

GW - 19

REPORTS

YEAR(S):

2005

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CIL CONSERVATION DIVISION

Summary Report

Wayne Price
OCD-Santa Fe
1220 S. Saint Francis Dr.
Santa Fe, NM 87505

Report Date: April 5, 2005

Work Order: 5032516

Project Location: LPG Site
Project Name: LHGSF

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
58224	SW-2	water	2005-03-23	12:25	2005-03-25
58225	P2-1	water	2005-03-23	08:15	2005-03-25
58226	MW-1	water	2005-03-23	10:50	2005-03-25
58227	BGD P-1	water	2005-03-23	11:00	2005-03-25
58228	SW-1	water	2005-03-23	12:35	2005-03-25

Sample: 58224 - SW-2

Param	Flag	Result	Units	RL
Hydroxide Alkalinity		<1.00	mg/L as CaCo3	1.00
Carbonate Alkalinity		<1.00	mg/L as CaCo3	1.00
Bicarbonate Alkalinity		178	mg/L as CaCo3	4.00
Total Alkalinity		178	mg/L as CaCo3	4.00
Specific Conductance		73700	µMHOS/cm	0.00
Chloride		39300	mg/L	0.500
Fluoride		<100	mg/L	0.200
Sulfate		3190	mg/L	0.500
Nitrate-N		<100	mg/L	0.200
pH		7.51	s.u.	0.00
Dissolved Calcium		2230	mg/L	0.500
Dissolved Magnesium		660	mg/L	0.500
Dissolved Potassium		323	mg/L	0.500
Dissolved Sodium		15300	mg/L	0.500
Total Dissolved Solids		154000	mg/L	10.00
Total Silver		<0.0125	mg/L	0.0125
Total Arsenic		<0.0100	mg/L	0.0100
Total Barium		0.0500	mg/L	0.0100
Total Cadmium		<0.00500	mg/L	0.00500
Total Chromium		<0.0100	mg/L	0.0100
Total Mercury		0.00325	mg/L	0.000200
Total Lead		<0.0100	mg/L	0.0100
Total Selenium		<0.0500	mg/L	0.0500
Bromochloromethane	1	<1.00	µg/L	1.00

continued ...

¹No TICs to report. •

sample 58224 continued ...

Param	Flag	Result	Units	RL
Dichlorodifluoromethane		<1.00	µg/L	1.00
Chloromethane (methyl chloride)		<1.00	µg/L	1.00
Vinyl Chloride		<1.00	µg/L	1.00
Bromomethane (methyl bromide)		<1.00	µg/L	1.00
Chloroethane		<1.00	µg/L	1.00
Trichlorofluoromethane		<1.00	µg/L	1.00
Acetone		<10.0	µg/L	10.0
Iodomethane (methyl iodide)		<5.00	µg/L	5.00
Carbon Disulfide		<1.00	µg/L	1.00
Acrylonitrile		<1.00	µg/L	1.00
2-Butanone (MEK)		<5.00	µg/L	5.00
4-Methyl-2-pentanone (MIBK)		<5.00	µg/L	5.00
2-Hexanone		<1.00	µg/L	1.00
trans 1,4-Dichloro-2-butene		<10.0	µg/L	10.0
1,1-Dichloroethene		<1.00	µg/L	1.00
Methylene chloride		<5.00	µg/L	5.00
MTBE		<1.00	µg/L	1.00
trans-1,2-Dichloroethene		<1.00	µg/L	1.00
1,1-Dichloroethane		<1.00	µg/L	1.00
cis-1,2-Dichloroethene		<1.00	µg/L	1.00
2,2-Dichloropropane		<1.00	µg/L	1.00
1,2-Dichloroethane (EDC)		<1.00	µg/L	1.00
Chloroform		<1.00	µg/L	1.00
1,1,1-Trichloroethane		<1.00	µg/L	1.00
1,1-Dichloropropene		<1.00	µg/L	1.00
Benzene		<1.00	µg/L	1.00
Carbon Tetrachloride		<1.00	µg/L	1.00
1,2-Dichloropropane		<1.00	µg/L	1.00
Trichloroethene (TCE)		<1.00	µg/L	1.00
Dibromomethane (methylene bromide)		<1.00	µg/L	1.00
Bromodichloromethane		<1.00	µg/L	1.00
2-Chloroethyl vinyl ether		<5.00	µg/L	5.00
cis-1,3-Dichloropropene		<1.00	µg/L	1.00
trans-1,3-Dichloropropene		<1.00	µg/L	1.00
Toluene		<1.00	µg/L	1.00
1,1,2-Trichloroethane		<1.00	µg/L	1.00
1,3-Dichloropropane		<1.00	µg/L	1.00
Dibromochloromethane		<1.00	µg/L	1.00
1,2-Dibromoethane (EDB)		<1.00	µg/L	1.00
Tetrachloroethene (PCE)		<1.00	µg/L	1.00
Chlorobenzene		<1.00	µg/L	1.00
1,1,1,2-Tetrachloroethane		<1.00	µg/L	1.00
Ethylbenzene		<1.00	µg/L	1.00
m,p-Xylene		<1.00	µg/L	1.00
Bromoform		<1.00	µg/L	1.00
Styrene		<1.00	µg/L	1.00
o-Xylene		<1.00	µg/L	1.00
1,1,2,2-Tetrachloroethane		<1.00	µg/L	1.00
2-Chlorotoluene		<1.00	µg/L	1.00
1,2,3-Trichloropropane		<1.00	µg/L	1.00
Isopropylbenzene		<1.00	µg/L	1.00
Bromobenzene		<1.00	µg/L	1.00
n-Propylbenzene		<1.00	µg/L	1.00

continued ...

sample 58224 continued ...

Param	Flag	Result	Units	RL
1,3,5-Trimethylbenzene		<1.00	µg/L	1.00
tert-Butylbenzene		<1.00	µg/L	1.00
1,2,4-Trimethylbenzene		<1.00	µg/L	1.00
1,4-Dichlorobenzene (para)		<1.00	µg/L	1.00
sec-Butylbenzene		<1.00	µg/L	1.00
1,3-Dichlorobenzene (meta)		<1.00	µg/L	1.00
p-Isopropyltoluene		<1.00	µg/L	1.00
4-Chlorotoluene		<1.00	µg/L	1.00
1,2-Dichlorobenzene (ortho)		<1.00	µg/L	1.00
n-Butylbenzene		<1.00	µg/L	1.00
1,2-Dibromo-3-chloropropane		<5.00	µg/L	5.00
1,2,3-Trichlorobenzene		<5.00	µg/L	5.00
1,2,4-Trichlorobenzene		<5.00	µg/L	5.00
Naphthalene		<5.00	µg/L	5.00
Hexachlorobutadiene		<5.00	µg/L	5.00

Sample: 58225 - P2-1

Param	Flag	Result	Units	RL
Hydroxide Alkalinity		<1.00	mg/L as CaCo3	1.00
Carbonate Alkalinity		<1.00	mg/L as CaCo3	1.00
Bicarbonate Alkalinity		330	mg/L as CaCo3	4.00
Total Alkalinity		330	mg/L as CaCo3	4.00
Specific Conductance		89400	µMHOS/cm	0.00
Chloride		43300	mg/L	0.500
Fluoride		<100	mg/L	0.200
Sulfate		9680	mg/L	0.500
Nitrate-N		<100	mg/L	0.200
pH		7.62	s.u.	0.00
Dissolved Calcium		1050	mg/L	0.500
Dissolved Magnesium		586	mg/L	0.500
Dissolved Potassium		708	mg/L	0.500
Dissolved Sodium		21900	mg/L	0.500
Total Dissolved Solids		83000	mg/L	10.00

