1RP - 1594

GW Sampling Report

Appendix C (Part 1)

Laboratory Analysis

Date:

March 30, 2012

APPENDIX C
LABORATORY ANALYSIS

TRACEANALYSIS, INC.

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Analytical and Quality Control Report

Gary Miller
Highlander Environmental Services
1910 N. Big Spring Street
Midland, TX, 79705

Report Date: June 14, 2007

Work Order: 7052924

Project Name: Rock Queen ESA
Project Number: 2972

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
125727	Water Station #1 MW-1	water	2007-05-24	17:25	2007-05-29

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.

Dr. Blair Leftwich, Director

Standard Flags

B - The sample contains less than ten times the concentration found in the method blank.

Analytical Report

Sample: 125727 - Water Station #1 MW-1

Analysis:	Alkalinity	Analytical Method:	SM 2320B	Prep Method:	N/A
QC Batch:	37938	Date Analyzed:	2007-06-07	Analyzed By:	SM
Prep Batch:	32854	Sample Preparation:	2007-06-06	Prepared By:	SM

Parameter	Flag	Result	RL	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		**154**		mg/L as CaCo3	1	4.00
Total Alkalinity		**154**		mg/L as CaCo3	1	4.00

Sample: 125727 - Water Station #1 MW-1

Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	37812	Date Analyzed:	2007-06-03	Analyzed By:	AG
Prep Batch:	32729	Sample Preparation:	2007-06-02	Prepared By:	AG

Parameter	Flag	Result	RL	Units	Dilution	RL
Benzene		<0.00500		mg/L	5	0.00100
Toluene		<0.00500		mg/L	5	0.00100
Ethylbenzene		<0.00500		mg/L	5	0.00100
Xylene		<0.00500		mg/L	5	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.510	mg/L	5	0.500	102	23.9 - 107.4
4-Bromofluorobenzene (4-BFB)		0.449	mg/L	5	0.500	90	22.2 - 104.5

Sample: 125727 - Water Station #1 MW-1

Analysis:	Ca, Total	Analytical Method:	S 6010B	Prep Method:	S 3010A
QC Batch:	38029	Date Analyzed:	2007-06-11	Analyzed By:	TP
Prep Batch:	32755	Sample Preparation:	2007-06-04	Prepared By:	TS

Parameter	Flag	Result	RL	Units	Dilution	RL
Total Calcium		**3040**		mg/L	100	1.00

Sample: 125727 - Water Station #1 MW-1

Analysis:	Hardness	Analytical Method:	S 6010B	Prep Method:	N/A
QC Batch:	38029	Date Analyzed:	2007-06-11	Analyzed By:	TP
Prep Batch:	32755	Sample Preparation:	2007-06-04	Prepared By:	TS

Parameter	Flag	RL Result	Units	Dilution	RL
Hardness (by ICP)		**26600**	mg eq CaCO3/L	1	0.00

Sample: 125727 - Water Station #1 MW-1

Analysis:	Ion Chromatography	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	37610	Date Analyzed:	2007-05-29	Analyzed By:	AR
Prep Batch:	32592	Sample Preparation:		Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**154000**	mg/L	5000	0.500
Sulfate		**1800**	mg/L	50	0.500

Sample: 125727 - Water Station #1 MW-1

Analysis:	K, Total	Analytical Method:	S 6010B	Prep Method:	S 3010A
QC Batch:	38029	Date Analyzed:	2007-06-11	Analyzed By:	TP
Prep Batch:	32755	Sample Preparation:	2007-06-04	Prepared By:	TS

Parameter	Flag	RL Result	Units	Dilution	RL
Total Potassium		**1950**	mg/L	100	1.00

Sample: 125727 - Water Station #1 MW-1

Analysis:	Mg, Total	Analytical Method:	S 6010B	Prep Method:	S 3010A
QC Batch:	38029	Date Analyzed:	2007-06-11	Analyzed By:	TP
Prep Batch:	32755	Sample Preparation:	2007-06-04	Prepared By:	TS

Parameter	Flag	RL Result	Units	Dilution	RL
Total Magnesium		**4620**	mg/L	100	1.00

Sample: 125727 - Water Station #1 MW-1

Analysis:	Na, Total	Analytical Method:	S 6010B	Prep Method:	S 3010A
QC Batch:	38029	Date Analyzed:	2007-06-11	Analyzed By:	TP
Prep Batch:	32755	Sample Preparation:	2007-06-04	Prepared By:	TS

Parameter	Flag	RL Result	Units	Dilution	RL
Total Sodium		**79100**	mg/L	1000	1.00

Sample: 125727 - Water Station #1 MW-1

Analysis:	pH	Analytical Method:	SM 4500-H+	Prep Method:	N/A
QC Batch:	37604	Date Analyzed:	2007-05-29	Analyzed By:	AR
Prep Batch:	32588	Sample Preparation:		Prepared By:	AR

Parameter	Flag	Result	RL	Units	Dilution	RL
pH		**6.45**		s.u.	1	0.00

Sample: 125727 - Water Station #1 MW-1

Analysis:	Salts, Dissolved	Analytical Method:	S 6010B	Prep Method:	S 3005A
QC Batch:	38129	Date Analyzed:	2007-06-13	Analyzed By:	TP
Prep Batch:	32980	Sample Preparation:	2007-06-12	Prepared By:	TS

Parameter	Flag	Result	RL	Units	Dilution	RL
Dissolved Calcium		**2790**		mg/L	100	0.500
Dissolved Magnesium		**4530**		mg/L	100	0.500
Dissolved Potassium		**2210**		mg/L	100	0.500
Dissolved Sodium		**88400**		mg/L	1000	0.500

Sample: 125727 - Water Station #1 MW-1

Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	37709	Date Analyzed:	2007-05-31	Analyzed By:	AR
Prep Batch:	32678	Sample Preparation:		Prepared By:	AR

Parameter	Flag	Result	RL	Units	Dilution	RL
Total Dissolved Solids		**231100**		mg/L	100	10.00

Sample: 125727 - Water Station #1 MW-1

Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	37730	Date Analyzed:	2007-05-31	Analyzed By:	AG
Prep Batch:	32692	Sample Preparation:	2007-05-31	Prepared By:	AG

Parameter	Flag	Result	RL	Units	Dilution	RL
DRO		<5.00		mg/L	1	5.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		11.3	mg/L	1	15.0	75	70 - 130

Sample: 125727 - Water Station #1 MW-1

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5030B
QC Batch:	37813	Date Analyzed:	2007-06-03	Analyzed By:	AG
Prep Batch:	32729	Sample Preparation:	2007-06-02	Prepared By:	AG

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<0.500	mg/L	5	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.435	mg/L	5	0.500	87	70 - 130
4-Bromofluorobenzene (4-BFB)		0.390	mg/L	5	0.500	78	70 - 130

Method Blank (1) QC Batch: 37610

QC Batch:	37610	Date Analyzed:	2007-05-29	Analyzed By:	AR
Prep Batch:	32592	QC Preparation:	2007-05-29	Prepared By:	AR

Parameter	Flag	MDL Result	Units	RL
Chloride		2.14	mg/L	0.5
Sulfate		<0.0485	mg/L	0.5

Method Blank (1) QC Batch: 37709

QC Batch:	37709	Date Analyzed:	2007-05-31	Analyzed By:	AR
Prep Batch:	32678	QC Preparation:	2007-05-31	Prepared By:	AR

Parameter	Flag	MDL Result	Units	RL
Total Dissolved Solids		16.00	mg/L	10

Method Blank (1) QC Batch: 37730

QC Batch:	37730	Date Analyzed:	2007-05-31	Analyzed By:	AG
Prep Batch:	32692	QC Preparation:	2007-05-31	Prepared By:	AG

Parameter	Flag	MDL Result	Units	RL
DRO		1.13	mg/L	5

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		13.0	mg/L	1	15.0	87	70 - 130

Method Blank (1) QC Batch: 37812

QC Batch: 37812 | Date Analyzed: 2007-06-03 | Analyzed By: AG
Prep Batch: 32729 | QC Preparation: 2007-06-02 | Prepared By: AG

Parameter	Flag	MDL Result	Units	RL
Benzene		<0.000200	mg/L	0.001
Toluene		<0.000200	mg/L	0.001
Ethylbenzene		<0.000200	mg/L	0.001
Xylene		<0.000300	mg/L	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.101	mg/L	1	0.100	101	60.1 - 116.8
4-Bromofluorobenzene (4-BFB)		0.0887	mg/L	1	0.100	89	54.4 - 112.5

Method Blank (1) QC Batch: 37813

QC Batch: 37813 | Date Analyzed: 2007-06-03 | Analyzed By: AG
Prep Batch: 32729 | QC Preparation: 2007-06-02 | Prepared By: AG

Parameter	Flag	MDL Result	Units	RL
GRO		0.0689	mg/L	0.1

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0875	mg/L	1	0.100	88	70 - 130
4-Bromofluorobenzene (4-BFB)		0.0776	mg/L	1	0.100	78	70 - 130

Method Blank (1) QC Batch: 37938

QC Batch: 37938 | Date Analyzed: 2007-06-07 | Analyzed By: SM
Prep Batch: 32854 | QC Preparation: 2007-06-06 | Prepared By: JS

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: 38029

QC Batch: 38029 | Date Analyzed: 2007-06-11 | Analyzed By: TP
Prep Batch: 32755 | QC Preparation: 2007-06-04 | Prepared By: TS

Parameter	Flag	MDL Result	Units	RL
Total Calcium		<0.517	mg/L	1

Method Blank (1) QC Batch: 38029

QC Batch:	38029	Date Analyzed:	2007-06-11	Analyzed By:	TP
Prep Batch:	32755	QC Preparation:	2007-06-04	Prepared By:	TS

Parameter	Flag	MDL Result	Units	RL
Total Potassium		<0.866	mg/L	1

Method Blank (1) QC Batch: 38029

QC Batch:	38029	Date Analyzed:	2007-06-11	Analyzed By:	TP
Prep Batch:	32755	QC Preparation:	2007-06-04	Prepared By:	TS

Parameter	Flag	MDL Result	Units	RL
Total Magnesium		<0.203	mg/L	1

Method Blank (1) QC Batch: 38029

QC Batch:	38029	Date Analyzed:	2007-06-11	Analyzed By:	TP
Prep Batch:	32755	QC Preparation:	2007-06-04	Prepared By:	TS

Parameter	Flag	MDL Result	Units	RL
Total Sodium		<0.668	mg/L	1

Method Blank (1) QC Batch: 38129

QC Batch:	38129	Date Analyzed:	2007-06-13	Analyzed By:	TP
Prep Batch:	32980	QC Preparation:	2007-06-12	Prepared By:	TS

Parameter	Flag	MDL Result	Units	RL
Dissolved Calcium		<0.0290	mg/L	0.5
Dissolved Magnesium		<0.0740	mg/L	0.5
Dissolved Potassium		0.451	mg/L	0.5
Dissolved Sodium		<0.529	mg/L	0.5

Duplicates (1)

QC Batch:	37604	Date Analyzed:	2007-05-29	Analyzed By:	AR
Prep Batch:	32588	QC Preparation:	2007-05-29	Prepared By:	AR

Param	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
pH	6.46	6.45	s.u.	1	0	1.5

Duplicates (1)

QC Batch: 37709 | Date Analyzed: 2007-05-31 | Analyzed By: AR
Prep Batch: 32678 | QC Preparation: 2007-05-31 | Prepared By: AR

Param	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Total Dissolved Solids	230000	231100	mg/L	100	0	20

Duplicates (1)

QC Batch: 37938 | Date Analyzed: 2007-06-07 | Analyzed By: SM
Prep Batch: 32854 | QC Preparation: 2007-06-06 | Prepared By: JS

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	206	208	mg/L as CaCo3	1	1	20
Total Alkalinity	206	208	mg/L as CaCo3	1	1	20

Laboratory Control Spike (LCS-1)

QC Batch: 37610 | Date Analyzed: 2007-05-29 | Analyzed By: AR
Prep Batch: 32592 | QC Preparation: 2007-05-29 | Prepared By: AR

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	12.8	mg/L	1	12.5	<0.0181	102	90 - 110
Sulfate	13.0	mg/L	1	12.5	<0.0485	104	90 - 110

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	12.6	mg/L	1	12.5	<0.0181	101	90 - 110	2	
Sulfate	13.0	mg/L	1	12.5	<0.0485	104	90 - 110	0	

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: 37730 | Date Analyzed: 2007-05-31 | Analyzed By: AG
Prep Batch: 32692 | QC Preparation: 2007-05-31 | Prepared By: AG

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	26.6	mg/L	1	25.0	<0.711	106	70 - 130

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO	27.2	mg/L	1	25.0	<0.711	109	70 - 130	2	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
n-Triacontane	13.0	13.1	mg/L	1	15.0	86	87	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 37812 | Date Analyzed: 2007-06-03 | Analyzed By: AG
Prep Batch: 32729 | QC Preparation: 2007-06-02 | Prepared By: AG

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	0.103	mg/L	1	0.100	<0.000200	103	76.4 - 120.5
Toluene	0.103	mg/L	1	0.100	<0.000200	103	79.2 - 117.8
Ethylbenzene	0.0997	mg/L	1	0.100	<0.000200	100	78.8 - 117.9
Xylene	0.299	mg/L	1	0.300	<0.000300	100	80 - 120.1

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	0.103	mg/L	1	0.100	<0.000200	103	76.4 - 120.5	0	20
Toluene	0.104	mg/L	1	0.100	<0.000200	104	79.2 - 117.8	1	20
Ethylbenzene	0.100	mg/L	1	0.100	<0.000200	100	78.8 - 117.9	0	20
Xylene	0.301	mg/L	1	0.300	<0.000300	100	80 - 120.1	1	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
Trifluorotoluene (TFT)	0.0939	0.0915	mg/L	1	0.100	94	92	59.5 - 117.8
4-Bromofluorobenzene (4-BFB)	0.0981	0.0978	mg/L	1	0.100	98	98	63.2 - 122.4

Laboratory Control Spike (LCS-1)

QC Batch: 37813 | Date Analyzed: 2007-06-03 | Analyzed By: AG
Prep Batch: 32729 | QC Preparation: 2007-06-02 | Prepared By: AG

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	0.841	mg/L	1	1.00	<0.0590	84	70 - 130

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	0.793	mg/L	1	1.00	<0.0590	79	70 - 130	6	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
Trifluorotoluene (TFT)	0.105	0.114	mg/L	1	0.100	105	114	70 - 130
4-Bromofluorobenzene (4-BFB)	0.0949	0.0887	mg/L	1	0.100	95	89	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 38029 | Date Analyzed: 2007-06-11 | Analyzed By: TP
Prep Batch: 32755 | QC Preparation: 2007-06-04 | Prepared By: TS

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Calcium	51.7	mg/L	1	50.0	<0.517	103	85 - 115

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Calcium	52.1	mg/L	1	50.0	<0.517	104	85 - 115	1	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: 38029 | Date Analyzed: 2007-06-11 | Analyzed By: TP
Prep Batch: 32755 | QC Preparation: 2007-06-04 | Prepared By: TS

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Potassium	51.5	mg/L	1	50.0	<0.866	103	85 - 115

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Potassium	52.0	mg/L	1	50.0	<0.866	104	85 - 115	1	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: 38029 | Date Analyzed: 2007-06-11 | Analyzed By: TP
Prep Batch: 32755 | QC Preparation: 2007-06-04 | Prepared By: TS

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Magnesium	50.7	mg/L	1	50.0	<0.203	101	85 - 115

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Magnesium	51.0	mg/L	1	50.0	<0.203	102	85 - 115	1	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: 38029 | Date Analyzed: 2007-06-11 | Analyzed By: TP
Prep Batch: 32755 | QC Preparation: 2007-06-04 | Prepared By: TS

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Sodium	51.3	mg/L	1	50.0	<0.668	103	87.3 - 124

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Sodium	52.0	mg/L	1	50.0	<0.668	104	87.3 - 124	1	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: 38129 | Date Analyzed: 2007-06-13 | Analyzed By: TP
Prep Batch: 32980 | QC Preparation: 2007-06-12 | Prepared By: TS

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Dissolved Calcium	51.4	mg/L	1	50.0	<0.0290	103	79.1 - 121
Dissolved Magnesium	51.4	mg/L	1	50.0	<0.0740	103	80.2 - 120
Dissolved Potassium	51.2	mg/L	1	50.0	<0.307	102	78.8 - 114
Dissolved Sodium	52.1	mg/L	1	50.0	<0.529	104	79.4 - 123

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Dissolved Calcium	51.6	mg/L	1	50.0	<0.0290	103	79.1 - 121	0	20
Dissolved Magnesium	51.5	mg/L	1	50.0	<0.0740	103	80.2 - 120	0	20
Dissolved Potassium	51.3	mg/L	1	50.0	<0.307	103	78.8 - 114	0	20
Dissolved Sodium	51.6	mg/L	1	50.0	<0.529	103	79.4 - 123	1	20

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

Matrix Spike (MS-1) Spiked Sample: 125727

QC Batch: 37610 | Date Analyzed: 2007-05-29 | Analyzed By: AR
Prep Batch: 32592 | QC Preparation: 2007-05-29 | Prepared By: AR

continued ...

matrix spikes continued ...

