1R – 1554

2007 - 2011 GWMR

03 / 29 / 2012

TETRA TECH

March 29, 2012

Mr. Glenn von Gonten
New Mexico Energy, Minerals, & Natural Resources
Oil Conservation Division, Environmental Bureau
1220 S. St. Francis Drive
Santa Fe, New Mexico 87504

Re: Comprehensive Groundwater Sampling Report for the Celero Energy II, LP, Rock Queen Unit Tank Battery #1, Located in Unit Letter B, Section 25, Township 13 South, Range 31 East, Chaves County, New Mexico (NMOCD 1RP#1554).

Mr. Von Gonten:

This report details the results of the groundwater sampling events performed at the Celero Energy II, LP (Celero), Rock Queen Unit Tank Battery #1 (Site) from May 2007 through December 2011. The Site is located approximately 21.50 miles north of Maljamar, New Mexico. The Site location is shown on Figures 1 and 2.

FACILITY BACKGROUND

Pit Closure

On August 13, 2007, Highlander (Tetra Tech) submitted an Investigation and Characterization work plan (ICP) for an open pit at the Site. The ICP was approved by the New Mexico Oil Conservation Division (NMOCD). On September 4, 2007, Highlander submitted an additional report entitled *Workplan for Capping and Site Closure* for the Pit at this Site.

The Tract 1 Tank Battery pit was dewatered and the residual sludge, tank bottom materials, and liner were removed in late July and early August 2007. Removed fluids were placed into an existing SWD system or taken for disposal, while the sludge, tank bottom materials, and liner were disposed of at Gandy-Marley, Inc.'s landfill site in Lovington, New Mexico. Upon completion of the removal of the fluids, sludge, and liner, the underlying soils were visually inspected for signs of impact. Approximately 200 cubic yards of soil were

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Tel Fax

excavated and transported to Gandy-Marley, Inc. facility for disposal. The pit was excavated to a point where the subsoil would support a soil boring rig.

On October 12, 2009, a report entitled *Assessment and Closure Report for the Pit located at the Rock Queen Unit Tank Battery #1* was submitted to the NMOCD. The report detailed the closure of the former pit at the facility.

Groundwater Investigation

Between May 2007 and January 2011, Celero installed seven 2-inch monitor wells (MW-1 through MW-7) and one 5-inch recovery well (RW-1) to assess the groundwater quality at the Site. The lithology at the Site was relatively consistent with limestone encountered to approximately 15 to 20 feet below ground surface (bgs), and very fine grain sands extending to approximately 120 to 130 feet bgs. From approximately 130 feet to the terminus of the borings (approximately 135 to 150 feet) the soils consisted of a gray clay. See Appendix A for Boring Logs.

During the investigation, groundwater was encountered at depths of approximately 116 to 121 feet bgs. Monitor Well MW-1 was drilled into the surrounding underlying clay to 150 feet bgs and installed with 40 feet of 0.01 inch slotted screen. The remaining monitor wells were drilled to depths of 130 to 140 feet bgs and installed with 30 feet of 0.02 inch slotted screen. Recovery well RW-1 was drilled to a depth of 130 feet and installed with 20 feet of 0.035 inch slotted screen. From the top of the screens to the surface of the boring, the wells were completed with blank schedule 40 PVC casing. See Appendix B for monitor well installation diagrams.

During the investigation and subsequent sampling, the only constituents of concern which were detected in the groundwater above New Mexico Water Quality Control Commission (NMWQCC) standards was chlorides, TDS, SO4 and benzene (which was found only in recovery well RW-1). No Phase Separated Hydrocarbons (PSH) has been measured in any of the onsite monitor wells. See Figure 3 detailing the monitor well locations.

Gauging and Monitor Well Sampling

On December 28, 2009, initial sampling began at the site. During 2010, additional monitor wells were installed and quarterly sampling initiated. During the sampling events, all monitor wells were gauged and sampled with no PSH measured. Utilizing the water level elevation calculations, groundwater gradient maps were generated for the sampling events. The hydraulic gradient indicates a south to southwesterly direction. Groundwater gradient maps for the sampling events are included as Figures 4 through 10. Gauging data is summarized in Table 1.

During the sampling events, each of the wells was purged utilizing either a submersible pump or by hand bailing and subsequently sampled for BTEX utilizing method SW8021B, chlorides and sulfates utilizing method E 300.0, total dissolved solids (TDS) utilizing method SM2540C and periodically for general chemistry using methods SM2320B, SW6010B, SM4500-H+. The samples were properly preserved and submitted under proper chain-of-custody control to Trace Analysis Inc. of Lubbock, Texas. Of the samples collected, only one sample (RW-1 on April 14, 2011 with a result of 0.0133 milligrams per liter [mg/L]) exceeded the NMWQCC standard of 0.01 milligrams per liter (mg/L) of benzene. The remainder of the samples was below the NMWQCC standards with a majority being at or below detection limits. Chlorides for the sampling period ranged from 40.9 mg/L in up gradient monitor well MW-5 on July 28, 2011 to 168,000 mg/L in monitor well MW-1 on April 13, 2011. With the exception of MW-5 all additional monitor wells exceeded the NMWQCC standard of 250 mg/L chlorides. The general chemistry and BTEX analyses are shown in Tables 2 and 3, respectively. Chloride concentration maps for the sampling events are included as Figures 11 through 17. Copies of the laboratory analyses are enclosed in Appendix C.

It was noted during sampling that all seven monitor wells (MW-1 through MW-7) bail dry, while very little drawdown was noted in Recovery Well RW-1.

CONCLUSIONS

1. On December 28, 2009, initial sampling began at the site. During 2010, additional monitor wells were installed and quarterly sampling initiated. During the sampling events, all monitor wells were gauged, purged and sampled. The samples were preserved, delivered to Trace Analysis, Inc. of Midland, Texas and analyzed for BTEX utilizing method SW8021B, chlorides and sulfates utilizing method E 300.0, total dissolved solids (TDS) utilizing method SM2540C and periodically for general chemistry using methods SM2320B, SW6010B, SM4500-H+.

2. The hydraulic gradient indicates a south to southwesterly direction at the site.

3. Benzene was detected above the NMWQCC standards of 0.01 mg/L in recover well RW-1 on April 14, 2011 with a result of 0.0133 mg/L. All remaining wells were below the NMWQCC standards.

4. Chloride concentrations exceed the NMWQCC standards of 250 mg/L in all monitor/recover wells with the exception of up gradient MW-5. The chloride concentrations at the site range from 40.9 mg/L in MW-5 on

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January 24, 2011 to 168,000 mg/L in MW-1 on April 13, 2011, which is near the initial source area.

RECOMMENDATIONS

1. Quarterly groundwater monitoring and gauging will be continued throughout the year.

2. Additional monitor wells will be installed in order to further delineate the chloride plume at the site.

3. A remediation system consisting of a windmill system was installed on January 20, 2012 in recovery well RW-1. The recovered fluids are collected in a 3,000 gallon above ground tank and will be utilized for possible water flooding purposes in the surrounding oilfield.

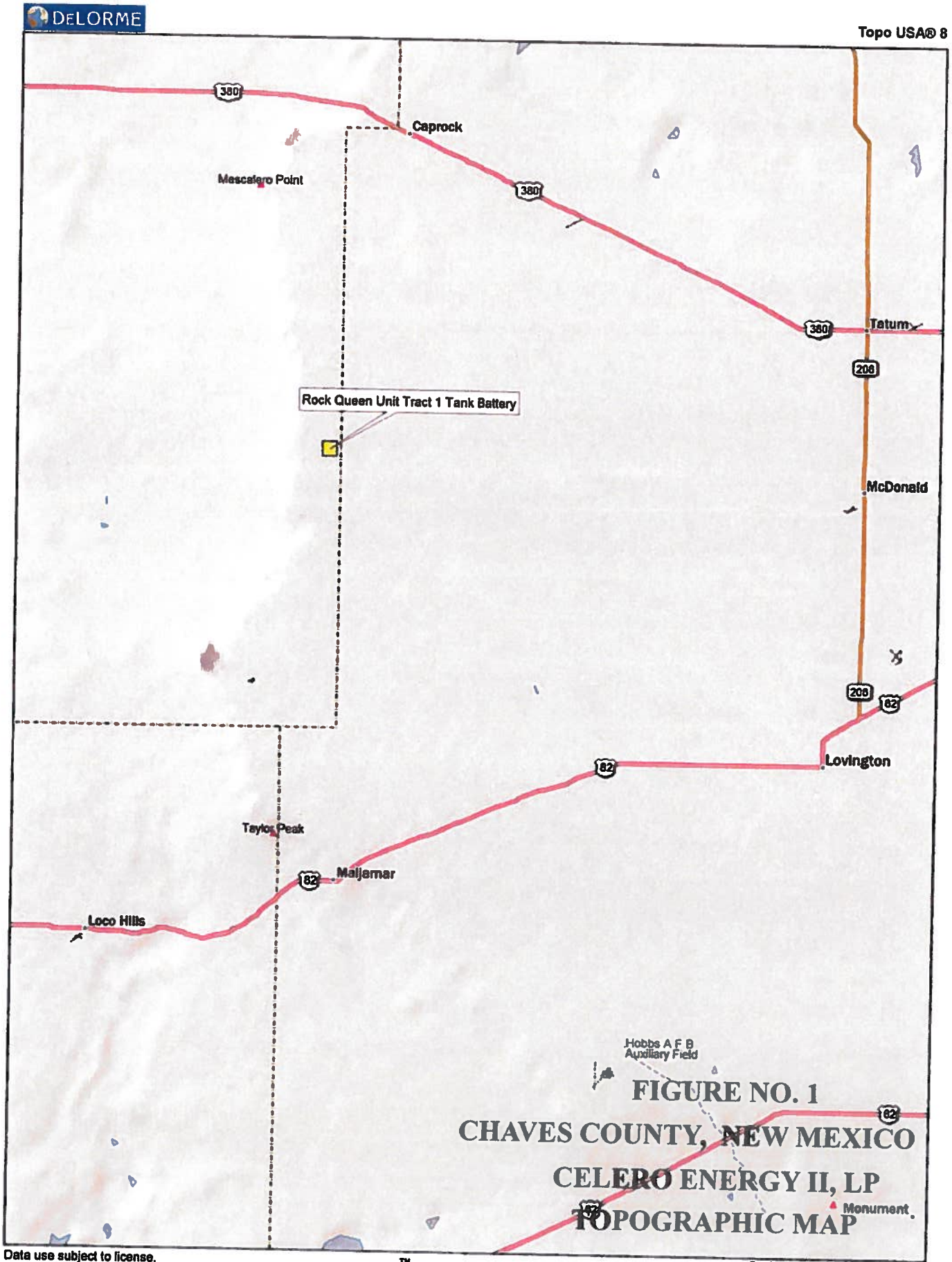
If you have any question or comments concerning the assessment or the activities performed at the Site, please call me at (432) 682-4559.

Respectfully submitted,
Tetra Tech, Inc.

Jeffrey Kindley, P.G.
Senior Environmental Geologist

cc: Bruce Woodard – Celero Energy II, LP

FIGURES


DeLORME
Topo USA® 8
380
Caprock
Mescalero Point
380
380
Tatum
208
Rock Queen Unit Tract 1 Tank Battery
McDonald
208
82
Lovington
82
Taylor Peak
82
Maljamar
Loco Hills
Hobbs A F B
Auxiliary Field
82
82
Monument
FIGURE NO. 1
CHAVES COUNTY, NEW MEXICO
CELERO ENERGY II, LP
TOPOGRAPHIC MAP
Data use subject to license.
© DeLorme. Topo USA® 8.
www.delorme.com
TN
MN (7.7°E)
Scale 1 : 400,000
1" = 6.31 mi
Data Zoom 8-7

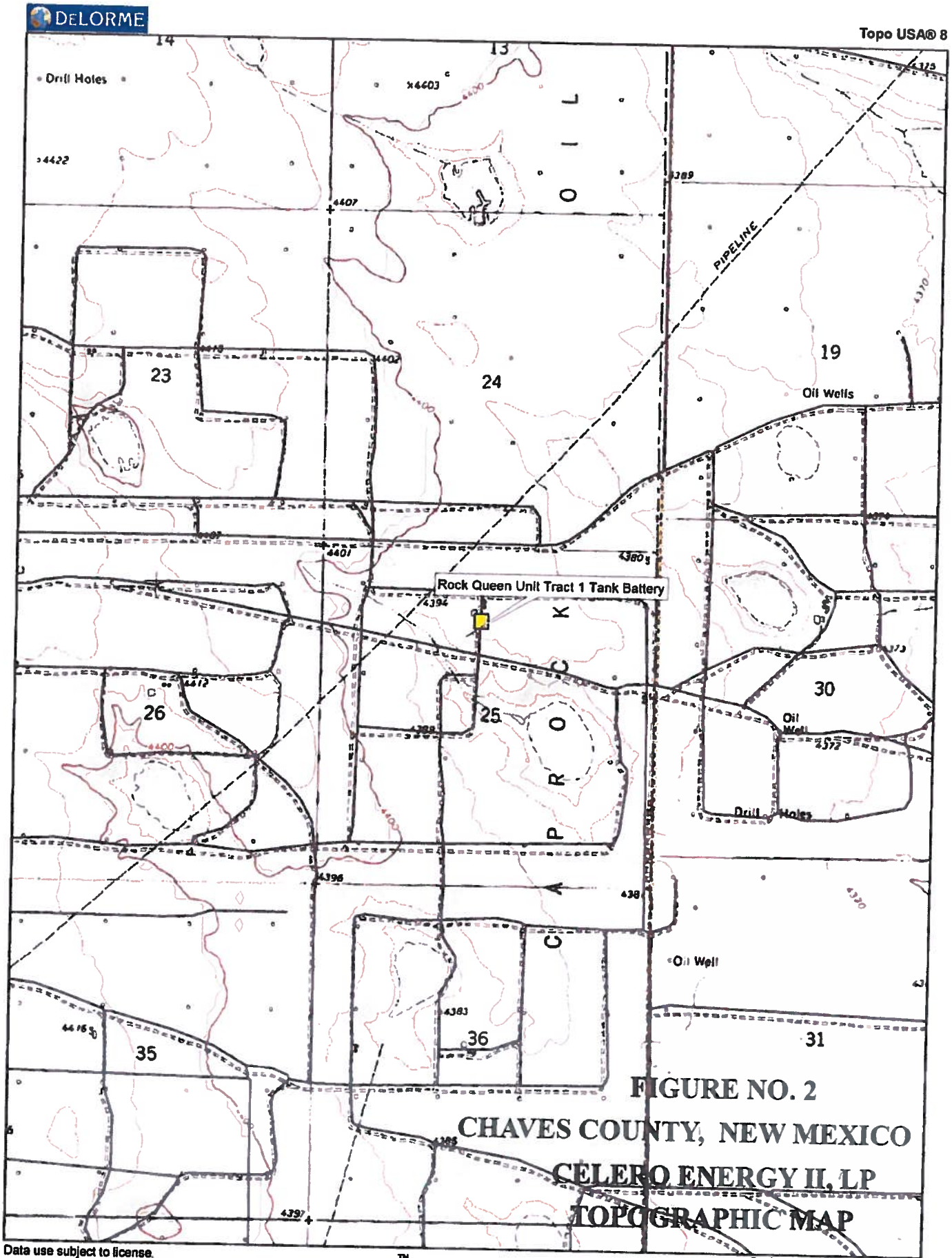


FIGURE NO. 2

CHAVES COUNTY, NEW MEXICO

CELERO ENERGY II, LP

TOPOGRAPHIC MAP

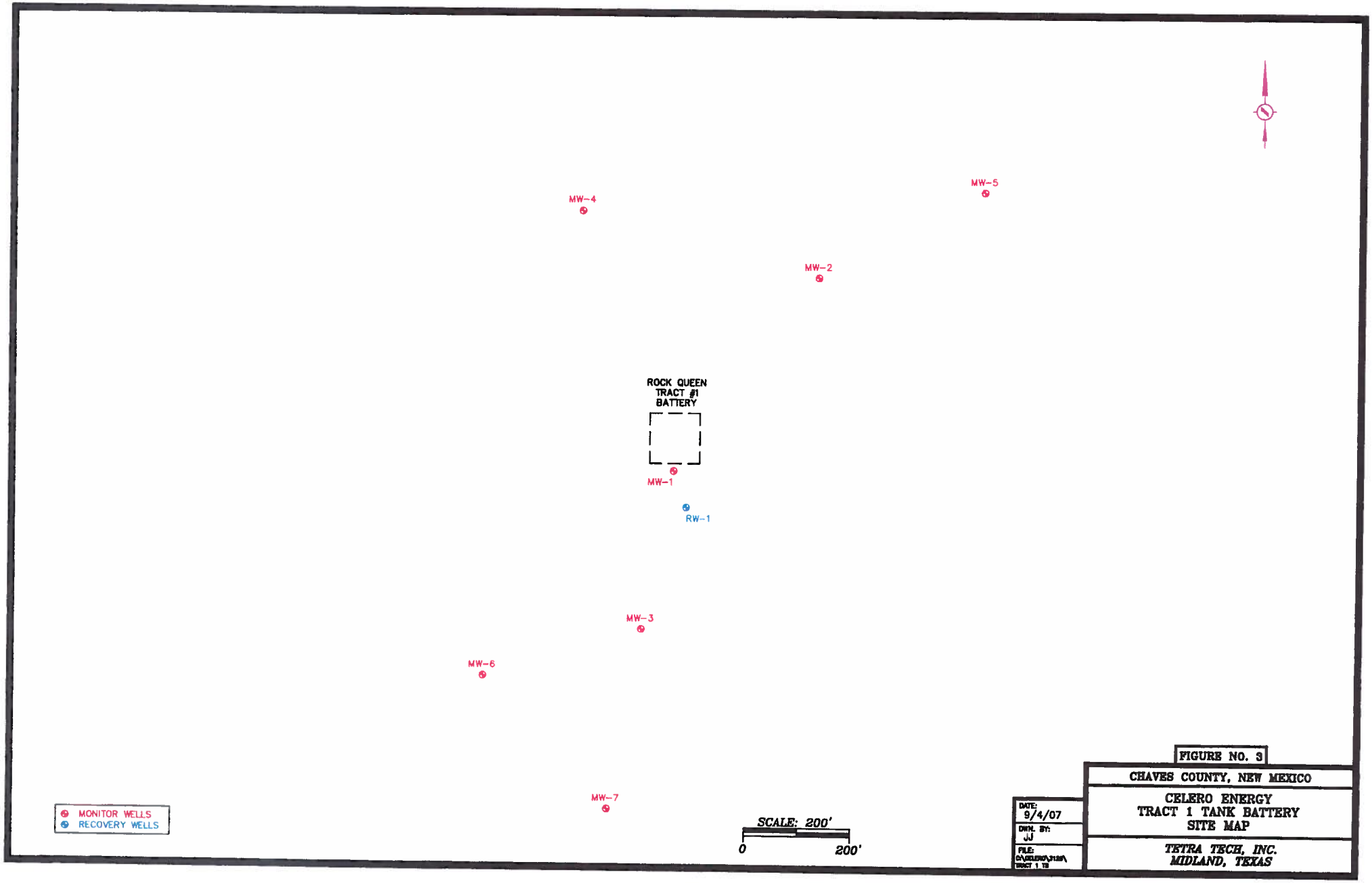
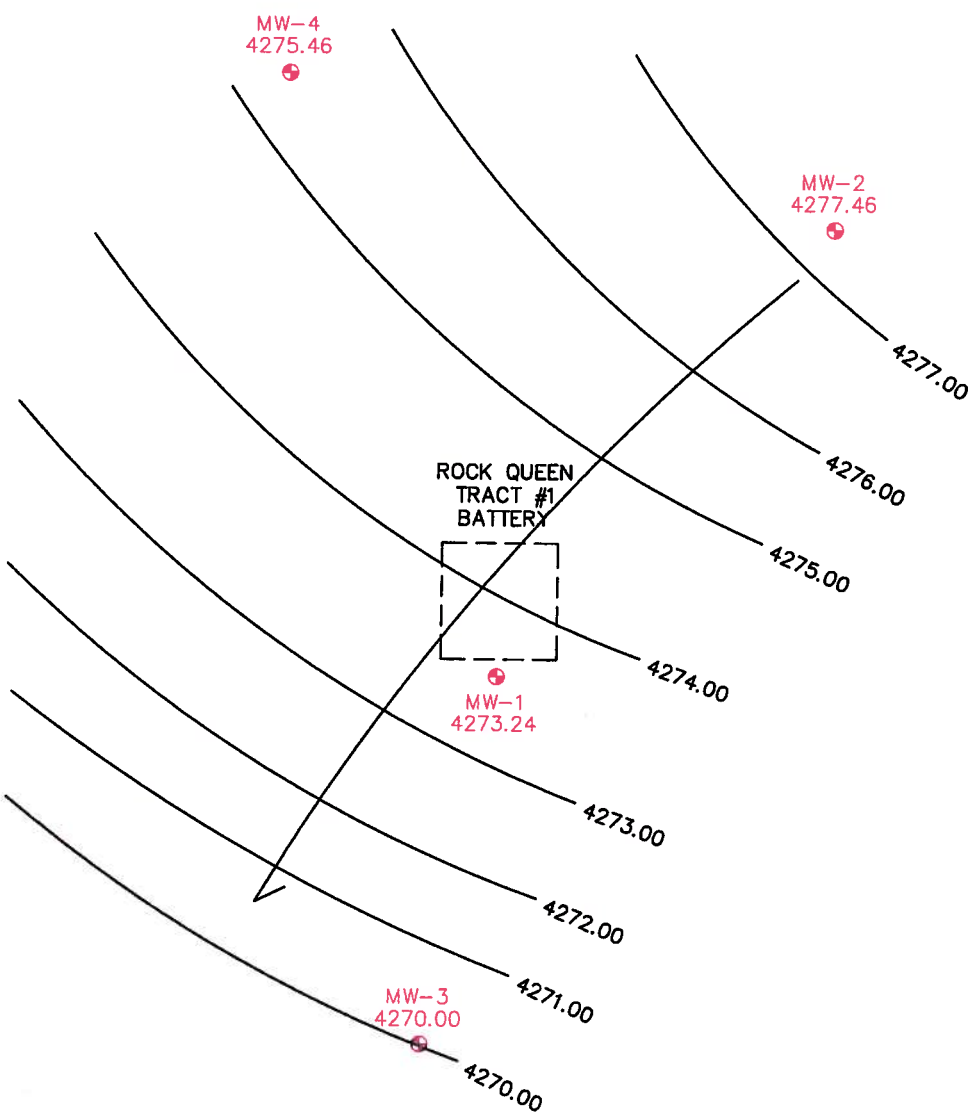


FIGURE NO. 3

CHAVES COUNTY, NEW MEXICO

CELERO ENERGY
TRACT 1 TANK BATTERY
SITE MAP

TETRA TECH, INC.
MIDLAND, TEXAS



C.I. = 1'

SCALE: 100'
0 100'

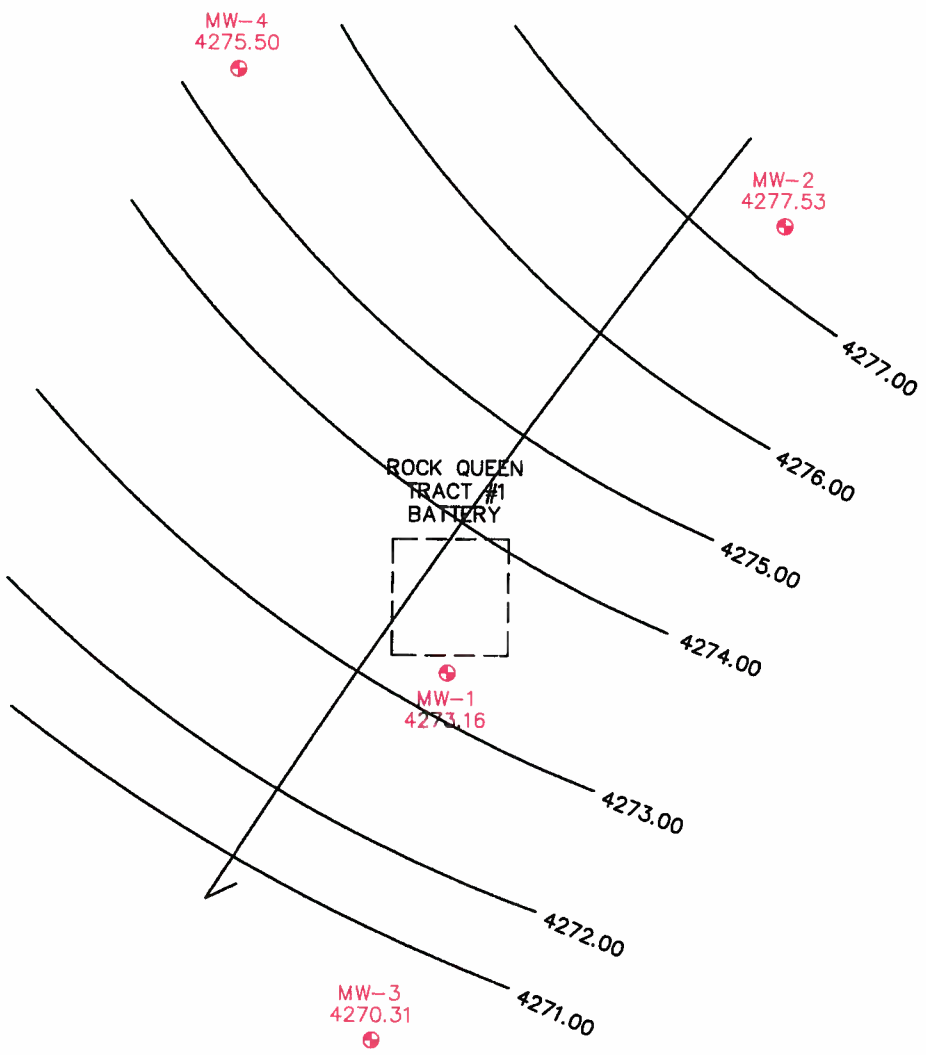
DATE: 12/28/2009
DRN. BY: IM
FILE:

FIGURE NO. 4

CHAVES COUNTY, NEW MEXICO

CELERO ENERGY
TRACT 1 TANK BATTERY
GROUNDWATER GRADIENT MAP
GAUGED ON 12/28/2009

TETRA TECH, INC.
MIDLAND, TEXAS



C.I. = 1'

SCALE: 100'
0 100'

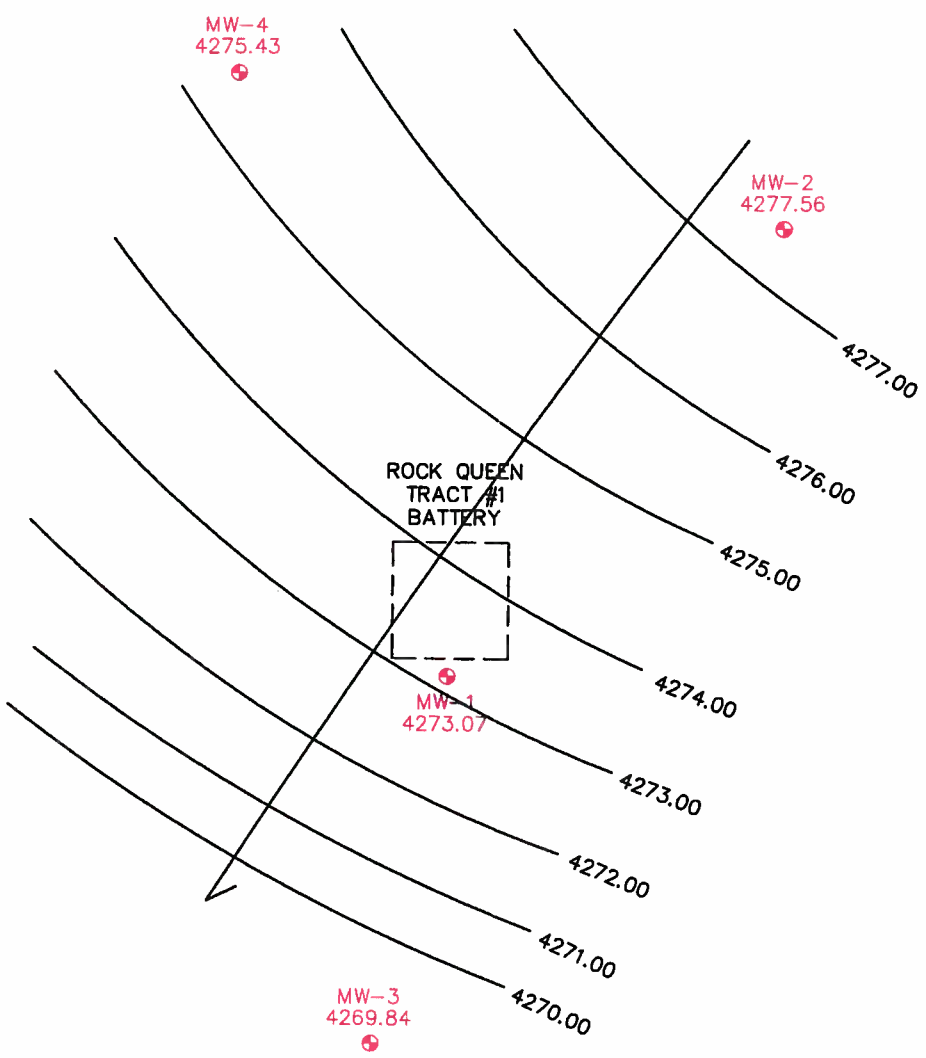
DATE: 07/12/2010
DWN. BY: IM
FILE:

