	9/26/1500	05

Total Metals dissolved metals									
X	X								
X	X								
X	X								
X	X								
X	X								

MATRIX (W, S, A, O)	# OF CONTAINERS	COMMENTS
W	2	Filter the
W	2	dissolved
W	2	samples
W	2	in the
W	2	lab.

RELINQUISHED BY: **Mary Shanks** DATE: **9/26**
PRINT NAME: **Mary Shanks** FIRM: **DOM** TIME: **14:34**
RELINQUISHED BY: **Scott L. Arnold** DATE: **9-26-96**
PRINT NAME: **Scott L. Arnold** FIRM: **NCA-1** TIME: **1509**

RECEIVED BY: **Camille Kane** DATE: **9-26-96**
PRINT NAME: **Camille Kane** FIRM: **NCA-1** TIME: **1430**
RECEIVED BY: **Lisa Hurley** DATE: **9-27-96**
PRINT NAME: **Lisa Hurley** FIRM: **NCA-B** TIME: **12:55**

ADDITIONAL REMARKS: **Logged in metals per B606340-same project-per LD 9/30 -JA**



REPORT OF LABORATORY ANALYSIS

September 28, 1995

Mr. Bill Fees
Dames & Moores, Spokane Office
808 E. Sprague Ave.
Spokane, WA 99202

RE: PACE Project Number: 703235
Client Project ID: C H & E Old Inland Pit

Dear Mr. Fees:

Enclosed are the results of analyses for sample(s) received on September 12, 1995. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in cursive script that reads "Donna Breaux".

Donna J. Breaux
Project Manager

Enclosures



REPORT OF LABORATORY ANALYSIS

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Dames & Moores, Spokane Office
808 E. Sprague Ave.
Spokane, WA 99202

PACE Project Number: 703235
Client Project ID: C H & E Old Inland Pit

Attn: Mr. Bill Fees
Phone: (509)838-7430

PACE Sample No: 70287438		Date Collected: 09/08/95						
Client Sample ID: DMW090895-1-01 (TOT)		Date Received: 09/12/95						
Parameters	Results	Units	PRL	Analyzed	Method	Analyst	CAS#	Footnotes
Metals								
Mercury, CVAAS								
Mercury	ND	ug/L	0.2	09/14/95	EPA 7470	SMS	7439-97-6	
Antimony, AAS Furnace								
Antimony	ND	ug/L	5	09/19/95	EPA 7041	AMH	7440-36-0	
Date Digested				09/14/95				
Arsenic, AAS Furnace								
Arsenic	ND	ug/L	5	09/18/95	EPA 7060	SMS	7440-38-2	
Date Digested				09/14/95				
Lead, AAS Furnace								
Lead	ND	ug/L	5	09/21/95	EPA 7421	AMH	7439-92-1	
Date Digested				09/14/95				
Thallium, AAS Furnace								
Thallium	ND	ug/L	5	09/18/95	EPA 7841	AMH	7440-28-0	
Date Digested				09/14/95				
Metals, ICP								
Aluminum	ND	ug/L	75	09/14/95	EPA 6010	BRW	7429-90-5	
Beryllium	ND	ug/L	1	09/14/95	EPA 6010	BRW	7440-41-7	1
Cadmium	ND	ug/L	5	09/14/95	EPA 6010	BRW	7440-43-9	
Chromium	ND	ug/L	7	09/14/95	EPA 6010	BRW	7440-47-3	
Copper	ND	ug/L	10	09/14/95	EPA 6010	BRW	7440-50-8	
Iron	ND	ug/L	40	09/14/95	EPA 6010	BRW	7439-89-6	
Manganese	213	ug/L	7	09/14/95	EPA 6010	BRW	7439-96-5	2
Nickel	ND	ug/L	30	09/14/95	EPA 6010	BRW	7440-02-0	
Selenium	ND	ug/L	100	09/14/95	EPA 6010	BRW	7782-49-2	
Silver	ND	ug/L	7	09/14/95	EPA 6010	BRW	7440-22-4	
Zinc	ND	ug/L	20	09/14/95	EPA 6010	BRW	7440-66-6	
Date Digested				09/14/95				



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PACE Project Number: 703235
Client Project ID: C H & E Old Inland Pit

PACE Sample No: 70287461
Client Sample ID: DMW090895-1-01 (DIS)

Date Collected: 09/08/95
Date Received: 09/12/95

Parameters	Results	Units	PRL	Analyzed	Method	Analyst	CAS#	Footnotes
Metals								
Mercury, CVAAS								
Mercury	ND	ug/L	0.2	09/14/95	EPA 7470	SMS	7439-97-6	
Antimony, AAS Furnace								
Antimony	ND	ug/L	5	09/19/95	EPA 7041	AMH	7440-36-0	
Date Digested				09/14/95				
Arsenic, AAS Furnace								
Arsenic	ND	ug/L	5	09/18/95	EPA 7060	SMS	7440-38-2	
Date Digested				09/14/95				
Lead, AAS Furnace								
Lead	ND	ug/L	5	09/21/95	EPA 7421	AMH	7439-92-1	
Date Digested				09/14/95				
Thallium, AAS Furnace								
Thallium	ND	ug/L	5	09/18/95	EPA 7841	AMH	7440-28-0	
Date Digested				09/14/95				
Metals, ICP								
Aluminum	ND	ug/L	75	09/14/95	EPA 6010	BRW	7429-90-5	
Beryllium	ND	ug/L	1	09/14/95	EPA 6010	BRW	7440-41-7	3
Calcium	ND	ug/L	5	09/14/95	EPA 6010	BRW	7440-43-9	
Cadmium	ND	ug/L	7	09/14/95	EPA 6010	BRW	7440-47-3	
Copper	ND	ug/L	10	09/14/95	EPA 6010	BRW	7440-50-8	
Iron	ND	ug/L	40	09/14/95	EPA 6010	BRW	7439-89-6	
Manganese	239	ug/L	7	09/14/95	EPA 6010	BRW	7439-96-5	4
Nickel	ND	ug/L	30	09/14/95	EPA 6010	BRW	7440-02-0	
Selenium	ND	ug/L	100	09/14/95	EPA 6010	BRW	7782-49-2	
Silver	ND	ug/L	7	09/14/95	EPA 6010	BRW	7440-22-4	
Zinc	ND	ug/L	20	09/14/95	EPA 6010	BRW	7440-66-6	
Date Digested				09/14/95				



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PACE Project Number: 703235
Client Project ID: C H & E Old Inland Pit

PACE Sample No: 70287479
Client Sample ID: DMW090895-1-1A (TOT)

Date Collected: 09/08/95
Date Received: 09/12/95

Parameters	Results	Units	PRL	Analyzed	Method	Analyst	CAS#	Footnotes
Metals								
Mercury, CVAAS								
Mercury	ND	ug/L	0.2	09/14/95	EPA 7470	SMS	7439-97-6	
Antimony, AAS Furnace								
Antimony	ND	ug/L	5	09/19/95	EPA 7041	AMH	7440-36-0	
Date Digested				09/14/95				
Arsenic, AAS Furnace								
Arsenic	ND	ug/L	5	09/18/95	EPA 7060	SMS	7440-38-2	
Date Digested				09/14/95				
Lead, AAS Furnace								
Lead	ND	ug/L	5	09/21/95	EPA 7421	AMH	7439-92-1	
Date Digested				09/14/95				
Thallium, AAS Furnace								
Thallium	ND	ug/L	5	09/18/95	EPA 7841	AMH	7440-28-0	
Date Digested				09/14/95				
Metals, ICP								
Aluminum	ND	ug/L	75	09/14/95	EPA 6010	BRW	7429-90-5	
Beryllium	ND	ug/L	1	09/14/95	EPA 6010	BRW	7440-41-7	5
Cadmium	ND	ug/L	5	09/14/95	EPA 6010	BRW	7440-43-9	
Chromium	ND	ug/L	7	09/14/95	EPA 6010	BRW	7440-47-3	
Copper	ND	ug/L	10	09/14/95	EPA 6010	BRW	7440-50-8	
Iron	115	ug/L	40	09/14/95	EPA 6010	BRW	7439-89-6	
Manganese	210	ug/L	7	09/14/95	EPA 6010	BRW	7439-96-5	6
Nickel	ND	ug/L	30	09/14/95	EPA 6010	BRW	7440-02-0	
Selenium	ND	ug/L	100	09/14/95	EPA 6010	BRW	7782-49-2	
Silver	ND	ug/L	7	09/14/95	EPA 6010	BRW	7440-22-4	
Zinc	ND	ug/L	20	09/14/95	EPA 6010	BRW	7440-66-6	
Date Digested				09/14/95				



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PACE Project Number: 703235
Client Project ID: C H & E Old Inland Pit

PACE Sample No: 70287487
Client Sample ID: DMW090895-1-1A (DIS)

Date Collected: 09/09/95
Date Received: 09/12/95

Parameters	Results	Units	PRL	Analyzed	Method	Analyst	CAS#	Footnotes
Metals								
Mercury, CVAAS								
Mercury	ND	ug/L	0.2	09/14/95	EPA 7470	SMS	7439-97-6	
Antimony, AAS Furnace								
Antimony	ND	ug/L	5	09/19/95	EPA 7041	AMH	7440-36-0	
Date Digested				09/14/95				
Arsenic, AAS Furnace								
Arsenic	ND	ug/L	5	09/18/95	EPA 7060	SMS	7440-38-2	
Date Digested				09/14/95				
Lead, AAS Furnace								
Lead	ND	ug/L	5	09/21/95	EPA 7421	AMH	7439-92-1	
Date Digested				09/14/95				
Thallium, AAS Furnace								
Thallium	ND	ug/L	5	09/18/95	EPA 7841	AMH	7440-28-0	
Date Digested				09/14/95				
Metals, ICP								
Aluminum	ND	ug/L	75	09/14/95	EPA 6010	BRW	7429-90-5	
Beryllium	ND	ug/L	1	09/14/95	EPA 6010	BRW	7440-41-7	
Cadmium	ND	ug/L	5	09/14/95	EPA 6010	BRW	7440-43-9	
Cromium	ND	ug/L	7	09/14/95	EPA 6010	BRW	7440-47-3	
Copper	ND	ug/L	10	09/14/95	EPA 6010	BRW	7440-50-8	
Iron	50.6	ug/L	40	09/14/95	EPA 6010	BRW	7439-89-6	
Manganese	225	ug/L	7	09/14/95	EPA 6010	BRW	7439-96-5	
Nickel	ND	ug/L	30	09/14/95	EPA 6010	BRW	7440-02-0	
Selenium	ND	ug/L	100	09/14/95	EPA 6010	BRW	7782-49-2	
Silver	ND	ug/L	7	09/14/95	EPA 6010	BRW	7440-22-4	
Zinc	20.7	ug/L	20	09/14/95	EPA 6010	BRW	7440-66-6	
Date Digested				09/14/95				

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PACE Project Number: 703235
Client Project ID: C H & E Old Inland Pit

PACE Sample No: 70287495
Client Sample ID: DMW090895-2-02 (TOT)

Date Collected: 09/09/95
Date Received: 09/12/95

Parameters	Results	Units	PRL	Analyzed	Method	Analyst	CAS#	Footnotes
Metals								
Mercury, CVAAS								
Mercury	ND	ug/L	0.2	09/14/95	EPA 7470	SMS	7439-97-6	
Antimony, AAS Furnace								
Antimony	ND	ug/L	5	09/19/95	EPA 7041	AMH	7440-36-0	
Date Digested				09/14/95				
Arsenic, AAS Furnace								
Arsenic	ND	ug/L	5	09/18/95	EPA 7060	SMS	7440-38-2	
Date Digested				09/14/95				
Lead, AAS Furnace								
Lead	ND	ug/L	5	09/21/95	EPA 7421	AMH	7439-92-1	
Date Digested				09/14/95				
Thallium, AAS Furnace								
Thallium	ND	ug/L	5	09/18/95	EPA 7841	AMH	7440-28-0	
Date Digested				09/14/95				
Metals, ICP								
Aluminum	ND	ug/L	75	09/14/95	EPA 6010	BRW	7429-90-5	
Beryllium	ND	ug/L	1	09/14/95	EPA 6010	BRW	7440-41-7	
Cadmium	ND	ug/L	5	09/14/95	EPA 6010	BRW	7440-43-9	
Chromium	ND	ug/L	7	09/14/95	EPA 6010	BRW	7440-47-3	
Copper	ND	ug/L	10	09/14/95	EPA 6010	BRW	7440-50-8	
Iron	132	ug/L	40	09/14/95	EPA 6010	BRW	7439-89-6	
Manganese	184	ug/L	7	09/14/95	EPA 6010	BRW	7439-96-5	
Nickel	34.6	ug/L	30	09/14/95	EPA 6010	BRW	7440-02-0	
Selenium	ND	ug/L	100	09/14/95	EPA 6010	BRW	7782-49-2	
Silver	ND	ug/L	7	09/14/95	EPA 6010	BRW	7440-22-4	
Zinc	ND	ug/L	20	09/14/95	EPA 6010	BRW	7440-66-6	
Date Digested				09/14/95				