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride [1]	177000	mg/L	50	625	179679	-427	90 - 110
Sulfate	2390	mg/L	50	625	1796.67	95	90 - 110

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride [2]	178000	mg/L	50	625	179679	-267	90 - 110	1	
Sulfate	2420	mg/L	50	625	1796.67	100	90 - 110	1	

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

Matrix Spike (MS-1) Spiked Sample: 126001

QC Batch: 38029 | Date Analyzed: 2007-06-11 | Analyzed By: TP
Prep Batch: 32755 | QC Preparation: 2007-06-04 | Prepared By: TS

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Calcium	65.9	mg/L	1	50.0	14.2	103	75 - 125

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Calcium	65.1	mg/L	1	50.0	14.2	102	75 - 125	1	20

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

Matrix Spike (MS-1) Spiked Sample: 126001

QC Batch: 38029 | Date Analyzed: 2007-06-11 | Analyzed By: TP
Prep Batch: 32755 | QC Preparation: 2007-06-04 | Prepared By: TS

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Potassium	55.9	mg/L	1	50.0	3.6	105	75 - 125

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Potassium	54.9	mg/L	1	50.0	3.6	103	75 - 125	2	20

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

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

Matrix Spike (MS-1) Spiked Sample: 126001

QC Batch: 38029 | Date Analyzed: 2007-06-11 | Analyzed By: TP
Prep Batch: 32755 | QC Preparation: 2007-06-04 | Prepared By: TS

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Magnesium	55.1	mg/L	1	50.0	3.55	103	75 - 125

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Magnesium	54.0	mg/L	1	50.0	3.55	101	75 - 125	2	20

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

Matrix Spike (MS-1) Spiked Sample: 126001

QC Batch: 38029 | Date Analyzed: 2007-06-11 | Analyzed By: TP
Prep Batch: 32755 | QC Preparation: 2007-06-04 | Prepared By: TS

Param		MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Sodium	[3]	769	mg/L	1	50.0	705	128	75 - 125

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Sodium	766	mg/L	1	50.0	705	122	75 - 125	0	20

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

Matrix Spike (MS-1) Spiked Sample: 127171

QC Batch: 38129 | Date Analyzed: 2007-06-13 | Analyzed By: TP
Prep Batch: 32980 | QC Preparation: 2007-06-12 | Prepared By: TS

Param		MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Dissolved Calcium		142	mg/L	1	50.0	92.3	99	69 - 130
Dissolved Magnesium		98.1	mg/L	1	50.0	49	98	77.9 - 122
Dissolved Potassium		61.9	mg/L	1	50.0	10.7	102	76.8 - 117
Dissolved Sodium	[4]	244	mg/L	1	50.0	180	128	84.2 - 120

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Dissolved Calcium	144	mg/L	1	50.0	92.3	103	69 - 130	1	20
Dissolved Magnesium	99.9	mg/L	1	50.0	49	102	77.9 - 122	2	20

continued ...

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

matrix spikes continued ...

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Dissolved Potassium	62.7	mg/L	1	50.0	10.7	104	76.8 - 117	1	20
Dissolved Sodium	239	mg/L	1	50.0	180	118	84.2 - 120	2	20

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

Standard (ICV-1)

QC Batch: 37604 Date Analyzed: 2007-05-29 Analyzed By: AR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
pH		s.u.	7.00	7.06	101	98 - 102	2007-05-29

Standard (CCV-1)

QC Batch: 37604 Date Analyzed: 2007-05-29 Analyzed By: AR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
pH		s.u.	7.00	7.18	102	98 - 102	2007-05-29

Standard (ICV-1)

QC Batch: 37610 Date Analyzed: 2007-05-29 Analyzed By: AR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/L	12.5	12.6	101	90 - 110	2007-05-29
Sulfate		mg/L	12.5	12.7	102	90 - 110	2007-05-29

Standard (CCV-1)

QC Batch: 37610 Date Analyzed: 2007-05-29 Analyzed By: AR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/L	12.5	12.6	101	90 - 110	2007-05-29
Sulfate		mg/L	12.5	12.7	102	90 - 110	2007-05-29

Standard (ICV-1)

QC Batch: 37709 Date Analyzed: 2007-05-31 Analyzed By: AR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Dissolved Solids		mg/L	1000	1047	105	90 - 110	2007-05-31

Standard (CCV-1)

QC Batch: 37709 Date Analyzed: 2007-05-31 Analyzed By: AR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Dissolved Solids		mg/L	1000	960.0	96	90 - 110	2007-05-31

Standard (ICV-1)

QC Batch: 37730 Date Analyzed: 2007-05-31 Analyzed By: AG

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/L	250	277	111	85 - 115	2007-05-31

Standard (CCV-1)

QC Batch: 37730 Date Analyzed: 2007-05-31 Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/L	250	278	111	85 - 115	2007-05-31

Standard (ICV-1)

QC Batch: 37812 Date Analyzed: 2007-06-03 Analyzed By: AG

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.100	0.104	104	85 - 115	2007-06-03
Toluene		mg/L	0.100	0.103	103	85 - 115	2007-06-03
Ethylbenzene		mg/L	0.100	0.102	102	85 - 115	2007-06-03
Xylene		mg/L	0.300	0.304	101	85 - 115	2007-06-03

Standard (CCV-1)

QC Batch: 37812 Date Analyzed: 2007-06-03 Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.100	0.102	102	85 - 115	2007-06-03
Toluene		mg/L	0.100	0.102	102	85 - 115	2007-06-03
Ethylbenzene		mg/L	0.100	0.0996	100	85 - 115	2007-06-03
Xylene		mg/L	0.300	0.299	100	85 - 115	2007-06-03

Standard (ICV-1)

QC Batch: 37813 Date Analyzed: 2007-06-03 Analyzed By: AG

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/L	1.00	0.872	87	85 - 115	2007-06-03

Standard (CCV-1)

QC Batch: 37813 Date Analyzed: 2007-06-03 Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/L	1.00	0.981	98	85 - 115	2007-06-03

Standard (ICV-1)

QC Batch: 37938 Date Analyzed: 2007-06-07 Analyzed By: SM

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Alkalinity		mg/L as CaCo3	250	244	98	90 - 110	2007-06-07

Standard (CCV-1)

QC Batch: 37938 Date Analyzed: 2007-06-07 Analyzed By: SM

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Alkalinity		mg/L as CaCo3	250	244	98	90 - 110	2007-06-07

Standard (ICV-1)

QC Batch: 38029 Date Analyzed: 2007-06-11 Analyzed By: TP

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Calcium		mg/L	50.0	51.7	103	90 - 110	2007-06-11

Standard (ICV-1)

QC Batch: 38029 Date Analyzed: 2007-06-11 Analyzed By: TP

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Potassium		mg/L	50.0	51.6	103	90 - 110	2007-06-11

Standard (ICV-1)

QC Batch: 38029 Date Analyzed: 2007-06-11 Analyzed By: TP

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Magnesium		mg/L	50.0	51.6	103	90 - 110	2007-06-11

Standard (ICV-1)

QC Batch: 38029 Date Analyzed: 2007-06-11 Analyzed By: TP

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Sodium		mg/L	50.0	50.6	101	90 - 110	2007-06-11

Standard (CCV-1)

QC Batch: 38029 Date Analyzed: 2007-06-11 Analyzed By: TP

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Calcium		mg/L	50.0	50.8	102	90 - 110	2007-06-11

Standard (CCV-1)

QC Batch: 38029 Date Analyzed: 2007-06-11 Analyzed By: TP

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Potassium		mg/L	50.0	49.0	98	90 - 110	2007-06-11

Standard (CCV-1)

QC Batch: 38029 | Date Analyzed: 2007-06-11 | Analyzed By: TP

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Magnesium		mg/L	50.0	50.1	100	90 - 110	2007-06-11

Standard (CCV-1)

QC Batch: 38029 | Date Analyzed: 2007-06-11 | Analyzed By: TP

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Sodium		mg/L	50.0	47.4	95	90 - 110	2007-06-11

Standard (ICV-1)

QC Batch: 38129 | Date Analyzed: 2007-06-13 | Analyzed By: TP

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Dissolved Calcium		mg/L	50.0	51.7	103	90 - 110	2007-06-13
Dissolved Magnesium		mg/L	50.0	52.0	104	90 - 110	2007-06-13
Dissolved Potassium		mg/L	50.0	51.5	103	90 - 110	2007-06-13
Dissolved Sodium		mg/L	50.0	50.4	101	90 - 110	2007-06-13

Standard (CCV-1)

QC Batch: 38129 | Date Analyzed: 2007-06-13 | Analyzed By: TP

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Dissolved Calcium		mg/L	50.0	49.0	98	90 - 110	2007-06-13
Dissolved Magnesium		mg/L	50.0	50.2	100	90 - 110	2007-06-13
Dissolved Potassium		mg/L	50.0	49.6	99	90 - 110	2007-06-13
Dissolved Sodium		mg/L	50.0	51.8	104	90 - 110	2007-06-13

7052924

Analysis Request and Chain of Custody Record

HIGHLANDER ENVIRONMENTAL CORP.

1910 N. Big Spring St.
Midland, Texas 79705

(432) 682-4559 Fax (432) 682-3946

PAGE: OF:

CLIENT NAME: Celero Energy

SITE MANAGER: Gary Miller

PROJECT NO.: 2972

PROJECT NAME: Rock Queen ESA

LAB I.D. NUMBER	DATE	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FILTERED (Y/N)	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE
125727	5-24-07	1725	W		X	Water Station #1-MW-1	3				X	

ANALYSIS REQUEST (Circle or Specify Method No.)

BTEX 8020/602	MTBE 8020/602	TPH 418.1 / 8015 MOD. / TX1005	PAH 8270	RCRA Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Cr Pd Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC/MS Vol. 8240/8260/624	GC/MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 808/608	BOD, TSS, pH, TDS, Chloride	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)	See Attached Major Ions
X		X															X

RELINQUISHED BY: (Signature) Gary Miller — Date: 5-24-07 Time: 1150

RECEIVED BY: (Signature) — Date: 5-24-07 Time: 1150

SAMPLED BY: (Print & Sign) Jeremy Ledbetter — Date: 5-24-07 Time:

RELINQUISHED BY: (Signature) — Date: Time:

RECEIVED BY: (Signature) — Date: 5-30-07 Time: 8:00

SAMPLE SHIPPED BY: (Circle)
FEDEX BUS AIRBILL #
HAND DELIVERED UPS OTHER:

RELINQUISHED BY: (Signature) — Date: Time:

RECEIVED BY: (Signature) — Date: Time:

RECEIVING LABORATORY:
ADDRESS:
CITY: STATE: ZIP:
CONTACT: PHONE:

RECEIVED BY: (Signature)
DATE: TIME:

HIGHLANDER CONTACT PERSON:

Results by:

RUSH Charges Authorized: Yes No

SAMPLE CONDITION WHEN RECEIVED: 4°

MATRIX: W—Water A—Air SD—Solid S—Soil SL—Sludge O—Other

REMARKS: LS P2492410

Please Fill out all copies – Laboratory retains yellow copy – Return original copy to Highlander Environmental Corp. – Project Manager retains pink copy – Accounting receives Gold copy

TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
200 East Sunset Road, Suite E El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•4944
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6015 Harris Parkway, Suite 110 Ft. Worth, Texas 76132 817•201•5260
E-Mail: lab@traceanalysis.com

Certifications

WBENC: 237019 **HUB:** 1752439743100-86536 **DBE:** VN 20657
NCTRCA WFWB38444Y0909

NELAP Certifications

Lubbock: T104704219-08-TX LELAP-02003 Kansas E-10317 **El Paso:** T104704221-08-TX LELAP-02002 **Midland:** T104704392-08-TX

Analytical and Quality Control Report

Jeff Kindley
Tetra Tech
1910 N. Big Spring Street
Midland, TX, 79705

Report Date: December 7, 2009

Work Order: 9112515

Project Location: Chavez Co., NM
Project Name: Celero/Rock Queen
Project Number: 115-6403134A

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
215835	MW-1	water	2009-11-24	14:25	2009-11-25
215836	MW-2	water	2009-11-24	14:10	2009-11-25
215837	MW-3	water	2009-11-24	14:00	2009-11-25
215838	MW-4	water	2009-11-24	15:00	2009-11-25

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.

Dr. Blair Leftwich, Director
Dr. Michael Abel, Project Manager

Standard Flags

B - The sample contains less than ten times the concentration found in the method blank.

Case Narrative

Samples for project Celero/Rock Queen were received by TraceAnalysis, Inc. on 2009-11-25 and assigned to work order 9112515. Samples for work order 9112515 were received intact without headspace and at a temperature of 3.2 deg. C.

Samples were analyzed for the following tests using their respective methods.

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
Alkalinity	SM 2320B	56132	2009-12-01 at 10:04	65677	2009-12-01 at 16:04
BTEX	S 8021B	56178	2009-12-02 at 10:28	65725	2009-12-02 at 10:28
BTEX	S 8021B	56235	2009-12-06 at 20:57	65798	2009-12-06 at 20:57
Ca, Dissolved	S 6010B	56137	2009-12-02 at 09:55	65745	2009-12-03 at 14:57
Chloride (IC)	E 300.0	56093	2009-11-30 at 12:22	65660	2009-12-01 at 08:59
Hardness	S 6010B	56137	2009-12-02 at 09:55	65745	2009-12-03 at 14:57
K, Dissolved	S 6010B	56137	2009-12-02 at 09:55	65745	2009-12-03 at 14:57
Mg, Dissolved	S 6010B	56137	2009-12-02 at 09:55	65745	2009-12-03 at 14:57
Na, Dissolved	S 6010B	56137	2009-12-02 at 09:55	65745	2009-12-03 at 14:57
pH	SM 4500-H+	56049	2009-11-25 at 11:09	65589	2009-11-25 at 12:09
SO4 (IC)	E 300.0	56093	2009-11-30 at 12:22	65660	2009-12-01 at 08:59
TDS	SM 2540C	56115	2009-12-01 at 10:13	65808	2009-12-07 at 14:46

Results for these samples are reported on a wet weight basis unless data package indicates otherwise.

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 9112515 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.

Analytical Report

Sample: 215835 - MW-1

Laboratory:	Midland				
Analysis:	Alkalinity	Analytical Method:	SM 2320B	Prep Method:	N/A
QC Batch:	65677	Date Analyzed:	2009-12-01	Analyzed By:	AR
Prep Batch:	56132	Sample Preparation:	2009-12-01	Prepared By:	AR

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		**97.0**	mg/L as CaCo3	1	4.00
Total Alkalinity		**97.0**	mg/L as CaCo3	1	4.00

Sample: 215835 - MW-1

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	65798	Date Analyzed:	2009-12-06	Analyzed By:	tn
Prep Batch:	56235	Sample Preparation:	2009-12-06	Prepared By:	tn

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		**0.00160**	mg/L	1	0.00100
Toluene		<0.00100	mg/L	1	0.00100
Ethylbenzene		<0.00100	mg/L	1	0.00100
Xylene		<0.00100	mg/L	1	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0736	mg/L	1	0.100	74	70.9 - 119.8
4-Bromofluorobenzene (4-BFB)	[1]	0.0530	mg/L	1	0.100	53	68.1 - 118.8

Sample: 215835 - MW-1

Laboratory:	Lubbock				
Analysis:	Cations	Analytical Method:	S 6010B	Prep Method:	S 3005A
QC Batch:	65745	Date Analyzed:	2009-12-03	Analyzed By:	RR
Prep Batch:	56137	Sample Preparation:	2009-12-02	Prepared By:	KV

Parameter	Flag	RL Result	Units	Dilution	RL
Dissolved Calcium		**2060**	mg/L	100	1.00

continued ...

