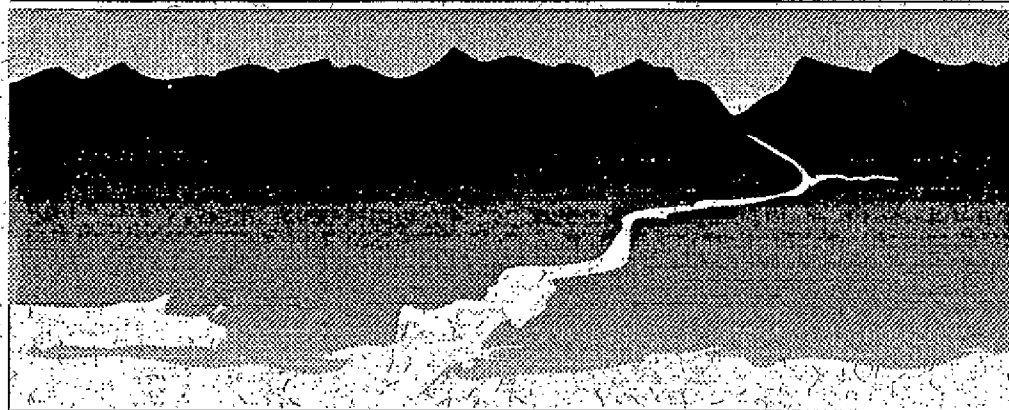

LOWER COLUMBIA RIVER



BI-STATE PROGRAM

RECONNAISSANCE SURVEY OF THE LOWER COLUMBIA RIVER

LABORATORY DATA REPORT
VOLUME 3: WATER DATA

JANUARY, 1992

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TETRA TECH

In Association With:

ALDEN ANALYTICAL LABORATORIES
KEYSTONE/NEA
PRECISION ANALYTICS

VOLUME 3

INORGANIC AND ORGANIC CHEMICAL DATA - WATER

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SECTION A
PESTICIDES AND PCBS (WATER)



Alden Analytical
Laboratories, Inc.

REPORT OF ANALYTICAL RESULTS

Client: Tetra Tech
Client Sample Number: N/A
Date of Sample Receipt: N/A
Date of Sample Extraction: 10/3/91
Date of Sample Analysis: 10/5/91

Alden Job Number: 9110001/1
Alden Sample Number: Blank
Analysis Method: EPA 608
Matrix: Water
Reporting Units: ug/L

Compound Name	CAS No.	Reporting Limit	Result
Aldrin	309-00-2	0.05	< 0.05
alpha-BHC	319-84-6	0.05	< 0.05
beta-BHC	319-85-7	0.05	< 0.05
delta-BHC	319-86-8	0.05	< 0.05
gamma-BHC	58-89-9	0.05	< 0.05
Chlordane	57-74-9	0.05	< 0.05
4,4'-DDD	72-54-8	0.05	< 0.05
4,4'-DDE	72-55-9	0.05	< 0.05
4,4'-DDT	50-29-3	0.05	< 0.05
Dieldrin	60-57-1	0.05	< 0.05
Endosulfan I	959-98-8	0.05	< 0.05
Endosulfan II	33212-65-9	0.05	< 0.05
Endosulfan sulfate	1031-07-8	0.05	< 0.05
Endrin	72-20-8	0.05	< 0.05
Endrin aldehyde	7421-93-4	0.05	< 0.05
Heptachlor	76-44-8	0.05	< 0.05
Heptachlor epoxide	1024-57-3	0.05	< 0.05
Methoxychlor	72-43-5	0.05	< 0.05
Toxaphene	8001-35-2	5.0	< 5.0
Aroclor-1016	12674-11-2	0.50	< 0.50
Aroclor-1221	1104-28-2	0.50	< 0.50
Aroclor-1232	11141-16-5	0.50	< 0.50
Aroclor-1242	53469-21-9	0.50	< 0.50
Aroclor-1248	12672-29-6	0.50	< 0.50
Aroclor-1254	11097-69-1	0.50	< 0.50
Aroclor-1260	11096-82-5	0.50	< 0.50



Alden Analytical
Laboratories, Inc.

REPORT OF ANALYTICAL RESULTS

Client: Tetra Tech	Alden Job Number: 9110001/1
Client Sample Number: N/A	Alden Sample Number: Blank
Date of Sample Receipt: N/A	Analysis Method: EPA 608
Date of Sample Extraction: 10/3/91	Matrix: Water
Date of Sample Analysis: 10/5/91	Reporting Units: ug/L

Compound Name	Reporting Limit	Result
Decathal	0.05	< 0.05
Dicofal	0.50	< 0.50
Malathion	0.05	< 0.05
Methyl Parathion	0.05	< 0.05
Mirex	0.05	< 0.05
o,p DDE	0.05	< 0.05
o,p DDD	0.05	< 0.05
o,p DDT	0.05	< 0.05
Parathion	0.05	< 0.05

Surrogate	% Recovery	Advisory QC Limits
DBC	111	25 - 150



Alden Analytical
Laboratories, Inc.

REPORT OF ANALYTICAL RESULTS

Client: Tetra Tech
Client Sample Number: W37
Date of Sample Receipt: 10/2/91
Date of Sample Extraction: 10/3/91
Date of Sample Analysis: 10/5/91

Alden Job Number: 9110001/1
Alden Sample Number: 8615C
Analysis Method: EPA 608
Matrix: Water
Reporting Units: ug/L

Compound Name	CAS No.	Reporting Limit	Result
Aldrin	309-00-2	0.05	< 0.05
alpha-BHC	319-84-6	0.05	< 0.05
beta-BHC	319-85-7	0.05	< 0.05
delta-BHC	319-86-8	0.05	< 0.05
gamma-BHC	58-89-9	0.05	< 0.05
Chlordane	57-74-9	0.05	< 0.05
4,4'-DDD	72-54-8	0.05	< 0.05
4,4'-DDE	72-55-9	0.05	< 0.05
4,4'-DDT	50-29-3	0.05	< 0.05
Dieldrin	60-57-1	0.05	< 0.05
Endosulfan I	959-98-8	0.05	< 0.05
Endosulfan II	33212-65-9	0.05	< 0.05
Endosulfan sulfate	1031-07-8	0.05	< 0.05
Endrin	72-20-8	0.05	< 0.05
Endrin aldehyde	7421-93-4	0.05	< 0.05
Heptachlor	76-44-8	0.05	< 0.05
Heptachlor epoxide	1024-57-3	0.05	< 0.05
Methoxychlor	72-43-5	0.05	< 0.05
Toxaphene	8001-35-2	5.0	< 5.0
Aroclor-1016	12674-11-2	0.50	< 0.50
Aroclor-1221	1104-28-2	0.50	< 0.50
Aroclor-1232	11141-16-5	0.50	< 0.50
Aroclor-1242	53469-21-9	0.50	< 0.50
Aroclor-1248	12672-29-6	0.50	< 0.50
Aroclor-1254	11097-69-1	0.50	< 0.50
Aroclor-1260	11096-82-5	0.50	< 0.50



Alden Analytical
Laboratories, Inc.

REPORT OF ANALYTICAL RESULTS

Client: Tetra Tech
Client Sample Number: W37
Date of Sample Receipt: 10/2/91
Date of Sample Extraction: 10/3/91
Date of Sample Analysis: 10/5/91

Alden Job Number: 9110001/1
Alden Sample Number: 8615C
Analysis Method: EPA 608
Matrix: Water
Reporting Units: ug/L

Compound Name	Reporting Limit	Result
Decathal	0.05	< 0.05
Dicofal	0.50	< 0.50
Malathion	0.05	< 0.05
Methyl Parathion	0.05	< 0.05
Mirex	0.05	< 0.05
o,p DDE	0.05	< 0.05
o,p DDD	0.05	< 0.05
o,p DDT	0.05	< 0.05
Parathion	0.05	< 0.05

Surrogate	% Recovery	Advisory QC Limits
DBC	100	25 - 150



Alden Analytical
Laboratories, Inc.

REPORT OF ANALYTICAL RESULTS

Client: Tetra Tech
Client Sample Number: N/A
Date of Sample Receipt: N/A
Date of Sample Extraction: 10/3/91
Date of Sample Analysis: 10/5/91

Alden Job Number: 9109034/1
Alden Sample Number: Blank
Analysis Method: EPA 608
Matrix: Water
Reporting Units: ug/L

Compound Name	CAS No.	Reporting Limit	Result
Aldrin	309-00-2	0.05	< 0.05
alpha-BHC	319-84-6	0.05	< 0.05
beta-BHC	319-85-7	0.05	< 0.05
delta-BHC	319-86-8	0.05	< 0.05
gamma-BHC	58-89-9	0.05	< 0.05
Chlordane	57-74-9	0.05	< 0.05
4,4'-DDD	72-54-8	0.05	< 0.05
4,4'-DDE	72-55-9	0.05	< 0.05
4,4'-DDT	50-29-3	0.05	< 0.05
Dieldrin	60-57-1	0.05	< 0.05
Endosulfan I	959-98-8	0.05	< 0.05
Endosulfan II	33212-65-9	0.05	< 0.05
Endosulfan sulfate	1031-07-8	0.05	< 0.05
Endrin	72-20-8	0.05	< 0.05
Endrin aldehyde	7421-93-4	0.05	< 0.05
Heptachlor	76-44-8	0.05	< 0.05
Heptachlor epoxide	1024-57-3	0.05	< 0.05
Methoxychlor	72-43-5	0.05	< 0.05
Toxaphene	8001-35-2	5.0	< 5.0
Aroclor-1016	12674-11-2	0.50	< 0.50
Aroclor-1221	1104-28-2	0.50	< 0.50
Aroclor-1232	11141-16-5	0.50	< 0.50
Aroclor-1242	53469-21-9	0.50	< 0.50
Aroclor-1248	12672-29-6	0.50	< 0.50
Aroclor-1254	11097-69-1	0.50	< 0.50
Aroclor-1260	11096-82-5	0.50	< 0.50



Alden Analytical
Laboratories, Inc.

REPORT OF ANALYTICAL RESULTS

Client: Tetra Tech
Client Sample Number: N/A
Date of Sample Receipt: N/A
Date of Sample Extraction: 10/3/91
Date of Sample Analysis: 10/5/91

Alden Job Number: 9109034/1
Alden Sample Number: Blank
Analysis Method: EPA 608
Matrix: Water
Reporting Units: ug/L

Compound Name	Reporting Limit	Result
Decathal	0.05	< 0.05
Dicofal	0.50	< 0.50
Malathion	0.05	< 0.05
Methyl Parathion	0.05	< 0.05
Mirex	0.05	< 0.05
o,p DDE	0.05	< 0.05
o,p DDD	0.05	< 0.05
o,p DDT	0.05	< 0.05
Parathion	0.05	< 0.05

Surrogate	% Recovery	Advisory QC Limits
DBC	111	25 - 150



Alden Analytical
Laboratories, Inc.

REPORT OF ANALYTICAL RESULTS

Client: Tetra Tech
Client Sample Number: W45
Date of Sample Receipt: 9/30/91
Date of Sample Extraction: 10/3/91
Date of Sample Analysis: 10/5/91

Alden Job Number: 9109034/1
Alden Sample Number: 8570C
Analysis Method: EPA 608
Matrix: Water
Reporting Units: ug/L

Compound Name	CAS No.	Reporting Limit	Result
Aldrin	309-00-2	0.05	< 0.05
alpha-BHC	319-84-6	0.05	< 0.05
beta-BHC	319-85-7	0.05	< 0.05
delta-BHC	319-86-8	0.05	< 0.05
gamma-BHC	58-89-9	0.05	< 0.05
Chlordane	57-74-9	0.05	< 0.05
4,4'-DDD	72-54-8	0.05	< 0.05
4,4'-DDE	72-55-9	0.05	< 0.05
4,4'-DDT	50-29-3	0.05	< 0.05
Dieldrin	60-57-1	0.05	< 0.05
Endosulfan I	959-98-8	0.05	< 0.05
Endosulfan II	33212-65-9	0.05	< 0.05
Endosulfan sulfate	1031-07-8	0.05	< 0.05
Endrin	72-20-8	0.05	< 0.05
Endrin aldehyde	7421-93-4	0.05	< 0.05
Heptachlor	76-44-8	0.05	< 0.05
Heptachlor epoxide	1024-57-3	0.05	< 0.05
Methoxychlor	72-43-5	0.05	< 0.05
Toxaphene	8001-35-2	5.0	< 5.0
Aroclor-1016	12674-11-2	0.50	< 0.50
Aroclor-1221	1104-28-2	0.50	< 0.50
Aroclor-1232	11141-16-5	0.50	< 0.50
Aroclor-1242	53469-21-9	0.50	< 0.50
Aroclor-1248	12672-29-6	0.50	< 0.50
Aroclor-1254	11097-69-1	0.50	< 0.50
Aroclor-1260	11096-82-5	0.50	< 0.50



Alden Analytical
Laboratories, Inc.

REPORT OF ANALYTICAL RESULTS

Client: Tetra Tech
Client Sample Number: W45
Date of Sample Receipt: 9/30/91
Date of Sample Extraction: 10/3/91
Date of Sample Analysis: 10/5/91

Alden Job Number: 9109034/1
Alden Sample Number: 8570C
Analysis Method: EPA 608
Matrix: Water
Reporting Units: ug/L

Compound Name	Reporting Limit	Result
Decathal	0.05	< 0.05
Dicofal	0.50	< 0.50
Malathion	0.05	< 0.05
Methyl Parathion	0.05	< 0.05
Mirex	0.05	< 0.05
o,p DDE	0.05	< 0.05
o,p DDD	0.05	< 0.05
o,p DDT	0.05	< 0.05
Parathion	0.05	< 0.05

Surrogate	% Recovery	Advisory QC Limits
DBC	93	25 - 150



Alden Analytical
Laboratories, Inc.

REPORT OF ANALYTICAL RESULTS

Client: Tetra Tech
Client Sample Number: Matrix Spike
Date of Sample Receipt: 9/30/91
Date of Sample Extraction: 10/3/91
Date of Sample Analysis: 10/5/91

Alden Job Number: 9109034/1
Alden Sample Number: 8570D MS
Analysis Method: EPA 608
Matrix: Water
Reporting Units: ug/L

Compound Name	Spike Added	Percent Recovery	Recovery QC Limits (%)
gamma-BHC	1.0	87	56 - 123
Heptachlor	1.0	83	40 - 131
Aldrin	1.0	99	40 - 120
Dieldrin	4.0	55	52 - 126
Endrin	4.0	88	56 - 121
4,4'-DDT	4.0	90	38 - 127
Aroclor-1254	2.0	90	

Surrogate	% Recovery	Advisory QC Limits
DBC	92	25 - 150



Alden Analytical
Laboratories, Inc.

REPORT OF ANALYTICAL RESULTS

Client: Tetra Tech
Client Sample Number: Spike Duplicate
Date of Sample Receipt: 9/30/91
Date of Sample Extraction: 10/3/91
Date of Sample Analysis: 10/5/91

Alden Job Number: 9109034/1
Alden Sample Number: 8570D MSD
Analysis Method: EPA 608
Matrix: Water
Reporting Units: ug/L

Compound Name	Spike Added	Percent Recovery	Recovery QC Limits (%)
gamma-BHC	1.0	95	56 - 123
Heptachlor	1.0	90	40 - 131
Aldrin	1.0	110	40 - 120
Dieldrin	4.0	63	52 - 126
Endrin	4.0	98	56 - 121
4,4'-DDT	4.0	95	38 - 127
Aroclor-1254	2.0	90	

Surrogate	% Recovery	Advisory QC Limits
DBC	100	25 - 150



Alden Analytical
Laboratories, Inc.

REPORT OF ANALYTICAL RESULTS

Client: Tetra Tech
Client Sample Number: N/A
Date of Sample Receipt: N/A
Date of Sample Extraction: 10/7/91
Date of Sample Analysis: 10/11/91

Alden Job Number: 9110010/1
Alden Sample Number: Blank
Analysis Method: EPA 608
Matrix: Water
Reporting Units: ug/L

Compound Name	CAS No.	Reporting Limit	Result
Aldrin	309-00-2	0.05	< 0.05
alpha-BHC	319-84-6	0.05	< 0.05
beta-BHC	319-85-7	0.05	< 0.05
delta-BHC	319-86-8	0.05	< 0.05
gamma-BHC	58-89-9	0.05	< 0.05
Chlordane	57-74-9	0.05	< 0.05
4,4'-DDD	72-54-8	0.05	< 0.05
4,4'-DDE	72-55-9	0.05	< 0.05
4,4'-DDT	50-29-3	0.05	< 0.05
Dieldrin	60-57-1	0.05	< 0.05
Endosulfan I	959-98-8	0.05	< 0.05
Endosulfan II	33212-65-9	0.05	< 0.05
Endosulfan sulfate	1031-07-8	0.05	< 0.05
Endrin	72-20-8	0.05	< 0.05
Endrin aldehyde	7421-93-4	0.05	< 0.05
Heptachlor	76-44-8	0.05	< 0.05
Heptachlor epoxide	1024-57-3	0.05	< 0.05
Methoxychlor	72-43-5	0.05	< 0.05
Toxaphene	8001-35-2	5.0	< 5.0
Aroclor-1016	12674-11-2	0.50	< 0.50
Aroclor-1221	1104-28-2	0.50	< 0.50
Aroclor-1232	11141-16-5	0.50	< 0.50
Aroclor-1242	53469-21-9	0.50	< 0.50
Aroclor-1248	12672-29-6	0.50	< 0.50
Aroclor-1254	11097-69-1	0.50	< 0.50
Aroclor-1260	11096-82-5	0.50	< 0.50



Alden Analytical
Laboratories, Inc.

REPORT OF ANALYTICAL RESULTS

Client: Tetra Tech
Client Sample Number: N/A
Date of Sample Receipt: N/A
Date of Sample Extraction: 10/7/91
Date of Sample Analysis: 10/11/91

Alden Job Number: 9110010/1
Alden Sample Number: Blank
Analysis Method: EPA 608
Matrix: Water
Reporting Units: ug/L

Compound Name	Reporting Limit	Result
Dacthal	0.05	< 0.05
Dicofal	0.50	< 0.50
Malathion	0.05	< 0.05
Methyl Parathion	0.05	< 0.05
Mirex	0.05	< 0.05
o,p DDE	0.05	< 0.05
o,p DDD	0.05	< 0.05
o,p DDT	0.05	< 0.05
Parathion	0.05	< 0.05

Surrogate	% Recovery	Advisory QC Limits
DBC	87	24 - 150



Alden Analytical
Laboratories, Inc.

REPORT OF ANALYTICAL RESULTS

Client: Tetra Tech
Client Sample Number: W26
Date of Sample Receipt: 10/7/91
Date of Sample Extraction: 10/7/91
Date of Sample Analysis: 11/5/91

Alden Job Number: 9110010/1
Alden Sample Number: 8669C
Analysis Method: EPA 608
Matrix: Water
Reporting Units: ug/L

Compound Name	CAS No.	Reporting Limit	Result
Aldrin	309-00-2	0.05	< 0.05
alpha-BHC	319-84-6	0.05	< 0.05
beta-BHC	319-85-7	0.05	< 0.05
delta-BHC	319-86-8	0.05	< 0.05
gamma-BHC	58-89-9	0.05	< 0.05
Chlordane	57-74-9	0.05	< 0.05
4,4'-DDD	72-54-8	0.05	< 0.05
4,4'-DDE	72-55-9	0.05	< 0.05
4,4'-DDT	50-29-3	0.05	< 0.05
Dieldrin	60-57-1	0.05	< 0.05
Endosulfan I	959-98-8	0.05	< 0.05
Endosulfan II	33212-65-9	0.05	< 0.05
Endosulfan sulfate	1031-07-8	0.05	< 0.05
Endrin	72-20-8	0.05	< 0.05
Endrin aldehyde	7421-93-4	0.05	< 0.05
Heptachlor	76-44-8	0.05	< 0.05
Heptachlor epoxide	1024-57-3	0.05	< 0.05
Methoxychlor	72-43-5	0.05	< 0.50
Toxaphene	8001-35-2	5.0	< 5.0
Aroclor-1016	12674-11-2	0.50	< 0.50
Aroclor-1221	1104-28-2	0.50	< 0.50
Aroclor-1232	11141-16-5	0.50	< 0.50
Aroclor-1242	53469-21-9	0.50	< 0.50
Aroclor-1248	12672-29-6	0.50	< 0.50
Aroclor-1254	11097-69-1	0.50	< 0.50
Aroclor-1260	11096-82-5	0.50	< 0.50



Alden Analytical
Laboratories, Inc.

REPORT OF ANALYTICAL RESULTS

Client: Tetra Tech
Client Sample Number: W26
Date of Sample Receipt: 10/7/91
Date of Sample Extraction: 10/7/91
Date of Sample Analysis: 11/5/91

Alden Job Number: 9110010/1
Alden Sample Number: 8669C
Analysis Method: EPA 608
Matrix: Water
Reporting Units: ug/L

Compound Name	Reporting Limit	Result
Decathal	0.05	< 0.05
Dicofal	0.50	< 0.50
Malathion	0.05	< 0.05
Methyl Parathion	0.05	< 0.05
Mirex	0.05	< 0.05
o,p DDE	0.05	< 0.05
o,p DDD	0.05	< 0.05
o,p DDT	0.05	< 0.05
Parathion	0.05	< 0.05

Surrogate	% Recovery	Advisory QC Limits
DBC	94	25 - 150



Alden Analytical
Laboratories, Inc.

REPORT OF ANALYTICAL RESULTS

Client: Tetra Tech
Client Sample Number: W52
Date of Sample Receipt: 10/7/91
Date of Sample Extraction: 10/7/91
Date of Sample Analysis: 11/5/91

Alden Job Number: 9110010/1
Alden Sample Number: 8670C
Analysis Method: EPA 608
Matrix: Water
Reporting Units: ug/L

Compound Name	CAS No.	Reporting Limit	Result
Aldrin	309-00-2	0.05	< 0.05
alpha-BHC	319-84-6	0.05	< 0.05
beta-BHC	319-85-7	0.05	< 0.05
delta-BHC	319-86-8	0.05	< 0.05
gamma-BHC	58-89-9	0.05	< 0.05
Chlordane	57-74-9	0.05	< 0.05
4,4'-DDD	72-54-8	0.05	< 0.05
4,4'-DDE	72-55-9	0.05	< 0.05
4,4'-DDT	50-29-3	0.05	< 0.05
Dieldrin	60-57-1	0.05	< 0.05
Endosulfan I	959-98-8	0.05	< 0.05
Endosulfan II	33212-65-9	0.05	< 0.05
Endosulfan sulfate	1031-07-8	0.05	< 0.05
Endrin	72-20-8	0.05	< 0.05
Endrin aldehyde	7421-93-4	0.05	< 0.05
Heptachlor	76-44-8	0.05	< 0.05
Heptachlor epoxide	1024-57-3	0.05	< 0.05
Methoxychlor	72-43-5	0.50	< 0.50
Toxaphene	8001-35-2	5.0	< 5.0
Aroclor-1016	12674-11-2	0.50	< 0.50
Aroclor-1221	1104-28-2	0.50	< 0.50
Aroclor-1232	11141-16-5	0.50	< 0.50
Aroclor-1242	53469-21-9	0.50	< 0.50
Aroclor-1248	12672-29-6	0.50	< 0.50
Aroclor-1254	11097-69-1	0.50	< 0.50
Aroclor-1260	11096-82-5	0.50	< 0.50



Alden Analytical
Laboratories, Inc.

REPORT OF ANALYTICAL RESULTS

Client: Tetra Tech
Client Sample Number: W52
Date of Sample Receipt: 10/7/91
Date of Sample Extraction: 10/7/91
Date of Sample Analysis: 11/5/91

Alden Job Number: 9110010/1
Alden Sample Number: 8670C
Analysis Method: EPA 608
Matrix: Water
Reporting Units: ug/L

Compound Name	Reporting Limit	Result
Decathal	0.05	< 0.05
Dicofal	0.50	< 0.50
Malathion	0.05	< 0.05
Methyl Parathion	0.05	< 0.05
Mirex	0.05	< 0.05
o,p DDE	0.05	< 0.05
o,p DDD	0.05	< 0.05
o,p DDT	0.05	< 0.05
Parathion	0.05	< 0.05

Surrogate	% Recovery	Advisory QC Limits
DBC	97	25 - 150



Alden Analytical
Laboratories, Inc.

REPORT OF ANALYTICAL RESULTS

Client: Tetra Tech
Client Sample Number: N/A
Date of Sample Receipt: N/A
Date of Sample Extraction: 10/15/91
Date of Sample Analysis: 10/22/91

Alden Job Number: 9110024/1
Alden Sample Number: Blank
Analysis Method: EPA 608
Matrix: Water
Reporting Units: ug/L

Compound Name	CAS No.	Reporting Limit	Result
Aldrin	309-00-2	0.05	< 0.05
alpha-BHC	319-84-6	0.05	< 0.05
beta-BHC	319-85-7	0.05	< 0.05
delta-BHC	319-86-8	0.05	< 0.05
gamma-BHC	58-89-9	0.05	< 0.05
Chlordane	57-74-9	0.05	< 0.05
4,4'-DDD	72-54-8	0.05	< 0.05
4,4'-DDE	72-55-9	0.05	< 0.05
4,4'-DDT	50-29-3	0.05	< 0.05
Dieldrin	60-57-1	0.05	< 0.05
Endosulfan I	959-98-8	0.05	< 0.05
Endosulfan II	33212-65-9	0.05	< 0.05
Endosulfan sulfate	1031-07-8	0.05	< 0.05
Endrin	72-20-8	0.05	< 0.05
Endrin aldehyde	7421-93-4	0.05	< 0.05
Heptachlor	76-44-8	0.05	< 0.05
Heptachlor epoxide	1024-57-3	0.05	< 0.05
Methoxychlor	72-43-5	0.05	< 0.05
Toxaphene	8001-35-2	5.0	< 5.0
Aroclor-1016	12674-11-2	0.50	< 0.50
Aroclor-1221	1104-28-2	0.50	< 0.50
Aroclor-1232	11141-16-5	0.50	< 0.50
Aroclor-1242	53469-21-9	0.50	< 0.50
Aroclor-1248	12672-29-6	0.50	< 0.50
Aroclor-1254	11097-69-1	0.50	< 0.50
Aroclor-1260	11096-82-5	0.50	< 0.50



Alden Analytical
Laboratories, Inc.

REPORT OF ANALYTICAL RESULTS

Client: Tetra Tech
Client Sample Number: N/A
Date of Sample Receipt: N/A
Date of Sample Extraction: 10/15/91
Date of Sample Analysis: 10/22/91

Alden Job Number: 9110024/1
Alden Sample Number: Blank
Analysis Method: EPA 608
Matrix: Water
Reporting Units: ug/L

Compound Name	Reporting Limit	Result
Dacthal	0.05	< 0.05
Dicofal	0.50	< 0.50
Malathion	0.05	< 0.05
Methyl Parathion	0.05	< 0.05
Mirex	0.05	< 0.05
o,p DDE	0.05	< 0.05
o,p DDD	0.05	< 0.05
o,p DDT	0.05	< 0.05
Parathion	0.05	< 0.05

Surrogate	% Recovery	Advisory QC Limits
DBC	107	24 - 150



Alden Analytical
Laboratories, Inc.

REPORT OF ANALYTICAL RESULTS

Client: Tetra Tech
Client Sample Number: W6
Date of Sample Receipt: 10/15/91
Date of Sample Extraction: 10/15/91
Date of Sample Analysis: 10/22/91

Alden Job Number: 9110024/1
Alden Sample Number: 8789C
Analysis Method: EPA 608
Matrix: Water
Reporting Units: ug/L

Compound Name	CAS No.	Reporting Limit	Result
Aldrin	309-00-2	0.05	< 0.05
alpha-BHC	319-84-6	0.05	< 0.05
beta-BHC	319-85-7	0.05	< 0.05
delta-BHC	319-86-8	0.05	< 0.05
gamma-BHC	58-89-9	0.05	< 0.05
Chlordane	57-74-9	0.05	< 0.05
4,4'-DDD	72-54-8	0.05	< 0.05
4,4'-DDE	72-55-9	0.05	< 0.05
4,4'-DDT	50-29-3	0.05	< 0.05
Dieldrin	60-57-1	0.05	0.06
Endosulfan I	959-98-8	0.05	< 0.05
Endosulfan II	33212-65-9	0.05	< 0.05
Endosulfan sulfate	1031-07-8	0.05	< 0.05
Endrin	72-20-8	0.05	< 0.05
Endrin aldehyde	7421-93-4	0.05	0.07
Heptachlor	76-44-8	0.05	< 0.05
Heptachlor epoxide	1024-57-3	0.05	< 0.05
Methoxychlor	72-43-5	0.05	< 0.05
Toxaphene	8001-35-2	5.0	< 5.0
Aroclor-1016	12674-11-2	0.50	< 0.50
Aroclor-1221	1104-28-2	0.50	< 0.50
Aroclor-1232	11141-16-5	0.50	< 0.50
Aroclor-1242	53469-21-9	0.50	< 0.50
Aroclor-1248	12672-29-6	0.50	< 0.50
Aroclor-1254	11097-69-1	0.50	< 0.50
Aroclor-1260	11096-82-5	0.50	< 0.50



Alden Analytical
Laboratories, Inc.

REPORT OF ANALYTICAL RESULTS

Client: Tetra Tech
Client Sample Number: W6
Date of Sample Receipt: 10/15/91
Date of Sample Extraction: 10/15/91
Date of Sample Analysis: 10/22/91

Alden Job Number: 9110024/1
Alden Sample Number: 8789C
Analysis Method: EPA 608
Matrix: Water
Reporting Units: ug/L

Compound Name	Reporting Limit	Result
Dacthal	0.05	<0.05
Dicofal	0.50	<0.50
Malathion	0.05	<0.05
Methyl Parathion	0.05	<0.05
Mirex	0.05	<0.05
o,p DDE	0.05	<0.05
o,p DDD	0.05	<0.05
o,p DDT	0.05	<0.05
Parathion	0.05	<0.05

Surrogate	% Recovery	Advisory QC Limits
DBC	181*	24 - 150

* Re-extraction could not be performed for high surrogate recovery due to no remaining sample.



Alden Analytical
Laboratories, Inc.

REPORT OF ANALYTICAL RESULTS

Client: Tetra Tech
Client Sample Number: Matrix Spike
Date of Sample Receipt: 10/15/91
Date of Sample Extraction: 10/15/91
Date of Sample Analysis: 10/22/91

Alden Job Number: 9110024/1
Alden Sample Number: 8789D MS
Analysis Method: EPA 608
Matrix: Water
Reporting Units: ug/L

Compound Name	Spike Added	Percent Recovery	Recovery QC Limits (%)
gamma-BHC	1.0	180	56 - 123
Heptachlor	1.0	170	40 - 131
Aldrin	1.0	180	40 - 120
Dieldrin	4.0	68	52 - 126
Endrin	4.0	350	56 - 121
4,4'-DDT	4.0	138	38 - 127
Aroclor-1254	2.0	275	

Surrogate	% Recovery	Advisory QC Limits
DBC	154*	25 - 150

* Re-extraction could not be performed for high surrogate recovery due to no remaining sample.



Alden Analytical
Laboratories, Inc.

REPORT OF ANALYTICAL RESULTS

Client: Tetra Tech
Client Sample Number: Spike Duplicate
Date of Sample Receipt: 10/15/91
Date of Sample Extraction: 10/15/91
Date of Sample Analysis: 10/22/91

Alden Job Number: 9110024/1
Alden Sample Number: 8789D MSD
Analysis Method: EPA 608
Matrix: Water
Reporting Units: ug/L

Compound Name	Spike Added	Percent Recovery	Recovery QC Limits (%)
gamma-BHC	1.0	120	56 - 123
Heptachlor	1.0	120	40 - 131
Aldrin	1.0	130	40 - 120
Dieldrin	4.0	55	52 - 126
Endrin	4.0	95	56 - 121
4,4'-DDT	4.0	105	38 - 127
Aroclor-1254	2.0	95	

Surrogate	% Recovery	Advisory QC Limits
DBC	99	25 - 150



Alden Analytical
Laboratories, Inc.

REPORT OF ANALYTICAL RESULTS

Client: Tetra Tech
Client Sample Number: N/A
Date of Sample Receipt: N/A
Date of Sample Extraction: 10/11/91
Date of Sample Analysis: 10/22/91

Alden Job Number: 9110013/1
Alden Sample Number: Blank
Analysis Method: EPA 608
Matrix: Water
Reporting Units: ug/L

Compound Name	CAS No.	Reporting Limit	Result
Aldrin	309-00-2	0.05	< 0.05
alpha-BHC	319-84-6	0.05	< 0.05
beta-BHC	319-85-7	0.05	< 0.05
delta-BHC	319-86-8	0.05	< 0.05
gamma-BHC	58-89-9	0.05	< 0.05
Chlordane	57-74-9	0.05	< 0.05
4,4'-DDD	72-54-8	0.05	< 0.05
4,4'-DDE	72-55-9	0.05	< 0.05
4,4'-DDT	50-29-3	0.05	< 0.05
Dieldrin	60-57-1	0.05	< 0.05
Endosulfan I	959-98-8	0.05	< 0.05
Endosulfan II	33212-65-9	0.05	< 0.05
Endosulfan sulfate	1031-07-8	0.05	< 0.05
Endrin	72-20-8	0.05	< 0.05
Endrin aldehyde	7421-93-4	0.05	< 0.05
Heptachlor	76-44-8	0.05	< 0.05
Heptachlor epoxide	1024-57-3	0.05	< 0.05
Methoxychlor	72-43-5	0.05	< 0.05
Toxaphene	8001-35-2	5.0	< 5.0
Aroclor-1016	12674-11-2	0.50	< 0.50
Aroclor-1221	1104-28-2	0.50	< 0.50
Aroclor-1232	11141-16-5	0.50	< 0.50
Aroclor-1242	53469-21-9	0.50	< 0.50
Aroclor-1248	12672-29-6	0.50	< 0.50
Aroclor-1254	11097-69-1	0.50	< 0.50
Aroclor-1260	11096-82-5	0.50	< 0.50



Alden Analytical
Laboratories, Inc.

REPORT OF ANALYTICAL RESULTS

Client: Tetra Tech
Client Sample Number: N/A
Date of Sample Receipt: N/A
Date of Sample Extraction: 10/11/91
Date of Sample Analysis: 10/22/91

Alden Job Number: 9110013/1
Alden Sample Number: Blank
Analysis Method: EPA 608
Matrix: Water
Reporting Units: ug/L

Compound Name	Reporting Limit	Result
Dacthal	0.05	< 0.05
Dicofal	0.50	< 0.50
Malathion	0.05	< 0.05
Methyl Parathion	0.05	< 0.05
Mirex	0.05	< 0.05
o,p DDE	0.05	< 0.05
o,p DDD	0.05	< 0.05
o,p DDT	0.05	< 0.05
Parathion	0.05	< 0.05

Surrogate	% Recovery	Advisory QC Limits
DBC	61	24 - 150



Alden Analytical
Laboratories, Inc.

REPORT OF ANALYTICAL RESULTS

Client: Tetra Tech
Client Sample Number: W14
Date of Sample Receipt: 10/8/91
Date of Sample Extraction: 10/11/91
Date of Sample Analysis: 11/22/91

Alden Job Number: 9110013/1
Alden Sample Number: 8716C
Analysis Method: EPA 608
Matrix: Water
Reporting Units: ug/L

Compound Name	CAS No.	Reporting Limit	Result
Aldrin	309-00-2	0.05	< 0.05
alpha-BHC	319-84-6	0.05	< 0.05
beta-BHC	319-85-7	0.05	< 0.05
delta-BHC	319-86-8	0.05	< 0.05
gamma-BHC	58-89-9	0.05	< 0.05
Chlordane	57-74-9	0.05	< 0.05
4,4'-DDD	72-54-8	0.05	< 0.05
4,4'-DDE	72-55-9	0.05	< 0.05
4,4'-DDT	50-29-3	0.05	< 0.05
Dieldrin	60-57-1	0.05	< 0.05
Endosulfan I	959-98-8	0.05	< 0.05
Endosulfan II	33212-65-9	0.05	< 0.05
Endosulfan sulfate	1031-07-8	0.05	< 0.05
Endrin	72-20-8	0.05	< 0.05
Endrin aldehyde	7421-93-4	0.05	< 0.05
Heptachlor	76-44-8	0.05	< 0.05
Heptachlor epoxide	1024-57-3	0.05	< 0.05
Methoxychlor	72-43-5	0.05	< 0.05
Toxaphene	8001-35-2	5.0	< 5.0
Aroclor-1016	12674-11-2	0.50	< 0.50
Aroclor-1221	1104-28-2	0.50	< 0.50
Aroclor-1232	11141-16-5	0.50	< 0.50
Aroclor-1242	53469-21-9	0.50	< 0.50
Aroclor-1248	12672-29-6	0.50	< 0.50
Aroclor-1254	11097-69-1	0.50	< 0.50
Aroclor-1260	11096-82-5	0.50	< 0.50



Alden Analytical
Laboratories, Inc.

REPORT OF ANALYTICAL RESULTS

Client: Tetra Tech
Client Sample Number: W14
Date of Sample Receipt: 10/8/91
Date of Sample Extraction: 10/11/91
Date of Sample Analysis: 11/22/91

Alden Job Number: 9110013/1
Alden Sample Number: 8716C
Analysis Method: EPA 608
Matrix: Water
Reporting Units: ug/L

TD

Compound Name	Reporting Limit	Result
Dacthal	0.05	< 0.05
Dicofal	0.50	< 0.50
Malathion	0.05	< 0.05
Methyl Parathion	0.05	< 0.05
Mirex	0.05	< 0.05
o,p DDE	0.05	< 0.05
o,p DDD	0.05	< 0.05
o,p DDT	0.05	< 0.05
Parathion	0.05	< 0.05

Surrogate	% Recovery	Advisory QC Limits
DBC	108	25 - 150



Alden Analytical
Laboratories, Inc.