Sample: 58226 - MW-1

Param	Flag	Result	Units	RL
Hydroxide Alkalinity		<1.00	mg/L as CaCo3	1.00
Carbonate Alkalinity		<1.00	mg/L as CaCo3	1.00
Bicarbonate Alkalinity		120	mg/L as CaCo3	4.00
Total Alkalinity		120	mg/L as CaCo3	4.00
Specific Conductance		8610	µMHOS/cm	0.00
Chloride		2350	mg/L	0.500
Fluoride		4.20	mg/L	0.200
Sulfate		1990	mg/L	0.500
Nitrate-N		8.68	mg/L	0.200
pH		7.81	s.u.	0.00
Dissolved Calcium		817	mg/L	0.500
Dissolved Magnesium		237	mg/L	0.500

continued ...

sample 58226 continued

Param	Flag	Result	Units	RL
Dissolved Potassium		33.6	mg/L	0.500
Dissolved Sodium		884	mg/L	0.500
Total Dissolved Solids		6780	mg/L	10.00

Sample: 58227 - BGD P-1

Param	Flag	Result	Units	RL
Hydroxide Alkalinity		<1.00	mg/L as CaCo3	1.00
Carbonate Alkalinity		<1.00	mg/L as CaCo3	1.00
Bicarbonate Alkalinity		130	mg/L as CaCo3	4.00
Total Alkalinity		130	mg/L as CaCo3	4.00
Specific Conductance		35000	μ MHOS/cm	0.00
Chloride		13700	mg/L	0.500
Fluoride		<20.0	mg/L	0.200
Sulfate		2040	mg/L	0.500
Nitrate-N		<20.0	mg/L	0.200
pH		7.69	s.u.	0.00
Dissolved Calcium		2020	mg/L	0.500
Dissolved Magnesium		773	mg/L	0.500
Dissolved Potassium		101	mg/L	0.500
Dissolved Sodium		5520	mg/L	0.500
Total Dissolved Solids		55600	mg/L	10.00

Sample: 58228 - SW-1

Param	Flag	Result	Units	RL
Hydroxide Alkalinity		<1.00	mg/L as CaCo3	1.00
Carbonate Alkalinity		<1.00	mg/L as CaCo3	1.00
Bicarbonate Alkalinity		162	mg/L as CaCo3	4.00
Total Alkalinity		162	mg/L as CaCo3	4.00
Specific Conductance		49300	μ MHOS/cm	0.00
Chloride		19100	mg/L	0.500
Fluoride		<20.0	mg/L	0.200
Sulfate		3800	mg/L	0.500
Nitrate-N		<20.0	mg/L	0.200
pH		7.72	s.u.	0.00
Dissolved Calcium		1220	mg/L	0.500
Dissolved Magnesium		475	mg/L	0.500
Dissolved Potassium		249	mg/L	0.500
Dissolved Sodium		10400	mg/L	0.500
Total Dissolved Solids		82400	mg/L	10.00



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Analytical and Quality Control Report

Wayne Price
OCD-Santa Fe
1220 S. Saint Francis Dr.
Santa Fe, NM 87505

Report Date: April 5, 2005

Work Order: 5032516

Project Location: LPG Site
Project Name: LHGSF
Project Number: LHGSF

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
58224	SW-2	water	2005-03-23	12:25	2005-03-25
58225	P2-1	water	2005-03-23	08:15	2005-03-25
58226	MW-1	water	2005-03-23	10:50	2005-03-25
58227	BGD P-1	water	2005-03-23	11:00	2005-03-25
58228	SW-1	water	2005-03-23	12:35	2005-03-25

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 26 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.


Dr. Blair Leftwich, Director

Analytical Report

Sample: 58224 - SW-2

Analysis: Alkalinity
QC Batch: 16972
Prep Batch: 14959

Analytical Method: SM 2320B
Date Analyzed: 2005-03-29
Sample Preparation: 2005-03-29

Prep Method: N/A
Analyzed By: RS
Prepared By: RS

Parameter	Flag	RL Result	Units	Dilution	RL
Hydroxide Alkalinity		<1.00	mg/L as CaCo3	1	1.00
Carbonate Alkalinity		<1.00	mg/L as CaCo3	1	1.00
Bicarbonate Alkalinity		178	mg/L as CaCo3	1	4.00
Total Alkalinity		178	mg/L as CaCo3	1	4.00

Sample: 58224 - SW-2

Analysis: Conductivity
QC Batch: 16971
Prep Batch: 14960

Analytical Method: SM 2510B
Date Analyzed: 2005-03-29
Sample Preparation: 2005-03-29

Prep Method: N/A
Analyzed By: RS
Prepared By: RS

Parameter	Flag	RL Result	Units	Dilution	RL
Specific Conductance		73700	μMHOS/cm	1	0.00

Sample: 58224 - SW-2

Analysis: Ion Chromatography
QC Batch: 16960
Prep Batch: 14940

Analytical Method: E 300.0
Date Analyzed: 2005-03-25
Sample Preparation: 2005-03-25

Prep Method: N/A
Analyzed By: RS
Prepared By: WB

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		39300	mg/L	5000	0.500
Fluoride		<100	mg/L	500	0.200
Sulfate		3190	mg/L	500	0.500

Sample: 58224 - SW-2

Analysis: NO3 (IC)
QC Batch: 16960
Prep Batch: 14940

Analytical Method: E 300.0
Date Analyzed: 2005-03-25
Sample Preparation: 2005-03-25

Prep Method: N/A
Analyzed By: RS
Prepared By: WB

Parameter	Flag	RL Result	Units	Dilution	RL
Nitrate-N		<100	mg/L	500	0.200

Sample: 58224 - SW-2

Analysis: pH	Analytical Method: SM 4500-H+	Prep Method: N/A
QC Batch: 16934 ^a	Date Analyzed: 2005-03-25	Analyzed By: RS
Prep Batch: 14925	Sample Preparation: 2005-03-25	Prepared By: RS

^asample run in laboratory

Parameter	Flag	RL Result	Units	Dilution	RL
pH		7.51	s.u.	1	0.00

Sample: 58224 - SW-2

Analysis: Salts, Dissolved	Analytical Method: E 200.7	Prep Method: N/A
QC Batch: 17087	Date Analyzed: 2005-04-04	Analyzed By: TP
Prep Batch: 14955	Sample Preparation: 2005-03-29	Prepared By: DS

Parameter	Flag	RL Result	Units	Dilution	RL
Dissolved Calcium		2230	mg/L	100	0.500
Dissolved Magnesium		660	mg/L	10	0.500
Dissolved Potassium		323	mg/L	10	0.500
Dissolved Sodium		15300	mg/L	1000	0.500

Sample: 58224 - SW-2

Analysis: TDS	Analytical Method: SM 2540C	Prep Method: N/A
QC Batch: 16929	Date Analyzed: 2005-03-28	Analyzed By: RS
Prep Batch: 14927	Sample Preparation: 2005-03-25	Prepared By: RS

Parameter	Flag	RL Result	Units	Dilution	RL
Total Dissolved Solids		154000	mg/L	100	10.00

Sample: 58224 - SW-2

Analysis: Total 8 Metals	Analytical Method: S 6010B	Prep Method: S 3010A
QC Batch: 16968	Date Analyzed: 2005-03-29	Analyzed By: RR
Prep Batch: 14911	Sample Preparation: 2005-03-28	Prepared By: RR
Analysis: Total 8 Metals	Analytical Method: S 7470A	Prep Method: N/A
QC Batch: 16969	Date Analyzed: 2005-03-29	Analyzed By: TP
Prep Batch: 14957	Sample Preparation: 2005-03-29	Prepared By: TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Silver		<0.0125	mg/L	1	0.0125
Total Arsenic		<0.0100	mg/L	1	0.0100
Total Barium		0.0500	mg/L	1	0.0100
Total Cadmium		<0.00500	mg/L	1	0.00500

continued ...

sample 58224 continued...