FIGURE NO. 6

CHAVES COUNTY, NEW MEXICO

CELERO ENERGY
TRACT 1 TANK BATTERY
GROUNDWATER GRADIENT MAP
GAUGED ON 07/12/2010

TETRA TECH, INC.
MIDLAND, TEXAS



C.I. = 1'

SCALE: 100'
0 100'

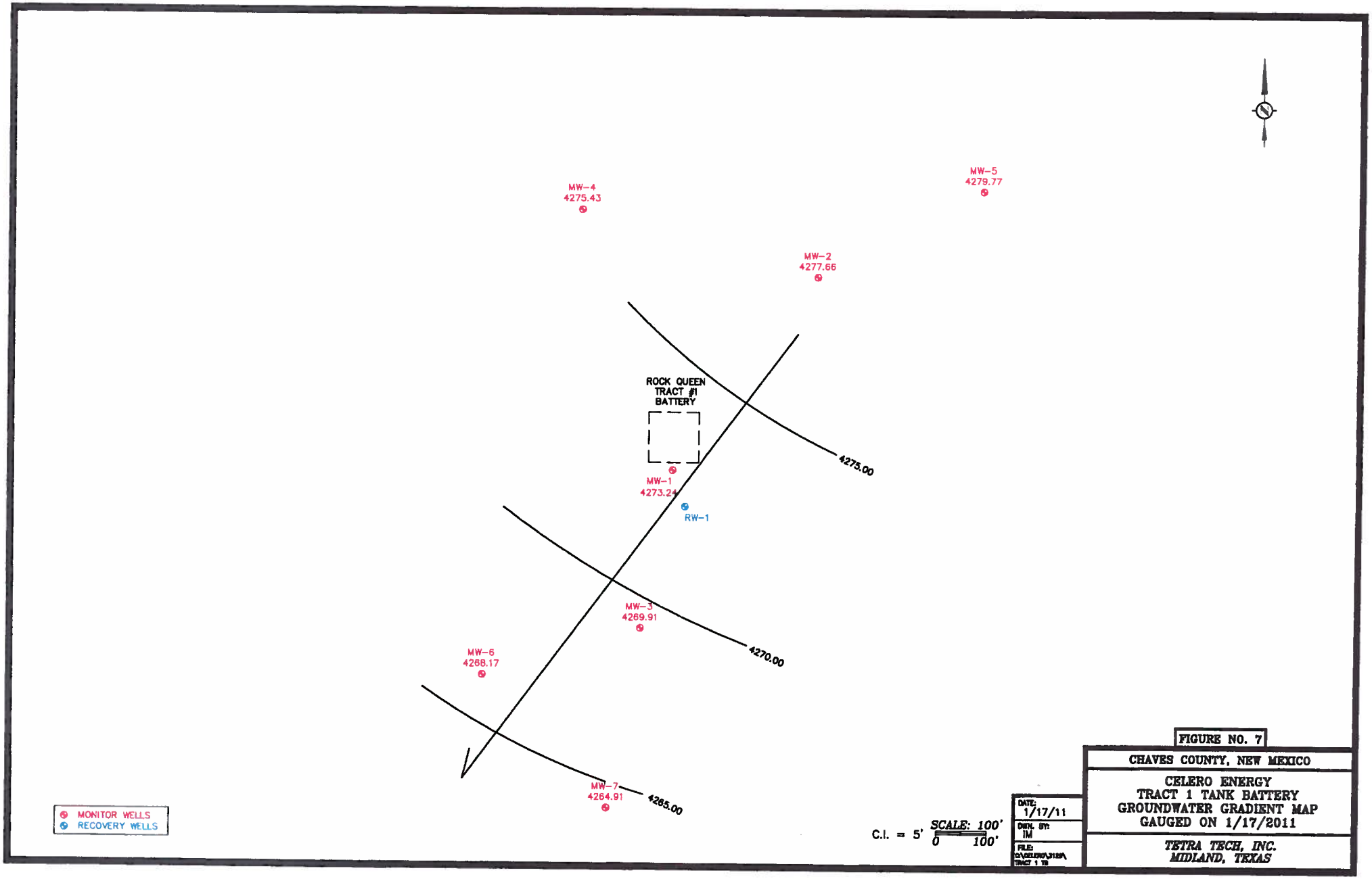
DATE: 10/11/2010
DRW. BY: IM
FILE:

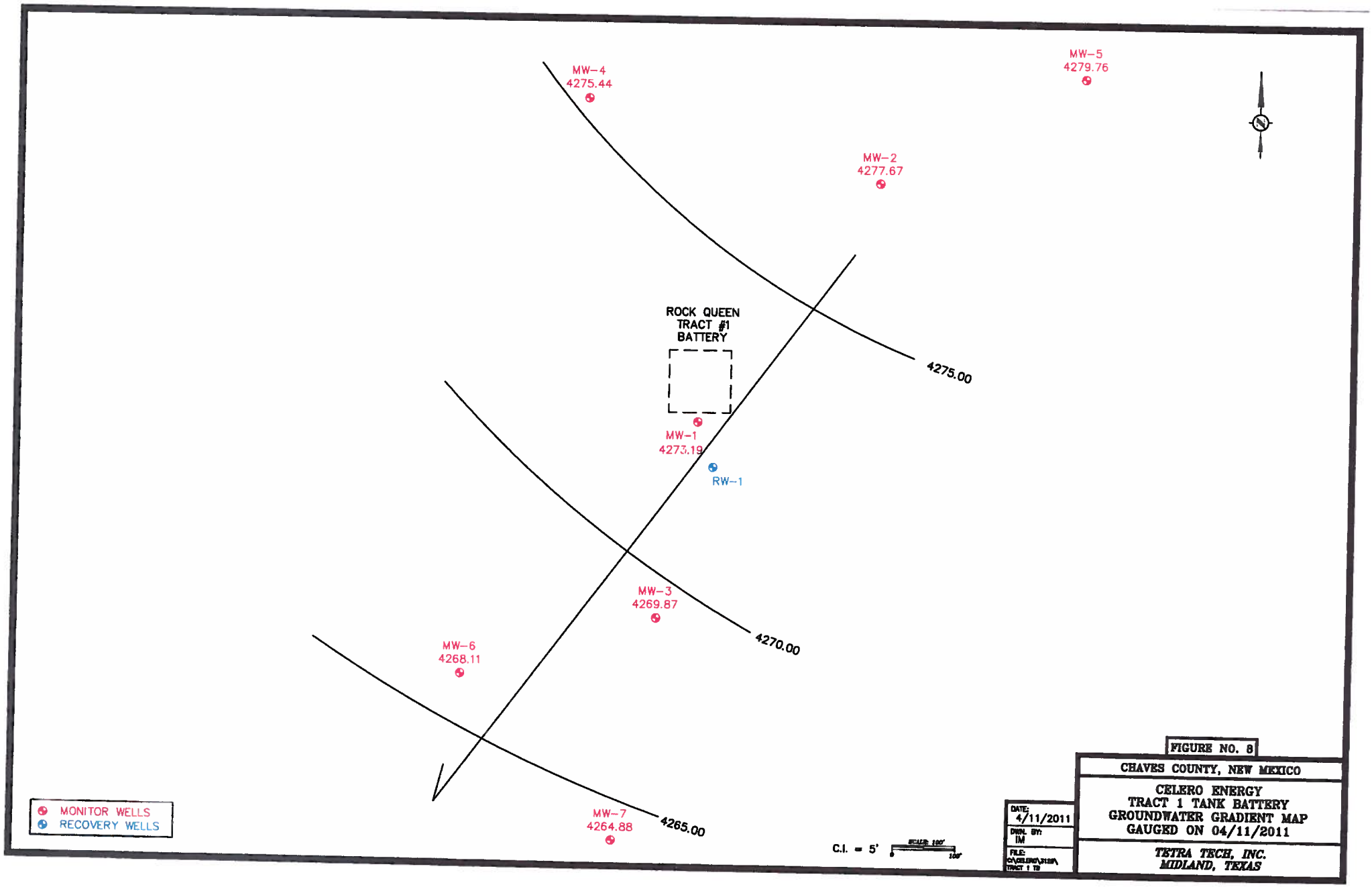
FIGURE NO. 6

CHAVES COUNTY, NEW MEXICO

CELERO ENERGY
TRACT 1 TANK BATTERY
GROUNDWATER GRADIENT MAP
GAUGED ON 10/11/2010

TETRA TECH, INC.
MIDLAND, TEXAS


MW-4
4275.43
MW-5
4279.77
MW-2
4277.66
ROCK QUEEN
TRACT #1
BATTERY
MW-1
4273.24
RW-1
4275.00
MW-3
4269.91
4270.00
MW-6
4268.17
MW-7
4264.91
4265.00
MONITOR WELLS
RECOVERY WELLS
C.I. = 5'
SCALE: 100'
0
100'
DATE:
1/17/11
DWN. BY:
JM
FILE:
TRACT 1 TB
FIGURE NO. 7
CHAVES COUNTY, NEW MEXICO
CELERO ENERGY
TRACT 1 TANK BATTERY
GROUNDWATER GRADIENT MAP
GAUGED ON 1/17/2011
TETRA TECH, INC.
MIDLAND, TEXAS


MW-4
4275.44
MW-5
4279.76
MW-2
4277.67
ROCK QUEEN
TRACT #1
BATTERY
4275.00
MW-1
4273.19
RW-1
MW-3
4269.87
4270.00
MW-6
4268.11
MW-7
4264.88
4265.00
MONITOR WELLS
RECOVERY WELLS
C.I. = 5'
DATE: 4/11/2011
DWN. BY: IM
FILE:
FIGURE NO. 8
CHAVES COUNTY, NEW MEXICO
CELERO ENERGY
TRACT 1 TANK BATTERY
GROUNDWATER GRADIENT MAP
GAUGED ON 04/11/2011
TETRA TECH, INC.
MIDLAND, TEXAS

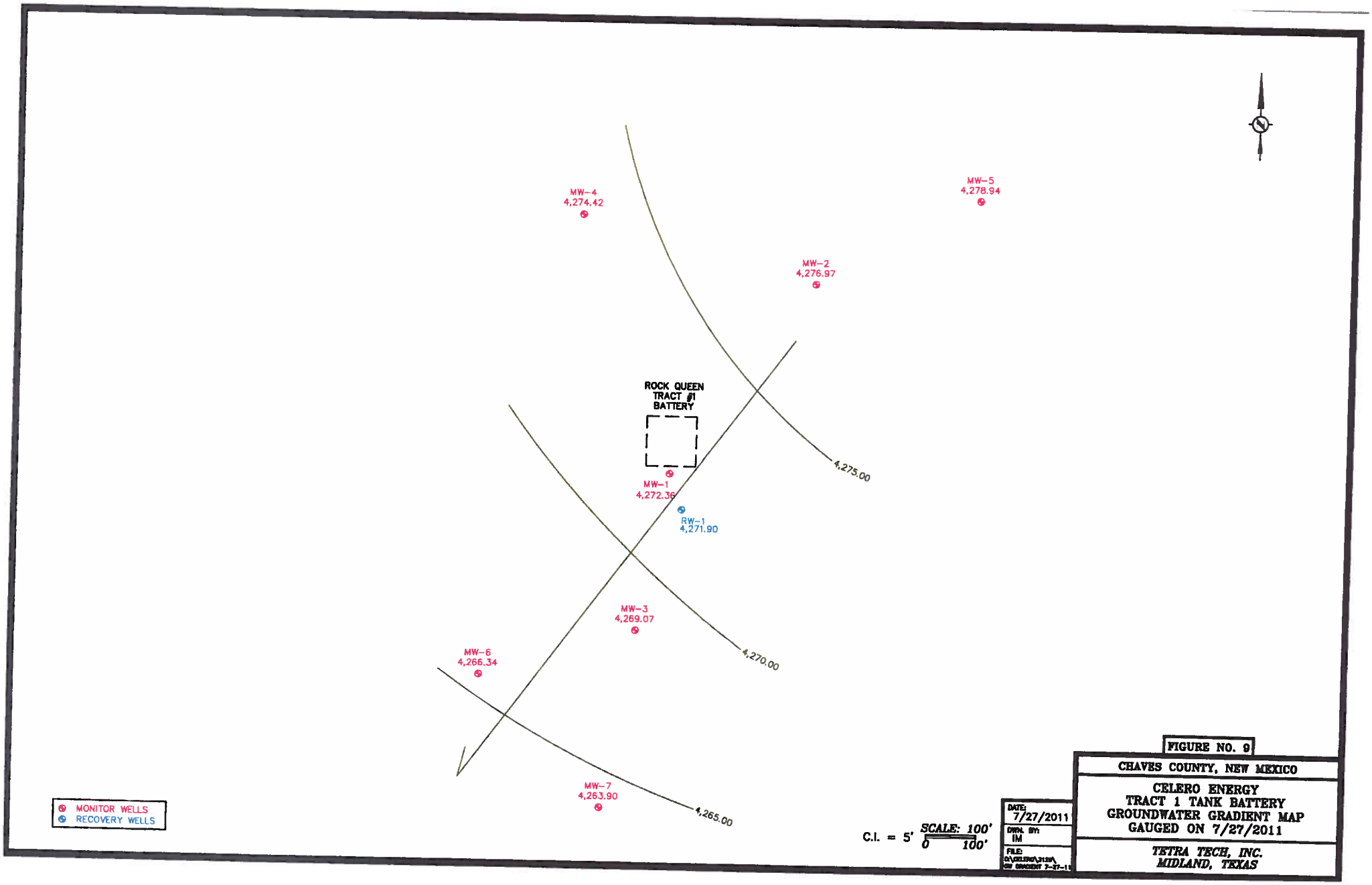


FIGURE NO. 9

CHAVES COUNTY, NEW MEXICO

CELERO ENERGY
TRACT 1 TANK BATTERY
GROUNDWATER GRADIENT MAP
GAUGED ON 7/27/2011

TETRA TECH, INC.
MIDLAND, TEXAS

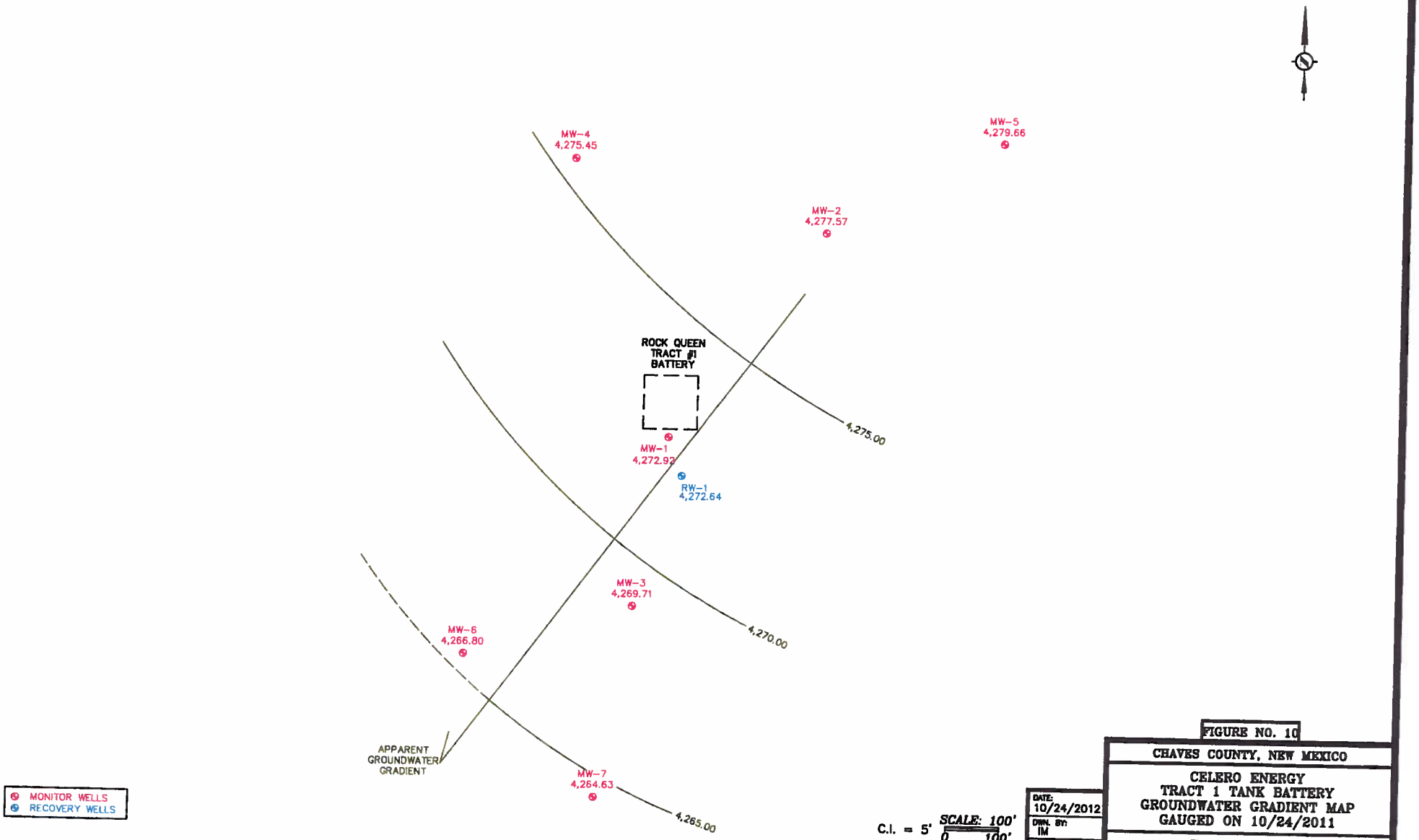


FIGURE NO. 10

CHAVES COUNTY, NEW MEXICO

CELERO ENERGY
TRACT 1 TANK BATTERY
GROUNDWATER GRADIENT MAP
GAUGED ON 10/24/2011

TETRA TECH, INC.
MIDLAND, TEXAS

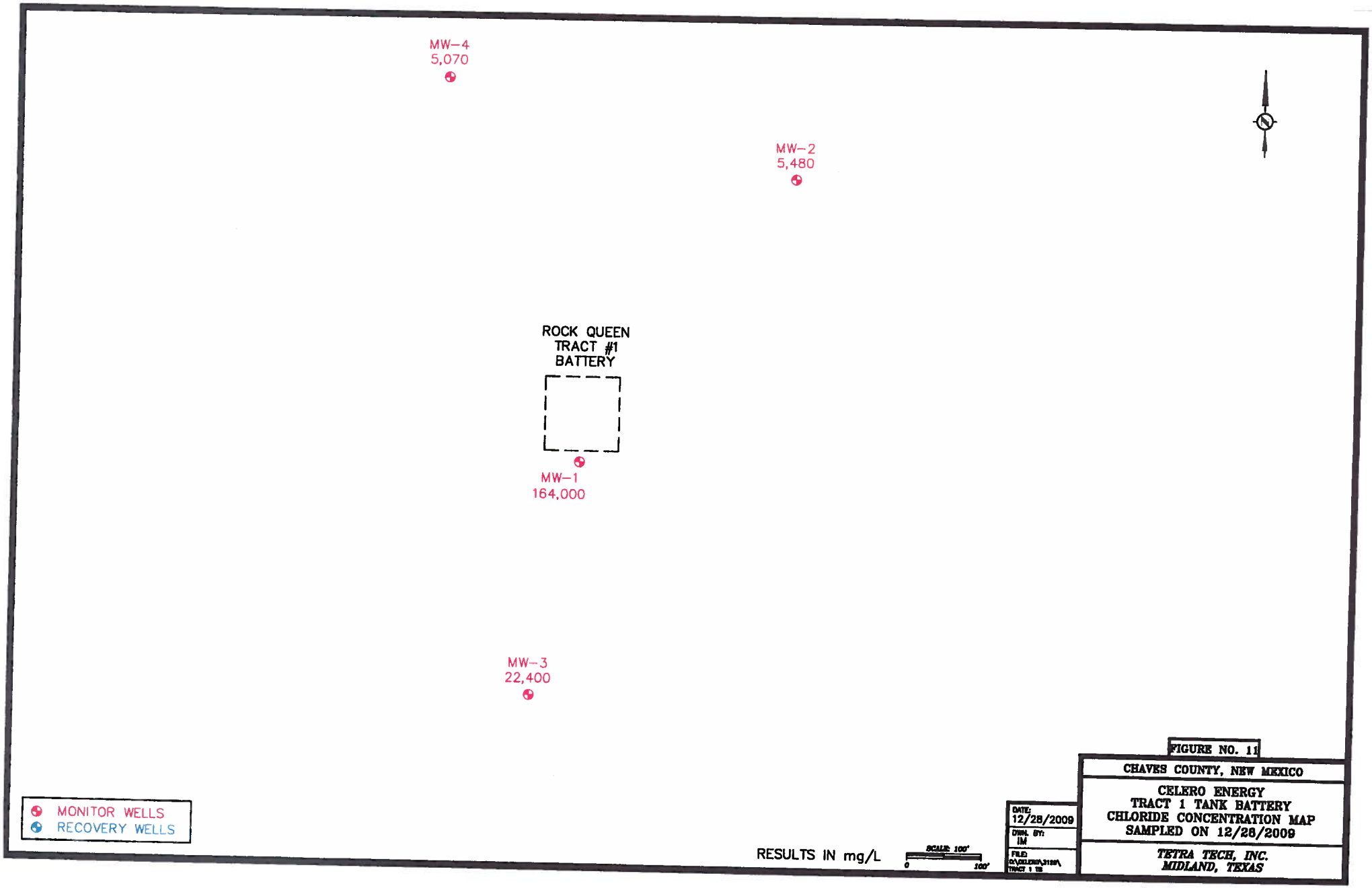


FIGURE NO. 11

CHAVES COUNTY, NEW MEXICO

CELERO ENERGY
TRACT 1 TANK BATTERY
CHLORIDE CONCENTRATION MAP
SAMPLED ON 12/28/2009

TETRA TECH, INC.
MIDLAND, TEXAS

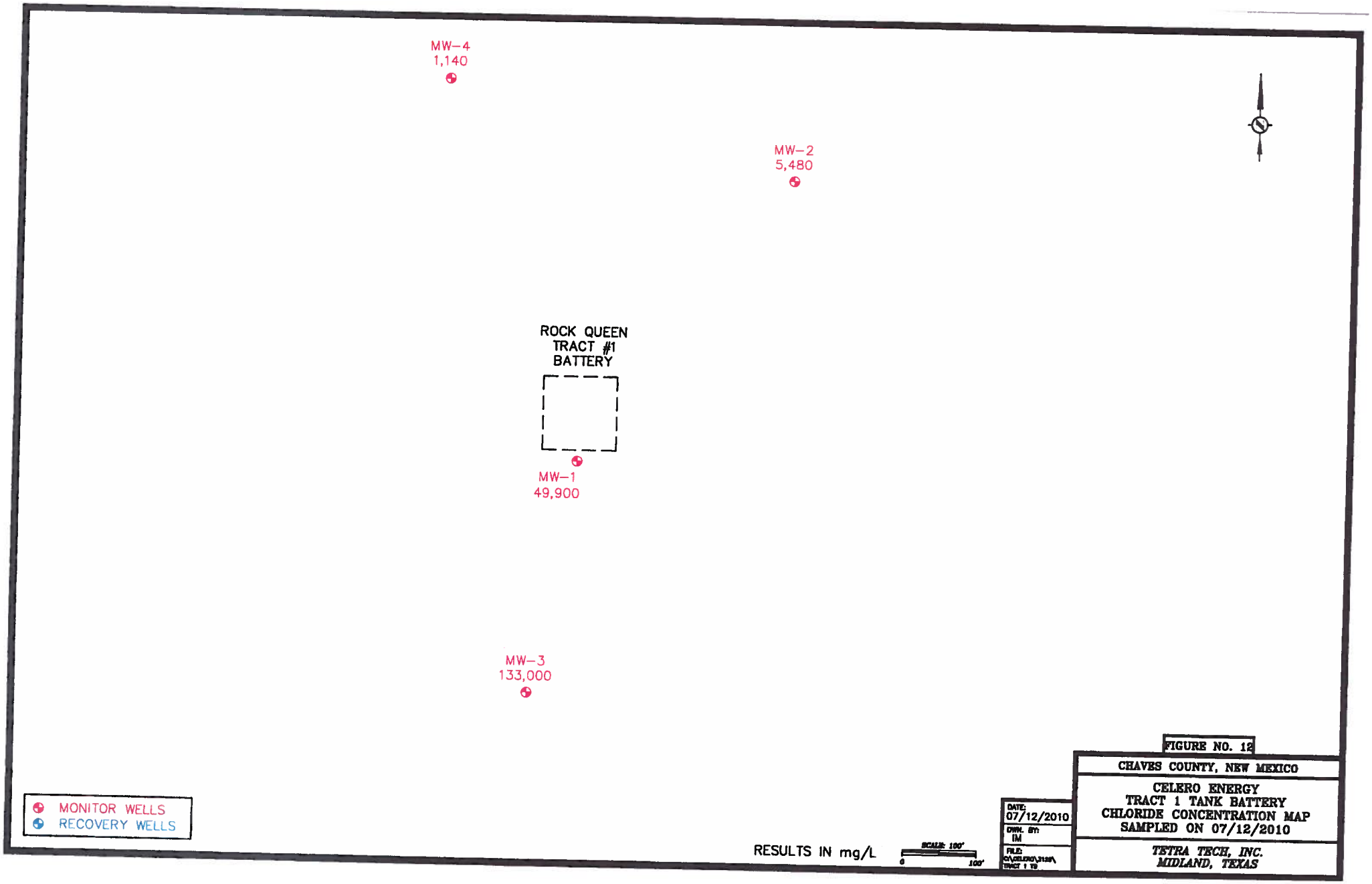
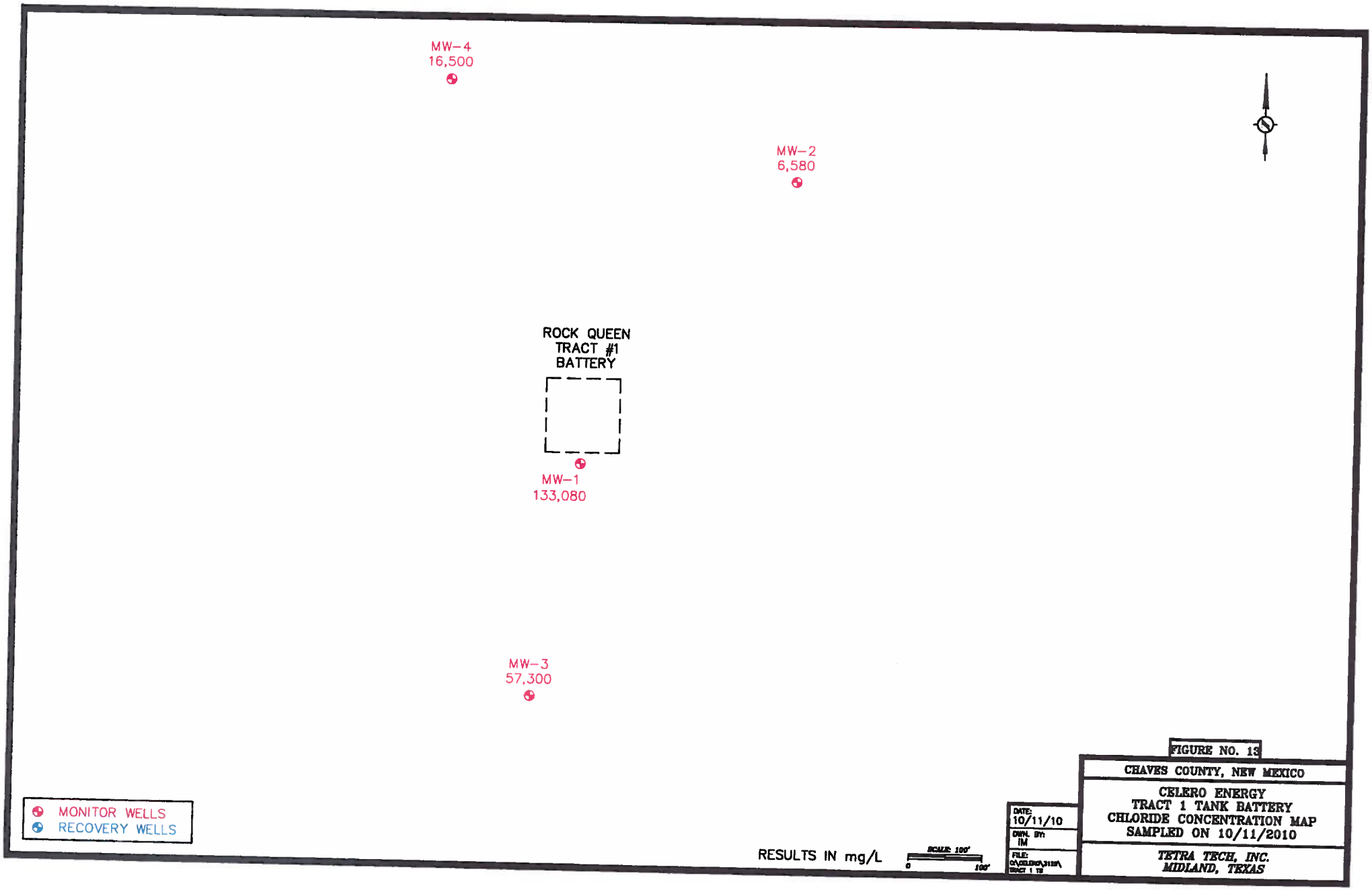