REPORT OF ANALYTICAL RESULTS

Client: Tetra Tech	Alden Job Number: 9110013/1
Client Sample Number: Matrix Spike	Alden Sample Number: 8716D MS
Date of Sample Receipt: 10/8/91	Analysis Method: EPA 608
Date of Sample Extraction: 10/11/91	Matrix: Water
Date of Sample Analysis: 10/22/91	Reporting Units: ug/L

Compound Name	Spike Added	Percent Recovery	Recovery QC Limits (%)
gamma-BHC	1.0	110	56 - 123
Heptachlor	1.0	110	40 - 131
Aldrin	1.0	120	40 - 120
Dieldrin	4.0	53	52 - 126
Endrin	4.0	90	56 - 121
4,4'-DDT	4.0	103	38 - 127
Aroclor-1254	2.0	95	

Surrogate	% Recovery	Advisory QC Limits
DBC	69	25 - 150



Alden Analytical
Laboratories, Inc.

REPORT OF ANALYTICAL RESULTS

Client: Tetra Tech	Alden Job Number: 9110013/1
Client Sample Number: Spike Duplicate	Alden Sample Number: 8716D MSD
Date of Sample Receipt: 10/8/91	Analysis Method: EPA 608
Date of Sample Extraction: 10/11/91	Matrix: Water
Date of Sample Analysis: 10/22/91	Reporting Units: ug/L

Compound Name	Spike Added	Percent Recovery	Recovery QC Limits (%)
gamma-BHC	1.0	140	56 - 123
Heptachlor	1.0	140	40 - 131
Aldrin	1.0	150	40 - 120
Dieldrin	4.0	60	52 - 126
Endrin	4.0	108	56 - 121
4,4'-DDT	4.0	108	38 - 127
Aroclor-1254	2.0	150	

Surrogate	% Recovery	Advisory QC Limits
DBC	107	25 - 150



Alden Analytical
Laboratories, Inc.

REPORT OF ANALYTICAL RESULTS

Client: Tetra Tech
Client Sample Number: Matrix Spike
Date of Sample Receipt: 10/8/91
Date of Sample Extraction: 10/11/91
Date of Sample Analysis: 10/22/91

Alden Job Number: 9110013/1
Alden Sample Number: 8716D MS B
Analysis Method: EPA 608
Matrix: Water
Reporting Units: ug/L

Compound Name	Spike Added	Percent Recovery
Dacthal	10	48
Dicofal	10	70
Malathion	10	75
Methyl Parathion	10	68
Mirex	10	33
o,p DDE	10	52
o,p DDD	10	62
o,p DDT	10	48
Parathion	10	69

Surrogate	% Recovery	Advisory QC Limits
DBC	106	25 - 150



Alden Analytical
Laboratories, Inc.

REPORT OF ANALYTICAL RESULTS

Client: Tetra Tech
Client Sample Number: Spike Duplicate
Date of Sample Receipt: 10/8/91
Date of Sample Extraction: 10/11/91
Date of Sample Analysis: 10/22/91

Alden Job Number: 9110013/1
Alden Sample Number: 8716D MSD B
Analysis Method: EPA 608
Matrix: Water
Reporting Units: ug/L

Compound Name	Spike Added	Percent Recovery
Dacthal	10	48
Dicofal	10	77
Malathion	10	76
Methyl Parathion	10	70
Mirex	10	34
o,p DDE	10	54
o,p DDD	10	63
o,p DDT	10	50
Parathion	10	69

Surrogate	% Recovery	Advisory QC Limits
DBC	86	25 - 150

SECTION B
SEMI-VOLATILE ORGANICS (WATER)



Alden Analytical
Laboratories, Inc.

REPORT OF ANALYTICAL RESULTS

Client: Tetra Tech
Client Sample Number: N/A
Date of Sample Receipt: N/A
Date of Sample Extraction: 9/30/91
Date of Sample Analysis: 10/26/91

Alden Job Number: 9109034/1
Alden Sample Number: Blank
Analysis Method: EPA 625
Matrix: Water
Reporting Units: ug/L

Compound Name	CAS No.	Reporting Limit	Result
BASE/NEUTRAL EXTRACTABLE COMPOUNDS			
Acenaphthene	83-32-9	2.0	< 2.0
Acenaphthylene	208-96-8	2.0	< 2.0
Aniline	62-53-3	2.0	< 2.0
Anthracene	120-12-7	2.0	< 2.0
Azobenzene	103-33-3	2.0	< 2.0
Benzo(a)anthracene	56-55-3	2.0	< 2.0
Benzo(b)fluoranthene	205-99-2	4.0	< 4.0
Benzo(k)fluoranthene	207-08-9	4.0	< 4.0
Benzo(a)pyrene	50-32-8	4.0	< 4.0
Benzo(g,h,i)perylene	191-24-2	4.0	< 4.0
Benzyl alcohol	100-51-6	2.0	< 2.0
Benzyl butyl phthalate	85-68-7	2.0	< 2.0
bis(2-Chloroethyl) ether	111-44-4	2.0	< 2.0
bis(2-Chloroethoxy) methane	111-91-1	2.0	< 2.0
bis(2-Ethylhexyl) phthalate	117-81-7	2.0	< 2.0
bis(2-Chloroisopropyl) ether	108-60-1	2.0	< 2.0
4-Bromophenyl phenyl ether	101-55-3	4.0	< 4.0
4-Chloroaniline	106-47-8	4.0	< 4.0
2-Chloronaphthalene	91-58-7	2.0	< 2.0
4-Chlorophenyl phenyl ether	7005-72-3	2.0	< 2.0
Chrysene	218-01-9	2.0	< 2.0
Dibenzo(a,h)anthracene	53-70-3	4.0	< 4.0
Dibenzofuran	132-64-9	2.0	< 2.0
Di-n-butyl phthalate	84-74-2	2.0	< 2.0
1,3-Dichlorobenzene	541-73-1	2.0	< 2.0
1,2-Dichlorobenzene	95-50-1	2.0	< 2.0
1,4-Dichlorobenzene	106-46-7	2.0	< 2.0
3,3'-Dichlorobenzidine	91-94-1	20	< 20
Diethyl phthalate	84-66-2	4.0	< 4.0
Dimethyl phthalate	131-11-3	2.0	< 2.0
2,4-Dinitrotoluene	121-14-2	2.0	< 2.0
2,6-Dinitrotoluene	606-20-2	2.0	< 2.0
Di-n-octyl phthalate	117-84-0	4.0	< 4.0
Fluoranthene	206-44-0	2.0	< 2.0
Fluorene	86-73-7	2.0	< 2.0
Hexachlorobenzene	118-74-1	4.0	< 4.0
Hexachlorobutadiene	87-68-3	2.0	< 2.0
Hexachlorocyclopentadiene	77-47-4	10	< 10
Hexachloroethane	67-72-1	4.0	< 4.0



Alden Analytical
Laboratories, Inc.

REPORT OF ANALYTICAL RESULTS

Client: Tetra Tech
Client Sample Number: N/A
Date of Sample Receipt: N/A
Date of Sample Extraction: 9/30/91
Date of Sample Analysis: 10/26/91

Alden Job Number: 9109034/1
Alden Sample Number: Blank
Analysis Method: EPA 625
Matrix: Water
Reporting Units: ug/L

Compound Name	CAS No.	Reporting Limit	Result
BASE/NEUTRAL EXTRACTABLE COMPOUNDS (CONTINUED)			
Indeno(1,2,3-c,d)pyrene	193-39-5	4.0	< 4.0
Isophorone	78-59-1	2.0	< 2.0
2-Methylnaphthalene	91-57-6	2.0	< 2.0
Naphthalene	91-20-3	2.0	< 2.0
2-Nitroaniline	88-74-4	4.0	< 4.0
3-Nitroaniline	99-09-2	4.0	< 4.0
4-Nitroaniline	100-01-6	4.0	< 4.0
Nitrobenzene	98-95-3	2.0	< 2.0
N-Nitrosodiphenylamine	86-30-6	2.0	< 2.0
N-Nitrosodi-n-propylamine	621-64-7	2.0	< 2.0
Phenanthrene	85-01-8	2.0	< 2.0
Pyrene	129-00-0	2.0	< 2.0
1,2,4-Trichlorobenzene	120-82-1	4.0	< 4.0
ACID EXTRACTABLE COMPOUNDS			
Benzoic acid	65-85-0	40	< 40
4-Chloro-3-methylphenol	59-50-7	4.0	< 4.0
2-Chlorophenol	95-57-8	2.0	< 2.0
2,4-Dichlorophenol	120-83-2	4.0	< 4.0
2,4-Dimethylphenol	105-67-9	2.0	< 2.0
2,4-Dinitrophenol	51-28-5	20	< 20
2-Methylphenol	95-48-7	4.0	< 4.0
2-Methyl-4,6-dinitrophenol	534-52-1	20	< 20
4-Methylphenol	106-44-5	4.0	< 4.0
2-Nitrophenol	88-75-5	4.0	< 4.0
4-Nitrophenol	100-02-7	20	< 20
Pentachlorophenol	87-86-5	20	< 20
Phenol	108-95-2	2.0	< 2.0
2,4,5-Trichlorophenol	95-95-4	4.0	< 4.0
2,4,6-Trichlorophenol	88-06-2	4.0	< 4.0

Surrogate	Amount Added	Percent Recovery	Recovery Limits
Nitrobenzene-d ₅	100 ug	47	35 - 114
2-Fluorobiphenyl	100 ug	57	43 - 116
P-Terphenyl-d ₁₄	100 ug	62	33 - 141
Phenol-d ₅	200 ug	10	10 - 94
2-Fluorophenol	200 ug	22	21 - 100
2,4,6-Tribromophenol	200 ug	52	10 - 123



Alden Analytical
Laboratories, Inc.

REPORT OF ANALYTICAL RESULTS

Client: Tetra Tech
Client Sample Number: W45
Date of Sample Receipt: 9/30/91
Date of Sample Extraction: 9/30/91
Date of Sample Analysis: 10/26/91

Alden Job Number: 9109034/1
Alden Sample Number: 8570B
Analysis Method: EPA 625
Matrix: Water
Reporting Units: ug/L

Compound Name	CAS No.	Reporting Limit	Result
BASE/NEUTRAL EXTRACTABLE COMPOUNDS			
Acenaphthene	83-32-9	2.0	< 2.0
Acenaphthylene	208-96-8	2.0	< 2.0
Aniline	62-53-3	2.0	< 2.0
Anthracene	120-12-7	2.0	< 2.0
Azobenzene	103-33-3	2.0	< 2.0
Benzo(a)anthracene	56-55-3	2.0	< 2.0
Benzo(b)fluoranthene	205-99-2	4.0	< 4.0
Benzo(k)fluoranthene	207-08-9	4.0	< 4.0
Benzo(a)pyrene	50-32-8	4.0	< 4.0
Benzo(g,h,i)perylene	191-24-2	4.0	< 4.0
Benzyl alcohol	100-51-6	2.0	< 2.0
Benzyl butyl phthalate	85-68-7	2.0	< 2.0
bis(2-Chloroethyl) ether	111-44-4	2.0	< 2.0
bis(2-Chloroethoxy) methane	111-91-1	2.0	< 2.0
bis(2-Ethylhexyl) phthalate	117-81-7	2.0	< 2.0
bis(2-Chloroisopropyl) ether	108-60-1	2.0	< 2.0
4-Bromophenyl phenyl ether	101-55-3	4.0	< 4.0
4-Chloroaniline	106-47-8	4.0	< 4.0
2-Chloronaphthalene	91-58-7	2.0	< 2.0
4-Chlorophenyl phenyl ether	7005-72-3	2.0	< 2.0
Chrysene	218-01-9	2.0	< 2.0
Dibenzo(a,h)anthracene	53-70-3	4.0	< 4.0
Dibenzofuran	132-64-9	2.0	< 2.0
Di-n-butyl phthalate	84-74-2	2.0	< 2.0
1,3-Dichlorobenzene	541-73-1	2.0	< 2.0
1,2-Dichlorobenzene	95-50-1	2.0	< 2.0
1,4-Dichlorobenzene	106-46-7	2.0	< 2.0
3,3'-Dichlorobenzidine	91-94-1	2.0	< 2.0
Diethyl phthalate	84-66-2	4.0	< 4.0
Dimethyl phthalate	131-11-3	2.0	< 2.0
2,4-Dinitrotoluene	121-14-2	2.0	< 2.0
2,6-Dinitrotoluene	606-20-2	2.0	< 2.0
Di-n-octyl phthalate	117-84-0	4.0	< 4.0
Fluoranthene	206-44-0	2.0	< 2.0
Fluorene	86-73-7	2.0	< 2.0
Hexachlorobenzene	118-74-1	4.0	< 4.0
Hexachlorobutadiene	87-68-3	2.0	< 2.0
Hexachlorocyclopentadiene	77-47-4	10	< 10
Hexachloroethane	67-72-1	4.0	< 4.0



Alden Analytical
Laboratories, Inc.

REPORT OF ANALYTICAL RESULTS

Client: Tetra Tech	Alden Job Number: 9109034/1
Client Sample Number: W45	Alden Sample Number: 8570B
Date of Sample Receipt: 9/30/91	Analysis Method: EPA 625
Date of Sample Extraction: 9/30/91	Matrix: Water
Date of Sample Analysis: 10/26/91	Reporting Units: ug/L

Compound Name	CAS No.	Reporting Limit	Result
BASE/NEUTRAL EXTRACTABLE COMPOUNDS (CONTINUED)			
Indeno(1,2,3-c,d)pyrene	193-39-5	4.0	< 4.0
Isophorone	78-59-1	2.0	< 2.0
2-Methylnaphthalene	91-57-6	2.0	< 2.0
Naphthalene	91-20-3	2.0	< 2.0
2-Nitroaniline	88-74-4	4.0	< 4.0
3-Nitroaniline	99-09-2	4.0	< 4.0
4-Nitroaniline	100-01-6	4.0	< 4.0
Nitrobenzene	98-95-3	2.0	< 2.0
N-Nitrosodiphenylamine	86-30-6	2.0	< 2.0
N-Nitrosodi-n-propylamine	621-64-7	2.0	< 2.0
Phenanthrene	85-01-8	2.0	< 2.0
Pyrene	129-00-0	2.0	< 2.0
1,2,4-Trichlorobenzene	120-82-1	4.0	< 4.0
ACID EXTRACTABLE COMPOUNDS			
Benzoic acid	65-85-0	40	< 40
4-Chloro-3-methylphenol	59-50-7	4.0	< 4.0
2-Chlorophenol	95-57-8	2.0	< 2.0
2,4-Dichlorophenol	120-83-2	4.0	< 4.0
2,4-Dimethylphenol	105-67-9	2.0	< 2.0
2,4-Dinitrophenol	51-28-5	20	< 20
2-Methylphenol	95-48-7	4.0	< 4.0
2-Methyl-4,6-dinitrophenol	534-52-1	20	< 20
4-Methylphenol	106-44-5	4.0	< 4.0
2-Nitrophenol	88-75-5	4.0	< 4.0
4-Nitrophenol	100-02-7	20	< 20
Pentachlorophenol	87-86-5	20	< 20
Phenol	108-95-2	2.0	< 2.0
2,4,5-Trichlorophenol	95-95-4	4.0	< 4.0
2,4,6-Trichlorophenol	88-06-2	4.0	< 4.0

Surrogate	Amount Added	Percent Recovery	Recovery Limits
Nitrobenzene-d ₅	100 ug	54	35 - 114
2-Fluorobiphenyl	100 ug	63	43 - 116
P-Terphenyl-d ₁₄	100 ug	62	33 - 141
Phenol-d ₅	200 ug	15	10 - 94
2-Fluorophenol	200 ug	26	21 - 100
2,4,6-Tribromophenol	200 ug	56	10 - 123



Alden Analytical
Laboratories, Inc.

REPORT OF ANALYTICAL RESULTS

Client: Tetra Tech
Client Sample Number: W51
Date of Sample Receipt: 9/30/91
Date of Sample Extraction: 9/30/91
Date of Sample Analysis: 10/26/91

Alden Job Number: 9109034/1
Alden Sample Number: 8573B
Analysis Method: EPA 625
Matrix: Water
Reporting Units: ug/L

Compound Name	CAS No.	Reporting Limit	Result
BASE/NEUTRAL EXTRACTABLE COMPOUNDS			
Acenaphthene	83-32-9	2.0	< 2.0
Acenaphthylene	208-96-8	2.0	< 2.0
Aniline	62-53-3	2.0	< 2.0
Anthracene	120-12-7	2.0	< 2.0
Azobenzene	103-33-3	2.0	< 2.0
Benzo(a)anthracene	56-55-3	2.0	< 2.0
Benzo(b)fluoranthene	205-99-2	4.0	< 4.0
Benzo(k)fluoranthene	207-08-9	4.0	< 4.0
Benzo(a)pyrene	50-32-8	4.0	< 4.0
Benzo(g,h,i)perylene	191-24-2	4.0	< 4.0
Benzyl alcohol	100-51-6	2.0	< 2.0
Benzyl butyl phthalate	85-68-7	2.0	< 2.0
bis(2-Chloroethyl) ether	111-44-4	2.0	< 2.0
bis(2-Chloroethoxy) methane	111-91-1	2.0	< 2.0
bis(2-Ethylhexyl) phthalate	117-81-7	2.0	< 2.0
bis(2-Chloroisopropyl) ether	108-60-1	2.0	< 2.0
4-Bromophenyl phenyl ether	101-55-3	4.0	< 4.0
4-Chloroaniline	106-47-8	4.0	< 4.0
2-Chloronaphthalene	91-58-7	2.0	< 2.0
4-Chlorophenyl phenyl ether	7005-72-3	2.0	< 2.0
Chrysene	218-01-9	2.0	< 2.0
Dibenzo(a,h)anthracene	53-70-3	4.0	< 4.0
Dibenzofuran	132-64-9	2.0	< 2.0
Di-n-butyl phthalate	84-74-2	2.0	< 2.0
1,3-Dichlorobenzene	541-73-1	2.0	< 2.0
1,2-Dichlorobenzene	95-50-1	2.0	< 2.0
1,4-Dichlorobenzene	106-46-7	2.0	< 2.0
3,3'-Dichlorobenzidine	91-94-1	2.0	< 2.0
Diethyl phthalate	84-66-2	4.0	< 4.0
Dimethyl phthalate	131-11-3	2.0	< 2.0
2,4-Dinitrotoluene	121-14-2	2.0	< 2.0
2,6-Dinitrotoluene	606-20-2	2.0	< 2.0
Di-n-octyl phthalate	117-84-0	4.0	< 4.0
Fluoranthene	206-44-0	2.0	< 2.0
Fluorene	86-73-7	2.0	< 2.0
Hexachlorobenzene	118-74-1	4.0	< 4.0
Hexachlorobutadiene	87-68-3	2.0	< 2.0
Hexachlorocyclopentadiene	77-47-4	10	< 10
Hexachloroethane	67-72-1	4.0	< 4.0



Alden Analytical
Laboratories, Inc.

REPORT OF ANALYTICAL RESULTS

Client: Tetra Tech
Client Sample Number: W51
Date of Sample Receipt: 9/30/91
Date of Sample Extraction: 9/30/91
Date of Sample Analysis: 10/26/91

Alden Job Number: 9109034/1
Alden Sample Number: 8573B
Analysis Method: EPA 625
Matrix: Water
Reporting Units: ug/L

Compound Name	CAS No.	Reporting Limit	Result
BASE/NEUTRAL EXTRACTABLE COMPOUNDS (CONTINUED)			
Indeno(1,2,3-c,d)pyrene	193-39-5	4.0	< 4.0
Isophorone	78-59-1	2.0	< 2.0
2-Methylnaphthalene	91-57-6	2.0	< 2.0
Naphthalene	91-20-3	2.0	< 2.0
2-Nitroaniline	88-74-4	4.0	< 4.0
3-Nitroaniline	99-09-2	4.0	< 4.0
4-Nitroaniline	100-01-6	4.0	< 4.0
Nitrobenzene	98-95-3	2.0	< 2.0
N-Nitrosodiphenylamine	86-30-6	2.0	< 2.0
N-Nitrosodi-n-propylamine	621-64-7	2.0	< 2.0
Phenanthrene	85-01-8	2.0	< 2.0
Pyrene	129-00-0	2.0	< 2.0
1,2,4-Trichlorobenzene	120-82-1	4.0	< 4.0
ACID EXTRACTABLE COMPOUNDS			
Benzoic acid	65-85-0	40	< 40
4-Chloro-3-methylphenol	59-50-7	4.0	< 4.0
2-Chlorophenol	95-57-8	2.0	< 2.0
2,4-Dichlorophenol	120-83-2	4.0	< 4.0
2,4-Dimethylphenol	105-67-9	2.0	< 2.0
2,4-Dinitrophenol	51-28-5	20	< 20
2-Methylphenol	95-48-7	4.0	< 4.0
2-Methyl-4,6-dinitrophenol	534-52-1	20	< 20
4-Methylphenol	106-44-5	4.0	< 4.0
2-Nitrophenol	88-75-5	4.0	< 4.0
4-Nitrophenol	100-02-7	20	< 20
Pentachlorophenol	87-86-5	20	< 20
Phenol	108-95-2	2.0	< 2.0
2,4,5-Trichlorophenol	95-95-4	4.0	< 4.0
2,4,6-Trichlorophenol	88-06-2	4.0	< 4.0

Surrogate	Amount Added	Percent Recovery	Recovery Limits
Nitrobenzene-d ₅	100 ug	40	35 - 114
2-Fluorobiphenyl	100 ug	53	43 - 116
P-Terphenyl-d ₁₄	100 ug	61	33 - 141
Phenol-d ₅	200 ug	14	10 - 94
2-Fluorophenol	200 ug	24	21 - 100
2,4,6-Tribromophenol	200 ug	48	10 - 123



Alden Analytical
Laboratories, Inc.

REPORT OF ANALYTICAL RESULTS

Client: Tetra Tech
Client Sample Number: Matrix Spike
Date of Sample Receipt: N/A
Date of Sample Extraction: 9/30/91
Date of Sample Analysis: 10/26/91

Alden Job Number: 9109034/1
Alden Sample Number: 8573A MS
Analysis Method: EPA 625
Matrix: Water
Reporting Units: ug/L

Compound Name	Spike Added	Percent Recovery	Recovery QC Limits (%)
Phenol	400	35	12 - 89
2-Chlorophenol	400	68	27 - 123
1,4-Dichlorobenzene	200	35	36 - 97
N-Nitroso-di-n-propylamine	200	46	41 - 116
1,2,4-Trichlorobenzene	200	40	39 - 98
4-Chloro-3-methylphenol	400	55	23 - 97
Acenaphthene	200	48	46 - 118
4-Nitrophenol	400	35	10 - 80
2,4-Dinitrotoluene	200	50	24 - 96
Pentachlorophenol	400	46	9 - 103
Pyrene	200	54	26 - 127



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Laboratories, Inc.

REPORT OF ANALYTICAL RESULTS

Client: Tetra Tech
Client Sample Number: Spike Duplicate
Date of Sample Receipt: N/A
Date of Sample Extraction: 9/30/91
Date of Sample Analysis: 10/26/91

Alden Job Number: 9109034/1
Alden Sample Number: 8573A MSD
Analysis Method: EPA 625
Matrix: Water
Reporting Units: ug/L

Compound Name	Spike Added	Percent Recovery	Recovery QC Limits (%)
Phenol	400	30	12 - 89
2-Chlorophenol	400	72	27 - 123
1,4-Dichlorobenzene	200	36	36 - 97
N-Nitroso-di-n-propylamine	200	46	41 - 116
1,2,4-Trichlorobenzene	200	45	39 - 98
4-Chloro-3-methylphenol	400	57	23 - 97
Acenaphthene	200	52	46 - 118
4-Nitrophenol	400	40	10 - 80
2,4-Dinitrotoluene	200	49	24 - 96
Pentachlorophenol	400	68	9 - 103
Pyrene	200	56	26 - 127



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Laboratories, Inc.

REPORT OF ANALYTICAL RESULTS

Client: Tetra Tech
Client Sample Number: N/A
Date of Sample Receipt: N/A
Date of Sample Extraction: 10/3/91
Date of Sample Analysis: 10/27/91

Alden Job Number: 9110001/1
Alden Sample Number: Blank
Analysis Method: EPA 625
Matrix: Water
Reporting Units: ug/L

Compound Name	CAS No.	Reporting Limit	Result
BASE/NEUTRAL EXTRACTABLE COMPOUNDS			
Acenaphthene	83-32-9	2.0	< 2.0
Acenaphthylene	208-96-8	2.0	< 2.0
Aniline	62-53-3	2.0	< 2.0
Anthracene	120-12-7	2.0	< 2.0
Azobenzene	103-33-3	2.0	< 2.0
Benzo(a)anthracene	56-55-3	2.0	< 2.0
Benzo(b)fluoranthene	205-99-2	4.0	< 4.0
Benzo(k)fluoranthene	207-08-9	4.0	< 4.0
Benzo(a)pyrene	50-32-8	4.0	< 4.0
Benzo(g,h,i)perylene	191-24-2	4.0	< 4.0
Benzyl alcohol	100-51-6	2.0	< 2.0
Benzyl butyl phthalate	85-68-7	2.0	< 2.0
bis(2-Chloroethyl) ether	111-44-4	2.0	< 2.0
bis(2-Chloroethoxy) methane	111-91-1	2.0	< 2.0
bis(2-Ethylhexyl) phthalate	117-81-7	2.0	< 2.0
bis(2-Chloroisopropyl) ether	108-60-1	2.0	< 2.0
4-Bromophenyl phenyl ether	101-55-3	4.0	< 4.0
4-Chloroaniline	106-47-8	4.0	< 4.0
2-Chloronaphthalene	91-58-7	2.0	< 2.0
4-Chlorophenyl phenyl ether	7005-72-3	2.0	< 2.0
Chrysene	218-01-9	2.0	< 2.0
Dibenzo(a,h)anthracene	53-70-3	4.0	< 4.0
Dibenzofuran	132-64-9	2.0	< 2.0
Di-n-butyl phthalate	84-74-2	2.0	< 2.0
1,3-Dichlorobenzene	541-73-1	2.0	< 2.0
1,2-Dichlorobenzene	95-50-1	2.0	< 2.0
1,4-Dichlorobenzene	106-46-7	2.0	< 2.0
3,3'-Dichlorobenzidine	91-94-1	2.0	< 2.0
Diethyl phthalate	84-66-2	4.0	< 4.0
Dimethyl phthalate	131-11-3	2.0	< 2.0
2,4-Dinitrotoluene	121-14-2	2.0	< 2.0
2,6-Dinitrotoluene	606-20-2	2.0	< 2.0
Di-n-octyl phthalate	117-84-0	4.0	< 4.0
Fluoranthene	206-44-0	2.0	< 2.0
Fluorene	86-73-7	2.0	< 2.0
Hexachlorobenzene	118-74-1	4.0	< 4.0
Hexachlorobutadiene	87-68-3	2.0	< 2.0
Hexachlorocyclopentadiene	77-47-4	10	< 10
Hexachloroethane	67-72-1	4.0	< 4.0



Alden Analytical
Laboratories, Inc.

REPORT OF ANALYTICAL RESULTS

Client: Tetra Tech	Alden Job Number: 9110001/1
Client Sample Number: N/A	Alden Sample Number: Blank
Date of Sample Receipt: N/A	Analysis Method: EPA 625
Date of Sample Extraction: 10/3/91	Matrix: Water
Date of Sample Analysis: 10/27/91	Reporting Units: ug/L

Compound Name	CAS No.	Reporting Limit	Result
BASE/NEUTRAL EXTRACTABLE COMPOUNDS (CONTINUED)			
Indeno(1,2,3-c,d)pyrene	193-39-5	4.0	< 4.0
Isophorone	78-59-1	2.0	< 2.0
<u>2-Methylnaphthalene</u>	91-57-6	2.0	< 2.0
Naphthalene	91-20-3	2.0	< 2.0
2-Nitroaniline	88-74-4	4.0	< 4.0
<u>3-Nitroaniline</u>	99-09-2	4.0	< 4.0
4-Nitroaniline	100-01-6	4.0	< 4.0
Nitrobenzene	98-95-3	2.0	< 2.0
<u>N-Nitrosodiphenylamine</u>	86-30-6	2.0	< 2.0
N-Nitrosodi-n-propylamine	621-64-7	2.0	< 2.0
Phenanthrene	85-01-8	2.0	< 2.0
<u>Pyrene</u>	129-00-0	2.0	< 2.0
1,2,4-Trichlorobenzene	120-82-1	4.0	< 4.0
ACID EXTRACTABLE COMPOUNDS			
Benzoic acid	65-85-0	40	< 40
4-Chloro-3-methylphenol	59-50-7	4.0	< 4.0
<u>2-Chlorophenol</u>	95-57-8	2.0	< 2.0
2,4-Dichlorophenol	120-83-2	4.0	< 4.0
2,4-Dimethylphenol	105-67-9	2.0	< 2.0
<u>2,4-Dinitrophenol</u>	51-28-5	20	< 20
2-Methylphenol	95-48-7	4.0	< 4.0
2-Methyl-4,6-dinitrophenol	534-52-1	20	< 20
<u>4-Methylphenol</u>	106-44-5	4.0	< 4.0
2-Nitrophenol	88-75-5	4.0	< 4.0
4-Nitrophenol	100-02-7	20	< 20
<u>Pentachlorophenol</u>	87-86-5	20	< 20
Phenol	108-95-2	2.0	< 2.0
2,4,5-Trichlorophenol	95-95-4	4.0	< 4.0
2,4,6-Trichlorophenol	88-06-2	4.0	< 4.0

Surrogate	Amount Added	Percent Recovery	Recovery Limits
Nitrobenzene-d ₅	100 ug	44	35 - 114
2-Fluorobiphenyl	100 ug	54	43 - 116
P-Terphenyl-d ₁₄	100 ug	59	33 - 141
Phenol-d ₅	200 ug	27	10 - 94
2-Fluorophenol	200 ug	35	21 - 100
2,4,6-Tribromophenol	200 ug	65	10 - 123



Alden Analytical
Laboratories, Inc.

REPORT OF ANALYTICAL RESULTS

Client: Tetra Tech
Client Sample Number: W37
Date of Sample Receipt: 10/2/91
Date of Sample Extraction: 10/3/91
Date of Sample Analysis: 10/27/91

Alden Job Number: 9110001/1
Alden Sample Number: 8615D
Analysis Method: EPA 625
Matrix: Water
Reporting Units: ug/L

Compound Name	CAS No.	Reporting Limit	Result
BASE/NEUTRAL EXTRACTABLE COMPOUNDS			
Acenaphthene	83-32-9	2.0	< 2.0
Acenaphthylene	208-96-8	2.0	< 2.0
Aniline	62-53-3	2.0	< 2.0
Anthracene	120-12-7	2.0	< 2.0
Azobenzene	103-33-3	2.0	< 2.0
Benzo(a)anthracene	56-55-3	2.0	< 2.0
Benzo(b)fluoranthene	205-99-2	4.0	< 4.0
Benzo(k)fluoranthene	207-08-9	4.0	< 4.0
Benzo(a)pyrene	50-32-8	4.0	< 4.0
Benzo(g,h,i)perylene	191-24-2	4.0	< 4.0
Benzyl alcohol	100-51-6	2.0	< 2.0
Benzyl butyl phthalate	85-68-7	2.0	< 2.0
bis(2-Chloroethyl) ether	111-44-4	2.0	< 2.0
bis(2-Chloroethoxy) methane	111-91-1	2.0	< 2.0
bis(2-Ethylhexyl) phthalate	117-81-7	2.0	18 ✓
bis(2-Chloroisopropyl) ether	108-60-1	2.0	< 2.0
4-Bromophenyl phenyl ether	101-55-3	4.0	< 4.0
4-Chloroaniline	106-47-8	4.0	< 4.0
2-Chloronaphthalene	91-58-7	2.0	< 2.0
4-Chlorophenyl phenyl ether	7005-72-3	2.0	< 2.0
Chrysene	218-01-9	2.0	< 2.0
Dibenzo(a,h)anthracene	53-70-3	4.0	< 4.0
Dibenzofuran	132-64-9	2.0	< 2.0
Di-n-butyl phthalate	84-74-2	2.0	< 2.0
1,3-Dichlorobenzene	541-73-1	2.0	< 2.0
1,2-Dichlorobenzene	95-50-1	2.0	< 2.0
1,4-Dichlorobenzene	106-46-7	2.0	< 2.0
3,3'-Dichlorobenzidine	91-94-1	20	< 20
Diethyl phthalate	84-66-2	4.0	< 4.0
Dimethyl phthalate	131-11-3	2.0	< 2.0
2,4-Dinitrotoluene	121-14-2	2.0	< 2.0
2,6-Dinitrotoluene	606-20-2	2.0	< 2.0
Di-n-octyl phthalate	117-84-0	4.0	< 4.0
Fluoranthene	206-44-0	2.0	< 2.0
Fluorene	86-73-7	2.0	< 2.0
Hexachlorobenzene	118-74-1	4.0	< 4.0
Hexachlorobutadiene	87-68-3	2.0	< 2.0
Hexachlorocyclopentadiene	77-47-4	10	< 10
Hexachloroethane	67-72-1	4.0	< 4.0



Alden Analytical
Laboratories, Inc.

REPORT OF ANALYTICAL RESULTS

Client: Tetra Tech
Client Sample Number: W37
Date of Sample Receipt: 10/2/91
Date of Sample Extraction: 10/3/91
Date of Sample Analysis: 10/27/91

Alden Job Number: 9110001/1
Alden Sample Number: 8615D
Analysis Method: EPA 625
Matrix: Water
Reporting Units: ug/L

Compound Name	CAS No.	Reporting Limit	Result
BASE/NEUTRAL EXTRACTABLE COMPOUNDS (CONTINUED)			
Indeno(1,2,3-c,d)pyrene	193-39-5	4.0	< 4.0
Isophorone	78-59-1	2.0	< 2.0
<u>2-Methylnaphthalene</u>	<u>91-57-6</u>	<u>2.0</u>	<u>< 2.0</u>
Naphthalene	91-20-3	2.0	< 2.0
2-Nitroaniline	88-74-4	4.0	< 4.0
<u>3-Nitroaniline</u>	<u>99-09-2</u>	<u>4.0</u>	<u>< 4.0</u>
4-Nitroaniline	100-01-6	4.0	< 4.0
Nitrobenzene	98-95-3	2.0	< 2.0
<u>N-Nitrosodiphenylamine</u>	<u>86-30-6</u>	<u>2.0</u>	<u>< 2.0</u>
N-Nitrosodi-n-propylamine	621-64-7	2.0	< 2.0
Phenanthrene	85-01-8	2.0	< 2.0
<u>Pyrene</u>	<u>129-00-0</u>	<u>2.0</u>	<u>< 2.0</u>
1,2,4-Trichlorobenzene	120-82-1	4.0	< 4.0
ACID EXTRACTABLE COMPOUNDS			
Benzoic acid	65-85-0	40	< 40
4-Chloro-3-methylphenol	59-50-7	4.0	< 4.0
<u>2-Chlorophenol</u>	<u>95-57-8</u>	<u>2.0</u>	<u>< 2.0</u>
2,4-Dichlorophenol	120-83-2	4.0	< 4.0
2,4-Dimethylphenol	105-67-9	2.0	< 2.0
<u>2,4-Dinitrophenol</u>	<u>51-28-5</u>	<u>20</u>	<u>< 20</u>
2-Methylphenol	95-48-7	4.0	< 4.0
2-Methyl-4,6-dinitrophenol	534-52-1	20	< 20
<u>4-Methylphenol</u>	<u>106-44-5</u>	<u>4.0</u>	<u>< 4.0</u>
2-Nitrophenol	88-75-5	4.0	< 4.0
4-Nitrophenol	100-02-7	20	< 20
<u>Pentachlorophenol</u>	<u>87-86-5</u>	<u>20</u>	<u>< 20</u>
Phenol	108-95-2	2.0	< 2.0
2,4,5-Trichlorophenol	95-95-4	4.0	< 4.0
2,4,6-Trichlorophenol	88-06-2	4.0	< 4.0

Surrogate	Amount Added	Percent Recovery	Recovery Limits
Nitrobenzene-d ₅	100 ug	48	35 - 114
2-Fluorobiphenyl	100 ug	58	43 - 116
P-Terphenyl-d ₁₄	100 ug	57	33 - 141
Phenol-d ₅	200 ug	22	10 - 94
2-Fluorophenol	200 ug	26	21 - 100
2,4,6-Tribromophenol	200 ug	54	10 - 123



Alden Analytical
Laboratories, Inc.

REPORT OF ANALYTICAL RESULTS

Client: Tetra Tech
Client Sample Number: Matrix Spike
Date of Sample Receipt: 10/2/91
Date of Sample Extraction: 10/3/91
Date of Sample Analysis: 10/27/91

Alden Job Number: 9110001/1
Alden Sample Number: 8615B MS
Analysis Method: EPA 625
Matrix: Water
Reporting Units: ug/L

Compound Name	Spike Added	Percent Recovery	Recovery QC Limits (%)
Phenol	400	42	12 - 89
2-Chlorophenol	400	63	27 - 123
1,4-Dichlorobenzene	200	42	36 - 97
N-Nitroso-di-n-propylamine	200	46	41 - 116
1,2,4-Trichlorobenzene	200	52	39 - 98
4-Chloro-3-methylphenol	400	69	23 - 97
Acenaphthene	200	63	46 - 118
4-Nitrophenol	400	40	10 - 80
2,4-Dinitrotoluene	200	50	24 - 96
Pentachlorophenol	400	38	9 - 103
Pyrene	200	63	26 - 127



Alden Analytical
Laboratories, Inc.