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PACE Project Number: 703235
Client Project ID: C H & E Old Inland Pit

PACE Sample No: 70287503
Client Sample ID: DMW090895-2-02 (DIS)

Date Collected: 09/09/95
Date Received: 09/12/95

Parameters	Results	Units	PRL	Analyzed	Method	Analyst	CAS#	Footnotes
Metals								
Mercury, CVAAS								
Mercury	ND	ug/L	0.2	09/14/95	EPA 7470	SMS	7439-97-6	
Antimony, AAS Furnace								
Antimony	ND	ug/L	5	09/19/95	EPA 7041	AMH	7440-36-0	
Date Digested				09/14/95				
Arsenic, AAS Furnace								
Arsenic	ND	ug/L	5	09/18/95	EPA 7060	SMS	7440-38-2	
Date Digested				09/14/95				
Lead, AAS Furnace								
Lead	ND	ug/L	5	09/21/95	EPA 7421	AMH	7439-92-1	
Date Digested				09/14/95				
Thallium, AAS Furnace								
Thallium	ND	ug/L	5	09/18/95	EPA 7841	AMH	7440-28-0	
Date Digested				09/14/95				
Metals, ICP								
Aluminum	ND	ug/L	75	09/14/95	EPA 6010	BRW	7429-90-5	
Beryllium	ND	ug/L	1	09/14/95	EPA 6010	BRW	7440-41-7	
Cadmium	ND	ug/L	5	09/14/95	EPA 6010	BRW	7440-43-9	
Chromium	ND	ug/L	7	09/14/95	EPA 6010	BRW	7440-47-3	
Copper	ND	ug/L	10	09/14/95	EPA 6010	BRW	7440-50-8	
Iron	110	ug/L	40	09/14/95	EPA 6010	BRW	7439-89-6	
Manganese	174	ug/L	7	09/14/95	EPA 6010	BRW	7439-96-5	
Nickel	31.8	ug/L	30	09/14/95	EPA 6010	BRW	7440-02-0	
Selenium	ND	ug/L	100	09/14/95	EPA 6010	BRW	7782-49-2	
Silver	ND	ug/L	7	09/14/95	EPA 6010	BRW	7440-22-4	
Zinc	ND	ug/L	20	09/14/95	EPA 6010	BRW	7440-66-6	
Date Digested				09/14/95				



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PACE Project Number: 703235
Client Project ID: C H & E Old Inland Pit

PACE Sample No: 70288741
Client Sample ID: DMS090895-01

Date Collected: 09/08/95
Date Received: 09/12/95

Parameters	Results	Units	PRL	Analyzed	Method	Analyst	CAS#	Footnotes
Metals								
Mercury, CVAAS								
Mercury	0.0376	mg/kg	0.0235	09/22/95	EPA 7471	AMH	7439-97-6	
Metals, ICP								
Aluminum	11600	mg/kg	7.43	09/19/95	EPA 6010	BRW	7429-90-5	
Antimony	ND	mg/kg	4.95	09/19/95	EPA 6010	BRW	7440-36-0	
Arsenic	ND	mg/kg	8.42	09/19/95	EPA 6010	BRW	7440-38-2	
Beryllium	0.377	mg/kg	0.099	09/19/95	EPA 6010	BRW	7440-41-7	
Cadmium	ND	mg/kg	0.495	09/19/95	EPA 6010	BRW	7440-43-9	
Chromium	11.6	mg/kg	0.693	09/19/95	EPA 6010	BRW	7440-47-3	
Copper	20.8	mg/kg	0.99	09/19/95	EPA 6010	BRW	7440-50-8	
Iron	13600	mg/kg	3.96	09/19/95	EPA 6010	BRW	7439-89-6	
Lead	38.5	mg/kg	4.95	09/19/95	EPA 6010	BRW	7439-92-1	
Manganese	474	mg/kg	0.693	09/19/95	EPA 6010	BRW	7439-96-5	
Nickel	8.15	mg/kg	2.97	09/19/95	EPA 6010	BRW	7440-02-0	
Selenium	ND	mg/kg	9.9	09/19/95	EPA 6010	BRW	7782-49-2	
Silver	ND	mg/kg	0.693	09/19/95	EPA 6010	BRW	7440-22-4	
Thallium	ND	mg/kg	9.9	09/19/95	EPA 6010	BRW	7440-28-0	
Zinc	184	mg/kg	1.98	09/19/95	EPA 6010	BRW	7440-66-6	
Date Digested				09/18/95				



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PACE Project Number: 703235

Client Project ID: C H & E Old Inland Pit

PACE Sample No: 70288758
Client Sample ID: DMS090895-02

Date Collected: 09/08/95
Date Received: 09/12/95

Parameters	Results	Units	PRL	Analyzed	Method	Analyst	CAS#	Footnotes
Metals								
Mercury, CVAAS								
Mercury	ND	mg/kg	0.0236	09/22/95	EPA 7471	AMH	7439-97-6	
Metals, ICP								
Aluminum	1550	mg/kg	7.28	09/19/95	EPA 6010	BRW	7429-90-5	
Antimony	ND	mg/kg	4.85	09/19/95	EPA 6010	BRW	7440-36-0	
Arsenic	ND	mg/kg	8.25	09/19/95	EPA 6010	BRW	7440-38-2	
Beryllium	ND	mg/kg	0.0971	09/19/95	EPA 6010	BRW	7440-41-7	
Cadmium	ND	mg/kg	0.485	09/19/95	EPA 6010	BRW	7440-43-9	
Chromium	138	mg/kg	0.68	09/19/95	EPA 6010	BRW	7440-47-3	
Copper	18.2	mg/kg	0.971	09/19/95	EPA 6010	BRW	7440-50-8	
Iron	5240	mg/kg	3.88	09/19/95	EPA 6010	BRW	7439-89-6	
Lead	ND	mg/kg	4.85	09/19/95	EPA 6010	BRW	7439-92-1	
Manganese	79.1	mg/kg	0.68	09/19/95	EPA 6010	BRW	7439-96-5	
Nickel	5.17	mg/kg	2.91	09/19/95	EPA 6010	BRW	7440-02-0	
Selenium	ND	mg/kg	9.71	09/19/95	EPA 6010	BRW	7782-49-2	
Silver	ND	mg/kg	0.68	09/19/95	EPA 6010	BRW	7440-22-4	
Thallium	ND	mg/kg	9.71	09/19/95	EPA 6010	BRW	7440-28-0	
Zinc	9.67	mg/kg	1.94	09/19/95	EPA 6010	BRW	7440-66-6	
ate Digested				09/18/95				



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PACE Project Number: 703235

Client Project ID: C H & E Old Inland Pit

PACE Sample No: 70288766
Client Sample ID: DMS090895-03

Date Collected: 09/08/95
Date Received: 09/12/95

Parameters	Results	Units	PRL	Analyzed	Method	Analyst	CAS#	Footnotes
Metals								
Mercury, CVAAS								
Mercury	ND	mg/kg	0.0185	09/22/95	EPA 7471	AMH	7439-97-6	
Metals, ICP								
Aluminum	8580	mg/kg	6.58	09/19/95	EPA 6010	BRW	7429-90-5	
Antimony	ND	mg/kg	4.39	09/19/95	EPA 6010	BRW	7440-36-0	
Arsenic	ND	mg/kg	7.46	09/19/95	EPA 6010	BRW	7440-38-2	
Beryllium	0.311	mg/kg	0.0877	09/19/95	EPA 6010	BRW	7440-41-7	
Cadmium	ND	mg/kg	0.439	09/19/95	EPA 6010	BRW	7440-43-9	
Chromium	36.9	mg/kg	0.614	09/19/95	EPA 6010	BRW	7440-47-3	
Copper	73.2	mg/kg	0.877	09/19/95	EPA 6010	BRW	7440-50-8	
Iron	11200	mg/kg	3.51	09/19/95	EPA 6010	BRW	7439-89-6	
Lead	41.9	mg/kg	4.39	09/19/95	EPA 6010	BRW	7439-92-1	
Manganese	167	mg/kg	0.614	09/19/95	EPA 6010	BRW	7439-96-5	
Nickel	29.3	mg/kg	2.63	09/19/95	EPA 6010	BRW	7440-02-0	
Selenium	ND	mg/kg	8.77	09/19/95	EPA 6010	BRW	7782-49-2	
Silver	ND	mg/kg	0.614	09/19/95	EPA 6010	BRW	7440-22-4	
Thallium	ND	mg/kg	8.77	09/19/95	EPA 6010	BRW	7440-28-0	
Zinc	78.8	mg/kg	1.75	09/19/95	EPA 6010	BRW	7440-66-6	
Date Digested				09/18/95				

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PACE Project Number: 703235

Client Project ID: C H & E Old Inland Pit

PACE Sample No: 70288774
Client Sample ID: DMS090895-04

Date Collected: 09/08/95
Date Received: 09/12/95

Parameters	Results	Units	PRL	Analyzed	Method	Analyst	CAS#	Footnotes
Metals								
Mercury, CVAAS								
Mercury	ND	mg/kg	0.0198	09/22/95	EPA 7471	AMH	7439-97-6	
Metals, ICP								
Aluminum	9470	mg/kg	7.28	09/19/95	EPA 6010	BRW	7429-90-5	
Antimony	ND	mg/kg	4.85	09/19/95	EPA 6010	BRW	7440-36-0	
Arsenic	ND	mg/kg	8.25	09/19/95	EPA 6010	BRW	7440-38-2	
Beryllium	0.314	mg/kg	0.0971	09/19/95	EPA 6010	BRW	7440-41-7	
Cadmium	ND	mg/kg	0.485	09/19/95	EPA 6010	BRW	7440-43-9	
Chromium	20.6	mg/kg	0.68	09/19/95	EPA 6010	BRW	7440-47-3	
Copper	18.3	mg/kg	0.971	09/19/95	EPA 6010	BRW	7440-50-8	
Iron	14400	mg/kg	3.88	09/19/95	EPA 6010	BRW	7439-89-6	
Lead	19.1	mg/kg	4.85	09/19/95	EPA 6010	BRW	7439-92-1	
Manganese	366	mg/kg	0.68	09/19/95	EPA 6010	BRW	7439-96-5	
Nickel	10.5	mg/kg	2.91	09/19/95	EPA 6010	BRW	7440-02-0	
Selenium	ND	mg/kg	9.71	09/19/95	EPA 6010	BRW	7782-49-2	
Silver	ND	mg/kg	0.68	09/19/95	EPA 6010	BRW	7440-22-4	
Thallium	ND	mg/kg	9.71	09/19/95	EPA 6010	BRW	7440-28-0	
Zinc	60.9	mg/kg	1.94	09/19/95	EPA 6010	BRW	7440-66-6	
Date Digested				09/18/95				



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PACE Project Number: 703235
Client Project ID: C H & E Old Inland Pit

PACE Sample No: 70288782
Client Sample ID: DMS090895-05

Date Collected: 09/08/95
Date Received: 09/12/95

Parameters	Results	Units	PRL	Analyzed	Method	Analyst	CAS#	Footnotes
Metals								
Mercury, CVAAS								
Mercury	ND	mg/kg	0.0217	09/22/95	EPA 7471	AMH	7439-97-6	
Metals, ICP								
Aluminum	9460	mg/kg	6.88	09/19/95	EPA 6010	BRW	7429-90-5	
Antimony	ND	mg/kg	4.59	09/19/95	EPA 6010	BRW	7440-36-0	
Arsenic	18.7	mg/kg	7.8	09/19/95	EPA 6010	BRW	7440-38-2	
Beryllium	0.374	mg/kg	0.0917	09/19/95	EPA 6010	BRW	7440-41-7	
Cadmium	ND	mg/kg	0.459	09/19/95	EPA 6010	BRW	7440-43-9	
Chromium	16.1	mg/kg	0.642	09/19/95	EPA 6010	BRW	7440-47-3	
Copper	16.8	mg/kg	0.917	09/19/95	EPA 6010	BRW	7440-50-8	
Iron	15600	mg/kg	3.67	09/19/95	EPA 6010	BRW	7439-89-6	
Lead	29.1	mg/kg	4.59	09/19/95	EPA 6010	BRW	7439-92-1	
Manganese	403	mg/kg	0.642	09/19/95	EPA 6010	BRW	7439-96-5	
Nickel	9.89	mg/kg	2.75	09/19/95	EPA 6010	BRW	7440-02-0	
Selenium	ND	mg/kg	9.17	09/19/95	EPA 6010	BRW	7782-49-2	
Silver	ND	mg/kg	0.642	09/19/95	EPA 6010	BRW	7440-22-4	
Thallium	ND	mg/kg	9.17	09/19/95	EPA 6010	BRW	7440-28-0	
Zinc	88.7	mg/kg	1.83	09/19/95	EPA 6010	BRW	7440-66-6	
Date Digested				09/18/95				