[1]Surrogate 4-BFB out due to matrix interference. Sample was reran on 12-06-2009 to confirm matrix interference results.

sample 215835 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL
Dissolved Potassium		**1840**	mg/L	100	1.00
Dissolved Magnesium		**3630**	mg/L	100	1.00
Dissolved Sodium		**70000**	mg/L	100	1.00

Sample: 215835 - MW-1

Laboratory:	Midland				
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	65660	Date Analyzed:	2009-12-01	Analyzed By:	AR
Prep Batch:	56093	Sample Preparation:	2009-11-30	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**139000**	mg/L	5000	0.500

Sample: 215835 - MW-1

Laboratory:	Lubbock				
Analysis:	Hardness	Analytical Method:	S 6010B	Prep Method:	N/A
QC Batch:	65745	Date Analyzed:	2009-12-03	Analyzed By:	RR
Prep Batch:	56137	Sample Preparation:	2009-12-02	Prepared By:	KV

Parameter	Flag	RL Result	Units	Dilution	RL
Hardness (by ICP)		**20100**	mg eq CaCO3/L	1	0.00

Sample: 215835 - MW-1

Laboratory:	Midland				
Analysis:	pH	Analytical Method:	SM 4500-H+	Prep Method:	N/A
QC Batch:	65589	Date Analyzed:	2009-11-25	Analyzed By:	AR
Prep Batch:	56049	Sample Preparation:	2009-11-25	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
pH		**5.15**	s.u.	1	0.00

Sample: 215835 - MW-1

Laboratory:	Midland				
Analysis:	SO4 (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	65660	Date Analyzed:	2009-12-01	Analyzed By:	AR
Prep Batch:	56093	Sample Preparation:	2009-11-30	Prepared By:	AR

Parameter	Flag	Result	RL	Units	Dilution	RL
Sulfate		**1600**		mg/L	50	0.500

Sample: 215835 - MW-1

Laboratory:	Midland				
Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	65808	Date Analyzed:	2009-12-07	Analyzed By:	AR
Prep Batch:	56115	Sample Preparation:	2009-12-01	Prepared By:	AR

Parameter	Flag	Result	RL	Units	Dilution	RL
Total Dissolved Solids		**220000**		mg/L	10	10.0

Sample: 215836 - MW-2

Laboratory:	Midland				
Analysis:	Alkalinity	Analytical Method:	SM 2320B	Prep Method:	N/A
QC Batch:	65677	Date Analyzed:	2009-12-01	Analyzed By:	AR
Prep Batch:	56132	Sample Preparation:	2009-12-01	Prepared By:	AR

Parameter	Flag	Result	RL	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		**127**		mg/L as CaCo3	1	4.00
Total Alkalinity		**127**		mg/L as CaCo3	1	4.00

Sample: 215836 - MW-2

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	65725	Date Analyzed:	2009-12-02	Analyzed By:	tn
Prep Batch:	56178	Sample Preparation:	2009-12-02	Prepared By:	tn

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.00100	mg/L	1	0.00100
Toluene		<0.00100	mg/L	1	0.00100
Ethylbenzene		<0.00100	mg/L	1	0.00100
Xylene		<0.00100	mg/L	1	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.105	mg/L	1	0.100	105	70.9 - 119.8
4-Bromofluorobenzene (4-BFB)		0.0895	mg/L	1	0.100	90	68.1 - 118.8

Sample: 215836 - MW-2

Laboratory:	Lubbock				
Analysis:	Cations	Analytical Method:	S 6010B	Prep Method:	S 3005A
QC Batch:	65745	Date Analyzed:	2009-12-03	Analyzed By:	RR
Prep Batch:	56137	Sample Preparation:	2009-12-02	Prepared By:	KV

Parameter	Flag	RL Result	Units	Dilution	RL
Dissolved Calcium		**1010**	mg/L	10	1.00
Dissolved Potassium		**270**	mg/L	10	1.00
Dissolved Magnesium		**633**	mg/L	10	1.00
Dissolved Sodium		**10800**	mg/L	100	1.00

Sample: 215836 - MW-2

Laboratory:	Midland				
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	65660	Date Analyzed:	2009-12-01	Analyzed By:	AR
Prep Batch:	56093	Sample Preparation:	2009-11-30	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**19900**	mg/L	500	0.500

Sample: 215836 - MW-2

Laboratory:	Lubbock				
Analysis:	Hardness	Analytical Method:	S 6010B	Prep Method:	N/A
QC Batch:	65745	Date Analyzed:	2009-12-03	Analyzed By:	RR
Prep Batch:	56137	Sample Preparation:	2009-12-02	Prepared By:	KV

Parameter	Flag	RL Result	Units	Dilution	RL
Hardness (by ICP)		**5130**	mg eq CaCO3/L	1	0.00

Sample: 215836 - MW-2

Laboratory:	Midland				
Analysis:	pH	Analytical Method:	SM 4500-H+	Prep Method:	N/A
QC Batch:	65589	Date Analyzed:	2009-11-25	Analyzed By:	AR
Prep Batch:	56049	Sample Preparation:	2009-11-25	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
pH		**6.97**	s.u.	1	0.00

Sample: 215836 - MW-2

Laboratory:	Midland				
Analysis:	SO4 (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	65660	Date Analyzed:	2009-12-01	Analyzed By:	AR
Prep Batch:	56093	Sample Preparation:	2009-11-30	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Sulfate		**413**	mg/L	50	0.500

Sample: 215836 - MW-2

Laboratory:	Midland				
Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	65808	Date Analyzed:	2009-12-07	Analyzed By:	AR
Prep Batch:	56115	Sample Preparation:	2009-12-01	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Total Dissolved Solids		**146000**	mg/L	100	10.0

Sample: 215837 - MW-3

Laboratory:	Midland				
Analysis:	Alkalinity	Analytical Method:	SM 2320B	Prep Method:	N/A
QC Batch:	65677	Date Analyzed:	2009-12-01	Analyzed By:	AR
Prep Batch:	56132	Sample Preparation:	2009-12-01	Prepared By:	AR

Parameter	Flag	Result	RL	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		**92.0**		mg/L as CaCo3	1	4.00
Total Alkalinity		**92.0**		mg/L as CaCo3	1	4.00

Sample: 215837 - MW-3

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	65725	Date Analyzed:	2009-12-02	Analyzed By:	tn
Prep Batch:	56178	Sample Preparation:	2009-12-02	Prepared By:	tn

Parameter	Flag	Result	RL	Units	Dilution	RL
Benzene		<0.00100		mg/L	1	0.00100
Toluene		<0.00100		mg/L	1	0.00100
Ethylbenzene		<0.00100		mg/L	1	0.00100
Xylene		<0.00100		mg/L	1	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0967	mg/L	1	0.100	97	70.9 - 119.8
4-Bromofluorobenzene (4-BFB)		0.0812	mg/L	1	0.100	81	68.1 - 118.8

Sample: 215837 - MW-3

Laboratory:	Lubbock				
Analysis:	Cations	Analytical Method:	S 6010B	Prep Method:	S 3005A
QC Batch:	65745	Date Analyzed:	2009-12-03	Analyzed By:	RR
Prep Batch:	56137	Sample Preparation:	2009-12-02	Prepared By:	KV

Parameter	Flag	Result	RL	Units	Dilution	RL
Dissolved Calcium		**6030**		mg/L	100	1.00
Dissolved Potassium		**323**		mg/L	10	1.00
Dissolved Magnesium		**2150**		mg/L	10	1.00
Dissolved Sodium		**29900**		mg/L	100	1.00

Sample: 215837 - MW-3

Laboratory:	Midland				
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	65660	Date Analyzed:	2009-12-01	Analyzed By:	AR
Prep Batch:	56093	Sample Preparation:	2009-11-30	Prepared By:	AR

Parameter	Flag	Result	RL	Units	Dilution	RL
Chloride		**59500**		mg/L	5000	0.500

Sample: 215837 - MW-3

Laboratory:	Lubbock				
Analysis:	Hardness	Analytical Method:	S 6010B	Prep Method:	N/A
QC Batch:	65745	Date Analyzed:	2009-12-03	Analyzed By:	RR
Prep Batch:	56137	Sample Preparation:	2009-12-02	Prepared By:	KV

Parameter	Flag	Result	RL	Units	Dilution	RL
Hardness (by ICP)		**23900**		mg eq CaCO3/L	1	0.00

Sample: 215837 - MW-3

Laboratory:	Midland				
Analysis:	pH	Analytical Method:	SM 4500-H+	Prep Method:	N/A
QC Batch:	65589	Date Analyzed:	2009-11-25	Analyzed By:	AR
Prep Batch:	56049	Sample Preparation:	2009-11-25	Prepared By:	AR

Parameter	Flag	Result	RL	Units	Dilution	RL
pH		**6.02**		s.u.	1	0.00

Sample: 215837 - MW-3

Laboratory:	Midland				
Analysis:	SO4 (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	65660	Date Analyzed:	2009-12-01	Analyzed By:	AR
Prep Batch:	56093	Sample Preparation:	2009-11-30	Prepared By:	AR

Parameter	Flag	Result	RL	Units	Dilution	RL
Sulfate		**908**		mg/L	50	0.500

Sample: 215837 - MW-3

Laboratory:	Midland				
Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	65808	Date Analyzed:	2009-12-07	Analyzed By:	AR
Prep Batch:	56115	Sample Preparation:	2009-12-01	Prepared By:	AR

Parameter	Flag	Result	RL	Units	Dilution	RL
Total Dissolved Solids		**108000**		mg/L	100	10.0

Sample: 215838 - MW-4

Laboratory:	Midland				
Analysis:	Alkalinity	Analytical Method:	SM 2320B	Prep Method:	N/A
QC Batch:	65677	Date Analyzed:	2009-12-01	Analyzed By:	AR
Prep Batch:	56132	Sample Preparation:	2009-12-01	Prepared By:	AR

Parameter	Flag	Result	RL	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		**118**		mg/L as CaCo3	1	4.00
Total Alkalinity		**118**		mg/L as CaCo3	1	4.00

Sample: 215838 - MW-4

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	65725	Date Analyzed:	2009-12-02	Analyzed By:	tn
Prep Batch:	56178	Sample Preparation:	2009-12-02	Prepared By:	tn

Parameter	Flag	Result	RL	Units	Dilution	RL
Benzene		<0.00100		mg/L	1	0.00100
Toluene		<0.00100		mg/L	1	0.00100
Ethylbenzene		<0.00100		mg/L	1	0.00100
Xylene		<0.00100		mg/L	1	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.106	mg/L	1	0.100	106	70.9 - 119.8
4-Bromofluorobenzene (4-BFB)		0.0896	mg/L	1	0.100	90	68.1 - 118.8

Sample: 215838 - MW-4

Laboratory:	Lubbock				
Analysis:	Cations	Analytical Method:	S 6010B	Prep Method:	S 3005A
QC Batch:	65745	Date Analyzed:	2009-12-03	Analyzed By:	RR
Prep Batch:	56137	Sample Preparation:	2009-12-02	Prepared By:	KV

Parameter	Flag	Result	RL	Units	Dilution	RL
Dissolved Calcium		**791**		mg/L	10	1.00
Dissolved Potassium		**76.7**		mg/L	1	1.00
Dissolved Magnesium		**253**		mg/L	1	1.00
Dissolved Sodium		**4880**		mg/L	100	1.00

Sample: 215838 - MW-4

Laboratory:	Midland				
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	65660	Date Analyzed:	2009-12-01	Analyzed By:	AR
Prep Batch:	56093	Sample Preparation:	2009-11-30	Prepared By:	AR

Parameter	Flag	Result	RL	Units	Dilution	RL
Chloride		**9360**		mg/L	1000	0.500

Sample: 215838 - MW-4

Laboratory:	Lubbock				
Analysis:	Hardness	Analytical Method:	S 6010B	Prep Method:	N/A
QC Batch:	65745	Date Analyzed:	2009-12-03	Analyzed By:	RR
Prep Batch:	56137	Sample Preparation:	2009-12-02	Prepared By:	KV

Parameter	Flag	Result	RL	Units	Dilution	RL
Hardness (by ICP)		**3020**		mg eq CaCO3/L	1	0.00

Sample: 215838 - MW-4

Laboratory:	Midland				
Analysis:	pH	Analytical Method:	SM 4500-H+	Prep Method:	N/A
QC Batch:	65589	Date Analyzed:	2009-11-25	Analyzed By:	AR
Prep Batch:	56049	Sample Preparation:	2009-11-25	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
pH		**7.35**	s.u.	1	0.00

Sample: 215838 - MW-4

Laboratory:	Midland				
Analysis:	SO4 (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	65660	Date Analyzed:	2009-12-01	Analyzed By:	AR
Prep Batch:	56093	Sample Preparation:	2009-11-30	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Sulfate		**286**	mg/L	5	0.500

Sample: 215838 - MW-4

Laboratory:	Midland				
Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	65808	Date Analyzed:	2009-12-07	Analyzed By:	AR
Prep Batch:	56115	Sample Preparation:	2009-12-01	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Total Dissolved Solids		**22600**	mg/L	100	10.0

Method Blank (1) QC Batch: 65660

QC Batch:	65660	Date Analyzed:	2009-12-01	Analyzed By:	AR
Prep Batch:	56093	QC Preparation:	2009-11-30	Prepared By:	AR

Parameter	Flag	MDL Result	Units	RL
Chloride		<0.475	mg/L	0.5

Method Blank (1) QC Batch: 65660

QC Batch:	65660	Date Analyzed:	2009-12-01	Analyzed By:	AR
Prep Batch:	56093	QC Preparation:	2009-11-30	Prepared By:	AR

Parameter	Flag	MDL Result	Units	RL
Sulfate		<0.217	mg/L	0.5

Method Blank (1) QC Batch: 65677

QC Batch: 65677 Date Analyzed: 2009-12-01 Analyzed By: AR
Prep Batch: 56132 QC Preparation: 2009-12-01 Prepared By: AR

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: 65725

QC Batch: 65725 Date Analyzed: 2009-12-02 Analyzed By: tn
Prep Batch: 56178 QC Preparation: 2009-12-02 Prepared By: tn

Parameter	Flag	MDL Result	Units	RL
Benzene		<0.000300	mg/L	0.001
Toluene		<0.000200	mg/L	0.001
Ethylbenzene		<0.000200	mg/L	0.001
Xylene		<0.000900	mg/L	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.108	mg/L	1	0.100	108	73.6 - 116.6
4-Bromofluorobenzene (4-BFB)		0.0928	mg/L	1	0.100	93	70.6 - 107.5

Method Blank (1) QC Batch: 65745

QC Batch: 65745 Date Analyzed: 2009-12-03 Analyzed By: RR
Prep Batch: 56137 QC Preparation: 2009-12-02 Prepared By: KV

Parameter	Flag	MDL Result	Units	RL
Dissolved Calcium		<0.117	mg/L	1

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method blank continued ...

Parameter	Flag	MDL Result	Units	RL
Dissolved Potassium		<0.172	mg/L	1
Dissolved Magnesium		<0.160	mg/L	1
Dissolved Sodium		<0.0500	mg/L	1

Method Blank (1) QC Batch: 65798

QC Batch: 65798 Date Analyzed: 2009-12-06 Analyzed By: tn
Prep Batch: 56235 QC Preparation: 2009-12-06 Prepared By: tn

Parameter	Flag	MDL Result	Units	RL
Benzene		<0.000300	mg/L	0.001
Toluene		<0.000200	mg/L	0.001
Ethylbenzene		<0.000200	mg/L	0.001
Xylene		<0.000900	mg/L	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0997	mg/L	1	0.100	100	73.6 - 116.6
4-Bromofluorobenzene (4-BFB)		0.0860	mg/L	1	0.100	86	70.6 - 107.5

Method Blank (1) QC Batch: 65808

QC Batch: 65808 Date Analyzed: 2009-12-07 Analyzed By: AR
Prep Batch: 56115 QC Preparation: 2009-12-01 Prepared By: AR

Parameter	Flag	MDL Result	Units	RL
Total Dissolved Solids		<9.75	mg/L	10

Duplicates (1) Duplicated Sample: 215843

QC Batch: 65589 Date Analyzed: 2009-11-25 Analyzed By: AR
Prep Batch: 56049 QC Preparation: 2009-11-25 Prepared By: AR

Param	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
pH	7.61	7.55	s.u.	1	1	1.5

Duplicates (1) Duplicated Sample: 215843

QC Batch: 65677 | Date Analyzed: 2009-12-01 | Analyzed By: AR
Prep Batch: 56132 | QC Preparation: 2009-12-01 | Prepared By: AR

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	95.0	114	mg/L as CaCo3	1	18	20
Total Alkalinity	95.0	114	mg/L as CaCo3	1	18	20

Duplicates (1) Duplicated Sample: 215843

QC Batch: 65808 | Date Analyzed: 2009-12-07 | Analyzed By: AR
Prep Batch: 56115 | QC Preparation: 2009-12-01 | Prepared By: AR

Param	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Total Dissolved Solids	9500	9100	mg/L	100	4	10

Laboratory Control Spike (LCS-1)

QC Batch: 65660 | Date Analyzed: 2009-12-01 | Analyzed By: AR
Prep Batch: 56093 | QC Preparation: 2009-11-30 | Prepared By: AR

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	26.1	mg/L	1	25.0	<0.475	104	90 - 110

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	26.0	mg/L	1	25.0	<0.475	104	90 - 110	0	

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: 65660 | Date Analyzed: 2009-12-01 | Analyzed By: AR
Prep Batch: 56093 | QC Preparation: 2009-11-30 | Prepared By: AR

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Sulfate	24.3	mg/L	1	25.0	<0.217	97	90 - 110

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Sulfate	24.8	mg/L	1	25.0	<0.217	99	90 - 110	2	

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: 65725 | Date Analyzed: 2009-12-02 | Analyzed By: tn
Prep Batch: 56178 | QC Preparation: 2009-12-02 | Prepared By: tn

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	0.0980	mg/L	1	0.100	<0.000300	98	79.4 - 111.8
Toluene	0.0973	mg/L	1	0.100	<0.000200	97	79.3 - 110
Ethylbenzene	0.0977	mg/L	1	0.100	<0.000200	98	73.8 - 113.1
Xylene	0.290	mg/L	1	0.300	<0.000900	97	73.9 - 113.6

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	0.100	mg/L	1	0.100	<0.000300	100	79.4 - 111.8	2	20
Toluene	0.100	mg/L	1	0.100	<0.000200	100	79.3 - 110	3	20
Ethylbenzene	0.0994	mg/L	1	0.100	<0.000200	99	73.8 - 113.1	2	20
Xylene	0.296	mg/L	1	0.300	<0.000900	99	73.9 - 113.6	2	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
Trifluorotoluene (TFT)	0.104	0.102	mg/L	1	0.100	104	102	76.2 - 119.6
4-Bromofluorobenzene (4-BFB)	0.0938	0.0926	mg/L	1	0.100	94	93	77.9 - 109.8

Laboratory Control Spike (LCS-1)

QC Batch: 65745 | Date Analyzed: 2009-12-03 | Analyzed By: RR
Prep Batch: 56137 | QC Preparation: 2009-12-02 | Prepared By: KV

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Dissolved Calcium	51.9	mg/L	1	50.0	<0.117	104	85 - 115

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control spikes continued ...