REPORT OF ANALYTICAL RESULTS

Client: Tetra Tech
Client Sample Number: Spike Duplicate
Date of Sample Receipt: 10/2/91
Date of Sample Extraction: 10/3/91
Date of Sample Analysis: 10/27/91

Alden Job Number: 9110001/1
Alden Sample Number: 8615B MSD
Analysis Method: EPA 625
Matrix: Water
Reporting Units: ug/L

Compound Name	Spike Added	Percent Recovery	Recovery QC Limits (%)
Phenol	400	36	12 - 89
2-Chlorophenol	400	54	27 - 123
1,4-Dichlorobenzene	200	44	36 - 97
N-Nitroso-di-n-propylamine	200	48	41 - 116
1,2,4-Trichlorobenzene	200	54	39 - 98
4-Chloro-3-methylphenol	400	63	23 - 97
Acenaphthene	200	64	46 - 118
4-Nitrophenol	400	39	10 - 80
2,4-Dinitrotoluene	200	48	24 - 96
Pentachlorophenol	400	40	9 - 103
Pyrene	200	60	26 - 127



Alden Analytical
Laboratories, Inc.

REPORT OF ANALYTICAL RESULTS

Client: Tetra Tech
Client Sample Number: W47
Date of Sample Receipt: 10/2/91
Date of Sample Extraction: 10/3/91
Date of Sample Analysis: 10/27/91

Alden Job Number: 9110001/1
Alden Sample Number: 8626A
Analysis Method: EPA 625
Matrix: Water
Reporting Units: ug/L

Compound Name	CAS No.	Reporting Limit	Result
BASE/NEUTRAL EXTRACTABLE COMPOUNDS			
Acenaphthene	83-32-9	2.0	< 2.0
Acenaphthylene	208-96-8	2.0	< 2.0
Aniline	62-53-3	2.0	< 2.0
Anthracene	120-12-7	2.0	< 2.0
Azobenzene	103-33-3	2.0	< 2.0
Benzo(a)anthracene	56-55-3	2.0	< 2.0
Benzo(b)fluoranthene	205-99-2	4.0	< 4.0
Benzo(k)fluoranthene	207-08-9	4.0	< 4.0
Benzo(a)pyrene	50-32-8	4.0	< 4.0
Benzo(g,h,i)perylene	191-24-2	4.0	< 4.0
Benzyl alcohol	100-51-6	2.0	< 2.0
Benzyl butyl phthalate	85-68-7	2.0	< 2.0
bis(2-Chloroethyl) ether	111-44-4	2.0	< 2.0
bis(2-Chloroethoxy) methane	111-91-1	2.0	< 2.0
bis(2-Ethylhexyl) phthalate	117-81-7	2.0	< 2.0
bis(2-Chloroisopropyl) ether	108-60-1	2.0	< 2.0
4-Bromophenyl phenyl ether	101-55-3	4.0	< 4.0
4-Chloroaniline	106-47-8	4.0	< 4.0
2-Chloronaphthalene	91-58-7	2.0	< 2.0
4-Chlorophenyl phenyl ether	7005-72-3	2.0	< 2.0
Chrysene	218-01-9	2.0	< 2.0
Dibenzo(a,h)anthracene	53-70-3	4.0	< 4.0
Dibenzofuran	132-64-9	2.0	< 2.0
Di-n-butyl phthalate	84-74-2	2.0	< 2.0
1,3-Dichlorobenzene	541-73-1	2.0	< 2.0
1,2-Dichlorobenzene	95-50-1	2.0	< 2.0
1,4-Dichlorobenzene	106-46-7	2.0	< 2.0
3,3'-Dichlorobenzidine	91-94-1	2.0	< 2.0
Diethyl phthalate	84-66-2	4.0	< 4.0
Dimethyl phthalate	131-11-3	2.0	< 2.0
2,4-Dinitrotoluene	121-14-2	2.0	< 2.0
2,6-Dinitrotoluene	606-20-2	2.0	< 2.0
Di-n-octyl phthalate	117-84-0	4.0	< 4.0
Fluoranthene	206-44-0	2.0	< 2.0
Fluorene	86-73-7	2.0	< 2.0
Hexachlorobenzene	118-74-1	4.0	< 4.0
Hexachlorobutadiene	87-68-3	2.0	< 2.0
Hexachlorocyclopentadiene	77-47-4	10	< 10
Hexachloroethane	67-72-1	4.0	< 4.0



Alden Analytical
Laboratories, Inc.

REPORT OF ANALYTICAL RESULTS

Client: Tetra Tech
Client Sample Number: W47
Date of Sample Receipt: 10/2/91
Date of Sample Extraction: 10/3/91
Date of Sample Analysis: 10/27/91

Alden Job Number: 9110001/1
Alden Sample Number: 8626A
Analysis Method: EPA 625
Matrix: Water
Reporting Units: ug/L

Compound Name	CAS No.	Reporting Limit	Result
BASE/NEUTRAL EXTRACTABLE COMPOUNDS (CONTINUED)			
Indeno(1,2,3-c,d)pyrene	193-39-5	4.0	< 4.0
Isophorone	78-59-1	2.0	< 2.0
<u>2-Methylnaphthalene</u>	91-57-6	2.0	< 2.0
Naphthalene	91-20-3	2.0	< 2.0
2-Nitroaniline	88-74-4	4.0	< 4.0
<u>3-Nitroaniline</u>	99-09-2	4.0	< 4.0
4-Nitroaniline	100-01-6	4.0	< 4.0
Nitrobenzene	98-95-3	2.0	< 2.0
<u>N-Nitrosodiphenylamine</u>	86-30-6	2.0	< 2.0
N-Nitrosodi-n-propylamine	621-64-7	2.0	< 2.0
Phenanthrene	85-01-8	2.0	< 2.0
<u>Pyrene</u>	129-00-0	2.0	< 2.0
1,2,4-Trichlorobenzene	120-82-1	4.0	< 4.0
ACID EXTRACTABLE COMPOUNDS			
Benzoic acid	65-85-0	40	< 40
4-Chloro-3-methylphenol	59-50-7	4.0	< 4.0
<u>2-Chlorophenol</u>	95-57-8	2.0	< 2.0
2,4-Dichlorophenol	120-83-2	4.0	< 4.0
2,4-Dimethylphenol	105-67-9	2.0	< 2.0
<u>2,4-Dinitrophenol</u>	51-28-5	20	< 20
2-Methylphenol	95-48-7	4.0	< 4.0
2-Methyl-4,6-dinitrophenol	534-52-1	20	< 20
<u>4-Methylphenol</u>	106-44-5	4.0	< 4.0
2-Nitrophenol	88-75-5	4.0	< 4.0
4-Nitrophenol	100-02-7	20	< 20
<u>Pentachlorophenol</u>	87-86-5	20	< 20
Phenol	108-95-2	2.0	< 2.0
2,4,5-Trichlorophenol	95-95-4	4.0	< 4.0
2,4,6-Trichlorophenol	88-06-2	4.0	< 4.0

Surrogate	Amount Added	Percent Recovery	Recovery Limits
Nitrobenzene-d ₅	100 ug	51	35 - 114
2-Fluorobiphenyl	100 ug	57	43 - 116
P-Terphenyl-d ₁₄	100 ug	59	33 - 141
Phenol-d ₅	200 ug	23	10 - 94
2-Fluorophenol	200 ug	32	21 - 100
2,4,6-Tribromophenol	200 ug	68	10 - 123



Alden Analytical
Laboratories, Inc.

REPORT OF ANALYTICAL RESULTS

Client: Tetra Tech
Client Sample Number: N/A
Date of Sample Receipt: N/A
Date of Sample Extraction: 10/9/91
Date of Sample Analysis: 10/28/91

Alden Job Number: 9110013/1
Alden Sample Number: Blank
Analysis Method: EPA 625
Matrix: Water
Reporting Units: ug/L

Compound Name	CAS No.	Reporting Limit	Result
BASE/NEUTRAL EXTRACTABLE COMPOUNDS			
Acenaphthene	83-32-9	2.0	< 2.0
Acenaphthylene	208-96-8	2.0	< 2.0
Aniline	62-53-3	2.0	< 2.0
Anthracene	120-12-7	2.0	< 2.0
Azobenzene	103-33-3	2.0	< 2.0
Benzo(a)anthracene	56-55-3	2.0	< 2.0
Benzo(b)fluoranthene	205-99-2	4.0	< 4.0
Benzo(k)fluoranthene	207-08-9	4.0	< 4.0
Benzo(a)pyrene	50-32-8	4.0	< 4.0
Benzo(g,h,i)perylene	191-24-2	4.0	< 4.0
Benzyl alcohol	100-51-6	2.0	< 2.0
Benzyl butyl phthalate	85-68-7	2.0	< 2.0
bis(2-Chloroethyl) ether	111-44-4	2.0	< 2.0
bis(2-Chloroethoxy) methane	111-91-1	2.0	< 2.0
bis(2-Ethylhexyl) phthalate	117-81-7	2.0	< 2.0
bis(2-Chloroisopropyl) ether	108-60-1	2.0	< 2.0
4-Bromophenyl phenyl ether	101-55-3	4.0	< 4.0
4-Chloroaniline	106-47-8	4.0	< 4.0
2-Chloronaphthalene	91-58-7	2.0	< 2.0
4-Chlorophenyl phenyl ether	7005-72-3	2.0	< 2.0
Chrysene	218-01-9	2.0	< 2.0
Dibenzo(a,h)anthracene	53-70-3	4.0	< 4.0
Dibenzofuran	132-64-9	2.0	< 2.0
Di-n-butyl phthalate	84-74-2	2.0	< 2.0
1,3-Dichlorobenzene	541-73-1	2.0	< 2.0
1,2-Dichlorobenzene	95-50-1	2.0	< 2.0
1,4-Dichlorobenzene	106-46-7	2.0	< 2.0
3,3'-Dichlorobenzidine	91-94-1	2.0	< 2.0
Diethyl phthalate	84-66-2	4.0	< 4.0
Dimethyl phthalate	131-11-3	2.0	< 2.0
2,4-Dinitrotoluene	121-14-2	2.0	< 2.0
2,6-Dinitrotoluene	606-20-2	2.0	< 2.0
Di-n-octyl phthalate	117-84-0	4.0	< 4.0
Fluoranthene	206-44-0	2.0	< 2.0
Fluorene	86-73-7	2.0	< 2.0
Hexachlorobenzene	118-74-1	4.0	< 4.0
Hexachlorobutadiene	87-68-3	2.0	< 2.0
Hexachlorocyclopentadiene	77-47-4	10	< 10
Hexachloroethane	67-72-1	4.0	< 4.0



Alden Analytical
Laboratories, Inc.

REPORT OF ANALYTICAL RESULTS

Client: Tetra Tech
Client Sample Number: N/A
Date of Sample Receipt: N/A
Date of Sample Extraction: 10/9/91
Date of Sample Analysis: 10/28/91

Alden Job Number: 9110013/1
Alden Sample Number: Blank
Analysis Method: EPA 625
Matrix: Water
Reporting Units: ug/L

Compound Name	CAS No.	Reporting Limit	Result
BASE/NEUTRAL EXTRACTABLE COMPOUNDS (CONTINUED)			
Indeno(1,2,3-c,d)pyrene	193-39-5	4.0	< 4.0
Isophorone	78-59-1	2.0	< 2.0
2-Methylnaphthalene	91-57-6	2.0	< 2.0
Naphthalene	91-20-3	2.0	< 2.0
2-Nitroaniline	88-74-4	4.0	< 4.0
3-Nitroaniline	99-09-2	4.0	< 4.0
4-Nitroaniline	100-01-6	4.0	< 4.0
Nitrobenzene	98-95-3	2.0	< 2.0
N-Nitrosodiphenylamine	86-30-6	2.0	< 2.0
N-Nitrosodi-n-propylamine	621-64-7	2.0	< 2.0
Phenanthrene	85-01-8	2.0	< 2.0
Pyrene	129-00-0	2.0	< 2.0
1,2,4-Trichlorobenzene	120-82-1	4.0	< 4.0
ACID EXTRACTABLE COMPOUNDS			
Benzoic acid	65-85-0	40	< 40
4-Chloro-3-methylphenol	59-50-7	4.0	< 4.0
2-Chlorophenol	95-57-8	2.0	< 2.0
2,4-Dichlorophenol	120-83-2	4.0	< 4.0
2,4-Dimethylphenol	105-67-9	2.0	< 2.0
2,4-Dinitrophenol	51-28-5	20	< 20
2-Methylphenol	95-48-7	4.0	< 4.0
2-Methyl-4,6-dinitrophenol	534-52-1	20	< 20
4-Methylphenol	106-44-5	4.0	< 4.0
2-Nitrophenol	88-75-5	4.0	< 4.0
4-Nitrophenol	100-02-7	20	< 20
Pentachlorophenol	87-86-5	20	< 20
Phenol	108-95-2	2.0	< 2.0
2,4,5-Trichlorophenol	95-95-4	4.0	< 4.0
2,4,6-Trichlorophenol	88-06-2	4.0	< 4.0

Surrogate	Amount Added	Percent Recovery	Recovery Limits
Nitrobenzene-d ₅	100 ug	46	35 - 114
2-Fluorobiphenyl	100 ug	61	43 - 116
P-Terphenyl-d ₁₄	100 ug	71	33 - 141
Phenol-d ₅	200 ug	21	10 - 94
2-Fluorophenol	200 ug	39	21 - 100
2,4,6-Tribromophenol	200 ug	96	10 - 123



Alden Analytical
Laboratories, Inc.

REPORT OF ANALYTICAL RESULTS

Client: Tetra Tech
Client Sample Number: W14
Date of Sample Receipt: 10/8/91
Date of Sample Extraction: 10/9/91
Date of Sample Analysis: 11/13/91

Alden Job Number: 9110013/1
Alden Sample Number: 8716A
Analysis Method: EPA 625
Matrix: Water
Reporting Units: ug/L

Compound Name	CAS No.	Reporting Limit	Result
BASE/NEUTRAL EXTRACTABLE COMPOUNDS			
Acenaphthene	83-32-9	2.0	< 2.0
Acenaphthylene	208-96-8	2.0	< 2.0
Aniline	62-53-3	2.0	< 2.0
Anthracene	120-12-7	2.0	< 2.0
Azobenzene	103-33-3	2.0	< 2.0
Benzo(a)anthracene	56-55-3	2.0	< 2.0
Benzo(b)fluoranthene	205-99-2	4.0	< 4.0
Benzo(k)fluoranthene	207-08-9	4.0	< 4.0
Benzo(a)pyrene	50-32-8	4.0	< 4.0
Benzo(g,h,i)perylene	191-24-2	4.0	< 4.0
Benzyl alcohol	100-51-6	2.0	< 2.0
Benzyl butyl phthalate	85-68-7	2.0	< 2.0
bis(2-Chloroethyl) ether	111-44-4	2.0	< 2.0
bis(2-Chloroethoxy) methane	111-91-1	2.0	< 2.0
bis(2-Ethylhexyl) phthalate	117-81-7	2.0	< 2.0
bis(2-Chloroisopropyl) ether	108-60-1	2.0	< 2.0
4-Bromophenyl phenyl ether	101-55-3	4.0	< 4.0
4-Chloroaniline	106-47-8	4.0	< 4.0
2-Chloronaphthalene	91-58-7	2.0	< 2.0
4-Chlorophenyl phenyl ether	7005-72-3	2.0	< 2.0
Chrysene	218-01-9	2.0	< 2.0
Dibenzo(a,h)anthracene	53-70-3	4.0	< 4.0
Dibenzofuran	132-64-9	2.0	< 2.0
Di-n-butyl phthalate	84-74-2	2.0	< 2.0
1,3-Dichlorobenzene	541-73-1	2.0	< 2.0
1,2-Dichlorobenzene	95-50-1	2.0	< 2.0
1,4-Dichlorobenzene	106-46-7	2.0	< 2.0
3,3'-Dichlorobenzidine	91-94-1	20	< 20
Diethyl phthalate	84-66-2	4.0	< 4.0
Dimethyl phthalate	131-11-3	2.0	< 2.0
2,4-Dinitrotoluene	121-14-2	2.0	< 2.0
2,6-Dinitrotoluene	606-20-2	2.0	< 2.0
Di-n-octyl phthalate	117-84-0	4.0	< 4.0
Fluoranthene	206-44-0	2.0	< 2.0
Fluorene	86-73-7	2.0	< 2.0
Hexachlorobenzene	118-74-1	4.0	< 4.0
Hexachlorobutadiene	87-68-3	2.0	< 2.0
Hexachlorocyclopentadiene	77-47-4	10	< 10
Hexachloroethane	67-72-1	4.0	< 4.0



Alden Analytical
Laboratories, Inc.

REPORT OF ANALYTICAL RESULTS

Client: Tetra Tech	Alden Job Number: 9110013/1
Client Sample Number: W14	Alden Sample Number: 8716A
Date of Sample Receipt: 10/8/91	Analysis Method: EPA 625
Date of Sample Extraction: 10/9/91	Matrix: Water
Date of Sample Analysis: 11/13/91	Reporting Units: ug/L

Compound Name	CAS No.	Reporting Limit	Result
BASE/NEUTRAL EXTRACTABLE COMPOUNDS (CONTINUED)			
Indeno(1,2,3-c,d)pyrene	193-39-5	4.0	< 4.0
Isophorone	78-59-1	2.0	< 2.0
2-Methylnaphthalene	91-57-6	2.0	< 2.0
Naphthalene	91-20-3	2.0	< 2.0
2-Nitroaniline	88-74-4	4.0	< 4.0
3-Nitroaniline	99-09-2	4.0	< 4.0
4-Nitroaniline	100-01-6	4.0	< 4.0
Nitrobenzene	98-95-3	2.0	< 2.0
N-Nitrosodiphenylamine	86-30-6	2.0	< 2.0
N-Nitrosodi-n-propylamine	621-64-7	2.0	< 2.0
Phenanthrene	85-01-8	2.0	< 2.0
Pyrene	129-00-0	2.0	< 2.0
1,2,4-Trichlorobenzene	120-82-1	4.0	< 4.0
ACID EXTRACTABLE COMPOUNDS			
Benzoic acid	65-85-0	40	< 40
4-Chloro-3-methylphenol	59-50-7	4.0	< 4.0
2-Chlorophenol	95-57-8	2.0	< 2.0
2,4-Dichlorophenol	120-83-2	4.0	< 4.0
2,4-Dimethylphenol	105-67-9	2.0	< 2.0
2,4-Dinitrophenol	51-28-5	20	< 20
2-Methylphenol	95-48-7	4.0	< 4.0
2-Methyl-4,6-dinitrophenol	534-52-1	20	< 20
4-Methylphenol	106-44-5	4.0	< 4.0
2-Nitrophenol	88-75-5	4.0	< 4.0
4-Nitrophenol	100-02-7	20	< 20
Pentachlorophenol	87-86-5	20	< 20
Phenol	108-95-2	2.0	< 2.0
2,4,5-Trichlorophenol	95-95-4	4.0	< 4.0
2,4,6-Trichlorophenol	88-06-2	4.0	< 4.0

Surrogate	Amount Added	Percent Recovery	Recovery Limits
Nitrobenzene-d ₅	100 ug	58	35 - 114
2-Fluorobiphenyl	100 ug	66	43 - 116
P-Terphenyl-d ₁₄	100 ug	72	33 - 141
Phenol-d ₅	200 ug	18	10 - 94
2-Fluorophenol	200 ug	39	21 - 100
2,4,6-Tribromophenol	200 ug	67	10 - 123



Alden Analytical
Laboratories, Inc.

REPORT OF ANALYTICAL RESULTS

Client: Tetra Tech
Client Sample Number: N/A
Date of Sample Receipt: N/A
Date of Sample Extraction: 10/9/91
Date of Sample Analysis: 10/28/91

Alden Job Number: 9110010/1
Alden Sample Number: Blank
Analysis Method: EPA '625
Matrix: Water
Reporting Units: ug/L

Compound Name	CAS No.	Reporting Limit	Result
BASE/NEUTRAL EXTRACTABLE COMPOUNDS			
Acenaphthene	83-32-9	2.0	< 2.0
Acenaphthylene	208-96-8	2.0	< 2.0
Aniline	62-53-3	2.0	< 2.0
Anthracene	120-12-7	2.0	< 2.0
Azobenzene	103-33-3	2.0	< 2.0
Benzo(a)anthracene	56-55-3	2.0	< 2.0
Benzo(b)fluoranthene	205-99-2	4.0	< 4.0
Benzo(k)fluoranthene	207-08-9	4.0	< 4.0
Benzo(a)pyrene	50-32-8	4.0	< 4.0
Benzo(g,h,i)perylene	191-24-2	4.0	< 4.0
Benzyl alcohol	100-51-6	2.0	< 2.0
Benzyl butyl phthalate	85-68-7	2.0	< 2.0
bis(2-Chloroethyl) ether	111-44-4	2.0	< 2.0
bis(2-Chloroethoxy) methane	111-91-1	2.0	< 2.0
bis(2-Ethylhexyl) phthalate	117-81-7	2.0	< 2.0
bis(2-Chloroisopropyl) ether	108-60-1	2.0	< 2.0
4-Bromophenyl phenyl ether	101-55-3	4.0	< 4.0
4-Chloroaniline	106-47-8	4.0	< 4.0
2-Chloronaphthalene	91-58-7	2.0	< 2.0
4-Chlorophenyl phenyl ether	7005-72-3	2.0	< 2.0
Chrysene	218-01-9	2.0	< 2.0
Dibenzo(a,h)anthracene	53-70-3	4.0	< 4.0
Dibenzofuran	132-64-9	2.0	< 2.0
Di-n-butyl phthalate	84-74-2	2.0	< 2.0
1,3-Dichlorobenzene	541-73-1	2.0	< 2.0
1,2-Dichlorobenzene	95-50-1	2.0	< 2.0
1,4-Dichlorobenzene	106-46-7	2.0	< 2.0
3,3'-Dichlorobenzidine	91-94-1	20	< 20
Diethyl phthalate	84-66-2	4.0	< 4.0
Dimethyl phthalate	131-11-3	2.0	< 2.0
2,4-Dinitrotoluene	121-14-2	2.0	< 2.0
2,6-Dinitrotoluene	606-20-2	2.0	< 2.0
Di-n-octyl phthalate	117-84-0	4.0	< 4.0
Fluoranthene	206-44-0	2.0	< 2.0
Fluorene	86-73-7	2.0	< 2.0
Hexachlorobenzene	118-74-1	4.0	< 4.0
Hexachlorobutadiene	87-68-3	2.0	< 2.0
Hexachlorocyclopentadiene	77-47-4	10	< 10
Hexachloroethane	67-72-1	4.0	< 4.0



Alden Analytical
Laboratories, Inc.

REPORT OF ANALYTICAL RESULTS

Client: Tetra Tech	Alden Job Number: 9110010/1
Client Sample Number: N/A	Alden Sample Number: Blank
Date of Sample Receipt: N/A	Analysis Method: EPA 625
Date of Sample Extraction: 10/9/91	Matrix: Water
Date of Sample Analysis: 10/28/91	Reporting Units: ug/L

Compound Name	CAS No.	Reporting Limit	Result
BASE/NEUTRAL EXTRACTABLE COMPOUNDS (CONTINUED)			
Indeno(1,2,3-c,d)pyrene	193-39-5	4.0	< 4.0
Isophorone	78-59-1	2.0	< 2.0
<u>2-Methylnaphthalene</u>	91-57-6	2.0	< 2.0
Naphthalene	91-20-3	2.0	< 2.0
2-Nitroaniline	88-74-4	4.0	< 4.0
<u>3-Nitroaniline</u>	99-09-2	4.0	< 4.0
4-Nitroaniline	100-01-6	4.0	< 4.0
Nitrobenzene	98-95-3	2.0	< 2.0
<u>N-Nitrosodiphenylamine</u>	86-30-6	2.0	< 2.0
N-Nitrosodi-n-propylamine	621-64-7	2.0	< 2.0
Phenanthrene	85-01-8	2.0	< 2.0
<u>Pyrene</u>	129-00-0	2.0	< 2.0
1,2,4-Trichlorobenzene	120-82-1	4.0	< 4.0
ACID EXTRACTABLE COMPOUNDS			
Benzoic acid	65-85-0	4.0	< 4.0
4-Chloro-3-methylphenol	59-50-7	4.0	< 4.0
<u>2-Chlorophenol</u>	95-57-8	2.0	< 2.0
2,4-Dichlorophenol	120-83-2	4.0	< 4.0
2,4-Dimethylphenol	105-67-9	2.0	< 2.0
<u>2,4-Dinitrophenol</u>	51-28-5	2.0	< 2.0
2-Methylphenol	95-48-7	4.0	< 4.0
2-Methyl-4,6-dinitrophenol	534-52-1	2.0	< 2.0
<u>4-Methylphenol</u>	106-44-5	4.0	< 4.0
2-Nitrophenol	88-75-5	4.0	< 4.0
4-Nitrophenol	100-02-7	2.0	< 2.0
<u>Pentachlorophenol</u>	87-86-5	2.0	< 2.0
Phenol	108-95-2	2.0	< 2.0
2,4,5-Trichlorophenol	95-95-4	4.0	< 4.0
2,4,6-Trichlorophenol	88-06-2	4.0	< 4.0

Surrogate	Amount Added	Percent Recovery	Recovery Limits
Nitrobenzene-d ₅	100 ug	46	35 - 114
2-Fluorobiphenyl	100 ug	61	43 - 116
P-Terphenyl-d ₁₄	100 ug	71	33 - 141
Phenol-d ₅	200 ug	21	10 - 94
2-Fluorophenol	200 ug	39	21 - 100
2,4,6-Tribromophenol	200 ug	96	10 - 123



Alden Analytical
Laboratories, Inc.

REPORT OF ANALYTICAL RESULTS

Client: Tetra Tech
Client Sample Number: W26
Date of Sample Receipt: 10/7/91
Date of Sample Extraction: 10/9/91
Date of Sample Analysis: 10/29/91

Alden Job Number: 9110010/1
Alden Sample Number: 8669A
Analysis Method: EPA 625
Matrix: Water
Reporting Units: ug/L

Compound Name	CAS No.	Reporting Limit	Result
BASE/NEUTRAL EXTRACTABLE COMPOUNDS			
Acenaphthene	83-32-9	2.0	< 2.0
Acenaphthylene	208-96-8	2.0	< 2.0
Aniline	62-53-3	2.0	< 2.0
Anthracene	120-12-7	2.0	< 2.0
Azobenzene	103-33-3	2.0	< 2.0
Benzo(a)anthracene	56-55-3	2.0	< 2.0
Benzo(b)fluoranthene	205-99-2	4.0	< 4.0
Benzo(k)fluoranthene	207-08-9	4.0	< 4.0
Benzo(a)pyrene	50-32-8	4.0	< 4.0
Benzo(g,h,i)perylene	191-24-2	4.0	< 4.0
Benzyl alcohol	100-51-6	2.0	< 2.0
Benzyl butyl phthalate	85-68-7	2.0	< 2.0
bis(2-Chloroethyl) ether	111-44-4	2.0	< 2.0
bis(2-Chloroethoxy) methane	111-91-1	2.0	< 2.0
bis(2-Ethylhexyl) phthalate	117-81-7	2.0	9.0
bis(2-Chloroisopropyl) ether	108-60-1	2.0	< 2.0
4-Bromophenyl phenyl ether	101-55-3	4.0	< 4.0
4-Chloroaniline	106-47-8	4.0	< 4.0
2-Chloronaphthalene	91-58-7	2.0	< 2.0
4-Chlorophenyl phenyl ether	7005-72-3	2.0	< 2.0
Chrysene	218-01-9	2.0	< 2.0
Dibenzo(a,h)anthracene	53-70-3	4.0	< 4.0
Dibenzofuran	132-64-9	2.0	< 2.0
Di-n-butyl phthalate	84-74-2	2.0	< 2.0
1,3-Dichlorobenzene	541-73-1	2.0	< 2.0
1,2-Dichlorobenzene	95-50-1	2.0	< 2.0
1,4-Dichlorobenzene	106-46-7	2.0	< 2.0
3,3'-Dichlorobenzidine	91-94-1	2.0	< 2.0
Diethyl phthalate	84-66-2	4.0	< 4.0
Dimethyl phthalate	131-11-3	2.0	< 2.0
2,4-Dinitrotoluene	121-14-2	2.0	< 2.0
2,6-Dinitrotoluene	606-20-2	2.0	< 2.0
Di-n-octyl phthalate	117-84-0	4.0	< 4.0
Fluoranthene	206-44-0	2.0	< 2.0
Fluorene	86-73-7	2.0	< 2.0
Hexachlorobenzene	118-74-1	4.0	< 4.0
Hexachlorobutadiene	87-68-3	2.0	< 2.0
Hexachlorocyclopentadiene	77-47-4	10	< 10
Hexachloroethane	67-72-1	4.0	< 4.0



Alden Analytical
Laboratories, Inc.

REPORT OF ANALYTICAL RESULTS

Client: Tetra Tech
Client Sample Number: W26
Date of Sample Receipt: 10/7/91
Date of Sample Extraction: 10/9/91
Date of Sample Analysis: 10/29/91

Alden Job Number: 9110010/1
Alden Sample Number: 8669A
Analysis Method: EPA 625
Matrix: Water
Reporting Units: ug/L

Compound Name	CAS No.	Reporting Limit	Result
BASE/NEUTRAL EXTRACTABLE COMPOUNDS (CONTINUED)			
Indeno(1,2,3-c,d)pyrene	193-39-5	4.0	< 4.0
Isophorone	78-59-1	2.0	< 2.0
2-Methylnaphthalene	91-57-6	2.0	< 2.0
Naphthalene	91-20-3	2.0	< 2.0
2-Nitroaniline	88-74-4	4.0	< 4.0
3-Nitroaniline	99-09-2	4.0	< 4.0
4-Nitroaniline	100-01-6	4.0	< 4.0
Nitrobenzene	98-95-3	2.0	< 2.0
N-Nitrosodiphenylamine	86-30-6	2.0	< 2.0
N-Nitrosodi-n-propylamine	621-64-7	2.0	< 2.0
Phenanthrene	85-01-8	2.0	< 2.0
Pyrene	129-00-0	2.0	< 2.0
1,2,4-Trichlorobenzene	120-82-1	4.0	< 4.0
ACID EXTRACTABLE COMPOUNDS			
Benzoic acid	65-85-0	40	< 40
4-Chloro-3-methylphenol	59-50-7	4.0	< 4.0
2-Chlorophenol	95-57-8	2.0	< 2.0
2,4-Dichlorophenol	120-83-2	4.0	< 4.0
2,4-Dimethylphenol	105-67-9	2.0	< 2.0
2,4-Dinitrophenol	51-28-5	20	< 20
2-Methylphenol	95-48-7	4.0	< 4.0
2-Methyl-4,6-dinitrophenol	534-52-1	20	< 20
4-Methylphenol	106-44-5	4.0	< 4.0
2-Nitrophenol	88-75-5	4.0	< 4.0
4-Nitrophenol	100-02-7	20	< 20
Pentachlorophenol	87-86-5	20	< 20
Phenol	108-95-2	2.0	< 2.0
2,4,5-Trichlorophenol	95-95-4	4.0	< 4.0
2,4,6-Trichlorophenol	88-06-2	4.0	< 4.0

Surrogate	Amount Added	Percent Recovery	Recovery Limits
Nitrobenzene-d ₅	100 ug	52	35 - 114
2-Fluorobiphenyl	100 ug	62	43 - 116
P-Terphenyl-d ₁₄	100 ug	70	33 - 141
Phenol-d ₅	200 ug	33	10 - 94
2-Fluorophenol	200 ug	38	21 - 100
2,4,6-Tribromophenol	200 ug	92	10 - 123



Alden Analytical
Laboratories, Inc.

REPORT OF ANALYTICAL RESULTS

Client: Tetra Tech
Client Sample Number: W52
Date of Sample Receipt: 10/7/91
Date of Sample Extraction: 10/9/91
Date of Sample Analysis: 10/29/91

Alden Job Number: 9110010/1
Alden Sample Number: 8670A
Analysis Method: EPA:625
Matrix: Water
Reporting Units: ug/L

Compound Name	CAS No.	Reporting Limit	Result
BASE/NEUTRAL EXTRACTABLE COMPOUNDS			
Acenaphthene	83-32-9	2.0	< 2.0
Acenaphthylene	208-96-8	2.0	< 2.0
Aniline	62-53-3	2.0	< 2.0
Anthracene	120-12-7	2.0	< 2.0
Azobenzene	103-33-3	2.0	< 2.0
Benzo(a)anthracene	56-55-3	2.0	< 2.0
Benzo(b)fluoranthene	205-99-2	4.0	< 4.0
Benzo(k)fluoranthene	207-08-9	4.0	< 4.0
Benzo(a)pyrene	50-32-8	4.0	< 4.0
Benzo(g,h,i)perylene	191-24-2	4.0	< 4.0
Benzyl alcohol	100-51-6	2.0	< 2.0
Benzyl butyl phthalate	85-68-7	2.0	< 2.0
bis(2-Chloroethyl) ether	111-44-4	2.0	< 2.0
bis(2-Chloroethoxy) methane	111-91-1	2.0	< 2.0
bis(2-Ethylhexyl) phthalate	117-81-7	2.0	15 ✓
bis(2-Chloroisopropyl) ether	108-60-1	2.0	< 2.0
4-Bromophenyl phenyl ether	101-55-3	4.0	< 4.0
4-Chloroaniline	106-47-8	4.0	< 4.0
2-Chloronaphthalene	91-58-7	2.0	< 2.0
4-Chlorophenyl phenyl ether	7005-72-3	2.0	< 2.0
Chrysene	218-01-9	2.0	< 2.0
Dibenzo(a,h)anthracene	53-70-3	4.0	< 4.0
Dibenzofuran	132-64-9	2.0	< 2.0
Di-n-butyl phthalate	84-74-2	2.0	< 2.0
1,3-Dichlorobenzene	541-73-1	2.0	< 2.0
1,2-Dichlorobenzene	95-50-1	2.0	< 2.0
1,4-Dichlorobenzene	106-46-7	2.0	< 2.0
3,3'-Dichlorobenzidine	91-94-1	20	< 20
Diethyl phthalate	84-66-2	4.0	< 4.0
Dimethyl phthalate	131-11-3	2.0	< 2.0
2,4-Dinitrotoluene	121-14-2	2.0	< 2.0
2,6-Dinitrotoluene	606-20-2	2.0	< 2.0
Di-n-octyl phthalate	117-84-0	4.0	< 4.0
Fluoranthene	206-44-0	2.0	< 2.0
Fluorene	86-73-7	2.0	< 2.0
Hexachlorobenzene	118-74-1	4.0	< 4.0
Hexachlorobutadiene	87-68-3	2.0	< 2.0
Hexachlorocyclopentadiene	77-47-4	10	< 10
Hexachloroethane	67-72-1	4.0	< 4.0



Alden Analytical
Laboratories, Inc.

REPORT OF ANALYTICAL RESULTS

Client: Tetra Tech
Client Sample Number: W52
Date of Sample Receipt: 10/7/91
Date of Sample Extraction: 10/9/91
Date of Sample Analysis: 10/29/91

Alden Job Number: 9110010/1
Alden Sample Number: 8670A
Analysis Method: EPA 625
Matrix: Water
Reporting Units: ug/L

Compound Name	CAS No.	Reporting Limit	Result
BASE/NEUTRAL EXTRACTABLE COMPOUNDS (CONTINUED)			
Indeno(1,2,3-c,d)pyrene	193-39-5	4.0	< 4.0
Isophorone	78-59-1	2.0	< 2.0
2-Methylnaphthalene	91-57-6	2.0	< 2.0
Naphthalene	91-20-3	2.0	< 2.0
2-Nitroaniline	88-74-4	4.0	< 4.0
3-Nitroaniline	99-09-2	4.0	< 4.0
4-Nitroaniline	100-01-6	4.0	< 4.0
Nitrobenzene	98-95-3	2.0	< 2.0
N-Nitrosodiphenylamine	86-30-6	2.0	< 2.0
N-Nitrosodi-n-propylamine	621-64-7	2.0	< 2.0
Phenanthrene	85-01-8	2.0	< 2.0
Pyrene	129-00-0	2.0	< 2.0
1,2,4-Trichlorobenzene	120-82-1	4.0	< 4.0
ACID EXTRACTABLE COMPOUNDS			
Benzoic acid	65-85-0	4.0	< 4.0
4-Chloro-3-methylphenol	59-50-7	4.0	< 4.0
2-Chlorophenol	95-57-8	2.0	< 2.0
2,4-Dichlorophenol	120-83-2	4.0	< 4.0
2,4-Dimethylphenol	105-67-9	2.0	< 2.0
2,4-Dinitrophenol	51-28-5	2.0	< 2.0
2-Methylphenol	95-48-7	4.0	< 4.0
2-Methyl-4,6-dinitrophenol	534-52-1	2.0	< 2.0
4-Methylphenol	106-44-5	4.0	< 4.0
2-Nitrophenol	88-75-5	4.0	< 4.0
4-Nitrophenol	100-02-7	2.0	< 2.0
Pentachlorophenol	87-86-5	2.0	< 2.0
Phenol	108-95-2	2.0	< 2.0
2,4,5-Trichlorophenol	95-95-4	4.0	< 4.0
2,4,6-Trichlorophenol	88-06-2	4.0	< 4.0

Surrogate	Amount Added	Percent Recovery	Recovery Limits
Nitrobenzene-d ₅	100 ug	57	35 - 114
2-Fluorobiphenyl	100 ug	68	43 - 116
P-Terphenyl-d ₁₄	100 ug	62	33 - 141
Phenol-d ₅	200 ug	32	10 - 94
2-Fluorophenol	200 ug	37	21 - 100
2,4,6-Tribromophenol	200 ug	86	10 - 123



Alden Analytical
Laboratories, Inc.