FIGURE NO. 12

CHAVES COUNTY, NEW MEXICO

CELERO ENERGY
TRACT 1 TANK BATTERY
CHLORIDE CONCENTRATION MAP
SAMPLED ON 07/12/2010

TETRA TECH, INC.
MIDLAND, TEXAS


MW-4
16,500
MW-2
6,580
ROCK QUEEN
TRACT #1
BATTERY
MW-1
133,080
MW-3
57,300
MONITOR WELLS
RECOVERY WELLS
RESULTS IN mg/L
SCALE: 100'
0
100'
DATE:
10/11/10
DWN. BY:
TM
FILE:
TRACT 1 TB
FIGURE NO. 13
CHAVES COUNTY, NEW MEXICO
CELERO ENERGY
TRACT 1 TANK BATTERY
CHLORIDE CONCENTRATION MAP
SAMPLED ON 10/11/2010
TETRA TECH, INC.
MIDLAND, TEXAS

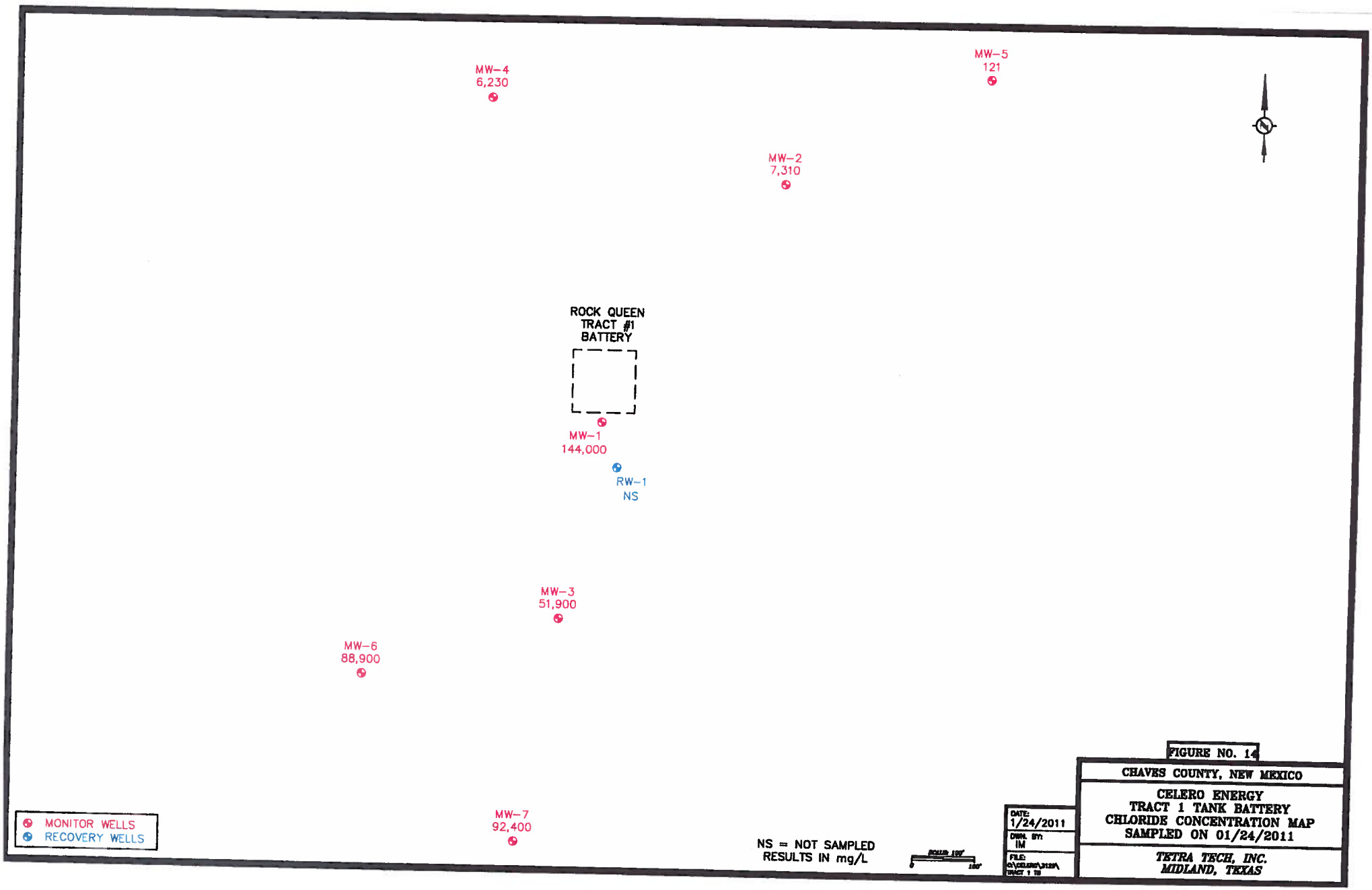


FIGURE NO. 14

CHAVES COUNTY, NEW MEXICO

CELERO ENERGY
TRACT 1 TANK BATTERY
CHLORIDE CONCENTRATION MAP
SAMPLED ON 01/24/2011

TETRA TECH, INC.
MIDLAND, TEXAS

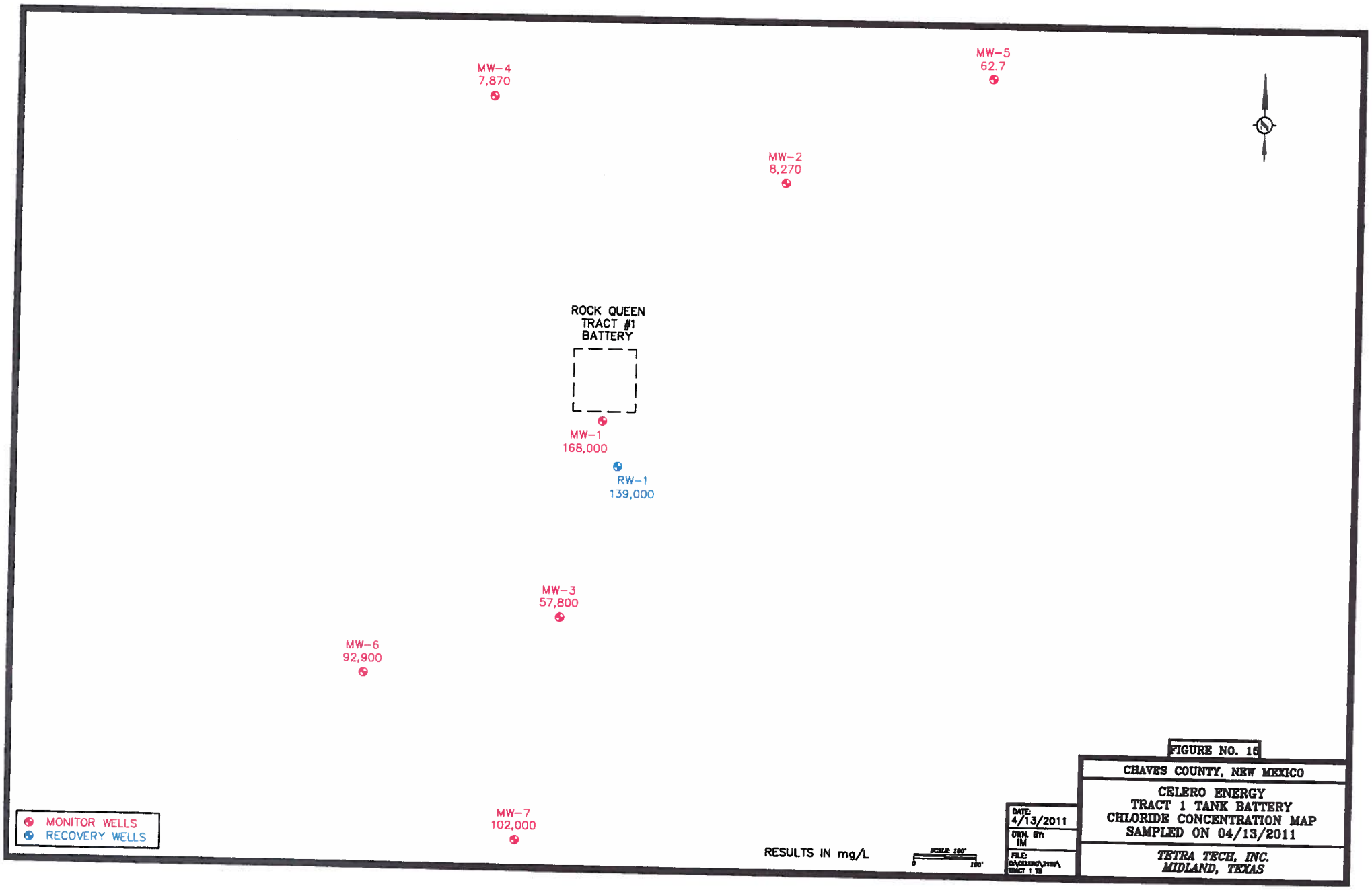


FIGURE NO. 16

CHAVES COUNTY, NEW MEXICO

CELERO ENERGY
TRACT 1 TANK BATTERY
CHLORIDE CONCENTRATION MAP
SAMPLED ON 04/13/2011

TETRA TECH, INC.
MIDLAND, TEXAS

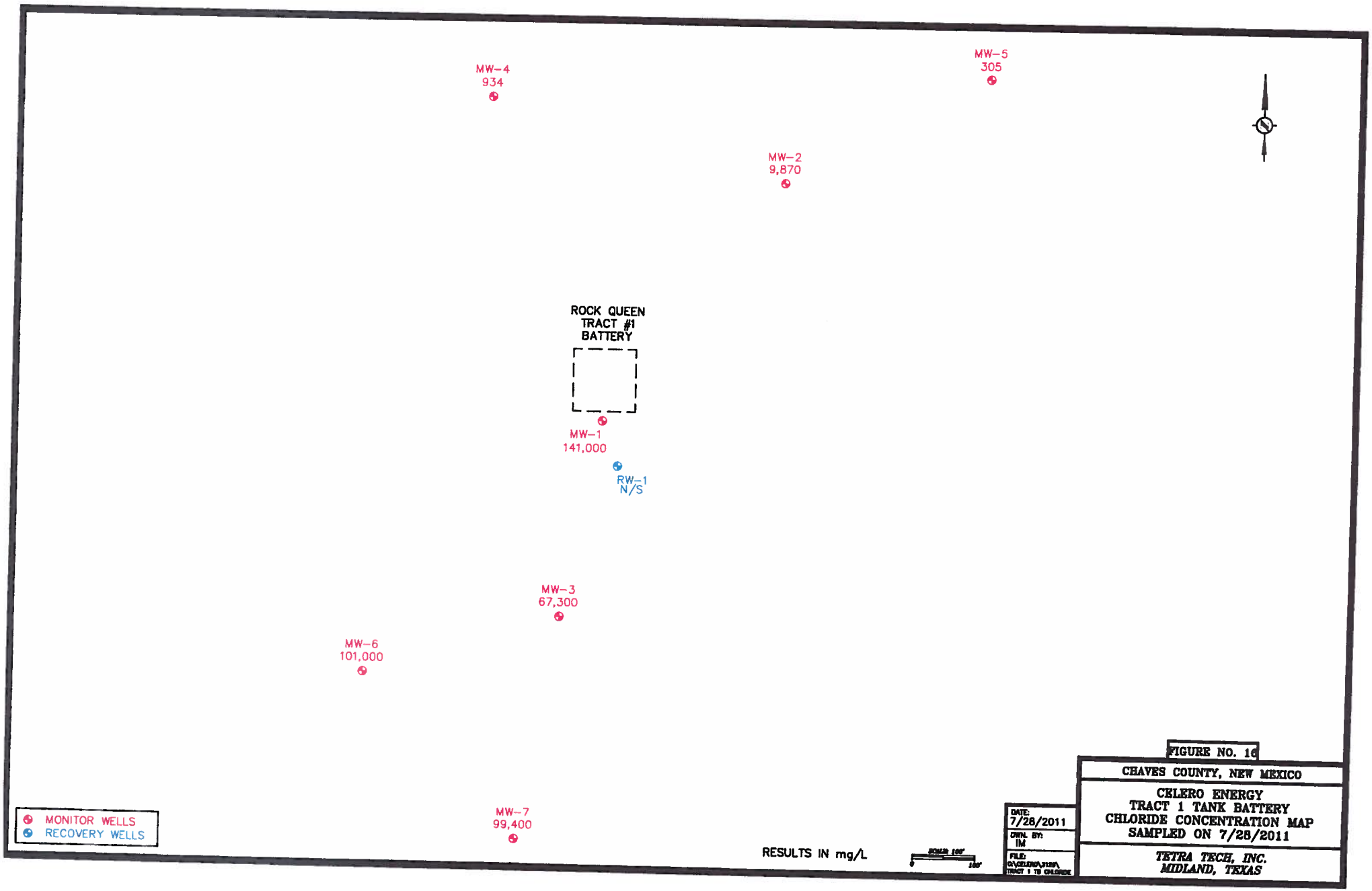

MW-4
934
MW-5
305
MW-2
9,870
ROCK QUEEN
TRACT #1
BATTERY
MW-1
141,000
RW-1
N/S
MW-3
67,300
MW-6
101,000
MW-7
99,400
MONITOR WELLS
RECOVERY WELLS
RESULTS IN mg/L
DATE:
7/28/2011
DWN. BY:
IM
FILE:
CHAVES COUNTY, NEW MEXICO
CELERO ENERGY
TRACT 1 TANK BATTERY
CHLORIDE CONCENTRATION MAP
SAMPLED ON 7/28/2011
TETRA TECH, INC.
MIDLAND, TEXAS

FIGURE NO. 16

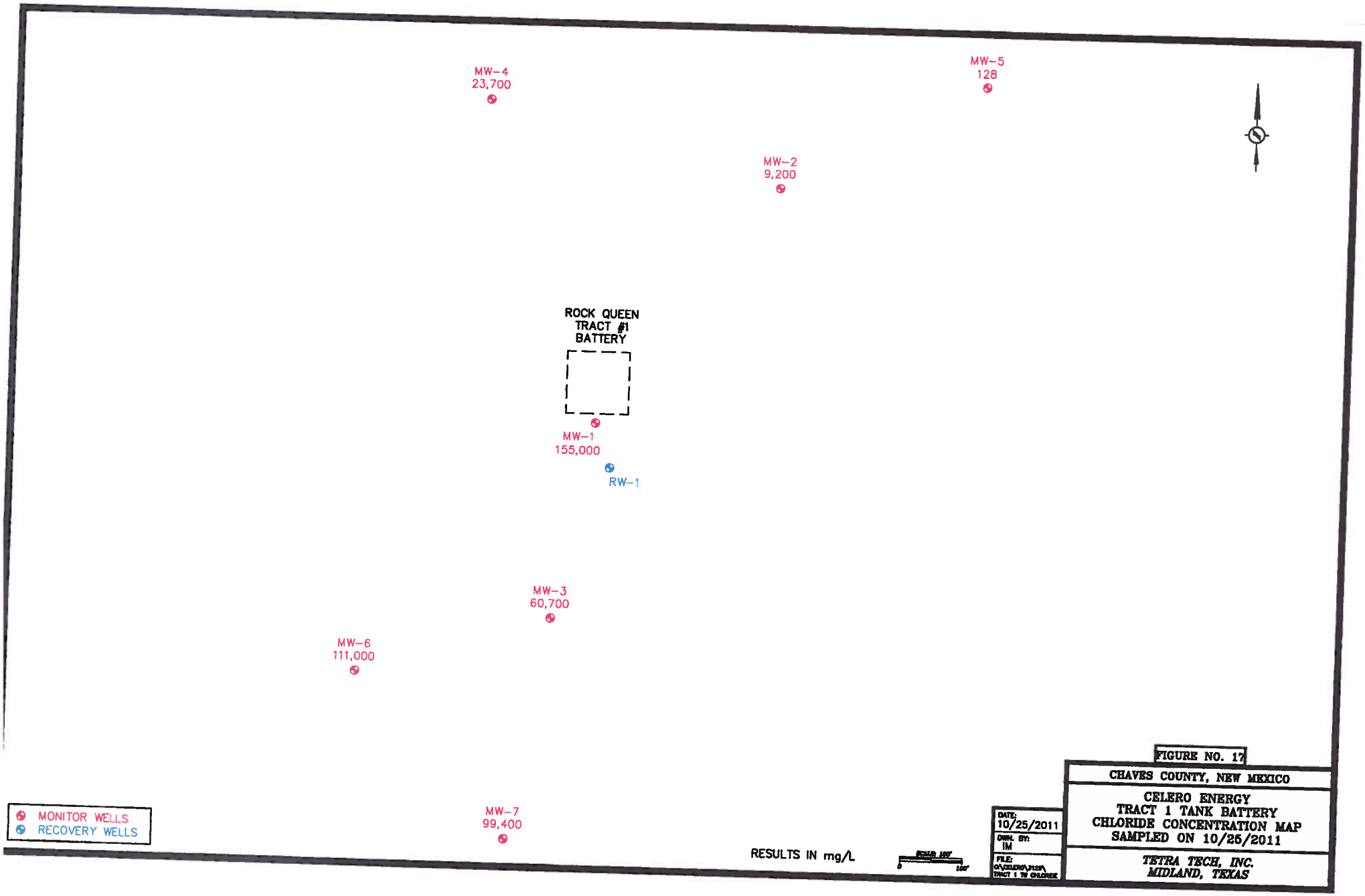


FIGURE NO. 1?

CHAVES COUNTY, NEW MEXICO

CELERO ENERGY
TRACT 1 TANK BATTERY
CHLORIDE CONCENTRATION MAP
SAMPLED ON 10/25/2011

TETRA TECH, INC.
MIDLAND, TEXAS

TABLES

Table 1
Celero Energy II, LP
Groundwater Gauging Data
Rock Queen Unit Tract 1 Tank Battery
Chaves County, New Mexico

Monitor Well	Date Gauged	Date Well Installation	TOC Elevation (ft)	Depth of Well (bgs in ft)	Depth to Groundwater (ft)	Groundwater Elevation (ft)
MW-1	05/25/07	05/24/07	4,393.50	152.80	102.80	4,290.70
	02/05/08				119.51	4,273.99
	12/28/09				120.26	4,273.24
	07/12/10				120.34	4,273.16
	10/11/10				120.43	4,273.07
	01/17/11				120.26	4,273.24
	04/11/11				120.31	4,273.19
	07/27/11				121.14	4,272.36
	10/24/11				120.58	4,272.92
MW-2	06/01/07	05/30/07	4,397.33	139.50	94.78	4,302.55
	02/05/08				119.89	4,277.44
	12/28/09				119.87	4,277.46
	07/12/10				119.80	4,277.53
	10/11/10				119.77	4,277.56
	01/17/11				119.67	4,277.66
	04/11/11				119.66	4,277.67
	07/27/11				120.36	4,276.97
	10/24/11				119.76	4,277.57
MW-3	12/28/09	12/09/09	4,390.65	137.28	120.65	4,270.00
	07/12/10				120.34	4,270.31
	10/11/10				120.81	4,269.84
	01/17/11				120.74	4,269.91
	04/11/11				120.78	4,269.87
	07/27/11				121.58	4,269.07
	10/24/11				120.94	4,269.71
MW-4	12/28/09	12/10/09	4,396.96	139.40	121.50	4,275.46
	07/12/10				121.46	4,275.50
	10/11/10				121.53	4,275.43
	01/17/11				121.53	4,275.43
	04/11/11				121.52	4,275.44
	07/27/11				122.54	4,274.42

Table 1
Celero Energy II, LP
Groundwater Gauging Data
Rock Queen Unit Tract 1 Tank Battery
Chaves County, New Mexico

Monitor Well	Date Gauged	Date Well Installation	TOC Elevation (ft)	Depth of Well (bgs in ft)	Depth to Groundwater (ft)	Groundwater Elevation (ft)
MW-4	10/24/11				121.51	4,275.45
MW-5	01/17/11	11/23/10	4,395.87	133.35	116.10	4,279.77
	04/11/11				116.11	4,279.76
	07/27/11				116.93	4,278.94
	10/24/11				116.21	4,279.66
MW-6	01/17/11	11/29/10	4,390.58	142.55	122.41	4,268.17
	04/11/11				122.47	4,268.11
	07/27/11				124.24	4,266.34
	10/24/11				123.78	4,266.80
MW-7	01/17/11	11/23/10	4,388.41	139.00	123.50	4,264.91
	04/11/11				123.53	4,264.88
	07/27/11				124.51	4,263.90
	10/24/11				123.78	4,264.63
RW-1	01/17/11	12/13/10	4,392.97	131.40	120.05	4,272.92
	04/11/11				120.07	4,272.90
	07/27/11				121.07	4,271.90
	10/24/11				120.33	4,272.64

Table 2
Celero Energy II, LP
Groundwater Analytical Results
Rock Queen Unit Tract 1 Tank Battery
Chaves County, New Mexico

Monitor Well	Date Sampled	Dissolved Calcium (mg/L)	Dissolved Magnesium (mg/L)	Dissolved Sodium (mg/L)	Dissolved Potassium (mg/L)	Hydroxide Alkalinity (mg/L)	Carbonate Alkalinity (mg/L)	Bicarbonate Alkalinity (mg/L)	Total Alkalinity (mg/L)	Sulfate (mg/L)	Chloride (mg/L)	TDS (mg/L)	Hardness (mg/L)	pH
MW-1	05/29/07	2,170	3,320	75,500	1380.0	<1.00	<1.00	154	154	2,290	146,000	188,300	17,400	6.61
	12/28/09	2,520	4,370	64,600	2490.0	<1.00	<1.00	<4.00	<4.00	2,230	164,000	244,000	24,300	5.27
	07/12/10	-	-	-	-	-	-	-	-	1,720	49,900	98,000	-	-
	10/11/10	-	-	-	-	-	-	-	-	1,870	133,000	260,000	-	-
	01/24/11	-	-	-	-	-	-	-	-	2,560	144,000	258,000	-	-
	04/13/11	-	-	-	-	-	-	-	-	2,210	168,000	250,000	-	-
	07/28/11	-	-	-	-	-	-	-	-	2,210	141,000	231,000	-	-
	10/25/11	-	-	-	-	-	-	-	-	2,270	155,000	239,000	-	-
MW-2	08/05/08	-	-	-	-	-	-	-	-	-	5,510	-	-	-
	12/28/09	1,630	379	1,360	18.0	<1.00	<1.00	138	138	4.43	5,480	14,000	5,630	7.30
	07/12/10	-	-	-	-	-	-	-	-	47.80	5,930	14,100	-	-
	10/11/10	-	-	-	-	-	-	-	-	88.90	6,580	11,700	-	-
	01/24/11	-	-	-	-	-	-	-	-	108	7,310	26,800	-	-
	04/13/11	-	-	-	-	-	-	-	-	125	8,270	29,800	-	-
	07/28/11	-	-	-	-	-	-	-	-	135	9,870	25,300	-	-
	10/25/11	-	-	-	-	-	-	-	-	189	9,200	14,800	-	-
MW-3	12/28/09	2,120	804	12,000	146.0	<1.00	<1.00	106	106	661	22,400	40,700	8,600	6.77
	07/12/10	-	-	-	-	-	-	-	-	1,970	133,000	237,000	-	-
	10/11/10	-	-	-	-	-	-	-	-	1,630	57,300	110,000	-	-
	01/24/11	-	-	-	-	-	-	-	-	2,280	51,900	95,300	-	-
	04/13/11	-	-	-	-	-	-	-	-	1,990	57,800	103,000	-	-
	07/28/11	-	-	-	-	-	-	-	-	2,070	67,300	93,400	-	-
	10/25/11	-	-	-	-	-	-	-	-	2,000	60,700	110,000	-	-
MW-4	12/28/09	1,660	349	1,020	14.1	<1.00	<1.00	99	99	148	5,070	9,900	5,580	7.51
	07/12/10	-	-	-	-	-	-	-	-	71.1	1,140	1,880	-	-
	10/11/10	-	-	-	-	-	-	-	-	238.0	16,500	43,800	-	-
	01/24/11	-	-	-	-	-	-	-	-	180.0	6,230	12,400	-	-

Table 2
Celero Energy II, LP
Groundwater Analytical Results
Rock Queen Unit Tract 1 Tank Battery
Chaves County, New Mexico

Monitor Well	Date Sampled	Dissolved Calcium (mg/L)	Dissolved Magnesium (mg/L)	Dissolved Sodium (mg/L)	Dissolved Potassium (mg/L)	Hydroxide Alkalinity (mg/L)	Carbonate Alkalinity (mg/L)	Bicarbonate Alkalinity (mg/L)	Total Alkalinity (mg/L)	Sulfate (mg/L)	Chloride (mg/L)	TDS (mg/L)	Hardness (mg/L)	pH
MW-4	04/13/11	-	-	-	-	-	-	-	-	193.0	7,870	18,500	-	-
	07/28/11	-	-	-	-	-	-	-	-	90.5	934	1,720	-	-
	10/25/11	-	-	-	-	-	-	-	-	442	23,700	48,300	-	-
MW-5	01/24/11	-	-	-	-	-	-	-	-	58.4	121	518	-	-
	04/13/11	-	-	-	-	-	-	-	-	62.7	126	458	-	-
	07/28/11	-	-	-	-	-	-	-	-	138	40.9	414	-	-
	10/25/11	-	-	-	-	-	-	-	-	136	128	896	-	-
MW-6	01/24/11	-	-	-	-	-	-	-	-	2,850	88,900	161,000	-	-
	04/13/11	-	-	-	-	-	-	-	-	2,310	92,900	146,000	-	-
	07/28/11	-	-	-	-	-	-	-	-	2,680	101,000	160,000	-	-
	10/25/11	-	-	-	-	-	-	-	-	2,660	111,000	160,000	-	-
MW-7	01/24/11	-	-	-	-	-	-	-	-	2,580	92,400	179,000	-	-
	04/13/11	-	-	-	-	-	-	-	-	2,330	102,000	177,000	-	-
	07/28/11	-	-	-	-	-	-	-	-	2,300	99,400	194,000	-	-
	10/25/11	-	-	-	-	-	-	-	-	2,370	99,400	170,000	-	-
RW-1	01/24/11	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	04/13/11	-	-	-	-	-	-	-	-	2,680	139,000	222,000	-	-
	07/28/11	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	10/25/11	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS