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Dissolved Potassium	50.7	mg/L	1	50.0	<0.172	101	85 - 115
Dissolved Magnesium	50.5	mg/L	1	50.0	<0.160	101	85 - 115
Dissolved Sodium	51.1	mg/L	1	50.0	<0.0500	102	85 - 115

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Dissolved Calcium	50.8	mg/L	1	50.0	<0.117	102	85 - 115	2	20
Dissolved Potassium	50.0	mg/L	1	50.0	<0.172	100	85 - 115	1	20
Dissolved Magnesium	49.7	mg/L	1	50.0	<0.160	99	85 - 115	2	20
Dissolved Sodium	49.7	mg/L	1	50.0	<0.0500	99	85 - 115	3	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: 65798 | Date Analyzed: 2009-12-06 | Analyzed By: tn
Prep Batch: 56235 | QC Preparation: 2009-12-06 | Prepared By: tn

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	0.101	mg/L	1	0.100	<0.000300	101	79.4 - 111.8
Toluene	0.101	mg/L	1	0.100	<0.000200	101	79.3 - 110
Ethylbenzene	0.100	mg/L	1	0.100	<0.000200	100	73.8 - 113.1
Xylene	0.300	mg/L	1	0.300	<0.000900	100	73.9 - 113.6

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	0.103	mg/L	1	0.100	<0.000300	103	79.4 - 111.8	2	20
Toluene	0.102	mg/L	1	0.100	<0.000200	102	79.3 - 110	1	20
Ethylbenzene	0.102	mg/L	1	0.100	<0.000200	102	73.8 - 113.1	2	20
Xylene	0.304	mg/L	1	0.300	<0.000900	101	73.9 - 113.6	1	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
Trifluorotoluene (TFT)	0.101	0.0995	mg/L	1	0.100	101	100	76.2 - 119.6
4-Bromofluorobenzene (4-BFB)	0.0939	0.0925	mg/L	1	0.100	94	92	77.9 - 109.8

Laboratory Control Spike (LCS-1)

QC Batch: 65808 | Date Analyzed: 2009-12-07 | Analyzed By: AR
Prep Batch: 56115 | QC Preparation: 2009-12-01 | Prepared By: AR

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Dissolved Solids	972	mg/L	1	1000	<9.75	97	90 - 110

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Dissolved Solids	1010	mg/L	1	1000	<9.75	101	90 - 110	4	10

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

Matrix Spike (MS-1) Spiked Sample: 215843

QC Batch: 65660 | Date Analyzed: 2009-12-01 | Analyzed By: AR
Prep Batch: 56093 | QC Preparation: 2009-11-30 | Prepared By: AR

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride [2]	5330	mg/L	5	27.5	4690	2327	90 - 110

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride [3]	5320	mg/L	5	27.5	4690	2291	90 - 110	0	

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

Matrix Spike (MS-1) Spiked Sample: 215843

QC Batch: 65660 | Date Analyzed: 2009-12-01 | Analyzed By: AR
Prep Batch: 56093 | QC Preparation: 2009-11-30 | Prepared By: AR

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Sulfate [4]	254	mg/L	5	27.5	150	378	90 - 110

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

[2]Matrix spike recovery out of control limits due to peak interference. Use LCS/LCSD to demonstrate analysis is under control.
[3]MSD analyte out of range. MS/MSD has a RPD within limits. Therfore, MS shows extraction occured properly.
[4]Matrix spike recovery out of control limits due to peak interference. Use LCS/LCSD to demonstrate analysis is under control.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Sulfate [5]	256	mg/L	5	27.5	150	385	90 - 110	1	

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

Matrix Spike (MS-1) Spiked Sample: 215919

QC Batch: 65725 | Date Analyzed: 2009-12-02 | Analyzed By: tn
Prep Batch: 56178 | QC Preparation: 2009-12-02 | Prepared By: tn

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	13.9	mg/L	50	5.00	8.779	102	77.3 - 117.4
Toluene	4.88	mg/L	50	5.00	<0.0100	98	75 - 111.8
Ethylbenzene	5.23	mg/L	50	5.00	0.2906	99	78.8 - 106.6
Xylene	14.5	mg/L	50	15.0	<0.0450	97	68.9 - 114

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	13.6	mg/L	50	5.00	8.779	96	77.3 - 117.4	2	20
Toluene	4.72	mg/L	50	5.00	<0.0100	94	75 - 111.8	3	20
Ethylbenzene	5.08	mg/L	50	5.00	0.2906	96	78.8 - 106.6	3	20
Xylene	14.1	mg/L	50	15.0	<0.0450	94	68.9 - 114	3	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	5.43	5.26	mg/L	50	5	109	105	76.3 - 109.8
4-Bromofluorobenzene (4-BFB)	4.74	4.63	mg/L	50	5	95	93	75.2 - 112.8

Matrix Spike (MS-1) Spiked Sample: 215149

QC Batch: 65745 | Date Analyzed: 2009-12-03 | Analyzed By: RR
Prep Batch: 56137 | QC Preparation: 2009-12-02 | Prepared By: KV

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Dissolved Calcium	104	mg/L	1	50.0	54.7	99	75 - 125
Dissolved Potassium	53.0	mg/L	1	50.0	2.85	100	75 - 125
Dissolved Magnesium	88.0	mg/L	1	50.0	40	96	75 - 125
Dissolved Sodium	199	mg/L	1	50.0	150	98	75 - 125

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

[5] MSD analyte out of range. MS/MSD has a RPD within limits. Therfore, MS shows extraction occured properly.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Dissolved Calcium	102	mg/L	1	50.0	54.7	95	75 - 125	2	20
Dissolved Potassium	53.3	mg/L	1	50.0	2.85	101	75 - 125	1	20
Dissolved Magnesium	86.5	mg/L	1	50.0	40	93	75 - 125	2	20
Dissolved Sodium	194	mg/L	1	50.0	150	88	75 - 125	2	20

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

Matrix Spike (MS-1) Spiked Sample: 216231

QC Batch: 65798 | Date Analyzed: 2009-12-06 | Analyzed By: tn
Prep Batch: 56235 | QC Preparation: 2009-12-06 | Prepared By: tn

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	0.104	mg/L	1	0.100	<0.000300	104	77.3 - 117.4
Toluene	0.103	mg/L	1	0.100	<0.000200	103	75 - 111.8
Ethylbenzene	0.102	mg/L	1	0.100	<0.000200	102	78.8 - 106.6
Xylene	0.305	mg/L	1	0.300	<0.000900	102	68.9 - 114

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	0.103	mg/L	1	0.100	<0.000300	103	77.3 - 117.4	1	20
Toluene	0.103	mg/L	1	0.100	<0.000200	103	75 - 111.8	0	20
Ethylbenzene	0.103	mg/L	1	0.100	<0.000200	103	78.8 - 106.6	1	20
Xylene	0.306	mg/L	1	0.300	<0.000900	102	68.9 - 114	0	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.101	0.101	mg/L	1	0.1	101	101	76.3 - 109.8
4-Bromofluorobenzene (4-BFB)	0.0936	0.0933	mg/L	1	0.1	94	93	75.2 - 112.8

Standard (ICV-1)

QC Batch: 65589 | Date Analyzed: 2009-11-25 | Analyzed By: AR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
pH		s.u.	7.00	6.85	98	98 - 102	2009-11-25

Standard (CCV-1)

QC Batch: 65589 Date Analyzed: 2009-11-25 Analyzed By: AR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
pH		s.u.	7.00	7.15	102	98 - 102	2009-11-25

Standard (ICV-1)

QC Batch: 65660 Date Analyzed: 2009-12-01 Analyzed By: AR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/L	25.0	25.0	100	90 - 110	2009-12-01

Standard (ICV-1)

QC Batch: 65660 Date Analyzed: 2009-12-01 Analyzed By: AR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Sulfate		mg/L	25.0	24.4	98	90 - 110	2009-12-01

Standard (CCV-1)

QC Batch: 65660 Date Analyzed: 2009-12-01 Analyzed By: AR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/L	25.0	24.9	100	90 - 110	2009-12-01

Standard (CCV-1)

QC Batch: 65660 Date Analyzed: 2009-12-01 Analyzed By: AR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Sulfate		mg/L	25.0	24.0	96	90 - 110	2009-12-01

Standard (ICV-1)

QC Batch: 65677 Date Analyzed: 2009-12-01 Analyzed By: AR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Hydroxide Alkalinity		mg/L as CaCo3	0.00	<1.00		0 - 200	2009-12-01
Carbonate Alkalinity		mg/L as CaCo3	0.00	224		0 - 200	2009-12-01
Bicarbonate Alkalinity		mg/L as CaCo3	0.00	25.0		0 - 200	2009-12-01
Total Alkalinity		mg/L as CaCo3	250	249	100	90 - 110	2009-12-01

Standard (CCV-1)

QC Batch: 65677 Date Analyzed: 2009-12-01 Analyzed By: AR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Hydroxide Alkalinity		mg/L as CaCo3	0.00	<1.00		0 - 200	2009-12-01
Carbonate Alkalinity		mg/L as CaCo3	0.00	224		0 - 200	2009-12-01
Bicarbonate Alkalinity		mg/L as CaCo3	0.00	26.0		0 - 200	2009-12-01
Total Alkalinity		mg/L as CaCo3	250	250	100	90 - 110	2009-12-01

Standard (CCV-2)

QC Batch: 65725 Date Analyzed: 2009-12-02 Analyzed By: tn

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.100	0.0896	90	80 - 120	2009-12-02
Toluene		mg/L	0.100	0.0895	90	80 - 120	2009-12-02
Ethylbenzene		mg/L	0.100	0.0883	88	80 - 120	2009-12-02
Xylene		mg/L	0.300	0.263	88	80 - 120	2009-12-02

Standard (CCV-3)

QC Batch: 65725 Date Analyzed: 2009-12-02 Analyzed By: tn

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.100	0.0977	98	80 - 120	2009-12-02
Toluene		mg/L	0.100	0.0975	98	80 - 120	2009-12-02
Ethylbenzene		mg/L	0.100	0.0962	96	80 - 120	2009-12-02

continued ...

standard continued ...

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Xylene		mg/L	0.300	0.286	95	80 - 120	2009-12-02

Standard (ICV-1)

QC Batch: 65745 Date Analyzed: 2009-12-03 Analyzed By: RR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Dissolved Calcium		mg/L	50.0	52.2	104	90 - 110	2009-12-03
Dissolved Potassium		mg/L	50.0	51.2	102	90 - 110	2009-12-03
Dissolved Magnesium		mg/L	50.0	52.4	105	90 - 110	2009-12-03
Dissolved Sodium		mg/L	50.0	50.5	101	90 - 110	2009-12-03

Standard (CCV-1)

QC Batch: 65745 Date Analyzed: 2009-12-03 Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Dissolved Calcium		mg/L	50.0	52.4	105	90 - 110	2009-12-03
Dissolved Potassium		mg/L	50.0	49.7	99	90 - 110	2009-12-03
Dissolved Magnesium		mg/L	50.0	52.4	105	90 - 110	2009-12-03
Dissolved Sodium		mg/L	50.0	50.5	101	90 - 110	2009-12-03

Standard (CCV-1)

QC Batch: 65798 Date Analyzed: 2009-12-06 Analyzed By: tn

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.100	0.101	101	80 - 120	2009-12-06
Toluene		mg/L	0.100	0.0993	99	80 - 120	2009-12-06
Ethylbenzene		mg/L	0.100	0.0981	98	80 - 120	2009-12-06
Xylene		mg/L	0.300	0.291	97	80 - 120	2009-12-06

Standard (CCV-2)

QC Batch: 65798 Date Analyzed: 2009-12-06 Analyzed By: tn

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.100	0.102	102	80 - 120	2009-12-06
Toluene		mg/L	0.100	0.101	101	80 - 120	2009-12-06
Ethylbenzene		mg/L	0.100	0.0995	100	80 - 120	2009-12-06
Xylene		mg/L	0.300	0.297	99	80 - 120	2009-12-06

Order #: 9112515

Analysis Request of Chain of Custody Record

PAGE: 1 OF: 1

TETRA TECH
1910 N. Big Spring St.
Midland, Texas 79705
(432) 682-4559 • Fax (432) 682-3946

CLIENT NAME: Celero

SITE MANAGER: Jeff Kindley

PROJECT NO.: 115-G4103134A

PROJECT NAME: Celero / Rock Oyster Chavez Co NM

LAB I.D. NUMBER	DATE 2009	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FILTERED (Y/N)	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	BTEX 8021B	TPH 8015 MOD. TX1005 (Ext. to C35)	PAH 8270	RCRA Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Vr Pd Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC.MS Vol. 8240/8260/624	GC.MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 808/608	Chloride	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)	Major Anions/Cations/pH, TDS
215835	11/24	1425	W		X	MW-1	4	N	3		X		X												X				X
836	"	1410	"		"	MW-2	"	"	"		"		"												"				"
837	"	1400	"		"	MW-3	"	"	"		"		"												"				"
838	"	1500	"		"	MW-4	"	"	"		"		"												"				"

ANALYSIS REQUEST (Circle or Specify Method No.)

RELINQUISHED BY: (Signature) Tabitha Bush — Date: 11/25/09 Time: 1012

RECEIVED BY: (Signature) — Date: 11/25/09 Time: 10:10

SAMPLED BY: (Print & Initial) Tabitha Bush Jr — Date: 11/24/09 Time: 0930

RELINQUISHED BY: (Signature) — Date: Time:

RECEIVED BY: (Signature) — Date: Time:

SAMPLE SHIPPED BY: (Circle) FEDEX BUS HAND DELIVERED UPS — AIRBILL #: — OTHER:

RELINQUISHED BY: (Signature) — Date: Time:

RECEIVED BY: (Signature) — Date: Time:

TETRA TECH CONTACT PERSON: Jeff Kindley — Results by:

RECEIVING LABORATORY: Trace

ADDRESS:

CITY: Midland STATE: TX ZIP:

CONTACT: Monde PHONE:

RECEIVED BY: (Signature) Courtney Fox (intact) 5.6

DATE: 11-30-09 TIME: 9:00 Am 6.8

RUSH Charges Authorized: Yes No

SAMPLE CONDITION WHEN RECEIVED: 3.2°C intact

REMARKS: Midland - BTEX, Chloride, Anions, pH, TDS Lubbock - Cations, hardness

Please fill out all copies - Laboratory retains Yellow copy - Return Orginal copy to Tetra Tech - Project Manager retains Pink copy - Accounting receives Gold copy.

LS 2T325351o

TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
200 East Sunset Road, Suite E El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•4944
5002 Basin Street, Suite A1 Midland, Texas 79703 432•689•6301 FAX 432•689•6313
6015 Harris Parkway, Suite 110 Ft. Worth, Texas 76132 817•201•5260
E-Mail: lab@traceanalysis.com

Certifications

WBENC: 237019 **HUB:** 1752439743100-86536 **DBE:** VN 20657
NCTRCA WFWB38444Y0909

NELAP Certifications

Lubbock: T104704219-08-TX LELAP-02003 Kansas E-10317 **El Paso:** T104704221-08-TX LELAP-02002 **Midland:** T104704392-08-TX

Analytical and Quality Control Report

Jeff Kindley
Tetra Tech
1910 N. Big Spring Street
Midland, TX, 79705

Report Date: July 27, 2010

Work Order: 10071407

Project Location: Chavez County, NM
Project Name: Celero/Rock Queen SWD #1
Project Number: 115-6403134

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
237430	MW-1	water	2010-07-13	14:40	2010-07-14
237431	MW-2	water	2010-07-13	14:45	2010-07-14
237432	MW-3	water	2010-07-13	14:50	2010-07-14
237433	MW-4	water	2010-07-13	14:55	2010-07-14

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.

Dr. Blair Leftwich, Director
Dr. Michael Abel, Project Manager

Standard Flags

B - The sample contains less than ten times the concentration found in the method blank.

Case Narrative

Samples for project Celero/Rock Queen SWD #1 were received by TraceAnalysis, Inc. on 2010-07-14 and assigned to work order 10071407. Samples for work order 10071407 were received intact without headspace and at a temperature of 3.9 C.

Samples were analyzed for the following tests using their respective methods.

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
BTEX	S 8021B	61451	2010-07-14 at 16:00	71724	2010-07-14 at 16:42
Chloride (IC)	E 300.0	61480	2010-07-15 at 08:52	71927	2010-07-15 at 14:25
SO4 (IC)	E 300.0	61480	2010-07-15 at 08:52	71927	2010-07-15 at 14:25
TDS	SM 2540C	61516	2010-07-15 at 10:29	72039	2010-07-26 at 12:30

Results for these samples are reported on a wet weight basis unless data package indicates otherwise.

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 10071407 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.