REPORT OF ANALYTICAL RESULTS

Client: Tetra Tech
Client Sample Number: N/A
Date of Sample Receipt: N/A
Date of Sample Extraction: 10/16/91
Date of Sample Analysis: 11/20/91

Alden Job Number: 9110024/1
Alden Sample Number: Blank
Analysis Method: EPA 625
Matrix: Water
Reporting Units: ug/L

Compound Name	CAS No.	Reporting Limit	Result
BASE/NEUTRAL EXTRACTABLE COMPOUNDS			
Acenaphthene	83-32-9	2.0	< 2.0
Acenaphthylene	208-96-8	2.0	< 2.0
Aniline	62-53-3	2.0	< 2.0
Anthracene	120-12-7	2.0	< 2.0
Azobenzene	103-33-3	2.0	< 2.0
Benzo(a)anthracene	56-55-3	2.0	< 2.0
Benzo(b)fluoranthene	205-99-2	4.0	< 4.0
Benzo(k)fluoranthene	207-08-9	4.0	< 4.0
Benzo(a)pyrene	50-32-8	4.0	< 4.0
Benzo(g,h,i)perylene	191-24-2	4.0	< 4.0
Benzyl alcohol	100-51-6	2.0	< 2.0
Benzyl butyl phthalate	85-68-7	2.0	< 2.0
bis(2-Chloroethyl) ether	111-44-4	2.0	< 2.0
bis(2-Chloroethoxy) methane	111-91-1	2.0	< 2.0
bis(2-Ethylhexyl) phthalate	117-81-7	2.0	37
bis(2-Chloroisopropyl) ether	108-60-1	2.0	< 2.0
4-Bromophenyl phenyl ether	101-55-3	4.0	< 4.0
4-Chloroaniline	106-47-8	4.0	< 4.0
2-Chloronaphthalene	91-58-7	2.0	< 2.0
4-Chlorophenyl phenyl ether	7005-72-3	2.0	< 2.0
Chrysene	218-01-9	2.0	< 2.0
Dibenzo(a,h)anthracene	53-70-3	4.0	< 4.0
Dibenzofuran	132-64-9	2.0	< 2.0
Di-n-butyl phthalate	84-74-2	2.0	< 2.0
1,3-Dichlorobenzene	541-73-1	2.0	< 2.0
1,2-Dichlorobenzene	95-50-1	2.0	< 2.0
1,4-Dichlorobenzene	106-46-7	2.0	< 2.0
3,3'-Dichlorobenzidine	91-94-1	2.0	< 2.0
Diethyl phthalate	84-66-2	4.0	< 4.0
Dimethyl phthalate	131-11-3	2.0	< 2.0
2,4-Dinitrotoluene	121-14-2	2.0	< 2.0
2,6-Dinitrotoluene	606-20-2	2.0	< 2.0
Di-n-octyl phthalate	117-84-0	4.0	< 4.0
Fluoranthene	206-44-0	2.0	< 2.0
Fluorene	86-73-7	2.0	< 2.0
Hexachlorobenzene	118-74-1	4.0	< 4.0
Hexachlorobutadiene	87-68-3	2.0	< 2.0
Hexachlorocyclopentadiene	77-47-4	10	< 10
Hexachloroethane	67-72-1	4.0	< 4.0



Alden Analytical
Laboratories, Inc.

REPORT OF ANALYTICAL RESULTS

Client: Tetra Tech
Client Sample Number: N/A
Date of Sample Receipt: N/A
Date of Sample Extraction: 10/16/91
Date of Sample Analysis: 11/20/91

Alden Job Number: 9110024/1
Alden Sample Number: Blank
Analysis Method: EPA 625
Matrix: Water
Reporting Units: ug/L

Compound Name	CAS No.	Reporting Limit	Result
BASE/NEUTRAL EXTRACTABLE COMPOUNDS (CONTINUED)			
Indeno(1,2,3-c,d)pyrene	193-39-5	4.0	< 4.0
Isophorone	78-59-1	2.0	< 2.0
2-Methylnaphthalene	91-57-6	2.0	< 2.0
Naphthalene	91-20-3	2.0	< 2.0
2-Nitroaniline	88-74-4	4.0	< 4.0
3-Nitroaniline	99-09-2	4.0	< 4.0
4-Nitroaniline	100-01-6	4.0	< 4.0
Nitrobenzene	98-95-3	2.0	< 2.0
N-Nitrosodiphenylamine	86-30-6	2.0	< 2.0
N-Nitrosodi-n-propylamine	621-64-7	2.0	< 2.0
Phenanthrene	85-01-8	2.0	< 2.0
Pyrene	129-00-0	2.0	< 2.0
1,2,4-Trichlorobenzene	120-82-1	4.0	< 4.0
ACID EXTRACTABLE COMPOUNDS			
Benzoic acid	65-85-0	40	< 40
4-Chloro-3-methylphenol	59-50-7	4.0	< 4.0
2-Chlorophenol	95-57-8	2.0	< 2.0
2,4-Dichlorophenol	120-83-2	4.0	< 4.0
2,4-Dimethylphenol	105-67-9	2.0	< 2.0
2,4-Dinitrophenol	51-28-5	20	< 20
2-Methylphenol	95-48-7	4.0	< 4.0
2-Methyl-4,6-dinitrophenol	534-52-1	20	< 20
4-Methylphenol	106-44-5	4.0	< 4.0
2-Nitrophenol	88-75-5	4.0	< 4.0
4-Nitrophenol	100-02-7	20	< 20
Pentachlorophenol	87-86-5	20	< 20
Phenol	108-95-2	2.0	< 2.0
2,4,5-Trichlorophenol	95-95-4	4.0	< 4.0
2,4,6-Trichlorophenol	88-06-2	4.0	< 4.0

Surrogate	Amount Added	Percent Recovery	Recovery Limits
Nitrobenzene-d ₅	100 ug	41	35 - 114
2-Fluorobiphenyl	100 ug	58	43 - 116
P-Terphenyl-d ₁₄	100 ug	70	33 - 141
Phenol-d ₅	200 ug	15	10 - 94
2-Fluorophenol	200 ug	28	21 - 100
2,4,6-Tribromophenol	200 ug	41	10 - 123



Alden Analytical
Laboratories, Inc.

REPORT OF ANALYTICAL RESULTS

Client: Tetra Tech
Client Sample Number: W6
Date of Sample Receipt: 10/15/91
Date of Sample Extraction: 10/16/91
Date of Sample Analysis: 11/20/91

Alden Job Number: 9110024/1
Alden Sample Number: 8789A
Analysis Method: EPA 625
Matrix: Water
Reporting Units: ug/L

Compound Name	CAS No.	Reporting Limit	Result
BASE/NEUTRAL EXTRACTABLE COMPOUNDS			
Acenaphthene	83-32-9	2.0	< 2.0
Acenaphthylene	208-96-8	2.0	< 2.0
Aniline	62-53-3	2.0	< 2.0
Anthracene	120-12-7	2.0	< 2.0
Azobenzene	103-33-3	2.0	< 2.0
Benzo(a)anthracene	56-55-3	2.0	< 2.0
Benzo(b)fluoranthene	205-99-2	4.0	< 4.0
Benzo(k)fluoranthene	207-08-9	4.0	< 4.0
Benzo(a)pyrene	50-32-8	4.0	< 4.0
Benzo(g,h,i)perylene	191-24-2	4.0	< 4.0
Benzyl alcohol	100-51-6	2.0	< 2.0
Benzyl butyl phthalate	85-68-7	2.0	< 2.0
bis(2-Chloroethyl) ether	111-44-4	2.0	< 2.0
bis(2-Chloroethoxy) methane	111-91-1	2.0	< 2.0
bis(2-Ethylhexyl) phthalate	117-81-7	2.0	4.4
bis(2-Chloroisopropyl) ether	108-60-1	2.0	< 2.0
4-Bromophenyl phenyl ether	101-55-3	4.0	< 4.0
4-Chloroaniline	106-47-8	4.0	< 4.0
2-Chloronaphthalene	91-58-7	2.0	< 2.0
4-Chlorophenyl phenyl ether	7005-72-3	2.0	< 2.0
Chrysene	218-01-9	2.0	< 2.0
Dibenzo(a,h)anthracene	53-70-3	4.0	< 4.0
Dibenzofuran	132-64-9	2.0	< 2.0
Di-n-butyl phthalate	84-74-2	2.0	< 2.0
1,3-Dichlorobenzene	541-73-1	2.0	< 2.0
1,2-Dichlorobenzene	95-50-1	2.0	< 2.0
1,4-Dichlorobenzene	106-46-7	2.0	< 2.0
3,3'-Dichlorobenzidine	91-94-1	2.0	< 2.0
Diethyl phthalate	84-66-2	4.0	< 4.0
Dimethyl phthalate	131-11-3	2.0	< 2.0
2,4-Dinitrotoluene	121-14-2	2.0	< 2.0
2,6-Dinitrotoluene	606-20-2	2.0	< 2.0
Di-n-octyl phthalate	117-84-0	4.0	< 4.0
Fluoranthene	206-44-0	2.0	< 2.0
Fluorene	86-73-7	2.0	< 2.0
Hexachlorobenzene	118-74-1	4.0	< 4.0
Hexachlorobutadiene	87-68-3	2.0	< 2.0
Hexachlorocyclopentadiene	77-47-4	10	< 10
Hexachloroethane	67-72-1	4.0	< 4.0



Alden Analytical
Laboratories, Inc.

REPORT OF ANALYTICAL RESULTS

Client: Tetra Tech
Client Sample Number: W6
Date of Sample Receipt: 10/15/91
Date of Sample Extraction: 10/16/91
Date of Sample Analysis: 11/20/91

Alden Job Number: 9110024/1
Alden Sample Number: 8789A
Analysis Method: EPA 625
Matrix: Water
Reporting Units: ug/L

Compound Name	CAS No.	Reporting Limit	Result
BASE/NEUTRAL EXTRACTABLE COMPOUNDS (CONTINUED)			
Indeno(1,2,3-c,d)pyrene	193-39-5	4.0	< 4.0
Isophorone	78-59-1	2.0	< 2.0
2-Methylnaphthalene	91-57-6	2.0	< 2.0
Naphthalene	91-20-3	2.0	< 2.0
2-Nitroaniline	88-74-4	4.0	< 4.0
3-Nitroaniline	99-09-2	4.0	< 4.0
4-Nitroaniline	100-01-6	4.0	< 4.0
Nitrobenzene	98-95-3	2.0	< 2.0
N-Nitrosodiphenylamine	86-30-6	2.0	< 2.0
N-Nitrosodi-n-propylamine	621-64-7	2.0	< 2.0
Phenanthrene	85-01-8	2.0	< 2.0
Pyrene	129-00-0	2.0	< 2.0
1,2,4-Trichlorobenzene	120-82-1	4.0	< 4.0
ACID EXTRACTABLE COMPOUNDS			
Benzoic acid	65-85-0	40	< 40
4-Chloro-3-methylphenol	59-50-7	4.0	< 4.0
2-Chlorophenol	95-57-8	2.0	< 2.0
2,4-Dichlorophenol	120-83-2	4.0	< 4.0
2,4-Dimethylphenol	105-67-9	2.0	< 2.0
2,4-Dinitrophenol	51-28-5	20	< 20
2-Methylphenol	95-48-7	4.0	< 4.0
2-Methyl-4,6-dinitrophenol	534-52-1	20	< 20
4-Methylphenol	106-44-5	4.0	< 4.0
2-Nitrophenol	88-75-5	4.0	< 4.0
4-Nitrophenol	100-02-7	20	< 20
Pentachlorophenol	87-86-5	20	< 20
Phenol	108-95-2	2.0	< 2.0
2,4,5-Trichlorophenol	95-95-4	4.0	< 4.0
2,4,6-Trichlorophenol	88-06-2	4.0	< 4.0

Surrogate	Amount Added	Percent Recovery	Recovery Limits
Nitrobenzene-d ₅	100 ug	55	35 - 114
2-Fluorobiphenyl	100 ug	63	43 - 116
P-Terphenyl-d ₁₄	100 ug	72	33 - 141
Phenol-d ₅	200 ug	3*	10 - 94
2-Fluorophenol	200 ug	24	21 - 100
2,4,6-Tribromophenol	200 ug	57	10 - 123

* Re-extraction could not be performed for low phenol-d surrogate recovery due to no remaining sample.



Alden Analytical
Laboratories, Inc.

REPORT OF ANALYTICAL RESULTS

Client: Tetra Tech
Client Sample Number: Matrix Spike
Date of Sample Receipt: 10/15/91
Date of Sample Extraction: 10/16/91
Date of Sample Analysis: 11/20/91

Alden Job Number: 9110024/1
Alden Sample Number: 8789A MS
Analysis Method: EPA 625
Matrix: Water
Reporting Units: ug/L

Compound Name	Spike Added	Percent Recovery	Recovery QC Limits (%)
Phenol	400	4	12 - 89
2-Chlorophenol	400	57	27 - 123
1,4-Dichlorobenzene	200	34	36 - 97
N-Nitroso-di-n-propylamine	200	38	41 - 116
1,2,4-Trichlorobenzene	200	39	39 - 98
4-Chloro-3-methylphenol	400	34	23 - 97
Acenaphthene	200	44	46 - 118
4-Nitrophenol	400	20	10 - 80
2,4-Dinitrotoluene	200	34	24 - 96
Pentachlorophenol	400	28	9 - 103
Pyrene	200	47	26 - 127



Alden Analytical
Laboratories, Inc.

REPORT OF ANALYTICAL RESULTS

Client: Tetra Tech
Client Sample Number: Spike Duplicate
Date of Sample Receipt: 10/15/91
Date of Sample Extraction: 10/16/91
Date of Sample Analysis: 11/20/91

Alden Job Number: 9110024/1
Alden Sample Number: 8789A MSD
Analysis Method: EPA 625
Matrix: Water
Reporting Units: ug/L

Compound Name	Spike Added	Percent Recovery	Recovery QC Limits (%)
Phenol	400	8	12 - 89
2-Chlorophenol	400	51	27 - 123
1,4-Dichlorobenzene	200	38	36 - 97
N-Nitroso-di-n-propylamine	200	42	41 - 116
1,2,4-Trichlorobenzene	200	44	39 - 98
4-Chloro-3-methylphenol	400	41	23 - 97
Acenaphthene	200	52	46 - 118
4-Nitrophenol	400	21	10 - 80
2,4-Dinitrotoluene	200	40	24 - 96
Pentachlorophenol	400	29	9 - 103
Pyrene	200	52	26 - 127

SECTION C
VOLATILE ORGANICS (WATER)



Alden Analytical
Laboratories, Inc.

REPORT OF ANALYTICAL RESULTS

Client: Tetra Tech
Client Sample Number: N/A
Date of Sample Receipt: N/A
Date of Sample Extraction: N/A
Date of Sample Analysis: 9/30/91

Alden Job Number: 9109034/1
Alden Sample Number: Blank1
Analysis Method: EPA 624
Matrix: Water
Reporting Units: ug/L

Compound Name	CAS No.	Reporting Limit	Result
Acetone	67-64-1	10	< 10
Benzene	71-43-2	1.0	< 1.0
Bromodichloromethane	75-27-4	1.0	< 1.0
Bromoform	75-25-2	1.0	< 1.0
Bromomethane	74-83-9	1.0	< 1.0
2-Butanone	78-93-3	10	< 10
Carbon disulfide	75-15-0	1.0	< 1.0
Carbon tetrachloride	56-23-5	1.0	< 1.0
Chlorobenzene	108-90-7	1.0	< 1.0
Chloroethane	75-00-3	1.0	< 1.0
Chloroform	67-66-3	1.0	< 1.0
Chloromethane	74-87-3	1.0	< 1.0
Dibromochloromethane	124-48-1	1.0	< 1.0
1,2-Dichlorobenzene	95-50-1	1.0	< 1.0
1,3-Dichlorobenzene	541-73-1	1.0	< 1.0
1,4-Dichlorobenzene	106-46-7	1.0	< 1.0
1,1-Dichloroethane	75-34-3	1.0	< 1.0
1,2-Dichloroethane	107-06-2	1.0	< 1.0
1,1-Dichloroethene	75-35-4	1.0	< 1.0
cis-1,2-Dichloroethene	156-60-5	1.0	< 1.0
trans-1,2-Dichloroethene	156-60-5	1.0	< 1.0
1,2-Dichloropropane	78-87-5	1.0	< 1.0
cis-1,3-Dichloropropene	10061-01-5	1.0	< 1.0
trans-1,3-Dichloropropene	10061-02-6	1.0	< 1.0
Ethylbenzene	100-41-4	1.0	< 1.0
2-Hexanone	591-78-6	10	< 10
Methylene chloride	75-09-2	10	< 10
4-Methyl-2-Pentanone	108-10-1	10	< 10
Styrene	100-42-5	1.0	< 1.0
1,1,2,2-Tetrachloroethane	79-34-5	1.0	< 1.0
Tetrachlorethene	127-18-4	1.0	< 1.0
Toluene	108-88-3	1.0	< 1.0
1,1,1-Trichloroethane	71-55-6	1.0	< 1.0
1,1,2-Trichloroethane	79-00-5	1.0	< 1.0
Trichloroethene	79-01-6	1.0	< 1.0
Trichlorofluoromethane	75-69-4	1.0	< 1.0
Vinyl acetate	108-05-4	10	< 10
Vinyl chloride	75-01-4	1.0	< 1.0
o-Xylene	1330-20-7	1.0	< 1.0
m,p-Xylene*	1330-20-7	1.0	< 1.0



Alden Analytical
Laboratories, Inc.

REPORT OF ANALYTICAL RESULTS

Client: Tetra Tech
Client Sample Number: N/A
Date of Sample Receipt: N/A
Date of Sample Extraction: N/A
Date of Sample Analysis: 9/30/91

Alden Job Number: 9109034/1
Alden Sample Number: Blank1
Analysis Method: EPA 624
Matrix: Water
Reporting Units: ug/L

Surrogate	Amount Added	Percent Recovery	Recovery Limits
1,2-Dichloroethane-d ₄	250 ng	96	76 - 114
Toluene-d ₈	250 ng	99	88 - 110
Bromofluorobenzene	250 ng	99	86 - 115

* m-Xylene and p-xylene cannot be separated and are reported here as a total of the two isomers.



Alden Analytical
Laboratories, Inc.

REPORT OF ANALYTICAL RESULTS

Client: Tetra Tech
Client Sample Number: N/A
Date of Sample Receipt: N/A
Date of Sample Extraction: N/A
Date of Sample Analysis: 10/3/91

Alden Job Number: 9109034/1
Alden Sample Number: Blank2
Analysis Method: EPA 624
Matrix: Water
Reporting Units: ug/L

Compound Name	CAS No.	Reporting Limit	Result
Acetone	67-64-1	10	< 10
Benzene	71-43-2	1.0	< 1.0
Bromodichloromethane	75-27-4	1.0	< 1.0
Bromoform	75-25-2	1.0	< 1.0
Bromomethane	74-83-9	1.0	< 1.0
2-Butanone	78-93-3	10	< 10
Carbon disulfide	75-15-0	1.0	< 1.0
Carbon tetrachloride	56-23-5	1.0	< 1.0
Chlorobenzene	108-90-7	1.0	< 1.0
Chloroethane	75-00-3	1.0	< 1.0
Chloroform	67-66-3	1.0	< 1.0
Chloromethane	74-87-3	1.0	< 1.0
Dibromochloromethane	124-48-1	1.0	< 1.0
1,2-Dichlorobenzene	95-50-1	1.0	< 1.0
1,3-Dichlorobenzene	541-73-1	1.0	< 1.0
1,4-Dichlorobenzene	106-46-7	1.0	< 1.0
1,1-Dichloroethane	75-34-3	1.0	< 1.0
1,2-Dichloroethane	107-06-2	1.0	< 1.0
1,1-Dichloroethene	75-35-4	1.0	< 1.0
cis-1,2-Dichloroethene	156-60-5	1.0	< 1.0
trans-1,2-Dichloroethene	156-60-5	1.0	< 1.0
1,2-Dichloropropane	78-87-5	1.0	< 1.0
cis-1,3-Dichloropropene	10061-01-5	1.0	< 1.0
trans-1,3-Dichloropropene	10061-02-6	1.0	< 1.0
Ethylbenzene	100-41-4	1.0	< 1.0
2-Hexanone	591-78-6	10	< 10
Methylene chloride	75-09-2	10	< 10
4-Methyl-2-Pentanone	108-10-1	10	< 10
Styrene	100-42-5	1.0	< 1.0
1,1,2,2-Tetrachloroethane	79-34-5	1.0	< 1.0
Tetrachlorethene	127-18-4	1.0	< 1.0
Toluene	108-88-3	1.0	< 1.0
1,1,1-Trichloroethane	71-55-6	1.0	< 1.0
1,1,2-Trichloroethane	79-00-5	1.0	< 1.0
Trichloroethene	79-01-6	1.0	< 1.0
Trichlorofluoromethane	75-69-4	1.0	< 1.0
Vinyl acetate	108-05-4	10	< 10
Vinyl chloride	75-01-4	1.0	< 1.0
o-Xylene	1330-20-7	1.0	< 1.0
m,p-Xylene *	1330-20-7	1.0	< 1.0



Alden Analytical
Laboratories, Inc.

REPORT OF ANALYTICAL RESULTS

Client: Tetra Tech
Client Sample Number: N/A
Date of Sample Receipt: N/A
Date of Sample Extraction: N/A
Date of Sample Analysis: 10/3/91

Alden Job Number: 9109034/1
Alden Sample Number: Blank2
Analysis Method: EPA 624
Matrix: Water
Reporting Units: ug/L

Surrogate	Amount Added	Percent Recovery	Recovery Limits
1,2-Dichloroethane-d ₄	250 ng	96	76 - 114
Toluene-d ₈	250 ng	98	88 - 110
Bromofluorobenzene	250 ng	99	86 - 115

* m-Xylene and p-xylene cannot be separated and are reported here as a total of the two isomers.



Alden Analytical
Laboratories, Inc.

REPORT OF ANALYTICAL RESULTS

Client: Tetra Tech
Client Sample Number: W45
Date of Sample Receipt: 9/30/91
Date of Sample Extraction: N/A
Date of Sample Analysis: 10/3/91

Alden Job Number: 9109034/1
Alden Sample Number: 8570G
Analysis Method: EPA 624
Matrix: Water
Reporting Units: ug/L.

Compound Name	CAS No.	Reporting Limit	Result
Acetone	67-64-1	10	< 10
Benzene	71-43-2	1.0	< 1.0
Bromodichloromethane	75-27-4	1.0	< 1.0
Bromoform	75-25-2	1.0	< 1.0
Bromomethane	74-83-9	1.0	< 1.0
2-Butanone	78-93-3	10	< 10
Carbon disulfide	75-15-0	1.0	< 1.0
Carbon tetrachloride	56-23-5	1.0	< 1.0
Chlorobenzene	108-90-7	1.0	< 1.0
Chloroethane	75-00-3	1.0	< 1.0
Chloroform	67-66-3	1.0	< 1.0
Chloromethane	74-87-3	1.0	< 1.0
Dibromochloromethane	124-48-1	1.0	< 1.0
1,2-Dichlorobenzene	95-50-1	1.0	< 1.0
1,3-Dichlorobenzene	541-73-1	1.0	< 1.0
1,4-Dichlorobenzene	106-46-7	1.0	< 1.0
1,1-Dichloroethane	75-34-3	1.0	< 1.0
1,2-Dichloroethane	107-06-2	1.0	< 1.0
1,1-Dichloroethene	75-35-4	1.0	< 1.0
cis-1,2-Dichloroethene	156-60-5	1.0	< 1.0
trans-1,2-Dichloroethene	156-60-5	1.0	< 1.0
1,2-Dichloropropane	78-87-5	1.0	< 1.0
cis-1,3-Dichloropropene	10061-01-5	1.0	< 1.0
trans-1,3-Dichloropropene	10061-02-6	1.0	< 1.0
Ethylbenzene	100-41-4	1.0	< 1.0
2-Hexanone	591-78-6	10	< 10
Methylene chloride	75-09-2	10	16 ✓
4-Methyl-2-Pentanone	108-10-1	10	< 10
Styrene	100-42-5	1.0	< 1.0
1,1,2-Tetrachloroethane	79-34-5	1.0	< 1.0
Tetrachlorethene	127-18-4	1.0	< 1.0
Toluene	108-88-3	1.0	< 1.0
1,1,1-Trichloroethane	71-55-6	1.0	< 1.0
1,1,2-Trichloroethane	79-00-5	1.0	< 1.0
Trichloroethene	79-01-6	1.0	< 1.0
Trichlorofluoromethane	75-69-4	1.0	< 1.0
Vinyl acetate	108-05-4	10	< 10
Vinyl chloride	75-01-4	1.0	< 1.0
o-Xylene	1330-20-7	1.0	< 1.0
m,p-Xylene *	1330-20-7	1.0	< 1.0



Alden Analytical
Laboratories, Inc.

REPORT OF ANALYTICAL RESULTS

Client: Tetra Tech
Client Sample Number: W45
Date of Sample Receipt: 9/30/91
Date of Sample Extraction: N/A
Date of Sample Analysis: 10/3/91

Alden Job Number: 9109034/1
Alden Sample Number: 8570G
Analysis Method: EPA 624
Matrix: Water
Reporting Units: ug/L

Surrogate	Amount Added	Percent Recovery	Recovery Limits
1,2-Dichloroethane-d ₄	250 ng	95	76 - 114
Toluene-d ₈	250 ng	93	88 - 110
Bromofluorobenzene	250 ng	98	86 - 115

* m-Xylene and p-xylene cannot be separated and are reported here as a total of the two isomers.



Alden Analytical
Laboratories, Inc.

REPORT OF ANALYTICAL RESULTS

Client: Tetra Tech
Client Sample Number: W51
Date of Sample Receipt: 9/30/91
Date of Sample Extraction: N/A
Date of Sample Analysis: 9/30/91

Alden Job Number: 9109034/1
Alden Sample Number: 8573C
Analysis Method: EPA 624
Matrix: Water
Reporting Units: ug/L

Compound Name	CAS No.	Reporting Limit	Result
Acetone	67-64-1	10	< 10
Benzene	71-43-2	1.0	< 1.0
Bromodichloromethane	75-27-4	1.0	< 1.0
Bromoform	75-25-2	1.0	< 1.0
Bromomethane	74-83-9	1.0	< 1.0
2-Butanone	78-93-3	10	< 10
Carbon disulfide	75-15-0	1.0	< 1.0
Carbon tetrachloride	56-23-5	1.0	< 1.0
Chlorobenzene	108-90-7	1.0	< 1.0
Chloroethane	75-00-3	1.0	< 1.0
Chloroform	67-66-3	1.0	1.2
Chloromethane	74-87-3	1.0	< 1.0
Dibromochloromethane	124-48-1	1.0	< 1.0
1,2-Dichlorobenzene	95-50-1	1.0	< 1.0
1,3-Dichlorobenzene	541-73-1	1.0	< 1.0
1,4-Dichlorobenzene	106-46-7	1.0	< 1.0
1,1-Dichloroethane	75-34-3	1.0	< 1.0
1,2-Dichloroethane	107-06-2	1.0	< 1.0
1,1-Dichloroethene	75-35-4	1.0	< 1.0
cis-1,2-Dichloroethene	156-60-5	1.0	< 1.0
trans-1,2-Dichloroethene	156-60-5	1.0	< 1.0
1,2-Dichloropropane	78-87-5	1.0	< 1.0
cis-1,3-Dichloropropene	10061-01-5	1.0	< 1.0
trans-1,3-Dichloropropene	10061-02-6	1.0	< 1.0
Ethylbenzene	100-41-4	1.0	< 1.0
2-Hexanone	591-78-6	10	< 10
Methylene chloride	75-09-2	10	< 10
4-Methyl-2-Pentanone	108-10-1	10	< 10
Styrene	100-42-5	1.0	< 1.0
1,1,2,2-Tetrachloroethane	79-34-5	1.0	< 1.0
Tetrachlorethene	127-18-4	1.0	< 1.0
Toluene	108-88-3	1.0	< 1.0
1,1,1-Trichloroethane	71-55-6	1.0	< 1.0
1,1,2-Trichloroethane	79-00-5	1.0	< 1.0
Trichloroethene	79-01-6	1.0	< 1.0
Trichlorofluoromethane	75-69-4	1.0	< 1.0
Vinyl acetate	108-05-4	10	< 10
Vinyl chloride	75-01-4	1.0	< 1.0
o-Xylene	1330-20-7	1.0	< 1.0
m,p-Xylene*	1330-20-7	1.0	< 1.0



Alden Analytical
Laboratories, Inc.

REPORT OF ANALYTICAL RESULTS

Client: Tetra Tech
Client Sample Number: W51
Date of Sample Receipt: 9/30/91
Date of Sample Extraction: N/A
Date of Sample Analysis: 9/30/91

Alden Job Number: 9109034/1
Alden Sample Number: 8573C
Analysis Method: EPA 624
Matrix: Water
Reporting Units: ug/L

Surrogate	Amount Added	Percent Recovery	Recovery Limits
1,2-Dichloroethane-d ₄	250 ng	96	76 - 114
Toluene-d ₈	250 ng	94	88 - 110
Bromofluorobenzene	250 ng	99	86 - 115

* m-Xylene and p-xylene cannot be separated and are reported here as a total of the two isomers.



Alden Analytical
Laboratories, Inc.

REPORT OF ANALYTICAL RESULTS

Client: Tetra Tech
Client Sample Number: N/A
Date of Sample Receipt: N/A
Date of Sample Extraction: N/A
Date of Sample Analysis: 10/3/91

Alden Job Number: 9110001/1
Alden Sample Number: Blank
Analysis Method: EPA 624
Matrix: Water
Reporting Units: ug/L

Compound Name	CAS No.	Reporting Limit	Result
Acetone	67-64-1	10	< 10
Benzene	71-43-2	1.0	< 1.0
Bromodichloromethane	75-27-4	1.0	< 1.0
Bromoform	75-25-2	1.0	< 1.0
Bromomethane	74-83-9	1.0	< 1.0
2-Butanone	78-93-3	10	< 10
Carbon disulfide	75-15-0	1.0	< 1.0
Carbon tetrachloride	56-23-5	1.0	< 1.0
Chlorobenzene	108-90-7	1.0	< 1.0
Chloroethane	75-00-3	1.0	< 1.0
Chloroform	67-66-3	1.0	< 1.0
Chloromethane	74-87-3	1.0	< 1.0
Dibromochloromethane	124-48-1	1.0	< 1.0
1,2-Dichlorobenzene	95-50-1	1.0	< 1.0
1,3-Dichlorobenzene	541-73-1	1.0	< 1.0
1,4-Dichlorobenzene	106-46-7	1.0	< 1.0
1,1-Dichloroethane	75-34-3	1.0	< 1.0
1,2-Dichloroethane	107-06-2	1.0	< 1.0
1,1-Dichloroethene	75-35-4	1.0	< 1.0
cis-1,2-Dichloroethene	156-60-5	1.0	< 1.0
trans-1,2-Dichloroethene	156-60-5	1.0	< 1.0
1,2-Dichloropropane	78-87-5	1.0	< 1.0
cis-1,3-Dichloropropene	10061-01-5	1.0	< 1.0
trans-1,3-Dichloropropene	10061-02-6	1.0	< 1.0
Ethylbenzene	100-41-4	1.0	< 1.0
2-Hexanone	591-78-6	10	< 10
Methylene chloride	75-09-2	10	< 10
4-Methyl-2-Pentanone	108-10-1	10	< 10
Styrene	100-42-5	1.0	< 1.0
1,1,2,2-Tetrachloroethane	79-34-5	1.0	< 1.0
Tetrachlorethene	127-18-4	1.0	< 1.0
Toluene	108-88-3	1.0	< 1.0
1,1,1-Trichloroethane	71-55-6	1.0	< 1.0
1,1,2-Trichloroethane	79-00-5	1.0	< 1.0
Trichloroethene	79-01-6	1.0	< 1.0
Trichlorofluoromethane	75-69-4	1.0	< 1.0
Vinyl acetate	108-05-4	10	< 10
Vinyl chloride	75-01-4	1.0	< 1.0
o-Xylene	1330-20-7	1.0	< 1.0
m,p-Xylene *	1330-20-7	1.0	< 1.0



Alden Analytical
Laboratories, Inc.

REPORT OF ANALYTICAL RESULTS

Client: Tetra Tech
Client Sample Number: N/A
Date of Sample Receipt: N/A
Date of Sample Extraction: N/A
Date of Sample Analysis: 10/3/91

Alden Job Number: 9110001/1
Alden Sample Number: Blank
Analysis Method: EPA 624
Matrix: Water
Reporting Units: ug/L

Surrogate	Amount Added	Percent Recovery	Recovery Limits
1,2-Dichloroethane-d ₄	250 ng	96	76 - 114
Toluene-d ₈	250 ng	98	88 - 110
Bromofluorobenzene	250 ng	99	86 - 115

* m-Xylene and p-xylene cannot be separated and are reported here as a total of the two isomers.



Alden Analytical
Laboratories, Inc.

REPORT OF ANALYTICAL RESULTS

Client: Tetra Tech
Client Sample Number: W37
Date of Sample Receipt: 10/2/91
Date of Sample Extraction: N/A
Date of Sample Analysis: 10/3/91

Alden Job Number: 9110001/1
Alden Sample Number: 8615H
Analysis Method: EPA 624
Matrix: Water
Reporting Units: ug/L

Compound Name	CAS No.	Reporting Limit	Result
Acetone	67-64-1	10	< 10
Benzene	71-43-2	1.0	< 1.0
Bromodichloromethane	75-27-4	1.0	< 1.0
Bromoform	75-25-2	1.0	< 1.0
Bromomethane	74-83-9	1.0	< 1.0
2-Butanone	78-93-3	10	< 10
Carbon disulfide	75-15-0	1.0	< 1.0
Carbon tetrachloride	56-23-5	1.0	< 1.0
Chlorobenzene	108-90-7	1.0	< 1.0
Chloroethane	75-00-3	1.0	< 1.0
Chloroform	67-66-3	1.0	< 1.0
Chloromethane	74-87-3	1.0	< 1.0
Dibromochloromethane	124-48-1	1.0	< 1.0
1,2-Dichlorobenzene	95-50-1	1.0	< 1.0
1,3-Dichlorobenzene	541-73-1	1.0	< 1.0
1,4-Dichlorobenzene	106-46-7	1.0	< 1.0
1,1-Dichloroethane	75-34-3	1.0	< 1.0
1,2-Dichloroethane	107-06-2	1.0	< 1.0
1,1-Dichloroethene	75-35-4	1.0	< 1.0
cis-1,2-Dichloroethene	156-60-5	1.0	< 1.0
trans-1,2-Dichloroethene	156-60-5	1.0	< 1.0
1,2-Dichloropropane	78-87-5	1.0	< 1.0
cis-1,3-Dichloropropene	10061-01-5	1.0	< 1.0
trans-1,3-Dichloropropene	10061-02-6	1.0	< 1.0
Ethylbenzene	100-41-4	1.0	< 1.0
2-Hexanone	591-78-6	10	< 10
Methylene chloride	75-09-2	10	< 10
4-Methyl-2-Pentanone	108-10-1	10	< 10
Styrene	100-42-5	1.0	< 1.0
1,1,2,2-Tetrachloroethane	79-34-5	1.0	< 1.0
Tetrachlorethene	127-18-4	1.0	< 1.0
Toluene	108-88-3	1.0	< 1.0
1,1,1-Trichloroethane	71-55-6	1.0	< 1.0
1,1,2-Trichloroethane	79-00-5	1.0	< 1.0
Trichloroethene	79-01-6	1.0	< 1.0
Trichlorofluoromethane	75-69-4	1.0	< 1.0
Vinyl acetate	108-05-4	10	< 10
Vinyl chloride	75-01-4	1.0	< 1.0
o-Xylene	1330-20-7	1.0	< 1.0
m,p-Xylene*	1330-20-7	1.0	< 1.0



Alden Analytical
Laboratories, Inc.

REPORT OF ANALYTICAL RESULTS

Client: Tetra Tech
Client Sample Number: W37
Date of Sample Receipt: 10/2/91
Date of Sample Extraction: N/A
Date of Sample Analysis: 10/3/91

Alden Job Number: 9110001/1
Alden Sample Number: 8615H
Analysis Method: EPA 624
Matrix: Water
Reporting Units: ug/L

Surrogate	Amount Added	Percent Recovery	Recovery Limits
1,2-Dichloroethane-d ₄	250 ng	99	76 - 114
Toluene-d ₈	250 ng	95	88 - 110
Bromofluorobenzene	250 ng	103	86 - 115

* m-Xylene and p-xylene cannot be separated and are reported here as a total of the two isomers.



Alden Analytical
Laboratories, Inc.