NS - Not sampled

(-) Not Analyzed

Table 3
Celero Energy II, LP
Groundwater Analytical Results
Rock Queen Unit Tract 1 Tank Battery
Chaves County, New Mexico

Monitor Well	Date Sampled	Benzene in (mg/L)	Toluene in (mg/L)	Ethyl-Benzene (mg/L)	Xylene in (mg/L)	Total BTEX (mg/L)
MW-1	12/28/09	<0.001	<0.001	<0.001	<0.001	<0.001
	07/12/10	<0.001	<0.001	<0.001	<0.001	<0.001
	10/11/10	<0.001	<0.001	<0.001	<0.001	<0.001
	01/24/11	<0.001	<0.001	<0.001	<0.001	<0.001
	04/14/11	0.006	<0.001	<0.001	<0.001	0.006
	07/28/11	<0.001	<0.001	<0.001	<0.001	<0.001
	10/25/11	<0.001	<0.001	<0.001	0.0205	0.0205
MW-2	12/28/09	<0.001	<0.001	<0.001	<0.001	<0.001
	07/12/10	<0.001	<0.001	<0.001	<0.001	<0.001
	10/11/10	<0.001	<0.001	<0.001	<0.001	<0.001
	01/24/11	<0.001	<0.001	<0.001	<0.001	<0.001
	04/14/11	<0.001	<0.001	<0.001	<0.001	<0.001
	07/28/11	<0.001	<0.001	<0.001	<0.001	<0.001
	10/25/11	<0.001	<0.001	<0.001	<0.001	<0.001
MW-3	12/28/09	<0.001	<0.001	<0.001	<0.001	<0.001
	07/12/10	<0.001	<0.001	<0.001	<0.001	<0.001
	10/11/10	<0.001	<0.001	<0.001	<0.001	<0.001
	01/24/11	<0.001	<0.001	<0.001	<0.001	<0.001
	04/14/11	<0.001	<0.001	<0.001	<0.001	<0.001
	07/28/11	<0.001	<0.001	<0.001	<0.001	<0.001
	10/25/11	<0.001	<0.001	<0.001	<0.001	<0.001
MW-4	12/28/09	<0.001	<0.001	<0.001	<0.001	<0.001
	07/12/10	<0.001	<0.001	<0.001	<0.001	<0.001
	10/11/10	<0.001	<0.001	<0.001	<0.001	<0.001
	01/24/11	<0.001	<0.001	<0.001	<0.001	<0.001
	04/14/11	<0.001	<0.001	<0.001	<0.001	<0.001
	07/28/11	<0.001	<0.001	<0.001	<0.001	<0.001
	10/25/11	<0.001	<0.001	<0.001	<0.001	<0.001
MW-5	01/24/11	<0.001	<0.001	<0.001	<0.001	<0.001
	04/14/11	<0.001	<0.001	<0.001	<0.001	<0.001
	07/28/11	<0.001	<0.001	<0.001	<0.001	<0.001
	10/25/11	<0.001	<0.001	<0.001	<0.001	<0.001
MW-6	01/24/11	<0.001	<0.001	<0.001	<0.001	<0.001
	04/14/11	0.0063	0.0062	<0.001	<0.001	0.0125
	07/28/11	<0.001	<0.001	<0.001	<0.001	<0.001
	10/25/11	<0.001	<0.001	<0.001	<0.001	<0.001
MW-7	01/24/11	<0.001	<0.001	<0.001	<0.001	<0.001
	04/14/11	<0.001	<0.001	<0.001	<0.001	<0.001
	07/28/11	<0.001	<0.001	<0.001	<0.001	<0.001
	10/25/11	<0.001	<0.001	<0.001	<0.001	<0.001
RW-1	01/24/11	NS	NS	NS	NS	NS

Table 3
Celero Energy II, LP
Groundwater Analytical Results
Rock Queen Unit Tract 1 Tank Battery
Chaves County, New Mexico

Monitor Well	Date Sampled	Benzene in (mg/L)	Toluene in (mg/L)	Ethyl-Benzene (mg/L)	Xylene in (mg/L)	Total BTEX (mg/L)
RW-1	04/14/11	0.0133	<0.001	<0.001	<0.001	0.0133
	07/28/11	NS	NS	NS	NS	NS
	10/25/11	NS	NS	NS	NS	NS
	01/05/12	NS	NS	NS	NS	NS

NS - Not sampled

APPENDIX A
BORING LOGS

SAMPLE LOG

Boring/Well MW-1
GPS N33.165308° W103.775339°
Project Number 115-6403129A
Client Celero Energy II, LP
Site Name Rock Queen Unit Tract 1 Tank Battery
Site Location Chaves County, New Mexico
Letter C, Section 25, Township 13 South, Range 31 East
Total Depth 150
Date Installed 05/24/07

DEPTH (Ft)	OVM	SAMPLE DESCRIPTION
3-5	NA	Buff/tan limestone
8-10	NA	Buff/tan calcareous fine grain sand
13-15	NA	Tan/buff calcareous fine grain sand
18-20	NA	Tan/buff calcareous fine grain sand
23-25	NA	Buff/tan calcareous sand
28-30	NA	Buff/tan calcareous sand
33-35	NA	Buff/tan calcareous sand
38-40	NA	Buff/tan calcareous sand
43-45	NA	Tan fine grain well sorted sand ("sugar" sand)
48-50	NA	Tan fine grain well sorted sand ("sugar" sand)
53-55	NA	Tan fine grain well sorted sand ("sugar" sand)
58-60	NA	Tan fine grain well sorted sand ("sugar" sand)
63-65	NA	Tan fine grain well sorted sand ("sugar" sand)
68-70	NA	Tan fine grain well sorted sand ("sugar" sand)
73-75	NA	Tan fine grain well sorted sand ("sugar" sand)
78-80	NA	Tan fine grain well sorted sand ("sugar" sand)
83-85	NA	Tan fine grain well sorted sand ("sugar" sand)
88-90	NA	Tan fine grain well sorted sand ("sugar" sand)
93-95	NA	Tan fine grain well sorted sand ("sugar" sand)
98-100	NA	Tan fine grain well sorted sand ("sugar" sand)
103-105	NA	Tan fine grain well sorted sand ("sugar" sand)
108-110	NA	Tan fine grain well sorted sand ("sugar" sand)
113-115	NA	Tan fine grain well sorted sand ("sugar" sand)
118-120	NA	Tan fine grain well sorted sand ("sugar" sand)
123-125	NA	Dark brown well sorted sand

SAMPLE LOG

Boring/Well MW-1
GPS N33.165308° W103.775339°
Project Number 115-6403129A
Client Celero Energy II, LP
Site Name Rock Queen Unit Tract 1 Tank Battery
Site Location Chaves County, New Mexico
Letter C, Section 25, Township 13 South, Range 31 East
Total Depth 150
Date Installed 05/24/07

DEPTH (Ft)	OVM	SAMPLE DESCRIPTION
128-130	NA	Dark brown well sorted sand
133-135	NA	Red clayey sand
138-140	NA	Red clayey sand
143-145	NA	Red clayey sand
148-150	NA	Red/tan clayey sand
Total Depth:	150'	Groundwater encountered at approximately 119 feet

SAMPLE LOG

Boring/Well MW-2
GPS N33.166367° W103.774397°
Project Number 115-6403129A
Client Celero Energy II, LP
Site Name Rock Queen Unit Tract 1 Tank Battery
Site Location Chaves County, New Mexico
Letter B, Section 25, Township 13 South, Range 31 East
Total Depth 140
Date Installed 06/01/07

DEPTH (Ft)	OVM	SAMPLE DESCRIPTION
0-5	NA	Buff limestone
5-10	NA	Tan/buff calcareous fine grain sand
10-15	NA	Tan/buff calcareous fine grain sand
15-20	NA	Tan/buff calcareous fine grain sand
20-25	NA	Tan/buff calcareous fine grain sand
25-30	NA	Tan/buff calcareous fine grain sand
30-35	NA	Tan/buff calcareous fine grain sand
35-38	NA	Tan/buff calcareous fine grain sand
38-45	NA	Tan fine to very fine grain sand
45-50	NA	Tan fine to very fine grain sand
50-55	NA	Tan fine to very fine grain sand
55-60	NA	Tan fine to very fine grain sand
63-65	NA	Tan fine to very fine grain sand
68-70	NA	Tan fine to very fine grain sand
73-75	NA	Tan fine to very fine grain sand
78-80	NA	Tan fine to very fine grain sand
83-85	NA	Tan fine to very fine grain sand
88-90	NA	Tan fine to very fine grain sand
93-95	NA	Tan fine to very fine grain sand
98-100	NA	Tan fine to very fine grain sand
100-106	NA	Tan fine to very fine grain sand
106-124	NA	Tan fine grain sand with light brown clay intermixed
124-130	NA	Tan sand with shale
130-131	NA	Gray to red clay
130-140	NA	Red clay
Total Depth:	140'	Groundwater encountered at approximately 119 feet

SAMPLE LOG

Boring/Well	**MW-3**
GPS	**N33.166367° W103.774397°**
Project Number	**115-6403129A**
Client	**Celero Energy II, LP**
Site Name	**Rock Queen Unit Tract 1 Tank Battery**
Site Location	**Chaves, New Mexico**
Letter F, Section 25, Township 13 South, Range 31 East	
Total Depth	**135**
Date Installed	**12/09/09**

DEPTH (Ft)	OVM	SAMPLE DESCRIPTION
5-6	--	Hard limestone with chert
10-11	--	Hard limestone with chert
15-16	--	Hard limestone with chert
20-21	--	Hard limestone with chert
25-26	--	Calcareous sand - very fine grain
30-31	--	Calcareous sand - very fine grain
35-36	--	Calcareous sand - very fine grain
40-41	--	Calcareous sand - very fine grain
45-46	--	Calcareous sand - very fine grain
50-51	--	Calcareous sand - very fine grain
55-56	--	Tan fine grain sand
60-61	--	Tan fine grain sand
65-66	--	Tan fine grain sand
70-71	--	Tan fine grain sand
75-76	--	Tan fine grain sand
80-81	--	Tan fine grain sand
85-86	--	Tan fine grain sand
90-91	--	Tan fine grain sand
95-96	--	Tan fine grain sand
100-101	--	Tan fine grain sand
105-106	--	Tan fine grain sand
110-111	--	Tan fine grain sand
115-116	--	Tan fine grain sand
120-121	--	Tan fine grain sand
125-126	--	Grey and Red/Brown clay

SAMPLE LOG

Boring/Well	**MW-3**
GPS	**N33.166367° W103.774397°**
Project Number	**115-6403129A**
Client	**Celero Energy II, LP**
Site Name	**Rock Queen Unit Tract 1 Tank Battery**
Site Location	**Chaves, New Mexico**
Letter F, Section	**25, Township 13 South, Range 31 East**
Total Depth	**135**
Date Installed	**12/09/09**

DEPTH (Ft)	OVM	SAMPLE DESCRIPTION
130-131	--	Grey and Red/Brown clay
135-136	--	Red/Brown clay

Total Depth: 135'

SAMPLE LOG

Boring/Well MW-4
GPS N33.166367° W103.774397°
Project Number 115-6403129A
Client Celero Energy II, LP
Site Name Rock Queen Unit Tract 1 Tank Battery
Site Location Chaves, New Mexico
Letter C, Section 25, Township 13 South, Range 31 East
Total Depth 135
Date Installed 12/10/09

DEPTH (Ft)	OVM	SAMPLE DESCRIPTION
5-6	--	Hard limestone with chert
10-11	--	Hard limestone with chert
15-16	--	Hard limestone with chert
20-21	--	Hard limestone with chert
25-26	--	Calcareous sand - very fine grain
30-31	--	Calcareous sand - very fine grain
35-36	--	Calcareous sand - very fine grain
40-41	--	Calcareous sand - very fine grain
45-46	--	Calcareous sand - very fine grain
50-51	--	Calcareous sand - very fine grain
55-56	--	Calcareous sand - very fine grain
60-61	--	Calcareous sand - very fine grain
65-66	--	Tan fine grain sand
70-71	--	Tan fine grain sand
75-76	--	Tan fine grain sand
80-81	--	Tan fine grain sand
85-86	--	Tan fine grain sand
90-91	--	Tan fine grain sand
95-96	--	Tan fine grain sand
100-101	--	Tan fine grain sand
105-106	--	Tan fine grain sand
110-111	--	Tan fine grain sand
115-116	--	Tan fine grain sand
120-121	--	Sandy grey clay <10% clay
125-126	--	Grey hard pack clay

SAMPLE LOG

Boring/Well	**MW-4**
GPS	**N33.166367° W103.774397°**
Project Number	**115-6403129A**
Client	**Celero Energy II, LP**
Site Name	**Rock Queen Unit Tract 1 Tank Battery**
Site Location	**Chaves, New Mexico**
Letter C, Section	**25, Township 13 South, Range 31 East**
Total Depth	**135**
Date Installed	**12/10/09**

DEPTH (Ft)	OVM	SAMPLE DESCRIPTION
130-131	--	Grey hard pack clay
135-136	--	Grey hard pack clay (with some red clay)

Total Depth: 135'

SAMPLE LOG

Boring/ Well MW-5
GPS N33.1669° W103.77383°
Project Number 115-6403129A
Client Celero Energy II, LP
Site Name Rock Queen Unit Tract #1Tank Battery
Site Location Chaves, New Mexico
Letter B, Section 25, Township 13 South, Range 31 East
Total Depth 130'
Date Installed 11/23/10

Depth (Ft)	OVM	Sample Description
5-6'	--	Caliche and 60% Chert
10-11'	--	Caliche and 50% Chert
15-16'	--	Caliche and 30% Chert
20-21'	--	Light Buff Fine Grained Well Sorted Sand
25-26'	--	Light Buff Fine Grained Well Sorted Sand
30-31'	--	Light Buff Fine Grained Well Sorted Sand
35-36'	--	Light Buff Fine Grained Well Sorted Sand
40-41'	--	Light Buff Fine Grained Well Sorted Sand
45-46'	--	Light Buff Fine Grained Well Sorted Sand
50-51'	--	Light Buff Fine Grained Well Sorted Sand
55-56'	--	Light Buff Fine Grained Well Sorted Sand
60-61'	--	Light Brown Fine Grain Well Sorted Sand
65-66'	--	Light Brown Fine Grain Well Sorted Sand
70-71'	--	Light Brown Fine Grain Well Sorted Sand
75-76'	--	Light Brown Fine Grain Well Sorted Sand
80-81'	--	Light Brown Fine Grain Well Sorted Sand
85-86'	--	Light Brown Fine Grain Well Sorted Sand
90-91'	--	Light Brown Fine Grain Well Sorted Sand
95-96'	--	Light Brown Fine Grain Well Sorted Sand with 5% Subangular Gravel
100-101'	--	Light Brown Fine Grain Well Sorted Sand with 5% Subangular Gravel
105-106'	--	Light Brown Fine Grain Well Sorted Sand with 10% Subangular Gravel
110-111'	--	Light Brown Fine Grain Well Sorted Sand with 50% Subangular Gravel
115-116'	--	Grey Blue Buff Clay and Light Brown Clay
120-121'	--	Grey Blue Buff Clay and 10% Light Brown Clay
125-126'	--	Grey Blue Buff Clay and 60% Light Brown Clay

SAMPLE LOG

Boring/ Well	**MW-5**
GPS	**N33.1669° W103.77383°**
Project Number	**115-6403129A**
Client	**Celero Energy II, LP**
Site Name	**Rock Queen Unit Tract #1Tank Battery**
Site Location	**Chaves, New Mexico**
Letter B, Section 25, Township 13 South, Range 31 East	
Total Depth	**130'**
Date Installed	**11/23/10**

130'	--	Grey Blue Clay with 25% Red Bed and 5% Light Brown Clay
Total Depth:	130'	Ground water depth not encountered while drilling.

SAMPLE LOG

Boring/ Well MW-6
GPS N33.16423° W103.77711°
Project Number 115-6403129A
Client Celero Energy II, LP
Site Name Rock Queen Unit Tract #1 Tank Battery
Site Location Chaves, New Mexico
Letter F, Section 25, Township 13 South, Range 31 East
Total Depth 140'
Date Installed 11/29/10

Depth (Ft)	OVM	Sample Description
5-6'	--	Caliche and 20% Chert
10-11'	--	Caliche and 40% Chert
15-16'	--	Caliche and 10% Chert
20-21'	--	Buff Tan Fine Grained Well Sorted Sand
25-26'	--	Buff Tan Fine Grained Well Sorted Sand
30-31'	--	Buff Tan Fine Grained Well Sorted Sand
35-36'	--	Buff Tan Fine Grained Well Sorted Sand
40-41'	--	Buff Tan Fine Grained Well Sorted Sand
45-46'	--	Tan Fine Grained Well Sorted Sand
50-51'	--	Tan Fine Grained Well Sorted Sand
55-56'	--	Tan Fine Grained Well Sorted Sand
60-61'	--	Light Brown Fine Grained Well Sorted Sand
65-66'	--	Light Brown Fine Grained Well Sorted Sand
70-71'	--	Light Brown Fine Grained Well Sorted Sand
75-76'	--	Light Brown Fine Grained Well Sorted Sand
80-81'	--	Light Brown Fine Grained Well Sorted Sand
85-86'	--	Light Brown Fine Grained Well Sorted Sand
90-91'	--	Light Brown Fine Grained Well Sorted Sand
95-96'	--	Light Brown Fine Grained Well Sorted Sand
100-101'	--	Light Brown Fine Grained Well Sorted Sand
105-106'	--	Light Brown Fine Grained Well Sorted Sand
110-111'	--	Light Brown Fine Grained Well Sorted Sand with 10% Subangular Gravel
115-116'	--	Light Brown Fine Grained Well Sorted Sand with 30% Subangular Gravel
120-121'	--	Light Brown Fine Grained Well Sorted Sand with 20% Subangular Gravel
125-126'	--	Light Brown Fine Grained Well Sorted Sand with 40% Subangular Gravel

SAMPLE LOG

Boring/ Well	**MW-6**
GPS	**N33.16423° W103.77711°**
Project Number	**115-6403129A**
Client	**Celero Energy II, LP**
Site Name	**Rock Queen Unit Tract #1 Tank Battery**
Site Location	**Chaves, New Mexico**
Letter F, Section 25, Township 13 South, Range 31 East	
Total Depth	**140'**
Date Installed	**11/29/10**

130-131'	--	Light Brown Sand with 30% Buff Grey Clay
135-136'	--	Grey Blue Clay with 50% Red Bed
140'	--	Red Bed
Total Depth:	140'	Ground water depth not encountered while drilling.

SAMPLE LOG

Boring/ Well MW-7
GPS N33.16362° W103.77646°
Project Number 115-6403129A
Client Celero Energy II, LP
Site Name Rock Queen Unit Tract #1 Tank Battery
Site Location Chaves, New Mexico
Letter F, Section 25, Township 13 South, Range 31 East
Total Depth 135'
Date Installed 11/23/10

Depth (Ft)	OVM	Sample Description
5-6'	--	Caliche and 15% Chert
10-11'	--	Caliche and 15% Chert
15-16'	--	Buff Fine Grained Sand with 50% Caliche
20-21'	--	Buff Fine Grained Sand with 20% Caliche
25-26'	--	Tan Light Brown Fine Grained Sand with 5% Caliche
30-31'	--	Buff Tan Fine Grained Sand with 5% Caliche
35-36'	--	Buff Tan Fine Grained Sand with 5% Caliche
40-41'	--	Buff Tan Fine Grained Sand
45-46'	--	Buff Tan Fine Grained Sand
50-51'	--	Light Brown Fine Grained Sand
55-56'	--	Light Brown Fine Grained Sand
60-61'	--	Light Brown Fine Grained Sand
65-66'	--	Light Brown Fine Grained Sand
70-71'	--	Light Brown Fine Grained Sand
75-76'	--	Light Brown Fine Grained Sand
80-81'	--	Light Brown Fine Grained Sand
85-86'	--	Light Brown Fine Grained Sand
90-91'	--	Light Brown Fine Grained Sand
95-96'	--	Light Brown Fine Grained Sand
100-101'	--	Light Brown Fine Grained Sand
105-106'	--	Light Brown Fine Grained Sand
110-111'	--	Light Brown Fine Grained Sand
115-116'	--	Light Brown Fine Grained Sand with 15% Subangular Gravel
120-121'	--	Light Brown Fine Grained Sand with 15% Subangular Gravel
125-126'	--	Grey Buff Light Brown Clay

SAMPLE LOG

Boring/ Well	**MW-7**
GPS	**N33.16362° W103.77646°**
Project Number	**115-6403129A**
Client	**Celero Energy II, LP**
Site Name	**Rock Queen Unit Tract #1 Tank Battery**
Site Location	**Chaves, New Mexico**
Letter F, Section 25, Township 13 South, Range 31 East	
Total Depth	**135'**
Date Installed	**11/23/10**

130-131'	--	Grey Blue Clay with 15% Red Bed
135'	--	Red Bed with Grey Blue Clay
Total Depth:	135'	Ground water depth not encountered while drilling.

SAMPLE LOG

Boring/ Well MW-7
GPS N33.16362° W103.77646°
Project Number 115-6403129A
Client Celero Energy II, LP
Site Name Rock Queen Unit Tract #1 Tank Battery
Site Location Chaves, New Mexico
Letter F, Section 25, Township 13 South, Range 31 East
Total Depth 135'
Date Installed 11/23/10

Depth (Ft)	OVM	Sample Description
5-6'	--	Caliche and 15% Chert
10-11'	--	Caliche and 15% Chert
15-16'	--	Buff Fine Grained Sand with 50% Caliche
20-21'	--	Buff Fine Grained Sand with 20% Caliche
25-26'	--	Tan Light Brown Fine Grained Sand with 5% Caliche
30-31'	--	Buff Tan Fine Grained Sand with 5% Caliche
35-36'	--	Buff Tan Fine Grained Sand with 5% Caliche
40-41'	--	Buff Tan Fine Grained Sand
45-46'	--	Buff Tan Fine Grained Sand
50-51'	--	Light Brown Fine Grained Sand
55-56'	--	Light Brown Fine Grained Sand
60-61'	--	Light Brown Fine Grained Sand
65-66'	--	Light Brown Fine Grained Sand
70-71'	--	Light Brown Fine Grained Sand
75-76'	--	Light Brown Fine Grained Sand
80-81'	--	Light Brown Fine Grained Sand
85-86'	--	Light Brown Fine Grained Sand
90-91'	--	Light Brown Fine Grained Sand
95-96'	--	Light Brown Fine Grained Sand
100-101'	--	Light Brown Fine Grained Sand
105-106'	--	Light Brown Fine Grained Sand
110-111'	--	Light Brown Fine Grained Sand
115-116'	--	Light Brown Fine Grained Sand with 15% Subangular Gravel
120-121'	--	Light Brown Fine Grained Sand with 15% Subangular Gravel
125-126'	--	Grey Buff Light Brown Clay

SAMPLE LOG

Boring/ Well	**MW-7**
GPS	**N33.16362° W103.77646°**
Project Number	**115-6403129A**
Client	**Celero Energy II, LP**
Site Name	**Rock Queen Unit Tract #1 Tank Battery**
Site Location	**Chaves, New Mexico**
Letter F, Section 25, Township 13 South, Range 31 East	
Total Depth	**135'**
Date Installed	**11/23/10**

130-131'	--	Grey Blue Clay with 15% Red Bed
135'	--	Red Bed with Grey Blue Clay
Total Depth:	135'	Ground water depth not encountered while drilling.

SAMPLE LOG

Boring/ Well	**RW-1**
GPS	**N33.16539° W103.77579°**
Project Number	**115-6403129A**
Client	**Celero Energy II, LP**
Site Name	**Rock Queen Unit Tract #1 Tank Battery**
Site Location	**Chaves, New Mexico**
Letter C, Section 25, Township 13 South, Range 31 East	
Total Depth	**130'**
Date Installed	**12/13/10**

Depth (Ft)	OVM	Sample Description
5-6'	--	Caliche and Chert
10-11'	--	Caliche and Chert
15-16'	--	Caliche and Chert
20-21'	--	Caliche and Chert
25-26'	--	Buff Tan Fine Grained Well Sorted Sand
30-31'	--	Buff Tan Fine Grained Well Sorted Sand
35-36'	--	Buff Tan Fine Grained Well Sorted Sand
40-41'	--	Buff Tan Fine Grained Well Sorted Sand
45-46'	--	Buff Tan Fine Grained Well Sorted Sand
50-51'	--	Buff Tan Fine Grained Well Sorted Sand
55-56'	--	Brown Fine Grained Well Sorted Sand
60-61'	--	Brown Fine Grained Well Sorted Sand
65-66'	--	Brown Fine Grained Well Sorted Sand
70-71'	--	Brown Fine Grained Well Sorted Sand
75-76'	--	Brown Fine Grained Well Sorted Sand
80-81'	--	Brown Fine Grained Well Sorted Sand
85-86'	--	Brown Fine Grained Well Sorted Sand
90-91'	--	Brown Fine Grained Well Sorted Sand
95-96'	--	Brown Fine Grained Well Sorted Sand
100-101'	--	Brown Fine Grained Well Sorted Sand
105-106'	--	Brown Fine Grained Well Sorted Sand
110-111'	--	Brown Fine Grained Well Sorted Sand
115-116'	--	Brown Fine Grained Well Sorted Sand
120-121'	--	Grey Blue Buff Clay with Light Brown Clay
125-126'	--	Grey Blue Clay with Light Brown Clay

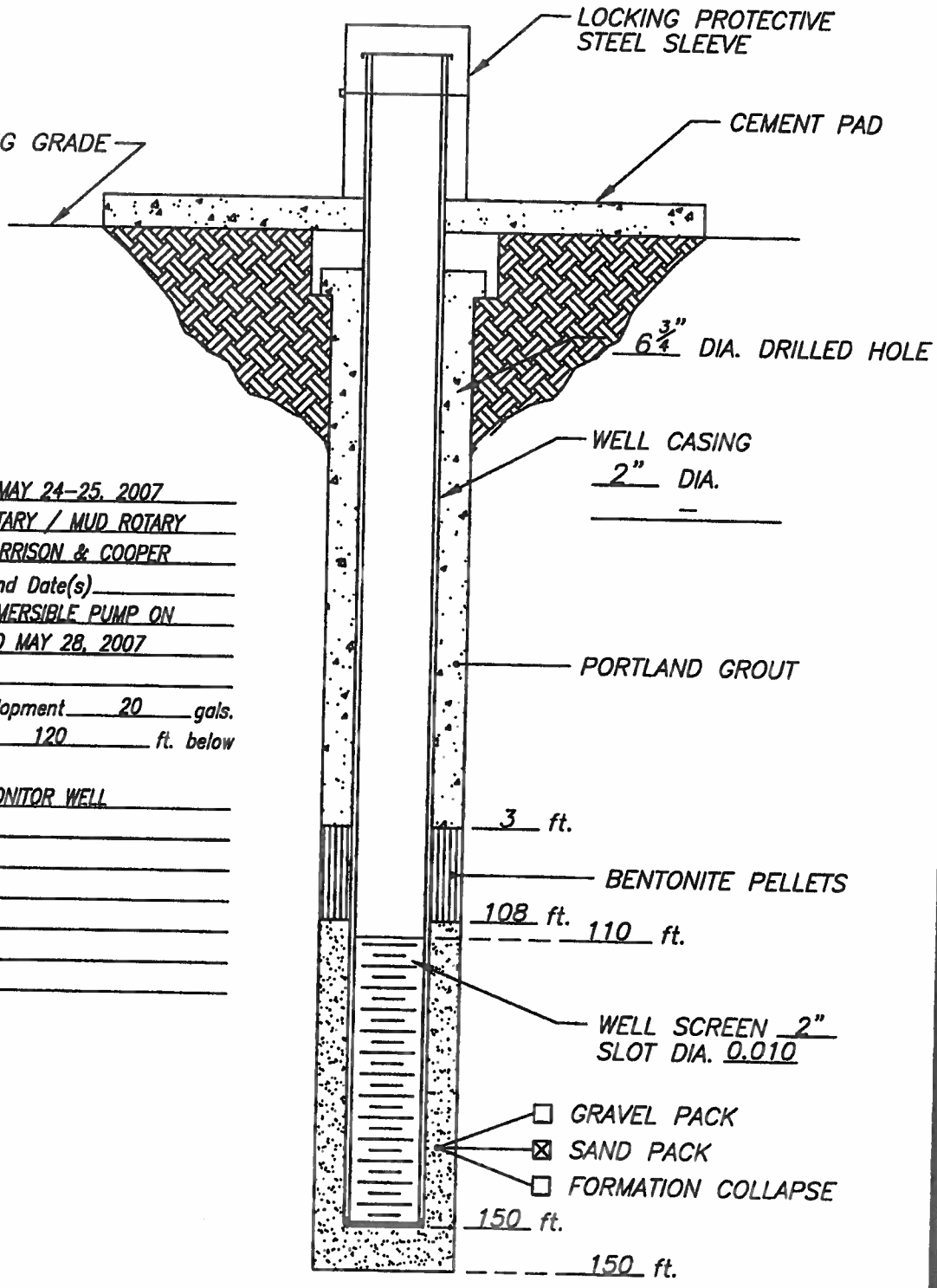
SAMPLE LOG

Boring/ Well	**RW-1**
GPS	**N33.16539° W103.77579°**
Project Number	**115-6403129A**
Client	**Celero Energy II, LP**
Site Name	**Rock Queen Unit Tract #1 Tank Battery**
Site Location	**Chaves, New Mexico**
Letter C, Section 25, Township 13 South, Range 31 East	
Total Depth	**130'**
Date Installed	**12/13/10**

130'	--	Grey Blue Clay with Light Brown Clay and Red Bed
Total Depth:	130'	Ground water depth not encountered while drilling.