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PACE Project Number: 703235
Client Project ID: C H & E Old Inland Pit

PACE Sample No: 70288790
Client Sample ID: DMS090895-06

Date Collected: 09/08/95
Date Received: 09/12/95

Parameters	Results	Units	PRL	Analyzed	Method	Analyst	CAS#	Footnotes
Metals								
Mercury, CVAAS								
Mercury	0.0224	mg/kg	0.0214	09/22/95	EPA 7471	AMH	7439-97-6	
Metals, ICP								
Aluminum	8670	mg/kg	7.28	09/19/95	EPA 6010	BRW	7429-90-5	
Antimony	ND	mg/kg	4.85	09/19/95	EPA 6010	BRW	7440-36-0	
Arsenic	14.3	mg/kg	8.25	09/19/95	EPA 6010	BRW	7440-38-2	
Beryllium	0.273	mg/kg	0.0971	09/19/95	EPA 6010	BRW	7440-41-7	
Cadmium	0.641	mg/kg	0.485	09/19/95	EPA 6010	BRW	7440-43-9	
Chromium	500	mg/kg	0.68	09/19/95	EPA 6010	BRW	7440-47-3	
Copper	139	mg/kg	0.971	09/19/95	EPA 6010	BRW	7440-50-8	
Iron	68800	mg/kg	19.4	09/19/95	EPA 6010	BRW	7439-89-6	7
Lead	53.4	mg/kg	4.85	09/19/95	EPA 6010	BRW	7439-92-1	
Manganese	1190	mg/kg	0.68	09/19/95	EPA 6010	BRW	7439-96-5	
Nickel	107	mg/kg	2.91	09/19/95	EPA 6010	BRW	7440-02-0	
Selenium	12.3	mg/kg	9.71	09/19/95	EPA 6010	BRW	7782-49-2	
Silver	ND	mg/kg	0.68	09/19/95	EPA 6010	BRW	7440-22-4	
Thallium	ND	mg/kg	9.71	09/19/95	EPA 6010	BRW	7440-28-0	
Zinc	152	mg/kg	1.94	09/19/95	EPA 6010	BRW	7440-66-6	
ate Digested				09/18/95				



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PACE Project Number: 703235
Client Project ID: C H & E Old Inland Pit

PACE Sample No: 70288808
Client Sample ID: DMS090895-07

Date Collected: 09/08/95
Date Received: 09/12/95

Parameters	Results	Units	PRL	Analyzed	Method	Analyst	CAS#	Footnotes
Metals								
Mercury, CVAAS	ND	mg/kg	0.021	09/22/95	EPA 7471	AMH	7439-97-6	
Metals, ICP								
Aluminum	11400	mg/kg	6.3	09/19/95	EPA 6010	BRW	7429-90-5	
Antimony	ND	mg/kg	4.2	09/19/95	EPA 6010	BRW	7440-36-0	
Arsenic	ND	mg/kg	7.14	09/19/95	EPA 6010	BRW	7440-38-2	
Beryllium	0.709	mg/kg	0.084	09/19/95	EPA 6010	BRW	7440-41-7	
Cadmium	1.07	mg/kg	0.42	09/19/95	EPA 6010	BRW	7440-43-9	
Chromium	19.6	mg/kg	0.588	09/19/95	EPA 6010	BRW	7440-47-3	
Copper	23.5	mg/kg	0.84	09/19/95	EPA 6010	BRW	7440-50-8	
Iron	19500	mg/kg	3.36	09/19/95	EPA 6010	BRW	7439-89-6	
Lead	90.2	mg/kg	4.2	09/19/95	EPA 6010	BRW	7439-92-1	
Manganese	229	mg/kg	0.588	09/19/95	EPA 6010	BRW	7439-96-5	
Nickel	12.4	mg/kg	2.52	09/19/95	EPA 6010	BRW	7440-02-0	
Selenium	ND	mg/kg	8.4	09/19/95	EPA 6010	BRW	7782-49-2	
Silver	ND	mg/kg	0.588	09/19/95	EPA 6010	BRW	7440-22-4	
Thallium	ND	mg/kg	8.4	09/19/95	EPA 6010	BRW	7440-28-0	
Zinc	404	mg/kg	1.68	09/19/95	EPA 6010	BRW	7440-66-6	
Date Digested				09/18/95				



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PACE Project Number: 703235
Client Project ID: C H & E Old Inland Pit

PACE Sample No: 70288816
Client Sample ID: DMS090895-08

Date Collected: 09/08/95
Date Received: 09/12/95

Parameters	Results	Units	PRL	Analyzed	Method	Analyst	CAS#	Footnotes
Metals								
Mercury, CVAAS								
Mercury	ND	mg/kg	0.0229	09/22/95	EPA 7471	AMH	7439-97-6	
Metals, ICP								
Aluminum	7600	mg/kg	5.73	09/19/95	EPA 6010	BRW	7429-90-5	
Antimony	ND	mg/kg	3.82	09/19/95	EPA 6010	BRW	7440-36-0	
Arsenic	773	mg/kg	6.49	09/19/95	EPA 6010	BRW	7440-38-2	
Beryllium	0.246	mg/kg	0.0763	09/19/95	EPA 6010	BRW	7440-41-7	
Cadmium	ND	mg/kg	0.382	09/19/95	EPA 6010	BRW	7440-43-9	
Chromium	12.5	mg/kg	0.534	09/19/95	EPA 6010	BRW	7440-47-3	
Copper	14.1	mg/kg	0.763	09/19/95	EPA 6010	BRW	7440-50-8	
Iron	12700	mg/kg	3.05	09/19/95	EPA 6010	BRW	7439-89-6	
Lead	20.1	mg/kg	3.82	09/19/95	EPA 6010	BRW	7439-92-1	
Manganese	321	mg/kg	0.534	09/19/95	EPA 6010	BRW	7439-96-5	
Nickel	6.29	mg/kg	2.29	09/19/95	EPA 6010	BRW	7440-02-0	
Selenium	ND	mg/kg	7.63	09/19/95	EPA 6010	BRW	7782-49-2	
Silver	ND	mg/kg	0.534	09/19/95	EPA 6010	BRW	7440-22-4	
Thallium	ND	mg/kg	7.63	09/19/95	EPA 6010	BRW	7440-28-0	
Zinc	35.5	mg/kg	1.53	09/19/95	EPA 6010	BRW	7440-66-6	
Not Digest				09/18/95				



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PACE Project Number: 703235

Client Project ID: C H & E Old Inland Pit

PACE Sample No: 70288899
Client Sample ID: DMS090895-8X

Date Collected: 09/08/95
Date Received: 09/12/95

Parameters	Results	Units	PRL	Analyzed	Method	Analyst	CAS#	Footnotes
Metals								
Mercury, CVAAS								
Mercury	ND	mg/kg	0.02	09/22/95	EPA 7471	AMH	7439-97-6	
Metals, ICP								
Aluminum	6840	mg/kg	7.35	09/19/95	EPA 6010	BRW	7429-90-5	
Antimony	ND	mg/kg	4.9	09/19/95	EPA 6010	BRW	7440-36-0	
Arsenic	ND	mg/kg	8.33	09/19/95	EPA 6010	BRW	7440-38-2	
Beryllium	0.173	mg/kg	0.098	09/19/95	EPA 6010	BRW	7440-41-7	
Cadmium	ND	mg/kg	0.49	09/19/95	EPA 6010	BRW	7440-43-9	
Chromium	8.89	mg/kg	0.686	09/19/95	EPA 6010	BRW	7440-47-3	
Copper	8.56	mg/kg	0.98	09/19/95	EPA 6010	BRW	7440-50-8	
Iron	9840	mg/kg	3.92	09/19/95	EPA 6010	BRW	7439-89-6	
Lead	20.2	mg/kg	4.9	09/19/95	EPA 6010	BRW	7439-92-1	
Manganese	205	mg/kg	0.686	09/19/95	EPA 6010	BRW	7439-96-5	
Nickel	5.69	mg/kg	2.94	09/19/95	EPA 6010	BRW	7440-02-0	
Selenium	ND	mg/kg	9.8	09/19/95	EPA 6010	BRW	7782-49-2	
Silver	ND	mg/kg	0.686	09/19/95	EPA 6010	BRW	7440-22-4	
Thallium	ND	mg/kg	9.8	09/19/95	EPA 6010	BRW	7440-28-0	
Zinc	33.4	mg/kg	1.96	09/19/95	EPA 6010	BRW	7440-66-6	
Date Digested				09/18/95				



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PACE Project Number: 703235

Client Project ID: C H & E Old Inland Pit

PACE Sample No: 70288907
Client Sample ID: DMS090895-8S

Date Collected: 09/08/95
Date Received: 09/12/95

Parameters	Results	Units	PRL	Analyzed	Method	Analyst	CAS#	Footnotes
Metals								
Mercury, CVAAS								
Mercury	ND	mg/kg	0.0182	09/22/95	EPA 7471	AMH	7439-97-6	
Metals, ICP								
Aluminum	12300	mg/kg	7.35	09/19/95	EPA 6010	BRW	7429-90-5	
Antimony	ND	mg/kg	4.9	09/19/95	EPA 6010	BRW	7440-36-0	
Arsenic	15.3	mg/kg	8.33	09/19/95	EPA 6010	BRW	7440-38-2	
Beryllium	0.356	mg/kg	0.098	09/19/95	EPA 6010	BRW	7440-41-7	
Cadmium	ND	mg/kg	0.49	09/19/95	EPA 6010	BRW	7440-43-9	
Chromium	15.4	mg/kg	0.686	09/19/95	EPA 6010	BRW	7440-47-3	
Copper	13.8	mg/kg	0.98	09/19/95	EPA 6010	BRW	7440-50-8	
Iron	15500	mg/kg	3.92	09/19/95	EPA 6010	BRW	7439-89-6	
Lead	28.4	mg/kg	4.9	09/19/95	EPA 6010	BRW	7439-92-1	
Manganese	409	mg/kg	0.686	09/19/95	EPA 6010	BRW	7439-96-5	
Nickel	7.91	mg/kg	2.94	09/19/95	EPA 6010	BRW	7440-02-0	
Selenium	ND	mg/kg	9.8	09/19/95	EPA 6010	BRW	7782-49-2	
Silver	ND	mg/kg	0.686	09/19/95	EPA 6010	BRW	7440-22-4	
Thallium	ND	mg/kg	9.8	09/19/95	EPA 6010	BRW	7440-28-0	
Zinc	50.2	mg/kg	1.96	09/19/95	EPA 6010	BRW	7440-66-6	
Date Digested				09/18/95				

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PACE Project Number: 703235
Client Project ID: C H & E Old Inland Pit