Parameter	Flag	RL Result	Units	Dilution	RL
Total Chromium		<0.0100	mg/L	1	0.0100
Total Mercury		0.00325	mg/L	2	0.000200
Total Lead		<0.0100	mg/L	1	0.0100
Total Selenium		<0.0500	mg/L	1	0.0500

Sample: 58224 - SW-2

Analysis: Volatiles
QC Batch: 17008
Prep Batch: 14989
Comment: Plus TICS

Analytical Method: S 8260B
Date Analyzed: 2005-03-29
Sample Preparation: 2005-03-29

Prep Method: S 5030B
Analyzed By: JG
Prepared By: JG

Parameter	Flag	RL Result	Units	Dilution	RL
Bromochloromethane	1	<1.00	µg/L	1	1.00
Dichlorodifluoromethane		<1.00	µg/L	1	1.00
Chloromethane (methyl chloride)		<1.00	µg/L	1	1.00
Vinyl Chloride		<1.00	µg/L	1	1.00
Bromomethane (methyl bromide)		<1.00	µg/L	1	1.00
Chloroethane		<1.00	µg/L	1	1.00
Trichlorofluoromethane		<1.00	µg/L	1	1.00
Acetone		<10.0	µg/L	1	10.0
Iodomethane (methyl iodide)		<5.00	µg/L	1	5.00
Carbon Disulfide		<1.00	µg/L	1	1.00
Acrylonitrile		<1.00	µg/L	1	1.00
2-Butanone (MEK)		<5.00	µg/L	1	5.00
4-Methyl-2-pentanone (MIBK)		<5.00	µg/L	1	5.00
2-Hexanone		<1.00	µg/L	1	1.00
trans 1,4-Dichloro-2-butene		<10.0	µg/L	1	10.0
1,1-Dichloroethene		<1.00	µg/L	1	1.00
Methylene chloride		<5.00	µg/L	1	5.00
MTBE		<1.00	µg/L	1	1.00
trans-1,2-Dichloroethene		<1.00	µg/L	1	1.00
1,1-Dichloroethane		<1.00	µg/L	1	1.00
cis-1,2-Dichloroethene		<1.00	µg/L	1	1.00
2,2-Dichloropropane		<1.00	µg/L	1	1.00
1,2-Dichloroethane (EDC)		<1.00	µg/L	1	1.00
Chloroform		<1.00	µg/L	1	1.00
1,1,1-Trichloroethane		<1.00	µg/L	1	1.00
1,1-Dichloropropene		<1.00	µg/L	1	1.00
Benzene		<1.00	µg/L	1	1.00
Carbon Tetrachloride		<1.00	µg/L	1	1.00
1,2-Dichloropropane		<1.00	µg/L	1	1.00
Trichloroethene (TCE)		<1.00	µg/L	1	1.00
Dibromomethane (methylene bromide)		<1.00	µg/L	1	1.00
Bromodichloromethane		<1.00	µg/L	1	1.00

continued...

¹No TICs to report. •

sample 58224 continued...

Parameter	Flag	RL Result	Units	Dilution	RL
2-Chloroethyl vinyl ether		<5.00	µg/L	1	5.00
cis-1,3-Dichloropropene		<1.00	µg/L	1	1.00
trans-1,3-Dichloropropene		<1.00	µg/L	1	1.00
Toluene		<1.00	µg/L	1	1.00
1,1,2-Trichloroethane		<1.00	µg/L	1	1.00
1,3-Dichloropropane		<1.00	µg/L	1	1.00
Dibromochloromethane		<1.00	µg/L	1	1.00
1,2-Dibromoethane (EDB)		<1.00	µg/L	1	1.00
Tetrachloroethene (PCE)		<1.00	µg/L	1	1.00
Chlorobenzene		<1.00	µg/L	1	1.00
1,1,1,2-Tetrachloroethane		<1.00	µg/L	1	1.00
Ethylbenzene		<1.00	µg/L	1	1.00
m,p-Xylene		<1.00	µg/L	1	1.00
Bromoform		<1.00	µg/L	1	1.00
Styrene		<1.00	µg/L	1	1.00
o-Xylene		<1.00	µg/L	1	1.00
1,1,2,2-Tetrachloroethane		<1.00	µg/L	1	1.00
2-Chlorotoluene		<1.00	µg/L	1	1.00
1,2,3-Trichloropropane		<1.00	µg/L	1	1.00
Isopropylbenzene		<1.00	µg/L	1	1.00
Bromobenzene		<1.00	µg/L	1	1.00
n-Propylbenzene		<1.00	µg/L	1	1.00
1,3,5-Trimethylbenzene		<1.00	µg/L	1	1.00
tert-Butylbenzene		<1.00	µg/L	1	1.00
1,2,4-Trimethylbenzene		<1.00	µg/L	1	1.00
1,4-Dichlorobenzene (para)		<1.00	µg/L	1	1.00
sec-Butylbenzene		<1.00	µg/L	1	1.00
1,3-Dichlorobenzene (meta)		<1.00	µg/L	1	1.00
p-Isopropyltoluene		<1.00	µg/L	1	1.00
4-Chlorotoluene		<1.00	µg/L	1	1.00
1,2-Dichlorobenzene (ortho)		<1.00	µg/L	1	1.00
n-Butylbenzene		<1.00	µg/L	1	1.00
1,2-Dibromo-3-chloropropane		<5.00	µg/L	1	5.00
1,2,3-Trichlorobenzene		<5.00	µg/L	1	5.00
1,2,4-Trichlorobenzene		<5.00	µg/L	1	5.00
Naphthalene		<5.00	µg/L	1	5.00
Hexachlorobutadiene		<5.00	µg/L	1	5.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane		50.6	µg/L	1	50.0	101	70 - 130
Toluene-d8		50.7	µg/L	1	50.0	101	70 - 130
4-Bromofluorobenzene (4-BFB)		49.0	µg/L	1	50.0	98	70 - 130

Sample: 58225 - P2-1

Analysis: Alkalinity
QC Batch: 16972
Prep Batch: 14959

Analytical Method: SM 2320B
Date Analyzed: 2005-03-29
Sample Preparation: 2005-03-29

Prep Method: N/A
Analyzed By: RS
Prepared By: RS

Parameter	Flag	RL Result	Units	Dilution	RL
Hydroxide Alkalinity		<1.00	mg/L as CaCo3	1	1.00
Carbonate Alkalinity		<1.00	mg/L as CaCo3	1	1.00
Bicarbonate Alkalinity		330	mg/L as CaCo3	1	4.00
Total Alkalinity		330	mg/L as CaCo3	1	4.00

Sample: 58225 - P2-1

Analysis: Conductivity	Analytical Method: SM 2510B	Prep Method: N/A
QC Batch: 16971	Date Analyzed: 2005-03-29	Analyzed By: RS
Prep Batch: 14960	Sample Preparation: 2005-03-29	Prepared By: RS

Parameter	Flag	RL Result	Units	Dilution	RL
Specific Conductance		89400	μMHOS/cm	1	0.00

Sample: 58225 - P2-1

Analysis: Ion Chromatography	Analytical Method: E 300.0	Prep Method: N/A
QC Batch: 16960	Date Analyzed: 2005-03-25	Analyzed By: RS
Prep Batch: 14940	Sample Preparation: 2005-03-25	Prepared By: WB

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		43300	mg/L	5000	0.500
Fluoride		<100	mg/L	500	0.200
Sulfate		9680	mg/L	500	0.500

Sample: 58225 - P2-1

Analysis: NO3 (IC)	Analytical Method: E 300.0	Prep Method: N/A
QC Batch: 16960	Date Analyzed: 2005-03-25	Analyzed By: RS
Prep Batch: 14940	Sample Preparation: 2005-03-25	Prepared By: WB