APPENDIX B
MONITOR WELL INSTALLATION DIAGRAMS

WELL CONSTRUCTION LOG



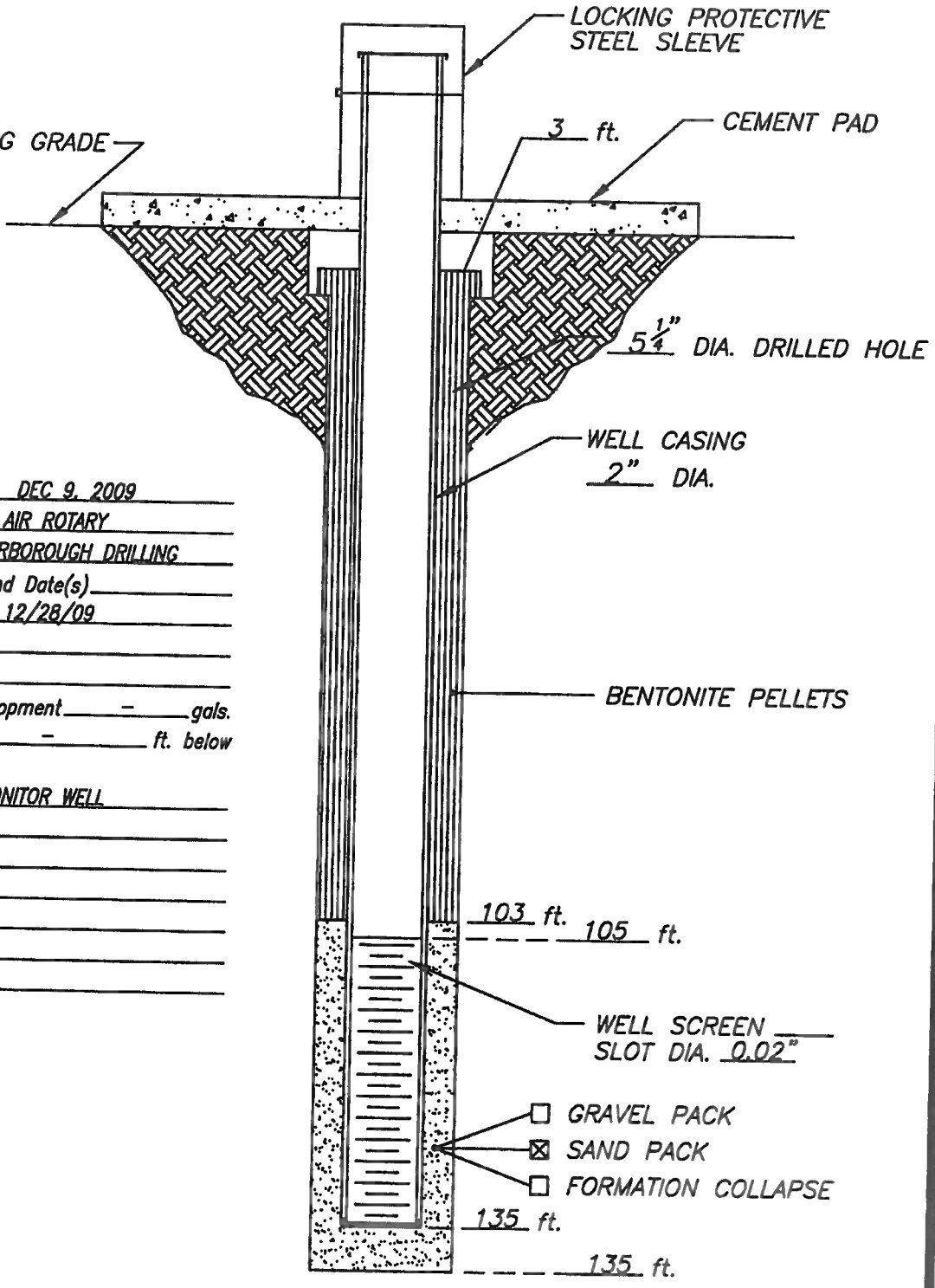
Installation Date(s) MAY 24-25, 2007
Drilling Method AIR ROTARY / MUD ROTARY
Drilling Contractor HARRISON & COOPER
Development Technique(s) and Date(s) HAND BAILING / SUBMERSIBLE PUMP ON MAY 25, 2007 AND MAY 28, 2007

Water Removed During Development 20 gals.
Static Depth to Water 120 ft. below Ground Level
Well Purpose MONITOR WELL

Remarks

DATE: 5/24-25/07	CLIENT: CELERO ENERGY II, LP	WELL NO.
TETRA TECH, INC. MIDLAND, TEXAS	PROJECT: ROCK QUEEN UNIT TRACT 1 TB	MW-1
	LOCATION: CHAVES COUNTY, NM	

WELL CONSTRUCTION LOG



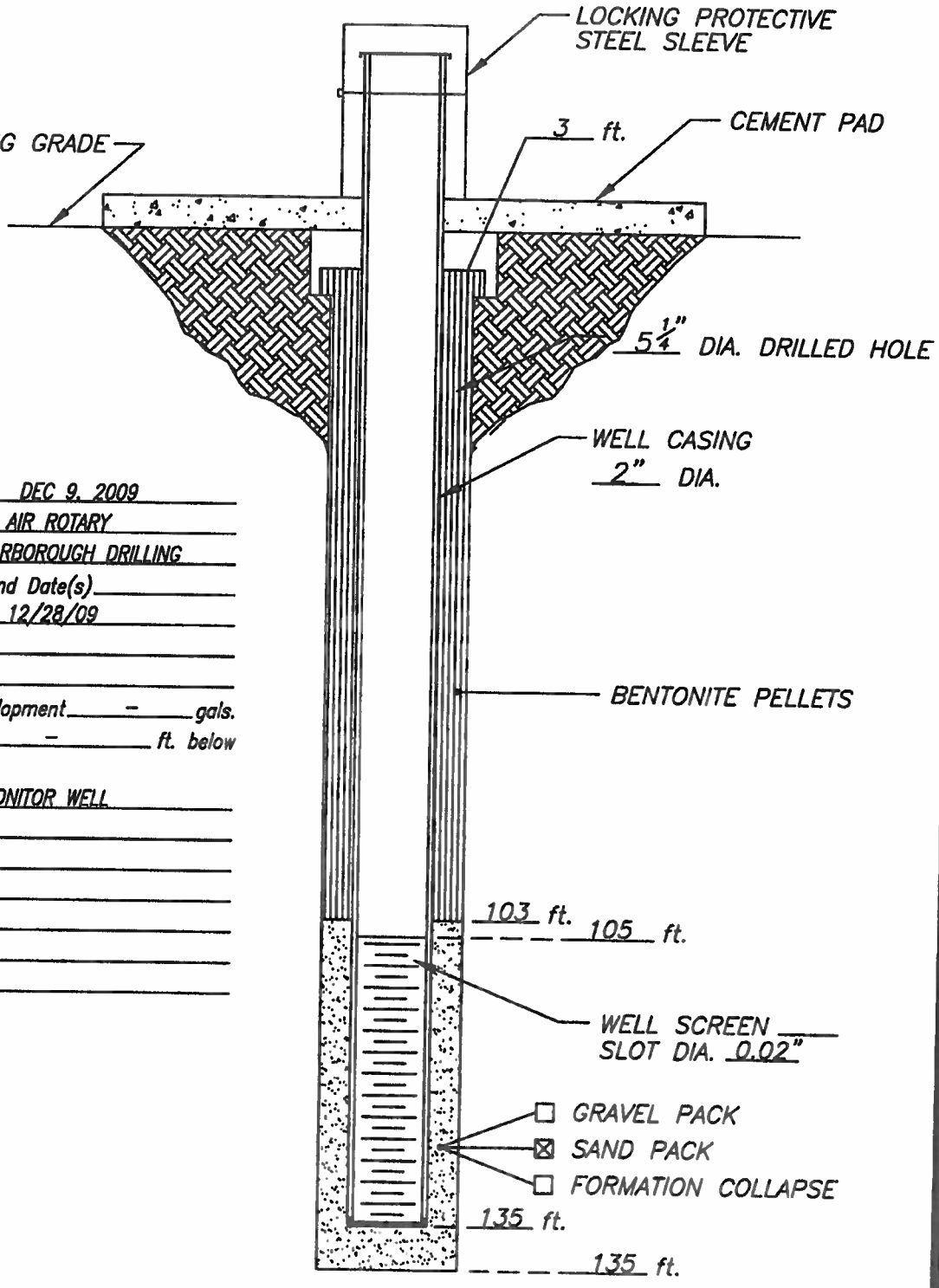
Installation Date(s) DEC 9, 2009
Drilling Method AIR ROTARY
Drilling Contractor SCARBOROUGH DRILLING
Development Technique(s) and Date(s)
HAND BAILED 12/28/09

Water Removed During Development – gals.
Static Depth to Water – ft. below Ground Level
Well Purpose MONITOR WELL

Remarks

DATE: DEC. 9, 2009	CLIENT: CELERO ENERGY II LLC	WELL NO.
TETRA TECH, INC. MIDLAND, TEXAS	PROJECT: ROCK QUEEN UNIT TRACT #1	MW-2
	LOCATION: CHAVES COUNTY, NM	

WELL CONSTRUCTION LOG



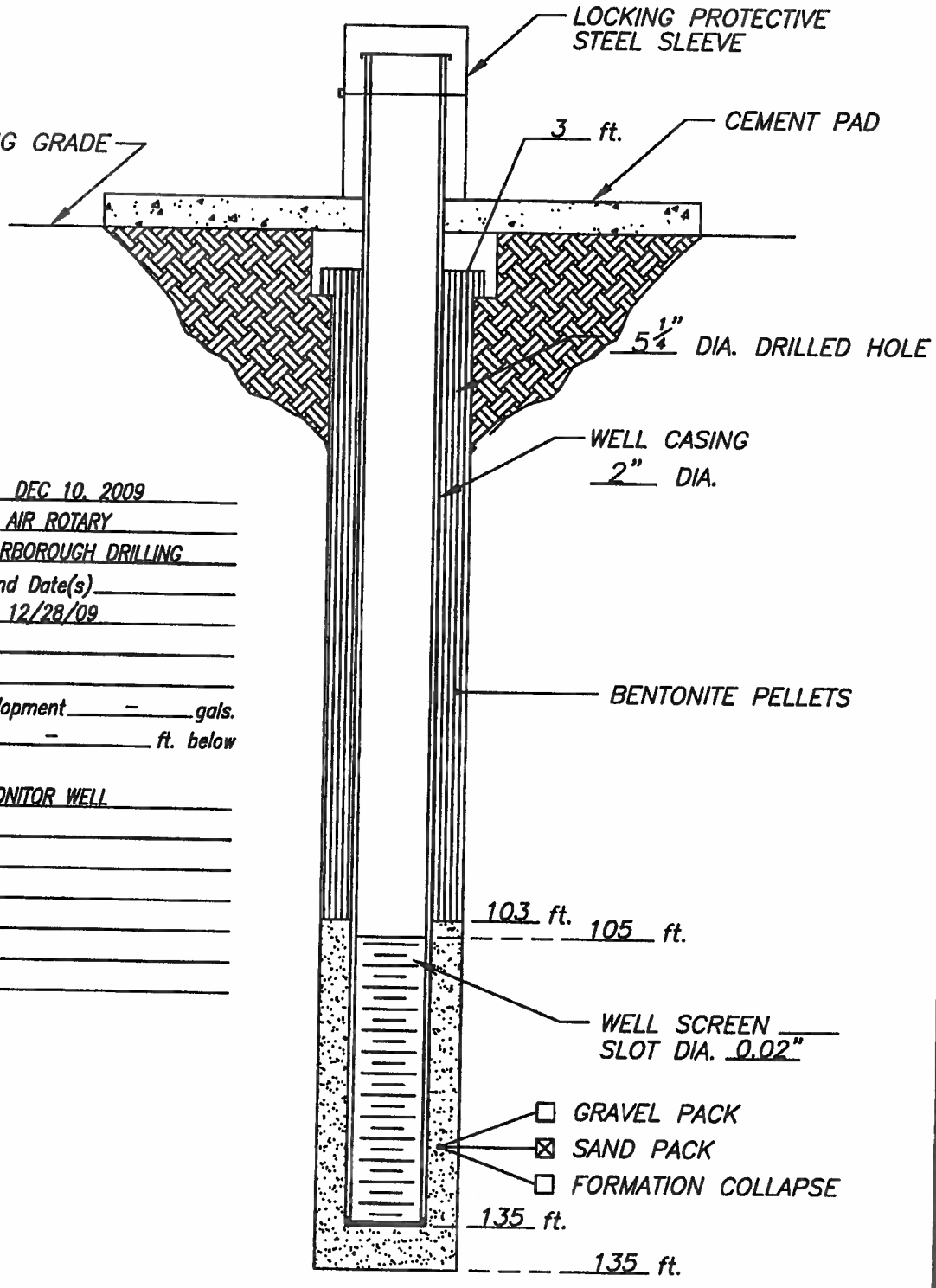
Installation Date(s) DEC 9, 2009
Drilling Method AIR ROTARY
Drilling Contractor SCARBOROUGH DRILLING
Development Technique(s) and Date(s)
HAND BAILED 12/28/09

Water Removed During Development – gals.
Static Depth to Water – ft. below Ground Level
Well Purpose MONITOR WELL

Remarks

DATE: DEC. 23, 2009	CLIENT: CELERO ENERGY II LLC	WELL NO.
TETRA TECH, INC. MIDLAND, TEXAS	PROJECT: ROCK QUEEN UNIT TRACT #1	MW-3
	LOCATION: CHAVES COUNTY, NM	

WELL CONSTRUCTION LOG



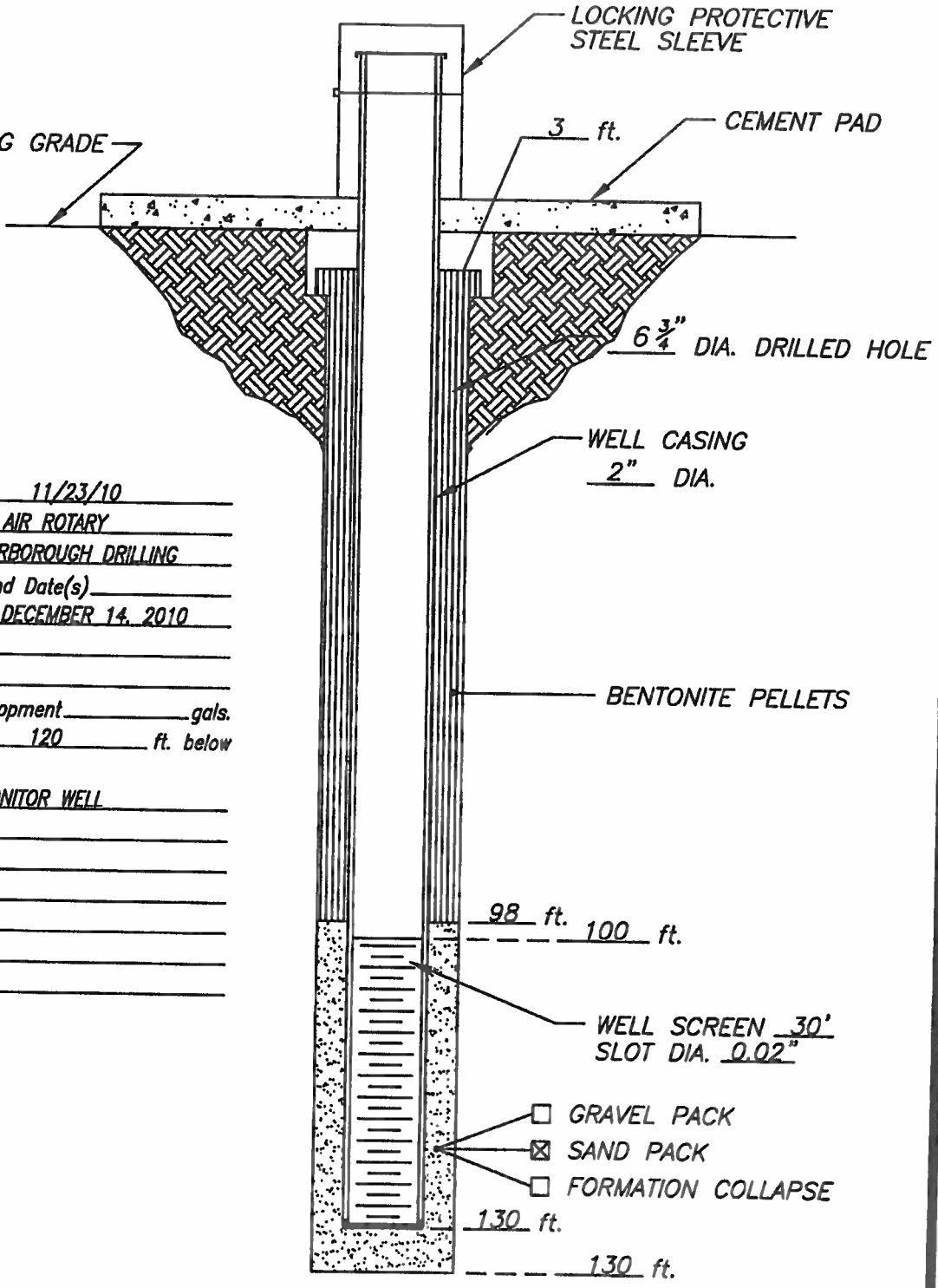
Installation Date(s) DEC 10, 2009
Drilling Method AIR ROTARY
Drilling Contractor SCARBOROUGH DRILLING
Development Technique(s) and Date(s)
HAND BAILED 12/28/09

Water Removed During Development – gals.
Static Depth to Water – ft. below Ground Level
Well Purpose MONITOR WELL

Remarks

DATE: DEC. 23, 2009	CLIENT: CELERO ENERGY II LLC	WELL NO.
TETRA TECH, INC. MIDLAND, TEXAS	PROJECT: ROCK QUEEN UNIT TRACT #1	MW-4
	LOCATION: CHAVES COUNTY, NM	

WELL CONSTRUCTION LOG



Installation Date(s) 11/23/10
Drilling Method AIR ROTARY
Drilling Contractor SCARBOROUGH DRILLING
Development Technique(s) and Date(s)
HANDBAILED ON DECEMBER 14, 2010

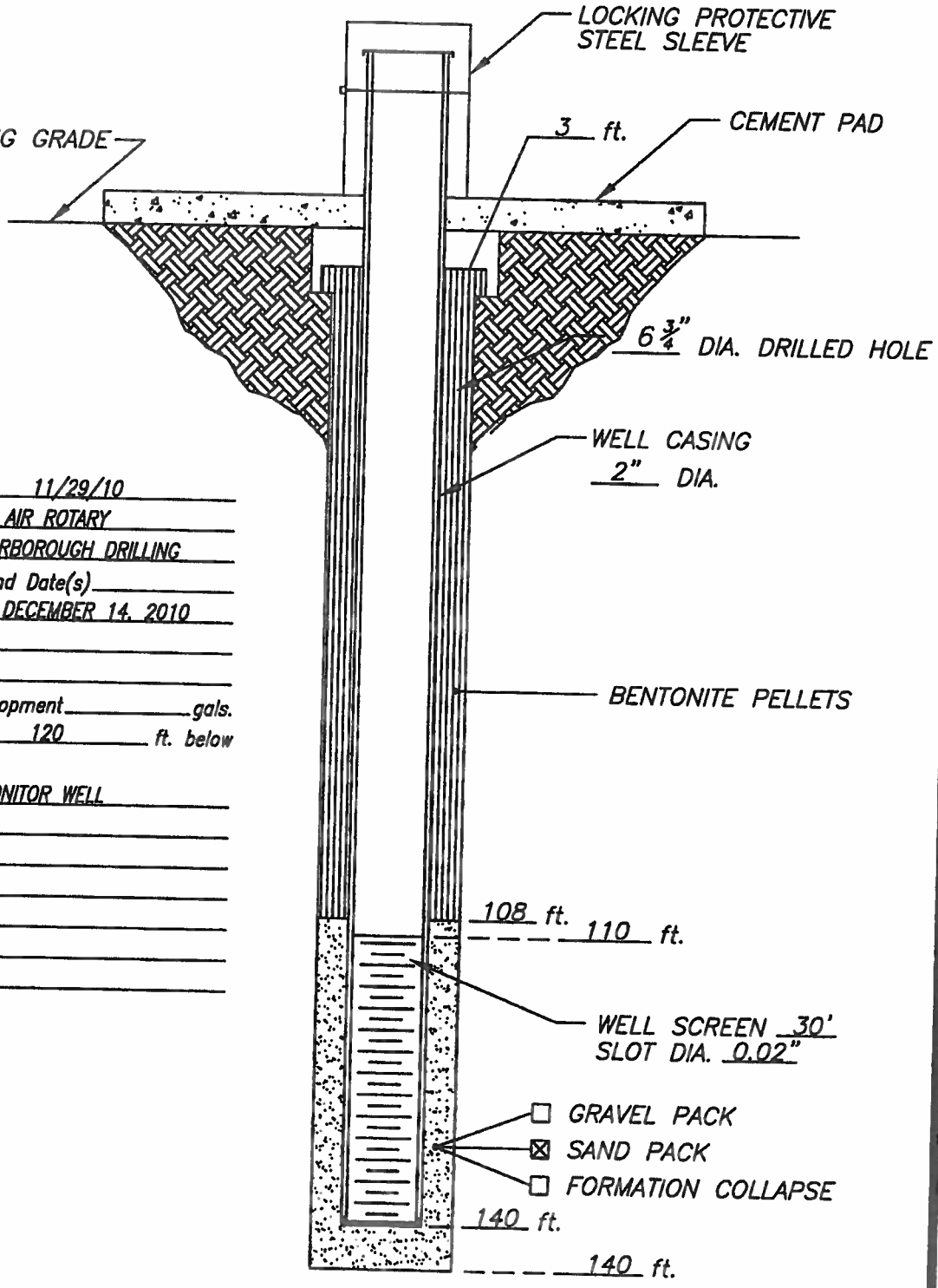
Water Removed During Development ____ gals.
Static Depth to Water 120 ft. below Ground Level
Well Purpose MONITOR WELL

Remarks

DATE: 11/23/10	CLIENT: CELERO ENERGY II, LLC	WELL NO.
TETRA TECH, INC. MIDLAND, TEXAS	PROJECT: ROCK QUEEN UNIT TRACT #1	MW-5
	LOCATION: CHAVES COUNTY, NM	

115-0403129A

WELL CONSTRUCTION LOG



Installation Date(s) 11/29/10
Drilling Method AIR ROTARY
Drilling Contractor SCARBOROUGH DRILLING
Development Technique(s) and Date(s)
HANDBAILED ON DECEMBER 14, 2010

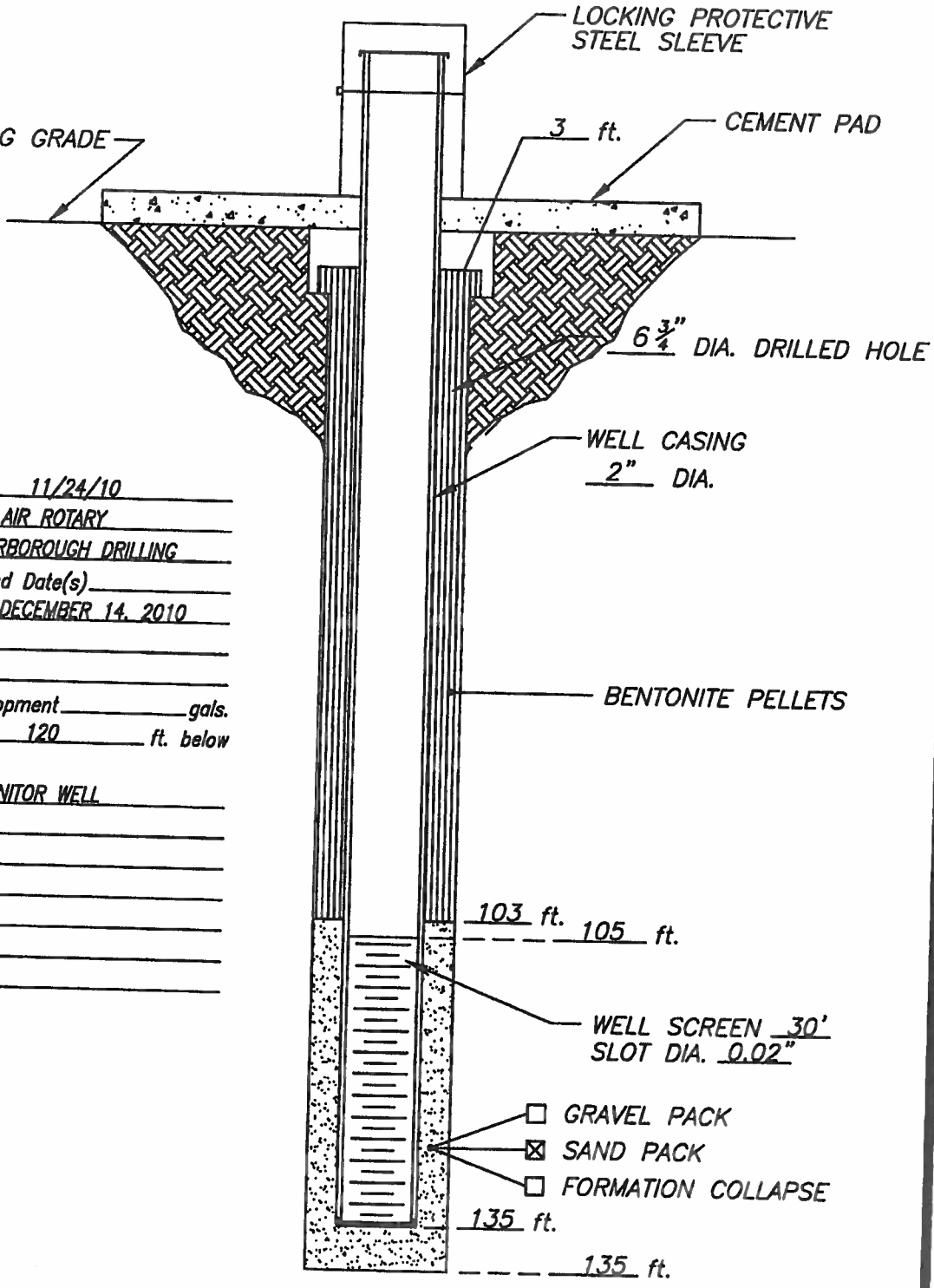
Water Removed During Development _____ gals.
Static Depth to Water 120 ft. below Ground Level
Well Purpose MONITOR WELL