PACE Sample No: 70288915
Client Sample ID: DMS090895-09

Date Collected: 09/08/95
Date Received: 09/12/95

Parameters	Results	Units	PRL	Analyzed	Method	Analyst	CAS#	Footnotes
Metals								
Mercury, CVAAS								
Mercury	ND	mg/kg	0.0229	09/22/95	EPA 7471	AMH	7439-97-6	
Metals, ICP								
Aluminum	12700	mg/kg	7.21	09/19/95	EPA 6010	BRW	7429-90-5	
Antimony	ND	mg/kg	4.81	09/19/95	EPA 6010	BRW	7440-36-0	
Arsenic	11.8	mg/kg	8.17	09/19/95	EPA 6010	BRW	7440-38-2	
Beryllium	0.347	mg/kg	0.0962	09/19/95	EPA 6010	BRW	7440-41-7	
Cadmium	ND	mg/kg	0.481	09/19/95	EPA 6010	BRW	7440-43-9	
Chromium	14.3	mg/kg	0.673	09/19/95	EPA 6010	BRW	7440-47-3	
Copper	14.1	mg/kg	0.962	09/19/95	EPA 6010	BRW	7440-50-8	
Iron	15200	mg/kg	3.85	09/19/95	EPA 6010	BRW	7439-89-6	
Lead	43.2	mg/kg	4.81	09/19/95	EPA 6010	BRW	7439-92-1	
Manganese	713	mg/kg	0.673	09/19/95	EPA 6010	BRW	7439-96-5	
Nickel	6.82	mg/kg	2.88	09/19/95	EPA 6010	BRW	7440-02-0	
Selenium	ND	mg/kg	9.62	09/19/95	EPA 6010	BRW	7782-49-2	
Silver	ND	mg/kg	0.673	09/19/95	EPA 6010	BRW	7440-22-4	
Thallium	ND	mg/kg	9.62	09/19/95	EPA 6010	BRW	7440-28-0	
Zinc	75.9	mg/kg	1.92	09/19/95	EPA 6010	BRW	7440-66-6	
Date Digested				09/18/95				



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PACE Project Number: 703235
Client Project ID: C H & E Old Inland Pit

PACE Sample No: 70288923
Client Sample ID: DMS090895-10

Date Collected: 09/08/95
Date Received: 09/12/95

Parameters	Results	Units	PRL	Analyzed	Method	Analyst	CAS#	Footnotes
Metals								
Mercury, CVAAS								
Mercury	ND	mg/kg	0.0244	09/22/95	EPA 7471	AMH	7439-97-6	
Metals, ICP								
Aluminum	12700	mg/kg	6.88	09/19/95	EPA 6010	BRW	7429-90-5	
Antimony	ND	mg/kg	4.59	09/19/95	EPA 6010	BRW	7440-36-0	
Arsenic	ND	mg/kg	7.8	09/19/95	EPA 6010	BRW	7440-38-2	
Beryllium	0.394	mg/kg	0.0917	09/19/95	EPA 6010	BRW	7440-41-7	
Cadmium	0.828	mg/kg	0.459	09/19/95	EPA 6010	BRW	7440-43-9	
Chromium	16.5	mg/kg	0.642	09/19/95	EPA 6010	BRW	7440-47-3	
Copper	18.7	mg/kg	0.917	09/19/95	EPA 6010	BRW	7440-50-8	
Iron	17700	mg/kg	3.67	09/19/95	EPA 6010	BRW	7439-89-6	
Lead	55.3	mg/kg	4.59	09/19/95	EPA 6010	BRW	7439-92-1	
Manganese	562	mg/kg	0.642	09/19/95	EPA 6010	BRW	7439-96-5	
Nickel	9.7	mg/kg	2.75	09/19/95	EPA 6010	BRW	7440-02-0	
Selenium	ND	mg/kg	9.17	09/19/95	EPA 6010	BRW	7782-49-2	
Silver	ND	mg/kg	0.642	09/19/95	EPA 6010	BRW	7440-22-4	
Thallium	ND	mg/kg	9.17	09/19/95	EPA 6010	BRW	7440-28-0	
Zinc	146	mg/kg	1.83	09/19/95	EPA 6010	BRW	7440-66-6	
Not Digested				09/18/95				

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PACE Project Number: 703235
Client Project ID: C H & E Old Inland Pit

PACE Sample No: 70288931
Client Sample ID: DMS090895-11

Date Collected: 09/08/95
Date Received: 09/12/95

Parameters	Results	Units	PRL	Analyzed	Method	Analyst	CAS#	Footnotes
Metals								
Mercury, CVAAS								
Mercury	0.0567	mg/kg	0.0192	09/22/95	EPA 7471	AMH	7439-97-6	
Metals, ICP								
Aluminum	15600	mg/kg	7.5	09/19/95	EPA 6010	BRW	7429-90-5	
Antimony	ND	mg/kg	5	09/19/95	EPA 6010	BRW	7440-36-0	
Arsenic	8.52	mg/kg	8.5	09/19/95	EPA 6010	BRW	7440-38-2	
Beryllium	0.743	mg/kg	0.1	09/19/95	EPA 6010	BRW	7440-41-7	
Cadmium	1.12	mg/kg	0.5	09/19/95	EPA 6010	BRW	7440-43-9	
Chromium	18.2	mg/kg	0.7	09/19/95	EPA 6010	BRW	7440-47-3	
Copper	22.9	mg/kg	1	09/19/95	EPA 6010	BRW	7440-50-8	
Iron	18400	mg/kg	4	09/19/95	EPA 6010	BRW	7439-89-6	
Lead	110	mg/kg	5	09/19/95	EPA 6010	BRW	7439-92-1	
Manganese	1310	mg/kg	0.7	09/19/95	EPA 6010	BRW	7439-96-5	
Nickel	10.2	mg/kg	3	09/19/95	EPA 6010	BRW	7440-02-0	
Selenium	ND	mg/kg	10	09/19/95	EPA 6010	BRW	7782-49-2	
Silver	ND	mg/kg	0.7	09/19/95	EPA 6010	BRW	7440-22-4	
Thallium	ND	mg/kg	10	09/19/95	EPA 6010	BRW	7440-28-0	
Zinc	513	mg/kg	2	09/19/95	EPA 6010	BRW	7440-66-6	
Date Digested				09/18/95				



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PACE Project Number: 703235
Client Project ID: C H & E Old Inland Pit

PACE Sample No: 70288949
Client Sample ID: DMS090895-12

Date Collected: 09/08/95
Date Received: 09/12/95

Parameters	Results	Units	PRL	Analyzed	Method	Analyst	CAS#	Footnotes
Metals								
Mercury, CVAAS								
Mercury	0.0339	mg/kg	0.0183	09/22/95	EPA 7471	AMH	7439-97-6	
Metals, ICP								
Aluminum	11800	mg/kg	7.43	09/19/95	EPA 6010	BRW	7429-90-5	
Antimony	ND	mg/kg	4.95	09/19/95	EPA 6010	BRW	7440-36-0	
Arsenic	ND	mg/kg	8.42	09/19/95	EPA 6010	BRW	7440-38-2	
Beryllium	0.658	mg/kg	0.099	09/19/95	EPA 6010	BRW	7440-41-7	
Cadmium	1.54	mg/kg	0.495	09/19/95	EPA 6010	BRW	7440-43-9	
Chromium	26.3	mg/kg	0.693	09/19/95	EPA 6010	BRW	7440-47-3	
Copper	27.7	mg/kg	0.99	09/19/95	EPA 6010	BRW	7440-50-8	
Iron	19200	mg/kg	3.96	09/19/95	EPA 6010	BRW	7439-89-6	
Lead	113	mg/kg	4.95	09/19/95	EPA 6010	BRW	7439-92-1	
Manganese	364	mg/kg	0.693	09/19/95	EPA 6010	BRW	7439-96-5	
Nickel	15.3	mg/kg	2.97	09/19/95	EPA 6010	BRW	7440-02-0	
Selenium	ND	mg/kg	9.9	09/19/95	EPA 6010	BRW	7782-49-2	
Silver	ND	mg/kg	0.693	09/19/95	EPA 6010	BRW	7440-22-4	
Thallium	ND	mg/kg	9.9	09/19/95	EPA 6010	BRW	7440-28-0	
Zinc	385	mg/kg	1.98	09/19/95	EPA 6010	BRW	7440-66-6	
Rate Digested				09/18/95				



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PACE Project Number: 703235

Client Project ID: C H & E Old Inland Pit

PARAMETER FOOTNOTES

ND	Not Detected
NC	Not Calculable
PRL	PACE Reporting Limit
[1]	09-15-95
[2]	09-15-95
[3]	09-15-95
[4]	09-15-95
[5]	09-15-95
[6]	09-15-95
[7]	09/21/95.



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QUALITY CONTROL DATA

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Dames & Moores, Spokane Office
808 E. Sprague Ave.
Spokane, WA 99202

PACE Project Number: 703235
Client Project ID: C H & E Old Inland Pit

Attn: Mr. Bill Fees
Phone: (509)838-7430

QC Batch ID: 7353 QC Batch Method: EPA 3010 Date of Batch: 09/14/95
Associated PACE Samples: 70287438 70287461 70287479 70287487 70287495
70287503

METHOD BLANK: 70288394
Associated PACE Samples:

	70287438	70287461	70287479	70287487	70287495	70287503
		Method Blank				
Parameter	Units	Result	PRL			Footnotes
Aluminum	ug/L	ND	75			
Beryllium	ug/L	ND	1	1		
Cadmium	ug/L	ND	5			
Chromium	ug/L	ND	7			
Copper	ug/L	ND	10			
Iron	ug/L	ND	40			
Manganese	ug/L	ND	7	2		
Nickel	ug/L	ND	30	3		
Selenium	ug/L	ND	100			
Silver	ug/L	ND	7			
Zinc	ug/L	ND	20			

MATRIX SPIKE: 70288402

Parameter	Units	70287438	Spike Conc.	Matrix Spike Result	Spike % Rec	Footnotes
Aluminum	ug/L	ND	20000	18300	92	
Beryllium	ug/L	ND	200	174	87	
Cadmium	ug/L	ND	200	184	92	
Chromium	ug/L	ND	2000	1900	95	
Copper	ug/L	ND	2000	1870	93	
Iron	ug/L	ND	20000	19100	96	
Nickel	ug/L	ND	2000	1940	96	
Selenium	ug/L	ND	2000	1830	91	

REPORT OF LABORATORY ANALYSIS

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PACE Project Number: 703235

Client Project ID: C H & E Old Inland Pit

MATRIX SPIKE: 70288402

Parameter	Units	70287438	Spike Conc.	Matrix Spike Result	Spike % Rec	Footnotes
Silver	ug/L	ND	200	180	90	
Zinc	ug/L	ND	2000	1890	94	

LABORATORY CONTROL SAMPLE & LCSD: 70288428

Parameter	Units	70288436 Spike Conc.	LCSD Result	Spike % Rec	LCSD Result	Spike Dup % Rec	RPD	Footnotes
Aluminum	ug/L	20000	19400	97	19400	97	0	
Beryllium	ug/L	200	185	93	187	93	0	
Cadmium	ug/L	200	200	100	198	99	1	
Chromium	ug/L	2000	2020	101	2020	101	0	
Copper	ug/L	2000	2000	100	2000	100	0	
Iron	ug/L	20000	20400	102	20400	102	0	
Manganese	ug/L	2000	1930	97	2080	104	7	
Nickel	ug/L	2000	2070	104	2060	103	1	
Selenium	ug/L	2000	1920	96	1910	95	1	
Silver	ug/L	200	193	96	194	97	1	
Zinc	ug/L	2000	2020	101	2020	101	0	

SAMPLE DUPLICATE: 70288410

Parameter	Units	70287438	Dup. Result	RPD	Footnotes
Aluminum	ug/L	ND	ND	NC	
Beryllium	ug/L	ND	ND	NC	
Cadmium	ug/L	ND	ND	NC	
Chromium	ug/L	ND	ND	NC	
Copper	ug/L	ND	ND	NC	
Iron	ug/L	ND	ND	NC	
Manganese	ug/L	213	212	0	
Nickel	ug/L	ND	ND	NC	
Selenium	ug/L	ND	ND	NC	
Silver	ug/L	ND	ND	NC	
Zinc	ug/L	ND	ND	NC	



REPORT OF LABORATORY ANALYSIS

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Dames & Moores, Spokane Office
808 E. Sprague Ave.
Spokane, WA 99202

PACE Project Number: 703235
Client Project ID: C H & E Old Inland Pit

Attn: Mr. Bill Fees
Phone: (509)838-7430

QC Batch ID: 7354 QC Batch Method: EPA 3020 Date of Batch: 09/14/95
Associated PACE Samples: 70287438 70287461 70287479 70287487 70287495
70287503

METHOD BLANK: 70288444
Associated PACE Samples:

	70287438	70287461	70287479	70287487	70287495	70287503
		Method Blank				
Parameter	Units	Result	PRL	Footnotes		
Lead	ug/L	ND	5			
Arsenic	ug/L	ND	5			
Antimony	ug/L	ND	5			
Thallium	ug/L	ND	5			

MA. X SPIKE: 70288477

Parameter	Units	70287479	Spike Conc.	Matrix Spike Result	Spike % Rec	Footnotes
Antimony	ug/L	ND	40	42.4	103	
Arsenic	ug/L	ND	40	39.2	88	
Thallium	ug/L	ND	40	33.6	83	
Lead	ug/L	ND	40	38.8	96	