Analytical Report

Sample: 237430 - MW-1

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	71724	Date Analyzed:	2010-07-14	Analyzed By:	AG
Prep Batch:	61451	Sample Preparation:	2010-07-14	Prepared By:	AG

Parameter	Flag	Result	RL	Units	Dilution	RL
Benzene		**0.00310**		mg/L	1	0.00100
Toluene		<0.00100		mg/L	1	0.00100
Ethylbenzene		<0.00100		mg/L	1	0.00100
Xylene		<0.00100		mg/L	1	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0837	mg/L	1	0.100	84	67.8 - 126
4-Bromofluorobenzene (4-BFB)		0.0769	mg/L	1	0.100	77	51.1 - 128

Sample: 237430 - MW-1

Laboratory:	Midland				
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	71927	Date Analyzed:	2010-07-15	Analyzed By:	AR
Prep Batch:	61480	Sample Preparation:	2010-07-15	Prepared By:	AR

Parameter	Flag	Result	RL	Units	Dilution	RL
Chloride		**155000**		mg/L	500	2.50

Sample: 237430 - MW-1

Laboratory:	Midland				
Analysis:	SO4 (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	71927	Date Analyzed:	2010-07-15	Analyzed By:	AR
Prep Batch:	61480	Sample Preparation:	2010-07-15	Prepared By:	AR

Parameter	Flag	Result	RL	Units	Dilution	RL
Sulfate		**1530**		mg/L	50	2.50

Sample: 237430 - MW-1

Laboratory:	Midland				
Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	72039	Date Analyzed:	2010-07-26	Analyzed By:	AR
Prep Batch:	61516	Sample Preparation:	2010-07-16	Prepared By:	AR

Parameter	Flag	Result	RL	Units	Dilution	RL
Total Dissolved Solids		**225000**		mg/L	100	10.0

Sample: 237431 - MW-2

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	71724	Date Analyzed:	2010-07-14	Analyzed By:	AG
Prep Batch:	61451	Sample Preparation:	2010-07-14	Prepared By:	AG

Parameter	Flag	Result	RL	Units	Dilution	RL
Benzene		<0.00100		mg/L	1	0.00100
Toluene		<0.00100		mg/L	1	0.00100
Ethylbenzene		<0.00100		mg/L	1	0.00100
Xylene		<0.00100		mg/L	1	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0877	mg/L	1	0.100	88	67.8 - 126
4-Bromofluorobenzene (4-BFB)		0.0758	mg/L	1	0.100	76	51.1 - 128

Sample: 237431 - MW-2

Laboratory:	Midland				
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	71927	Date Analyzed:	2010-07-15	Analyzed By:	AR
Prep Batch:	61480	Sample Preparation:	2010-07-15	Prepared By:	AR

Parameter	Flag	Result	RL	Units	Dilution	RL
Chloride		**43200**		mg/L	5000	2.50

Sample: 237431 - MW-2

Laboratory:	Midland				
Analysis:	SO4 (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	71927	Date Analyzed:	2010-07-15	Analyzed By:	AR
Prep Batch:	61480	Sample Preparation:	2010-07-15	Prepared By:	AR

Parameter	Flag	Result	RL	Units	Dilution	RL
Sulfate		**652**		mg/L	50	2.50

Sample: 237431 - MW-2

Laboratory:	Midland				
Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	72039	Date Analyzed:	2010-07-26	Analyzed By:	AR
Prep Batch:	61516	Sample Preparation:	2010-07-16	Prepared By:	AR

Parameter	Flag	Result	RL	Units	Dilution	RL
Total Dissolved Solids		**72700**		mg/L	100	10.0

Sample: 237432 - MW-3

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	71724	Date Analyzed:	2010-07-14	Analyzed By:	AG
Prep Batch:	61451	Sample Preparation:	2010-07-14	Prepared By:	AG

Parameter	Flag	Result	RL	Units	Dilution	RL
Benzene		<0.00100		mg/L	1	0.00100
Toluene		<0.00100		mg/L	1	0.00100
Ethylbenzene		<0.00100		mg/L	1	0.00100
Xylene		<0.00100		mg/L	1	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)	[1]	0.0651	mg/L	1	0.100	65	67.8 - 126
4-Bromofluorobenzene (4-BFB)		0.0568	mg/L	1	0.100	57	51.1 - 128

[1]SPECIAL-TFT is out of control limits due to an unknown anomaly. However, 4-BFB is within control limits and shows the method to be in control. •

Sample: 237432 - MW-3

Laboratory:	Midland				
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	71927	Date Analyzed:	2010-07-15	Analyzed By:	AR
Prep Batch:	61480	Sample Preparation:	2010-07-15	Prepared By:	AR

Parameter	Flag	Result	RL	Units	Dilution	RL
Chloride		**73200**		mg/L	5000	2.50

Sample: 237432 - MW-3

Laboratory:	Midland				
Analysis:	SO4 (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	71927	Date Analyzed:	2010-07-15	Analyzed By:	AR
Prep Batch:	61480	Sample Preparation:	2010-07-15	Prepared By:	AR

Parameter	Flag	Result	RL	Units	Dilution	RL
Sulfate		**931**		mg/L	50	2.50

Sample: 237432 - MW-3

Laboratory:	Midland				
Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	72039	Date Analyzed:	2010-07-26	Analyzed By:	AR
Prep Batch:	61516	Sample Preparation:	2010-07-16	Prepared By:	AR

Parameter	Flag	Result	RL	Units	Dilution	RL
Total Dissolved Solids		**150000**		mg/L	100	10.0

Sample: 237433 - MW-4

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	71724	Date Analyzed:	2010-07-14	Analyzed By:	AG
Prep Batch:	61451	Sample Preparation:	2010-07-14	Prepared By:	AG

Parameter	Flag	Result	RL	Units	Dilution	RL
Benzene		<0.00100		mg/L	1	0.00100
Toluene		<0.00100		mg/L	1	0.00100

continued ...

sample 237433 continued ...

Parameter	Flag	Result	RL	Units	Dilution	RL
Ethylbenzene		<0.00100		mg/L	1	0.00100
Xylene		<0.00100		mg/L	1	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0828	mg/L	1	0.100	83	67.8 - 126
4-Bromofluorobenzene (4-BFB)		0.0723	mg/L	1	0.100	72	51.1 - 128

Sample: 237433 - MW-4

Laboratory:	Midland				
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	71927	Date Analyzed:	2010-07-15	Analyzed By:	AR
Prep Batch:	61480	Sample Preparation:	2010-07-15	Prepared By:	AR

Parameter	Flag	Result	RL	Units	Dilution	RL
Chloride		**85800**		mg/L	5000	2.50

Sample: 237433 - MW-4

Laboratory:	Midland				
Analysis:	SO4 (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	71927	Date Analyzed:	2010-07-15	Analyzed By:	AR
Prep Batch:	61480	Sample Preparation:	2010-07-15	Prepared By:	AR

Parameter	Flag	Result	RL	Units	Dilution	RL
Sulfate		**1540**		mg/L	50	2.50

Sample: 237433 - MW-4

Laboratory:	Midland				
Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	72039	Date Analyzed:	2010-07-26	Analyzed By:	AR
Prep Batch:	61516	Sample Preparation:	2010-07-16	Prepared By:	AR

Parameter	Flag	Result	RL	Units	Dilution	RL
Total Dissolved Solids		**159000**		mg/L	100	10.0

Method Blank (1) QC Batch: 71724

QC Batch:	71724	Date Analyzed:	2010-07-14	Analyzed By:	AG
Prep Batch:	61451	QC Preparation:	2010-07-14	Prepared By:	AG

Parameter	Flag	MDL Result	Units	RL
Benzene		<0.000600	mg/L	0.001
Toluene		<0.000600	mg/L	0.001
Ethylbenzene		<0.000800	mg/L	0.001
Xylene		<0.000767	mg/L	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0973	mg/L	1	0.100	97	70.2 - 118
4-Bromofluorobenzene (4-BFB)		0.0848	mg/L	1	0.100	85	47.3 - 116

Method Blank (1) QC Batch: 71927

QC Batch:	71927	Date Analyzed:	2010-07-15	Analyzed By:	AR
Prep Batch:	61480	QC Preparation:	2010-07-15	Prepared By:	AR

Parameter	Flag	MDL Result	Units	RL
Chloride		<0.265	mg/L	2.5

Method Blank (1) QC Batch: 71927

QC Batch:	71927	Date Analyzed:	2010-07-15	Analyzed By:	AR
Prep Batch:	61480	QC Preparation:	2010-07-15	Prepared By:	AR

Parameter	Flag	MDL Result	Units	RL
Sulfate		<0.177	mg/L	2.5

Method Blank (1) QC Batch: 72039

QC Batch:	72039	Date Analyzed:	2010-07-26	Analyzed By:	AR
Prep Batch:	61516	QC Preparation:	2010-07-15	Prepared By:	AR

Parameter	Flag	MDL Result	Units	RL
Total Dissolved Solids		10.0	mg/L	10

Duplicates (2) Duplicated Sample: 237468

QC Batch: 72039 | Date Analyzed: 2010-07-26 | Analyzed By: AR
Prep Batch: 61516 | QC Preparation: 2010-07-15 | Prepared By: AR

Param	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Total Dissolved Solids	109000	5910	mg/L	100	7	10
Total Dissolved Solids	109000	102000	mg/L	100	7	10

Laboratory Control Spike (LCS-1)

QC Batch: 71724 | Date Analyzed: 2010-07-14 | Analyzed By: AG
Prep Batch: 61451 | QC Preparation: 2010-07-14 | Prepared By: AG

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	0.100	mg/L	1	0.100	<0.000600	100	82.9 - 108
Toluene	0.0992	mg/L	1	0.100	<0.000600	99	82.7 - 107
Ethylbenzene	0.0949	mg/L	1	0.100	<0.000800	95	78.8 - 106
Xylene	0.287	mg/L	1	0.300	<0.000767	96	79.3 - 106

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	0.101	mg/L	1	0.100	<0.000600	101	82.9 - 108	1	20
Toluene	0.101	mg/L	1	0.100	<0.000600	101	82.7 - 107	2	20
Ethylbenzene	0.0967	mg/L	1	0.100	<0.000800	97	78.8 - 106	2	20
Xylene	0.292	mg/L	1	0.300	<0.000767	97	79.3 - 106	2	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
Trifluorotoluene (TFT)	0.103	0.0996	mg/L	1	0.100	103	100	67.3 - 113
4-Bromofluorobenzene (4-BFB)	0.0966	0.0941	mg/L	1	0.100	97	94	68.2 - 124

Laboratory Control Spike (LCS-1)

QC Batch: 71927 | Date Analyzed: 2010-07-15 | Analyzed By: AR
Prep Batch: 61480 | QC Preparation: 2010-07-15 | Prepared By: AR

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	25.5	mg/L	1	25.0	<0.265	102	90 - 110

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	25.3	mg/L	1	25.0	<0.265	101	90 - 110	1	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: 71927 Date Analyzed: 2010-07-15 Analyzed By: AR
Prep Batch: 61480 QC Preparation: 2010-07-15 Prepared By: AR

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Sulfate	22.5	mg/L	1	25.0	<0.177	90	90 - 110

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Sulfate	22.5	mg/L	1	25.0	<0.177	90	90 - 110	0	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: 72039 Date Analyzed: 2010-07-26 Analyzed By: AR
Prep Batch: 61516 QC Preparation: 2010-07-15 Prepared By: AR

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Dissolved Solids	1030	mg/L	1	1000	<9.75	103	90 - 110

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Dissolved Solids	1040	mg/L	1	1000	<9.75	104	90 - 110	1	10

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

Matrix Spike (MS-1) Spiked Sample: 237430

QC Batch: 71724 Date Analyzed: 2010-07-14 Analyzed By: AG
Prep Batch: 61451 QC Preparation: 2010-07-14 Prepared By: AG

Param		MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		0.100	mg/L	1	0.100	0.0031	97	77.9 - 114
Toluene		0.0800	mg/L	1	0.100	<0.000600	80	78.3 - 111
Ethylbenzene	[2]	0.0695	mg/L	1	0.100	<0.000800	70	75.3 - 110
Xylene	[3]	0.211	mg/L	1	0.300	<0.000767	70	75.7 - 109

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

Param		MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		0.0908	mg/L	1	0.100	0.0031	88	77.9 - 114	10	20
Toluene	[4]	0.0719	mg/L	1	0.100	<0.000600	72	78.3 - 111	11	20
Ethylbenzene	[5]	0.0623	mg/L	1	0.100	<0.000800	62	75.3 - 110	11	20
Xylene	[6]	0.189	mg/L	1	0.300	<0.000767	63	75.7 - 109	11	20

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

Surrogate		MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	[7] [8]	0.0434	0.0551	mg/L	1	0.1	43	55	68.3 - 107
4-Bromofluorobenzene (4-BFB)	[9] [10]	0.0418	0.0525	mg/L	1	0.1	42	52	60.1 - 135

Matrix Spike (MS-1) Spiked Sample: 237433

QC Batch: 71927 | Date Analyzed: 2010-07-15 | Analyzed By: AR
Prep Batch: 61480 | QC Preparation: 2010-07-15 | Prepared By: AR

Param		MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	[11]	106000	mg/L	50	1380	<13.2	7709	90 - 110

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

Param		MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	[12]	106000	mg/L	50	1380	<13.2	7709	90 - 110	0	20

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

[2] Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.
[3] Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.
[4] MSD analyte out of range. MS/MSD has a RPD within limits. Therfore, MS shows extraction occured properly.
[5] MSD analyte out of range. MS/MSD has a RPD within limits. Therfore, MS shows extraction occured properly.
[6] MSD analyte out of range. MS/MSD has a RPD within limits. Therfore, MS shows extraction occured properly.
[7] Surrogate TFT out due to matrix interference. Sample was not reran due to lack of sample.
[8] Surrogate TFT out due to matrix interference. Sample was not reran due to lack of sample.
[9] Surrogate 4-BFB out due to matrix interference. Sample was not reran due to lack of sample.
[10] Surrogate 4-BFB out due to matrix interference. Sample was not reran due to lack of sample.
[11] Matrix spike recovery out of control limits due to peak interference. Use LCS/LCSD to demonstrate analysis is under control.
[12] MSD analyte out of range. MS/MSD has a RPD within limits. Therfore, MS shows extraction occured properly.

Matrix Spike (MS-1) Spiked Sample: 237433

QC Batch: 71927 | Date Analyzed: 2010-07-15 | Analyzed By: AR
Prep Batch: 61480 | QC Preparation: 2010-07-15 | Prepared By: AR

Param		MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Sulfate	[13]	2640	mg/L	50	1380	1540	80	90 - 110

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

Param		MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Sulfate	[14]	2620	mg/L	50	1380	1540	78	90 - 110	1	20

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

Standard (CCV-1)

QC Batch: 71724 | Date Analyzed: 2010-07-14 | Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.100	0.0986	99	80 - 120	2010-07-14
Toluene		mg/L	0.100	0.0974	97	80 - 120	2010-07-14
Ethylbenzene		mg/L	0.100	0.0912	91	80 - 120	2010-07-14
Xylene		mg/L	0.300	0.274	91	80 - 120	2010-07-14

Standard (CCV-2)

QC Batch: 71724 | Date Analyzed: 2010-07-14 | Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.100	0.0999	100	80 - 120	2010-07-14
Toluene		mg/L	0.100	0.100	100	80 - 120	2010-07-14
Ethylbenzene		mg/L	0.100	0.0966	97	80 - 120	2010-07-14
Xylene		mg/L	0.300	0.292	97	80 - 120	2010-07-14

Standard (ICV-1)

QC Batch: 71927 | Date Analyzed: 2010-07-15 | Analyzed By: AR

[13]Matrix spike recovery out of control limits due to peak interference. Use LCS/LCSD to demonstrate analysis is under control.
[14]MSD analyte out of range. MS/MSD has a RPD within limits. Therfore, MS shows extraction occured properly.

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/L	25.0	26.8	107	90 - 110	2010-07-15

Standard (ICV-1)

QC Batch: 71927 Date Analyzed: 2010-07-15 Analyzed By: AR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Sulfate		mg/L	25.0	26.8	107	90 - 110	2010-07-15

Standard (CCV-1)

QC Batch: 71927 Date Analyzed: 2010-07-15 Analyzed By: AR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/L	25.0	26.8	107	90 - 110	2010-07-15

Standard (CCV-1)

QC Batch: 71927 Date Analyzed: 2010-07-15 Analyzed By: AR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Sulfate		mg/L	25.0	26.2	105	90 - 110	2010-07-15

Order #: 10071407

Analysis Request of Chain of Custody Record

PAGE: 1 OF: 1

TETRA TECH
1910 N. Big Spring St.
Midland, Texas 79705
(432) 682-4559 • Fax (432) 682-3946

CLIENT NAME: Celero

SITE MANAGER: Jeff Kindley

PROJECT NO.: 116-6403134

PROJECT NAME: Celero / Rock Queen SWD #1
Chaves Co, NM

LAB I.D. NUMBER	DATE 2010	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FILTERED (Y/N)	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE
237430	7/13	1440	W		X	MW-1	4	N	X		X	
431		1445				MW-2						
432		1450				MW-3						
433		1455				MW-4						

ANALYSIS REQUEST (Circle or Specify Method No.)

BTEX 8021B	TPH 8015 MOD. TX1005 (Ext. to C35)	PAH 8270	RCRA Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Vr Pd Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC.MS Vol. 8240/8260/624	GC.MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 808/608	Chloride	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)	Major Anions/Cations, pH, (TDS)	Sulfate
X												X				X	X

RELINQUISHED BY: (Signature) — Date: 7/14/2010 Time: — RECEIVED BY: (Signature) — Date: 7/14/10 Time: 9:25

SAMPLED BY: (Print & Initial) JT / GP — Date: 7/13/10 Time:

RELINQUISHED BY: (Signature) — Date: Time: — RECEIVED BY: (Signature) — Date: Time:

SAMPLE SHIPPED BY: (Circle) FEDEX BUS HAND DELIVERED UPS — AIRBILL #: — OTHER:

RELINQUISHED BY: (Signature) — Date: Time: — RECEIVED BY: (Signature) — Date: Time:

TETRA TECH CONTACT PERSON: Jeff Kindley — Results by:

RECEIVING LABORATORY: Trace — RECEIVED BY: (Signature)

ADDRESS: — CITY: Midland — STATE: TX — ZIP: — CONTACT: — PHONE: — DATE: — TIME:

RUSH Charges Authorized: Yes No

SAMPLE CONDITION WHEN RECEIVED: 3.9° c intact

REMARKS: *All tests Midland

Please fill out all copies - Laboratory retains Yellow copy - Return Orginal copy to Tetra Tech - Project Manager retains Pink copy - Accounting receives Gold copy.