REPORT OF ANALYTICAL RESULTS

Client: Tetra Tech
Client Sample Number: W47
Date of Sample Receipt: 10/2/91
Date of Sample Extraction: N/A
Date of Sample Analysis: 10/3/91

Alden Job Number: 9110001/1
Alden Sample Number: 8626C
Analysis Method: EPA 624
Matrix: Water
Reporting Units: ug/L

Compound Name	CAS No.	Reporting Limit	Result
Acetone	67-64-1	10	< 10
Benzene	71-43-2	1.0	< 1.0
Bromodichloromethane	75-27-4	1.0	< 1.0
Bromoform	75-25-2	1.0	< 1.0
Bromomethane	74-83-9	1.0	< 1.0
2-Butanone	78-93-3	10	20
Carbon disulfide	75-15-0	1.0	< 1.0
Carbon tetrachloride	56-23-5	1.0	< 1.0
Chlorobenzene	108-90-7	1.0	< 1.0
Chloroethane	75-00-3	1.0	< 1.0
Chloroform	67-66-3	1.0	< 1.0
Chloromethane	74-87-3	1.0	< 1.0
Dibromochloromethane	124-48-1	1.0	< 1.0
1,2-Dichlorobenzene	95-50-1	1.0	< 1.0
1,3-Dichlorobenzene	541-73-1	1.0	< 1.0
1,4-Dichlorobenzene	106-46-7	1.0	< 1.0
1,1-Dichloroethane	75-34-3	1.0	< 1.0
1,2-Dichloroethane	107-06-2	1.0	< 1.0
1,1-Dichloroethene	75-35-4	1.0	< 1.0
cis-1,2-Dichloroethene	156-60-5	1.0	< 1.0
trans-1,2-Dichloroethene	156-60-5	1.0	< 1.0
1,2-Dichloropropane	78-87-5	1.0	< 1.0
cis-1,3-Dichloropropene	10061-01-5	1.0	< 1.0
trans-1,3-Dichloropropene	10061-02-6	1.0	< 1.0
Ethylbenzene	100-41-4	1.0	< 1.0
2-Hexanone	591-78-6	10	< 10
Methylene chloride	75-09-2	10	< 10
4-Methyl-2-Pentanone	108-10-1	10	< 10
Styrene	100-42-5	1.0	< 1.0
1,1,2,2-Tetrachloroethane	79-34-5	1.0	< 1.0
Tetrachlorethene	127-18-4	1.0	< 1.0
Toluene	108-88-3	1.0	73
1,1,1-Trichloroethane	71-55-6	1.0	< 1.0
1,1,2-Trichloroethane	79-00-5	1.0	< 1.0
Trichloroethene	79-01-6	1.0	< 1.0
Trichlorofluoromethane	75-69-4	1.0	< 1.0
Vinyl acetate	108-05-4	10	< 10
Vinyl chloride	75-01-4	1.0	< 1.0
o-Xylene	1330-20-7	1.0	< 1.0
m,p-Xylene*	1330-20-7	1.0	< 1.0



Alden Analytical
Laboratories, Inc.

REPORT OF ANALYTICAL RESULTS

Client: Tetra Tech
Client Sample Number: W47
Date of Sample Receipt: 10/2/91
Date of Sample Extraction: N/A
Date of Sample Analysis: 10/3/91

Alden Job Number: 9110001/1
Alden Sample Number: 8626C
Analysis Method: EPA 624
Matrix: Water
Reporting Units: ug/L

Surrogate	Amount Added	Percent Recovery	Recovery Limits
1,2-Dichloroethane-d ₄	250 ng	102	76 - 114
Toluene-d ₈	250 ng	95	88 - 110
Bromofluorobenzene	250 ng	102	86 - 115

* m-Xylene and p-xylene cannot be separated and are reported here as a total of the two isomers.



Alden Analytical
Laboratories, Inc.

REPORT OF ANALYTICAL RESULTS

Client: Tetra Tech
Client Sample Number: Matrix Spike
Date of Sample Receipt: 10/2/91
Date of Sample Extraction: N/A
Date of Sample Analysis: 10/3/91

Alden Job Number: 9110001/1
Alden Sample Number: 8626C MS
Analysis Method: EPA 624
Matrix: Water
Reporting Units: ug/L

Compound Name	Spike Added	Percent Recovery	Recovery QC Limits (%)
1,1-Dichloroethene	50	98	61 - 145
Trichloroethene	50	102	71 - 120
Benzene	50	102	76 - 127
Toluene	50	90	76 - 125
Chlorobenzene	50	100	75 - 130



Alden Analytical
Laboratories, Inc.

REPORT OF ANALYTICAL RESULTS

Client: Tetra Tech
Client Sample Number: Spike Duplicate
Date of Sample Receipt: 10/2/91
Date of Sample Extraction: N/A
Date of Sample Analysis: 10/3/91

Alden Job Number: 9110001/1
Alden Sample Number: 8626C MSD
Analysis Method: EPA 624
Matrix: Water
Rep: 3 Units: ug/L

Compound Name	Spike Added	Percent Recovery	Recovery QC Limits (%)
1,1-Dichloroethene	50	100	61 - 145
Trichloroethene	50	104	71 - 120
Benzene	50	104	76 - 127
Toluene	50	94	76 - 125
Chlorobenzene	50	104	75 - 130



Alden Analytical
Laboratories, Inc.

REPORT OF ANALYTICAL RESULTS

Client: Tetra Tech
Client Sample Number: N/A
Date of Sample Receipt: N/A
Date of Sample Extraction: N/A
Date of Sample Analysis: 10/9/91

Alden Job Number: 9110010/1
Alden Sample Number: Blank
Analysis Method: EPA 624
Matrix: Water
Reporting Units: ug/L

Compound Name	CAS No.	Reporting Limit	Result
Acetone	67-64-1	10	< 10
Benzene	71-43-2	1.0	< 1.0
Bromodichloromethane	75-27-4	1.0	< 1.0
Bromoform	75-25-2	1.0	< 1.0
Bromomethane	74-83-9	1.0	< 1.0
2-Butanone	78-93-3	10	< 10
Carbon disulfide	75-15-0	1.0	< 1.0
Carbon tetrachloride	56-23-5	1.0	< 1.0
Chlorobenzene	108-90-7	1.0	< 1.0
Chloroethane	75-00-3	1.0	< 1.0
Chloroform	67-66-3	1.0	< 1.0
Chloromethane	74-87-3	1.0	< 1.0
Dibromochloromethane	124-48-1	1.0	< 1.0
1,2-Dichlorobenzene	95-50-1	1.0	< 1.0
1,3-Dichlorobenzene	541-73-1	1.0	< 1.0
1,4-Dichlorobenzene	106-46-7	1.0	< 1.0
1,1-Dichloroethane	75-34-3	1.0	< 1.0
1,2-Dichloroethane	107-06-2	1.0	< 1.0
1,1-Dichloroethene	75-35-4	1.0	< 1.0
cis-1,2-Dichloroethene	156-60-5	1.0	< 1.0
trans-1,2-Dichloroethene	156-60-5	1.0	< 1.0
1,2-Dichloropropane	78-87-5	1.0	< 1.0
cis-1,3-Dichloropropene	10061-01-5	1.0	< 1.0
trans-1,3-Dichloropropene	10061-02-6	1.0	< 1.0
Ethylbenzene	100-41-4	1.0	< 1.0
2-Hexanone	591-78-6	10	< 10
Methylene chloride	75-09-2	10	< 10
4-Methyl-2-Pentanone	108-10-1	10	< 10
Styrene	100-42-5	1.0	< 1.0
1,1,2,2-Tetrachloroethane	79-34-5	1.0	< 1.0
Tetrachlorethene	127-18-4	1.0	< 1.0
Toluene	108-88-3	1.0	< 1.0
1,1,1-Trichloroethane	71-55-6	1.0	< 1.0
1,1,2-Trichloroethane	79-00-5	1.0	< 1.0
Trichloroethene	79-01-6	1.0	< 1.0
Trichlorofluoromethane	75-69-4	1.0	< 1.0
Vinyl acetate	108-05-4	10	< 10
Vinyl chloride	75-01-4	1.0	< 1.0
o-Xylene	1330-20-7	1.0	< 1.0
m,p-Xylene*	1330-20-7	1.0	< 1.0



Alden Analytical
Laboratories, Inc.

REPORT OF ANALYTICAL RESULTS

Client: Tetra Tech
Client Sample Number: N/A
Date of Sample Receipt: N/A
Date of Sample Extraction: N/A
Date of Sample Analysis: 10/9/91

Alden Job Number: 9110010/1
Alden Sample Number: Blank
Analysis Method: EPA 624
Matrix: Water
Reporting Units: ug/L

Surrogate	Amount Added	Percent Recovery	Recovery Limits
1,2-Dichloroethane-d ₄	250 ng	93	76 - 114
Toluene-d ₈	250 ng	106	88 - 110
Bromofluorobenzene	250 ng	95	86 - 115

* m-Xylene and p-xylene cannot be separated and are reported here as a total of the two isomers.



Alden Analytical
Laboratories, Inc.

REPORT OF ANALYTICAL RESULTS

Client: Tetra Tech
Client Sample Number: W26
Date of Sample Receipt: 10/7/91
Date of Sample Extraction: N/A
Date of Sample Analysis: 10/9/91

Alden Job Number: 9110010/1
Alden Sample Number: 8669G
Analysis Method: EPA 624
Matrix: Water
Reporting Units: ug/L

Compound Name	CAS No.	Reporting Limit	Result
Acetone	67-64-1	10	< 10
Benzene	71-43-2	1.0	< 1.0
Bromodichloromethane	75-27-4	1.0	< 1.0
Bromoform	75-25-2	1.0	< 1.0
Bromomethane	74-83-9	1.0	< 1.0
2-Butanone	78-93-3	10	< 10
Carbon disulfide	75-15-0	1.0	< 1.0
Carbon tetrachloride	56-23-5	1.0	< 1.0
Chlorobenzene	108-90-7	1.0	< 1.0
Chloroethane	75-00-3	1.0	< 1.0
Chloroform	67-66-3	1.0	< 1.0
Chloromethane	74-87-3	1.0	< 1.0
Dibromochloromethane	124-48-1	1.0	< 1.0
1,2-Dichlorobenzene	95-50-1	1.0	< 1.0
1,3-Dichlorobenzene	541-73-1	1.0	< 1.0
1,4-Dichlorobenzene	106-46-7	1.0	< 1.0
1,1-Dichloroethane	75-34-3	1.0	< 1.0
1,2-Dichloroethane	107-06-2	1.0	< 1.0
1,1-Dichloroethene	75-35-4	1.0	< 1.0
cis-1,2-Dichloroethene	156-60-5	1.0	< 1.0
trans-1,2-Dichloroethene	156-60-5	1.0	< 1.0
1,2-Dichloropropane	78-87-5	1.0	< 1.0
cis-1,3-Dichloropropene	10061-01-5	1.0	< 1.0
trans-1,3-Dichloropropene	10061-02-6	1.0	< 1.0
Ethylbenzene	100-41-4	1.0	< 1.0
2-Hexanone	591-78-6	10	< 10
Methylene chloride	75-09-2	10	< 10
4-Methyl-2-Pentanone	108-10-1	10	< 10
Styrene	100-42-5	1.0	< 1.0
1,1,2,2-Tetrachloroethane	79-34-5	1.0	< 1.0
Tetrachlorethene	127-18-4	1.0	< 1.0
Toluene	108-88-3	1.0	< 1.0
1,1,1-Trichloroethane	71-55-6	1.0	< 1.0
1,1,2-Trichloroethane	79-00-5	1.0	< 1.0
Trichloroethene	79-01-6	1.0	< 1.0
Trichlorofluoromethane	75-69-4	1.0	< 1.0
Vinyl acetate	108-05-4	10	< 10
Vinyl chloride	75-01-4	1.0	< 1.0
o-Xylene	1330-20-7	1.0	< 1.0
m,p-Xylene*	1330-20-7	1.0	< 1.0



Alden Analytical
Laboratories, Inc.

REPORT OF ANALYTICAL RESULTS

Client: Tetra Tech
Client Sample Number: W26
Date of Sample Receipt: 10/7/91
Date of Sample Extraction: N/A
Date of Sample Analysis: 10/9/91

Alden Job Number: 9110010/1
Alden Sample Number: 8669G
Analysis Method: EPA 624
Matrix: Water
Reporting Units: ug/L

Surrogate	Amount Added	Percent Recovery	Recovery Limits
1,2-Dichloroethane-d ₄	250 ng	95	76 - 114
Toluene-d ₈	250 ng	95	88 - 110
Bromofluorobenzene	250 ng	98	86 - 115

* m-Xylene and p-xylene cannot be separated and are reported here as a total of the two isomers.



Alden Analytical
Laboratories, Inc.

REPORT OF ANALYTICAL RESULTS

Client: Tetra Tech
Client Sample Number: W52
Date of Sample Receipt: 10/7/91
Date of Sample Extraction: N/A
Date of Sample Analysis: 10/9/91

Alden Job Number: 9110010/1
Alden Sample Number: 8670G
Analysis Method: EPA 624
Matrix: Water
Reporting Units: ug/L

Compound Name	CAS No.	Reporting Limit	Result
Acetone	67-64-1	10	< 10
Benzene	71-43-2	1.0	< 1.0
Bromodichloromethane	75-27-4	1.0	< 1.0
Bromoform	75-25-2	1.0	< 1.0
Bromomethane	74-83-9	1.0	< 1.0
2-Butanone	78-93-3	10	< 10
Carbon disulfide	75-15-0	1.0	< 1.0
Carbon tetrachloride	56-23-5	1.0	< 1.0
Chlorobenzene	108-90-7	1.0	< 1.0
Chloroethane	75-00-3	1.0	< 1.0
Chloroform	67-66-3	1.0	< 1.0
Chloromethane	74-87-3	1.0	< 1.0
Dibromochloromethane	124-48-1	1.0	< 1.0
1,2-Dichlorobenzene	95-50-1	1.0	< 1.0
1,3-Dichlorobenzene	541-73-1	1.0	< 1.0
1,4-Dichlorobenzene	106-46-7	1.0	< 1.0
1,1-Dichloroethane	75-34-3	1.0	< 1.0
1,2-Dichloroethane	107-06-2	1.0	< 1.0
1,1-Dichloroethene	75-35-4	1.0	< 1.0
cis-1,2-Dichloroethene	156-60-5	1.0	< 1.0
trans-1,2-Dichloroethene	156-60-5	1.0	< 1.0
1,2-Dichloropropane	78-87-5	1.0	< 1.0
cis-1,3-Dichloropropene	10061-01-5	1.0	< 1.0
trans-1,3-Dichloropropene	10061-02-6	1.0	< 1.0
Ethylbenzene	100-41-4	1.0	< 1.0
2-Hexanone	591-78-6	10	< 10
Methylene chloride	75-09-2	10	< 10
4-Methyl-2-Pentanone	108-10-1	10	< 10
Styrene	100-42-5	1.0	< 1.0
1,1,2,2-Tetrachloroethane	79-34-5	1.0	< 1.0
Tetrachlorethene	127-18-4	1.0	< 1.0
Toluene	108-88-3	1.0	< 1.0
1,1,1-Trichloroethane	71-55-6	1.0	< 1.0
1,1,2-Trichloroethane	79-00-5	1.0	< 1.0
Trichloroethene	79-01-6	1.0	< 1.0
Trichlorofluoromethane	75-69-4	1.0	< 1.0
Vinyl acetate	108-05-4	10	< 10
Vinyl chloride	75-01-4	1.0	< 1.0
o-Xylene	1330-20-7	1.0	< 1.0
m,p-Xylene*	1330-20-7	1.0	< 1.0



Alden Analytical
Laboratories, Inc.

REPORT OF ANALYTICAL RESULTS

Client: Tetra Tech
Client Sample Number: W52
Date of Sample Receipt: 10/7/91
Date of Sample Extraction: N/A
Date of Sample Analysis: 10/9/91

Alden Job Number: 9110010/1
Alden Sample Number: 8670G
Analysis Method: EPA 624
Matrix: Water
Reporting Units: ug/L

Surrogate	Amount Added	Percent Recovery	Recovery Limits
1,2-Dichloroethane-d ₄	250 ng	94	76 - 114
Toluene-d ₈	250 ng	95	88 - 110
Bromofluorobenzene	250 ng	96	86 - 115

* m-Xylene and p-xylene cannot be separated and are reported here as a total of the two isomers.



Alden Analytical
Laboratories, Inc.

REPORT OF ANALYTICAL RESULTS

Client: Tetra Tech
Client Sample Number: Matrix Spike
Date of Sample Receipt: 10/7/91
Date of Sample Extraction: N/A
Date of Sample Analysis: 10/9/91

Alden Job Number: 9110010/1
Alden Sample Number: 8670G MS
Analysis Method: EPA 624
Matrix: Water
Reporting Units: ug/L

Compound Name	Spike Added	Percent Recovery	Recovery QC Limits (%)
1,1-Dichloroethene	50	95	61 - 145
Trichloroethene	50	102	71 - 120
Benzene	50	102	76 - 127
Toluene	50	96	76 - 125
Chlorobenzene	50	101	75 - 130



Alden Analytical
Laboratories, Inc.

REPORT OF ANALYTICAL RESULTS

Client: Tetra Tech
Client Sample Number: Spike Duplicate
Date of Sample Receipt: 10/7/91
Date of Sample Extraction: N/A
Date of Sample Analysis: 10/9/91

Alden Job Number: 9110010/1
Alden Sample Number: 8670G MSD
Analysis Method: EPA 624
Matrix: Water
Reporting Units: ug/L

Compound Name	Spike Added	Percent Recovery	Recovery QC Limits (%)
1,1-Dichloroethene	50	96	61 - 145
Trichloroethene	50	104	71 - 120
Benzene	50	104	76 - 127
Toluene	50	110	76 - 125
Chlorobenzene	50	102	75 - 130



Alden Analytical
Laboratories, Inc.

REPORT OF ANALYTICAL RESULTS

Client: Tetra Tech
Client Sample Number: N/A
Date of Sample Receipt: N/A
Date of Sample Extraction: N/A
Date of Sample Analysis: 10/11/91

Alden Job Number: 9110013/1
Alden Sample Number: Blank
Analysis Method: EPA 624
Matrix: Water
Reporting Units: ug/L

Compound Name	CAS No.	Reporting Limit	Result
Acetone	67-64-1	10	< 10
Benzene	71-43-2	1.0	< 1.0
Bromodichloromethane	75-27-4	1.0	< 1.0
Bromoform	75-25-2	1.0	< 1.0
Bromomethane	74-83-9	1.0	< 1.0
2-Butanone	78-93-3	10	< 10
Carbon disulfide	75-15-0	1.0	< 1.0
Carbon tetrachloride	56-23-5	1.0	< 1.0
Chlorobenzene	108-90-7	1.0	< 1.0
Chloroethane	75-00-3	1.0	< 1.0
Chloroform	67-66-3	1.0	< 1.0
Chloromethane	74-87-3	1.0	< 1.0
Dibromochloromethane	124-48-1	1.0	< 1.0
1,2-Dichlorobenzene	95-50-1	1.0	< 1.0
1,3-Dichlorobenzene	541-73-1	1.0	< 1.0
1,4-Dichlorobenzene	106-46-7	1.0	< 1.0
1,1-Dichloroethane	75-34-3	1.0	< 1.0
1,2-Dichloroethane	107-06-2	1.0	< 1.0
1,1-Dichloroethene	75-35-4	1.0	< 1.0
cis-1,2-Dichloroethene	156-60-5	1.0	< 1.0
trans-1,2-Dichloroethene	156-60-5	1.0	< 1.0
1,2-Dichloropropane	78-87-5	1.0	< 1.0
cis-1,3-Dichloropropene	10061-01-5	1.0	< 1.0
trans-1,3-Dichloropropene	10061-02-6	1.0	< 1.0
Ethylbenzene	100-41-4	1.0	< 1.0
2-Hexanone	591-78-6	10	< 10
Methylene chloride	75-09-2	10	< 10
4-Methyl-2-Pentanone	108-10-1	10	< 10
Styrene	100-42-5	1.0	< 1.0
1,1,2,2-Tetrachloroethane	79-34-5	1.0	< 1.0
Tetrachlorethene	127-18-4	1.0	< 1.0
Toluene	108-88-3	1.0	< 1.0
1,1,1-Trichloroethane	71-55-6	1.0	< 1.0
1,1,2-Trichloroethane	79-00-5	1.0	< 1.0
Trichloroethene	79-01-6	1.0	< 1.0
Trichlorofluoromethane	75-69-4	1.0	< 1.0
Vinyl acetate	108-05-4	10	< 10
Vinyl chloride	75-01-4	1.0	< 1.0
o-Xylene	1330-20-7	1.0	< 1.0
m,p-Xylene*	1330-20-7	2.0	< 2.0



Alden Analytical
Laboratories, Inc.

REPORT OF ANALYTICAL RESULTS

Client: Tetra Tech
Client Sample Number: N/A
Date of Sample Receipt: N/A
Date of Sample Extraction: N/A
Date of Sample Analysis: 10/11/91

Alden Job Number: 9110013/1
Alden Sample Number: Blank
Analysis Method: EPA 624
Matrix: Water
Reporting Units: ug/L

Surrogate	Amount Added	Percent Recovery	Recovery Limits
1,2-Dichloroethane-d ₄	250 ng	85	76 - 114
Toluene-d ₈	250 ng	108	88 - 110
Bromofluorobenzene	250 ng	95	86 - 115

* m-Xylene and p-xylene cannot be separated and are reported here as a total of the two isomers.



Alden Analytical
Laboratories, Inc.

REPORT OF ANALYTICAL RESULTS

Client: Tetra Tech
Client Sample Number: W14
Date of Sample Receipt: 10/8/91
Date of Sample Extraction: N/A
Date of Sample Analysis: 10/11/91

Alden Job Number: 9110013/1
Alden Sample Number: 8716G
Analysis Method: EPA 624
Matrix: Water
Reporting Units: ug/L

Compound Name	CAS No.	Reporting Limit	Result
Acetone	67-64-1	10	< 10
Benzene	71-43-2	1.0	< 1.0
Bromodichloromethane	75-27-4	1.0	< 1.0
Bromoform	75-25-2	1.0	< 1.0
Bromomethane	74-83-9	1.0	< 1.0
2-Butanone	78-93-3	10	< 10
Carbon disulfide	75-15-0	1.0	< 1.0
Carbon tetrachloride	56-23-5	1.0	< 1.0
Chlorobenzene	108-90-7	1.0	< 1.0
Chloroethane	75-00-3	1.0	< 1.0
Chloroform	67-66-3	1.0	< 1.0
Chloromethane	74-87-3	1.0	< 1.0
Dibromochloromethane	124-48-1	1.0	< 1.0
1,2-Dichlorobenzene	95-50-1	1.0	< 1.0
1,3-Dichlorobenzene	541-73-1	1.0	< 1.0
1,4-Dichlorobenzene	106-46-7	1.0	< 1.0
1,1-Dichloroethane	75-34-3	1.0	< 1.0
1,2-Dichloroethane	107-06-2	1.0	< 1.0
1,1-Dichloroethene	75-35-4	1.0	< 1.0
cis-1,2-Dichloroethene	156-60-5	1.0	< 1.0
trans-1,2-Dichloroethene	156-60-5	1.0	< 1.0
1,2-Dichloropropane	78-87-5	1.0	< 1.0
cis-1,3-Dichloropropene	10061-01-5	1.0	< 1.0
trans-1,3-Dichloropropene	10061-02-6	1.0	< 1.0
Ethylbenzene	100-41-4	1.0	< 1.0
2-Hexanone	591-78-6	10	< 10
Methylene chloride	75-09-2	10	< 10
4-Methyl-2-Pentanone	108-10-1	10	< 10
Styrene	100-42-5	1.0	< 1.0
1,1,2,2-Tetrachloroethane	79-34-5	1.0	< 1.0
Tetrachlorethene	127-18-4	1.0	< 1.0
Toluene	108-88-3	1.0	< 1.0
1,1,1-Trichloroethane	71-55-6	1.0	< 1.0
1,1,2-Trichloroethane	79-00-5	1.0	< 1.0
Trichloroethene	79-01-6	1.0	< 1.0
Trichlorofluoromethane	75-69-4	1.0	< 1.0
Vinyl acetate	108-05-4	10	< 10
Vinyl chloride	75-01-4	1.0	< 1.0
o-Xylene	1330-20-7	1.0	< 1.0
m,p-Xylene*	1330-20-7	1.0	< 1.0



Alden Analytical
Laboratories, Inc.

REPORT OF ANALYTICAL RESULTS

Client: Tetra Tech
Client Sample Number: W14
Date of Sample Receipt: 10/8/91
Date of Sample Extraction: N/A
Date of Sample Analysis: 10/11/91

Alden Job Number: 9110013/1
Alden Sample Number: 8716G
Analysis Method: EPA 624
Matrix: Water
Reporting Units: ug/L

Surrogate	Amount Added	Percent Recovery	Recovery Limits
1,2-Dichloroethane-d ₄	250 ng	91	76 - 114
Toluene-d ₈	250 ng	93	88 - 110
Bromofluorobenzene	250 ng	95	86 - 115

* m-Xylene and p-xylene cannot be separated and are reported here as a total of the two isomers.



Alden Analytical
Laboratories, Inc.

REPORT OF ANALYTICAL RESULTS

Client: Tetra-Tech
Client Sample Number: W14
Date of Sample Receipt: 10/8/91
Date of Sample Extraction: N/A
Date of Sample Analysis: 10/11/91

Alden Job Number: 9110013/1
Alden Sample Number: 87161
Analysis Method: EPA 624
Matrix: Water
Reporting Units: ug/L

Compound Name	CAS No.	Reporting Limit	Result
Acetone	67-64-1	10	< 10
Benzene	71-43-2	1.0	< 1.0
Bromodichloromethane	75-27-4	1.0	< 1.0
Bromoform	75-25-2	1.0	< 1.0
Bromomethane	74-83-9	1.0	< 1.0
2-Butanone	78-93-3	10	< 10
Carbon disulfide	75-15-0	1.0	< 1.0
Carbon tetrachloride	56-23-5	1.0	< 1.0
Chlorobenzene	108-90-7	1.0	< 1.0
Chloroethane	75-00-3	1.0	< 1.0
Chloroform	67-66-3	1.0	< 1.0
Chloromethane	74-87-3	1.0	< 1.0
Dibromochloromethane	124-48-1	1.0	< 1.0
1,2-Dichlorobenzene	95-50-1	1.0	< 1.0
1,3-Dichlorobenzene	541-73-1	1.0	< 1.0
1,4-Dichlorobenzene	106-46-7	1.0	< 1.0
1,1-Dichloroethane	75-34-3	1.0	< 1.0
1,2-Dichloroethane	107-06-2	1.0	< 1.0
1,1-Dichloroethene	75-35-4	1.0	< 1.0
cis-1,2-Dichloroethene	156-60-5	1.0	< 1.0
trans-1,2-Dichloroethene	156-60-5	1.0	< 1.0
1,2-Dichloropropane	78-87-5	1.0	< 1.0
cis-1,3-Dichloropropene	10061-01-5	1.0	< 1.0
trans-1,3-Dichloropropene	10061-02-6	1.0	< 1.0
Ethylbenzene	100-41-4	1.0	< 1.0
2-Hexanone	591-78-6	10	< 10
Methylene chloride	75-09-2	10	< 10
4-Methyl-2-Pentanone	108-10-1	10	< 10
Styrene	100-42-5	1.0	< 1.0
1,1,2,2-Tetrachloroethane	79-34-5	1.0	< 1.0
Tetrachlorethene	127-18-4	1.0	< 1.0
Toluene	108-88-3	1.0	< 1.0
1,1,1-Trichloroethane	71-55-6	1.0	< 1.0
1,1,2-Trichloroethane	79-00-5	1.0	< 1.0
Trichloroethene	79-01-6	1.0	< 1.0
Trichlorofluoromethane	75-69-4	1.0	< 1.0
Vinyl acetate	108-05-4	10	< 10
Vinyl chloride	75-01-4	1.0	< 1.0
o-Xylene	1330-20-7	1.0	< 1.0
m,p-Xylene*	1330-20-7	1.0	< 1.0



Alden Analytical
Laboratories, Inc.

REPORT OF ANALYTICAL RESULTS

Client: Tetra Tech
Client Sample Number: W14
Date of Sample Receipt: 10/8/91
Date of Sample Extraction: N/A
Date of Sample Analysis: 10/11/91

Alden Job Number: 9110013/1
Alden Sample Number: 8716I
Analysis Method: EPA 624
Matrix: Water
Reporting Units: ug/L

Surrogate	Amount Added	Percent Recovery	Recovery Limits
1,2-Dichloroethane-d ₄	250 ng	90	76 - 114
Toluene-d ₈	250 ng	101	88 - 110
Bromofluorobenzene	250 ng	96	86 - 115

* m-Xylene and p-xylene cannot be separated and are reported here as a total of the two isomers.



Alden Analytical
Laboratories, Inc.

REPORT OF ANALYTICAL RESULTS

Client: Tetra Tech
Client Sample Number: N/A
Date of Sample Receipt: N/A
Date of Sample Extraction: N/A
Date of Sample Analysis: 10/17/91

Alden Job Number: 9110024/1
Alden Sample Number: Blank
Analysis Method: EPA 624
Matrix: Water
Reporting Units: ug/L

Compound Name	CAS No.	Reporting Limit	Result
Acetone	67-64-1	10	< 10
Benzene	71-43-2	1.0	< 1.0
Bromodichloromethane	75-27-4	1.0	< 1.0
Bromoform	75-25-2	1.0	< 1.0
Bromomethane	74-83-9	1.0	< 1.0
2-Butanone	78-93-3	10	< 10
Carbon disulfide	75-15-0	1.0	< 1.0
Carbon tetrachloride	56-23-5	1.0	< 1.0
Chlorobenzene	108-90-7	1.0	< 1.0
Chloroethane	75-00-3	1.0	< 1.0
Chloroform	67-66-3	1.0	< 1.0
Chloromethane	74-87-3	1.0	< 1.0
Dibromochloromethane	124-48-1	1.0	< 1.0
1,2-Dichlorobenzene	95-50-1	1.0	< 1.0
1,3-Dichlorobenzene	541-73-1	1.0	< 1.0
1,4-Dichlorobenzene	106-46-7	1.0	< 1.0
1,1-Dichloroethane	75-34-3	1.0	< 1.0
1,2-Dichloroethane	107-06-2	1.0	< 1.0
1,1-Dichloroethene	75-35-4	1.0	< 1.0
cis-1,2-Dichloroethene	156-60-5	1.0	< 1.0
trans-1,2-Dichloroethene	156-60-5	1.0	< 1.0
1,2-Dichloropropane	78-87-5	1.0	< 1.0
cis-1,3-Dichloropropene	10061-01-5	1.0	< 1.0
trans-1,3-Dichloropropene	10061-02-6	1.0	< 1.0
Ethylbenzene	100-41-4	1.0	< 1.0
2-Hexanone	591-78-6	10	< 10
Methylene chloride	75-09-2	10	< 10
4-Methyl-2-Pentanone	108-10-1	10	< 10
Styrene	100-42-5	1.0	< 1.0
1,1,2,2-Tetrachloroethane	79-34-5	1.0	< 1.0
Tetrachlorethene	127-18-4	1.0	< 1.0
Toluene	108-88-3	1.0	< 1.0
1,1,1-Trichloroethane	71-55-6	1.0	< 1.0
1,1,2-Trichloroethane	79-00-5	1.0	< 1.0
Trichloroethene	79-01-6	1.0	< 1.0
Trichlorofluoromethane	75-69-4	1.0	< 1.0
Vinyl acetate	108-05-4	10	< 10
Vinyl chloride	75-01-4	1.0	< 1.0
o-Xylene	1330-20-7	1.0	< 1.0
m,p-Xylene *	1330-20-7	1.0	< 1.0



Alden Analytical
Laboratories, Inc.

REPORT OF ANALYTICAL RESULTS

Client: Tetra Tech
Client Sample Number: N/A
Date of Sample Receipt: N/A
Date of Sample Extraction: N/A
Date of Sample Analysis: 10/17/91

Alden Job Number: 9110024/1
Alden Sample Number: Blank
Analysis Method: EPA 624
Matrix: Water
Reporting Units: ug/L

Surrogate	Amount Added	Percent Recovery	Recovery Limits
1,2-Dichloroethane-d ₄	250 ng	86	76 - 114
Toluene-d ₈	250 ng	104	88 - 110
Bromofluorobenzene	250 ng	95	86 - 115

* m-Xylene and p-xylene cannot be separated and are reported here as a total of the two isomers.



Alden Analytical
Laboratories, Inc.

REPORT OF ANALYTICAL RESULTS

Client: Tetra Tech
Client Sample Number: W6
Date of Sample Receipt: 10/15/91
Date of Sample Extraction: N/A
Date of Sample Analysis: 10/17/91

Alden Job Number: 9110024/1
Alden Sample Number: 8789G
Analysis Method: EPA 624
Matrix: Water
Reporting Units: ug/L

Compound Name	CAS No.	Reporting Limit	Result
Acetone	67-64-1	10	< 10
Benzene	71-43-2	1.0	< 1.0
Bromodichloromethane	75-27-4	1.0	< 1.0
Bromoform	75-25-2	1.0	< 1.0
Bromomethane	74-83-9	1.0	< 1.0
2-Butanone	78-93-3	10	< 10
Carbon disulfide	75-15-0	1.0	< 1.0
Carbon tetrachloride	56-23-5	1.0	< 1.0
Chlorobenzene	108-90-7	1.0	< 1.0
Chloroethane	75-00-3	1.0	< 1.0
Chloroform	67-66-3	1.0	< 1.0
Chloromethane	74-87-3	1.0	< 1.0
Dibromochloromethane	124-48-1	1.0	< 1.0
1,2-Dichlorobenzene	95-50-1	1.0	< 1.0
1,3-Dichlorobenzene	541-73-1	1.0	< 1.0
1,4-Dichlorobenzene	106-46-7	1.0	< 1.0
1,1-Dichloroethane	75-34-3	1.0	< 1.0
1,2-Dichloroethane	107-06-2	1.0	< 1.0
1,1-Dichloroethene	75-35-4	1.0	< 1.0
cis-1,2-Dichloroethene	156-60-5	1.0	< 1.0
trans-1,2-Dichloroethene	156-60-5	1.0	< 1.0
1,2-Dichloropropane	78-87-5	1.0	< 1.0
cis-1,3-Dichloropropene	10061-01-5	1.0	< 1.0
trans-1,3-Dichloropropene	10061-02-6	1.0	< 1.0
Ethylbenzene	100-41-4	1.0	< 1.0
2-Hexanone	591-78-6	10	< 10
Methylene chloride	75-09-2	10	< 10
4-Methyl-2-Pentanone	108-10-1	10	< 10
Styrene	100-42-5	1.0	< 1.0
1,1,2,2-Tetrachloroethane	79-34-5	1.0	< 1.0
Tetrachlorethene	127-18-4	1.0	< 1.0
Toluene	108-88-3	1.0	< 1.0
1,1,1-Trichloroethane	71-55-6	1.0	< 1.0
1,1,2-Trichloroethane	79-00-5	1.0	< 1.0
Trichloroethene	79-01-6	1.0	< 1.0
Trichlorofluoromethane	75-69-4	1.0	< 1.0
Vinyl acetate	108-05-4	10	< 10
Vinyl chloride	75-01-4	1.0	< 1.0
o-Xylene	1330-20-7	1.0	< 1.0
m,p-Xylene*	1330-20-7	1.0	< 1.0



Alden Analytical
Laboratories, Inc.

REPORT OF ANALYTICAL RESULTS

Client: Tetra Tech
Client Sample Number: W6
Date of Sample Receipt: 10/15/91
Date of Sample Extraction: N/A
Date of Sample Analysis: 10/17/91

Alden Job Number: 9110024/1
Alden Sample Number: 8789G
Analysis Method: EPA 624
Matrix: Water
Reporting Units: ug/L

Surrogate	Amount Added	Percent Recovery	Recovery Limits
1,2-Dichloroethane-d ₄	250 ng	89	76 - 114
Toluene-d ₈	250 ng	100	88 - 110
Bromofluorobenzene	250 ng	97	86 - 115

* m-Xylene and p-xylene cannot be separated and are reported here as a total of the two isomers.

SECTION D
AOX (WATER)

WEYERHAEUSER TECHNOLOGY CENTER
Analytical Laboratories
Tacoma, Washington

Service Request 06856
Page 1

REPORT

Alden Analytical Labs - AOX PO# 911000111

<u>Sample Description</u>	<u>Analytical Lab Code</u>	<u>AOX (µg/L)</u>
W42 8574 9/25/91	78820	10
W45 8570F 9/29/91	78821	15
W37 8615E 9/28/91	78911	20
W36 8617 9/28/91	78912	35
W39 8619 9/27/91	78913	15
W33 8625 9/30/91	78914	25
W26 8669E 10/02/91	79258	25
<i>duplicates</i> W52 8670E 10/02/91	79259	30
W30 8671 10/01/91	79260	20
W22 8678 10/03/91	79261	40
W24 8679 10/03/91	79262	<5
W14 8716F 10/06/91	79393	45
W17 8717 10/06/91	79394	45
W20 8718 10/04/91	79395	60; 60
W12 8773 10/09/91	79694	55
W5 8774 10/09/91	79695	255; 200*

* Sample 79695 contained solids. The AOX value on the filtered sample was 35µg/L.

Approved



Date

25 Oct 91

WEYERHAEUSER TECHNOLOGY CENTER
Analytical Laboratories
Tacoma, Washington

Service Request 06983
Page 1

REPORT

Alden Analytical Labs - AOX
PO#9110024/1

	<u>Sample Designation</u>	<u>Analytical Lab Code</u>	<u>AOX (µg/L)</u>
W6	8789F 10/10/91	79972	250
W11	8780 10/12/91	79973	50; 40
W13	8781 10/11/91	79974	40; 50

Approved



Date 31 Oct 91

WEYERHAEUSER TECHNOLOGY CENTER
Analytical Laboratories
Tacoma, Washington

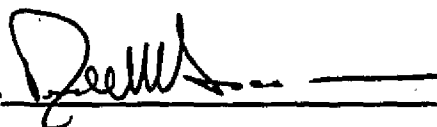
Service Request 07024
Page 1

REPORT

Alden Analytical Water For AOX

	<u>Sample Designation</u>	<u>Analytical Lab Code</u>	<u>AOX µg/L</u>
W35	8853	80161	20

Approved



Date 30 Oct 91

SECTION E
METALS (WATER)

PRECISION ANALYTICS, INC.