LABORATORY CONTROL SAMPLE & LCSD: 70288451

Parameter	Units	70288469 Spike Conc.	LCSD Result	Spike % Rec	LCSD Result	Spike Dup % Rec	RPD	Footnotes
Lead	ug/L	40	34.7	87	35.6	89	2	
Arsenic	ug/L	40	34.7	87	36.7	92	6	
Antimony	ug/L	40	33.1	83	33.9	85	2	
Thallium	ug/L	40	33.9	85	36	90	6	



REPORT OF LABORATORY ANALYSIS

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PACE Project Number: 703235

Client Project ID: C H & E Old Inland Pit

SAMPLE DUPLICATE: 70288485

Parameter	Units	70287479	Dup. Result	RPD	Footnotes
Antimony	ug/L	ND	ND	NC	
Arsenic	ug/L	ND	ND	NC	
Thallium	ug/L	ND	ND	NC	
Lead	ug/L	ND	ND	NC	



REPORT OF LABORATORY ANALYSIS

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Dames & Moores, Spokane Office
808 E. Sprague Ave.
Spokane, WA 99202

PACE Project Number: 703235
Client Project ID: C H & E Old Inland Pit

Attn: Mr. Bill Fees
Phone: (509)838-7430

QC Batch ID: 7407 QC Batch Method: EPA 3050 Date of Batch: 09/15/95
Associated PACE Samples: 70288741 70288758 70288766 70288774 70288782
 70288790 70288808 70288816 70288899 70288907
 70288915 70288923 70288931 70288949

METHOD BLANK: 70291398

Associated PACE Samples: 70288741 70288758 70288766 70288774 70288782 70288790 70288808
 70288816 70288899 70288907 70288915 70288923 70288931 70288949

Parameter	Units	Method Blank Result	PRL	Footnotes
Aluminum	mg/kg	ND	7.5	
Antimony	mg/kg	ND	5	
Arsenic	mg/kg	ND	8.5	
Beryllium	mg/kg	ND	0.1	
Cadmium	mg/kg	ND	0.5	
Chromium	mg/kg	ND	0.7	
Copper	mg/kg	ND	1	
Iron	mg/kg	ND	4	
Lead	mg/kg	ND	5	
Manganese	mg/kg	ND	0.7	
Nickel	mg/kg	ND	3	
Selenium	mg/kg	ND	10	
Silver	mg/kg	ND	0.7	
Thallium	mg/kg	ND	10	
Zinc	mg/kg	ND	2	

MATRIX SPIKE: 70291646

Parameter	Units	70288741	Spike Conc.	Matrix Spike Result	Spike % Rec	Footnotes
Aluminum	mg/kg	11600	909	18900	805	4
Antimony	mg/kg	ND	90.9	34.1	36	5

REPORT OF LABORATORY ANALYSIS

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PACE Project Number: 703235

Client Project ID: C H & E Old Inland Pit

MATRIX SPIKE: 70291646

Parameter	Units	70288741	Spike Conc.	Matrix Spike Result	Spike % Rec	Footnotes
Arsenic	mg/kg	ND	90.9	74	78	
Beryllium	mg/kg	0.377	9.09	8.3	87	
Cadmium	mg/kg	ND	9.09	9.2	97	
Chromium	mg/kg	11.6	90.9	94.9	92	
Copper	mg/kg	20.8	90.9	114	103	
Iron	mg/kg	13600	909	19500	651	6
Lead	mg/kg	38.5	90.9	133	104	
Manganese	mg/kg	474	90.9	825	386	7
Nickel	mg/kg	8.15	90.9	90.8	91	
Selenium	mg/kg	ND	90.9	71.9	79	
Silver	mg/kg	ND	9.09	8.1	88	
Thallium	mg/kg	ND	90.9	77	85	
Zinc	mg/kg	184	90.9	337	168	8

LABORATORY CONTROL SAMPLE & LCSD: 70291422

Parameter	Units	70291430 Spike Conc.	LCSD Result	Spike % Rec	LCSD Result	Spike Dup % Rec	RPD	Footnotes
Aluminum	mg/kg	1000	925	92	921	92	0	
Antimony	mg/kg	100	89.6	90	91.8	92	2	
Arsenic	mg/kg	100	89.6	90	83	83	8	
Beryllium	mg/kg	10	8.44	84	8.55	85	1	
Cadmium	mg/kg	10	8.56	86	8.63	86	0	
Chromium	mg/kg	100	89.2	89	89.4	89	0	
Copper	mg/kg	100	94	94	93.5	94	0	
Iron	mg/kg	1000	905	91	904	90	1	
Lead	mg/kg	100	92.2	92	92.6	93	1	
Manganese	mg/kg	100	92.9	93	92.7	93	0	
Nickel	mg/kg	100	88.9	89	88.2	88	1	
Selenium	mg/kg	100	88	88	88	88	0	
Silver	mg/kg	10	9.14	91	9.07	91	0	
Thallium	mg/kg	100	95.3	95	85	85	11	
Zinc	mg/kg	100	89.7	90	89.7	90	0	

SAMPLE DUPLICATE: 70291653

Parameter	Units	70288741	Dup. Result	RPD	Footnotes
Aluminum	mg/kg	11600	15400	28	9

REPORT OF LABORATORY ANALYSIS

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PACE Project Number: 703235
Client Project ID: C H & E Old Inland Pit

SAMPLE DUPLICATE: 70291653

Parameter	Units	70288741	Dup. Result	RPD	Footnotes
Antimony	mg/kg	ND	ND	NC	
Arsenic	mg/kg	ND	ND	NC	
Beryllium	mg/kg	0.377	0.525	33	
Cadmium	mg/kg	ND	0.882	NC	
Chromium	mg/kg	11.6	13.7	16	
Copper	mg/kg	20.8	28.4	31	10
Iron	mg/kg	13600	17900	28	11
Lead	mg/kg	38.5	52.8	31	12
Manganese	mg/kg	474	653	32	13
Nickel	mg/kg	8.15	13.7	51	14
Selenium	mg/kg	ND	ND	NC	
Silver	mg/kg	ND	ND	NC	
Thallium	mg/kg	ND	ND	NC	
Zinc	mg/kg	184	262	35	15



REPORT OF LABORATORY ANALYSIS

QUALITY CONTROL DATA

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Dames & Moores, Spokane Office
808 E. Sprague Ave.
Spokane, WA 99202

PACE Project Number: 703235
Client Project ID: C H & E Old Inland Pit

Attn: Mr. Bill Fees
Phone: (509)838-7430

QC Batch ID: 7613 QC Batch Method: EPA 7471 Date of Batch: 09/20/95
Associated PACE Samples: 70288741 70288758 70288766 70288774 70288782
 70288790 70288808 70288816 70288899 70288907
 70288915 70288923 70288931 70288949

METHOD BLANK: 70301775
Associated PACE Samples:

70288741 70288758 70288766 70288774 70288782 70288790 70288808
70288816 70288899 70288907 70288915 70288923 70288931 70288949

Parameter	Units	Method Blank Result	PRL	Footnotes
Mercury	mg/kg	ND	0.025	

MA SPIKE: 70302278

Parameter	Units	70296140	Spike Conc.	Matrix Spike Result	Spike % Rec	Footnotes
Mercury	mg/kg	1.26	0.165	1.42	97	

LABORATORY CONTROL SAMPLE & LCSD: 70301809

Parameter	Units	70301817 Spike Conc.	LCS Result	Spike % Rec	LCSD Result	Spike Dup % Rec	RPD	Footnotes
Mercury	mg/kg	0.2	0.2	100	0.214	107	7	

SAMPLE DUPLICATE: 70302286

Parameter	Units	70296140	Dup. Result	RPD	Footnotes
Mercury	mg/kg	1.26	1.5	18	

REPORT OF LABORATORY ANALYSIS

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PACE Project Number: 703235
Client Project ID: C H & E Old Inland Pit

QUALITY CONTROL DATA PARAMETER FOOTNOTES

The Quality Control Sample Final Results listed above have been rounded to reflect an appropriate number of significant figures. Consistent with EPA guidelines unrounded concentrations have been used to calculate % Rec and RPD values.

ND Not Detected
NC Not Calculable
PRL PACE Reporting Limit
RPD Relative Percent Difference
[1] 09-15-95
[2] 09-15-95
[3] 09-15-95
[4] Due to high concentration of analyte, the matrix spike does not provide valid spike recovery data.
[5] Low spike recovery may indicate matrix interference.
[6] Due to high analyte concentraion, the matrix spike does not provide valid spike recovery data.
[7] Due to high analyte concentration, the matrix spike does not provide valid spike recovery data.
[8] High MS recovery due to sample nonhomogeneity.
[9] High RPD due to sample nonhomogeneity.
[10] High RPD due to sample nonhomogeneity.
[11] High RPD due to sample nonhomogeneity.
[12] High RPD due to sample nonhomogeneity.
[13] High RPD due to sample nonhomogeneity.
[14] High RPD due to sample nonhomogeneity.
[15] High RPD due to sample nonhomogeneity.



CHAIN-OF-CUSTODY RECORD
Analytical Request

Client DAMES & MOORE
Address 808 E SPRAGUE
SPOKANE, WA 99202
Phone 509-838-7430

Report To: William Fears
Bill To: _____
P.O. # / Billing Reference 29910-001-5408
Project Name / No. CHIE Old Inland Pit

Pace Client No. _____
Pace Project Manager DB
Pace Project No. 7103235
Requested Due Date: _____

Sampled By (PRINT): IAN KIRK / WILLIAM FEARS
Sampler Signature _____ Date Sampled 9/03/95

ITEM NO.	SAMPLE DESCRIPTION	TIME	MATRIX	PACE NO.	NO. OF CONTAINERS	PRESERVATIVES					ANALYSES REQUEST	REMARKS
						UNPRESERVED	H ₂ SO ₄	HNO ₃	VOA	CHILLED		
1	DMS090895-8X	1540	S	288899	2					X	X	
2	DMS090895-8S	1540	S	288907	2					X	X	
3	DMS090895-09	1545	S	288915	2					X	X	
4	DMS090895-10	1625	S	288923	2					X	X	
5	DMS090895-11	1630	S	288931	2					X	X	
6	DMS090895-12	1640	S	288949	2					X	X	
7	DMB 090895-01	1145	S	288956	2					X	X	
8	DMB 090895-02	1105	S	288964	2					X	X	

COOLER NOS.	BAILERS	SHIPMENT OUT/DATE	METHOD RETURNED/DATE	ITEM NUMBER	RELINQUISHED BY / AFFILIATION	ACCEPTED BY / AFFILIATION	DATE	TIME

Additional Comments

UPS
Neather Peters 9/12 9:15

SEE REVERSE SIDE FOR INSTRUCTIONS



ENVIRONMENTAL LABORATORIES

CHAIN-OF-CUSTODY RECORD
Analytical Request

Client DAMES & MOORE
Address 808 E SPRAGUE
SPokane, WA 99202
Phone 509-838-7430

Report To: William Feltz Pace Client No. _____
Bill To: _____ Pace Project Manager DB
P.O. # / Billing Reference 29110-001-53408 Pace Project No. 703235
Project Name / No. CH&E Old Inland Pit *Requested Due Date: _____

Sampled By (PRINT): IAN KIRK / William Feltz
Sampler Signature _____ Date Sampled 9/8/95

ITEM NO.	SAMPLE DESCRIPTION	TIME	MATRIX	PACE NO.	NO. OF CONTAINERS	PRESERVATIVES					ANALYSES REQUEST	REMARKS
						UNPRESERVED	H ₂ SO ₄	HNO ₃	VOA	CHILLED		
1	DMS090895-01	1140	S	288741	2					X	X	
2	DMS090895-02	1125	S	288758	2					X	X	
3	DMS090895-03	1115	S	288766	2					X	X	
4	DMS090895-04	1555	S	288774	2					X	X	
5	DMS090895-05	1600	S	288782	2					X	X	
6	DMS090895-06	1610	S	288790	2					X	X	
7	DMS090895-07	1615	S	288808	2					X	X	
8	DMS090895-08	1540	S	288816	2					X	X	Duplicate (cf. Sample 2)

COOLER NOS.		BAILERS		SHIPMENT METHOD		ITEM NUMBER	RELINQUISHED BY / AFFILIATION	ACCEPTED BY / AFFILIATION	DATE	TIME
OUT DATE	RETURNED DATE									
							UPS	UPS	9/12	9:15