Remarks

DATE: 11/23/10	CLIENT: CELERO ENERGY II, LLC	WELL NO.
TETRA TECH, INC. MIDLAND, TEXAS	PROJECT: ROCK QUEEN UNIT TRACT #1	MW-6
	LOCATION: CHAVES COUNTY, NM	

115-6403128A

WELL CONSTRUCTION LOG



Installation Date(s) 11/24/10
Drilling Method AIR ROTARY
Drilling Contractor SCARBOROUGH DRILLING
Development Technique(s) and Date(s)
HANDBAILED ON DECEMBER 14, 2010

Water Removed During Development _____ gals.
Static Depth to Water 120 ft. below Ground Level
Well Purpose MONITOR WELL

Remarks

DATE: 11/24/10

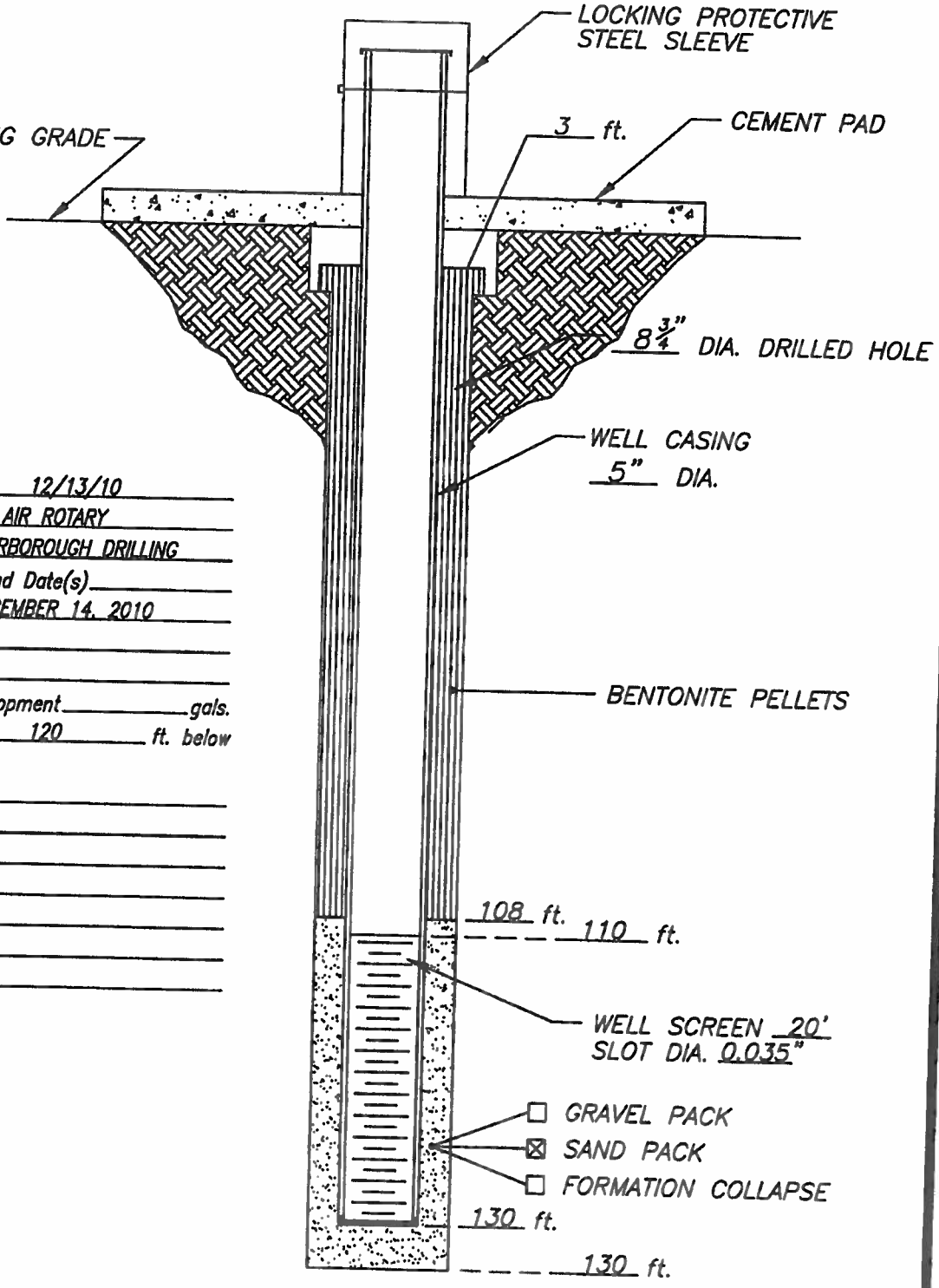
TETRA TECH, INC.
MIDLAND, TEXAS

CLIENT: CELERO ENERGY II, LLC
PROJECT: ROCK QUEEN UNIT TRACT #1
LOCATION: CHAVES COUNTY, NM

WELL NO. MW-7

115-64031284

WELL CONSTRUCTION LOG



Installation Date(s) 12/13/10
Drilling Method AIR ROTARY
Drilling Contractor SCARBOROUGH DRILLING
Development Technique(s) and Date(s)
HANDBAILED ON DECEMBER 14, 2010

Water Removed During Development _____ gals.
Static Depth to Water 120 ft. below Ground Level
Well Purpose _____

Remarks _____

DATE: 12/13/10	CLIENT: CELERO ENERGY II, LLC	WELL NO.
TETRA TECH, INC. MIDLAND, TEXAS	PROJECT: ROCK QUEEN UNIT TRACT #1	RW-1
	LOCATION: CHAVES COUNTY, NM	

115-84031284

APPENDIX C
LABORATORY ANALYSIS

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: February 8, 2011

Work Order: 11012511

Project Location: Chavez County, NM
Project Name: Celero/Rock Queen #1 TB
Project Number: 115-6403129

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
256095	MW-1	water	2011-01-24	16:55	2011-01-25
256096	MW-2	water	2011-01-24	16:45	2011-01-25
256097	MW-3	water	2011-01-24	17:10	2011-01-25
256098	MW-4	water	2011-01-24	16:15	2011-01-25
256099	MW-5	water	2011-01-24	16:32	2011-01-25
256100	MW-6	water	2011-01-24	17:05	2011-01-25
256101	MW-7	water	2011-01-24	17:18	2011-01-25

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

This report consists of a total of 22 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 #1 TB were received by TraceAnalysis, Inc. on 2011-01-25 and assigned to work order 11012511. Samples for work order 11012511 were received intact without headspace and at a temperature of 1.6 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
Chloride (IC)	E 300.0	66402	2011-02-04 at 11:18	77415	2011-02-04 at 15:32
Chloride (IC)	E 300.0	66403	2011-02-04 at 11:36	77416	2011-02-04 at 20:18
SO4 (IC)	E 300.0	66403	2011-02-04 at 11:36	77416	2011-02-04 at 20:18
SO4 (IC)	E 300.0	66414	2011-02-06 at 10:00	77427	2011-02-07 at 11:31
SO4 (IC)	E 300.0	66439	2011-02-07 at 15:00	77456	2011-02-07 at 16:41
TDS	SM 2540C	66190	2011-01-26 at 13:45	77318	2011-02-01 at 15:05

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 11012511 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: 256095 - MW-1

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)	[1]	0.0539	mg/L	1	0.100	54	75.4 - 119.4
4-Bromofluorobenzene (4-BFB)		0.0537	mg/L	1	0.100	54	78.6 - 122.8

Sample: 256095 - 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		**144000**	mg/L	10000	2.50

Sample: 256095 - MW-1

Laboratory:	Lubbock				
Analysis:	SO4 (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	77427	Date Analyzed:	2011-02-07	Analyzed By:	PG
Prep Batch:	66414	Sample Preparation:	2011-02-06	Prepared By:	PG

Parameter	Flag	RL Result	Units	Dilution	RL
Sulfate		**2560**	mg/L	100	2.50

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

Sample: 256095 - MW-1

Laboratory:	Midland				
Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	77318	Date Analyzed:	2011-02-01	Analyzed By:	AR
Prep Batch:	66190	Sample Preparation:	2011-01-26	Prepared By:	AR

Parameter	Flag	Result	RL	Units	Dilution	RL
Total Dissolved Solids		**258000**		mg/L	100	10.0

Sample: 256096 - 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)		0.113	mg/L	1	0.100	113	75.4 - 119.4
4-Bromofluorobenzene (4-BFB)		0.0976	mg/L	1	0.100	98	78.6 - 122.8

Sample: 256096 - 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		**7310**		mg/L	500	2.50

Sample: 256096 - MW-2

Laboratory:	Lubbock				
Analysis:	SO4 (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	77427	Date Analyzed:	2011-02-07	Analyzed By:	PG
Prep Batch:	66414	Sample Preparation:	2011-02-06	Prepared By:	PG

Parameter	Flag	Result	RL	Units	Dilution	RL
Sulfate		**108**		mg/L	5	2.50

Sample: 256096 - MW-2

Laboratory:	Midland				
Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	77318	Date Analyzed:	2011-02-01	Analyzed By:	AR
Prep Batch:	66190	Sample Preparation:	2011-01-26	Prepared By:	AR

Parameter	Flag	Result	RL	Units	Dilution	RL
Total Dissolved Solids		**26800**		mg/L	100	10.0

Sample: 256097 - 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)		0.0754	mg/L	1	0.100	75	75.4 - 119.4
4-Bromofluorobenzene (4-BFB)		0.0702	mg/L	1	0.100	70	78.6 - 122.8

Sample: 256097 - MW-3

Laboratory: Lubbock
Analysis: Chloride (IC)
QC Batch: 77415
Prep Batch: 66402

Analytical Method: E 300.0
Date Analyzed: 2011-02-04
Sample Preparation: 2011-02-04

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

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**51900**	mg/L	10000	2.50

Sample: 256097 - MW-3

Laboratory: Lubbock
Analysis: SO4 (IC)
QC Batch: 77427
Prep Batch: 66414

Analytical Method: E 300.0
Date Analyzed: 2011-02-07
Sample Preparation: 2011-02-06

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

Parameter	Flag	RL Result	Units	Dilution	RL
Sulfate		**2280**	mg/L	100	2.50

Sample: 256097 - MW-3

Laboratory: Midland
Analysis: TDS
QC Batch: 77318
Prep Batch: 66190

Analytical Method: SM 2540C
Date Analyzed: 2011-02-01
Sample Preparation: 2011-01-26

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

Parameter	Flag	RL Result	Units	Dilution	RL
Total Dissolved Solids		**95300**	mg/L	100	10.0

Sample: 256098 - MW-4

Laboratory: Midland
Analysis: BTEX
QC Batch: 77170
Prep Batch: 66196

Analytical Method: S 8021B
Date Analyzed: 2011-01-25
Sample Preparation: 2011-01-25

Prep Method: S 5030B
Analyzed By: AG
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

continued ...

sample 256098 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)		0.112	mg/L	1	0.100	112	75.4 - 119.4
4-Bromofluorobenzene (4-BFB)		0.0948	mg/L	1	0.100	95	78.6 - 122.8

Sample: 256098 - MW-4

Laboratory: Lubbock
Analysis: Chloride (IC)
QC Batch: 77416
Prep Batch: 66403

Analytical Method: E 300.0
Date Analyzed: 2011-02-04
Sample Preparation: 2011-02-04

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

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**6230**	mg/L	500	2.50

Sample: 256098 - MW-4

Laboratory: Lubbock
Analysis: SO4 (IC)
QC Batch: 77456
Prep Batch: 66439

Analytical Method: E 300.0
Date Analyzed: 2011-02-07
Sample Preparation: 2011-02-07

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

Parameter	Flag	RL Result	Units	Dilution	RL
Sulfate		**180**	mg/L	5	2.50

Sample: 256098 - MW-4

Laboratory: Midland
Analysis: TDS
QC Batch: 77318
Prep Batch: 66190

Analytical Method: SM 2540C
Date Analyzed: 2011-02-01
Sample Preparation: 2011-01-26

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

Parameter	Flag	RL Result	Units	Dilution	RL
Total Dissolved Solids		**12400**	mg/L	20	10.0

Sample: 256099 - MW-5

Laboratory: Midland
Analysis: BTEX
QC Batch: 77170
Prep Batch: 66196

Analytical Method: S 8021B
Date Analyzed: 2011-01-25
Sample Preparation: 2011-01-25

Prep Method: S 5030B
Analyzed By: AG
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)		0.109	mg/L	1	0.100	109	75.4 - 119.4
4-Bromofluorobenzene (4-BFB)		0.0941	mg/L	1	0.100	94	78.6 - 122.8

Sample: 256099 - MW-5

Laboratory: Lubbock
Analysis: Chloride (IC)
QC Batch: 77416
Prep Batch: 66403

Analytical Method: E 300.0
Date Analyzed: 2011-02-04
Sample Preparation: 2011-02-04

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

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**58.4**	mg/L	5	2.50

Sample: 256099 - MW-5

Laboratory: Lubbock
Analysis: SO4 (IC)
QC Batch: 77416
Prep Batch: 66403

Analytical Method: E 300.0
Date Analyzed: 2011-02-04
Sample Preparation: 2011-02-04

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

Parameter	Flag	RL Result	Units	Dilution	RL
Sulfate		**121**	mg/L	5	2.50

Sample: 256099 - MW-5

Laboratory:	Midland				
Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	77318	Date Analyzed:	2011-02-01	Analyzed By:	AR
Prep Batch:	66190	Sample Preparation:	2011-01-26	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Total Dissolved Solids		**518**	mg/L	1	10.0

Sample: 256100 - 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	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)	[2]	0.0519	mg/L	1	0.100	52	75.4 - 119.4
4-Bromofluorobenzene (4-BFB)		0.0518	mg/L	1	0.100	52	78.6 - 122.8

Sample: 256100 - MW-6

Laboratory:	Lubbock				
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	77416	Date Analyzed:	2011-02-04	Analyzed By:	PG
Prep Batch:	66403	Sample Preparation:	2011-02-04	Prepared By:	PG

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**88900**	mg/L	10000	2.50

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

Sample: 256100 - MW-6

Laboratory:	Lubbock				
Analysis:	SO4 (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	77427	Date Analyzed:	2011-02-07	Analyzed By:	PG
Prep Batch:	66414	Sample Preparation:	2011-02-06	Prepared By:	PG

Parameter	Flag	RL Result	Units	Dilution	RL
Sulfate		**2850**	mg/L	100	2.50

Sample: 256100 - MW-6

Laboratory:	Midland				
Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	77318	Date Analyzed:	2011-02-01	Analyzed By:	AR
Prep Batch:	66190	Sample Preparation:	2011-01-26	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Total Dissolved Solids		**161000**	mg/L	100	10.0

Sample: 256101 - 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)	[3]	0.0642	mg/L	1	0.100	64	75.4 - 119.4
4-Bromofluorobenzene (4-BFB)		0.0640	mg/L	1	0.100	64	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: 256101 - MW-7

Laboratory: Lubbock
Analysis: Chloride (IC)
QC Batch: 77416
Prep Batch: 66403

Analytical Method: E 300.0
Date Analyzed: 2011-02-04
Sample Preparation: 2011-02-04

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

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**92400**	mg/L	10000	2.50

Sample: 256101 - MW-7

Laboratory: Lubbock
Analysis: SO4 (IC)
QC Batch: 77427
Prep Batch: 66414

Analytical Method: E 300.0
Date Analyzed: 2011-02-07
Sample Preparation: 2011-02-06

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

Parameter	Flag	RL Result	Units	Dilution	RL
Sulfate		**2580**	mg/L	100	2.50

Sample: 256101 - MW-7

Laboratory: Midland
Analysis: TDS
QC Batch: 77318
Prep Batch: 66190

Analytical Method: SM 2540C
Date Analyzed: 2011-02-01
Sample Preparation: 2011-01-26

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

Parameter	Flag	RL Result	Units	Dilution	RL
Total Dissolved Solids		**179000**	mg/L	100	10.0

Method Blank (1) QC Batch: 77170

QC Batch: 77170
Prep Batch: 66196

Date Analyzed: 2011-01-25
QC Preparation: 2011-01-25

Analyzed By: AG
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: 77318

QC Batch: 77318
Prep Batch: 66190
Date Analyzed: 2011-02-01
QC Preparation: 2011-01-26
Analyzed By: AR
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
Prep Batch: 66402
Date Analyzed: 2011-02-04
QC Preparation: 2011-02-04
Analyzed By: PG
Prepared By: PG

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

Method Blank (1) QC Batch: 77416

QC Batch: 77416
Prep Batch: 66403
Date Analyzed: 2011-02-04
QC Preparation: 2011-02-04
Analyzed By: PG
Prepared By: PG

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

Method Blank (1) QC Batch: 77416

QC Batch: 77416
Prep Batch: 66403
Date Analyzed: 2011-02-04
QC Preparation: 2011-02-04
Analyzed By: PG
Prepared By: PG

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

Method Blank (1) QC Batch: 77427

QC Batch: 77427
Prep Batch: 66414
Date Analyzed: 2011-02-07
QC Preparation: 2011-02-06
Analyzed By: PG
Prepared By: PG

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

Method Blank (1) QC Batch: 77456

QC Batch: 77456
Prep Batch: 66439
Date Analyzed: 2011-02-07
QC Preparation: 2011-02-07
Analyzed By: PG
Prepared By: PG

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

Duplicates (1) Duplicated Sample: 256101

QC Batch: 77318
Prep Batch: 66190
Date Analyzed: 2011-02-01
QC Preparation: 2011-01-26
Analyzed By: AR
Prepared By: AR

Param	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Total Dissolved Solids	178000	179000	mg/L	100	1	10

Laboratory Control Spike (LCS-1)

QC Batch: 77170
Prep Batch: 66196
Date Analyzed: 2011-01-25
QC Preparation: 2011-01-25
Analyzed By: AG
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: 77318
Prep Batch: 66190

Date Analyzed: 2011-02-01
QC Preparation: 2011-01-26

Analyzed By: AR
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	1000	mg/L	1	1000	<9.75	100	90 - 110	8	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
Prep Batch: 66402

Date Analyzed: 2011-02-04
QC Preparation: 2011-02-04

Analyzed By: PG
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: 77416
Prep Batch: 66403
Date Analyzed: 2011-02-04
QC Preparation: 2011-02-04
Analyzed By: PG
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	23.6	mg/L	1	25.0	<0.0142	94	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: 77416
Prep Batch: 66403
Date Analyzed: 2011-02-04
QC Preparation: 2011-02-04
Analyzed By: PG
Prepared By: PG

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Sulfate	24.0	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	24.1	mg/L	1	25.0	<0.126	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: 77427
Prep Batch: 66414
Date Analyzed: 2011-02-07
QC Preparation: 2011-02-06
Analyzed By: PG
Prepared By: PG

continued ...

control spikes continued ...

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
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	24.6	mg/L	1	25.0	<0.126	98	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: 77456
Prep Batch: 66439

Date Analyzed: 2011-02-07
QC Preparation: 2011-02-07

Analyzed By: PG
Prepared By: PG

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Sulfate	25.3	mg/L	1	25.0	<0.126	101	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	25.1	mg/L	1	25.0	<0.126	100	90 - 110	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: 256101

QC Batch: 77170
Prep Batch: 66196

Date Analyzed: 2011-01-25
QC Preparation: 2011-01-25

Analyzed By: AG
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 [4]	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.

[4]Matrix spike recovery out of control limits due to matrix 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
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	[5]	0.0750	mg/L	1	0.100	<0.000300	75	71.6 - 111.9	5	20
Xylene	[6]	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

Matrix Spike (MS-1) Spiked Sample: 256097

QC Batch: 77415
Prep Batch: 66402

Date Analyzed: 2011-02-04
QC Preparation: 2011-02-04

Analyzed By: PG
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: 256357

QC Batch: 77416
Prep Batch: 66403

Date Analyzed: 2011-02-04
QC Preparation: 2011-02-04

Analyzed By: PG
Prepared By: PG

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	13400	mg/L	500	12500	1430	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
Chloride	13400	mg/L	500	12500	1430	96	90 - 110	0	20

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.
[6]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: 256357

QC Batch: 77416
Prep Batch: 66403

Date Analyzed: 2011-02-04
QC Preparation: 2011-02-04

Analyzed By: PG
Prepared By: PG

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Sulfate	14000	mg/L	500	12500	1870	97	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	14000	mg/L	500	12500	1870	97	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: 77427
Prep Batch: 66414

Date Analyzed: 2011-02-07
QC Preparation: 2011-02-06

Analyzed By: PG
Prepared By: PG

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Sulfate	5290	mg/L	100	2500	2580	108	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	5280	mg/L	100	2500	2580	108	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: 256847

QC Batch: 77456
Prep Batch: 66439

Date Analyzed: 2011-02-07
QC Preparation: 2011-02-07

Analyzed By: PG
Prepared By: PG

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Sulfate [7]	9210	mg/L	50	1250	19.4	735	90 - 110

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

continued ...

[7]Matrix spikes ran with batch but spiked sample was not reported in batch. Use LCS/LCSD to show analysis is under control •

matrix spikes continued ...

Param		MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Param		MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Sulfate	[8]	9140	mg/L	50	1250	19.4	731	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

[8]Matrix spikes ran with batch but spiked sample was not reported in batch. Use LCS/LCSD to show analysis is under control •

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-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-1)

QC Batch: 77416 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-1)

QC Batch: 77416 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-2)

QC Batch: 77416 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	23.6	94	90 - 110	2011-02-04

Standard (CCV-2)

QC Batch: 77416 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	24.1	96	90 - 110	2011-02-04

Standard (CCV-1)

QC Batch: 77427 Date Analyzed: 2011-02-07 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	2011-02-07

Standard (CCV-2)

QC Batch: 77427 Date Analyzed: 2011-02-07 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	2011-02-07

Standard (CCV-1)

QC Batch: 77456 Date Analyzed: 2011-02-07 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	25.5	102	90 - 110	2011-02-07

Standard (CCV-2)

QC Batch: 77456 Date Analyzed: 2011-02-07 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	25.5	102	90 - 110	2011-02-07

EWO #: 1101251l

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: Chevron

SITE MANAGER: Jeff Kindley

PROJECT NO.: 115-6403129

PROJECT NAME: Rock Queen #1 TB

Chaves Co. NM

LAB I.D. NUMBER	DATE 2011	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)	Silica
250095	1/24	16:55	W		X	MW-1	3	N	X		X		X											X				X	X
096		16:45				MW-2																							
097		17:10				MW-3																							
098		16:15				MW-4																							
099		16:32				MW-5																							
100		17:05				MW-6																							
101	↓	17:18	↓		↓	MW-7	↓	↓	↓		↓		↓											↓				↓	↓

RELINQUISHED BY: (Signature) — Date: 1-25-11 Time: 11:27
RECEIVED BY: (Signature) — Date: 1/25/11 Time: 11:27

RELINQUISHED BY: (Signature) — Date: 1/25/11 Time: 16:00
RECEIVED BY: (Signature) — Date: Time:

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

SAMPLED BY: (Print & Initial) TC KD — Date: 1-24-11 Time:

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

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

RECEIVED BY: (Signature) Ameen TA — LS ZK95 7723
DATE: 01/26/11 TIME: 925

TETRA TECH CONTACT PERSON: Jeff Kindley

Results by:

RUSH Charges Authorized: Yes No

SAMPLE CONDITION WHEN RECEIVED: 1.6°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.

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

WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

Analytical and Quality Control Report

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

Report Date: May 4, 2011

Work Order: 11041530

Project Location: Chavez County, NM
Project Name: Celero/Rock Queen #1 TB
Project Number: 114-6403129

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
263909	MW-1	water	2011-04-13	10:30	2011-04-15
263910	MW-2	water	2011-04-13	11:00	2011-04-15
263911	MW-3	water	2011-04-13	11:05	2011-04-15
263912	MW-4	water	2011-04-13	10:50	2011-04-15
263913	MW-5	water	2011-04-13	10:40	2011-04-15
263914	MW-6	water	2011-04-13	11:30	2011-04-15
263915	MW-7	water	2011-04-13	11:20	2011-04-15
263916	RW-1	water	2011-04-13	10:40	2011-04-15

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.

Michael Abel

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

Report Contents

Case Narrative

Samples for project Celero/Rock Queen #1 TB were received by TraceAnalysis, Inc. on 2011-04-15 and assigned to work order 11041530. Samples for work order 11041530 were received intact without headspace and at a temperature of 0.6 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	68300	2011-04-19 at 09:52	80470	2011-04-20 at 01:20
Chloride (IC)	E 300.0	68439	2011-04-25 at 14:24	80666	2011-04-26 at 15:33
Chloride (IC)	E 300.0	68477	2011-04-26 at 12:02	80692	2011-04-27 at 10:03
Chloride (IC)	E 300.0	68478	2011-04-26 at 13:03	80693	2011-04-27 at 10:06
SO4 (IC)	E 300.0	68439	2011-04-25 at 14:24	80666	2011-04-26 at 15:33
SO4 (IC)	E 300.0	68477	2011-04-26 at 12:02	80692	2011-04-27 at 10:03
SO4 (IC)	E 300.0	68478	2011-04-26 at 13:03	80693	2011-04-27 at 10:06
TDS	SM 2540C	68433	2011-04-25 at 12:18	80869	2011-05-02 at 09:35
TDS	SM 2540C	68476	2011-04-26 at 12:00	80871	2011-05-02 at 09:55

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 11041530 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: 263909 - MW-1

Laboratory: Midland
Analysis: BTEX
QC Batch: 80470
Prep Batch: 68300

Analytical Method: S 8021B
Date Analyzed: 2011-04-20
Sample Preparation: 2011-04-19

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

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	**0.00600**	mg/L	1	0.00100
Toluene		1	<0.00100	mg/L	1	0.00100
Ethylbenzene		1	<0.00100	mg/L	1	0.00100
Xylene		1	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1	0.0528	mg/L	1	0.100	53	67.8 - 129
4-Bromofluorobenzene (4-BFB)		1	0.0654	mg/L	1	0.100	65	51.1 - 128

Sample: 263909 - MW-1

Laboratory: Midland
Analysis: Chloride (IC)
QC Batch: 80666
Prep Batch: 68439

Analytical Method: E 300.0
Date Analyzed: 2011-04-26
Sample Preparation: 2011-04-25

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

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride		1	**168000**	mg/L	5000	2.50

Sample: 263909 - MW-1

Laboratory: Midland
Analysis: SO4 (IC)
QC Batch: 80666
Prep Batch: 68439

Analytical Method: E 300.0
Date Analyzed: 2011-04-26
Sample Preparation: 2011-04-25

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

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Sulfate		1	**2210**	mg/L	50	2.50

Sample: 263909 - MW-1

Laboratory:	Midland				
Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	80869	Date Analyzed:	2011-05-02	Analyzed By:	AR
Prep Batch:	68433	Sample Preparation:	2011-04-26	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Total Dissolved Solids		1	**250000**	mg/L	100	10.0

Sample: 263910 - MW-2

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	80470	Date Analyzed:	2011-04-20	Analyzed By:	ME
Prep Batch:	68300	Sample Preparation:	2011-04-19	Prepared By:	ME

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1	0.0966	mg/L	1	0.100	97	67.8 - 129
4-Bromofluorobenzene (4-BFB)		1	0.104	mg/L	1	0.100	104	51.1 - 128

Sample: 263910 - MW-2

Laboratory:	Midland				
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	80666	Date Analyzed:	2011-04-26	Analyzed By:	AR
Prep Batch:	68439	Sample Preparation:	2011-04-25	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride		1	**8270**	mg/L	100	2.50

Sample: 263910 - MW-2

Laboratory:	Midland				
Analysis:	SO4 (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	80666	Date Analyzed:	2011-04-26	Analyzed By:	AR
Prep Batch:	68439	Sample Preparation:	2011-04-25	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Sulfate		1	**125**	mg/L	5	2.50

Sample: 263910 - MW-2

Laboratory:	Midland				
Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	80869	Date Analyzed:	2011-05-02	Analyzed By:	AR
Prep Batch:	68433	Sample Preparation:	2011-04-26	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Total Dissolved Solids		1	**29800**	mg/L	100	10.0

Sample: 263911 - MW-3

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	80470	Date Analyzed:	2011-04-20	Analyzed By:	ME
Prep Batch:	68300	Sample Preparation:	2011-04-19	Prepared By:	ME

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1	0.0759	mg/L	1	0.100	76	67.8 - 129
4-Bromofluorobenzene (4-BFB)		1	0.0874	mg/L	1	0.100	87	51.1 - 128

Sample: 263911 - MW-3

Laboratory:	Midland				
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	80692	Date Analyzed:	2011-04-27	Analyzed By:	AR
Prep Batch:	68477	Sample Preparation:	2011-04-26	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride		1	**57800**	mg/L	5000	2.50

Sample: 263911 - MW-3

Laboratory:	Midland				
Analysis:	SO4 (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	80692	Date Analyzed:	2011-04-27	Analyzed By:	AR
Prep Batch:	68477	Sample Preparation:	2011-04-26	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Sulfate		1	**1990**	mg/L	50	2.50

Sample: 263911 - MW-3

Laboratory:	Midland				
Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	80869	Date Analyzed:	2011-05-02	Analyzed By:	AR
Prep Batch:	68433	Sample Preparation:	2011-04-26	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Total Dissolved Solids		1	**103000**	mg/L	100	10.0

Sample: 263912 - MW-4

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	80470	Date Analyzed:	2011-04-20	Analyzed By:	ME
Prep Batch:	68300	Sample Preparation:	2011-04-19	Prepared By:	ME

continued ...

sample 263912 continued ...