Page 2

N.E. 2345 Hopkins Court • Pullman, WA 99163
TEL. (509) 332-0928
FAX (509) 332-0666

Customer Sample Number: W43
Lab File ID: 1474TTI011
Matrix: Water

Analysis: METALS

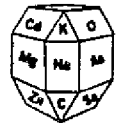
ANALYTE	CONCENTRATION ug/L (ppb)	Q
Silver	2.0	U
Aluminum	1300.0	
Arsenic	5.0	U
Barium	22.0	
Beryllium	5.0	U
Cadmium	0.5	U
Chromium	5.0	U
Copper	6.0	
Iron	1800.0	
Mercury	0.5	U
Nickel	40.0	U
Lead	1.0	U
Antimony	150.0	U
Selenium	5.0	U
Thallium	360.0	U
Zinc	20.0	U

Customer Sample Number: W42
Lab File ID: 1474TTI012
Matrix: Water

Analysis: METALS

ANALYTE	CONCENTRATION ug/L (ppb)	Q
Silver	2.0	U
Aluminum	1100.0	
Arsenic	5.0	U
Barium	32.0	
Beryllium	5.0	U
Cadmium	0.5	U
Chromium	5.0	U
Copper	5.0	U
Iron	1300.0	
Mercury	0.5	U
Nickel	40.0	U
Lead	1.0	U
Antimony	15.0	U
Selenium	5.0	U
Thallium	36.0	U
Zinc	77.0	

PRECISION ANALYTICS, INC.



Page 3

N.E. 2345 Hopkins Court - Pullman, WA 99163
TEL. (509) 332-0928
FAX (509) 332-0666

Customer Sample Number: W41
Lab File ID: 1474TTI013
Matrix: water

Analysis: METALS

ANALYTE	CONCENTRATION ug/L (ppb)	Q
Silver	2.0	U
Aluminum	260.0	
Arsenic	5.0	U
Barium	21.0	
Beryllium	5.0	U
Cadmium	0.5	U
Chromium	5.0	U
Copper	5.0	U
Iron	250.0	
Mercury	0.5	U
Nickel	40.0	U
Lead	2.1	
Antimony	15.0	U
Selenium	5.0	U
Thallium	36.0	U
Zinc	20.0	U

Customer Sample Number: W46
Lab File ID: 1474TTI014
Matrix: Water

Analysis: METALS

ANALYTE	CONCENTRATION ug/L (ppb)	Q
Silver	2.0	U
Aluminum	220.0	
Arsenic	5.0	U
Barium	28.0	
Beryllium	5.0	U
Cadmium	0.5	U
Chromium	5.0	U
Copper	5.0	U
Iron	300.0	
Mercury	0.5	U
Nickel	40.0	U
Lead	1.0	
Antimony	15.0	U
Selenium	5.0	U
Thallium	36.0	U
Zinc	33.0	

PRECISION ANALYTICS, INC.



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N.E. 2345 Hopkins Court • Pullman, WA 99163
TEL (509) 332-0928
FAX (509) 332-0666

Customer Sample Number: W44
Lab File ID: 1474TTI015
Matrix: Water

Analysis: METALS

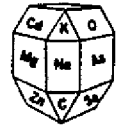
ANALYTE	CONCENTRATION ug/L (ppb)	Q
Silver	2.0	U
Aluminum	250.0	
Arsenic	5.0	U
Barium	27.0	
Beryllium	5.0	U
Cadmium	0.5	U
Chromium	5.0	U
Copper	5.0	U
Iron	320.0	
Mercury	0.5	U
Nickel	40.0	U
Lead	1.0	U
Antimony	15.0	U
Selenium	5.0	U
Thallium	36.0	U
Zinc	20.0	U

Customer Sample Number: W45
Lab File ID: 1474TTI016
Matrix: Water

Analysis: METALS

ANALYTE	CONCENTRATION ug/L (ppb)	Q
Silver	2.0	U
Aluminum	270.0	
Arsenic	5.0	U
Barium	28.0	
Beryllium	5.0	U
Cadmium	0.5	U
Chromium	5.0	U
Copper	5.0	U
Iron	310.0	
Mercury	0.5	U
Nickel	40.0	U
Lead	1.0	U
Antimony	15.0	U
Selenium	5.0	U
Thallium	36.0	U
Zinc	20.0	U

PRECISION ANALYTICS, INC.



Page 5

N.E. 2345 Hopkins Court • Pullman, WA 99163
TEL (509) 332-0928
FAX (509) 332-0666

Customer Sample Number: W31
Lab File ID: 1486TTI016
Matrix: water

Analysis: METALS
ANALYTE

	CONCENTRATION	Q
	ug/L (ppb)	
Silver	2.0	U
Aluminum	540.0	
Arsenic	5.0	U
Barium	82.0	
Beryllium	5.0	U
Cadmium	0.5	U
Chromium	42.0	
Copper	47.0	
Iron	670.0	
Mercury	0.5	U
Nickel	40.0	
Lead	1.0	
Antimony	150.0	U
Selenium	5.0	U
Thallium	360.0	U
Zinc	62.0	

Customer Sample Number: W32
Lab File ID: 1486TTI017
Matrix: Water

Analysis: METALS
ANALYTE

	CONCENTRATION	Q
	ug/L (ppb)	
Silver	2.0	U
Aluminum	540.0	
Arsenic	5.0	U
Barium	81.0	
Beryllium	5.0	U
Cadmium	0.5	U
Chromium	40.0	
Copper	47.0	
Iron	620.0	
Mercury	0.5	U
Nickel	43.0	
Lead	1.5	
Antimony	150.0	U
Selenium	5.0	U
Thallium	360.0	U
Zinc	69.0	

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Customer Sample Number: W33
Lab File ID: 1486TTI018
Matrix: Water

Analysis: METALS
ANALYTE

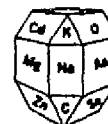
	CONCENTRATION	Q
	ug/L (ppb)	
Silver	2.0	U
Aluminum	220.0	
Arsenic	5.0	U
Barium	25.0	
Beryllium	5.0	U
Cadmium	0.5	U
Chromium	5.0	U
Copper	5.0	U
Iron	160.0	
Mercury	0.5	U
Nickel	40.0	U
Lead	1.6	
Antimony	15.0	U
Selenium	5.0	U
Thallium	36.0	U
Zinc	20.0	U

Customer Sample Number: W34
Lab File ID: 1486TTI019
Matrix: Water

Analysis: METALS
ANALYTE

	CONCENTRATION	Q
	ug/L (ppb)	
Silver	2.0	U
Aluminum	220.0	
Arsenic	5.0	U
Barium	26.0	
Beryllium	5.0	U
Cadmium	0.5	U
Chromium	5.0	U
Copper	5.0	U
Iron	110.0	
Mercury	0.5	U
Nickel	40.0	U
Lead	2.4	
Antimony	15.0	U
Selenium	5.0	U
Thallium	36.0	U
Zinc	27.0	

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Customer Sample Number: w36
Lab File ID: 1486TTI020
Matrix: Water

Analysis: METALS
ANALYTE

	CONCENTRATION	Q
	ug/L (ppb)	
Silver	2.0	U
Aluminum	370.0	
Arsenic	5.0	U
Barium	23.0	
Beryllium	5.0	U
Cadmium	0.5	U
Chromium	5.0	U
Copper	5.0	U
Iron	460.0	
Mercury	0.5	U
Nickel	40.0	U
Lead	1.0	U
Antimony	150.0	U
Selenium	5.0	U
Thallium	360.0	U
Zinc	20.0	

Customer Sample Number: W37
Lab File ID: 1486TTI021
Matrix: Water

Analysis: METALS
ANALYTE

	CONCENTRATION	Q
	ug/L (ppb)	
Silver	2.0	U
Aluminum	450.0	
Arsenic	5.0	U
Barium	20.0	
Beryllium	5.0	U
Cadmium	3.5	
Chromium	5.5	
Copper	5.0	U
Iron	500.0	
Mercury	0.5	U
Nickel	40.0	U
Lead	1.9	
Antimony	150.0	U
Selenium	5.0	U
Thallium	360.0	U
Zinc	20.0	U

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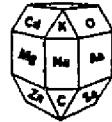
FAX (509) 332-0666

Customer Sample Number: W39
Lab File ID: 1486TTI022
Matrix: Water

Analysis: METALS
ANALYTE

	CONCENTRATION	Q
	ug/L (ppb)	
Silver	2.0	U
Aluminum	250.0	U
Arsenic	5.0	U
Barium	27.0	U
Beryllium	5.0	U
Cadmium	0.5	U
Chromium	5.0	U
Copper	13.0	U
Iron	190.0	U
Mercury	0.5	U
Nickel	40.0	U
Lead	3.7	U
Antimony	15.0	U
Selenium	5.0	U
Thallium	36.0	U
Zinc	61.0	U

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Customer Sample Number: W26
Lab File ID: 1502TTI001
Matrix: water

Analysis: METALS
ANALYTE

	CONCENTRATION	Q
	ug/L (ppb)	
Silver	2.0	U
Aluminum	210.0	
Arsenic	5.0	U
Barium	30.0	
Beryllium	5.0	U
Cadmium	0.5	U
Chromium	5.0	U
Copper	7.0	
Iron	550.0	
Mercury	0.5	U
Nickel	40.0	U
Lead	9.0	
Antimony	15.0	U
Selenium	31.7	
Thallium	36.0	U
Zinc	20.0	U

Customer Sample Number: W23
Lab File ID: 1502TTI002
Matrix: water

Analysis: METALS
ANALYTE

	CONCENTRATION	Q
	ug/L (ppb)	
Silver	2.0	U
Aluminum	230.0	
Arsenic	5.0	U
Barium	29.0	
Beryllium	5.0	U
Cadmium	0.5	U
Chromium	5.0	U
Copper	8.0	
Iron	580.0	
Mercury	0.5	U
Nickel	40.0	U
Lead	8.8	
Antimony	15.0	U
Selenium	16.0	
Thallium	36.0	U
Zinc	20.0	U

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Customer Sample Number: W52
Lab File ID: 1502TTI003
Matrix: Water

Analysis: METALS
ANALYTE

ANALYTE	CONCENTRATION ug/L (ppb)	Q
Silver	2.0	U
Aluminum	190.0	
Arsenic	5.0	U
Barium	30.0	
Beryllium	5.0	U
Cadmium	0.5	U
Chromium	5.0	U
Copper	5.0	U
Iron	460.0	
Mercury	0.5	U
Nickel	40.0	U
Lead	6.0	
Antimony	15.0	U
Selenium	11.5	
Thallium	36.0	U
Zinc	20.0	U

Customer Sample Number: W48
Lab File ID: 1502TTI004
Matrix: Water

Analysis: METALS
ANALYTE

ANALYTE	CONCENTRATION ug/L (ppb)	Q
Silver	2.0	U
Aluminum	220.0	
Arsenic	5.0	U
Barium	36.0	
Beryllium	5.0	U
Cadmium	0.5	U
Chromium	5.0	U
Copper	6.0	
Iron	510.0	
Mercury	0.5	U
Nickel	40.0	U
Lead	4.9	
Antimony	15.0	U
Selenium	5.6	
Thallium	36.0	U
Zinc	20.0	U

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Customer Sample Number: W30
Lab File ID: 1502TTI005
Matrix: Water

Analysis: METALS
ANALYTE

	CONCENTRATION	Q
	ug/L (ppb)	
Silver	2.0	U
Aluminum	210.0	
Arsenic	5.0	U
Barium	34.0	
Beryllium	5.0	U
Cadmium	0.5	U
Chromium	5.0	U
Copper	11.0	
Iron	620.0	
Mercury	0.5	U
Nickel	40.0	U
Lead	5.1	
Antimony	15.0	U
Selenium	5.9	
Thallium	36.0	U
Zinc	20.0	U

Customer Sample Number: W29
Lab File ID: 1502TTI006
Matrix: Water

Analysis: METALS
ANALYTE

	CONCENTRATION	Q
	ug/L (ppb)	
Silver	2.0	U
Aluminum	270.0	
Arsenic	5.0	U
Barium	31.0	
Beryllium	5.0	U
Cadmium	0.5	U
Chromium	5.0	U
Copper	5.0	
Iron	570.0	
Mercury	0.5	U
Nickel	40.0	U
Lead	4.0	
Antimony	15.0	U
Selenium	5.0	U
Thallium	36.0	U
Zinc	20.0	U

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Customer Sample Number: W28
Lab File ID: 1502TTI007
Matrix: Water

Analysis: METALS

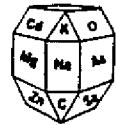
ANALYTE	CONCENTRATION ug/L (ppb)	Q
Silver	2.0	U
Aluminum	250.0	
Arsenic	5.0	U
Barium	28.0	
Beryllium	5.0	U
Cadmium	2.9	
Chromium	5.0	U
Copper	54.0	
Iron	470.0	
Mercury	0.5	U
Nickel	40.0	U
Lead	3.9	
Antimony	15.0	U
Selenium	5.0	U
Thallium	36.0	U
Zinc	20.0	U

Customer Sample Number: W27
Lab File ID: 1502TTI008
Matrix: Water

Analysis: METALS

ANALYTE	CONCENTRATION ug/L (ppb)	Q
Silver	2.0	U
Aluminum	230.0	
Arsenic	5.0	U
Barium	30.0	
Beryllium	5.0	U
Cadmium	0.5	U
Chromium	5.0	U
Copper	5.0	U
Iron	370.0	
Mercury	0.5	U
Nickel	40.0	U
Lead	3.0	
Antimony	15.0	U
Selenium	5.0	U
Thallium	36.0	U
Zinc	20.0	U

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Customer Sample Number: W25
Lab File ID: 1502TTI009
Matrix: Water

Analysis: METALS
ANALYTE

	CONCENTRATION	Q
	ug/L (ppb)	
Silver	2.0	U
Aluminum	240.0	
Arsenic	5.0	U
Barium	31.0	
Beryllium	5.0	U
Cadmium	0.5	U
Chromium	5.0	U
Copper	5.0	U
Iron	410.0	
Mercury	0.5	U
Nickel	40.0	U
Lead	5.2	
Antimony	15.0	U
Selenium	5.0	U
Thallium	36.0	U
Zinc	20.0	U

Customer Sample Number: W22
Lab File ID: 1502TTI010
Matrix: Water

Analysis: METALS
ANALYTE

	CONCENTRATION	Q
	ug/L (ppb)	
Silver	2.0	U
Aluminum	220.0	
Arsenic	5.0	U
Barium	29.0	
Beryllium	5.0	U
Cadmium	1.2	
Chromium	5.0	U
Copper	5.0	U
Iron	400.0	
Mercury	0.5	U
Nickel	40.0	U
Lead	2.3	
Antimony	15.0	U
Selenium	5.0	U
Thallium	36.0	U
Zinc	20.0	U

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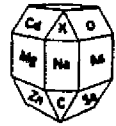
FAX (509) 332-0666

Customer Sample Number: W24
Lab File ID: 1502TTI011
Matrix: Water

Analysis: METALS
ANALYTE

ANALYTE	CONCENTRATION ug/L (ppb)	Q
Silver	2.0	U
Aluminum	210.0	U
Arsenic	5.0	U
Barium	10.0	U
Beryllium	5.0	U
Cadmium	0.5	U
Chromium	5.0	U
Copper	5.0	U
Iron	410.0	U
Mercury	0.5	U
Nickel	40.0	U
Lead	2.2	U
Antimony	15.0	U
Selenium	5.0	U
Thallium	36.0	U
Zinc	20.0	U

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Customer Sample Number: W14
Lab File ID: 1507TTI001
Matrix: Water

Analysis: METALS

ANALYTE	CONCENTRATION ug/L (ppb)	Q
Silver	2.0	U
Aluminum	250.0	
Arsenic	5.0	U
Barium	28.0	
Beryllium	5.0	U
Cadmium	0.5	U
Chromium	5.0	U
Copper	5.0	U
Iron	510.0	
Mercury	0.5	U
Nickel	40.0	U
Lead	2.4	
Antimony	15.0	U
Selenium	5.0	U
Thallium	36.0	U
Zinc	20.0	U

Customer Sample Number: W15
Lab File ID: 1507TTI002
Matrix: Water

Analysis: METALS

ANALYTE	CONCENTRATION ug/L (ppb)	Q
Silver	2.0	U
Aluminum	230.0	
Arsenic	5.0	U
Barium	28.0	
Beryllium	5.0	U
Cadmium	0.5	U
Chromium	5.0	U
Copper	5.0	U
Iron	520.0	
Mercury	0.5	U
Nickel	40.0	U
Lead	5.0	
Antimony	15.0	U
Selenium	5.0	U
Thallium	36.0	U
Zinc	20.0	U

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Customer Sample Number: W17
Lab File ID: 1507TTI003
Matrix: Water

Analysis: METALS
ANALYTE

	CONCENTRATION	Q
	ug/L (ppb)	
Silver	2.0	U
Aluminum	270.0	U
Arsenic	5.0	U
Barium	27.0	U
Beryllium	5.0	U
Cadmium	0.5	U
Chromium	5.0	U
Copper	5.0	U
Iron	580.0	U
Mercury	0.5	U
Nickel	40.0	U
Lead	4.2	U
Antimony	15.0	U
Selenium	5.0	U
Thallium	36.0	U
Zinc	20.0	U

Customer Sample Number: W18
Lab File ID: 1507TTI004
Matrix: Water

Analysis: METALS
ANALYTE

	CONCENTRATION	Q
	ug/L (ppb)	
Silver	2.0	U
Aluminum	260.0	U
Arsenic	5.0	U
Barium	28.0	U
Beryllium	5.0	U
Cadmium	0.5	U
Chromium	5.0	U
Copper	5.0	U
Iron	530.0	U
Mercury	0.5	U
Nickel	40.0	U
Lead	5.9	U
Antimony	15.0	U
Selenium	5.0	U
Thallium	36.0	U
Zinc	20.0	U

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Customer Sample Number: w19
Lab File ID: 1507TTI005
Matrix: Water

Analysis: METALS
ANALYTE

	CONCENTRATION	Q
	ug/L (ppb)	
Silver	2.0	U
Aluminum	340.0	
Arsenic	5.0	U
Barium	27.0	
Beryllium	5.0	U
Cadmium	0.5	U
Chromium	5.0	U
Copper	5.0	U
Iron	430.0	
Mercury	0.5	U
Nickel	40.0	U
Lead	5.1	
Antimony	15.0	U
Selenium	5.0	U
Thallium	36.0	U
Zinc	20.0	U

Customer Sample Number: W20
Lab File ID: 1507TTI006
Matrix: Water

Analysis: METALS
ANALYTE

	CONCENTRATION	Q
	ug/L (ppb)	
Silver	2.0	U
Aluminum	340.0	
Arsenic	5.0	U
Barium	26.0	
Beryllium	5.0	U
Cadmium	0.5	U
Chromium	5.0	U
Copper	5.0	U
Iron	400.0	
Mercury	0.5	U
Nickel	40.0	U
Lead	4.0	
Antimony	15.0	U
Selenium	5.0	U
Thallium	36.0	U
Zinc	20.0	U

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Customer Sample Number: W21
Lab File ID: 1507TTI007
Matrix: Water

Analysis: METALS
ANALYTE

	CONCENTRATION	Q
	ug/L (ppb)	
Silver	2.0	U
Aluminum	230.0	
Arsenic	5.0	U
Barium	12.0	
Beryllium	5.0	U
Cadmium	0.5	U
Chromium	5.0	U
Copper	9.0	
Iron	220.0	
Mercury	0.5	U
Nickel	40.0	U
Lead	3.9	
Antimony	15.0	U
Selenium	5.0	U
Thallium	36.0	U
Zinc	20.0	U

Customer Sample Number: W49
Lab File ID: 1507TTI008
Matrix: Water

Analysis: METALS
ANALYTE

	CONCENTRATION	Q
	ug/L (ppb)	
Silver	2.0	U
Aluminum	220.0	
Arsenic	5.0	U
Barium	24.0	
Beryllium	5.0	U
Cadmium	0.5	U
Chromium	5.0	U
Copper	10.0	
Iron	300.0	
Mercury	0.5	U
Nickel	40.0	U
Lead	3.0	
Antimony	150.0	U
Selenium	5.0	U
Thallium	360.0	U
Zinc	20.0	U

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Customer Sample Number: W1
Lab File ID: 1523TTI001
Matrix: Water

Analysis: METALS

ANALYTE	CONCENTRATION ug/L (ppb)	Q
Silver	2.0	U
Aluminum	120.0	U
Arsenic	5.0	U
Barium	14.0	U
Beryllium	5.0	U
Cadmium	0.5	U
Chromium	7.0	U
Copper	5.0	U
Iron	100.0	U
Mercury	0.5	U
Nickel	40.0	U
Lead	1.0	U
Antimony	150.0	U
Selenium	100.0	U
Thallium	360.0	U
Zinc	20.0	U

Customer Sample Number: W5
Lab File ID: 1523TTI002
Matrix: Water

Analysis: METALS

ANALYTE	CONCENTRATION ug/L (ppb)	Q
Silver	2.0	U
Aluminum	450.0	U
Arsenic	5.0	U
Barium	42.0	U
Beryllium	5.0	U
Cadmium	0.5	U
Chromium	5.0	U
Copper	5.0	U
Iron	570.0	U
Mercury	0.5	U
Nickel	40.0	U
Lead	1.0	U
Antimony	150.0	U
Selenium	100.0	U
Thallium	360.0	U
Zinc	20.0	U

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Customer Sample Number: W7
Lab File ID: 1523TTI003
Matrix: Water

Analysis: METALS
ANALYTE

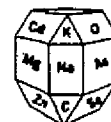
	CONCENTRATION	Q
	ug/L (ppb)	
Silver	2.0	U
Aluminum	480.0	
Arsenic	5.0	U
Barium	38.0	
Beryllium	5.0	U
Cadmium	0.5	U
Chromium	5.0	U
Copper	5.0	U
Iron	580.0	
Mercury	0.5	U
Nickel	40.0	U
Lead	20.0	U
Antimony	150.0	U
Selenium	100.0	U
Thallium	360.0	U
Zinc	20.0	U

Customer Sample Number: W12
Lab File ID: 1523TTI004
Matrix: Water

Analysis: METALS
ANALYTE

	CONCENTRATION	Q
	ug/L (ppb)	
Silver	2.0	U
Aluminum	160.0	
Arsenic	5.0	U
Barium	13.0	
Beryllium	5.0	U
Cadmium	0.5	U
Chromium	5.0	U
Copper	5.0	U
Iron	100.0	U
Mercury	0.5	U
Nickel	40.0	U
Lead	1.0	U
Antimony	15.0	U
Selenium	5.0	U
Thallium	36.0	U
Zinc	20.0	U

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Customer Sample Number: W10
Lab File ID: 1527TTI002
Matrix: Water

Analysis: METALS

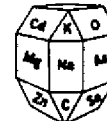
ANALYTE	CONCENTRATION ug/L (ppb)	Q
Silver	2.0	U
Aluminum	220.0	
Arsenic	5.0	U
Barium	25.0	
Beryllium	5.0	U
Cadmium	0.5	U
Chromium	5.0	U
Copper	5.0	U
Iron	160.0	
Mercury	0.5	U
Nickel	40.0	U
Lead	1.0	U
Antimony	15.0	U
Selenium	100.0	U
Thallium	36.0	U
Zinc	20.0	U

Customer Sample Number: W11
Lab File ID: 1527TTI003
Matrix: Water

Analysis: METALS

ANALYTE	CONCENTRATION ug/L (ppb)	Q
Silver	2.0	U
Aluminum	220.0	
Arsenic	5.0	U
Barium	26.0	
Beryllium	5.0	U
Cadmium	0.5	U
Chromium	5.0	U
Copper	5.0	U
Iron	110.0	
Mercury	0.5	U
Nickel	40.0	U
Lead	1.0	U
Antimony	15.0	U
Selenium	100.0	U
Thallium	36.0	U
Zinc	27.0	

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Customer Sample Number: W4
Lab File ID: 1529TTI001
Matrix: Water

Analysis: METALS
ANALYTE

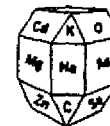
	CONCENTRATION	Q
	ug/L (ppb)	
Silver	2.0	U
Aluminum	370.0	
Arsenic	5.0	U
Barium	23.0	
Beryllium	5.0	U
Cadmium	5.0	U
Chromium	5.0	U
Copper	5.0	U
Iron	460.0	
Mercury	0.5	U
Nickel	40.0	U
Lead	20.0	U
Antimony	150.0	U
Selenium	5.0	U
Thallium	360.0	U
Zinc	20.0	

Customer Sample Number: W6
Lab File ID: 1529TTI002
Matrix: Water

Analysis: METALS
ANALYTE

	CONCENTRATION	Q
	ug/L (ppb)	
Silver	2.0	U
Aluminum	450.0	
Arsenic	5.0	U
Barium	20.0	
Beryllium	5.0	U
Cadmium	5.0	U
Chromium	5.5	
Copper	5.0	U
Iron	500.0	
Mercury	0.5	U
Nickel	40.0	U
Lead	1.0	U
Antimony	150.0	U
Selenium	100.0	U
Thallium	360.0	U
Zinc	20.0	U

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Customer Sample Number: W8
Lab File ID: 1529TTI003
Matrix: Water

Analysis: METALS
ANALYTE

	CONCENTRATION	Q
	ug/L (ppb)	
Silver	2.0	U
Aluminum	340.0	
Arsenic	5.0	U
Barium	24.0	
Beryllium	5.0	U
Cadmium	5.0	U
Chromium	5.0	U
Copper	5.0	U
Iron	420.0	
Mercury	0.5	U
Nickel	40.0	U
Lead	1.0	U
Antimony	150.0	U
Selenium	100.0	U
Thallium	360.0	U
Zinc	20.0	U

Customer Sample Number: W9
Lab File ID: 1529TTI004
Matrix: Water

Analysis: METALS
ANALYTE

	CONCENTRATION	Q
	ug/L (ppb)	
Silver	2.0	U
Aluminum	490.0	
Arsenic	5.0	U
Barium	17.0	
Beryllium	5.0	U
Cadmium	5.0	U
Chromium	5.0	U
Copper	5.0	U
Iron	520.0	
Mercury	0.5	U
Nickel	40.0	U
Lead	1.0	U
Antimony	15.0	U
Selenium	100.0	U
Thallium	36.0	U
Zinc	84.0	

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Customer Sample Number: W13
Lab File ID: 1529TTI006
Matrix: Water

Analysis: METALS

ANALYTE	CONCENTRATION ug/L (ppb)	Q
Silver	2.0	U
Aluminum	240.0	
Arsenic	5.0	U
Barium	25.0	
Beryllium	5.0	U
Cadmium	5.0	U
Chromium	5.0	U
Copper	10.0	
Iron	210.0	
Mercury	0.5	U
Nickel	40.0	U
Lead	1.0	U
Antimony	15.0	U
Selenium	100.0	U
Thallium	36.0	U
Zinc	20.0	U

Customer Sample Number: W50
Lab File ID: 1529TTI007
Matrix: Water

Analysis: METALS

ANALYTE	CONCENTRATION ug/L (ppb)	Q
Silver	20.0	U
Aluminum	400.0	
Arsenic	5.0	U
Barium	27.0	
Beryllium	5.0	U
Cadmium	5.0	U
Chromium	5.0	U
Copper	5.0	U
Iron	450.0	
Mercury	0.5	U
Nickel	40.0	U
Lead	1.0	U
Antimony	150.0	U
Selenium	100.0	U
Thallium	360.0	U
Zinc	20.0	U

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Customer Sample Number: w2
Lab File ID: 1538TTI001
Matrix: Water

Analysis: METALS

ANALYTE	CONCENTRATION ug/L (ppb)	Q
Silver	2.0	U
Aluminum	270.0	
Arsenic	5.0	U
Barium	19.0	
Beryllium	5.0	U
Cadmium	5.0	U
Chromium	5.0	U
Copper	11.0	
Iron	370.0	
Mercury	0.5	U
Nickel	40.0	U
Lead	20.0	U
Antimony	150.0	U
Selenium	100.0	U
Thallium	360.0	U
Zinc	20.0	U

Customer Sample Number: W3
Lab File ID: 1538TTI002
Matrix: Water

Analysis: METALS

ANALYTE	CONCENTRATION ug/L (ppb)	Q
Silver	2.0	U
Aluminum	1300.0	
Arsenic	5.0	U
Barium	22.0	
Beryllium	5.0	U
Cadmium	5.0	U
Chromium	5.0	U
Copper	5.0	U
Iron	1800.0	
Mercury	0.5	U
Nickel	40.0	U
Lead	20.0	U
Antimony	150.0	U
Selenium	100.0	U
Thallium	360.0	U
Zinc	20.0	U

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Customer Sample Number: W16
Lab File ID: 1538TTI003
Matrix: Water

Analysis: METALS

ANALYTE	CONCENTRATION ug/L (ppb)	Q
Silver	2.0	U
Aluminum	1100.0	
Arsenic	5.0	U
Barium	32.0	
Beryllium	5.0	U
Cadmium	0.5	U
Chromium	5.0	U
Copper	5.0	U
Iron	1300.0	
Mercury	0.5	U
Nickel	40.0	U
Lead	2.0	
Antimony	15.0	U
Selenium	5.0	U
Thallium	36.0	U
Zinc	77.0	

Customer Sample Number: W35
Lab File ID: 1538TTI004
Matrix: Water

Analysis: METALS

ANALYTE	CONCENTRATION ug/L (ppb)	Q
Silver	2.0	U
Aluminum	260.0	
Arsenic	5.0	U
Barium	21.0	
Beryllium	5.0	U
Cadmium	0.5	U
Chromium	5.0	U
Copper	5.0	U
Iron	250.0	
Mercury	0.5	U
Nickel	40.0	U
Lead	1.0	U
Antimony	15.0	U
Selenium	5.0	U
Thallium	36.0	U
Zinc	20.0	U

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Customer Sample Number: W38
Lab File ID: 1538TTI005
Matrix: Water

Analysis: METALS

ANALYTE	CONCENTRATION ug/L (ppb)	Q
Silver	2.0	U
Aluminum	220.0	
Arsenic	5.0	U
Barium	28.0	
Beryllium	5.0	U
Cadmium	0.5	U
Chromium	5.0	U
Copper	5.0	U
Iron	300.0	
Mercury	0.5	U
Nickel	40.0	U
Lead	1.0	U
Antimony	15.0	U
Selenium	5.0	U
Thallium	36.0	U
Zinc	33.0	

Customer Sample Number: W40
Lab File ID: 1538TTI006
Matrix: Water

Analysis: METALS

ANALYTE	CONCENTRATION ug/L (ppb)	Q
Silver	2.0	U
Aluminum	250.0	
Arsenic	5.0	U
Barium	27.0	
Beryllium	5.0	U
Cadmium	0.5	U
Chromium	5.0	U
Copper	5.0	U
Iron	320.0	
Mercury	0.5	U
Nickel	40.0	U
Lead	1.0	U
Antimony	15.0	U
Selenium	5.0	U
Thallium	36.0	U
Zinc	20.0	U

SECTION F
TOC/TSS/HARDNESS (WATER)



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**Final Report
Laboratory Analysis of Selected Parameters**

Matrix: SEDIMENT

Data Release Authorized: *[Signature]*
Report Prepared: November 25, 1991

Project No: 9109034/1
Columbia River
QC Report No: ALDEN-9147
Date Received: 10/1/91

Sample Data:		DATE OF ANALYSIS		
		10/22/91	10/18/91	10/31/91
Lab ID	Sample Number	SOLIDS (%)	AVS (mg/kg)	TOC (mg/kg)
SEDIMENT SAMPLES				
9147 A	8567 C,D	84.20%	< 0.3	< 432
9147 B	8568 C,D	63.55%	< 0.6	7,315
9147 C	8569 C,D	77.50%	< 0.3	< 432
9147 E	8571 C,D	74.27%	< 0.2	589
9147 F	8572 C,D	67.47%	< 0.5	4,488
9147 G	8575 C,D	89.15%	< 0.2	(776)
9147 H	8576 C,D	65.74%	< 0.5	4,665
9147 I	8577 C,D	74.04%	< 0.4	702
9147 J	8578 C,D	48.96%	6.0	51,154
9147 K	8579 C,D	49.57%	(15.4)	30,042
AQUEOUS SAMPLE				(mg/l)
9147 D	8570 E	-	-	< 2.41

E/2
D36
E/13
D39
D40
E14
D37
D38
D41
D35

W45

Method Blank Analysis:			SEDIMENT	AQUEOUS
Sample Number	SOLIDS (%)	AVS (mg S)	TOC (mg/kg)	TOC (mg/l)
Method Blank 1	-	< 0.001	< 432	< 2.41
Detection Limit:	-	0.001	432	2.41

Check Standard:				
	(%)	(mg/kg)	(mg/kg)	(mg/l)
Measured Value	-	0.042	1,922	4.32
"True" Value	-	0.0477	2,000	5.00
% Recovery	-	88.05%	96.10%	86.40%

Duplicate Analysis:				
	(%)	(mg/kg)	(mg/kg)	(mg/l)
Original	-	15.4	776	< 2.41
Duplicate	-	21.8	786	< 2.41
RSD	-	24.34%	0.91%	-

Spike Analysis:				
	(%)	(mg/kg)	(mg/kg)	(mg/l)
Original	-	-	776	< 2.41
Spike	-	-	8,371	16.13
Spike level	-	-	6,672	20.00
% Recovery	-	-	113.83%	80.65%

Comments:

112.19
to ok



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**Final Report
Laboratory Analysis of Selected Parameters**

Matrix: SEDIMENT

Data Release Authorized: *M. J. [Signature]*
Report Prepared: November 25, 1991

Project No: 9110001/1
Columbia River
QC Report No: ALDEN-9162
Date Received: 10/2/91

Sample Data:		DATE OF ANALYSIS		
		11/7/91	11/5-7/91	11/8/91
Lab ID	Sample Number	SOLIDS (%)	AVS (mg/kg)	TOC (mg/kg)
SEDIMENT SAMPLES				
D34 9162 A	8610 C,D	73.36%	<0.4	2,070
D33 9162 B	8611 C,D	68.46%	<0.7	4,832
D31 9162 C	8612 C,D	66.12%	<0.6	4,289
D30 9162 D	8613 C,D	54.18%	<0.8	5,834
D29 9162 E	8614 C,D	70.06%	<0.5	4,102
E11 9162 F	8616 C,D	61.44%	<0.6	6,355
D32 9162 G	8618 C,D	71.48%	<0.3	2,449
E7 9162 H	8620 C,D	55.22%	<0.9	6,809
D24 9162 I	8621 C,D	52.85%	<0.8	7,495
D27 9162 J	8622 C,D	70.78%	<0.5	4,075
D26 9162 K	8623 C,D	72.68%	<0.5	1,946
D25 9162 L	8624 C,D	56.81%	<0.5	5,123
D28 9162 M	8627 C,D	64.96%	<0.5	7,180
D42 9162 N	8628 C,D	63.78%	<0.6	5,865
E10 9162 O	8629 C,D	72.18%	<0.5	3,802
AQUEOUS SAMPLE				(mg/l)
W37 9162 P	8615 F	-	-	<2.41

Method Blank Analysis:

Sample Number	SOLIDS (%)	AVS (mg S)	SEDIMENT	AQUEOUS
			TOC (mg/kg)	TOC (mg/l)
Method Blank 1	-	<0.001	276	<2.41
Detection Limit :	-	0.001	187	2.41

Check Standard:

	(%)	(mg/kg)	(mg/kg)	(mg/l)
Measured Value	-	0.156	1,787	4.32
"True" Value	-	0.461	2,000	5.00
% Recovery	-	33.84%	89.35%	86.40%

Duplicate Analysis:

	(%)	(mg/kg)	(mg/kg)	(mg/l)
Original	-	<0.3	3802	<2.41
Duplicate	-	<0.3	3673	<2.41
RSD	-	-	2.44%	-

Spike Analysis:

	(%)	(mg/kg)	(mg/kg)	(mg/l)
Original	-	<0.5	3,802	<2.41
Spike	-	81.2	8,938	16.96
Spike level	-	175.7	5,575	20.00
% Recovery	-	46.20%	92.13%	84.80%

Comments:

IB 46.22 *IB 95.92*
ok *ok*



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**Final Report
Laboratory Analysis of Selected Parameters**

Matrix: SEDIMENT

Project No: 9110010/1

Columbia River

QC Report No: ALDEN-9193

Date Received: 10/7/91

Data Release Authorized: *MM*
Report Prepared: November 25, 1991

E8
D22
D21
D20
D23
D43
D19
D18
E7
W26

Sample Data:		DATE OF ANALYSIS		
		11/13/91	11/12/91	11/8/91
Lab ID	Sample Number	SOLIDS (%)	AVS (mg/kg)	TOC (mg/kg)
SEDIMENT SAMPLES				
9193 B	8672 C,D	79.13%	< 0.4	1,676
9193 C	8673 C,D	44.56%	4.8	15,424
9193 D	8674 C,D	52.03%	0.7	8,669
9193 E	8675 C,D	52.24%	0.6	8,486
9193 F	8676 C,D	53.70%	< 0.9	6,873
9193 G	8677 C,D	53.99%	< 0.8	6,575
9193 H	8680 C,D	68.47%	< 0.3	1,821
9193 I	8681 C,D	65.85%	< 0.5	6,875
9193 J	8682 C,D	76.16%	0.6	< 257
AQUEOUS SAMPLE				
9193 A	8669 F	-	-	< 2.41

Method Blank Analysis:

Sample Number	SOLIDS (%)	AVS (mg S)	SEDIMENT	AQUEOUS
			TOC (mg/kg)	TOC (mg/l)
Method Blank 1	-	< 0.001	257	< 2.41
Detection Limit :	-	0.001	257	2.41

Check Standard:

	(%)	(mg/kg)	(mg/kg)	(mg/l)
Measured Value	-	0.156	1,741	4.32
"True" Value	-	0.461	2,000	5.00
% Recovery	-	33.84%	87.05%	86.40%

Duplicate Analysis:

	(%)	(mg/kg)	(mg/kg)	(mg/l)
Original	-	4.8	1676	< 2.41
Duplicate	-	6.6	1773	< 2.41
RSD	-	22.15%	3.98%	-

Spike Analysis:

	(%)	(mg/kg)	(mg/kg)	(mg/l)
Original	-	4.8	1,676	< 2.41
Spike	-	179.0	6,531	17.07
Spike level	-	266.1	5,193	20.00
% Recovery	-	65.46%	93.49%	85.35%

Comments:



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**Final Report
Laboratory Analysis of Selected Parameters**