Additional Comments



CHAIN-OF-CUSTODY RECORD
Analytical Request

Client DAMES & MOORE
Address 808 E SPRAGUE
SPokane, WA 99202
Phone 509-838-7430

Report To: William Fees
Bill To: _____
P.O. # / Billing Reference 29910-001-5308
Project Name / No. CHAE Old Inland Pit
Pace Client No. _____
Pace Project Manager _____
Pace Project No. 703235
Requested Due Date: _____

Sampled By (PRINT):

William Fees
Sampler Signature _____ Date Sampled 7/8/95 - 7/12/95

ITEM NO.	SAMPLE DESCRIPTION	TIME	MATRIX	PACE NO.	NO. OF CONTAINERS	PRESERVATIVES					ANALYSES REQUEST	REMARKS
						UNPRESERVED	H ₂ SO ₄	HNO ₃	VOA	CHILLED		
1	DMW090995-1-01	1430	W	287438 287461	2					X	X X	TOTAL METALS DISSOLVED METALS PLEASE FILL IN Total AND PRESERVE METALS
2	DMW090995-1-1A	1500	W	287479 287487	2					X	X X	
3	DMW090995-2-02	7/9/95 1800	W	287495 287503	2					X	X X	
4	DMW090995-3-03		W		2					X	X X	
5	DMW090995-4-04		W		2					X	X X	
6												No water so well
7												
8												

COOLER NOS.	BAILERS	SHIPMENT OUT/DATE	METHOD RETURNED/DATE	ITEM NUMBER	RELINQUISHED BY / AFFILIATION	ACCEPTED BY / AFFILIATION	DATE	TIME
					UPS	UPS Heather Peters	9/12	9:15

Additional Comments



REPORT OF LABORATORY ANALYSIS

October 20, 1995

Mr. Bill Fees
Dames & Moore, Spokane Office
808 E. Sprague Ave.
Spokane, WA 99202

RE: PACE Project Number: 703741
Client Project ID: C H & E Old Inland Pit

Dear Mr. Fees:

Enclosed are the results of analyses for sample(s) received on September 12, 1995. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in cursive script, reading "Donna J. Breaux".

Donna J. Breaux
Project Manager

Enclosures



REPORT OF LABORATORY ANALYSIS

DATE: 10/20/95
PAGE: 1

Dames & Moore, Spokane Office
808 E. Sprague Ave.
Spokane, WA 99202

PACE Project Number: 703741
Client Project ID: C H & E Old Inland Pit

Attn: Mr. Bill Fees
Phone: (509)838-7430

PACE Sample No:	70354519	Date Collected:	09/08/95					
Client Sample ID:	DMS090895-08	Date Received:	09/12/95					
Parameters	Results	Units	PRL	Analyzed	Method	Analyst	CAS#	Footnotes
Metals								
Metals, ICP								
Arsenic	10.4	mg/kg	8.25	10/19/95	EPA 6010	BRW	7440-38-2	
Date Digested				10/18/95				



REPORT OF LABORATORY ANALYSIS

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PACE Project Number: 703741

Client Project ID: C H & E Old Inland Pit

PARAMETER FOOTNOTES

ND	Not Detected
NC	Not Calculable
PRL	PACE Reporting Limit



REPORT OF LABORATORY ANALYSIS

QUALITY CONTROL DATA

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Dames & Moore, Spokane Office
808 E. Sprague Ave.
Spokane, WA 99202

PACE Project Number: 703741
Client Project ID: C H & E Old Inland Pit

Attn: Mr. Bill Fees
Phone: (509)838-7430

QC Batch ID: 8775
Associated PACE Samples: 70354519

QC Batch Method: EPA 3050

Date of Batch: 10/18/95

METHOD BLANK: 70366885

Associated PACE Samples: 70354519

Parameter	Units	Method Blank Result	PRL	Footnotes
Arsenic	mg/kg	ND	8.5	

MATRIX SPIKE: 70368006

Parameter	Units	70361910 Spike Conc.	Matrix Spike Result	Spike % Rec	Footnotes
Arsenic	mg/kg	ND	98	86.9	89

LABORATORY CONTROL SAMPLE & LCSD: 70366893

Parameter	Units	70366901 Spike Conc.	LCS Result	Spike % Rec	LCSD Result	Spike Dup % Rec	RPD	Footnotes
Arsenic	mg/kg	100	92.6	93	91.7	92	1	

SAMPLE DUPLICATE: 70368014

Parameter	Units	70361910	Dup. Result	RPD	Footnotes
Arsenic	mg/kg	ND	ND	NC	



REPORT OF LABORATORY ANALYSIS

DATE: 10/20/95

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PACE Project Number: 703741

Client Project ID: C H & E Old Inland Pit

QUALITY CONTROL DATA PARAMETER FOOTNOTES

The Quality Control Sample Final Results listed above have been rounded to reflect an appropriate number of significant figures. Consistent with EPA guidelines unrounded concentrations have been used to calculate % Rec and RPD values.

ND	Not Detected
NC	Not Calculable
PRL	PACE Reporting Limit
RPD	Relative Percent Difference



ENVIRONMENTAL LABORATORIES

703741

CHAIN-OF-CUSTODY RECORD
Analytical Request

Client DAMES & MOORE

Report To: William Fries

Pace Client No. _____

Address 808 E SPRAGUE

Bill To: _____

Pace Project Manager DB

SPokane, WA 99202

P.O. # / Billing Reference 2910-001-5408

Pace Project No. 703235

Phone 509-838-7430

Project Name / No. CHIE OLD INLAND Pt

*Requested Due Date: _____

Sampled By (PRINT):

IAN KIRK / William Fries
Sampler Signature Date Sampled

William Fries 9/8/95

ITEM NO.	SAMPLE DESCRIPTION	TIME	MATRIX	PACE NO.	NO. OF CONTAINERS	PRESERVATIVES					ANALYSES REQUEST	REMARKS
						UNPRESERVED	H ₂ SO ₄	HNO ₃	VOA	CHILLED		
1	DMS090895-01	1140	S	288741	2					X	X	
2	DMS090895-02	1125	S	288758	2					X	X	
3	DMS090895-03	1115	S	288766	2					X	X	
4	DMS090895-04	1555	S	288774	2					X	X	
5	DMS090895-05	1600	S	288782	2					X	X	
6	DMS090895-06	1610	S	288790	2					X	X	
7	DMS090895-07	1615	S	288808	2					X	X	
8	DMS090895-08	1540	S	288816	2					X	X	

COOLER NOS.	BAILERS	SHIPMENT OUT/DATE	METHOD RETURNED/DATE	ITEM NUMBER	RELINQUISHED BY / AFFILIATION	ACCEPTED BY / AFFILIATION	DATE	TIME

Additional Comments

UPS

UPS
Weather Peters 9/12 9:15



REPORT OF LABORATORY ANALYSIS

OCT 30 1995

October 24, 1995

Mr. Bill Fees
Dames & Moore
808 E. Sprague Ave.
Suite A
Spokane, WA 99202

RE: PACE Project No. A51020.500
Client Reference: 96 Hour Rainbow Trout Acute Toxicity Test

Dear Mr. Fees:

Enclosed is the report of laboratory analyses for samples received September 29, 1995.

Footnotes are given at the end of the report.

If you have any questions concerning this report, please feel free to contact us.

Sincerely,

A handwritten signature in cursive script, appearing to read "Sherry Ratzlaff".

Sherry Ratzlaff
Project Manager

Enclosures



REPORT OF LABORATORY ANALYSIS

Dames & Moore
808 E. Sprague Ave.
Suite A
Spokane, WA 99202

October 24, 1995
PACE Project Number: A51020500

Attn: Mr. Bill Fees

Client Reference: 96 Hour Rainbow Trout Acute Toxicity Test

PACE Sample Number:	930139787	930139795
Date Collected:	9/8/95	9/8/95
Date Received:	9/29/95	9/29/95
Client Sample ID:	DMB090895	DMB090895
	-01	-02

<u>Parameter</u>	<u>Units</u>
------------------	--------------

INDIVIDUAL PARAMETERS

96 Hour Rainbow Trout Acute Toxicity Test	mg/L	LC50=GT750	LC50=GT750 (1)
---	------	------------	-------------------

These data have been reviewed and are approved for release.

Sherry L. Ratzlaff
Supervisor, Bioassay Department

(1) GT = Greater Than

Acute 48 hour Toxicity Test

Start Date:	16 Oct-95	Test ID:		Sample ID:	qc
End Date:	18 Oct-95	Protocol ID:	EPAA 91	Sample Type:	
Sample Date:		Analyst Name:		Test Species:	OM Oncorhynchus mykiss
Comments:				Response:	Survival

Conc-mg/L	1	2
N Control	1.000	1.000
187.5	1.000	1.000
375	1.000	1.000
750	1.000	1.000
1500	0.625	0.375
3000	0.000	0.000

Conc-mg/L	Mean	N-Mean	Untransformed Data					Stat	Critical	MSD	NRESP	NDOSE
			Mean	Min	Max	CV%	N					
N Control	1.000	1.000	1.000	1.000	1.000	0.00	2				0	16
187.5	1.000	1.000	1.000	1.000	1.000	0.00	2				0	16
375	1.000	1.000	1.000	1.000	1.000	0.00	2				0	16
750	1.000	1.000	1.000	1.000	1.000	0.00	2				0	16
1500	0.500	0.500	0.500	0.375	0.625	35.36	2				8	16
3000	0.000	0.000									16	16

Auxiliary Tests

Normality of the data set cannot be confirmed

Equality of variances cannot be confirmed

Statistic

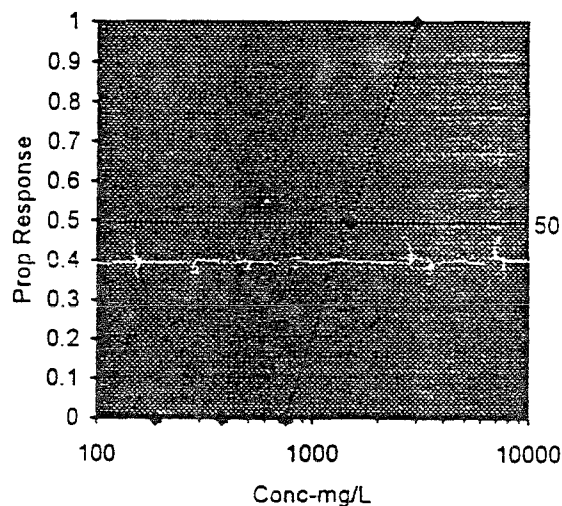
Critical

Skew

Kurt

Conc-mg/L	Proportional Response		
	Mean	Iso	N-Iso
N Control	0.0000	0.0000	
187.5	0.0000	0.0000	0.0000
375	0.0000	0.0000	0.0000
750	0.0000	0.0000	0.0000
1500	0.5000	0.5000	0.5000
3000	1.0000	1.0000	1.0000

Trimmed Spearman-Kärber



Alpha Trim-%	LC50	95% CL	
0	1500.0	1261.3	1783.8
5	1500.0	1237.3	1818.5
10	1500.0	1207.9	1862.8
20	1500.0	1123.7	2002.3
Auto-0	1500.0	1261.3	1783.8

QC only

Species ONCORHYNCHUS mykiss

Client PACE N. CA - DAMES & MOORE
DMB - 01

Client No. 000570
Sample No. 13979.7
Project No. AS1020500

Sample and Bioassay Information:

Screening ☒ Definitive ☐
Dilution Water: SLW Batch PO 500 14-13-95 Hardness 45 Alkalinity 35

INC # 3

Tank Volume 5L DW OUT 55 38
Number of Organisms per Tank 10 Organism Source Z ryer Bros Acclimation Temperature 14
Mean Length (mm) 63.3 Mean Weight (mg) 0.325 Test Temperature (C) 14