TABLE 3b
Groundwater Inorganic Analyses - June 2010
ConocoPhillips - South Cowden Unit
Ector County, Texas

Sample Location	Date Sampled	Results reported in milligrams per liter (mg/L)										
		Total Metals by EPA Method 6010B				General Chemistry by EPA Method E300.0				EPA Method E310.1		EPA Method 2540 C
		Ca	Mg	K	Na	Bromide	Chloride	Sulfate	Nitrate as N	Bicarbonate Alkalinity	Carbonate Alkalinity	Total Dissolved Solids
MW-1	06/22/10						**531**					**1,680**
MW-2	06/21/10						177					754
MW-4	06/22/10	694	127	55.1	3,640	17.2	**7,040**	547	18.5	39	ND	**15,800**
MW-5	06/22/10	241	45.2	23.1	1,110	5.57	**1,960**	257	9.74	49	ND	**4,690**
MW-6	06/21/10	72.2	13.8	4.29	43.2	ND	30.8	107	8.89	48	ND	499
MW-7	06/23/10						**10,100**					**17,000**
MW-7 D	06/23/10						**7,570**					**17,100**
MW-10a	06/22/10						991.0					4,080
MW-10b	06/22/10						**477**					**4,390**
MW-11	06/22/10						**797**					**2,890**
MW-11 D	06/22/10						**789**					**2,220**
MW-12	06/23/10						**5,740**					**11,800**
MW-13	06/22/10						**2,330**					**4,360**
MW-15	06/22/10	160	29.6	15.5	745	3.35	**1,430**	243	9.48	58	ND	**3,420**
MW-16	06/21/10						402					**1,510**
MW-17	06/22/10	68.2	14.4	4.69	55.0	ND	35.7	140	9.22	52	ND	528
MW-18	06/21/10	82.1	16,4	6.16	59.1	ND	37.6	133	8.63	51	ND	540
MW-H1	06/24/10	420	97.1	49.5	2,860	52.4	**6,140**	**494**	**10.4**	138	ND	**11,000**
MW-H2	06/24/10	1,090	246	105	6,920	165	**16,800**	**1,210**	**18.8**	127	ND	**26,800**
MW-H2 D	06/24/10	1,080	235	101	6,840	124	**17,600**	**959**	**15.8**	129	ND	**26,000**
MW-H3	06/23/10	226	31.8	6.6	158	1.72	160	**498**	6.32	203	ND	**1,710**
MW-H4	06/24/10	148	21.9	5.95	95.4	3.25	181	197	7.08	200	ND	928
MW-H5	06/23/10	237	24.9	13.1	92	1.16	111	293	ND	135	ND	**1,130**
MW-H6	06/23/10	107	12.3	4.86	50.0	2.68	46.6	129	7.1	139	ND	671
MW-H7	06/23/10	79.5	11.5	5.22	49	0.833	37.5	134	4.81	137	ND	718
MW-H8	06/23/10	101	12.6	4.7	51.0	ND	48.2	141	4.76	152	ND	675
EW-1	06/22/10	246	38.4	15.6	702	3.9	**1,690**	162	9.46	47	ND	**4,320**
EW-2	06/21/10	76.7	15.1	4.47	48.9	ND	31.9	121	8.71	59	ND	493
EW-3	06/22/10	132	23.2	7.68	315	1.65	**629**	169	9.23	45	ND	**1,420**
EW-4	06/22/10	178	34.1	13.8	626	3.22	**1,120**	196	9.97	163	ND	**3,340**
EW-4 D	06/22/10	172	33.1	13.6	610	3.08	**1,160**	195	9.86	51	ND	**2,830**
EW-M	06/23/10	963	213	95	6,120	5.06	**15,000**	**984**	**5.91**	96	ND	**24,100**
RW-M	06/23/10	119	22.7	7.43	232	ND	**472**	172	5.1	149	ND	**1,590**
TCEQ Standards used for Groundwater Quality Analysis		**NE**	**NE**	**NE**	**NE**	**NE**	**300***	**300***	**10**	**NE**	**NE**	**1,000***

Notes:
* = Secondary Standard
EPA = Environmental Protection Agency
TCEQ = Texas Commission on Environmental Quality
NE = Not Established by TCEQ
ND = Not detected at or above Laboratory Reporting Limit
Ca = Calcium
Mg = Magnesium
K = Potassium
Na = Sodium
N = Nitrogen
D = Duplicate Sample
Blank fields indicate no data.

TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
200 East Sunset Road, Suite E El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•4944
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6015 Harris Parkway, Suite 110 Ft. Worth, Texas 76132 817•201•5260
E-Mail: lab@traceanalysis.com

Certifications

WBENC: 237019 **HUB:** 1752439743100-86536 **DBE:** VN 20657
NCTRCA WFWB38444Y0909

NELAP Certifications

Lubbock: T104704219-08-TX LELAP-02003 Kansas E-10317 **El Paso:** T104704221-08-TX LELAP-02002 **Midland:** T104704392-08-TX

Analytical and Quality Control Report

Jeff Kindley
Tetra Tech
1910 N. Big Spring Street
Midland, TX, 79705

Report Date: November 15, 2010

Work Order: 10101404

Project Location: Chavez County, NM
Project Name: Celero/Rock Queen SWD #1
Project Number: 115-6403134

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
247497	MW-1	water	2010-10-13	10:15	2010-10-13
247498	MW-2	water	2010-10-13	09:45	2010-10-13
247499	MW-3	water	2010-10-13	09:55	2010-10-13
247500	MW-4	water	2010-10-13	10:05	2010-10-13

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.

Dr. Blair Leftwich, Director
Dr. Michael Abel, Project Manager

Standard Flags

B - The sample contains less than ten times the concentration found in the method blank.

Case Narrative

Samples for project Celero/Rock Queen SWD #1 were received by TraceAnalysis, Inc. on 2010-10-13 and assigned to work order 10101404. Samples for work order 10101404 were received intact without headspace and at a temperature of 3.5 C.

Samples were analyzed for the following tests using their respective methods.

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
BTEX	S 8021B	63840	2010-10-14 at 13:40	74557	2010-10-14 at 18:04
Chloride (IC)	E 300.0	64180	2010-10-26 at 14:38	74818	2010-10-26 at 17:25
SO4 (IC)	E 300.0	64638	2010-11-12 at 12:49	75341	2010-11-12 at 17:36
TDS	SM 2540C	63873	2010-10-15 at 10:25	74622	2010-10-21 at 14:52

Results for these samples are reported on a wet weight basis unless data package indicates otherwise.

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 10101404 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.

Analytical Report

Sample: 247497 - MW-1

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	74557	Date Analyzed:	2010-10-14	Analyzed By:	AG
Prep Batch:	63840	Sample Preparation:	2010-10-14	Prepared By:	AG

Parameter	Flag	Result	RL	Units	Dilution	RL
Benzene		**0.00380**		mg/L	1	0.00100
Toluene		<0.00100		mg/L	1	0.00100
Ethylbenzene		<0.00100.		mg/L	1	0.00100
Xylene		<0.00100		mg/L	1	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)	[1]	0.0618	mg/L	1	0.100	62	66.2 - 107
4-Bromofluorobenzene (4-BFB)		0.0392	mg/L	1	0.100	39	39 - 138

Sample: 247497 - MW-1

Laboratory:	Lubbock				
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	74818	Date Analyzed:	2010-10-26	Analyzed By:	PG
Prep Batch:	64180	Sample Preparation:	2010-10-26	Prepared By:	SS

Parameter	Flag	Result	RL	Units	Dilution	RL
Chloride		**130000**		mg/L	10000	2.50

Sample: 247497 - MW-1

Laboratory:	Lubbock				
Analysis:	SO4 (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	75341	Date Analyzed:	2010-11-12	Analyzed By:	PG
Prep Batch:	64638	Sample Preparation:	2010-11-12	Prepared By:	PG

Parameter	Flag	Result	RL	Units	Dilution	RL
Sulfate		**1500**		mg/L	50	2.50

[1]SPECIAL - TFT is out of control limits due to an unknown anomaly. However, 4-BFB is within control limits and shows the method to be in control. •

Sample: 247497 - MW-1

Laboratory:	Midland				
Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	74622	Date Analyzed:	2010-10-21	Analyzed By:	AR
Prep Batch:	63873	Sample Preparation:	2010-10-15	Prepared By:	AR

Parameter	Flag	Result	RL Units	Dilution	RL
Total Dissolved Solids		**235000**	mg/L	100	10.0

Sample: 247498 - MW-2

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	74557	Date Analyzed:	2010-10-14	Analyzed By:	AG
Prep Batch:	63840	Sample Preparation:	2010-10-14	Prepared By:	AG

Parameter	Flag	Result	RL Units	Dilution	RL
Benzene		**0.00170**	mg/L	1	0.00100
Toluene		<0.00100	mg/L	1	0.00100
Ethylbenzene		<0.00100	mg/L	1	0.00100
Xylene		<0.00100	mg/L	1	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)	[2]	0.0428	mg/L	1	0.100	43	66.2 - 107
4-Bromofluorobenzene (4-BFB)		0.0401	mg/L	1	0.100	40	39 - 138

Sample: 247498 - MW-2

Laboratory:	Lubbock				
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	74818	Date Analyzed:	2010-10-26	Analyzed By:	PG
Prep Batch:	64180	Sample Preparation:	2010-10-26	Prepared By:	SS

Parameter	Flag	Result	RL Units	Dilution	RL
Chloride		**51800**	mg/L	5000	2.50

[2]SPECIAL - TFT is out of control limits due to an unknown anomaly. However, 4-BFB is within control limits and shows the method to be in control. •

Sample: 247498 - MW-2

Laboratory:	Lubbock				
Analysis:	SO4 (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	75341	Date Analyzed:	2010-11-12	Analyzed By:	PG
Prep Batch:	64638	Sample Preparation:	2010-11-12	Prepared By:	PG

Parameter	Flag	Result	RL	Units	Dilution	RL
Sulfate		**945**		mg/L	50	2.50

Sample: 247498 - MW-2

Laboratory:	Midland				
Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	74622	Date Analyzed:	2010-10-21	Analyzed By:	AR
Prep Batch:	63873	Sample Preparation:	2010-10-15	Prepared By:	AR

Parameter	Flag	Result	RL	Units	Dilution	RL
Total Dissolved Solids		**108000**		mg/L	100	10.0

Sample: 247499 - MW-3

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	74557	Date Analyzed:	2010-10-14	Analyzed By:	AG
Prep Batch:	63840	Sample Preparation:	2010-10-14	Prepared By:	AG

Parameter	Flag	Result	RL	Units	Dilution	RL
Benzene		<0.00100		mg/L	1	0.00100
Toluene		<0.00100		mg/L	1	0.00100
Ethylbenzene		<0.00100		mg/L	1	0.00100
Xylene		<0.00100		mg/L	1	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.107	mg/L	1	0.100	107	66.2 - 107
4-Bromofluorobenzene (4-BFB)		0.0507	mg/L	1	0.100	51	39 - 138

Sample: 247499 - MW-3

Laboratory:	Lubbock				
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	74818	Date Analyzed:	2010-10-26	Analyzed By:	PG
Prep Batch:	64180	Sample Preparation:	2010-10-26	Prepared By:	SS

Parameter	Flag	Result	RL	Units	Dilution	RL
Chloride		**85500**		mg/L	10000	2.50

Sample: 247499 - MW-3

Laboratory:	Lubbock				
Analysis:	SO4 (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	75341	Date Analyzed:	2010-11-12	Analyzed By:	PG
Prep Batch:	64638	Sample Preparation:	2010-11-12	Prepared By:	PG

Parameter	Flag	Result	RL	Units	Dilution	RL
Sulfate		**934**		mg/L	50	2.50

Sample: 247499 - MW-3

Laboratory:	Midland				
Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	74622	Date Analyzed:	2010-10-21	Analyzed By:	AR
Prep Batch:	63873	Sample Preparation:	2010-10-15	Prepared By:	AR

Parameter	Flag	Result	RL	Units	Dilution	RL
Total Dissolved Solids		**167000**		mg/L	100	10.0

Sample: 247500 - MW-4

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	74557	Date Analyzed:	2010-10-14	Analyzed By:	AG
Prep Batch:	63840	Sample Preparation:	2010-10-14	Prepared By:	AG

Parameter	Flag	Result	RL	Units	Dilution	RL
Benzene		**0.00150**		mg/L	1	0.00100
Toluene		<0.00100		mg/L	1	0.00100

continued ...

sample 247500 continued ...

Parameter	Flag	Result	RL	Units	Dilution	RL
Ethylbenzene		<0.00100		mg/L	1	0.00100
Xylene		<0.00100		mg/L	1	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)	[3]	0.0444	mg/L	1	0.100	44	66.2 - 107
4-Bromofluorobenzene (4-BFB)		0.0422	mg/L	1	0.100	42	39 - 138

Sample: 247500 - MW-4

Laboratory:	Lubbock				
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	74818	Date Analyzed:	2010-10-26	Analyzed By:	PG
Prep Batch:	64180	Sample Preparation:	2010-10-26	Prepared By:	SS

Parameter	Flag	Result	RL	Units	Dilution	RL
Chloride		**93200**		mg/L	10000	2.50

Sample: 247500 - MW-4

Laboratory:	Lubbock				
Analysis:	SO4 (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	75341	Date Analyzed:	2010-11-12	Analyzed By:	PG
Prep Batch:	64638	Sample Preparation:	2010-11-12	Prepared By:	PG

Parameter	Flag	Result	RL	Units	Dilution	RL
Sulfate		**1640**		mg/L	50	2.50

Sample: 247500 - MW-4

Laboratory:	Midland				
Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	74622	Date Analyzed:	2010-10-21	Analyzed By:	AR
Prep Batch:	63873	Sample Preparation:	2010-10-15	Prepared By:	AR

Parameter	Flag	Result	RL	Units	Dilution	RL
Total Dissolved Solids		**175000**		mg/L	100	10.0

[3]SPECIAL - TFT is out of control limits due to an unknown anomaly. However, 4-BFB is within control limits and shows the method to be in control. •

Method Blank (1) QC Batch: 74557

QC Batch:	74557	Date Analyzed:	2010-10-14
Prep Batch:	63840	QC Preparation:	2010-10-14
		Analyzed By:	AG
		Prepared By:	AG

Parameter	Flag	MDL Result	Units	RL
Benzene		<0.000400	mg/L	0.001
Toluene		<0.000800	mg/L	0.001
Ethylbenzene		<0.000400	mg/L	0.001
Xylene		<0.000400	mg/L	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0893	mg/L	1	0.100	89	61.8 - 106
4-Bromofluorobenzene (4-BFB)		0.0784	mg/L	1	0.100	78	48.5 - 129

Method Blank (1) QC Batch: 74622

QC Batch:	74622	Date Analyzed:	2010-10-21
Prep Batch:	63873	QC Preparation:	2010-10-15
		Analyzed By:	AR
		Prepared By:	AR

Parameter	Flag	MDL Result	Units	RL
Total Dissolved Solids		11.0	mg/L	10

Method Blank (1) QC Batch: 74818

QC Batch:	74818	Date Analyzed:	2010-10-26
Prep Batch:	64180	QC Preparation:	2010-10-26
		Analyzed By:	PG
		Prepared By:	PG

Parameter	Flag	MDL Result	Units	RL
Chloride		<0.0350	mg/L	2.5

Method Blank (1) QC Batch: 75341

QC Batch:	75341	Date Analyzed:	2010-11-12
Prep Batch:	64638	QC Preparation:	2010-11-12
		Analyzed By:	PG
		Prepared By:	PG

Parameter	Flag	MDL Result	Units	RL
Sulfate		<0.596	mg/L	2.5

Duplicates (2) Duplicated Sample: 247533

QC Batch: 74622 | Date Analyzed: 2010-10-21 | Analyzed By: AR
Prep Batch: 63873 | QC Preparation: 2010-10-15 | Prepared By: AR

Param	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Total Dissolved Solids	46600	11700	mg/L	100	4	10
Total Dissolved Solids	46600	48400	mg/L	100	4	10

Laboratory Control Spike (LCS-1)

QC Batch: 74557 | Date Analyzed: 2010-10-14 | Analyzed By: AG
Prep Batch: 63840 | QC Preparation: 2010-10-14 | Prepared By: AG

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	0.0939	mg/L	1	0.100	<0.000400	94	80.7 - 117
Toluene	0.0947	mg/L	1	0.100	<0.000800	95	80.5 - 117
Ethylbenzene	0.0947	mg/L	1	0.100	<0.000400	95	79.2 - 117
Xylene	0.277	mg/L	1	0.300	<0.000400	92	74.1 - 120

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	0.0950	mg/L	1	0.100	<0.000400	95	80.7 - 117	1	20
Toluene	0.0975	mg/L	1	0.100	<0.000800	98	80.5 - 117	3	20
Ethylbenzene	0.0968	mg/L	1	0.100	<0.000400	97	79.2 - 117	2	20
Xylene	0.286	mg/L	1	0.300	<0.000400	95	74.1 - 120	3	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
Trifluorotoluene (TFT)	0.0875	0.0904	mg/L	1	0.100	88	90	72.5 - 126
4-Bromofluorobenzene (4-BFB)	0.0805	0.0847	mg/L	1	0.100	80	85	48.3 - 135

Laboratory Control Spike (LCS-1)

QC Batch: 74622 | Date Analyzed: 2010-10-21 | Analyzed By: AR
Prep Batch: 63873 | QC Preparation: 2010-10-15 | Prepared By: AR

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Dissolved Solids	979	mg/L	1	1000	<9.75	98	90 - 110

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Dissolved Solids	994	mg/L	1	1000	<9.75	99	90 - 110	2	10

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: 74818 | Date Analyzed: 2010-10-26 | Analyzed By: PG
Prep Batch: 64180 | QC Preparation: 2010-10-26 | Prepared By: PG

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	24.0	mg/L	1	25.0	<0.0350	96	90 - 110

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	23.9	mg/L	1	25.0	<0.0350	96	90 - 110	0	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: 75341 | Date Analyzed: 2010-11-12 | Analyzed By: PG
Prep Batch: 64638 | QC Preparation: 2010-11-12 | Prepared By: PG

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Sulfate	24.8	mg/L	1	25.0	<0.596	99	90 - 110

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Sulfate	25.8	mg/L	1	25.0	<0.596	103	90 - 110	4	20

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

Matrix Spike (MS-1) Spiked Sample: 247532

QC Batch: 74557 | Date Analyzed: 2010-10-14 | Analyzed By: AG
Prep Batch: 63840 | QC Preparation: 2010-10-14 | Prepared By: AG

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	0.107	mg/L	1	0.100	0.0048	102	60.9 - 132
Toluene	0.0929	mg/L	1	0.100	<0.000800	93	65.7 - 129
Ethylbenzene	0.0881	mg/L	1	0.100	<0.000400	88	51.5 - 134
Xylene	0.332	mg/L	1	0.300	<0.000400	111	62.6 - 124

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

Param		MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	[4]	0.0817	mg/L	1	0.100	0.0048	77	60.9 - 132	27	20
Toluene	[5]	0.0712	mg/L	1	0.100	<0.000800	71	65.7 - 129	26	20
Ethylbenzene	[6]	0.0645	mg/L	1	0.100	<0.000400	64	51.5 - 134	31	20
Xylene		0.283	mg/L	1	0.300	<0.000400	94	62.6 - 124	16	20

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

Surrogate		MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	[7] [8]	0.317	0.331	mg/L	1	0.1	317	331	75.1 - 117
4-Bromofluorobenzene (4-BFB)		0.0577	0.0585	mg/L	1	0.1	58	58	31.3 - 143

Matrix Spike (MS-1) Spiked Sample: 247502

QC Batch: 74818 | Date Analyzed: 2010-10-26 | Analyzed By: PG
Prep Batch: 64180 | QC Preparation: 2010-10-26 | Prepared By: PG

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	244000	mg/L	10000	250000	16700	91	90 - 110

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	248000	mg/L	10000	250000	16700	92	90 - 110	2	20

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

[4]MS/MSD RPD out of RPD Limits. Use LCS/LCSD to demonstrate analysis is under control.
[5]MS/MSD RPD out of RPD Limits. Use LCS/LCSD to demonstrate analysis is under control.
[6]MS/MSD RPD out of RPD Limits. Use LCS/LCSD to demonstrate analysis is under control.
[7]High surrogate recovery due to peak interference.
[8]High surrogate recovery due to peak interference.