Parameter	Flag	RL Result	Units	Dilution	RL
Nitrate-N		<100	mg/L	500	0.200

Sample: 58225 - P2-1

Analysis: pH	Analytical Method: SM 4500-H+	Prep Method: N/A
QC Batch: 16934 ^a	Date Analyzed: 2005-03-25	Analyzed By: RS
Prep Batch: 14925	Sample Preparation: 2005-03-25	Prepared By: RS

^asample run in laboratory

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Parameter	Flag	RL Result	Units	Dilution	RL
pH		7.62	s.u.	1	0.00

Sample: 58225 - P2-1

Analysis: Salts, Dissolved
QC Batch: 17087
Prep Batch: 14955

Analytical Method: S 6010B
Date Analyzed: 2005-04-04
Sample Preparation: 2005-03-29

Prep Method: S 3005A
Analyzed By: TP
Prepared By: DS

Parameter	Flag	RL Result	Units	Dilution	RL
Dissolved Calcium		1050	mg/L	100	0.500
Dissolved Magnesium		586	mg/L	10	0.500
Dissolved Potassium		708	mg/L	10	0.500
Dissolved Sodium		21900	mg/L	1000	0.500

Sample: 58225 - P2-1

Analysis: TDS
QC Batch: 17101
Prep Batch: 15085

Analytical Method: SM 2540C
Date Analyzed: 2005-03-31
Sample Preparation: 2005-03-30

Prep Method: N/A
Analyzed By: WB
Prepared By: WB

Parameter	Flag	RL Result	Units	Dilution	RL
Total Dissolved Solids		83000	mg/L	200	10.00

Sample: 58226 - MW-1

Analysis: Alkalinity
QC Batch: 16972
Prep Batch: 14959

Analytical Method: SM 2320B
Date Analyzed: 2005-03-29
Sample Preparation: 2005-03-29

Prep Method: N/A
Analyzed By: RS
Prepared By: RS

Parameter	Flag	RL Result	Units	Dilution	RL
Hydroxide Alkalinity		<1.00	mg/L as CaCo3	1	1.00
Carbonate Alkalinity		<1.00	mg/L as CaCo3	1	1.00
Bicarbonate Alkalinity		120	mg/L as CaCo3	1	4.00
Total Alkalinity		120	mg/L as CaCo3	1	4.00

Sample: 58226 - MW-1

Analysis: Conductivity
QC Batch: 16971
Prep Batch: 14960

Analytical Method: SM 2510B
Date Analyzed: 2005-03-29
Sample Preparation: 2005-03-29

Prep Method: N/A
Analyzed By: RS
Prepared By: RS

continued ...

sample 58226 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL
Parameter	Flag	RL Result	Units	Dilution	RL
Specific Conductance		8610	µMHOS/cm	1	0.00

Sample: 58226 - MW-1

Analysis: Ion Chromatography	Analytical Method: E 300.0	Prep Method: N/A
QC Batch: 16961	Date Analyzed: 2005-03-25	Analyzed By: RS
Prep Batch: 14941	Sample Preparation: 2005-03-25	Prepared By: WB

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		2350	mg/L	100	0.500
Fluoride		4.20	mg/L	10	0.200
Sulfate		1990	mg/L	100	0.500

Sample: 58226 - MW-1

Analysis: NO3 (IC)	Analytical Method: E 300.0	Prep Method: N/A
QC Batch: 16961	Date Analyzed: 2005-03-25	Analyzed By: RS
Prep Batch: 14941	Sample Preparation: 2005-03-25	Prepared By: WB

Parameter	Flag	RL Result	Units	Dilution	RL
Nitrate-N		8.68	mg/L	10	0.200

Sample: 58226 - MW-1

Analysis: pH	Analytical Method: SM 4500-H+	Prep Method: N/A
QC Batch: 16934 ^a	Date Analyzed: 2005-03-25	Analyzed By: RS
Prep Batch: 14925	Sample Preparation: 2005-03-25	Prepared By: RS

^asample run in laboratory

Parameter	Flag	RL Result	Units	Dilution	RL
pH		7.81	s.u.	1	0.00

Sample: 58226 - MW-1

Analysis: Salts, Dissolved	Analytical Method: S 6010B	Prep Method: S 3005A
QC Batch: 17087	Date Analyzed: 2005-04-04	Analyzed By: TP
Prep Batch: 14955	Sample Preparation: 2005-03-29	Prepared By: DS

Parameter	Flag	RL Result	Units	Dilution	RL
Dissolved Calcium		817	mg/L	10	0.500
Dissolved Magnesium		237	mg/L	10	0.500
Dissolved Potassium		33.6	mg/L	1	0.500
Dissolved Sodium		884	mg/L	10	0.500

Sample: 58226 - MW-1

Analysis: TDS	Analytical Method: SM 2540C	Prep Method: N/A
QC Batch: 16929	Date Analyzed: 2005-03-28	Analyzed By: RS
Prep Batch: 14927	Sample Preparation: 2005-03-25	Prepared By: RS

Parameter	Flag	RL Result	Units	Dilution	RL
Total Dissolved Solids		6780	mg/L	5	10.00

Sample: 58227 - BGD P-1

Analysis: Alkalinity	Analytical Method: SM 2320B	Prep Method: N/A
QC Batch: 16972	Date Analyzed: 2005-03-29	Analyzed By: RS
Prep Batch: 14959	Sample Preparation: 2005-03-29	Prepared By: RS

Parameter	Flag	RL Result	Units	Dilution	RL
Hydroxide Alkalinity		<1.00	mg/L as CaCo3	1	1.00
Carbonate Alkalinity		<1.00	mg/L as CaCo3	1	1.00
Bicarbonate Alkalinity		130	mg/L as CaCo3	1	4.00
Total Alkalinity		130	mg/L as CaCo3	1	4.00

Sample: 58227 - BGD P-1

Analysis: Conductivity	Analytical Method: SM 2510B	Prep Method: N/A
QC Batch: 16971	Date Analyzed: 2005-03-29	Analyzed By: RS
Prep Batch: 14960	Sample Preparation: 2005-03-29	Prepared By: RS

Parameter	Flag	RL Result	Units	Dilution	RL
Specific Conductance		35000	μMHOS/cm	1	0.00

Sample: 58227 - BGD P-1

Analysis: Ion Chromatography	Analytical Method: E 300.0	Prep Method: N/A
QC Batch: 16961	Date Analyzed: 2005-03-25	Analyzed By: RS
Prep Batch: 14941	Sample Preparation: 2005-03-25	Prepared By: WB

continued ...

sample 58227 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL
Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		13700	mg/L	1000	0.500
Fluoride		<20.0	mg/L	100	0.200
Sulfate		2040	mg/L	100	0.500

Sample: 58227 - BGD P-1

Analysis: NO3 (IC)	Analytical Method: E 300.0	Prep Method: N/A
QC Batch: 16961	Date Analyzed: 2005-03-25	Analyzed By: RS
Prep Batch: 14941	Sample Preparation: 2005-03-25	Prepared By: WB

Parameter	Flag	RL Result	Units	Dilution	RL
Nitrate-N		<20.0	mg/L	100	0.200

Sample: 58227 - BGD P-1

Analysis: pH	Analytical Method: SM 4500-H+	Prep Method: N/A
QC Batch: 16934 ^a	Date Analyzed: 2005-03-25	Analyzed By: RS
Prep Batch: 14925	Sample Preparation: 2005-03-25	Prepared By: RS