	Initial	24 hour				48 hour				72 hour				96 hour			
date	10-16-95	10-17-95				10-18-95				10-19-95				10-20-95			
Time/Initials	1620 SW/AB	1615 / SW/AB				1615 / SW/AB				1430 / AB SW				1600 / AB SW			
R E P	Test Conc. (mg/L)	pH	°C	D.O		pH	°C	D.O	No. Dead	pH	°C	D.O	No. Dead	pH	°C	D.O	No. Dead
A Control		7.1	14	8.2		7.0	15	8.6	0	7.0	14	8.4	0	7.1	14	7.8	0
B Control		7.1	14	8.2		7.0	15	8.6	0	7.0	14	8.4	0	7.1	14	7.8	0
A 400		7.2	14	8.3		7.2	15	8.5	0	7.2	14	8.6	0.6	7.2	14	8.2	0
B 400		7.2	14	8.3		7.2	15	8.5	0	7.2	14	8.6	0.6	7.2	14	8.2	0
A 750		7.2	14	8.4		7.1	15	8.6	0	7.2	14	8.4	0.3	7.2	14	8.3	0
B 750		7.2	14	8.4		7.1	15	8.6	0	7.2	14	8.4	0.3	7.2	14	8.3	0
A																	
B																	
A																	
B																	
A																	
B																	
A																	
B																	

Tumbler On: 0930 Tumbler Off: 1535
IN High Concentration OUT High Concentration
Alkalinity 36 Hardness 50 Alkalinity 36 Hardness 50

Remarks:

LC50 GT 750 95% Confidence Limits NC Method NC

Species *D. corhynchus mykiss*

Client PAGE N. CA - DAMES & MOORE
DMB-02

WPCL No. 000570
Sample No. 139795
Project No. AS1020.500

Sample and Bioassay Information:

Screening ☒ Definitive ☐

INC#3

Dilution Water: SLW Batch FD 16-1345 Hardness 45 Alkalinity 35

Tank Volume 5L DW OUT 55 38

Number of Organisms per Tank 10 Organism Source 216gic Bns

Acclimation Temperature 14

Mean Length (mm) 63.3 Mean Weight (mg) 0.325

Test Temperature (C) 14

	Initial	24 hour	48 hour	72 hour	96 hour
date	<u>10-16-95</u>	<u>10-17-95</u>	<u>10-18-95</u>	<u>10-19-95</u>	<u>10-20-95</u>
Time/Initials	<u>1630 AG</u>	<u>1610 SW/AG</u>	<u>1625 SW/AG</u>	<u>1425 AG/SW</u>	<u>1610 AG/SW</u>
R Test					
E Conc					
P (mg/L)					
	pH C D.O	pH C D.O No. Dead	pH C D.O No. Dead	pH C D.O No. Dead	pH C D.O No. Dead
A Control	7.1 14 8.2	7.0 15 8.6 0	7.0 14 8.4 0	7.1 14 7.8 0	7.2 14 8.6 0
B Control	7.1 14 8.2	7.0 15 8.6 0	7.0 14 8.4 0	7.1 14 7.8 0	7.2 14 8.6 0
A 400	7.2 14 8.1	7.1 15 8.5 0	7.1 14 8.4 0	7.2 14 8.6 8.8	7.5 14 8.9 0
B 400	7.2 14 8.1	7.1 15 8.5 0	7.1 14 8.4 0	7.2 14 8.6 8.8	7.5 14 8.9 0
750	7.2 14 7.9	7.1 15 8.4 0	7.1 14 8.4 0	7.2 14 8.5 8.5	7.5 14 9.1 0
B 750	7.2 14 7.9	7.1 15 8.4 0	7.1 14 8.4 0	7.2 14 8.5 8.5	7.5 14 9.1 0
A					
B					
A					
B					
A					
B					
A					
B					

Tumbler On: 0930 Tumbler Off: 1535

IN High Concentration OUT High Concentration
Alkalinity 34 Hardness 40 Alkalinity 38 Hardness 51

Remarks:

LC50 GT 750 95% Confidence Limits NC Method NC



ENVIRONMENTAL LABORATORIES

1665

CHAIN-OF-CUSTODY RECORD
Analytical Request

Client DAMES & MOORE

Address 808 F SPRAGUE

SPokane WA 91702

Phone 509-838-7430

Report To: William Feltz

Pace Client No. _____

Bill To: _____

Pace Project Manager _____

P.O. # / Billing Reference 29110-001-5408

Pace Project No. _____

Project Name / No. CHIEF OLD INLAND PIT

*Requested Due Date: _____

Sampled By (PRINT):

IAN KIRK

Sampler Signature

Date Sampled

1/1/75

ITEM NO.	SAMPLE DESCRIPTION	TIME	MATRIX	PACE NO.	NO. OF CONTAINERS	PRESERVATIVES				ANALYSES REQUEST	REMARKS
						UNPRESERVED	H ₂ SO ₄	HNO ₃	VOA		
1	DMS090895-8X	5:24	S		2				X		
2	DMS090895-8S	5:45	S		2				X		
3	DMS090895-09	10:45	S		2				X		
4	DMS090895-10	11:25	S		2				X		
5	DMS090895-11	11:45	S		2				X		
6	DMS090895-12	11:50	S		2				X		
7	DMS090895-13	11:45	S		2				X		
8	DMS090895-14	11:05	S		2				X		

COOLER NOS.	BAILERS	SHIPMENT METHOD		ITEM NUMBER	RELINQUISHED BY / AFFILIATION	ACCEPTED BY / AFFILIATION	DATE	TIME
		OUT/DATE	RETURNED/DATE					

Additional Comments

SEE REVERSE SIDE FOR INSTRUCTIONS



ENVIRONMENTAL LABORATORIES

1665

CHAIN-OF-CUSTODY RECORD
Analytical Request

Client DAMES & MOORE

Report To: William Fries

Pace Client No. _____

Address 808 E SPRAGUE

Bill To: _____

Pace Project Manager _____

SPokane, WA 99202

P.O. # / Billing Reference 29910-001-5408

Pace Project No. _____

Phone 509-838-7430

Project Name / No CHIEF OLD INLAND PIT

*Requested Due Date: _____

Sampled By (PRINT):

Ian Kirk

Sampler Signature _____ Date Sampled _____

NO. OF CONTAINERS	PRESERVATIVES				ANALYSES REQUEST
	UNPRESERVED	H ₂ SO ₄	HNO ₃	VOA	
				CHLOR	

ITEM NO.	SAMPLE DESCRIPTION	TIME	MATRIX	PACE NO.	NO. OF CONTAINERS	UNPRESERVED	H ₂ SO ₄	HNO ₃	VOA	CHLOR	ANALYSES REQUEST	REMARKS
1	DMS090895-8X		S		2					X		
2	DMS090895-8S		S		2					X		
3	DMS090895-09		S		2					X		
4	DMS090895-10		S		2					X		
5	DMS090895-11		S		2					X		
6	DMS090895-12		S		2					X		
7		1175	S		2						X	
8		1105	S		2						X	

COOLER NOS.	BAILERS	SHIPMENT METHOD		ITEM NUMBER	RELINQUISHED BY / AFFILIATION	ACCEPTED BY / AFFILIATION	DATE	TIME
		OUT/DATE	RETURNED/DATE					

Additional Comments

SEE REVERSE SIDE FOR INSTRUCTIONS



ENVIRONMENTAL LABORATORIES

9332

CHAIN-OF-CUSTODY RECORD
Analytical Request

Client DAMES & MOORE
Address 808 E SPRAGUE
SPokane, WA 99202
Phone 509-838-7430

Report To: WILLIAM FEES
Bill To:
P.O. # / Billing Reference 2910-001-5308
Project Name / No. CHAE OLD INLAND PIT

Pace Client No.
Pace Project Manager
Pace Project No.
*Requested Due Date:

Sampled By (PRINT):

WILLIAM FEES

Sampler Signature

Date Sampled

ITEM NO.	SAMPLE DESCRIPTION	TIME	MATRIX	PACE NO.	NO. OF CONTAINERS	PRESERVATIVES					ANALYSES REQUEST		REMARKS
						UNPRESERVED	H ₂ SO ₄	HNO ₃	VOA	CHILLED	TOTAL METALS	DISSOLVED METALS	
1	DMW090895-1-01	1430	W		2					X	X	X	Revised to GC
2	DMW090895-1-1A	1430	W		2					X	X	X	Revised to GC
3	DMW090895-2-02	1430	W		2					X	X	X	Revised to GC
4	DMW090895-3-03		W		2					X	X	X	Revised to GC
5	DMW090895-4-04		W		2					X	X	X	Revised to GC
6													
7													
8													

COOLER NOS.	BAILERS	SHIPMENT METHOD		ITEM NUMBER	RELINQUISHED BY / AFFILIATION	ACCEPTED BY / AFFILIATION	DATE	TIME
		OUT/DATE	RETURNED/DATE					

Additional Comments

SEE REVERSE SIDE FOR INSTRUCTIONS



ENVIRONMENTAL LABORATORIES

9332

CHAIN-OF-CUSTODY RECORD
Analytical Request

Client DAMES & MOORE
Address 808 E SPRAGUE
SPokane, WA 99202
Phone 509-838-7430

Report To: WILLIAM FEES
Bill To: _____
P.O. # / Billing Reference 2910-001-5308
Project Name / No. CH&E OLD INLAND PIT

Pace Client No. _____
Pace Project Manager _____
Pace Project No. _____
*Requested Due Date: _____

Sampled By (PRINT):

WILLIAM FEES

Sampler Signature

Date Sampled

1/4/95 1/12/95

Sampled By (PRINT): William Fees																								
Sampler Signature					Date Sampled																			

COOLER NOS.	BAILERS	SHIPMENT METHOD		ITEM NUMBER	RELINQUISHED BY / AFFILIATION	ACCEPTED BY / AFFILIATION	DATE	TIME
		OUT/DATE	RETURNED/DATE					

Additional Comments

Arrangements must be made prior to samples being
placed in the cooler. The cooler must be kept at
all times. The cooler must be kept at all times.
The cooler must be kept at all times. The cooler
must be kept at all times. The cooler must be
kept at all times. The cooler must be kept at
all times. The cooler must be kept at all times.

SEE REVERSE SIDE FOR INSTRUCTIONS



ENVIRONMENTAL LABORATORIES

1664

CHAIN-OF-CUSTODY RECORD
Analytical Request

Client DAMES & MOORE
Address 808 E SPRAGUE
SEAKANE, WA 99702
Phone 509-838-7430

Report To: William Fees

Pace Client No. _____

Bill To: _____

Pace Project Manager _____

P.O. # / Billing Reference 29110-001-5508

Pace Project No. _____

Project Name / No. CHCE OLD INLAND PIT

*Requested Due Date: _____

Sampled By (PRINT):

Ian Kirk
Sampler Signature _____ Date Sampled _____

ITEM NO.	SAMPLE DESCRIPTION	TIME	MATRIX	PACE NO.	NO. OF CONTAINERS	PRESERVATIVES				ANALYSES REQUEST	REMARKS
						UNPRESERVED	H ₂ SO ₄	HNO ₃	VOA		
1	DMS090895-01	1140	S		2				X		
2	DMS090895-02	1125	S		2				X		
3	DMS090895-03	1115	S		2				X		
4	DMS090895-04	1115	S		2				X		
5	DMS090895-05	1115	S		2				X		
6	DMS090895-06	1115	S		2				X		
7	DMS090895-07	1115	S		2				X		
8	DMS090895-08	1115	S		2				X		

COOLER NOS	BAILERS	SHIPMENT METHOD		ITEM NUMBER	RELINQUISHED BY / AFFILIATION	ACCEPTED BY / AFFILIATION	DATE	TIME
		OUT/DATE	RETURNED/DATE					

Additional Comments

SEE REVERSE SIDE FOR INSTRUCTIONS



ENVIRONMENTAL LABORATORIES

1664

CHAIN-OF-CUSTODY RECORD
Analytical Request

Client DAMES & MOORE

Report To: William Fees

Pace Client No. _____

Address 808 E SPRAGUE

Bill To: _____

Pace Project Manager _____

SIDIGANE, WA 99702

P.O. # / Billing Reference 24110-001-5308

Pace Project No. _____

Phone 509-838-7430

Project Name / No. CH&E Old Inland Pt

*Requested Due Date: _____

Sampled By (PRINT):

IAN KIRK

Sampler Signature

Date Sampled

ITEM NO.	SAMPLE DESCRIPTION	TIME	MATRIX	PACE NO.	NO. OF CONTAINERS	PRESERVATIVES					ANALYSES REQUEST	REMARKS
						UNPRESERVED	H ₂ SO ₄	HNO ₃	VOA	CHILLED		
1	DMS090895-01	1140	S		2					X		
2	DMS090895-02	1125	S		2					X		
3	DMS090895-03	1115	S		2					X		
4	DMS090895-04		S		2					X		
5	DMS090895-05		S		2					X		
6	DMS090895-06		S		2					X		
7	DMS090895-07		S		2					X		
8	DMS090895-08		S		2					X		