Matrix Spike (MS-1) Spiked Sample: 250076

QC Batch: 75341 | Date Analyzed: 2010-11-12 | Analyzed By: PG
Prep Batch: 64638 | QC Preparation: 2010-11-12 | Prepared By: PG

Param		MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Sulfate	[9]	274	mg/L	5	125	<2.98	219	90 - 110

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

Param		MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Sulfate	[10]	278	mg/L	5	125	<2.98	222	90 - 110	1	20

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

Standard (CCV-1)

QC Batch: 74557 | Date Analyzed: 2010-10-14 | Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.100	0.0953	95	80 - 120	2010-10-14
Toluene		mg/L	0.100	0.0980	98	80 - 120	2010-10-14
Ethylbenzene		mg/L	0.100	0.0945	94	80 - 120	2010-10-14
Xylene		mg/L	0.300	0.280	93	80 - 120	2010-10-14

Standard (CCV-2)

QC Batch: 74557 | Date Analyzed: 2010-10-14 | Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.100	0.0941	94	80 - 120	2010-10-14
Toluene		mg/L	0.100	0.0958	96	80 - 120	2010-10-14
Ethylbenzene		mg/L	0.100	0.0935	94	80 - 120	2010-10-14
Xylene		mg/L	0.300	0.275	92	80 - 120	2010-10-14

Standard (CCV-1)

QC Batch: 74818 | Date Analyzed: 2010-10-26 | Analyzed By: PG

[9]matrix spikes run with batch but spiked sample was reported in another run •
[10]matrix spikes run with batch but spiked sample was reported in another run •

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/L	25.0	24.2	97	90 - 110	2010-10-26

Standard (CCV-2)

QC Batch: 74818 Date Analyzed: 2010-10-26 Analyzed By: PG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/L	25.0	23.6	94	90 - 110	2010-10-26

Standard (CCV-1)

QC Batch: 75341 Date Analyzed: 2010-11-12 Analyzed By: PG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Sulfate		mg/L	25.0	24.3	97	90 - 110	2010-11-12

Standard (CCV-2)

QC Batch: 75341 Date Analyzed: 2010-11-12 Analyzed By: PG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Sulfate		mg/L	25.0	25.8	103	90 - 110	2010-11-12

TRACEANALYSIS, INC.

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Certifications

WBENC: 237019 **HUB:** 1752439743100-86536 **DBE:** VN 20657
NCTRCA WFWB38444Y0909

NELAP Certifications

Lubbock: T104704219-08-TX LELAP-02003 Kansas E-10317 **El Paso:** T104704221-08-TX LELAP-02002 **Midland:** T104704392-08-TX

Analytical and Quality Control Report

Jeff Kindley
Tetra Tech
1910 N. Big Spring Street
Midland, TX, 79705

Report Date: February 7, 2011

Work Order: 11012135

Project Name: Celero/Rock Queen Saltwater Plant #1
Project Number: 115-6403134

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
255925	MW-1	water	2011-01-19	17:58	2011-01-21
255926	MW-2	water	2011-01-19	17:50	2011-01-21
255927	MW-3	water	2011-01-19	17:30	2011-01-21
255928	MW-4	water	2011-01-19	18:10	2011-01-21
255929	MW-5	water	2011-01-19	18:05	2011-01-21
255930	MW-6	water	2011-01-19	17:43	2011-01-21
255931	MW-7	water	2011-01-19	17:35	2011-01-21

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 21 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

Dr. Blair Leftwich, Director
Dr. Michael Abel, Project Manager

Standard Flags

B - The sample contains less than ten times the concentration found in the method blank.

Samples for project Celero/Rock Queen Saltwater Plant #1 were received by TraceAnalysis, Inc. on 2011-01-21 and assigned to work order 11012135. Samples for work order 11012135 were received intact without headspace and at a temperature of 12.5 C.

Samples were analyzed for the following tests using their respective methods.

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
BTEX	S 8021B	66196	2011-01-25 at 10:00	77170	2011-01-25 at 14:57
BTEX	S 8021B	66223	2011-01-27 at 10:00	77205	2011-01-27 at 11:06
Chloride (IC)	E 300.0	66402	2011-02-04 at 11:18	77415	2011-02-04 at 15:32
SO4 (IC)	E 300.0	66402	2011-02-04 at 11:18	77415	2011-02-04 at 15:32
SO4 (IC)	E 300.0	66413	2011-02-06 at 10:00	77426	2011-02-06 at 12:17
TDS	SM 2540C	66164	2011-01-25 at 12:00	77317	2011-02-01 at 15:04

Results for these samples are reported on a wet weight basis unless data package indicates otherwise.

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 11012135 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.

Analytical Report

Sample: 255925 - MW-1

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	77205	Date Analyzed:	2011-01-27	Analyzed By:	AG
Prep Batch:	66223	Sample Preparation:	2011-01-27	Prepared By:	AG

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		**0.0116**	mg/L	1	0.00100
Toluene		**0.00590**	mg/L	1	0.00100
Ethylbenzene		<0.00100	mg/L	1	0.00100
Xylene		<0.00100	mg/L	1	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)	[1]	0.0447	mg/L	1	0.100	45	75.4 - 119.4
4-Bromofluorobenzene (4-BFB)	[2]	0.0396	mg/L	1	0.100	40	78.6 - 122.8

Sample: 255925 - MW-1

Laboratory:	Lubbock				
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	77415	Date Analyzed:	2011-02-04	Analyzed By:	PG
Prep Batch:	66402	Sample Preparation:	2011-02-04	Prepared By:	PG

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**132000**	mg/L	10000	2.50

Sample: 255925 - MW-1

Laboratory:	Lubbock				
Analysis:	SO4 (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	77426	Date Analyzed:	2011-02-06	Analyzed By:	PG
Prep Batch:	66413	Sample Preparation:	2011-02-06	Prepared By:	PG

Parameter	Flag	RL Result	Units	Dilution	RL
Sulfate		**1940**	mg/L	100	2.50

[1] Surrogate TFT out due to matrix interference. Sample was reran on 01-27-2011 to confirm matrix interference results.
[2] Surrogate 4-BFB out due to matrix interference. Sample was reran on 01-27-2011 to confirm matrix interference results.

Sample: 255925 - MW-1

Laboratory:	Midland				
Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	77317	Date Analyzed:	2011-02-01	Analyzed By:	AR
Prep Batch:	66164	Sample Preparation:	2011-01-26	Prepared By:	AR

Parameter	Flag	Result	RL	Units	Dilution	RL
Total Dissolved Solids		**234000**		mg/L	100	10.0

Sample: 255926 - MW-2

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	77170	Date Analyzed:	2011-01-25	Analyzed By:	AG
Prep Batch:	66196	Sample Preparation:	2011-01-25	Prepared By:	AG

Parameter	Flag	Result	RL	Units	Dilution	RL
Benzene		<0.00100		mg/L	1	0.00100
Toluene		<0.00100		mg/L	1	0.00100
Ethylbenzene		<0.00100		mg/L	1	0.00100
Xylene		<0.00100		mg/L	1	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0720	mg/L	1	0.100	72	75.4 - 119.4
4-Bromofluorobenzene (4-BFB)		0.0673	mg/L	1	0.100	67	78.6 - 122.8

Sample: 255926 - MW-2

Laboratory:	Lubbock				
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	77415	Date Analyzed:	2011-02-04	Analyzed By:	PG
Prep Batch:	66402	Sample Preparation:	2011-02-04	Prepared By:	PG

Parameter	Flag	Result	RL	Units	Dilution	RL
Chloride		**66600**		mg/L	10000	2.50

Sample: 255926 - MW-2

Laboratory:	Lubbock				
Analysis:	SO4 (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	77426	Date Analyzed:	2011-02-06	Analyzed By:	PG
Prep Batch:	66413	Sample Preparation:	2011-02-06	Prepared By:	PG

Parameter	Flag	Result	RL	Units	Dilution	RL
Sulfate		**1640**		mg/L	100	2.50

Sample: 255926 - MW-2

Laboratory:	Midland				
Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	77317	Date Analyzed:	2011-02-01	Analyzed By:	AR
Prep Batch:	66164	Sample Preparation:	2011-01-26	Prepared By:	AR

Parameter	Flag	Result	RL	Units	Dilution	RL
Total Dissolved Solids		**133000**		mg/L	100	10.0

Sample: 255927 - MW-3

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	77170	Date Analyzed:	2011-01-25	Analyzed By:	AG
Prep Batch:	66196	Sample Preparation:	2011-01-25	Prepared By:	AG

Parameter	Flag	Result	RL	Units	Dilution	RL
Benzene		<0.00100		mg/L	1	0.00100
Toluene		<0.00100		mg/L	1	0.00100
Ethylbenzene		<0.00100		mg/L	1	0.00100
Xylene		<0.00100		mg/L	1	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)	[3]	0.0666	mg/L	1	0.100	67	75.4 - 119.4
4-Bromofluorobenzene (4-BFB)		0.0648	mg/L	1	0.100	65	78.6 - 122.8

[3]SPECIAL - TFT is out of control limits due to an unknown anomaly. However, 4-BFB shows the method to be in control. •

Sample: 255927 - MW-3

Laboratory:	Lubbock				
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	77415	Date Analyzed:	2011-02-04	Analyzed By:	PG
Prep Batch:	66402	Sample Preparation:	2011-02-04	Prepared By:	PG

Parameter	Flag	Result	RL	Units	Dilution	RL
Chloride		**85200**		mg/L	10000	2.50

Sample: 255927 - MW-3

Laboratory:	Lubbock				
Analysis:	SO4 (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	77426	Date Analyzed:	2011-02-06	Analyzed By:	PG
Prep Batch:	66413	Sample Preparation:	2011-02-06	Prepared By:	PG

Parameter	Flag	Result	RL	Units	Dilution	RL
Sulfate		**1230**		mg/L	100	2.50

Sample: 255927 - MW-3

Laboratory:	Midland				
Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	77317	Date Analyzed:	2011-02-01	Analyzed By:	AR
Prep Batch:	66164	Sample Preparation:	2011-01-26	Prepared By:	AR

Parameter	Flag	Result	RL	Units	Dilution	RL
Total Dissolved Solids		**154000**		mg/L	100	10.0

Sample: 255928 - MW-4

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	77205	Date Analyzed:	2011-01-27	Analyzed By:	AG
Prep Batch:	66223	Sample Preparation:	2011-01-27	Prepared By:	AG

Parameter	Flag	Result	RL	Units	Dilution	RL
Benzene		**0.00950**		mg/L	1	0.00100
Toluene		<0.00100		mg/L	1	0.00100

continued ...

sample 255928 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL
Ethylbenzene		<0.00100	mg/L	1	0.00100
Xylene		<0.00100	mg/L	1	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)	[4]	0.0458	mg/L	1	0.100	46	75.4 - 119.4
4-Bromofluorobenzene (4-BFB)	[5]	0.0434	mg/L	1	0.100	43	78.6 - 122.8

Sample: 255928 - MW-4

Laboratory:	Lubbock				
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	77415	Date Analyzed:	2011-02-04	Analyzed By:	PG
Prep Batch:	66402	Sample Preparation:	2011-02-04	Prepared By:	PG

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**93200**	mg/L	10000	2.50

Sample: 255928 - MW-4

Laboratory:	Lubbock				
Analysis:	SO4 (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	77426	Date Analyzed:	2011-02-06	Analyzed By:	PG
Prep Batch:	66413	Sample Preparation:	2011-02-06	Prepared By:	PG

Parameter	Flag	RL Result	Units	Dilution	RL
Sulfate		**2360**	mg/L	100	2.50

Sample: 255928 - MW-4

Laboratory:	Midland				
Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	77317	Date Analyzed:	2011-02-01	Analyzed By:	AR
Prep Batch:	66164	Sample Preparation:	2011-01-26	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Total Dissolved Solids		**173000**	mg/L	100	10.0

[4]Surrogate TFT out due to matrix interference. Sample was reran on 01-27-2011 to confirm matrix interference results.
[5]Surrogate 4-BFB out due to matrix interference. Sample was reran on 01-27-2011 to confirm matrix interference results.

Sample: 255929 - MW-5

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	77170	Date Analyzed:	2011-01-25	Analyzed By:	AG
Prep Batch:	66196	Sample Preparation:	2011-01-25	Prepared By:	AG

Parameter	Flag	Result	RL Units	Dilution	RL
Benzene		<0.00100	mg/L	1	0.00100
Toluene		<0.00100	mg/L	1	0.00100
Ethylbenzene		<0.00100	mg/L	1	0.00100
Xylene		<0.00100	mg/L	1	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.104	mg/L	1	0.100	104	75.4 - 119.4
4-Bromofluorobenzene (4-BFB)		0.0933	mg/L	1	0.100	93	78.6 - 122.8

Sample: 255929 - MW-5

Laboratory:	Lubbock				
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	77415	Date Analyzed:	2011-02-04	Analyzed By:	PG
Prep Batch:	66402	Sample Preparation:	2011-02-04	Prepared By:	PG

Parameter	Flag	Result	RL Units	Dilution	RL
Chloride		**32400**	mg/L	5000	2.50

Sample: 255929 - MW-5

Laboratory:	Lubbock				
Analysis:	SO4 (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	77426	Date Analyzed:	2011-02-06	Analyzed By:	PG
Prep Batch:	66413	Sample Preparation:	2011-02-06	Prepared By:	PG

Parameter	Flag	Result	RL Units	Dilution	RL
Sulfate		**822**	mg/L	50	2.50

Sample: 255929 - MW-5

Laboratory:	Midland				
Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	77317	Date Analyzed:	2011-02-01	Analyzed By:	AR
Prep Batch:	66164	Sample Preparation:	2011-01-26	Prepared By:	AR

Parameter	Flag	Result	RL Units	Dilution	RL
Total Dissolved Solids		**69700**	mg/L	100	10.0

Sample: 255930 - MW-6

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	77170	Date Analyzed:	2011-01-25	Analyzed By:	AG
Prep Batch:	66196	Sample Preparation:	2011-01-25	Prepared By:	AG

Parameter	Flag	Result	RL Units	Dilution	RL
Benzene		<0.00100	mg/L	1	0.00100
Toluene		<0.00100	mg/L	1	0.00100
Ethylbenzene		<0.00100	mg/L	1	0.00100
Xylene		<0.00100	mg/L	1	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.112	mg/L	1	0.100	112	75.4 - 119.4
4-Bromofluorobenzene (4-BFB)		0.0961	mg/L	1	0.100	96	78.6 - 122.8

Sample: 255930 - MW-6

Laboratory:	Lubbock				
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	77415	Date Analyzed:	2011-02-04	Analyzed By:	PG
Prep Batch:	66402	Sample Preparation:	2011-02-04	Prepared By:	PG

Parameter	Flag	Result	RL Units	Dilution	RL
Chloride		**3010**	mg/L	100	2.50

Sample: 255930 - MW-6

Laboratory:	Lubbock				
Analysis:	SO4 (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	77415	Date Analyzed:	2011-02-04	Analyzed By:	PG
Prep Batch:	66402	Sample Preparation:	2011-02-04	Prepared By:	PG

Parameter	Flag	RL Result	Units	Dilution	RL
Sulfate		<250	mg/L	100	2.50

Sample: 255930 - MW-6

Laboratory:	Midland				
Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	77317	Date Analyzed:	2011-02-01	Analyzed By:	AR
Prep Batch:	66164	Sample Preparation:	2011-01-26	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Total Dissolved Solids		**16500**	mg/L	10	10.0

Sample: 255931 - MW-7

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	77170	Date Analyzed:	2011-01-25	Analyzed By:	AG
Prep Batch:	66196	Sample Preparation:	2011-01-25	Prepared By:	AG

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.00100	mg/L	1	0.00100
Toluene		<0.00100	mg/L	1	0.00100
Ethylbenzene		<0.00100	mg/L	1	0.00100
Xylene		<0.00100	mg/L	1	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0863	mg/L	1	0.100	86	75.4 - 119.4
4-Bromofluorobenzene (4-BFB)		0.0789	mg/L	1	0.100	79	78.6 - 122.8

Sample: 255931 - MW-7

Laboratory:	Lubbock				
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	77415	Date Analyzed:	2011-02-04	Analyzed By:	PG
Prep Batch:	66402	Sample Preparation:	2011-02-04	Prepared By:	PG

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**35700**	mg/L	5000	2.50

Sample: 255931 - MW-7

Laboratory:	Lubbock				
Analysis:	SO4 (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	77426	Date Analyzed:	2011-02-06	Analyzed By:	PG
Prep Batch:	66413	Sample Preparation:	2011-02-06	Prepared By:	PG

Parameter	Flag	RL Result	Units	Dilution	RL
Sulfate		**478**	mg/L	50	2.50

Sample: 255931 - MW-7

Laboratory:	Midland				
Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	77317	Date Analyzed:	2011-02-01	Analyzed By:	AR
Prep Batch:	66164	Sample Preparation:	2011-01-26	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Total Dissolved Solids		**75700**	mg/L	100	10.0

Method Blank (1) QC Batch: 77170

QC Batch:	77170	Date Analyzed:	2011-01-25	Analyzed By:	AG
Prep Batch:	66196	QC Preparation:	2011-01-25	Prepared By:	AG

Parameter	Flag	MDL Result	Units	RL
Benzene		<0.000400	mg/L	0.001
Toluene		<0.000300	mg/L	0.001
Ethylbenzene		<0.000300	mg/L	0.001

continued ...

method blank continued ...