^asample run in laboratory

Parameter	Flag	RL Result	Units	Dilution	RL
pH		7.69	s.u.	1	0.00

Sample: 58227 - BGD P-1

Analysis: Salts, Dissolved	Analytical Method: S 6010B	Prep Method: S 3005A
QC Batch: 17087	Date Analyzed: 2005-04-04	Analyzed By: TP
Prep Batch: 14955	Sample Preparation: 2005-03-29	Prepared By: DS

Parameter	Flag	RL Result	Units	Dilution	RL
Dissolved Calcium		2020	mg/L	100	0.500
Dissolved Magnesium		773	mg/L	10	0.500
Dissolved Potassium		101	mg/L	10	0.500
Dissolved Sodium		5520	mg/L	100	0.500

Sample: 58227 - BGD P-1

Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	16929	Date Analyzed:	2005-03-28	Analyzed By:	RS
Prep Batch:	14927	Sample Preparation:	2005-03-25	Prepared By:	RS

Parameter	Flag	RL Result	Units	Dilution	RL
Total Dissolved Solids		55600	mg/L	50	10.00

Sample: 58228 - SW-1

Analysis:	Alkalinity	Analytical Method:	SM 2320B	Prep Method:	N/A
QC Batch:	16972	Date Analyzed:	2005-03-29	Analyzed By:	RS
Prep Batch:	14959	Sample Preparation:	2005-03-29	Prepared By:	RS

Parameter	Flag	RL Result	Units	Dilution	RL
Hydroxide Alkalinity		<1.00	mg/L as CaCo3	1	1.00
Carbonate Alkalinity		<1.00	mg/L as CaCo3	1	1.00
Bicarbonate Alkalinity		162	mg/L as CaCo3	1	4.00
Total Alkalinity		162	mg/L as CaCo3	1	4.00

Sample: 58228 - SW-1

Analysis:	Conductivity	Analytical Method:	SM 2510B	Prep Method:	N/A
QC Batch:	16971	Date Analyzed:	2005-03-29	Analyzed By:	RS
Prep Batch:	14960	Sample Preparation:	2005-03-29	Prepared By:	RS

Parameter	Flag	RL Result	Units	Dilution	RL
Specific Conductance		49300	µMHOS/cm	1	0.00

Sample: 58228 - SW-1

Analysis:	Ion Chromatography	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	16961	Date Analyzed:	2005-03-25	Analyzed By:	RS
Prep Batch:	14941	Sample Preparation:	2005-03-25	Prepared By:	WB

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		19100	mg/L	1000	0.500
Fluoride		<20.0	mg/L	100	0.200
Sulfate		3800	mg/L	100	0.500

Sample: 58228 - SW-1

Analysis:	NO3 (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	16961	Date Analyzed:	2005-03-25	Analyzed By:	RS
Prep Batch:	14941	Sample Preparation:	2005-03-25	Prepared By:	WB

Parameter	Flag	RL Result	Units	Dilution	RL
Nitrate-N		<20.0	mg/L	100	0.200

Sample: 58228 - SW-1

Analysis: pH	Analytical Method: SM 4500-H+	Prep Method: N/A
QC Batch: 16934 ^a	Date Analyzed: 2005-03-25	Analyzed By: RS
Prep Batch: 14925	Sample Preparation: 2005-03-25	Prepared By: RS

^asample run in laboratory

Parameter	Flag	RL Result	Units	Dilution	RL
pH		7.72	s.u.	1	0.00

Sample: 58228 - SW-1

Analysis: Salts, Dissolved	Analytical Method: S 6010B	Prep Method: S 3005A
QC Batch: 17087	Date Analyzed: 2005-04-04	Analyzed By: TP
Prep Batch: 14955	Sample Preparation: 2005-03-29	Prepared By: DS

Parameter	Flag	RL Result	Units	Dilution	RL
Dissolved Calcium		1220	mg/L	100	0.500
Dissolved Magnesium		475	mg/L	10	0.500
Dissolved Potassium		249	mg/L	10	0.500
Dissolved Sodium		10400	mg/L	100	0.500

Sample: 58228 - SW-1

Analysis: TDS	Analytical Method: SM 2540C	Prep Method: N/A
QC Batch: 16929	Date Analyzed: 2005-03-28	Analyzed By: RS
Prep Batch: 14927	Sample Preparation: 2005-03-25	Prepared By: RS

Parameter	Flag	RL Result	Units	Dilution	RL
Total Dissolved Solids		82400	mg/L	50	10.00

Method Blank (1) QC Batch: 16929

Parameter	Flag	MDL Result	Units	RL
Total Dissolved Solids		<5.000	mg/L	10

Method Blank (1) QC Batch: 16960

Parameter	Flag	MDL Result	Units	RL
Nitrate-N		<0.0217	mg/L	0.2

Method Blank (1) QC Batch: 16960

Parameter	Flag	MDL Result	Units	RL
Chloride		<0.337	mg/L	0.5
Fluoride		<0.0594	mg/L	0.2
Sulfate		<0.409	mg/L	0.5

Method Blank (1) QC Batch: 16961

Parameter	Flag	MDL Result	Units	RL
Nitrate-N		<0.0217	mg/L	0.2

Method Blank (1) QC Batch: 16961

Parameter	Flag	MDL Result	Units	RL
Chloride		<0.337	mg/L	0.5
Fluoride		<0.0594	mg/L	0.2
Sulfate		<0.409	mg/L	0.5

Method Blank (1) QC Batch: 16968

Parameter	Flag	MDL Result	Units	RL
Total Silver		<0.000371	mg/L	0.0125
Total Arsenic		<0.00722	mg/L	0.01
Total Barium		<0.000984	mg/L	0.01
Total Cadmium		<0.000577	mg/L	0.005
Total Chromium		<0.000437	mg/L	0.01
Total Lead		<0.00310	mg/L	0.01
Total Selenium		<0.00370	mg/L	0.05

Method Blank (1) QC Batch: 16969

Parameter	Flag	MDL Result	Units	RL
Total Mercury		<0.0000407	mg/L	0.0002

Method Blank (1) QC Batch: 16971

Parameter	Flag	MDL Result	Units	RL
Specific Conductance		1.43	µMHOS/cm	

Method Blank (1) QC Batch: 16972

Parameter	Flag	MDL Result	Units	RL
Hydroxide Alkalinity		<1.00	mg/L as CaCo3	1
Carbonate Alkalinity		<1.00	mg/L as CaCo3	1
Bicarbonate Alkalinity		<4.00	mg/L as CaCo3	4
Total Alkalinity		<4.00	mg/L as CaCo3	4

Method Blank (1) QC Batch: 17008

Parameter	Flag	MDL Result	Units	RL
Bromochloromethane		<0.0699	µg/L	1
Dichlorodifluoromethane		<0.0598	µg/L	1
Chloromethane (methyl chloride)		<0.230	µg/L	1
Vinyl Chloride		<0.0902	µg/L	1
Bromomethane (methyl bromide)		<0.740	µg/L	5
Chloroethane		<0.195	µg/L	1
Trichlorofluoromethane		<0.160	µg/L	1
Acetone		2.46	µg/L	10
Iodomethane (methyl iodide)		<0.112	µg/L	5
Carbon Disulfide		<0.0764	µg/L	1
Acrylonitrile		<0.184	µg/L	1
2-Butanone (MEK)		<0.394	µg/L	5
4-Methyl-2-pentanone (MIBK)		<0.484	µg/L	5
2-Hexanone		<0.0975	µg/L	5
trans 1,4-Dichloro-2-butene		<0.421	µg/L	10
1,1-Dichloroethene		0.100	µg/L	1
Methylene chloride		0.700	µg/L	5
MTBE		<0.0504	µg/L	1
trans-1,2-Dichloroethene		<0.0598	µg/L	1
1,1-Dichloroethane		<0.0299	µg/L	1
cis-1,2-Dichloroethene		<0.101	µg/L	1
2,2-Dichloropropane		<0.0665	µg/L	1
1,2-Dichloroethane (EDC)		<0.0557	µg/L	1

continued ...

method blank continued ...