COOLER NOS.	BAILERS	SHIPMENT METHOD		ITEM NUMBER	RELINQUISHED BY / AFFILIATION	ACCEPTED BY / AFFILIATION	DATE	TIME
		OUT/DATE	RETURNED/DATE					

Additional Comments

SEE REVERSE SIDE FOR INSTRUCTIONS

Pace Analytical

Pace Analytical Services, Inc.
1455 McDowell Blvd. North, Suite D
Petaluma, CA 94954

Tel: 707-792-1865
Fax: 707-792-0342

RECEIVED

OCT - 3 1997

BOVAT NORTHWEST INC.
SPOKANE, WASHINGTON

September 30, 1997

Mr. Bruce Lauerman
Dames & Moore, Spokane Office
808 E. Sprague Ave.
Spokane, WA 99202

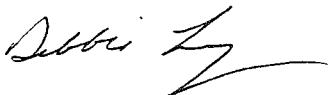
RE: PACE Project Number: 703235 (Revised)
Client Project ID: C H & E Old Inland Pit

Dear Mr. Lauerman:

Enclosed are revised results of analyses for sample(s) received on September 12, 1995. Pace sample number 70288816 has revised results for arsenic. The original reported value of 773 mg/kg was the result of a data entry error, and has been corrected in this report to 77.3 mg/kg.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Debbie Leibensberger
Project Manager

Enclosures

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

DATE: 09/23/97 (Revised)
PAGE: 14

PACE Project Number: 703235
Client Project ID: C H & E Old Inland Pit

PACE Sample No: 70288816
Client Sample ID: DMS090895-08

Date Collected: 09/08/95
Date Received: 09/12/95

Parameters	Results	Units	PRL	Analyzed	Method	Analyst	CAS#	Footnotes
Metals								
Mercury, CVAAS								
Mercury	ND	mg/kg	0.0229	09/22/95	EPA 7471	AMH	7439-97-6	
Metals, ICP								
Aluminum	7600	mg/kg	5.73	09/19/95	EPA 6010	BRW	7429-90-5	
Antimony	ND	mg/kg	3.82	09/19/95	EPA 6010	BRW	7440-36-0	
Arsenic	77.5	mg/kg	6.49	09/19/95	EPA 6010	BRW	7440-38-2	
Beryllium	0.246	mg/kg	0.0763	09/19/95	EPA 6010	BRW	7440-41-7	
Cadmium	ND	mg/kg	0.382	09/19/95	EPA 6010	BRW	7440-43-9	
Chromium	12.5	mg/kg	0.534	09/19/95	EPA 6010	BRW	7440-47-3	
Copper	14.1	mg/kg	0.763	09/19/95	EPA 6010	BRW	7440-50-8	
Iron	12700	mg/kg	3.05	09/19/95	EPA 6010	BRW	7439-89-6	
Lead	20.1	mg/kg	3.82	09/19/95	EPA 6010	BRW	7439-92-1	
Manganese	321	mg/kg	0.534	09/19/95	EPA 6010	BRW	7439-96-5	
Nickel	6.29	mg/kg	2.29	09/19/95	EPA 6010	BRW	7440-02-0	
Selenium	ND	mg/kg	7.63	09/19/95	EPA 6010	BRW	7782-49-2	
Silver	ND	mg/kg	0.534	09/19/95	EPA 6010	BRW	7440-22-4	
Thallium	ND	mg/kg	7.63	09/19/95	EPA 6010	BRW	7440-28-0	
Zinc	35.5	mg/kg	1.53	09/19/95	EPA 6010	BRW	7440-66-6	
Date Digested				09/18/95				

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.



REPORT OF LABORATORY ANALYSIS

OCT 30 1995

October 24, 1995

Mr. Bill Fees
Dames & Moore
808 E. Sprague Ave.
Suite A
Spokane, WA 99202

RE: PACE Project No. A51020.500
Client Reference: 96 Hour Rainbow Trout Acute Toxicity Test

Dear Mr. Fees:

Enclosed is the report of laboratory analyses for samples received September 29, 1995.

Footnotes are given at the end of the report.

If you have any questions concerning this report, please feel free to contact us.

Sincerely,

A handwritten signature in cursive script, appearing to read "Sherry Ratzlaff".

Sherry Ratzlaff
Project Manager

Enclosures

Dames & Moore
808 E. Sprague Ave.
Suite A
Spokane, WA 99202

October 24, 1995
PACE Project Number: A51020500

Attn: Mr. Bill Fees

Client Reference: 96 Hour Rainbow Trout Acute Toxicity Test

PACE Sample Number:	930139787	930139795
Date Collected:	9/8/95	9/8/95
Date Received:	9/29/95	9/29/95
Client Sample ID:	DMB090895	DMB090895
	-01	-02

<u>Parameter</u>	<u>Units</u>
------------------	--------------

INDIVIDUAL PARAMETERS

96 Hour Rainbow Trout Acute Toxicity Test	mg/L	LC50=GT750	LC50=GT750 (1)
---	------	------------	-------------------

These data have been reviewed and are approved for release.



Sherry L. Ratzlaff
Supervisor, Bioassay Department

(1) GT = Greater Than

Acute 48 hour Toxicity Test

Start Date: 16 Oct-95 Test ID: Sample ID: qc
End Date: 18 Oct-95 Protocol ID: EPAA 91 Sample Type:
Sample Date: Analyst Name: Test Species: CM Oncorhynchus mykiss
Comments: Response: Survival

Conc-mg/L	1	2
N Control	1.000	1.000
187.5	1.000	1.000
375	1.000	1.000
750	1.000	1.000
1500	0.625	0.375
3000	0.000	0.000

Untransformed Data												
Conc-mg/L	Mean	N-Mean	Mean	Min	Max	CV%	N	Stat	Critical	MSD	NRESP	NDOSE
N Control	1.000	1.000	1.000	1.000	1.000	0.00	2				0	16
187.5	1.000	1.000	1.000	1.000	1.000	0.00	2				0	16
375	1.000	1.000	1.000	1.000	1.000	0.00	2				0	16
750	1.000	1.000	1.000	1.000	1.000	0.00	2				0	16
1500	0.500	0.500	0.500	0.375	0.625	35.36	2				8	16
3000	0.000	0.000									16	16

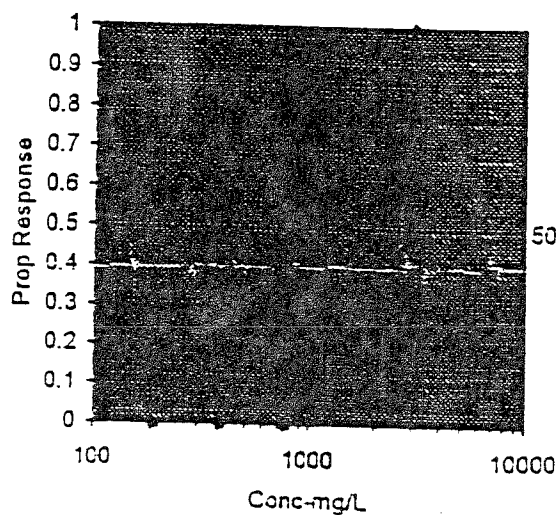
Auxiliary Tests Statistic Critical Skew Kurt

Normality of the data set cannot be confirmed

Equality of variances cannot be confirmed

Conc-mg/L	Proportional Response		
	Mean	Iso	N-Iso
N Control	0.0000	0.0000	
187.5	0.0000	0.0000	0.0000
375	0.0000	0.0000	0.0000
750	0.0000	0.0000	0.0000
1500	0.5000	0.5000	0.5000
3000	1.0000	1.0000	1.0000

Trimmed Spearman-Kärber



Alpha Trim-%	LC50	95% CL
0	1500.0	1261.3 1783.8
5	1500.0	1237.3 1818.5
10	1500.0	1207.9 1862.3
20	1500.0	1123.7 2002.3
Auto-0	1500.0	1261.3 1783.8

EL only

Client PAGE N. CA - DAMES - MOORE
DMB - 01

Client No 000570
Sample No 13979.7
Project No. AS1020500

Sample and Bioassay Information:

Screening ☒ Definitive ☐

INC = 3

Dilution Water: SLW Batch 10-13-95 Hardness 45 Alkalinity 35

Tank Volume 5L DW out 55 38

Number of Organisms per Tank 10 Organism Source Zeyer Bros

Acclimation Temperature 14

Mean Length (mm) 63.3 Mean Weight (mg) 0.325

Test Temperature (C) 14

	Initial	24 hour	48 hour	72 hour	96 hour
date	<u>10-16-95</u>	<u>10-17-95</u>	<u>10-18-95</u>	<u>10-19-95</u>	<u>10-20-95</u>
Time/Initials	<u>1620 SW/AB</u>	<u>1615 SW/AB</u>	<u>1615 SW/AB</u>	<u>1430 AB/SW</u>	<u>1150 AB/SW</u>
	pH °C D.O	pH °C D.O No. Dead	pH °C D.O No. Dead	pH °C D.O No. Dead	pH °C D.O No. Dead
A Control	7.1 14 8.2	7.0 15 8.6 0	7.0 14 8.4 0	7.1 14 7.9 0	7.2 14 8.0 0
B Control	7.1 14 8.3	7.0 15 8.6 0	7.0 14 8.4 0	7.1 14 7.8 0	7.2 14 8.1 0
A 400	7.2 14 8.3	7.2 15 8.5 0	7.2 14 8.6 0	7.2 14 8.2 0	7.3 14 9.1 0
B 400	7.2 14 8.3	7.2 15 8.5 0	7.2 14 8.6 0	7.2 14 8.2 0	7.3 14 9.1 0
A 750	7.2 14 8.4	7.1 15 8.6 0	7.2 14 8.4 0	7.2 14 8.3 0	7.3 14 9.1 0
B 750	7.2 14 8.4	7.1 15 8.6 0	7.2 14 8.4 0	7.2 14 8.3 0	7.3 14 9.1 0
A					
B					
A					
B					
A					
B					
A					
B					

Tumbler On: 0930 Tumbler Off: 1535

IN High Concentration OUT High Concentration
Alkalinity 36 Hardness 50 Alkalinity 36 Hardness 50

Remarks:

LC50 750 95% Confidence Limits NC Method NC

Client FACE N. CA - DATES & Moore
DMB-02

WPCL No 000570
Sample No 13979.5
Project No AS1020.500

Sample and Bioassay Information:

Screening ☒ Definitive ☐
Dilution Water: SLW Batch 14-1345 Hardness 45 Alkalinity 35

INC#3

Tank Volume 5L DW OUT 55
Number of Organisms per Tank 10 Organism Source 21291625
Mean Length (mm) 63.3 Mean Weight (mg) 0.325

Acclimation Temperature 14
Test Temperature (C) 14

	Initial	24 hour	48 hour	72 hour	96 hour
date	<u>10-16-95</u>	<u>10-17-95</u>	<u>10-18-95</u>	<u>10-19-95</u>	<u>10-20-95</u>
Time/Initials	<u>1630 SW/HB</u>	<u>1610 SW/HB</u>	<u>1625 SW/HB</u>	<u>1425 AS/SWB</u>	<u>1610 AC/BWS</u>
R Test					
E Conc					
P (mg/L)					
	pH C D.O	pH C D.O No. Dead	pH C D.O No. Dead	pH C D.O No. Dead	pH C D.O No. Dead
A Control	7.1 14 8.2	7.6 15 8.6 0	7.0 14 8.4 0	7.1 14 7.8 0	7.2 14 8.6 0
B Control	7.1 14 8.2	7.0 15 8.6 0	7.0 14 8.4 0	7.1 14 7.8 0	7.2 14 8.6 0
A 400	7.2 14 8.1	7.1 15 8.5 0	7.1 14 8.4 0	7.2 14 8.6 0	7.3 14 8.9 0
B 400	7.2 14 8.1	7.1 15 8.5 0	7.1 14 8.4 0	7.2 14 8.6 0	7.3 14 8.9 0
A 750	7.2 14 7.9	7.1 15 8.4 0	7.1 14 8.4 0	7.2 14 8.5 0	7.5 14 9.1 0
B 750	7.2 14 7.9	7.1 15 8.4 0	7.1 14 8.4 0	7.2 14 8.5 0	7.5 14 9.1 0
A					
B					
A					
B					
A					
B					
A					
B					

Tumbler On: 0930 Tumbler Off: 1535
IN High Concentration OUT High Concentration
Alkalinity 34 Hardness 40 Alkalinity 38 Hardness 51

Remarks:

LC50 61750 95% Confidence Limits NC Method NC