Matrix: SEDIMENT

Project No: 9110013/1
Columbia River
QC Report No: ALDEN-9196
Date Received: 10/8/91

Data Release Authorized: *M. J. Sullivan*
Report Prepared: November 25, 1991

Sample Data:		DATE OF ANALYSIS		
		11/18/91	11/14/91	11/10-12/91
Lab ID	Sample Number	SOLIDS (%)	AVS (mg/kg)	TOC (mg/kg)
SEDIMENT SAMPLES				
D14 9196 B	8719 C,D	59.94%	<0.6	2,567
D15 9196 C	8720 C,D	59.98%	<0.8	6,796
D16 9196 D	8721 C,D	46.12%	<0.7	7,296
D17 9196 E	8722 C,D	61.67%	<0.5	4,491
D13 9196 F	8723 C,D	60.35%	<0.7	3,664
D44 9196 G	8724 C,D	62.15%	<0.5	4,223
E5 9196 H	8725 C,D	85.64%	<0.5	259
E6 9196 I	8726 C,D	74.29%	<0.4	3,068
AQUEOUS SAMPLE				(mg/l)
W14 9196 A	8716 E	-	-	<2.41

Method Blank Analysis:			SEDIMENT	AQUEOUS
Sample Number	SOLIDS (%)	AVS (mg S)	TOC (mg/kg)	TOC (mg/l)
Method Blank 1	-	<0.001	276	<2.41
Detection Limit:	-	0.001	187	2.41

Check Standard:				
	(%)	(mg/kg)	(mg/kg)	(mg/l)
Measured Value	-	0.197	1,787	4.32
"True" Value	-	0.444	2,000	5.00
% Recovery	-	44.37%	89.35%	86.40%

Duplicate Analysis:				
	(%)	(mg/kg)	(mg/kg)	(mg/l)
Original	-	<0.7	2567	<2.41
Duplicate	-	<0.6	2692	<2.41
RSD	-	-	3.36%	-

Spike Analysis:				
	(%)	(mg/kg)	(mg/kg)	(mg/l)
Original	-	<0.5	2,567	<2.41
Spike	-	373.9	7,573	16.73
Spike Level	-	406.9	4,813	20.00
% Recovery	-	91.89%	104.01%	83.65%

Comments:



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**Final Report
Laboratory Analysis of Selected Parameters**

Matrix: SEDIMENT

Data Release Authorized: *M. [Signature]*
Report Prepared: November 25, 1991

Project No: 9110020/1
Columbia River
QC Report No: ALDEN-9233
Date Received: 10/11/91

Sample Data:			DATE OF ANALYSIS		
			11/19/91	11/15/91	11/19/91
Lab ID	Sample Number	SOLIDS (%)	AVS (mg/kg)	TOC (mg/kg)	
SEDIMENT SAMPLES					
D1	9233 A	8766 C,D	44.96%	61.9	13,642
D2	9233 B	8767 C,D	40.45%	101.9	16,312
D4	9233 C	8768 C,D	48.15%	89.9	11,282
D10	9233 D	8769 C,D	53.99%	< 0.6	7,872
D12	9233 E	8771 C,D	51.87%	< 0.7	7,725
D45	9233 F	8772 C,D	52.43%	1.4	8,100
D46	9233 G	8775 C,D	61.79%	41.5	5,991
E1	9233 H	8776 C,D	73.15%	20.7	1,309
E2	9233 I	8777 C,D	69.56%	< 0.5	1,012
D3	9233 J	8778 C,D	61.79%	3.2	5,977
D11	9233 K	8770 C,D	53.75%	11.2	7,909

Method Blank Analysis:				SEDIMENT
Sample Number	SOLIDS (%)	AVS (mg S)	TOC (mg/kg)	
Method Blank 1	-	< 0.001	298	
Detection Limit:	-	0.001	233	

Check Standard:			
	(%)	(mg/kg)	(mg/kg)
Measured Value	-	0.059	2,060
"True" Value	-	0.087	2,000
% Recovery	-	67.82%	103.00%

Duplicate Analysis:			
	(%)	(mg/kg)	(mg/kg)
Original	-	61.9	16,312
Duplicate	-	66.9	16,862
RSD	-	5.44%	2.34%

Spike Analysis:			
	(%)	(mg/kg)	(mg/kg)
Original	-	3.2	16,312
Spike	-	58.4	29,252
Spike level	-	208.6	10,526
% Recovery	-	26.50%	122.93%

Comments:



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**Final Report
Laboratory Analysis of Selected Parameters**

Matrix: SEDIMENT

Data Release Authorized: *M. Sullivan*
Report Prepared: November 25, 1991

Project No: 9110024/1
Columbia River
QC Report No: ALDEN-9252
Date Received: 10/15/91

Sample Data:		DATE OF ANALYSIS			
		11/19/91	11/15-18/91	11/18/91	
Lab ID	Sample Number	SOLIDS (%)	AVS (mg/kg)	TOC (mg/kg)	
SEDIMENT SAMPLES					
D5 D6 D7 D8 D9 E3 E4 W6	9252 B	8792 C,D	64.90%	< 0.5	3,690
	9252 C	8793 C,D	63.28%	< 0.5	4,576
	9252 D	8794 C,D	66.69%	< 0.4	3,513
	9252 E	8795 C,D	66.64%	< 0.4	2,552
	9252 F	8796 C,D	62.81%	< 0.5	5,113
	9252 G	8797 C,D	74.93%	109.8	2,075
	9252 H	8798 C,D	74.94%	< 0.5	< 502
AQUEOUS SAMPLE					
	9252 A	8789 E	-	-	0.75

Method Blank Analysis:		SEDIMENT		AQUEOUS
Sample Number	SOLIDS (%)	AVS (mg S)	TOC (mg/kg)	TOC (mg/l)
Method Blank 1	-	< 0.001	316	< 0.37
Detection Limit:	-	0.001	502	0.37

Check Standard:		(%)	(mg/kg)	(mg/kg)	(mg/l)
Measured Value	-	0.210	1,966	4.44	
"True" Value	-	0.405	2,000	5.00	
% Recovery	-	51.85%	98.30%	88.80%	

Duplicate Analysis:		(%)	(mg/kg)	(mg/kg)	(mg/l)
Original	-	109.8	4576	0.75	
Duplicate	-	87.7	4605	0.62	
RSD	-	15.85%	0.45%	13.42%	

Spike Analysis:		(%)	(mg/kg)	(mg/kg)	(mg/l)
Original	-	< 0.5	4,576	0.75	
Spike	-	210.4	11,804	15.49	
Spike Level	-	158.4	6,250	20.00	
% Recovery	-	132.84%	115.65%	73.70%	

Comments:

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Tetra Tech. Inc.
11820 Northup Way. # 100
Bellevue, WA 98005
Attn: Ted Turk

TSS Data & Report
Method: EPA 160.2

Sample ID	Tetra Tech ID #	TSS mg/L (ppm)	
Date: 10/4/91			
Analyst: Mike Pearson			
1474TTI011	W43	3.5	
1474TTI012	W42	5.0	
1474TTI013	W41	8.0	
1474TTI014	W46	6.8	
1474TTI015	W44	6.8	
1474TTI015 DUP	W44	6.5	RPD = 3.8
1474TTI016	W45	7.0	
Blank #1		0.0	
1486TTI016	W31	1.3	
1486TTI017	W32	7.5	
1486TTI018	W33	4.3	
1486TTI019	W34	29.2	
1486TTI020	W36	9.0	
1486TTI021	W37	7.8	
1486TTI021 DUP	W37	7.8	RPD = 0.0
1486TTI022	W39	6.5	
Date of Analysis: 10/5/91			
Analyst: Shane Anderson			
1502TTI001	W26	4.3	
1502TTI002	W23	3.8	
1502TTI003	W52	3.3	
1502TTI004	W48	4.5	
1502TTI005	W30	5.0	
1502TTI006	W29	7.5	
1502TTI007	W28	6.3	
1502TTI007 DUP	W27	6.8	RPD = 7.6
1502TTI008	W27	4.3	
1502TTI009	W25	5.8	
1502TTI010	W22	5.5	
1502TTI011	W24	3.5	
Blank #2		0.0	

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TTI_TSS

Date of Analysis: 10/16/91
Analyst: Mike Baker

Sample ID	Tetra Tech ID #	TSS mg/L (ppm)
1507TTI001	W14	5.8
1507TTI002	W15	3.3
1507TTI003	W17	5.8
1507TTI004	W18	8.8
1507TTI005	W19	9.0
1507TTI006	W20	0.5
1507TTI007	W21	14.3
1507TTI008	W49	4.0
1523TTI001	W1	13.0
1523TTI002	W5	18.8
1523TTI003	W7	20.3
1523TTI004	W12	3.8
1527TTI002	W10	5.3
1527TTI004	W13	5.0
1529TTI001	W4	19.5
1529TTI002	W6	30.0
1527TTI001	W8	16.8
1529TTI004	W9	12.5
1529TTI005	W11	4.0
1527TTI005	W50	16.3
Blank #3		0.0

Date of Analysis: 10/18/91
Analyst: Mike Baker

1538TTI001	W2	27.5	
1538TTI001 DUP	W2	27.8	RPD = 1.1
1538TTI002	W3	60.0	
1538TTI003	W16	45.8	
1538TTI004	W35	6.8	
1538TTI005	W38	5.3	
1538TTI006	W40	18.0	
Blank #4		0.0	

Mike Pearson
Laboratory Supervisor
January 13, 1991

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Tetra Tech. Inc.
 11820 Northup Way. # 100
 Bellevue, WA 98005
 Attn: Ted Turk

Hardness Data & Report
 Analyst: Shane Anderson
 Date of Analysis: 10/21/91
 Method: EPA 130.2

Standardization
 Amount of 1000ppm CaCO₃, ml: 10.00
 Titrant Used, ml: 9.75
 N of Titrant: 0.020
 Control Concentration, ppm: 400

Sample ID	Tetra Tech ID #	ml sample	ml Titrant	Hardness mg/L CaCO ₃	
1474TTI011	W43	25	1.3	53	
1474TTI012	W42	25	1.4	57	
1474TTI013	W41	25	1.45	59	
1474TTI014	W46	25	1.3	53	
1474TTI015	W44	25	1.4	57	
1474TTI016	W45	25	1.5	62	
1474TTI016 DUP	W45	25	1.5	62	RPD = 0.0
Control #1		25	9.9	406	% REC= 101.5
1486TTI016	W31	25	0.25	10	
1486TTI017	W32	25	0.5	21	
1486TTI018	W33	25	1.4	57	
1486TTI019	W34	25	1.65	68	
1486TTI020	W36	25	0.55	23	
1486TTI021	W37	25	1.3	53	
1486TTI022	W39	25	1.35	55	
1486TTI022 DUP	W39	25	1.45	59	RPD = 7.1
1502TTI001	W26	25	1.6	66	
1502TTI002	W23	25	1.3	53	
1502TTI003	W52	25	1.4	57	
1502TTI004	W48	25	1.4	57	
1502TTI005	W30	25	1.3	53	
1502TTI006	W29	25	1.6	66	
1502TTI007	W28	25	1.5	62	
1502TTI008	W27	25	1.5	62	
1502TTI009	W25	25	1.35	55	
1502TTI010	W22	25	1.3	53	
1502TTI010 DUP	W22	25	1.3	53	RPD = 0.0
1502TTI011	W24	25	0.85	35	
Control #2		25	10	410	% REC= 102.6

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 HARDNESS_REPORT

Sample ID	Tetra Tech ID #	ml sample	ml Titrant	Hardness mg/L CaCO ₃	
1507TTI001	W14	25	1.4	57	
1507TTI002	W15	25	1.45	59	
1507TTI003	W17	25	1.55	64	
1507TTI004	W18	25	1.4	57	
1507TTI005	W19	25	1.3	53	
1507TTI006	W20	25	1.5	62	
1507TTI007	W21	25	1.4	57	
1507TTI007 DUP	W21	25	1.4	57	RPD = 0.0
1507TTI008	W49	25	1.4	57	
Control #3		25	9.55	392	% REC= 97.9
1523TTI001	W1	25	129	5292	
1523TTI002	W5	10	14.5	1487	
1523TTI003	W7	25	27	1108	
1523TTI004	W12	10	0.5	51	
1527TTI002	W10	25	1.4	57	
1527TTI004	W13	25	1.35	55	
1529TTI002	W6	25	57.5	2359	
1529TTI003	W8	25	24.1	989	
1529TTI004	W9	25	2.25	92	
1529TTI005	W11	25	1.5	62	
1529TTI007	W50	25	24	985	
1538TTI001	W2	25	64	2626	
1538TTI002	W3	25	36.5	1497	
1538TTI003	W16	25	1.45	59	
1538TTI004	W35	25	1.25	51	
1538TTI005	W38	25	1.5	62	
1538TTI006	W40	25	1.5	62	
Control #4		25	9.85	404	% REC= 101.0

Mike Pearson
 Laboratory Supervisor
 January 13, 1991

SECTION G

NUTRIENTS/FLUORIDE/CYANIDE (WATER)

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Page 2
TTI_PRELIM

Analysis: CHLORIDE

Method: Ion Chromatography - St. Methods 429

Customer Sample ID# Lab ID# Concentration DL

		mg/L (ppm)	
W43	1474TTI011	1.9	0.5
W42	1474TTI012	1.8	0.5
W41	1474TTI013	1.6	0.5
W46	1474TTI014	2.0	0.5
W44	1474TTI015	1.9	0.5
W45	1474TTI016	2.0	0.5
W31	1486TTI016	1.9	0.5
W32	1486TTI017	7.4	0.5
W33	1486TTI018	2.8	0.5
W34	1486TTI019	3.6	0.5
W36	1486TTI020	6.3	0.5
W37	1486TTI021	2.5	0.5
W39	1486TTI022	2.1	0.5
W26	1502TTI001	3.5	0.5
W23	1502TTI002	3.7	0.5
W52	1502TTI003	3.6	0.5
W48	1502TTI004	3.5	0.5
W30	1502TTI005	3.5	0.5
W29	1502TTI006	3.3	0.5
W28	1502TTI007	4.3	0.5
W27	1502TTI008	4.7	0.5
W25	1502TTI009	3.6	0.5
W22	1502TTI010	5.9	0.5
W24	1502TTI011	7.7	0.5
W14	1507TTI001	4.9	0.5
W15	1507TTI002	0.8	0.5
W17	1507TTI003	6.1	0.5
W18	1507TTI004	4.1	0.5
W19	1507TTI005	5.9	0.5
W20	1507TTI006	5.6	0.5
W21	1507TTI007	ND	0.5
W49	1507TTI008	5.2	0.5

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Analysis: CHLORIDE (Continued)
Method: Ion Chromatography - St. Methods 429
Customer Sample ID# Lab ID# Concentration DL
mg/L (ppm)

W1	1523TTI001	14380	500
W5	1523TTI002	2810	100
W7	1523TTI003	3290	100
W12	1523TTI004	5.5	0.5
W8	1527TTI001	2577	500
W10	1527TTI002	7.8	0.5
W50	1527TTI005	3023	100
W4	1529TTI001	6350	250
W6	1529TTI002	8700	250
W9	1529TTI004	129	5
W11	1529TTI005	7.6	0.5
W13	1529TTI006	7.4	0.5
W2	1538TTI001	8220	250
W3	1538TTI002	4430	250
W16	1538TTI003	5.5	0.5
W35	1538TTI004	4.3	0.5
W38	1538TTI005	2.9	0.5
W40	1538TTI006	3.4	0.5

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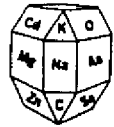
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TTI_PRELIM

Analysis: FLOURIDE

Method: Ion Chromatography - St. Methods 429

Customer Sample ID#	Lab ID#	Concentration mg/L (ppm)	DL
W43	1474TTI011	ND	0.5
W42	1474TTI012	ND	0.5
W41	1474TTI013	ND	0.5
W46	1474TTI014	ND	0.5
W44	1474TTI015	ND	0.5
W45	1474TTI016	ND	0.5
W31	1486TTI016	ND	0.5
W32	1486TTI017	ND	0.5
W33	1486TTI018	ND	0.5
W34	1486TTI019	ND	0.5
W36	1486TTI020	ND	0.5
W37	1486TTI021	ND	0.5
W39	1486TTI022	ND	0.5
W26	1502TTI001	ND	0.5
W23	1502TTI002	ND	0.5
W52	1502TTI003	ND	0.5
W48	1502TTI004	ND	0.5
W30	1502TTI005	ND	0.5
W29	1502TTI006	ND	0.5
W28	1502TTI007	ND	0.5
W27	1502TTI008	ND	0.5
W25	1502TTI009	ND	0.5
W22	1502TTI010	ND	0.5
W24	1502TTI011	ND	0.5
W14	1507TTI001	ND	0.5
W15	1507TTI002	ND	0.5
W17	1507TTI003	ND	0.5
W18	1507TTI004	ND	0.5
W19	1507TTI005	ND	0.5
W20	1507TTI006	ND	0.5
W21	1507TTI007	ND	0.5
W49	1507TTI008	ND	0.5

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TTI_PRELIM

Analysis: FLOURIDE (Continued)
Method: Ion Chromatography - St. Methods 429
Customer Sample ID# Lab ID# Concentration DL
mg/L (ppm)

W1	1523TTI001	ND	0.5
W5	1523TTI002	ND	0.5
W7	1523TTI003	ND	0.5
W12	1523TTI004	ND	0.5
W8	1527TTI001	ND	0.5
W10	1527TTI002	ND	0.5
W50	1527TTI005	ND	0.5
W4	1529TTI001	ND	0.5
W6	1529TTI002	ND	0.5
W9	1529TTI004	ND	0.5
W11	1529TTI005	ND	0.5
W13	1529TTI006	ND	0.5
W2	1538TTI001	ND	0.5
W3	1538TTI002	ND	0.5
W16	1538TTI003	ND	0.5
W35	1538TTI004	ND	0.5
W38	1538TTI005	ND	0.5
W40	1538TTI006	ND	0.5

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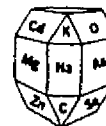
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TTI_PRELIM

Analysis: NITRATE + NITRITE
Method: Ion Chromatography - St. Methods 429
Customer Sample ID# Lab ID# Concentration DL
mg/L (ppm)

W43	1474TTI011	ND	0.5
W42	1474TTI012	ND	0.5
W41	1474TTI013	ND	0.5
W46	1474TTI014	ND	0.5
W44	1474TTI015	ND	0.5
W45	1474TTI016	ND	0.5
W31	1486TTI016	ND	0.5
W32	1486TTI017	1.2	0.5
W33	1486TTI018	ND	0.5
W34	1486TTI019	0.6	0.5
W36	1486TTI020	1.0	0.5
W37	1486TTI021	ND	0.5
W39	1486TTI022	ND	0.5
W26	1502TTI001	ND	0.5
W23	1502TTI002	ND	0.5
W52	1502TTI003	ND	0.5
W48	1502TTI004	ND	0.5
W30	1502TTI005	ND	0.5
W29	1502TTI006	ND	0.5
W28	1502TTI007	ND	0.5
W27	1502TTI008	ND	0.5
W25	1502TTI009	ND	0.5
W22	1502TTI010	ND	0.5
W24	1502TTI011	ND	0.5
W14	1507TTI001	ND	0.5
W15	1507TTI002	ND	0.5
W17	1507TTI003	ND	0.5
W18	1507TTI004	ND	0.5
W19	1507TTI005	ND	0.5
W20	1507TTI006	ND	0.5
W21	1507TTI007	ND	0.5
W49	1507TTI008	ND	0.5

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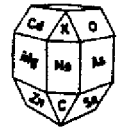
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TTI_PRELIM

Analysis: NITRATE + NITRITE (Continued)
Method: Ion Chromatography - St. Methods 429
Customer Sample ID# Lab ID# Concentration DL
mg/L (ppm)

W1	1523TTI001	24.9	5
W5	1523TTI002	ND	0.5
W7	1523TTI003	ND	0.5
W12	1523TTI004	ND	0.5
W10	1527TTI002	ND	0.5
W13	1527TTI004	ND	0.5
W4	1529TTI001	ND	0.5
W6	1529TTI002	10.0	5
W8	1529TTI003	ND	0.5
W9	1529TTI004	ND	0.5
W11	1529TTI005	ND	0.5
W50	1529TTI007	ND	0.5
W2	1538TTI001	12.2	5
W3	1538TTI002	13.0	5
W16	1538TTI003	ND	0.5
W35	1538TTI004	ND	0.5
W38	1538TTI005	ND	0.5
W40	1538TTI006	ND	0.5

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Analysis: SULFATE

Method: Ion Chromatography - St. Methods 429

Customer Sample ID# Lab ID# Concentration DL
mg/L (ppm)

W43	1474TTI011	10	0.5
W42	1474TTI012	9.7	0.5
W41	1474TTI013	8.8	0.5
W46	1474TTI014	8.6	0.5
W44	1474TTI015	8.8	0.5
W45	1474TTI016	10	0.5
W31	1486TTI016	2.0	0.5
W32	1486TTI017	4.6	0.5
W33	1486TTI018	11	0.5
W34	1486TTI019	9.2	0.5
W36	1486TTI020	4.1	0.5
W37	1486TTI021	11	0.5
W39	1486TTI022	9.5	0.5
W26	1502TTI001	10	0.5
W23	1502TTI002	9.3	0.5
W52	1502TTI003	10	0.5
W48	1502TTI004	10	0.5
W30	1502TTI005	10	0.5
W29	1502TTI006	9.7	0.5
W28	1502TTI007	8.6	0.5
W27	1502TTI008	9.5	0.5
W25	1502TTI009	11	0.5
W22	1502TTI010	12	0.5
W24	1502TTI011	18	0.5
W14	1507TTI001	11	0.5
W15	1507TTI002	1.5	0.5
W17	1507TTI003	12	0.5
W18	1507TTI004	10	0.5
W19	1507TTI005	12	0.5
W20	1507TTI006	13	0.5
W21	1507TTI007	0.9	0.5
W49	1507TTI008	12	0.5

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Analysis: SULFATE (Continued)

Method: Ion Chromatography - St. Methods 429

Customer Sample ID#	Lab ID#	Concentration mg/L (ppm)	DL
W1	1523TTI001	1780	500
W5	1523TTI002	362	100
W7	1523TTI003	431	100
W12	1523TTI004	11	0.5
W8	1527TTI001	393	50
W10	1527TTI002	12	0.5
W50	1527TTI005	383	100
W4	1529TTI001	850	250
W6	1529TTI002	1080	250
W9	1529TTI004	29	5
W11	1529TTI005	13	0.5
W13	1529TTI006	13	0.5
W2	1538TTI001	1070	250
W3	1538TTI002	585	250
W16	1538TTI003	11	0.5
W35	1538TTI004	11	0.5
W38	1538TTI005	12	0.5
W40	1538TTI006	12	0.5

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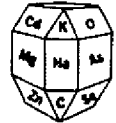
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TTI_PRELIM

Analysis: CYANIDE
Method: EPA 335.2

Customer Sample ID#	Lab ID#	Concentration ug/L (ppb)	DL
W43	1474TTI011	ND	2.0
W42	1474TTI012	ND	2.0
W41	1474TTI013	ND	2.0
W46	1474TTI014	ND	2.0
W44	1474TTI015	ND	2.0
W45	1474TTI016	ND	2.0
W31	1486TTI016	ND	2.0
W32	1486TTI017	ND	2.0
W33	1486TTI018	ND	2.0
W34	1486TTI019	ND	2.0
W36	1486TTI020	ND	2.0
W37	1486TTI021	ND	2.0
W39	1486TTI022	ND	2.0
W26	1502TTI001	ND	2.0
W23	1502TTI002	ND	2.0
W52	1502TTI003	ND	2.0
W48	1502TTI004	ND	2.0
W30	1502TTI005	ND	2.0
W29	1502TTI006	ND	2.0
W28	1502TTI007	ND	2.0
W27	1502TTI008	ND	2.0
W25	1502TTI009	ND	2.0
W22	1502TTI010	ND	2.0
W24	1502TTI011	ND	2.0
W14	1507TTI001	ND	2.0
W15	1507TTI002	ND	2.0
W17	1507TTI003	ND	2.0
W18	1507TTI004	ND	2.0
W19	1507TTI005	ND	2.0
W20	1507TTI006	ND	2.0
W21	1507TTI007	ND	2.0
W49	1507TTI008	ND	2.0

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TTI_PRELIM

Analysis: CYANIDE (Continued)

Method: EPA 335.2

Customer Sample ID#	Lab ID#	Concentration ug/L (ppb)	DL
W1	1523TTI001	ND	2.0
W5	1523TTI002	ND	2.0
W7	1523TTI003	ND	2.0
W12	1523TTI004	ND	2.0
W8	1527TTI001	ND	2.0
W10	1527TTI002	ND	2.0
W50	1527TTI005	ND	2.0
W4	1529TTI001	ND	2.0
W6	1529TTI002	ND	2.0
W9	1529TTI004	ND	2.0
W11	1529TTI005	ND	2.0
W13	1529TTI006	ND	2.0
W2	1538TTI001	ND	2.0
W3	1538TTI002	ND	2.0
W16	1538TTI003	ND	2.0
W35	1538TTI004	ND	2.0
W38	1538TTI005	ND	2.0
W40	1538TTI006	ND	2.0

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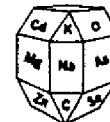
Page 12
TTI PRELIM

Analysis: AMMONIA

Method: Standard Method 417 F

Customer Sample ID#	Lab ID#	Concentration mg/L (ppm)	DL
W43	1474TTI011	ND	0.1
W42	1474TTI012	0.1	0.1
W41	1474TTI013	0.1	0.1
W46	1474TTI014	ND	0.1
W44	1474TTI015	0.1	0.1
W45	1474TTI016	0.1	0.1
W31	1486TTI016	0.1	0.1
W32	1486TTI017	0.1	0.1
W33	1486TTI018	0.1	0.1
W34	1486TTI019	0.1	0.1
W36	1486TTI020	0.1	0.1
W37	1486TTI021	0.1	0.1
W39	1486TTI022	0.1	0.1
W26	1502TTI001	ND	0.1
W23	1502TTI002	0.1	0.1
W52	1502TTI003	0.1	0.1
W48	1502TTI004	0.1	0.1
W30	1502TTI005	0.1	0.1
W29	1502TTI006	0.1	0.1
W28	1502TTI007	0.1	0.1
W27	1502TTI008	0.1	0.1
W25	1502TTI009	ND	0.1
W22	1502TTI010	0.1	0.1
W24	1502TTI011	0.1	0.1
W14	1507TTI001	0.1	0.1
W15	1507TTI002	0.1	0.1
W17	1507TTI003	0.1	0.1
W18	1507TTI004	0.1	0.1
W19	1507TTI005	0.1	0.1
W20	1507TTI006	0.1	0.1
W21	1507TTI007	0.1	0.1
W49	1507TTI008	0.1	0.1

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TTI_PRELIM

Analysis: AMMONIA (Continued)
Method: Standard Method 417 F

Customer Sample ID#	Lab ID#	Concentration mg/L (ppm)	DL
W1	1523TTI001	0.2	0.1
W5	1523TTI002	0.2	0.1
W7	1523TTI003	0.1	0.1
W12	1523TTI004	0.2	0.1
W10	1527TTI002	0.2	0.1
W6	1529TTI002	0.1	0.1
W8	1529TTI003	0.1	0.1
W9	1529TTI004	0.1	0.1
W11	1529TTI005	0.1	0.1
W50	1529TTI007	0.1	0.1
W2	1538TTI001	0.1	0.1
W3	1538TTI002	0.2	0.1
W16	1538TTI003	0.1	0.1
W35	1538TTI004	0.1	0.1
W38	1538TTI005	0.1	0.1
W40	1538TTI006	0.1	0.1

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TTI_PRELIM

Analysis: TKN
Method: EPA 351.4

Customer Sample ID#	Lab ID#	Concentration mg/L (ppm)	DL
W43	1474TTI011	0.3	0.2
W42	1474TTI012	ND	0.2
W41	1474TTI013	ND	0.2
W46	1474TTI014	0.3	0.2
W44	1474TTI015	ND	0.2
W45	1474TTI016	ND	0.2
W31	1486TTI016	ND	0.2
W32	1486TTI017	ND	0.2
W33	1486TTI018	ND	0.2
W34	1486TTI019	ND	0.2
W36	1486TTI020	ND	0.2
W37	1486TTI021	ND	0.2
W39	1486TTI022	ND	0.2
W26	1502TTI001	ND	0.2
W23	1502TTI002	ND	0.2
W52	1502TTI003	ND	0.2
W48	1502TTI004	ND	0.2
W30	1502TTI005	ND	0.2
W29	1502TTI006	ND	0.2
W28	1502TTI007	ND	0.2
W27	1502TTI008	ND	0.2
W25	1502TTI009	ND	0.2
W22	1502TTI010	ND	0.2
W24	1502TTI011	ND	0.2
W14	1507TTI001	ND	0.2
W15	1507TTI002	ND	0.2
W17	1507TTI003	ND	0.2
W18	1507TTI004	0.3	0.2
W19	1507TTI005	ND	0.2
W20	1507TTI006	ND	0.2
W21	1507TTI007	0.3	0.2
W49	1507TTI008	ND	0.2

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TTI_PRELIM

Analysis: TKN (Continued)
Method: EPA 351.4
Customer Sample ID# Lab ID# Concentration mg/L (ppm) DL

W1	1523TTI001	0.3	0.2
W7	1523TTI003	ND	0.2
W12	1523TTI004	ND	0.2
W10	1527TTI002	0.4	0.2
W6	1529TTI002	0.3	0.2
W8	1529TTI003	ND	0.2
W9	1529TTI004	ND	0.2
W11	1529TTI005	ND	0.2
W50	1529TTI007	ND	0.2
W2	1538TTI001	ND	0.2
W3	1538TTI002	ND	0.2
W16	1538TTI003	ND	0.2
W35	1538TTI004	ND	0.2
W38	1538TTI005	ND	0.2
W40	1538TTI006	ND	0.2

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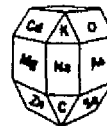


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TTI_PRELIM

Analysis: TOTAL PHOSPHORUS
Method: EPA 365.2

Customer Sample ID#	Lab ID#	Concentration mg/L (ppm)	DL
W43	1474TTI011	0.2	0.2
W42	1474TTI012	ND	0.2
W41	1474TTI013	ND	0.2
W46	1474TTI014	ND	0.2
W44	1474TTI015	ND	0.2
W45	1474TTI016	ND	0.2
W31	1486TTI016	ND	0.2
W32	1486TTI017	ND	0.2
W33	1486TTI018	0.2	0.2
W34	1486TTI019	ND	0.2
W36	1486TTI020	ND	0.2
W37	1486TTI021	ND	0.2
W39	1486TTI022	ND	0.2
W26	1502TTI001	ND	0.2
W23	1502TTI002	ND	0.2
W52	1502TTI003	ND	0.2
W48	1502TTI004	ND	0.2
W30	1502TTI005	ND	0.2
W29	1502TTI006	ND	0.2
W28	1502TTI007	ND	0.2
W27	1502TTI008	ND	0.2
W25	1502TTI009	0.2	0.2
W22	1502TTI010	0.2	0.2
W24	1502TTI011	ND	0.2
W14	1507TTI001	ND	0.2
W15	1507TTI002	ND	0.2
W17	1507TTI003	ND	0.2
W18	1507TTI004	ND	0.2
W19	1507TTI005	ND	0.2
W20	1507TTI006	ND	0.2
W21	1507TTI007	ND	0.2
W49	1507TTI008	ND	0.2

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TTI_PRELIM

Analysis: TOTAL PHOSPHORUS (Continued)

Method: EPA 365.2

Customer Sample ID#	Lab ID#	Concentration mg/L (ppm)	DL
W1	1523TTI001	ND	0.2
W5	1523TTI002	ND	0.2
W7	1523TTI003	ND	0.2
W12	1523TTI004	ND	0.2
W10	1527TTI002	ND	0.2
W13	1527TTI004	ND	0.2
W6	1529TTI002	ND	0.2
W8	1529TTI003	ND	0.2
W9	1529TTI004	ND	0.2
W11	1529TTI005	ND	0.2
W50	1529TTI007	ND	0.2
W2	1538TTI001	ND	0.2
W3	1538TTI002	ND	0.2
W16	1538TTI003	ND	0.2
W35	1538TTI004	ND	0.2
W38	1538TTI005	ND	0.2
W40	1538TTI006	ND	0.2

SECTION H
CONVENTIONALS (WATER; FIELD MEASUREMENTS)



TETRA TECH, INC.

WATER SAMPLE DESCRIPTION LOG COLUMBIA RIVER RECONNAISSANCE SURVEY - 1991

SURVEY AREA: Columbia River

DATE: 9-23-91

STATION: W-41

SAMPLER: _____

SAMPLE NUMBER	TRANSECT POINT	TRANSECT POSITION	SAMPLE DEPTH	TIME (hh:mm)	pH	CONDUCTIVITY	DO (mg/L)	T (°C)	TURBIDITY TRANS.
			1m	B		0.08	9	18.79	-0.005
			2m			0.08	9	18.78	-0.007
			3m			0.08	9	18.81	-0.006
			4m			0.08	9	18.79	-0.005
			5m		7.93	0.08	8.9	18.76	-0.006
			6m			0.08	8.9	18.76	-0.006
			7m			0.08	8.8	18.76	-0.006 -0.010
			8m			0.08	8.6	18.76	-0.006
			9m			0.08	8.8	18.77	-0.007
			9.6-10m			0.08		18.79	-0.004
			11m						-0.007
			Surface				9		
			FL-TSS						
			Metals						
			Cyanide						
			N, P Hardness						
			Turbidity - 5.5, 5.7 NTU (5m)						
			pH 7.93						
<p>Distilled water blanks run after this sample. for BNA's (2L) and volatiles (80 ml) Called Sample W-51</p>									

Suspect turbidity
meter calibrated
incorrectly
LK 9/26/91

RECORDER: _____

SIGNATURE: J. Juh

ORG. CODE: _____

DATE: 9-23-91



TETRA TECH, INC.

WATER SAMPLE DESCRIPTION LOG COLUMBIA RIVER RECONNAISSANCE SURVEY - 1991

SURVEY AREA: LOWER COL. R.

DATE: 9/24/91

STATION: W43

SAMPLER: CTD

SAMPLE NUMBER	TRANSECT POINT	TRANSECT POSITION	SAMPLE DEPTH	TIME (hh:mm)	pH	CTD		CTD	
						CONDUCTIVITY	DO (mg/L)	T (°C)	TURB-T _{1.255}
			SL			0.08	10.1	19.01	-0.004
			1.2			0.08	9.9	19.02	-0.004
			2.2			0.08	9.8	19.02	-0.005
			3.2			0.08	9.9	19.02	-0.005
			4.2			0.08	10.0	19.02	-0.005
			5.2			0.08	10.0	19.02	-0.004
			6.2			0.08	10.0	19.02	-0.004
			7.2			0.08	10.0	19.02	-0.004
			8.2			0.08	10.0	19.02	-0.004
			bottom: 8.8			0.08	10.0	19.02	-0.004

suspect turbidity meter calibrated incorrectly
LK 9/24/91

Turbidity 1.5, 2.0

pH 7.47, 7.62

RECORDER: LK

SIGNATURE: [Signature]

ORG. CODE: T2

DATE: 9/24/91



TETRA TECH, INC.

WATER SAMPLE DESCRIPTION LOG COLUMBIA RIVER RECONNAISSANCE SURVEY - 1991

7.19

SURVEY AREA: LCR - Seg. 4A/E

DATE: 9/25/91

STATION: W42

SAMPLER: GB TD, LK

SAMPLE NUMBER	TRANSECT POINT	TRANSECT POSITION	SAMPLE DEPTH	TIME (hh:mm)	pH	CONDUCTIVITY	DO (mg/L)	T (°C)	TURB
1	3		sfc	1138		0.08	9.3	18.51	
2	3		1.1M			0.08	9.4	18.51	
3	3		2.1			0.08	9.3	18.51	
4	3		3.1			0.08	9.7	18.51	
5	3		4.1	1141		0.08	9.6	18.52	
1	2		sfc	1200		0.08	10.0	18.59	
2	2		1.1M			0.08	9.6	18.59	
3	2		2.1			0.08	9.5	18.60	
4	2		3.1			0.08	9.5	18.59	
5	2		4.1			0.08	9.5	18.59	
6	2		5.1			0.08	9.5	18.59	
7	2		6.1			0.08	9.5	18.59	
8	2		6.7	1207		0.08	9.5	18.59	bot
1	1		sfc	1231		0.08	9.6	18.51	
2	1		1.1			0.08	9.5	18.51	
3	1		2.1			0.08	9.5	18.51	
4	1		3.1			0.08	9.5	18.50	
5	1		4.1			0.08	9.4	18.50	
6	1		5.1			0.08	9.4	18.51	
7	1		6.0			0.08	9.5	18.51	
8	1		7.1			0.08	9.4	18.51	
9	1		8.0			0.08	9.4	18.52	
10	1		9.1			0.08	9.5	18.50	
11	1		10.1			0.08	9.5	18.51	
12	1		11.1			0.08	on	18.51	
13	1		11.9	1240h		0.08	bottom	18.51	

BATTERIES TOO LOW
CANNOT TAKE READING

RECORDER: LK SIGNATURE: Lynne K. New ORG. CODE: T2 DATE: 9/25/91

pH 7.19, 7.32 (duplicates)



**WATER SAMPLE DESCRIPTION LOG
COLUMBIA RIVER RECONNAISSANCE SURVEY - 1991**

SURVEY AREA: 4-B

DATE: 9/26/91

STATION: W45

SAMPLER: TD/GR/LK

SAMPLE NUMBER	TRANSECT POINT	TRANSECT POSITION	SAMPLE DEPTH	TIME (hh:mm)	pH	CONDUCTIVITY	DO (mg/L)	T (°C)	TURB
1	1		sfc	08:06		0.08	9.5	19.04	
2	1		1.1			0.08	9.7	19.05	
3	1		4.2			0.08	9.6	19.05	
4	1		6.1			0.08	9.1	19.05	
5	1		8.1			0.08	9.1	19.05	
6	1		8.7	08:12		0.08	9.2	19.05	
			btm				9.0		
1	2		sfc	08:37		0.08	9.8	19.06	
2	2		1.9			0.08	9.8	19.07	
3	2		4.1			0.08	9.8	19.07	
4	2		5.8			0.08	9.8	19.07	
5	2		8.1	08:41		0.08	9.9	19.07	
1	3		sfc	09:11		0.08	9.7	19.08	
2	3		1.9			0.08	9.7	19.09	
3	3		3.9			0.08	9.7	19.09	
4	3		5.9			0.08	9.8	19.09	
5	3		8.1			0.08	9.8	19.10	
6	3		8.2	09:15		0.08		19.10	

turbidity 3.3, 3.0 (reps)
pH 7.43, 7.52 (dupes)

suspect turbidity meter calibrated incorrectly
LK 9/26/91

RECORDER: TD SIGNATURE: Jord [Signature] ORG. CODE: 12 DATE: 9/25/91
LK Wynne Krasnow



TETRA TECH, INC.