Parameter	Flag	Cert	RL Result	Units	Dilution	RL

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1	0.0928	mg/L	1	0.100	93	67.8 - 129
4-Bromofluorobenzene (4-BFB)		1	0.102	mg/L	1	0.100	102	51.1 - 128

Sample: 263912 - MW-4

Laboratory: Midland
Analysis: Chloride (IC)
QC Batch: 80692
Prep Batch: 68477

Analytical Method: E 300.0
Date Analyzed: 2011-04-27
Sample Preparation: 2011-04-26

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

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride		1	**7870**	mg/L	1000	2.50

Sample: 263912 - MW-4

Laboratory: Midland
Analysis: SO4 (IC)
QC Batch: 80692
Prep Batch: 68477

Analytical Method: E 300.0
Date Analyzed: 2011-04-27
Sample Preparation: 2011-04-26

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

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Sulfate		1	**193**	mg/L	5	2.50

Sample: 263912 - MW-4

Laboratory:	Midland				
Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	80869	Date Analyzed:	2011-05-02	Analyzed By:	AR
Prep Batch:	68433	Sample Preparation:	2011-04-26	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Total Dissolved Solids		1	**18500**	mg/L	100	10.0

Sample: 263913 - MW-5

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	80470	Date Analyzed:	2011-04-20	Analyzed By:	ME
Prep Batch:	68300	Sample Preparation:	2011-04-19	Prepared By:	ME

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1	0.0927	mg/L	1	0.100	93	67.8 - 129
4-Bromofluorobenzene (4-BFB)		1	0.0941	mg/L	1	0.100	94	51.1 - 128

Sample: 263913 - MW-5

Laboratory:	Midland				
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	80692	Date Analyzed:	2011-04-27	Analyzed By:	AR
Prep Batch:	68477	Sample Preparation:	2011-04-26	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride		1	**62.7**	mg/L	5	2.50

Sample: 263913 - MW-5

Laboratory:	Midland				
Analysis:	SO4 (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	80692	Date Analyzed:	2011-04-27	Analyzed By:	AR
Prep Batch:	68477	Sample Preparation:	2011-04-26	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Sulfate		1	**126**	mg/L	5	2.50

Sample: 263913 - MW-5

Laboratory:	Midland				
Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	80869	Date Analyzed:	2011-05-02	Analyzed By:	AR
Prep Batch:	68433	Sample Preparation:	2011-04-26	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Total Dissolved Solids		1	**458**	mg/L	2	10.0

Sample: 263914 - MW-6

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	80470	Date Analyzed:	2011-04-20	Analyzed By:	ME
Prep Batch:	68300	Sample Preparation:	2011-04-19	Prepared By:	ME

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	**0.00630**	mg/L	1	0.00100
Toluene		1	**0.00620**	mg/L	1	0.00100
Ethylbenzene		1	<0.00100	mg/L	1	0.00100
Xylene		1	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1	0.0610	mg/L	1	0.100	61	67.8 - 129
4-Bromofluorobenzene (4-BFB)		1	0.0759	mg/L	1	0.100	76	51.1 - 128

Sample: 263914 - MW-6

Laboratory:	Midland				
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	80692	Date Analyzed:	2011-04-27	Analyzed By:	AR
Prep Batch:	68477	Sample Preparation:	2011-04-26	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride		1	**92900**	mg/L	5000	2.50

Sample: 263914 - MW-6

Laboratory:	Midland				
Analysis:	SO4 (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	80692	Date Analyzed:	2011-04-27	Analyzed By:	AR
Prep Batch:	68477	Sample Preparation:	2011-04-26	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Sulfate		1	**2310**	mg/L	50	2.50

Sample: 263914 - MW-6

Laboratory:	Midland				
Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	80869	Date Analyzed:	2011-05-02	Analyzed By:	AR
Prep Batch:	68433	Sample Preparation:	2011-04-26	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Total Dissolved Solids		1	**146000**	mg/L	100	10.0

Sample: 263915 - MW-7

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	80470	Date Analyzed:	2011-04-20	Analyzed By:	ME
Prep Batch:	68300	Sample Preparation:	2011-04-19	Prepared By:	ME

continued ...

sample 263915 continued ...

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1	0.0610	mg/L	1	0.100	61	67.8 - 129
4-Bromofluorobenzene (4-BFB)		1	0.0744	mg/L	1	0.100	74	51.1 - 128

Sample: 263915 - MW-7

Laboratory: Midland
Analysis: Chloride (IC)
QC Batch: 80693
Prep Batch: 68478

Analytical Method: E 300.0
Date Analyzed: 2011-04-27
Sample Preparation: 2011-04-26

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

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride		1	**102000**	mg/L	5000	2.50

Sample: 263915 - MW-7

Laboratory: Midland
Analysis: SO4 (IC)
QC Batch: 80693
Prep Batch: 68478

Analytical Method: E 300.0
Date Analyzed: 2011-04-27
Sample Preparation: 2011-04-26

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

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Sulfate		1	**2330**	mg/L	50	2.50

Sample: 263915 - MW-7

Laboratory:	Midland				
Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	80871	Date Analyzed:	2011-05-02	Analyzed By:	AR
Prep Batch:	68476	Sample Preparation:	2011-04-28	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Total Dissolved Solids		1	**177000**	mg/L	100	10.0

Sample: 263916 - RW-1

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	80470	Date Analyzed:	2011-04-20	Analyzed By:	ME
Prep Batch:	68300	Sample Preparation:	2011-04-19	Prepared By:	ME

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	**0.0133**	mg/L	1	0.00100
Toluene		1	<0.00100	mg/L	1	0.00100
Ethylbenzene		1	<0.00100	mg/L	1	0.00100
Xylene		1	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1	0.0589	mg/L	1	0.100	59	67.8 - 129
4-Bromofluorobenzene (4-BFB)		1	0.0765	mg/L	1	0.100	76	51.1 - 128

Sample: 263916 - RW-1

Laboratory:	Midland				
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	80693	Date Analyzed:	2011-04-27	Analyzed By:	AR
Prep Batch:	68478	Sample Preparation:	2011-04-26	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride		1	**139000**	mg/L	5000	2.50

Sample: 263916 - RW-1

Laboratory:	Midland				
Analysis:	SO4 (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	80693	Date Analyzed:	2011-04-27	Analyzed By:	AR
Prep Batch:	68478	Sample Preparation:	2011-04-26	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Sulfate		1	**2680**	mg/L	50	2.50

Sample: 263916 - RW-1

Laboratory:	Midland				
Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	80871	Date Analyzed:	2011-05-02	Analyzed By:	AR
Prep Batch:	68476	Sample Preparation:	2011-04-28	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Total Dissolved Solids		1	**222000**	mg/L	100	10.0

Method Blanks

Method Blank (1) QC Batch: 80470

QC Batch: 80470 Date Analyzed: 2011-04-20 Analyzed By: ME
Prep Batch: 68300 QC Preparation: 2011-04-19 Prepared By: ME

Parameter	Flag	Cert	MDL Result	Units	RL
Benzene		1	<0.000400	mg/L	0.001
Toluene		1	<0.000300	mg/L	0.001
Ethylbenzene		1	<0.000300	mg/L	0.001
Xylene		1	<0.000333	mg/L	0.001

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1	0.0880	mg/L	1	0.100	88	70.2 - 118
4-Bromofluorobenzene (4-BFB)		1	0.0959	mg/L	1	0.100	96	47.3 - 116

Method Blank (1) QC Batch: 80666

QC Batch: 80666 Date Analyzed: 2011-04-26 Analyzed By: AR
Prep Batch: 68439 QC Preparation: 2011-04-25 Prepared By: AR

Parameter	Flag	Cert	MDL Result	Units	RL
Chloride		1	0.724	mg/L	2.5

Method Blank (1) QC Batch: 80666

QC Batch: 80666 Date Analyzed: 2011-04-26 Analyzed By: AR
Prep Batch: 68439 QC Preparation: 2011-04-25 Prepared By: AR

Parameter	Flag	Cert	MDL Result	Units	RL
Sulfate		1	<0.177	mg/L	2.5

Method Blank (1) QC Batch: 80692

QC Batch: 80692
Prep Batch: 68477

Date Analyzed: 2011-04-27
QC Preparation: 2011-04-26

Analyzed By: AR
Prepared By: AR

Parameter	Flag	Cert	MDL Result	Units	RL
Chloride		1	0.571	mg/L	2.5

Method Blank (1) QC Batch: 80692

QC Batch: 80692
Prep Batch: 68477

Date Analyzed: 2011-04-27
QC Preparation: 2011-04-26

Analyzed By: AR
Prepared By: AR

Parameter	Flag	Cert	MDL Result	Units	RL
Sulfate		1	<0.177	mg/L	2.5

Method Blank (1) QC Batch: 80693

QC Batch: 80693
Prep Batch: 68478

Date Analyzed: 2011-04-27
QC Preparation: 2011-04-26

Analyzed By: AR
Prepared By: AR

Parameter	Flag	Cert	MDL Result	Units	RL
Chloride		1	0.691	mg/L	2.5

Method Blank (1) QC Batch: 80693

QC Batch: 80693
Prep Batch: 68478

Date Analyzed: 2011-04-27
QC Preparation: 2011-04-26

Analyzed By: AR
Prepared By: AR

Parameter	Flag	Cert	MDL Result	Units	RL
Sulfate		1	<0.177	mg/L	2.5

Method Blank (1) QC Batch: 80869

QC Batch: 80869
Prep Batch: 68433

Date Analyzed: 2011-05-02
QC Preparation: 2011-04-25

Analyzed By: AR
Prepared By: AR

Parameter	Flag	Cert	MDL Result	Units	RL
Total Dissolved Solids		1	<9.75	mg/L	10

Method Blank (1) QC Batch: 80871

QC Batch: 80871
Prep Batch: 68476

Date Analyzed: 2011-05-02
QC Preparation: 2011-04-26

Analyzed By: AR
Prepared By: AR

Parameter	Flag	Cert	MDL Result	Units	RL
Total Dissolved Solids		1	10.0	mg/L	10

Duplicates (1) Duplicated Sample: 263914

QC Batch: 80869
Prep Batch: 68433

Date Analyzed: 2011-05-02
QC Preparation: 2011-04-25

Analyzed By: AR
Prepared By: AR

Param		Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Total Dissolved Solids	1	151000	146000	mg/L	100	3	10

Duplicates (1) Duplicated Sample: 263916

QC Batch: 80871
Prep Batch: 68476

Date Analyzed: 2011-05-02
QC Preparation: 2011-04-26

Analyzed By: AR
Prepared By: AR

Param		Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Total Dissolved Solids	1	228000	222000	mg/L	100	3	10

Laboratory Control Spikes

Laboratory Control Spike (LCS-1)

QC Batch: 80470
Prep Batch: 68300

Date Analyzed: 2011-04-20
QC Preparation: 2011-04-19

Analyzed By: ME
Prepared By: ME

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.0942	mg/L	1	0.100	<0.000400	94	76.8 - 110
Toluene		1	0.101	mg/L	1	0.100	<0.000300	101	81 - 108
Ethylbenzene		1	0.101	mg/L	1	0.100	<0.000300	101	78.8 - 118
Xylene		1	0.304	mg/L	1	0.300	<0.000333	101	80.3 - 119

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

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	0.0870	mg/L	1	0.100	<0.000400	87	76.8 - 110	8	20
Toluene		1	0.0940	mg/L	1	0.100	<0.000300	94	81 - 108	7	20
Ethylbenzene		1	0.0934	mg/L	1	0.100	<0.000300	93	78.8 - 118	8	20
Xylene		1	0.284	mg/L	1	0.300	<0.000333	95	80.3 - 119	7	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)	1	0.0920	0.0856	mg/L	1	0.100	92	86	66.6 - 114
4-Bromofluorobenzene (4-BFB)	1	0.108	0.0993	mg/L	1	0.100	108	99	68.2 - 124

Laboratory Control Spike (LCS-1)

QC Batch: 80666
Prep Batch: 68439

Date Analyzed: 2011-04-26
QC Preparation: 2011-04-25

Analyzed By: AR
Prepared By: AR

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride		1	27.3	mg/L	1	25.0	<0.265	109	90 - 110

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

continued ...

control spikes continued ...

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride		1	27.4	mg/L	1	25.0	<0.265	110	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: 80666
Prep Batch: 68439

Date Analyzed: 2011-04-26
QC Preparation: 2011-04-25

Analyzed By: AR
Prepared By: AR

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Sulfate		1	25.8	mg/L	1	25.0	<0.177	103	90 - 110

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

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Sulfate		1	25.6	mg/L	1	25.0	<0.177	102	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: 80692
Prep Batch: 68477

Date Analyzed: 2011-04-27
QC Preparation: 2011-04-26

Analyzed By: AR
Prepared By: AR

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride		1	27.5	mg/L	1	25.0	<0.265	110	90 - 110

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

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride		1	27.5	mg/L	1	25.0	<0.265	110	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: 80692
Prep Batch: 68477

Date Analyzed: 2011-04-27
QC Preparation: 2011-04-26

Analyzed By: AR
Prepared By: AR

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Sulfate		1	27.3	mg/L	1	25.0	<0.177	109	90 - 110

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

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Sulfate		1	27.1	mg/L	1	25.0	<0.177	108	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: 80693
Prep Batch: 68478

Date Analyzed: 2011-04-27
QC Preparation: 2011-04-26

Analyzed By: AR
Prepared By: AR

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride		1	26.4	mg/L	1	25.0	<0.265	106	90 - 110

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

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride		1	26.4	mg/L	1	25.0	<0.265	106	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: 80693
Prep Batch: 68478

Date Analyzed: 2011-04-27
QC Preparation: 2011-04-26

Analyzed By: AR
Prepared By: AR

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Sulfate		1	24.7	mg/L	1	25.0	<0.177	99	90 - 110

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

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Sulfate		1	24.6	mg/L	1	25.0	<0.177	98	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: 80869
Prep Batch: 68433
Date Analyzed: 2011-05-02
QC Preparation: 2011-04-25
Analyzed By: AR
Prepared By: AR

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Dissolved Solids		1	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	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Dissolved Solids		1	990	mg/L	1	1000	<9.75	99	90 - 110	4	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: 80871
Prep Batch: 68476
Date Analyzed: 2011-05-02
QC Preparation: 2011-04-26
Analyzed By: AR
Prepared By: AR

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

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

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Dissolved Solids		1	1070	mg/L	1	1000	<9.75	107	90 - 110	3	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: 263910

QC Batch: 80666
Prep Batch: 68439
Date Analyzed: 2011-04-26
QC Preparation: 2011-04-25
Analyzed By: AR
Prepared By: AR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride		1	10400	mg/L	100	2750	8280	77	90 - 110

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

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride		1	10400	mg/L	100	2750	8280	77	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: 263910

QC Batch: 80666
Prep Batch: 68439

Date Analyzed: 2011-04-26
QC Preparation: 2011-04-25

Analyzed By: AR
Prepared By: AR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Sulfate		1	2470	mg/L	100	2750	167	84	90 - 110

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

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Sulfate		1	2490	mg/L	100	2750	167	84	90 - 110	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: 263913

QC Batch: 80692
Prep Batch: 68477

Date Analyzed: 2011-04-27
QC Preparation: 2011-04-26

Analyzed By: AR
Prepared By: AR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride		1	338	mg/L	10	275	62.2	100	90 - 110

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

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride		1	339	mg/L	10	275	62.2	101	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: 263913

QC Batch: 80692 | Date Analyzed: 2011-04-27 | Analyzed By: AR
Prep Batch: 68477 | QC Preparation: 2011-04-26 | Prepared By: AR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Sulfate		1	373	mg/L	10	275	124	90	90 - 110

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

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Sulfate		1	373	mg/L	10	275	124	90	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: 263916

QC Batch: 80693 | Date Analyzed: 2011-04-27 | Analyzed By: AR
Prep Batch: 68478 | QC Preparation: 2011-04-26 | Prepared By: AR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride		1	143000	mg/L	50	1380	132000	800	90 - 110

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

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride		1	143000	mg/L	50	1380	132000	800	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: 263916

QC Batch: 80693 | Date Analyzed: 2011-04-27 | Analyzed By: AR
Prep Batch: 68478 | QC Preparation: 2011-04-26 | Prepared By: AR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Sulfate		1	3590	mg/L	50	1380	2680	66	90 - 110

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

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Sulfate		1	3570	mg/L	50	1380	2680	65	90 - 110	1	20

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

Calibration Standards

Standard (CCV-1)

QC Batch: 80470 Date Analyzed: 2011-04-20 Analyzed By: ME

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.0916	92	80 - 120	2011-04-20
Toluene		1	mg/L	0.100	0.0996	100	80 - 120	2011-04-20
Ethylbenzene		1	mg/L	0.100	0.0983	98	80 - 120	2011-04-20
Xylene		1	mg/L	0.300	0.298	99	80 - 120	2011-04-20

Standard (CCV-2)

QC Batch: 80470 Date Analyzed: 2011-04-20 Analyzed By: ME

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.0907	91	80 - 120	2011-04-20
Toluene		1	mg/L	0.100	0.0978	98	80 - 120	2011-04-20
Ethylbenzene		1	mg/L	0.100	0.0964	96	80 - 120	2011-04-20
Xylene		1	mg/L	0.300	0.290	97	80 - 120	2011-04-20

Standard (ICV-1)

QC Batch: 80666 Date Analyzed: 2011-04-26 Analyzed By: AR

Param	Flag	Cert	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	23.1	92	90 - 110	2011-04-26

Standard (ICV-1)

QC Batch: 80666 Date Analyzed: 2011-04-26 Analyzed By: AR

Param	Flag	Cert	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Sulfate		1	mg/L	25.0	24.2	97	90 - 110	2011-04-26

Standard (CCV-1)

QC Batch: 80666 Date Analyzed: 2011-04-26 Analyzed By: AR

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	23.1	92	90 - 110	2011-04-26

Standard (CCV-1)

QC Batch: 80666 Date Analyzed: 2011-04-26 Analyzed By: AR

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Sulfate		1	mg/L	25.0	24.0	96	90 - 110	2011-04-26

Standard (ICV-1)

QC Batch: 80692 Date Analyzed: 2011-04-27 Analyzed By: AR

Param	Flag	Cert	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	23.1	92	90 - 110	2011-04-27

Standard (ICV-1)

QC Batch: 80692 Date Analyzed: 2011-04-27 Analyzed By: AR

Param	Flag	Cert	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Sulfate		1	mg/L	25.0	24.1	96	90 - 110	2011-04-27

Standard (CCV-1)

QC Batch: 80692 Date Analyzed: 2011-04-27 Analyzed By: AR

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	23.8	95	90 - 110	2011-04-27

Standard (CCV-1)

QC Batch: 80692 Date Analyzed: 2011-04-27 Analyzed By: AR

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Sulfate		1	mg/L	25.0	24.3	97	90 - 110	2011-04-27

Standard (ICV-1)

QC Batch: 80693 Date Analyzed: 2011-04-27 Analyzed By: AR

Param	Flag	Cert	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	23.8	95	90 - 110	2011-04-27

Standard (ICV-1)

QC Batch: 80693 Date Analyzed: 2011-04-27 Analyzed By: AR

Param	Flag	Cert	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Sulfate		1	mg/L	25.0	24.3	97	90 - 110	2011-04-27

Standard (CCV-1)

QC Batch: 80693 Date Analyzed: 2011-04-27 Analyzed By: AR

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	23.1	92	90 - 110	2011-04-27

Standard (CCV-1)

QC Batch: 80693 Date Analyzed: 2011-04-27 Analyzed By: AR

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Sulfate		1	mg/L	25.0	24.4	98	90 - 110	2011-04-27

Appendix

Laboratory Certifications

C	Certifying Authority	Certification Number	Laboratory Location
-	NCTRCA	WFWB384444Y0909	TraceAnalysis
-	DBE	VN 20657	TraceAnalysis
-	HUB	1752439743100-86536	TraceAnalysis
-	WBE	237019	TraceAnalysis
1	NELAP	T104704392-10-TX	Midland

Standard Flags

F	Description
B	Analyte detected in the corresponding method blank above the method detection limit
H	Analyzed out of hold time
J	Estimated concentration
Jb	The analyte is positively identified and the value is approximated between the SDL and MQL. Sample contains less then ten times the concentration found in the method blank. The result should be considered non-detect to the SDL.
Je	Estimated concentration exceeding calibration range.
Qc	Calibration check outside of laboratory limits.
Qr	RPD outside of laboratory limits
Qs	Spike recovery outside of laboratory limits.
Qsr	Surrogate recovery outside of laboratory limits.
U	The analyte is not detected above the SDL

Attachments

The scanned attachments will follow this page.
Please note, each attachment may consist of more than one page.

#11041530

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

ANALYSIS REQUEST
(Circle or Specify Method No.)

CLIENT NAME: Celero

SITE MANAGER: Jeff Kindley

PROJECT NO.: 115-6403129

PROJECT NAME: Rock Queen #1 TB

LAB I.D. NUMBER	DATE 2011	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	Sulfates
263909	4/13	1030	W		X	mw-1	4	N	X		X	X	X												X				X	X
910	"	1100	"		"	mw-2	"	"	"		"	"	"												"				"	"
911		1105				mw-3																								
912		1050				mw-4																								
913		1040				mw-5																								
914		1130				mw-6																								
915		1120				mw-7																								
916	4/13	1040	W		X	RW-1	4	N	X		X	X	X												X				X	X

RELINQUISHED BY: (Signature) James Kennedy Date: 4-15-11 Time:
RECEIVED BY: (Signature) Date: 4/15/11 Time: 13:50
SAMPLED BY: (Print & Initial) James Kennedy JK Date: 4-13-11 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
ADDRESS:
CITY: Midland STATE: ZIP:
CONTACT: PHONE: DATE: TIME:
RECEIVED BY: (Signature)
RUSH Charges Authorized: Yes No

SAMPLE CONDITION WHEN RECEIVED: 0.6c 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.

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 915-585-3443 FAX 915-585-4944
5002 Basin Street, Suite A1 Midland, Texas 79703 432-689-6301 FAX 432-689-6313
(BioAquatic) 2501 Mayes Rd., Suite 100 Carrollton, Texas 75006 972-242-7750
E-Mail: lab@traceanalysis.com WEB: www.traceanalysis.com

Certifications

WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

Analytical and Quality Control Report

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

Report Date: August 8, 2012

Work Order: 12072626

Project Location: Chavez Co., NM
Project Name: Celero/Rock Queen #1 TB
Project Number: 115-6403129A

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
304889	MW-1	water	2012-07-24	16:00	2012-07-26
304890	MW-2	water	2012-07-24	16:10	2012-07-26
304891	MW-3	water	2012-07-24	16:20	2012-07-26
304892	MW-4	water	2012-07-24	16:30	2012-07-26
304893	MW-5	water	2012-07-24	16:40	2012-07-26
304894	MW-6	water	2012-07-24	16:50	2012-07-26
304895	MW-7	water	2012-07-24	17:00	2012-07-26

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

Report Contents

Case Narrative

Samples for project Celero/Rock Queen #1 TB were received by TraceAnalysis, Inc. on 2012-07-26 and assigned to work order 12072626. Samples for work order 12072626 were received intact without headspace and at a temperature of 4.0 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	79321	2012-08-01 at 15:45	93539	2012-08-01 at 15:37
BTEX	S 8021B	79393	2012-08-03 at 16:37	93654	2012-08-03 at 16:37
BTEX	S 8021B	79409	2012-08-06 at 13:02	93674	2012-08-06 at 13:02
Chloride (IC)	E 300.0	79286	2012-07-31 at 14:53	93589	2012-08-02 at 10:22
Chloride (IC)	E 300.0	79316	2012-08-01 at 09:16	93590	2012-08-02 at 10:23

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 12072626 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: 304889 - MW-1

Laboratory:	Lubbock				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	93674	Date Analyzed:	2012-08-06	Analyzed By:	ZLM
Prep Batch:	79409	Sample Preparation:	2012-08-06	Prepared By:	ZLM

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0801	mg/L	1	0.100	80	70 - 130
4-Bromofluorobenzene (4-BFB)	QSR	QSR	0.0652	mg/L	1	0.100	65	70 - 130

Sample: 304889 - MW-1

Laboratory:	Midland				
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	93589	Date Analyzed:	2012-08-02	Analyzed By:	AR
Prep Batch:	79286	Sample Preparation:	2012-08-01	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride	QS	2	**123000**	mg/L	5000	2.50

Sample: 304890 - MW-2

Laboratory:	Lubbock				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	93539	Date Analyzed:	2012-08-01	Analyzed By:	ZLM
Prep Batch:	79321	Sample Preparation:	2012-08-01	Prepared By:	ZLM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	U	1	<0.00100	mg/L	1	0.00100
Toluene	U	1	<0.00100	mg/L	1	0.00100
Ethylbenzene		1	**0.00200**	mg/L	1	0.00100
Xylene	B	1	**0.00740**	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0848	mg/L	1	0.100	85	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0799	mg/L	1	0.100	80	70 - 130

Sample: 304890 - MW-2

Laboratory:	Midland				
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	93589	Date Analyzed:	2012-08-02	Analyzed By:	AR
Prep Batch:	79286	Sample Preparation:	2012-08-01	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride	Q	2	**9110**	mg/L	1000	2.50

Sample: 304891 - MW-3

Laboratory:	Lubbock				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	93654	Date Analyzed:	2012-08-03	Analyzed By:	MT
Prep Batch:	79393	Sample Preparation:	2012-08-03	Prepared By:	ZLM

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0918	mg/L	1	0.100	92	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0915	mg/L	1	0.100	92	70 - 130

Sample: 304891 - MW-3

Laboratory:	Midland				
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	93589	Date Analyzed:	2012-08-02	Analyzed By:	AR
Prep Batch:	79286	Sample Preparation:	2012-08-01	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride	Q8	2	**70200**	mg/L	5000	2.50

Sample: 304892 - MW-4

Laboratory:	Lubbock				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	93539	Date Analyzed:	2012-08-01	Analyzed By:	ZLM
Prep Batch:	79321	Sample Preparation:	2012-08-01	Prepared By:	ZLM

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0846	mg/L	1	0.100	85	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0801	mg/L	1	0.100	80	70 - 130

Sample: 304892 - MW-4

Laboratory:	Midland				
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	93589	Date Analyzed:	2012-08-02	Analyzed By:	AR
Prep Batch:	79286	Sample Preparation:	2012-08-01	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride	Q8	2	**3860**	mg/L	500	2.50

Sample: 304893 - MW-5

Laboratory:	Lubbock				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	93539	Date Analyzed:	2012-08-01	Analyzed By:	ZLM
Prep Batch:	79321	Sample Preparation:	2012-08-01	Prepared By:	ZLM

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0863	mg/L	1	0.100	86	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0811	mg/L	1	0.100	81	70 - 130

Sample: 304893 - MW-5

Laboratory:	Midland				
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	93590	Date Analyzed:	2012-08-02	Analyzed By:	AR
Prep Batch:	79316	Sample Preparation:	2012-08-01	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride	Q*	2	**72.6**	mg/L	5	2.50

Sample: 304894 - MW-6

Laboratory:	Lubbock				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	93654	Date Analyzed:	2012-08-03	Analyzed By:	MT
Prep Batch:	79393	Sample Preparation:	2012-08-03	Prepared By:	ZLM

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0752	mg/L	1	0.100	75	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0742	mg/L	1	0.100	74	70 - 130