Parameter	Flag	MDL Result	Units	RL
Xylene		<0.000333	mg/L	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.111	mg/L	1	0.100	111	70.8 - 117.4
4-Bromofluorobenzene (4-BFB)		0.0994	mg/L	1	0.100	99	79 - 113.4

Method Blank (1) QC Batch: 77205

QC Batch: 77205 Date Analyzed: 2011-01-27 Analyzed By: AG
Prep Batch: 66223 QC Preparation: 2011-01-27 Prepared By: AG

Parameter	Flag	MDL Result	Units	RL
Benzene		<0.000400	mg/L	0.001
Toluene		<0.000300	mg/L	0.001
Ethylbenzene		<0.000300	mg/L	0.001
Xylene		<0.000333	mg/L	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.117	mg/L	1	0.100	117	70.8 - 117.4
4-Bromofluorobenzene (4-BFB)		0.0998	mg/L	1	0.100	100	79 - 113.4

Method Blank (1) QC Batch: 77317

QC Batch: 77317 Date Analyzed: 2011-02-01 Analyzed By: AR
Prep Batch: 66164 QC Preparation: 2011-01-25 Prepared By: AR

Parameter	Flag	MDL Result	Units	RL
Total Dissolved Solids		10.0	mg/L	10

Method Blank (1) QC Batch: 77415

QC Batch: 77415 Date Analyzed: 2011-02-04 Analyzed By: PG
Prep Batch: 66402 QC Preparation: 2011-02-04 Prepared By: PG

Parameter	Flag	MDL Result	Units	RL
Chloride		<0.0142	mg/L	2.5

Method Blank (1) QC Batch: 77415

QC Batch: 77415 Date Analyzed: 2011-02-04 Analyzed By: PG
Prep Batch: 66402 QC Preparation: 2011-02-04 Prepared By: PG

Parameter	Flag	MDL Result	Units	RL
Sulfate		<0.126	mg/L	2.5

Method Blank (1) QC Batch: 77426

QC Batch: 77426 Date Analyzed: 2011-02-06 Analyzed By: PG
Prep Batch: 66413 QC Preparation: 2011-02-06 Prepared By: PG

Parameter	Flag	MDL Result	Units	RL
Sulfate		<0.126	mg/L	2.5

Duplicates (1) Duplicated Sample: 255931

QC Batch: 77317 Date Analyzed: 2011-02-01 Analyzed By: AR
Prep Batch: 66164 QC Preparation: 2011-01-25 Prepared By: AR

Param	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Total Dissolved Solids	70500	75700	mg/L	100	7	10

Laboratory Control Spike (LCS-1)

QC Batch: 77170 Date Analyzed: 2011-01-25 Analyzed By: AG
Prep Batch: 66196 QC Preparation: 2011-01-25 Prepared By: AG

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	0.0891	mg/L	1	0.100	<0.000400	89	76.8 - 110.3
Toluene	0.103	mg/L	1	0.100	<0.000300	103	81 - 108.2
Ethylbenzene	0.108	mg/L	1	0.100	<0.000300	108	78.8 - 111

continued ...

control spikes continued ...

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Xylene	0.328	mg/L	1	0.300	<0.000333	109	80.3 - 111.4

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	0.0843	mg/L	1	0.100	<0.000400	84	76.8 - 110.3	6	20
Toluene	0.0988	mg/L	1	0.100	<0.000300	99	81 - 108.2	4	20
Ethylbenzene	0.103	mg/L	1	0.100	<0.000300	103	78.8 - 111	5	20
Xylene	0.312	mg/L	1	0.300	<0.000333	104	80.3 - 111.4	5	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
Trifluorotoluene (TFT)	0.112	0.111	mg/L	1	0.100	112	111	66.6 - 114.5
4-Bromofluorobenzene (4-BFB)	0.108	0.106	mg/L	1	0.100	108	106	77.1 - 114.4

Laboratory Control Spike (LCS-1)

QC Batch: 77205 | Date Analyzed: 2011-01-27 | Analyzed By: AG
Prep Batch: 66223 | QC Preparation: 2011-01-27 | Prepared By: AG

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	0.0939	mg/L	1	0.100	<0.000400	94	76.8 - 110.3
Toluene	0.102	mg/L	1	0.100	<0.000300	102	81 - 108.2
Ethylbenzene	0.108	mg/L	1	0.100	<0.000300	108	78.8 - 111
Xylene	0.326	mg/L	1	0.300	<0.000333	109	80.3 - 111.4

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	0.0896	mg/L	1	0.100	<0.000400	90	76.8 - 110.3	5	20
Toluene	0.0970	mg/L	1	0.100	<0.000300	97	81 - 108.2	5	20
Ethylbenzene	0.105	mg/L	1	0.100	<0.000300	105	78.8 - 111	3	20
Xylene	0.317	mg/L	1	0.300	<0.000333	106	80.3 - 111.4	3	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
Trifluorotoluene (TFT)	0.115	0.108	mg/L	1	0.100	115	108	66.6 - 114.5
4-Bromofluorobenzene (4-BFB)	0.105	0.100	mg/L	1	0.100	105	100	77.1 - 114.4

Laboratory Control Spike (LCS-1)

QC Batch: 77317 | Date Analyzed: 2011-02-01 | Analyzed By: AR
Prep Batch: 66164 | QC Preparation: 2011-01-25 | Prepared By: AR

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Dissolved Solids	1080	mg/L	1	1000	<9.75	108	90 - 110

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Dissolved Solids	1050	mg/L	1	1000	<9.75	105	90 - 110	3	10

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: 77415 | Date Analyzed: 2011-02-04 | Analyzed By: PG
Prep Batch: 66402 | QC Preparation: 2011-02-04 | Prepared By: PG

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	23.6	mg/L	1	25.0	<0.0142	94	90 - 110

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	23.7	mg/L	1	25.0	<0.0142	95	90 - 110	0	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: 77415 | Date Analyzed: 2011-02-04 | Analyzed By: PG
Prep Batch: 66402 | QC Preparation: 2011-02-04 | Prepared By: PG

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Sulfate	24.1	mg/L	1	25.0	<0.126	96	90 - 110

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Sulfate	24.2	mg/L	1	25.0	<0.126	97	90 - 110	0	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: 77426 | Date Analyzed: 2011-02-06 | Analyzed By: PG
Prep Batch: 66413 | QC Preparation: 2011-02-06 | Prepared By: PG

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Sulfate	24.7	mg/L	1	25.0	<0.126	99	90 - 110

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Sulfate	24.7	mg/L	1	25.0	<0.126	99	90 - 110	0	20

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

Matrix Spike (MS-1) Spiked Sample: 256101

QC Batch: 77170 | Date Analyzed: 2011-01-25 | Analyzed By: AG
Prep Batch: 66196 | QC Preparation: 2011-01-25 | Prepared By: AG

Param		MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		0.0827	mg/L	1	0.100	<0.000400	83	68.2 - 119.3
Toluene		0.0851	mg/L	1	0.100	<0.000300	85	74.6 - 110.8
Ethylbenzene		0.0786	mg/L	1	0.100	<0.000300	79	71.6 - 111.9
Xylene	[6]	0.204	mg/L	1	0.300	<0.000333	68	71.3 - 113.4

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

Param		MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		0.0777	mg/L	1	0.100	<0.000400	78	68.2 - 119.3	6	20
Toluene		0.0814	mg/L	1	0.100	<0.000300	81	74.6 - 110.8	4	20
Ethylbenzene	[7]	0.0750	mg/L	1	0.100	<0.000300	75	71.6 - 111.9	5	20
Xylene	[8]	0.193	mg/L	1	0.300	<0.000333	64	71.3 - 113.4	6	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.0829	0.0831	mg/L	1	0.1	83	83	68.2 - 110.1
4-Bromofluorobenzene (4-BFB)	0.0830	0.0816	mg/L	1	0.1	83	82	78.7 - 116.2

[6]Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.
[7]MSD analyte out of range. MS/MSD has a RPD within limits. Therfore, MS shows extraction occured properly.
[8]Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.

Matrix Spike (MS-1) Spiked Sample: 256097

QC Batch: 77415 | Date Analyzed: 2011-02-04 | Analyzed By: PG
Prep Batch: 66402 | QC Preparation: 2011-02-04 | Prepared By: PG

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	300000	mg/L	10000	250000	51900	99	90 - 110

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	299000	mg/L	10000	250000	51900	99	90 - 110	0	20

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

Matrix Spike (MS-1) Spiked Sample: 256097

QC Batch: 77415 | Date Analyzed: 2011-02-04 | Analyzed By: PG
Prep Batch: 66402 | QC Preparation: 2011-02-04 | Prepared By: PG

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Sulfate	241000	mg/L	10000	250000	1900	96	90 - 110

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Sulfate	240000	mg/L	10000	250000	1900	95	90 - 110	0	20

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

Matrix Spike (MS-1) Spiked Sample: 255931

QC Batch: 77426 | Date Analyzed: 2011-02-06 | Analyzed By: PG
Prep Batch: 66413 | QC Preparation: 2011-02-06 | Prepared By: PG

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Sulfate	1780	mg/L	50	1250	478	104	90 - 110

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Sulfate	1790	mg/L	50	1250	478	105	90 - 110	1	20

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

Standard (CCV-1)

QC Batch: 77170 | Date Analyzed: 2011-01-25 | Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.100	0.0857	86	80 - 120	2011-01-25
Toluene		mg/L	0.100	0.100	100	80 - 120	2011-01-25
Ethylbenzene		mg/L	0.100	0.104	104	80 - 120	2011-01-25
Xylene		mg/L	0.300	0.314	105	80 - 120	2011-01-25

Standard (CCV-2)

QC Batch: 77170 | Date Analyzed: 2011-01-25 | Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.100	0.0873	87	80 - 120	2011-01-25
Toluene		mg/L	0.100	0.101	101	80 - 120	2011-01-25
Ethylbenzene		mg/L	0.100	0.105	105	80 - 120	2011-01-25
Xylene		mg/L	0.300	0.315	105	80 - 120	2011-01-25

Standard (CCV-3)

QC Batch: 77170 | Date Analyzed: 2011-01-25 | Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.100	0.0844	84	80 - 120	2011-01-25
Toluene		mg/L	0.100	0.0988	99	80 - 120	2011-01-25
Ethylbenzene		mg/L	0.100	0.103	103	80 - 120	2011-01-25
Xylene		mg/L	0.300	0.310	103	80 - 120	2011-01-25

Standard (CCV-1)

QC Batch: 77205 | Date Analyzed: 2011-01-27 | Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.100	0.0921	92	80 - 120	2011-01-27
Toluene		mg/L	0.100	0.0994	99	80 - 120	2011-01-27
Ethylbenzene		mg/L	0.100	0.108	108	80 - 120	2011-01-27

continued ...

standard continued ...

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Xylene		mg/L	0.300	0.326	109	80 - 120	2011-01-27

Standard (CCV-2)

QC Batch: 77205 Date Analyzed: 2011-01-27 Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.100	0.0887	89	80 - 120	2011-01-27
Toluene		mg/L	0.100	0.0969	97	80 - 120	2011-01-27
Ethylbenzene		mg/L	0.100	0.101	101	80 - 120	2011-01-27
Xylene		mg/L	0.300	0.304	101	80 - 120	2011-01-27

Standard (CCV-1)

QC Batch: 77415 Date Analyzed: 2011-02-04 Analyzed By: PG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/L	25.0	24.0	96	90 - 110	2011-02-04

Standard (CCV-1)

QC Batch: 77415 Date Analyzed: 2011-02-04 Analyzed By: PG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Sulfate		mg/L	25.0	24.5	98	90 - 110	2011-02-04

Standard (CCV-2)

QC Batch: 77415 Date Analyzed: 2011-02-04 Analyzed By: PG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/L	25.0	23.5	94	90 - 110	2011-02-04

Standard (CCV-2)

QC Batch: 77415 | Date Analyzed: 2011-02-04 | Analyzed By: PG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Sulfate		mg/L	25.0	24.0	96	90 - 110	2011-02-04

Standard (CCV-1)

QC Batch: 77426 | Date Analyzed: 2011-02-06 | Analyzed By: PG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Sulfate		mg/L	25.0	25.2	101	90 - 110	2011-02-06

Standard (CCV-2)

QC Batch: 77426 | Date Analyzed: 2011-02-06 | Analyzed By: PG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Sulfate		mg/L	25.0	24.7	99	90 - 110	2011-02-06

WO#: 11012135

Analysis Request of Chain of Custody Record

PAGE: 1 OF: 1

TETRA TECH
1910 N. Big Spring St.
Midland, Texas 79705
(432) 682-4559 • Fax (432) 682-3946

CLIENT NAME: Celero
SITE MANAGER: Jeff Kindley
PROJECT NO.: 115-6403134
PROJECT NAME: Celero / Rock Queen SOD #1 Chaves Co., NM

ANALYSIS REQUEST (Circle or Specify Method No.)

LAB I.D. NUMBER	DATE 2011	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FILTERED (Y/N)	HCL	HNO3	ICE	NONE	(BTEX 8021B)	TPH 8015 MOD. TX1005 (Ext. to C35)	PAH 8270	RCRA Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Vr Pd Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC/MS Vol. 8240/8260/624	GC/MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 808/608	(Chloride)	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)	Major Anions/Cations, pH, (TDS)	(SO4)
235925	1/19	1758	W		X	MW-1	4	N	X		X	X	X												X				X	X
926	↓	1750	↓		↓	MW-2	↓	↓	↓		↓	↓	↓												↓				↓	↓
927	↓	1730	↓		↓	MW-3	↓	↓	↓		↓	↓	↓												↓				↓	↓
928	↓	1810	↓		↓	MW-4	↓	↓	↓		↓	↓	↓												↓				↓	↓
929	↓	1805	↓		↓	MW-5	↓	↓	↓		↓	↓	↓												↓				↓	↓
930	↓	1743	↓		↓	MW-6	↓	↓	↓		↓	↓	↓												↓				↓	↓
931	↓	1735	↓		↓	MW-7	↓	↓	↓		↓	↓	↓												↓				↓	↓

RELINQUISHED BY: (Signature) [signature] Date: 1/21/11 Time: 1515
RECEIVED BY: (Signature) [signature] Date: 1/21/11 Time: 12:15
SAMPLED BY: (Print & Initial) J/TF Date: 1/19/11 Time:

RELINQUISHED BY: (Signature) [signature] Date: 1/24/11 Time: 16:00
RECEIVED BY: (Signature) Date: Time:

RELINQUISHED BY: (Signature) Date: Time:
RECEIVED BY: (Signature) Date: Time:

SAMPLE SHIPPED BY: (Circle) FEDEX BUS AIRBILL #: (HAND DELIVERED) UPS OTHER:

RECEIVING LABORATORY: Trace
ADDRESS:
CITY: Midland STATE: TX ZIP:
CONTACT: PHONE:

RECEIVED BY: (Signature) [signature] TA LS ZK951497
DATE: 01/25/11 TIME: 1040 Temp 3.8/3.8c

TETRA TECH CONTACT PERSON: Jeff Kindley
Results by:
RUSH Charges Authorized: Yes No

SAMPLE CONDITION WHEN RECEIVED: 12.5°c intact

REMARKS: *Midland - BTEX, TDS *Lubbock - Chlorides, SO4

Please fill out all copies - Laboratory retains Yellow copy - Return Orginal copy to Tetra Tech - Project Manager retains Pink copy - Accounting receives Gold copy.