Parameter	Flag	MDL Result	Units	RL
Chloroform		<0.0475	µg/L	1
1,1,1-Trichloroethane		<0.0846	µg/L	1
1,1-Dichloropropene		<0.0423	µg/L	1
Benzene		0.120	µg/L	1
Carbon Tetrachloride		<0.121	µg/L	1
1,2-Dichloropropane		<0.0933	µg/L	1
Trichloroethene (TCE)		0.170	µg/L	1
Dibromomethane (methylene bromide)		<0.0640	µg/L	1
Bromodichloromethane		<0.0651	µg/L	1
2-Chloroethyl vinyl ether		<0.0905	µg/L	5
cis-1,3-Dichloropropene		<0.0640	µg/L	1
trans-1,3-Dichloropropene		<0.0504	µg/L	1
Toluene		0.320	µg/L	1
1,1,2-Trichloroethane		<0.106	µg/L	1
1,3-Dichloropropane		<0.0625	µg/L	1
Dibromochloromethane		<0.0791	µg/L	1
1,2-Dibromoethane (EDB)		<0.0460	µg/L	1
Tetrachloroethene (PCE)		<0.0696	µg/L	1
Chlorobenzene		<0.0217	µg/L	1
1,1,1,2-Tetrachloroethane		<0.125	µg/L	1
Ethylbenzene		<0.0566	µg/L	1
m,p-Xylene		0.0600	µg/L	1
Bromoform		<0.0859	µg/L	1
Styrene		<0.0394	µg/L	1
o-Xylene		<0.0504	µg/L	1
1,1,2,2-Tetrachloroethane		<0.0672	µg/L	1
2-Chlorotoluene		<0.0283	µg/L	1
1,2,3-Trichloropropane		<0.0679	µg/L	1
Isopropylbenzene		<0.0406	µg/L	1
Bromobenzene		<0.103	µg/L	1
n-Propylbenzene		<0.0423	µg/L	1
1,3,5-Trimethylbenzene		<0.0557	µg/L	1
tert-Butylbenzene		<0.0770	µg/L	1
1,2,4-Trimethylbenzene		<0.0336	µg/L	1
1,4-Dichlorobenzene (para)		0.100	µg/L	1
sec-Butylbenzene		<0.0439	µg/L	1
1,3-Dichlorobenzene (meta)		<0.0672	µg/L	1
p-Isopropyltoluene		<0.0513	µg/L	1
4-Chlorotoluene		<0.0460	µg/L	1
1,2-Dichlorobenzene (ortho)		<0.0629	µg/L	1
n-Butylbenzene		0.0500	µg/L	1
1,2-Dibromo-3-chloropropane		<0.538	µg/L	5
1,2,3-Trichlorobenzene		2.62	µg/L	5
1,2,4-Trichlorobenzene		0.550	µg/L	5
Naphthalene		1.26	µg/L	5
Hexachlorobutadiene		0.460	µg/L	5

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane		50.9	µg/L	1	50.0	102	70 - 130

continued ...

method blank continued ...

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Toluene-d8		51.1	µg/L	1	50.0	102	70 - 130
4-Bromofluorobenzene (4-BFB)		50.2	µg/L	1	50.0	100	70 - 130

Method Blank (1) QC Batch: 17087

Parameter	Flag	MDL Result	Units	RL
Dissolved Calcium		<0.102	mg/L	0.5
Dissolved Calcium		<0.102	mg/L	0.5
Dissolved Magnesium		<0.110	mg/L	0.5
Dissolved Magnesium		<0.110	mg/L	0.5
Dissolved Potassium		<0.0454	mg/L	0.5
Dissolved Potassium		<0.0454	mg/L	0.5
Dissolved Sodium		<0.0114	mg/L	0.5
Dissolved Sodium		<0.0114	mg/L	0.5

Method Blank (1) QC Batch: 17101

Parameter	Flag	MDL Result	Units	RL
Total Dissolved Solids		<5.000	mg/L	10

Duplicate (1) QC Batch: 16929

Param	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Total Dissolved Solids	6310	6780	mg/L	5	7	14.9

Duplicate (1) QC Batch: 16934

Param	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
pH	7.71	7.72	s.u.	1	0	0.4

Duplicate (1) QC Batch: 16971

Param	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Specific Conductance	48500	49300	µMHOS/cm	1	2	2.4

Duplicate (1) QC Batch: 16972

Param	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Hydroxide Alkalinity	<1.00	<1.00	mg/L as CaCo3	1	0	20
Carbonate Alkalinity	<1.00	<1.00	mg/L as CaCo3	1	0	20
Bicarbonate Alkalinity	168	162	mg/L as CaCo3	1	4	20
Total Alkalinity	168	162	mg/L as CaCo3	1	4	4.6

Duplicate (1) QC Batch: 17101

Param	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Total Dissolved Solids	3430	3440	mg/L	5	0	14.9

Laboratory Control Spike (LCS-1) QC Batch: 16960

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Nitrate-N	2.41	2.38	mg/L	1	2.50	<0.0217	96	1	90 - 110	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1) QC Batch: 16960

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Chloride	11.8	11.8	mg/L	1	12.5	<0.337	94	0	90 - 110	20
Fluoride	2.36	2.40	mg/L	1	2.50	<0.0594	94	2	90 - 110	20
Sulfate	12.0	12.3	mg/L	1	12.5	<0.409	96	2	90 - 110	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1) QC Batch: 16961

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Nitrate-N	2.43	2.32	mg/L	1	2.50	<0.0217	97	5	90 - 110	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1) QC Batch: 16961

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Chloride	11.9	11.5	mg/L	1	12.5	<0.337	95	3	90 - 110	20
Fluoride	2.25	2.47	mg/L	1	2.50	<0.0594	90	9	90 - 110	20
Sulfate	11.9	11.9	mg/L	1	12.5	<0.409	95	0	90 - 110	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1) QC Batch: 16968

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Silver	0.125	0.125	mg/L	1	0.125	<0.000371	100	0	85.6 - 108	20
Total Arsenic	0.503	0.497	mg/L	1	0.500	<0.00722	101	1	85 - 115	20
Total Barium	1.01	1.01	mg/L	1	1.00	<0.000984	101	0	85 - 113	20
Total Cadmium	0.256	0.254	mg/L	1	0.250	<0.000577	102	1	85.7 - 110	20
Total Chromium	0.105	0.104	mg/L	1	0.100	<0.000437	105	1	85.7 - 115	20
Total Lead	0.511	0.517	mg/L	1	0.500	<0.00310	102	1	85.4 - 112	20
Total Selenium	0.456	0.455	mg/L	1	0.500	<0.00370	91	0	85 - 105	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1) QC Batch: 16969

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Mercury	0.00104	0.00101	mg/L	1	0.00100	<0.0000407	104	3	79.7 - 112	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1) QC Batch: 17008

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
1,1-Dichloroethene	84.7	84.3	µg/L	1	100	<0.0736	85	0	70 - 130	20
Benzene	98.6	98.3	µg/L	1	100	<0.0495	99	0	70 - 130	20
Trichloroethene (TCE)	95.8	94.9	µg/L	1	100	<0.0495	96	1	70 - 130	20
Toluene	97.2	97.1	µg/L	1	100	<0.0736	97	0	70 - 130	20
Chlorobenzene	100	100	µg/L	1	100	<0.0217	100	0	70 - 130	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Dibromofluoromethane	50.4	50.7	µg/L	1	50.0	101	101	70 - 130
Toluene-d8	51.5	51.3	µg/L	1	50.0	103	103	70 - 130
4-Bromofluorobenzene (4-BFB)	51.3	50.8	µg/L	1	50.0	103	102	70 - 130

Laboratory Control Spike (LCS-1) QC Batch: 17087

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Dissolved Calcium	46.9	45.8	mg/L	1	50.0	<0.102	94	2	85 - 115	20
Dissolved Calcium	46.9	45.8	mg/L	1	50.0	<0.102	94	2	88.4 - 107	20
Dissolved Magnesium	45.3	43.8	mg/L	1	50.0	<0.110	91	3	85 - 112	20
Dissolved Magnesium	45.3	43.8	mg/L	1	50.0	<0.110	91	3	85 - 115	20
Dissolved Potassium	47.0	46.0	mg/L	1	50.0	<0.0454	94	2	85 - 115	20
Dissolved Potassium	47.0	46.0	mg/L	1	50.0	<0.0454	94	2	88 - 113	20
Dissolved Sodium	47.5	47.4	mg/L	1	50.0	<0.0114	95	0	90.9 - 112	20

continued ...

control spikes continued...