**WATER SAMPLE DESCRIPTION LOG
COLUMBIA RIVER RECONNAISSANCE SURVEY - 1991**

SURVEY AREA: 4B (Wananda) DATE: 9/26/91
 STATION: W544 + W546 SAMPLER: LK, TD, GB

SAMPLE NUMBER	TRANSECT POINT	TRANSECT POSITION	SAMPLE DEPTH	TIME (hh:mm)	pH	CONDUCTIVITY	DO (mg/L)	T (°C)	TURB
1	1		stc	1100		0.08	9.4	19.3	
2	1		3.			0.08	9.4	19.13	
3	1		4.2			0.08	9.5	19.13	
4	1		6.3			0.08	9.5	19.13	
5	1		8.3			0.08	9.4	19.13	
6	1		10.4			0.08	9.4	19.13	
7	1		12.0	1110		0.08	9.4	19.13	
PH	1	7.37	} triplicate measurements on same subsample						
	2	7.48							
	3	7.54							
Turbidity	1	7.5			Recalibrated machine according to machine instructions in earlier measurements may not be accurate				
	2	8.4							

RECORDER: LK SIGNATURE: [Signature] ORG. CODE: T2 DATE: 9/26/91
GB



TETRA TECH, INC.

WATER SAMPLE DESCRIPTION LOG
COLUMBIA RIVER RECONNAISSANCE SURVEY - 1991

SURVEY AREA: 4A LCR

DATE: 9/27/91

STATION: W39

SAMPLER:

SAMPLE NUMBER	TRANSECT POINT	TRANSECT POSITION	SAMPLE DEPTH	TIME (hh:mm)	pH	CONDUCTIVITY	DO (mg/L)	T (°C)	TURB
1	1		sfc	15:00		0.08	9.7	19.15	45
2	1		1.1m		8.1	0.08	9.7	19.15	
3	1		2.1			0.08	9.7	19.15	NTU
4	1		3.3			0.09	9.0	19.15	
5	1		4.2			0.08	9.0	19.15	
6	1		5.3			0.08	9.2	19.15	
7	1		6.4			0.08	9.2	19.15	
8	1		7.3			0.08	9.2	19.15	

RECORDER: TK
LK

SIGNATURE: Wynne Krasinski

ORG. CODE: T2

DATE: 9/27/91



TETRA TECH, INC.

WATER SAMPLE DESCRIPTION LOG COLUMBIA RIVER RECONNAISSANCE SURVEY - 1991

SURVEY AREA: 3B/4A
STATION: W37

DATE: 9/28/91

SAMPLER: GB, TK, LK

SAMPLE NUMBER	TRANSECT POINT	TRANSECT POSITION	SAMPLE DEPTH	TIME (hh:mm)	pH	CONDUCTIVITY	DO (mg/L)	T (°C)	TURB
1	1	N 1018 W 1524	SFC	1251		0.08	9.4	19.04	
2	1		2.0m		8.10	0.08	9.5	19.04	4.7-7.0
3	1		4.0			0.09	9.6	19.04	
4	1		6.1			0.09	9.6	19.04	
5	1		8.0			0.09	9.2	19.04	
6	1		10.1			0.08	9.4	19.04	
7	1		12.2			0.08	9.4	19.04	
8	1		14.2			0.08		19.04	
9	1		16.2			0.08		19.04	
10	1		18.2			0.08		19.04	
Composite = 8.10 Temp. Subsample									
									Composite (2 rep. subsamples)
<hr/>									
1	2	N 106 W 421	SFC ⁰⁵			0.08	9.2	19.10	
2	2		2.0			0.09	9.2	19.11	
3	2		4.0			0.09	9.4	19.11	
4	2		6.1			0.08	9.2	19.11	
5	2		8.1			0.09	9.3	19.11	
6	2		10.1			0.09	9.2	19.08	
7	2		12.1			0.08	9.3	19.08	
8	2		14.1			0.08	9.2	19.08	
9	2		16.1			0.08		19.08	
10	2		18.1			0.08		19.08	

RECORDER: LK SIGNATURE: Tahoy Khayak ORG. CODE: T2 DATE: 9/28/91



WATER SAMPLE DESCRIPTION LOG
COLUMBIA RIVER RECONNAISSANCE SURVEY - 1991

SURVEY AREA: 3B/4A

DATE: 9/28/91

STATION: W37

SAMPLER: GB, TL, LK

(3)

SAMPLE NUMBER	TRANSECT POINT	TRANSECT POSITION	SAMPLE DEPTH	TIME (hh:mm)	pH	CONDUCTIVITY	DO (mg/L)	T (°C)	TURB
1	3	N 45° E 180 W 22.45° 295	SRF			0.08	9.2	19.11	
2	3		2.1			0.09	9.2	19.12	
3	3		4.1			0.09	9.0	19.12	
4	3		6.0			0.09	9.0	19.12	
5	3		8.1			0.08	8.8	19.12	
6	3		10.2			0.08	8.8	19.12	
7	3		11.3	14:21		0.09	8.8	19.12	
8	3								
9	3								
10	3								

RECORDER: UK SIGNATURE: Lynne Krasnow ORG. CODE: T² DATE: 9/28/91
Carol Khayak



**WATER SAMPLE DESCRIPTION LOG
COLUMBIA RIVER RECONNAISSANCE SURVEY - 1991**

SURVEY AREA: 3B

DATE: 9/28/91

STATION: W36

SAMPLER: GB, TK, LK

SAMPLE NUMBER	TRANSECT POINT	TRANSECT POSITION	SAMPLE DEPTH	TIME (hh:mm)	pH	CONDUCTIVITY	DO (mg/L)	T (°C)	TURB
1			Surface	1600		0.02	8.8	17.86	
2			2.0			0.02	8.8	17.82	
3			4.0		7.44	0.02	8.8	17.87	
4			6.0			0.02	8.8	17.87	
5			8.0			0.02	8.8	17.87	
6			10.1			0.03	8.8	17.78	
7			12.2			0.03	8.8	17.77	
8			13.5			0.03	8.8	17.77	
9									

RECORDER: _____ SIGNATURE: Tarong Khongch ORG. CODE: _____ DATE: _____



WATER SAMPLE DESCRIPTION LOG
COLUMBIA RIVER RECONNAISSANCE SURVEY - 1991

SURVEY AREA: 3A/B

DATE: 9/30/91

STATION: W33

SAMPLER: GD, LK, TK, CS

①

SAMPLE NUMBER	TRANSECT POINT	TRANSECT POSITION	SAMPLE DEPTH	TIME (hh:mm)	pH	CONDUCTIVITY	DO (mg/L)	T (°C)	TURB
1	1		5' F	11:35	7.90	1.08	9.0	19.12	
2	1		2.0			0.09	9.0	19.02	
3	1		4.0			0.09	9.0	18.96	
4	1		6.0			0.08	9.0	18.88	
5	1		8.0			0.09	9.0	18.86	
6	1		10.0			0.08	9.0	18.85	
7	1		12.0	11:40		0.08	9.0	18.84	

②

			8' F	11:55		0.08	9.0	19.05	
1			2			0.08	9.0	18.94	
2			4			0.09	9.0	18.91	
3			6			0.09	9.0	18.90	
4			8			0.09	9.0	18.92	
5			10.1			0.09	8.8	18.90	
6			12.1			0.08	8.8	18.90	
7			14.1			0.09		18.90	
8			15.9	12:10		0.09		18.90	
9									

RECORDER: TK

SIGNATURE: Tony Ray

ORG. CODE: TK

DATE: 9/30/91



TETRA TECH, INC.

WATER SAMPLE DESCRIPTION LOG COLUMBIA RIVER RECONNAISSANCE SURVEY - 1991

SURVEY AREA: 3A LCR DATE: 10/1/91
STATION: W28 SAMPLER: CB, GR, MS

SAMPLE NUMBER	TRANSECT POINT	TRANSECT POSITION	SAMPLE DEPTH	TIME (hh:mm)	pH	CONDUCTIVITY	DO (mg/L)	T (°C)	TURB
1			SURFACE	16:15	7.47	.08	8.6	19.01	5 -
2			2m		7.51	.08	8.8	18.97	5 -
3			4m		7.54	.08	10.4*	18.97	5 -
4			6m			.08	10.7*	18.97	
5			8m			.08	10.4*	18.99	
6			10m			.08	10.6*	18.98	
7			12m			.08	10.8*	18.98	
8			14m			.08		18.97	
9			16m			.08		18.97	
10			18m			.08		18.97	
11			20m			.08		18.96	
12			21m			.08		18.96	
<p><i>Note: DO meter does not seem to be functioning because at 4m depth it jumps up by 2-4 mg/L</i></p>									

RECORDER: CB SIGNATURE: Mary Brown ORG. CODE: T-t DATE: 10/1/91



TETRA TECH, INC.

WATER SAMPLE DESCRIPTION LOG COLUMBIA RIVER RECONNAISSANCE SURVEY - 1991

19/2

SURVEY AREA: 3A/2C

DATE: 10/2/91

STATION: W26

SAMPLER: GR, GB, MS

SAMPLE NUMBER	TRANSECT POINT	TRANSECT POSITION	SAMPLE DEPTH	TIME (hh:mm)	pH	CONDUCTIVITY	DO (mg/L)	T (°C)	TURB
1	1	1	SURFACE		8.09	.08	8.2	18.95	4.6
2	1	OR side	2 m		8.13	.08	8.4	18.82	4.7
3	1		4		8.14	.08	8.4	18.76	
4	1		6		measured on composite of all transects	.08	8.2	18.74	
5	1		8			.08	8.2	18.68	
6	1		10			.08	8.0	18.68	
7	1		12			.08	8.0	18.67	
8	1		14	BOTTOM		.08	13m 8.0	18.66	
9	-		16	-					
10	-		18	-					
<hr/>									
1	2	2	Surface			.08	9.0	18.74	
2	2	main channel	2 m			.08	8.6	18.75	
3	2		4			.08	8.4	18.73	
4	2		6			.08	8.2	18.73	
5	2		8			.08	8.2	18.66	
6	2		10			.08	8.4	18.65	
7	2		12			.08	8.0	18.66	
8	2		13			.08	8.0	18.66	

RECORDER: MSR

SIGNATURE: M. Pimental

ORG. CODE: _____

DATE: 10/2/91



WATER SAMPLE DESCRIPTION LOG
COLUMBIA RIVER RECONNAISSANCE SURVEY - 1991

SURVEY AREA: 2C/2B

DATE: 10/5/91

STATION: W19

SAMPLER: SE, MS, OR

SAMPLE NUMBER	TRANSECT POINT	TRANSECT POSITION	SAMPLE DEPTH	TIME (hh:mm)	pH	CONDUCTIVITY	DO (mg/L)	T (°C)	TURB
1	1		Surface	10:00	7.4	.08	9.0	18.05	6.9
2			2 m		7.48	.09	8.9	18.06	6.2
3			4			.09	8.8	18.06	
4			6			.09	8.8	18.06	
5			8			.09	8.8	18.06	
6			10			.09	10.0	18.06	
7			12			.09	9.8	18.06	
8			14			.09		18.06	
9	✓		16			.09		18.06	
10	1		18			.09		18.06	
1	2		Surface	10:39		.09	9.2	18.05	
2			2 m			.09	9.0	18.06	
3			4			.09	8.9	18.05	
4			6			.09	8.8	18.05	
5			8			.09	8.8	18.05	
6			10			.09	8.8	18.06	
7			12			.09	8.8	18.06	
8			13			.09	8.8	18.06	
9	✓		16			.09		18.05	
10	2		18			.09		18.06	

RECORDER: HSA

SIGNATURE: M. Rosenthal

ORG. CODE:

DATE: 10/5/91



TETRA TECH, INC.

WATER SAMPLE DESCRIPTION LOG COLUMBIA RIVER RECONNAISSANCE SURVEY - 1991

SURVEY AREA: 2A/K DATE: 10-6-91
STATION: W14 SAMPLER: SE, GR, MS

SAMPLE NUMBER	TRANSECT POINT	TRANSECT POSITION	SAMPLE DEPTH	TIME (hh:mm)	pH	CONDUCTIVITY	DO (mg/L)	T (°C)	TURB
1	1		Surface		7.74	0.08	8.1	17.91	4.70
2	1		1 m		7.69	0.08	8.1	17.92	4.70
3	1		2			0.08	8.0	17.92	
4	1		3			0.08	8.0	17.92	
5	1		4			0.08	8.0	17.92	
6	1		5			0.08	8.0	17.92	
7	1		6			0.08	8.0	17.92	
1	2		Surface			0.08	8.5	17.98	
2	2		2 m			0.08	8.5	17.99	
3	2		4 m			0.08	8.5	17.98	
4	2		6 m			0.08	8.5	17.97	
5	2		8 m			0.08	8.6	17.98	
6	2		10 m			0.08	8.4	17.97	
7	2		12			0.08	8.6	17.98	
8	2	bottom	13.5			0.08	—	17.98	

RECORDER: SE SIGNATURE: _____ ORG. CODE: _____ DATE: _____



**WATER SAMPLE DESCRIPTION LOG
COLUMBIA RIVER RECONNAISSANCE SURVEY - 1991**

SURVEY AREA: LCR / ~~LA~~ 1A DATE: 10-10-91
 STATION: W4 SAMPLER: SE, TK, CD

SAMPLE NUMBER	TRANSECT POINT	TRANSECT POSITION	SAMPLE DEPTH	TIME (hh:mm)	pH	CONDUCTIVITY (µmhos/cm)	DO (mg/L)	T (°C)	TURB
1			surface	07:58	7.65	9.55	*6.2	15.46	13.0
			1m		7.74	9.71	6.0	15.47	13.2
			2m			9.4	6.0	15.47	
			3m			10.34	5.8	15.41	
			4m			21.42	5.6	13.78	
			5m			26.5	5.6	12.71	
			6m			28.42	5.4	12.13	
			surface			6.2		10/11/91	
			1			6.0			
			2			5.8			
			3			5.8			
			4			5.6			
			5			5.6			
			6			5.8			
						5.8			

*DO readings suspect. Temp. not working on meter. Problem corrected (w/ connections) will repeat measurements tomorrow 10/11/91

RECORDER: SE SIGNATURE: Steve Ellis ORG. CODE: _____ DATE: 10-10-91



TETRATECH, INC.

WATER SAMPLE DESCRIPTION LOG COLUMBIA RIVER RECONNAISSANCE SURVEY - 1991

SURVEY AREA: LCR 1A/1B DATE: 10/10/91
STATION: W6 SAMPLER: SE, TK, CD

SAMPLE NUMBER	TRANSECT POINT	TRANSECT POSITION	SAMPLE DEPTH	TIME (hh:mm)	pH	CONDUCTIVITY	DO (mg/L)	T (°C)	TURB
#1			surface	9:20	*7.83	2.1	6.4	16.8	*15.0
			2		*7.88	2.7	6.0	16.8	*22.0
			4			2.98	6.0	16.8	24.0
			6			3.89	5.8	16.67	
			8			10.7	5.6	15.76	
			10			18.6	5.6	14.24	
			12			19.57	5.6	13.95	
			14			20.6	5.6	13.7	
			16			25.0		13.6	
#2			surface	11:20		4.27	6.4	16.47	
			2			5.85	6.2	16.28	
			4			10.80	6.0	15.30	
			6			14.5	5.8	14.80	
			8			21.6	5.6	13.42	
			10			29.36	5.6	11.62	
			12			29.55	5.6	11.58	
			14			29.73	5.0	11.55	
			16			29.79		11.53	
			18			29.86		11.49	
		19.5			29.78		11.50		
		20							

* for composite

RECORDER: SE SIGNATURE: [Signature] ORG. CODE: _____ DATE: 10-10-91

**WATER SAMPLE DESCRIPTION LOG
COLUMBIA RIVER RECONNAISSANCE SURVEY - 1991**

SURVEY AREA: LCR 1A/1B DATE: 10/10/91
STATION: W6 SAMPLER: SE, TK, CD

SAMPLE NUMBER	TRANSECT POINT	TRANSECT POSITION	SAMPLE DEPTH	TIME (hh:mm)	pH	CONDUCTIVITY	DO (mg/L)	T (°C)	TURB
# 3			surface	11:50		7.6	6.2	16.1	
			1m			12.6	6.2	15.4	
			2			13.3	6.4	14.94	
			2.6			14.12	6.4	14.9	

RECORDER: SE SIGNATURE: *Steve Elliot* ORG. CODE: _____ DATE: 10/10/91

WATER SAMPLE DESCRIPTION LOG
COLUMBIA RIVER RECONNAISSANCE SURVEY - 1991

SURVEY AREA: LCR / 1c Grays Bay DATE: 10/10/91

STATION: W9 SAMPLER: SE, TK, CD

SAMPLE NUMBER	TRANSECT POINT	TRANSECT POSITION	SAMPLE DEPTH	TIME (hh:mm)	pH	CONDUCTIVITY	DO (mg/L)	T (°C)	TURB
			surface	1500	8.09	0.37	6.5	17.39	16.0
			1		8.06	0.40	6.4	17.17	
			2			0.38	6.4	17.11	
			3			0.36	6.4	17.0	
			4			0.35	6.4	16.94	
			4.3			0.35	6.4	16.90	

RECORDER: SE SIGNATURE: Steve Ellis ORG. CODE: _____ DATE: 10-10-91



WATER SAMPLE DESCRIPTION LOG COLUMBIA RIVER RECONNAISSANCE SURVEY - 1991

SURVEY AREA: CCR 1B/1C DATE: 10-10-91
STATION: W8/W50 SAMPLER: SE, TK, CD

SAMPLE NUMBER	TRANSECT POINT	TRANSECT POSITION	SAMPLE DEPTH	TIME (hh:mm)	pH	CONDUCTIVITY	DO (mg/L)	T (°C)	TURB
#1			Surface	16:05	*7.98	8.9	7.0	16.31	*6.8
			2 m		*7.97	10.91	6.8	15.78	*6.5
			4 m			12.49	6.6	15.38	
			6 m			12.79	6.6	15.21	
			8 m			13.05	6.4	15.26	
			10 m			13.44	6.2	15.15	
			12 m			13.55	6.2	15.11	
			14 m			13.65		15.09	
			16 m			13.81		15.12	
			18 m			14.07		15.09	
			19.1 m			14.03		15.09	
#2			Surface	1745		7.72	6.6	17.37	
			2 m			2.94	6.4	17.21	
			4 m			3.58	6.3	17.07	
			6 m			3.52	6.3	17.09	
			8 m			4.35	6.3	16.91	
			10 m			4.55	6.2	16.87	
			12 m			8.94	6.18	16.00	
			14 m			13.80		15.05	
		15 m			14.2		15.02		

* for composite sample

RECORDER: SE SIGNATURE: Steve Ellis ORG. CODE: _____ DATE: 10-10-91



WATER SAMPLE DESCRIPTION LOG
COLUMBIA RIVER RECONNAISSANCE SURVEY - 1991

SURVEY AREA: LCR 1B/1C DATE: 10-10-91
 STATION: WG/W50 SAMPLER: SE, TK CD

SAMPLE NUMBER	TRANSECT POINT	TRANSECT POSITION	SAMPLE DEPTH	TIME (hh:mm)	pH	CONDUCTIVITY	DO (mg/L)	T (°C)	TURB
# 3			Surface	1820		2.74	7.0	17.08	
			2			2.72	6.8	17.07	
			4			2.23	6.6	17.17	
			6			2.23	6.6	17.17	
		(bottom)	6.4			2.25	6.6	17.17	

RECORDER: SE SIGNATURE: Steve Ellis ORG. CODE: _____ DATE: 10/10/91



TETRA TECH, INC.

WATER SAMPLE DESCRIPTION LOG COLUMBIA RIVER RECONNAISSANCE SURVEY - 1991

SURVEY AREA: LCR / 1c DATE: 10/11/91
STATION: W10 SAMPLER: SE, TK, CD

SAMPLE NUMBER	TRANSECT POINT	TRANSECT POSITION	SAMPLE DEPTH	TIME (hr.mm)	pH	CONDUCTIVITY	DO (mg/L)	T (°C)	TURB
1			Surface	1110	7.62	0.08	8.4	16.79	4 NTU
↓			1		7.82	0.09	8.4	16.76	4 NTU
			2			0.09	8.3	16.76	
			3			0.09	8.4	16.76	
			4			0.09	8.4	16.76	
			5			0.09	8.4	16.77	
			6			0.09	8.4	16.76	
			7			0.09	8.35	16.76	
			8			0.09	8.3	16.76	
↓			9			0.09	8.3	16.76	

RECORDER: _____ SIGNATURE: _____ ORG. CODE: _____ DATE: 10-11-91



TETRA TECH, INC.

**WATER SAMPLE DESCRIPTION LOG
COLUMBIA RIVER RECONNAISSANCE SURVEY - 1991**

SURVEY AREA: LER / IC

DATE: 10/11/91

STATION: W13

SAMPLER: SE, TK, CD

SAMPLE NUMBER	TRANSECT POINT	TRANSECT POSITION	SAMPLE DEPTH	TIME (hh:mm)	pH	CONDUCT-IVITY	DO (mg/L)	T (°C)	TURB
1			surface	1742	7.74	0.08	6.40	17.03	3.5
			1		7.76	0.09	6.45	17.05	3.5
			2			0.09	6.50	17.05	
			3			0.09	6.50	17.06	
			4			0.09	6.45	17.06	
			5			0.09	6.50	17.06	
			6			0.09	6.45	17.06	
			7			0.09	6.45	17.07	
			8			0.09	6.50	17.06	
		bottom	9.4			0.09	6.50	17.07	

RECORDER: SB SIGNATURE: [Signature] ORG. CODE: _____ DATE: 10/11/91



WATER SAMPLE DESCRIPTION LOG COLUMBIA RIVER RECONNAISSANCE SURVEY - 1991

SURVEY AREA: LCR / 10 DATE: 10/12/91
 STATION: W11 SAMPLER: SE, TK, CD

SAMPLE NUMBER	TRANSECT POINT	TRANSECT POSITION	SAMPLE DEPTH	TIME (hh:mm)	pH	CONDUCTIVITY	DO (mg/L)	T (°C)	TURB
			surface	13:30	7.73	0.09	9.2	17.29	3.1 NTU
			1		7.75	0.09	9.4	17.22	3.1 NTU
			2			0.09	9.2	17.17	
			3			0.09	9.2	17.13	
			4			0.09	9.2	17.12	
			5			0.09	9.2	17.12	
			6			0.09	9.2	17.11	
		6.6	X			0.09	9.2	17.11	

RECORDER: SE SIGNATURE: Steve Ellis ORG. CODE: _____ DATE: 10/12/91

SECTION I
BACTERIA



Report Date: October 24, 1991

Job#: MG-911016G-3

Attention: Mahmood S. Shivji, PhD.
Tetra Tech, Inc.
11820 Northup Way, Suite 100E
Bellevue, WA 98005-1927

Project#: 8526-06
Project: LCR

SAMPLE INFORMATION:

Date Samples Were Received By Laboratory: 10/16/91

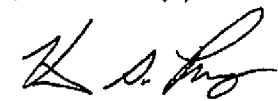
Lab No.	Field Identification	Sample Matrix	Date	Time
1	W2	Waste Water	10-15-91	1256
2	W3	Waste Water	10-15-91	1440
3	W16	Waste Water	10-15-91	1755

ANALYTICAL RESULTS:

PARAMETER	METHOD	DETECTION LIMIT	W2 RESULTS	W3 RESULTS	W16 RESULTS
Fecal Coliform Bacteria	SM 9222D	1			
Rep 1			5	265	50
Rep 2			5	305	60
Enterococcus Bacteria	SM 9230C	1			
Rep 1			175	400	1,300
Rep 2			145	600	700

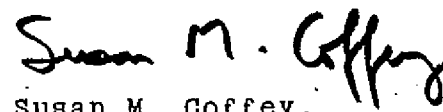
Results expressed as Colonies/100mls.

Sincerely,


Victor A. Perry,
Quality Assurance

SMC/lws

Sincerely,


Susan M. Coffey,
President

This report is for the sole and exclusive use of the above-named client. Samples are retained 15 days from the report date, or until holding time expires. Results pertain only to samples submitted.

COFFEY LABORATORIES, INC.

12423 N.E. Whitaker Way • Portland, OR • 97230 • (503) 254-1794 • FAX (503) 254-1452



Report Date: October 23, 1991

Job#: MG-911016BG-3

Project#: 8526-06

Project: LCR

Attention: Mahmood S. Shivji, PhD.
Tetra Tech, Inc.
11820 Northup Way, Suite 100E
Bellevue, WA 98005-1927

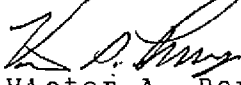
SAMPLE INFORMATION:

Date Samples Were Received By Laboratory: 10/16/91

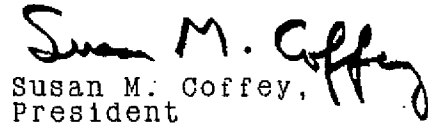
Lab No.	Field Identification	Sample Matrix	Date	Time
1	W35	Surface Water	10-16-91	1045
2	W38	Surface Water	10-16-91	1315
3	W40	Surface Water	10-16-91	1425

ANALYTICAL RESULTS ARE ON THE FOLLOWING PAGE(S)

Sincerely,


Victor A. Perry,
Quality Assurance

Sincerely,


Susan M. Coffey,
President

SMC/mlh

This report is for the sole and exclusive use of the above-named client. Samples are retained 15 days from the report date, or until holding time expires. Results pertain only to samples submitted.

COFFEY LABORATORIES, INC.

12423 N.E. Whitaker Way • Portland, OR • 97230 • (503) 254-1794 • FAX (503) 254-1452



Job#: MG-911016BG-3

Tetra Tech, Inc.
Page 2

PARAMETER	METHOD	DETECTION LIMITS	W35 RESULTS	W38 RESULTS
Fecal Coliform Bacteria	SM 9222 D	1		
Rep 1			ND	3
Rep 2			ND	ND

PARAMETER	METHOD	W40 RESULTS	UNITS
Fecal Coliform Bacteria	SM 9222 D		Colonies/100mls
Rep 1		3	
Rep 2		4	

PARAMETER	METHOD	DETECTION LIMITS	W35 RESULTS	W38 RESULTS
Enterococcus Bacteria	SM 9230 C	1		
Rep 1			93	180
Rep 2			101	200

PARAMETER	METHOD	W40 RESULTS	UNITS
Enterococcus Bacteria	SM 9230 C		Colonies/100mls
Rep 1		160	
Rep 2		180	

SM means Standard Methods for the Examination of Water and Wastewater, 1989, 17th Edition,.

ND means none detected at or above the detection limit listed.

COFFEY LABORATORIES, INC.

12423 N.E. Whitaker Way • Portland, OR • 97230 • (503) 254-1794 • FAX (503) 254-1452



Report Date: October 29, 1991
Job#: MG-911023F-3
Project#: 8526-Q6
Project: LCR

Attention: Mahmood S. Shivji, PhD.
Tetra Tech, Inc.
11820 Northup Way, Suite 100E
Bellevue, WA 98005-1927

SAMPLE INFORMATION:

Date Samples Were Received By Laboratory: 10/23/91

Lab No.	Field Identification	Sample Matrix	Date	Time
1	LCR W2	Surface Water	10-22-91	1515
2	LCR W3	Surface Water	10-22-91	1600
3	LCR W16	Surface Water	10-22-91	1740

ANALYTICAL RESULTS ARE ON THE FOLLOWING PAGE(S)

Sincerely,

Victor A. Perry,
Quality Assurance

Sincerely,

Susan M. Coffey,
President

SMC/lws

This report is for the sole and exclusive use of the above-named client. Samples are retained 15 days from the report date, or until holding time expires. Results pertain only to samples submitted

COFFEY LABORATORIES, INC.

12423 N.E. Whitaker Way • Portland, OR • 97230 • (503) 254-1794 • FAX (503) 254-1452



Tetra Tech, Inc.
Page 2

Job#: MG-911023F-3

SAMPLE ID		FECAL COLIFORM BACTERIA SM9222D	ENTEROCOCCUS BACTERIA SM9230C
LCR W2	Rep 1	ND	95
	Rep 2	ND	120
LCR W3	Rep 1	35	170
	Rep 2	25	125
LCR W16	Rep 1	85	375
	Rep 2	80	355
Blank		ND	ND

Detection Limit: (1)

Results expressed as Colonies/100mls unless otherwise noted.

ND means none detected at or above the detection limit listed.

SM means Standard Methods for the Examination of Water and Wastewater, 1989, 17th Edition,.



Report Date: October 29, 1991

Job#: MG-911023AH-3

Attention: Mahmood S. Shivji, PhD.

Project#: 8526-06

Tetra Tech, Inc.

Project: LCR

11820 Northup Way, Suite 100E

Bellevue, WA 98005-1927

SAMPLE INFORMATION:

Date Samples Were Received By Laboratory: 10/23/91

Lab No.	Field Identification	Sample Matrix	Date	Time
1	LCR W 35	Surface Water	10-23-91	1140
2	LCR W 38	Surface Water	10-23-91	1240
3	LCR W 40	Surface Water	10-23-91	1325

ANALYTICAL RESULTS ARE ON THE FOLLOWING PAGE(S)

Sincerely,

Victor A. Perry,
Quality Assurance

SMC/lws

Sincerely,

Susan M. Coffey,
President

This report is for the sole and exclusive use of the above-named client. Samples are retained 15 days from the report date, or until holding time expires. Results pertain only to samples submitted.

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Tetra Tech, Inc.
Page 2

Job#: MG-911023AH-3

SAMPLE ID	FECAL COLIFORM BACTERIA SM9222D	ENTEROCOCCUS BACTERIA SM9230C
LCR W 35 Rep 1	30	415
Rep 2	35	385
LCR W 38 Rep 1	205	220
Rep 2	195	250
LCR W 40 Rep 1	71	265
Rep 2	79	330
Blank	ND	ND

Detection Limit: 1

Results expressed as Colonies/100mls unless otherwise noted.

ND means none detected at or above the detection limit listed..

SM means Standard Methods for the Examination of Water and Wastewater, 1989, 17th Edition,.

COFFEY LABORATORIES, INC.

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Report Date: November 6, 1991

Job#: MG-911102A-8

Project#: 8526-06

Project: LCR

Attention: Mahmood S. Shivji, PhD.
Tetra Tech, Inc.
11820 Northup Way, Suite 100E
Bellevue, WA 98005-1927


SAMPLE INFORMATION:

Date Samples Were Received By Laboratory: 11/02/91

Lab No.	Field Identification	Sample Matrix	Date	Time
1	LCR W2	Surface Water	11-01-91	1430
2	LCR W3	Surface Water	11-01-91	1355
3	LCR W16	Surface Water	11-01-91	1600
4	LCR W35	Surface Water	11-01-91	1730

ANALYTICAL RESULTS ARE ON THE FOLLOWING PAGE(S)

Sincerely,


Renee Chauvin,
Technical Director

RJC/mlh

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COFFEY LABORATORIES, INC.

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Job#: MG-911102A-8

Tetra Tech, Inc.

SAMPLE ID	FECAL COLIFORM BACTERIA SM 9221 C	ENTEROCOCCUS BACTERIA SM 9230 C
LGR W2		
Rep 1	3	8
Rep 2	5	8
LGR W3		
Rep 1	30	37
Rep 2	23	35
LGR W16		
Rep 1	15	30
Rep 2	19	34
LGR W35		
Rep 1	21	31
Rep 2	25	31
Detection Limit:	1	1

Results expressed as Colonies/100mls unless otherwise noted.

COFFEY LABORATORIES, INC.

12423 N.E. Whitaker Way • Portland, OR • 97230 • (503) 254-1794 • FAX (503) 254-1452



Report Date: November 8, 1991.
Job#: MG-911102B-2
Project#: 8526-06
Project: LGR

Attention: Mahmood S. Shivji, PhD.
Tetra Tech, Inc.
11820 Northup Way, Suite 100E
Bellevue, WA 98005-1927


SAMPLE INFORMATION:

Date Samples Were Received By Laboratory: 11/04/91

Lab No.	Field Identification	Sample Matrix	Date	Time
1	LGR W38	Surface Water	11-02-91	1110
2	LGR W40	Surface Water	11-02-91	1150

ANALYTICAL RESULTS ARE ON THE FOLLOWING PAGE(S)

Sincerely,


Renee Chauvin,
Technical Director

RJC/mlh

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COFFEY LABORATORIES, INC.

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Job#: MG-911102B-2

Tetra Tech, Inc.
Page 2

<u>PARAMETER</u>	<u>METHOD</u>	<u>DETECTION LIMITS</u>	<u>LCR W38 RESULTS</u>	<u>LCR W40 RESULTS</u>
Fecal Coliform Bacteria	SM 9221 G	1		
Rep 1			40	ND
Rep 2			35	ND
Enterococcus Bacteria	SM 9230 G	1		
Rep 1			65	85
Rep 2			70	95

Results expressed as Colonies/100mls unless otherwise noted.

ND means none detected at or above the detection limit listed.

SM means Standard Methods for the Examination of Water and Wastewater,
1985, 16th Edition.

COFFEY LABORATORIES, INC.

12423 N.E. Whitaker Way • Portland, OR • 97230 • (503) 254-1794 • FAX (503) 254-1452



Report Date: November 15, 1991

Job#: MG-911108B-6

Attention: Mahmood S. Shivji, PhD.

Project#: 8526-06

Tetra Tech, Inc.

Project: Lower Columbia

11820 Northup Way, Suite 100E

River

Bellevue, WA 98005-1927

SAMPLE INFORMATION:

Date Samples Were Received By Laboratory: 11/08/91

Lab No.	Field Identification	Sample Matrix	Date	Time
1	LCR W2	Surface Water	11-07-91	1115
2	LCR W3	Surface Water	11-07-91	1145
3	LCR W16	Surface Water	11-07-91	1315
4	LCR W35	Surface Water	11-07-91	1500
5	LCR W38	Surface Water	11-08-91	0740
6	LCR W40	Surface Water	11-08-91	0815

ANALYTICAL RESULTS ARE ON THE FOLLOWING PAGE(S)

Sincerely,

Renee Chauvin,
Technical Director

RJC/lws

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COFFEY LABORATORIES, INC.

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Job#: MG-911114D-6

Tetra Tech, Inc.
Page 2

SAMPLE ID	FECAL COLIFORM BACTERIA SM 9222 D	ENTEROCOCCUS BACTERIA SM 9230
LCR W2		
REP 1	3	15
REP 2	5	20
LCR W3		
REP 1	26	210
REP 2	23	220
LCR W16		
REP 1	28	23
REP 2	32	27
LCR W35		
REP 1	214	285
REP 2	227	310
LCR W38		
REP 1	99	325
REP 2	109	360
LCR W40		
REP 1	36	75
REP 2	31	95

Detection Limit:

1

1

Results expressed as Colonies/100mls unless otherwise noted.

COFFEY LABORATORIES, INC.

12423 N.E. Whitaker Way • Portland, OR • 97230 • (503) 254-1794 • FAX (503) 254-1452



Report Date: November 21, 1991
Job#: MG-911114D-6
Project#: 8526-Q6
Project: Lower Columbia
River Bistate Sampling

Attention: Mahmood S. Shivji, PhD.
Tetra Tech, Inc.
11820 Northrup Way, Suite 100E
Bellevue, WA 98005-1927

SAMPLE INFORMATION:

Date Samples Were Received By Laboratory: 11/14/91

Lab No.	Field Identification	Sample Matrix	Date	Time
1	LCR W2	Surface Water	11-13-91	1450
2	LCR W3	Surface Water	11-13-91	1515
3	LCR W16	Surface Water	11-13-91	1640
4	LCR W35	Surface Water	11-14-91	0825
5	LCR W38	Surface Water	11-14-91	0720
6	LCR W40	Surface Water	11-14-91	0940

ANALYTICAL RESULTS ARE ON THE FOLLOWING PAGE(S)

Sincerely,


Renee Chauvin,
Technical Director

RJC/mlh

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Job#: MG-911108B-6

Tetra Tech, Inc.
Page 2

SAMPLE ID		FECAL COLIFORM BACTERIA SM 9222D	FECAL ENTEROCOCCUS BACTERIA SM 9230C
LGR W2	Rep 1	7	63
	Rep 2	8	68
LGR W3	Rep 1	12	32
	Rep 2	10	33
LGR W16	Rep 1	17	16
	Rep 2	12	9
LGR W35	Rep 1	97	21
	Rep 2	106	24
LGR 38	Rep 1	22	19
	Rep 2	17	16
LGR 40	Rep 1	11	27
	Rep 2	16	22
Blank		ND	ND

Results expressed as colonies/100ml unless otherwise noted.

ND means none detected at or above the detection limit listed.

SM means Standard Methods for the Examination of Water and Wastewater, 1989, 17th Edition,.

COFFEY LABORATORIES, INC.

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