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Dissolved Sodium	47.5	47.4	mg/L	1	50.0	<0.0114	95	0	85 - 115	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) QC Batch: 16960 Spiked Sample: 58225

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Nitrate-N	12900	13000	mg/L	5000	2.50	<108	103	1	78.8 - 116	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) QC Batch: 16960 Spiked Sample: 58225

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Chloride	104000	102000	mg/L	5000	12.5	43300	97	2	70.7 - 124	20
Fluoride	12200	11900	mg/L	5000	2.50	<297	98	2	70.9 - 126	20
Sulfate	73800	75300	mg/L	5000	12.5	15200	94	2	82.5 - 123	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) QC Batch: 16961 Spiked Sample: 58166

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Nitrate-N	1340	1340	mg/L	500	2.50	<10.8	107	0	78.8 - 116	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) QC Batch: 16961 Spiked Sample: 58166

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Chloride	8250	8200	mg/L	500	12.5	2370	94	1	70.7 - 124	20
Fluoride	1250	1190	mg/L	500	2.50	<29.7	100	5	70.9 - 126	20
Sulfate	12000	12000	mg/L	500	12.5	6040	95	0	82.5 - 123	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) QC Batch: 16968 Spiked Sample: 58077

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Silver	0.128	0.128	mg/L	1	0.125	<0.000371	102	0	81.5 - 116	20
Total Arsenic	0.537	0.532	mg/L	1	0.500	<0.00722	107	1	75 - 118	20
Total Barium	1.06	1.07	mg/L	1	1.00	<0.000984	106	1	75 - 122	20

continued...

matrix spikes continued...

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Cadmium	0.274	0.274	mg/L	1	0.250	<0.000577	110	0	75 - 111	20
Total Chromium	0.109	0.110	mg/L	1	0.100	<0.000437	109	1	75 - 122	20
Total Lead	0.552	0.555	mg/L	1	0.500	<0.00310	110	0	75 - 113	20
Total Selenium	0.475	0.480	mg/L	1	0.500	<0.00370	95	1	75 - 115	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) QC Batch: 16969 Spiked Sample: 57724

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Mercury	0.00113	0.00112	mg/L	1	0.00100	<0.0000407	113	1	75 - 125	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) QC Batch: 17087 Spiked Sample: 58168

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Dissolved Calcium	527	542	mg/L	1	50.0	481	92	3	75 - 125	20
Dissolved Calcium	527	542	mg/L	1	50.0	481	92	3	75 - 125	20
Dissolved Magnesium ²	527	539	mg/L	1	50.0	492	70	2	75 - 125	20
Dissolved Magnesium ³	527	539	mg/L	1	50.0	492	70	2	75 - 125	20
Dissolved Potassium	175	172	mg/L	1	50.0	129	92	2	75 - 125	20
Dissolved Potassium	175	172	mg/L	1	50.0	129	92	2	75 - 125	20
Dissolved Sodium ⁴	1820	1850	mg/L	1	50.0	1810	20	2	75 - 125	20
Dissolved Sodium ⁵	1820	1850	mg/L	1	50.0	1810	20	2	75 - 125	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Standard (ICV-1) QC Batch: 16929

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Dissolved Solids		mg/L	1000	994.0	99	90 - 110	2005-03-28

Standard (CCV-1) QC Batch: 16929

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Dissolved Solids		mg/L	1000	1055	106	90 - 110	2005-03-28

²Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.

³Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.

⁴Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.

⁵Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.

Standard (ICV-1) QC Batch: 16934

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
pH		s.u.	7.00	7.02	100	98 - 102	2005-03-25

Standard (CCV-1) QC Batch: 16934

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
pH		s.u.	7.00	6.99	100	98 - 102	2005-03-25

Standard (ICV-1) QC Batch: 16960

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		mg/L	2.50	2.35	94	90 - 110	2005-03-25

Standard (ICV-1) QC Batch: 16960

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/L	12.5	11.6	93	90 - 110	2005-03-25
Fluoride		mg/L	2.50	2.37	95	90 - 110	2005-03-25
Sulfate		mg/L	12.5	11.7	94	90 - 110	2005-03-25

Standard (CCV-1) QC Batch: 16960

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		mg/L	2.50	2.40	96	90 - 110	2005-03-25

Standard (CCV-1) QC Batch: 16960

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/L	12.5	11.8	94	90 - 110	2005-03-25
Fluoride		mg/L	2.50	2.44	98	90 - 110	2005-03-25
Sulfate		mg/L	12.5	12.3	98	90 - 110	2005-03-25

Standard (ICV-1) QC Batch: 16961

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		mg/L	2.50	2.40	96	90 - 110	2005-03-25

Standard (ICV-1) QC Batch: 16961

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/L	12.5	11.8	94	90 - 110	2005-03-25
Fluoride		mg/L	2.50	2.44	98	90 - 110	2005-03-25
Sulfate		mg/L	12.5	12.3	98	90 - 110	2005-03-25

Standard (CCV-1) QC Batch: 16961

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		mg/L	2.50	2.34	94	90 - 110	2005-03-25

Standard (CCV-1) QC Batch: 16961

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/L	12.5	11.5	92	90 - 110	2005-03-25
Fluoride		mg/L	2.50	2.36	94	90 - 110	2005-03-25
Sulfate		mg/L	12.5	12.2	98	90 - 110	2005-03-25

Standard (ICV-1) QC Batch: 16968

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Silver		mg/L	0.125	0.125	100	90 - 110	2005-03-29
Total Arsenic		mg/L	1.00	0.999	100	90 - 110	2005-03-29
Total Barium		mg/L	1.00	1.01	101	90 - 110	2005-03-29
Total Cadmium		mg/L	1.00	1.01	101	90 - 110	2005-03-29
Total Chromium		mg/L	1.00	1.01	101	90 - 110	2005-03-29
Total Lead		mg/L	1.00	0.999	100	90 - 110	2005-03-29
Total Selenium		mg/L	1.00	1.01	101	90 - 110	2005-03-29

Standard (CCV-1) QC Batch: 16968

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Silver		mg/L	0.125	0.122	98	90 - 110	2005-03-29

continued...

standard continued...

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Arsenic		mg/L	1.00	0.985	98	90 - 110	2005-03-29
Total Barium		mg/L	1.00	0.982	98	90 - 110	2005-03-29
Total Cadmium		mg/L	1.00	0.982	98	90 - 110	2005-03-29
Total Chromium		mg/L	1.00	0.983	98	90 - 110	2005-03-29
Total Lead		mg/L	1.00	0.978	98	90 - 110	2005-03-29
Total Selenium		mg/L	1.00	0.989	99	90 - 110	2005-03-29

Standard (ICV-1) QC Batch: 16969

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Mercury		mg/L	0.00100	0.00101	101	80 - 120	2005-03-29

Standard (CCV-1) QC Batch: 16969

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Mercury		mg/L	0.00100	0.00104	104	80 - 120	2005-03-29

Standard (ICV-1) QC Batch: 16971

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Specific Conductance		µMHOS/cm	1410	1420	101	90 - 110	2005-03-29

Standard (CCV-1) QC Batch: 16971

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Specific Conductance		µMHOS/cm	1410	1390	98	90 - 110	2005-03-29

Standard (ICV-1) QC Batch: 16972

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Alkalinity		mg/L as CaCo3	250	240	96	90 - 110	2005-03-29

Standard (CCV-1) QC Batch: 16972

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Alkalinity		mg/L as CaCo3	250	242	97	90 - 110	2005-03-29

Standard (CCV-1) QC Batch: 17008

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Vinyl Chloride		µg/L	50.0	44.7	89	80 - 120	2005-03-29
1,1-Dichloroethene		µg/L	50.0	45.0	90	80 - 120	2005-03-29
Chloroform		µg/L	50.0	46.9	94	80 - 120	2005-03-29
1,2-Dichloropropane		µg/L	50.0	47.7	95	80 - 120	2005-03-29
Toluene		µg/L	50.0	47.4	95	80 - 120	2005-03-29
Chlorobenzene		µg/L	50.0	49.3	99	80 - 120	2005-03-29
Ethylbenzene		µg/L	50.0	49.6	99	80 - 120	2005-03-29

Standard (ICV-1) QC Batch: 17087

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Dissolved Calcium		mg/L	50.0	49.6	99	95 - 105	2005-04-04
Dissolved Calcium		mg/L	50.0	49.6	99	90 - 110	2005-04-04
Dissolved Magnesium		mg/L	50.0	49.0	98	90 - 110	2005-04-04
Dissolved Magnesium		mg/L	50.0	49.0	98	95 - 105	2005-04-04
Dissolved Potassium		mg/L	50.0	48.6	97	90 - 110	2005-04-04
Dissolved Potassium		mg/L	50.0	48.6	97	95 - 105	2005-04-04
Dissolved Sodium		mg/L	50.0	49.5	99	95 - 105	2005-04-04
Dissolved Sodium		mg/L	50.0	49.5	99	90 - 110	2005-04-04

Standard (CCV-1) QC Batch: 17087

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Dissolved Calcium		mg/L	50.0	52.3	105	90 - 110	2005-04-04
Dissolved Calcium		mg/L	50.0	52.3	105	90 - 110	2005-04-04
Dissolved Magnesium		mg/L	50.0	52.2	104	90 - 110	2005-04-04
Dissolved Magnesium		mg/L	50.0	52.2	104	90 - 110	2005-04-04
Dissolved Potassium		mg/L	50.0	53.8	108	90 - 110	2005-04-04
Dissolved Potassium		mg/L	50.0	53.8	108	90 - 110	2005-04-04
Dissolved Sodium		mg/L	50.0	54.6	109	90 - 110	2005-04-04
Dissolved Sodium		mg/L	50.0	54.6	109	90 - 110	2005-04-04

Standard (ICV-1) QC Batch: 17101

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LHGSF

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Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Dissolved Solids		mg/L	1000	1062	106	90 - 110	2005-03-31

Standard (CCV-1) QC Batch: 17101

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Dissolved Solids		mg/L	1000	991.0	99	90 - 110	2005-03-31

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TraceAnalysis, Inc. 4725 Ripley Dr., Ste A El Paso, Texas 79922-1028 Tel (915) 585-3443 Fax (915) 585-4944 1 (888) 588-3443		CHAIN-OF-CUSTODY AND ANALYSIS REQUEST LAB Order ID # <u>5032516</u>		ANALYSIS REQUEST (Circle or Specify Method No.) GC/MS Vol 8260B/624 <u>+TICS</u> * GC/MS Semi Vol 8270C/625 PCBs 8082/608 Pesticides 8081A/608 BOD TSS pH OCDCIEN Chem																																																																																																																																																					
Company Name: <u>OCN</u> Phone #: <u>505-476-3487</u> Address: <u>1220 SOUTH ST FRANCIS DR, SANTA FE, NM, 87505</u> Contact Person: <u>WAYNE PRICE</u> Invoice to: (If different from above) <u>COMANTIN</u> Project #: _____ Project Name: <u>LPG SITE</u> Project Location: <u>LPG SITE</u>		<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2">LAB # (LAB USE ONLY)</th> <th rowspan="2">FIELD CODE</th> <th rowspan="2"># CONTAINERS</th> <th rowspan="2">Volume/Amount</th> <th colspan="3">MATRIX</th> <th colspan="7">PRESERVATIVE METHOD</th> <th colspan="2">SAMPLING</th> </tr> <tr> <th>WATER</th> <th>SOIL</th> <th>AIR</th> <th>SLUDGE</th> <th>HCL</th> <th>HNO3</th> <th>NaHSO4</th> <th>H2SO4</th> <th>NaOH</th> <th>ICE</th> <th>NONE</th> <th>DATE</th> <th>TIME</th> </tr> </thead> <tbody> <tr> <td>58224</td> <td>SW2</td> <td>4</td> <td>40ML</td> <td>✓</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>3/23</td> <td>12:15</td> </tr> <tr> <td>↓</td> <td>SW2</td> <td>1</td> <td>1L</td> <td>✓</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>3/23</td> <td>12:15</td> </tr> <tr> <td>225</td> <td>P2-1</td> <td>1</td> <td>1L</td> <td>✓</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>3/23</td> <td>8:15</td> </tr> <tr> <td>226</td> <td>Don't know what M4-1</td> <td>1</td> <td>1L</td> <td>✓</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>3/23</td> <td>10:50</td> </tr> <tr> <td>227</td> <td>BOD P-1</td> <td>1</td> <td>1L</td> <td>✓</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>3/23</td> <td>11:00</td> </tr> <tr> <td>228</td> <td>SW1</td> <td>1</td> <td>1L</td> <td>✓</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>3/23</td> <td>12:25</td> </tr> <tr> <td>58224</td> <td>SW2</td> <td>1</td> <td>500ML</td> <td>✓</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>3/23</td> <td>12:15</td> </tr> </tbody> </table>				LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX			PRESERVATIVE METHOD							SAMPLING		WATER	SOIL	AIR	SLUDGE	HCL	HNO3	NaHSO4	H2SO4	NaOH	ICE	NONE	DATE	TIME	58224	SW2	4	40ML	✓											3/23	12:15	↓	SW2	1	1L	✓											3/23	12:15	225	P2-1	1	1L	✓											3/23	8:15	226	Don't know what M4-1	1	1L	✓											3/23	10:50	227	BOD P-1	1	1L	✓											3/23	11:00	228	SW1	1	1L	✓											3/23	12:25	58224	SW2	1	500ML	✓											3/23	12:15
LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX						PRESERVATIVE METHOD							SAMPLING																																																																																																																																								
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Relinquished by: <u>Wayne Price</u> Date: <u>3/24/05</u> Time: <u>10:00 AM</u> Relinquished by: _____ Date: _____ Time: _____ Relinquished by: _____ Date: _____ Time: _____		Received by: _____ Date: _____ Time: _____ Received by: _____ Date: _____ Time: _____ Received at Laboratory by: <u>Brenda Ward</u> Date: <u>3/25/05</u> Time: <u>10:59</u>		LAB USE ONLY Intact <u>Y/N</u> Headspace <u>Y/N</u> Temp <u>3.1</u> Log-in Review <u>7</u>		REMARKS: IDENTIFY ALL LPG COMPOUNDS @ VOCs																																																																																																																																																			
Carrier # <u>INW40 903 320 721-7</u>		Submital of samples constitutes agreement to Terms and Conditions listed on reverse side of C.O.C.																																																																																																																																																							

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