Sample: 304894 - MW-6

Laboratory:	Midland				
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	93590	Date Analyzed:	2012-08-02	Analyzed By:	AR
Prep Batch:	79316	Sample Preparation:	2012-08-01	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride	Q-	2	**107000**	mg/L	5000	2.50

Sample: 304895 - MW-7

Laboratory:	Lubbock				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	93654	Date Analyzed:	2012-08-03	Analyzed By:	MT
Prep Batch:	79393	Sample Preparation:	2012-08-03	Prepared By:	ZLM

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0754	mg/L	1	0.100	75	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0702	mg/L	1	0.100	70	70 - 130

Sample: 304895 - MW-7

Laboratory:	Midland				
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	93590	Date Analyzed:	2012-08-02	Analyzed By:	AR
Prep Batch:	79316	Sample Preparation:	2012-08-01	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride	Q*	2	**120000**	mg/L	5000	2.50

Method Blanks

Method Blank (1) QC Batch: 93539

QC Batch:	93539	Date Analyzed:	2012-08-01	Analyzed By:	ZLM
Prep Batch:	79321	QC Preparation:	2012-08-01	Prepared By:	ZLM

Parameter	Flag	Cert	MDL Result	Units	RL
Benzene		1	<0.000310	mg/L	0.001
Toluene		1	0.000400	mg/L	0.001
Ethylbenzene		1	<0.000291	mg/L	0.001
Xylene		1	0.00190	mg/L	0.001

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0896	mg/L	1	0.100	90	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0843	mg/L	1	0.100	84	70 - 130

Method Blank (1) QC Batch: 93589

QC Batch:	93589	Date Analyzed:	2012-08-02	Analyzed By:	AR
Prep Batch:	79286	QC Preparation:	2012-07-31	Prepared By:	AR

Parameter	Flag	Cert	MDL Result	Units	RL
Chloride		2	0.815	mg/L	2.5

Method Blank (1) QC Batch: 93590

QC Batch:	93590	Date Analyzed:	2012-08-02	Analyzed By:	AR
Prep Batch:	79316	QC Preparation:	2012-08-01	Prepared By:	AR

Parameter	Flag	Cert	MDL Result	Units	RL
Chloride		2	<0.265	mg/L	2.5

Method Blank (1) QC Batch: 93654

QC Batch: 93654 | Date Analyzed: 2012-08-03 | Analyzed By: MT
Prep Batch: 79393 | QC Preparation: 2012-08-03 | Prepared By: ZLM

Parameter	Flag	Cert	MDL Result	Units	RL
Benzene		1	<0.000371	mg/L	0.001
Toluene		1	<0.000347	mg/L	0.001
Ethylbenzene		1	<0.000326	mg/L	0.001
Xylene		1	<0.000357	mg/L	0.001

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0984	mg/L	1	0.100	98	70 - 130
4-Bromofluorobenzene (4-BFB)			0.100	mg/L	1	0.100	100	70 - 130

Method Blank (1) QC Batch: 93674

QC Batch: 93674 | Date Analyzed: 2012-08-06 | Analyzed By: ZLM
Prep Batch: 79409 | QC Preparation: 2012-08-06 | Prepared By: ZLM

Parameter	Flag	Cert	MDL Result	Units	RL
Benzene		1	<0.000371	mg/L	0.001
Toluene		1	<0.000347	mg/L	0.001
Ethylbenzene		1	<0.000326	mg/L	0.001
Xylene		1	<0.000357	mg/L	0.001

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.102	mg/L	1	0.100	102	70 - 130
4-Bromofluorobenzene (4-BFB)			0.105	mg/L	1	0.100	105	70 - 130

Laboratory Control Spikes

Laboratory Control Spike (LCS-1)

QC Batch: 93539 | Date Analyzed: 2012-08-01 | Analyzed By: ZLM
Prep Batch: 79321 | QC Preparation: 2012-08-01 | Prepared By: ZLM

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.0890	mg/L	1	0.100	<0.000310	89	74.2 - 120
Toluene		1	0.0890	mg/L	1	0.100	0.0004	89	75.8 - 120
Ethylbenzene		1	0.0894	mg/L	1	0.100	<0.000291	89	71.8 - 120
Xylene		1	0.276	mg/L	1	0.300	0.0019	92	73.8 - 120

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

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	0.0899	mg/L	1	0.100	<0.000310	90	74.2 - 120	1	20
Toluene		1	0.0901	mg/L	1	0.100	0.0004	90	75.8 - 120	1	20
Ethylbenzene		1	0.0901	mg/L	1	0.100	<0.000291	90	71.8 - 120	1	20
Xylene		1	0.276	mg/L	1	0.300	0.0019	92	73.8 - 120	0	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)	0.0909	0.0931	mg/L	1	0.100	91	93	70 - 130
4-Bromofluorobenzene (4-BFB)	0.0861	0.0885	mg/L	1	0.100	86	88	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 93589 | Date Analyzed: 2012-08-02 | Analyzed By: AR
Prep Batch: 79286 | QC Preparation: 2012-07-31 | Prepared By: AR

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride		2	25.4	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.

continued ...

control spikes continued ...

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride		2	25.3	mg/L	1	25.0	<0.265	101	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: 93590 | Date Analyzed: 2012-08-02 | Analyzed By: AR
Prep Batch: 79316 | QC Preparation: 2012-08-01 | Prepared By: AR

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride		2	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	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride		2	24.9	mg/L	1	25.0	<0.265	100	90 - 110	2	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: 93654 | Date Analyzed: 2012-08-03 | Analyzed By: MT
Prep Batch: 79393 | QC Preparation: 2012-08-03 | Prepared By: ZLM

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.0971	mg/L	1	0.100	<0.000371	97	78.6 - 120
Toluene		1	0.101	mg/L	1	0.100	<0.000347	101	79.6 - 120
Ethylbenzene		1	0.104	mg/L	1	0.100	<0.000326	104	80 - 120
Xylene		1	0.308	mg/L	1	0.300	<0.000357	102	79.3 - 120

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

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	0.0986	mg/L	1	0.100	<0.000371	99	78.6 - 120	2	20
Toluene		1	0.102	mg/L	1	0.100	<0.000347	102	79.6 - 120	1	20

continued ...

control spikes continued ...

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Ethylbenzene		1	0.106	mg/L	1	0.100	<0.000326	106	80 - 120	2	20
Xylene		1	0.311	mg/L	1	0.300	<0.000357	104	79.3 - 120	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)	0.0967	0.0969	mg/L	1	0.100	97	97	70 - 130
4-Bromofluorobenzene (4-BFB)	0.0949	0.0958	mg/L	1	0.100	95	96	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 93674 | Date Analyzed: 2012-08-06 | Analyzed By: ZLM
Prep Batch: 79409 | QC Preparation: 2012-08-06 | Prepared By: ZLM

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.0983	mg/L	1	0.100	<0.000371	98	78.6 - 120
Toluene		1	0.102	mg/L	1	0.100	<0.000347	102	79.6 - 120
Ethylbenzene		1	0.105	mg/L	1	0.100	<0.000326	105	80 - 120
Xylene		1	0.310	mg/L	1	0.300	<0.000357	103	79.3 - 120

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

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	0.102	mg/L	1	0.100	<0.000371	102	78.6 - 120	4	20
Toluene		1	0.106	mg/L	1	0.100	<0.000347	106	79.6 - 120	4	20
Ethylbenzene		1	0.112	mg/L	1	0.100	<0.000326	112	80 - 120	6	20
Xylene		1	0.325	mg/L	1	0.300	<0.000357	108	79.3 - 120	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)	0.0976	0.0979	mg/L	1	0.100	98	98	70 - 130
4-Bromofluorobenzene (4-BFB)	0.0962	0.0960	mg/L	1	0.100	96	96	70 - 130

Matrix Spike (MS-1) Spiked Sample: 304889

QC Batch: 93539 | Date Analyzed: 2012-08-01 | Analyzed By: ZLM
Prep Batch: 79321 | QC Preparation: 2012-08-01 | Prepared By: ZLM

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.0679	mg/L	1	0.100	<0.000310	68	47 - 131
Toluene		1	0.0600	mg/L	1	0.100	<0.000259	60	52.2 - 128
Ethylbenzene		1	0.0622	mg/L	1	0.100	<0.000291	62	26.5 - 154
Xylene		1	0.191	mg/L	1	0.300	0.0025	63	50.1 - 130

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

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	0.0635	mg/L	1	0.100	<0.000310	64	47 - 131	7	20
Toluene		1	0.0551	mg/L	1	0.100	<0.000259	55	52.2 - 128	8	20
Ethylbenzene		1	0.0585	mg/L	1	0.100	<0.000291	58	26.5 - 154	6	20
Xylene		1	0.179	mg/L	1	0.300	0.0025	59	50.1 - 130	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)	[Q8r]	[Q8r]	0.0389	0.0405	mg/L	1	0.1	39	40	70 - 130
4-Bromofluorobenzene (4-BFB)	[Q8r]	[Q8r]	0.0355	0.0369	mg/L	1	0.1	36	37	70 - 130

Matrix Spike (MS-1) Spiked Sample: 304892

QC Batch: 93589 | Date Analyzed: 2012-08-02 | Analyzed By: AR
Prep Batch: 79286 | QC Preparation: 2012-07-31 | Prepared By: AR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	[Q8] [Q8]	2	20400	mg/L	500	13800	3860	120	80 - 120

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

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride		2	20300	mg/L	500	13800	3860	120	80 - 120	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: 304893

QC Batch: 93590 | Date Analyzed: 2012-08-02 | Analyzed By: AR
Prep Batch: 79316 | QC Preparation: 2012-08-01 | Prepared By: AR

Param		F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	Q3	Q3	2	242	mg/L	5	138	72.6	123	80 - 120

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

Param		F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	Q3	Q3	2	244	mg/L	5	138	72.6	125	80 - 120	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: 305349

QC Batch: 93654 | Date Analyzed: 2012-08-03 | Analyzed By: MT
Prep Batch: 79393 | QC Preparation: 2012-08-03 | Prepared By: ZLM

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.102	mg/L	1	0.100	0.0006	101	42.2 - 136
Toluene		1	0.104	mg/L	1	0.100	<0.000347	104	44.3 - 133
Ethylbenzene		1	0.106	mg/L	1	0.100	<0.000326	106	45.6 - 132
Xylene		1	0.312	mg/L	1	0.300	<0.000357	104	44.7 - 128

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

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	0.102	mg/L	1	0.100	0.0006	101	42.2 - 136	0	20
Toluene		1	0.106	mg/L	1	0.100	<0.000347	106	44.3 - 133	2	20
Ethylbenzene		1	0.109	mg/L	1	0.100	<0.000326	109	45.6 - 132	3	20
Xylene		1	0.319	mg/L	1	0.300	<0.000357	106	44.7 - 128	2	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)	0.0991	0.0988	mg/L	1	0.1	99	99	70 - 130
4-Bromofluorobenzene (4-BFB)	0.0929	0.0921	mg/L	1	0.1	93	92	70 - 130

Matrix Spike (MS-1) Spiked Sample: 305411

QC Batch: 93674 | Date Analyzed: 2012-08-06 | Analyzed By: ZLM
Prep Batch: 79409 | QC Preparation: 2012-08-06 | Prepared By: ZLM

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.499	mg/L	5	0.500	<0.00186	100	42.2 - 136
Toluene		1	0.522	mg/L	5	0.500	<0.00174	104	44.3 - 133
Ethylbenzene		1	0.532	mg/L	5	0.500	<0.00163	106	45.6 - 132
Xylene		1	1.57	mg/L	5	1.50	<0.00178	105	44.7 - 128

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

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	0.488	mg/L	5	0.500	<0.00186	98	42.2 - 136	2	20
Toluene		1	0.513	mg/L	5	0.500	<0.00174	103	44.3 - 133	2	20
Ethylbenzene		1	0.523	mg/L	5	0.500	<0.00163	105	45.6 - 132	2	20
Xylene		1	1.55	mg/L	5	1.50	<0.00178	103	44.7 - 128	1	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)	0.498	0.498	mg/L	5	0.5	100	100	70 - 130
4-Bromofluorobenzene (4-BFB)	0.498	0.497	mg/L	5	0.5	100	99	70 - 130

Calibration Standards

Standard (CCV-1)

QC Batch: 93539 | Date Analyzed: 2012-08-01 | Analyzed By: ZLM

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.0872	87	80 - 120	2012-08-01
Toluene		1	mg/L	0.100	0.0893	89	80 - 120	2012-08-01
Ethylbenzene		1	mg/L	0.100	0.0892	89	80 - 120	2012-08-01
Xylene		1	mg/L	0.300	0.276	92	80 - 120	2012-08-01

Standard (CCV-2)

QC Batch: 93539 | Date Analyzed: 2012-08-01 | Analyzed By: ZLM

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.0851	85	80 - 120	2012-08-01
Toluene		1	mg/L	0.100	0.0864	86	80 - 120	2012-08-01
Ethylbenzene		1	mg/L	0.100	0.0856	86	80 - 120	2012-08-01
Xylene		1	mg/L	0.300	0.262	87	80 - 120	2012-08-01

Standard (CCV-3)

QC Batch: 93539 | Date Analyzed: 2012-08-01 | Analyzed By: ZLM

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.0880	88	80 - 120	2012-08-01
Toluene		1	mg/L	0.100	0.0875	88	80 - 120	2012-08-01
Ethylbenzene		1	mg/L	0.100	0.0873	87	80 - 120	2012-08-01
Xylene		1	mg/L	0.300	0.267	89	80 - 120	2012-08-01

Standard (CCV-1)

QC Batch: 93589 Date Analyzed: 2012-08-02 Analyzed By: AR

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		2	mg/L	25.0	25.5	102	90 - 110	2012-08-02

Standard (CCV-2)

QC Batch: 93589 Date Analyzed: 2012-08-02 Analyzed By: AR

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		2	mg/L	25.0	25.5	102	90 - 110	2012-08-02

Standard (CCV-1)

QC Batch: 93590 Date Analyzed: 2012-08-02 Analyzed By: AR

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		2	mg/L	25.0	25.5	102	90 - 110	2012-08-02

Standard (CCV-2)

QC Batch: 93590 Date Analyzed: 2012-08-02 Analyzed By: AR

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		2	mg/L	25.0	24.9	100	90 - 110	2012-08-02

Standard (CCV-1)

QC Batch: 93654 Date Analyzed: 2012-08-03 Analyzed By: MT

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.101	101	80 - 120	2012-08-03
Toluene		1	mg/L	0.100	0.104	104	80 - 120	2012-08-03
Ethylbenzene		1	mg/L	0.100	0.108	108	80 - 120	2012-08-03
Xylene		1	mg/L	0.300	0.314	105	80 - 120	2012-08-03

Standard (CCV-2)

QC Batch: 93654 Date Analyzed: 2012-08-03 Analyzed By: MT

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.100	100	80 - 120	2012-08-03
Toluene		1	mg/L	0.100	0.104	104	80 - 120	2012-08-03
Ethylbenzene		1	mg/L	0.100	0.105	105	80 - 120	2012-08-03
Xylene		1	mg/L	0.300	0.308	103	80 - 120	2012-08-03

Standard (CCV-3)

QC Batch: 93654 Date Analyzed: 2012-08-03 Analyzed By: MT

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.101	101	80 - 120	2012-08-03
Toluene		1	mg/L	0.100	0.104	104	80 - 120	2012-08-03
Ethylbenzene		1	mg/L	0.100	0.106	106	80 - 120	2012-08-03
Xylene		1	mg/L	0.300	0.312	104	80 - 120	2012-08-03

Standard (CCV-1)

QC Batch: 93674 Date Analyzed: 2012-08-06 Analyzed By: ZLM

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.101	101	80 - 120	2012-08-06

continued ...

standard continued ...

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Toluene		1	mg/L	0.100	0.105	105	80 - 120	2012-08-06
Ethylbenzene		1	mg/L	0.100	0.107	107	80 - 120	2012-08-06
Xylene		1	mg/L	0.300	0.317	106	80 - 120	2012-08-06

Standard (CCV-2)

QC Batch: 93674 Date Analyzed: 2012-08-06 Analyzed By: ZLM

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.0990	99	80 - 120	2012-08-06
Toluene		1	mg/L	0.100	0.104	104	80 - 120	2012-08-06
Ethylbenzene		1	mg/L	0.100	0.109	109	80 - 120	2012-08-06
Xylene		1	mg/L	0.300	0.313	104	80 - 120	2012-08-06

Standard (CCV-3)

QC Batch: 93674 Date Analyzed: 2012-08-06 Analyzed By: ZLM

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.0928	93	80 - 120	2012-08-06
Toluene		1	mg/L	0.100	0.0956	96	80 - 120	2012-08-06
Ethylbenzene		1	mg/L	0.100	0.0962	96	80 - 120	2012-08-06
Xylene		1	mg/L	0.300	0.285	95	80 - 120	2012-08-06

Appendix

Report Definitions

Name	Definition
MDL	Method Detection Limit
MQL	Minimum Quantitation Limit
SDL	Sample Detection Limit

Laboratory Certifications

C	Certifying Authority	Certification Number	Laboratory Location
-	NCTRCA	WFWB384444Y0909	TraceAnalysis
-	DBE	VN 20657	TraceAnalysis
-	HUB	1752439743100-86536	TraceAnalysis
-	WBE	237019	TraceAnalysis
1	NELAP	T104704219-12-8	Lubbock
2	NELAP	T104704392-12-4	Midland

Standard Flags

F	Description
B	Analyte detected in the corresponding method blank above the method detection limit
H	Analyzed out of hold time
J	Estimated concentration
Jb	The analyte is positively identified and the value is approximated between the SDL and MQL. Sample contains less then ten times the concentration found in the method blank. The result should be considered non-detect to the SDL.
Je	Estimated concentration exceeding calibration range.
Qc	Calibration check outside of laboratory limits.
Qr	RPD outside of laboratory limits
Qs	Spike recovery outside of laboratory limits.
Qsr	Surrogate recovery outside of laboratory limits.
U	The analyte is not detected above the SDL

Result Comments

1 Sample was reran to confirm matrix interference with the surrogate recovery.

Attachments

The scanned attachments will follow this page.
Please note, each attachment may consist of more than one page.

120726 26

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: Cetero Energy
SITE MANAGER: Jeff Kindley ~~Eric Tavoce~~
PROJECT NO.: 115-6403129A
PROJECT NAME: Rock Queen #1 TB
Chaves Co.

LAB I.D. NUMBER	DATE	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
304889	7/24	1600	W		X	MW-1	4		3		X	1	3											1				
890		1610	W		X	MW-2	4		3		X	1	3											1				
891		1620	W		X	MW-3	4		3		X	1	3											1				
892		1630	W		X	MW-4	4		3		X	1	3											1				
893		1640	W		X	MW-5	4		3		X	1	3											1				
894		1650	W		X	MW-6	4		3		X	1	3											1				
895		1700	W		X	MW-7	4		3		X	1	3											1				

ANALYSIS REQUEST (Circle or Specify Method No.)

RELINQUISHED BY: (Signature) — Date: 7/25 Time: 1415 — RECEIVED BY: (Signature) — Date: 7-26-12 Time: 715
RELINQUISHED BY: (Signature) — Date: 7-26-12 Time: 715 — RECEIVED BY: (Signature) — Date: Time:
RELINQUISHED BY: (Signature) — Date: Time: — RECEIVED BY: (Signature) — Date: Time:

SAMPLED BY: (Print & Initial) Marcus Kuzawski, Chaz Frankenberg — Date: Time:
SAMPLE SHIPPED BY: (Circle) FEDEX BUS HAND DELIVERED UPS — AIRBILL #: OTHER:
TETRA TECH CONTACT PERSON: ~~Eric Tavoce~~ Jeff Kindley — Results by:
RUSH Charges Authorized: Yes No

RECEIVING LABORATORY: — RECEIVED BY: (Signature)
ADDRESS:
CITY: STATE: ZIP:
CONTACT: PHONE: DATE: TIME:

SAMPLE CONDITION WHEN RECEIVED: 4°C
REMARKS: Midland EL - Lubbock - BTEX

Please fill out all copies - Laboratory retains Yellow copy - Return Orginal copy to Tetra Tech - 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
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

WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

Analytical and Quality Control Report

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

Report Date: November 10, 2011

Work Order: 11103128

Project Location: Chavez Co., NM
Project Name: Celero/Rock Queen #1 TB
Project Number: 115-6403129

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
281160	MW-4	water	2011-10-25	09:25	2011-10-31
281161	MW-7	water	2011-10-25	10:20	2011-10-31
281162	MW-3	water	2011-10-25	11:15	2011-10-31
281163	MW-5	water	2011-10-25	12:15	2011-10-31
281164	MW-2	water	2011-10-25	13:08	2011-10-31
281165	MW-6	water	2011-10-25	13:48	2011-10-31
281166	MW-1	water	2011-10-25	16:20	2011-10-31

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

Report Contents

Case Narrative

Samples for project Celero/Rock Queen #1 TB were received by TraceAnalysis, Inc. on 2011-10-31 and assigned to work order 11103128. Samples for work order 11103128 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	73017	2011-11-01 at 15:26	86000	2011-11-01 at 15:26
Chloride (IC)	E 300.0	73107	2011-11-03 at 09:31	86200	2011-11-03 at 11:32
Chloride (IC)	E 300.0	73108	2011-11-03 at 09:33	86204	2011-11-03 at 11:33
Chloride (IC)	E 300.0	73109	2011-11-03 at 09:33	86206	2011-11-04 at 11:34

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 11103128 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: 281160 - MW-4

Laboratory:	Lubbock				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	86000	Date Analyzed:	2011-11-01	Analyzed By:	ZLM
Prep Batch:	73017	Sample Preparation:	2011-11-01	Prepared By:	ZLM

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.110	mg/L	1	0.100	110	70 - 130
4-Bromofluorobenzene (4-BFB)			0.115	mg/L	1	0.100	115	70 - 130

Sample: 281160 - MW-4

Laboratory:	Midland				
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	86200	Date Analyzed:	2011-11-03	Analyzed By:	AR
Prep Batch:	73107	Sample Preparation:	2011-11-03	Prepared By:	AR

Parameter		Flag	Cert	RL Result	Units	Dilution	RL
Chloride	Qs	Qs	2	**23700**	mg/L	5000	2.50

Sample: 281161 - MW-7

Laboratory:	Lubbock				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	86000	Date Analyzed:	2011-11-01	Analyzed By:	ZLM
Prep Batch:	73017	Sample Preparation:	2011-11-01	Prepared By:	ZLM

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.106	mg/L	1	0.100	106	70 - 130
4-Bromofluorobenzene (4-BFB)			0.115	mg/L	1	0.100	115	70 - 130

Sample: 281161 - MW-7

Laboratory:	Midland				
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	86204	Date Analyzed:	2011-11-03	Analyzed By:	AR
Prep Batch:	73108	Sample Preparation:	2011-11-03	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride		2	**99400**	mg/L	10000	2.50

Sample: 281162 - MW-3

Laboratory:	Lubbock				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	86000	Date Analyzed:	2011-11-01	Analyzed By:	ZLM
Prep Batch:	73017	Sample Preparation:	2011-11-01	Prepared By:	ZLM

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0919	mg/L	1	0.100	92	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0986	mg/L	1	0.100	99	70 - 130

Sample: 281162 - MW-3

Laboratory:	Midland				
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	86204	Date Analyzed:	2011-11-03	Analyzed By:	AR
Prep Batch:	73108	Sample Preparation:	2011-11-03	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride		2	**60700**	mg/L	10000	2.50

Sample: 281163 - MW-5

Laboratory:	Lubbock				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	86000	Date Analyzed:	2011-11-01	Analyzed By:	ZLM
Prep Batch:	73017	Sample Preparation:	2011-11-01	Prepared By:	ZLM

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.111	mg/L	1	0.100	111	70 - 130
4-Bromofluorobenzene (4-BFB)			0.111	mg/L	1	0.100	111	70 - 130

Sample: 281163 - MW-5

Laboratory:	Midland				
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	86204	Date Analyzed:	2011-11-03	Analyzed By:	AR
Prep Batch:	73108	Sample Preparation:	2011-11-03	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride		2	**128**	mg/L	10	2.50

Sample: 281164 - MW-2

Laboratory:	Lubbock				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	86000	Date Analyzed:	2011-11-01	Analyzed By:	ZLM
Prep Batch:	73017	Sample Preparation:	2011-11-01	Prepared By:	ZLM

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.107	mg/L	1	0.100	107	70 - 130
4-Bromofluorobenzene (4-BFB)			0.110	mg/L	1	0.100	110	70 - 130

Sample: 281164 - MW-2

Laboratory:	Midland				
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	86204	Date Analyzed:	2011-11-03	Analyzed By:	AR
Prep Batch:	73108	Sample Preparation:	2011-11-03	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride		2	**9200**	mg/L	1000	2.50

Sample: 281165 - MW-6

Laboratory:	Lubbock				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	86000	Date Analyzed:	2011-11-01	Analyzed By:	ZLM
Prep Batch:	73017	Sample Preparation:	2011-11-01	Prepared By:	ZLM

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.106	mg/L	1	0.100	106	70 - 130
4-Bromofluorobenzene (4-BFB)			0.115	mg/L	1	0.100	115	70 - 130

Sample: 281165 - MW-6

Laboratory:	Midland				
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	86206	Date Analyzed:	2011-11-04	Analyzed By:	AR
Prep Batch:	73109	Sample Preparation:	2011-11-03	Prepared By:	AR

Parameter		Flag	Cert	RL Result	Units	Dilution	RL
Chloride	Qs	Qs	2	**111000**	mg/L	10000	2.50

Sample: 281166 - MW-1

Laboratory:	Lubbock				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	86000	Date Analyzed:	2011-11-01	Analyzed By:	ZLM
Prep Batch:	73017	Sample Preparation:	2011-11-01	Prepared By:	ZLM

Parameter		Flag	Cert	RL Result	Units	Dilution	RL
Benzene	U	U	1	<0.00100	mg/L	1	0.00100
Toluene	U	U	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	U	U	1	<0.00100	mg/L	1	0.00100
Xylene			1	**0.0205**	mg/L	1	0.00100

Surrogate		Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)	Qsr	Qsr		0.157	mg/L	1	0.100	157	70 - 130
4-Bromofluorobenzene (4-BFB)				0.110	mg/L	1	0.100	110	70 - 130

Sample: 281166 - MW-1

Laboratory:	Midland				
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	86206	Date Analyzed:	2011-11-04	Analyzed By:	AR
Prep Batch:	73109	Sample Preparation:	2011-11-03	Prepared By:	AR

Parameter		Flag	Cert	RL Result	Units	Dilution	RL
Chloride	Q-	Qs	2	**155000**	mg/L	10000	2.50

Method Blanks

Method Blank (1) QC Batch: 86000

QC Batch: 86000 | Date Analyzed: 2011-11-01 | Analyzed By: ZLM
Prep Batch: 73017 | QC Preparation: 2011-11-01 | Prepared By: ZLM

Parameter	Flag	Cert	MDL Result	Units	RL
Benzene		1	<0.000765	mg/L	0.001
Toluene		1	<0.000719	mg/L	0.001
Ethylbenzene		1	<0.000860	mg/L	0.001
Xylene		1	<0.000942	mg/L	0.001

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.106	mg/L	1	0.100	106	70 - 130
4-Bromofluorobenzene (4-BFB)			0.105	mg/L	1	0.100	105	70 - 130

Method Blank (1) QC Batch: 86200

QC Batch: 86200 | Date Analyzed: 2011-11-03 | Analyzed By: AR
Prep Batch: 73107 | QC Preparation: 2011-11-03 | Prepared By: AR

Parameter	Flag	Cert	MDL Result	Units	RL
Chloride		2	0.667	mg/L	2.5

Method Blank (1) QC Batch: 86204

QC Batch: 86204 | Date Analyzed: 2011-11-03 | Analyzed By: AR
Prep Batch: 73108 | QC Preparation: 2011-11-03 | Prepared By: AR

Parameter	Flag	Cert	MDL Result	Units	RL
Chloride		2	0.650	mg/L	2.5

Method Blank (1) QC Batch: 86206

QC Batch:	86206	Date Analyzed:	2011-11-04	Analyzed By:	AR
Prep Batch:	73109	QC Preparation:	2011-11-03	Prepared By:	AR

Parameter	Flag	Cert	MDL Result	Units	RL
Chloride		2	0.679	mg/L	2.5

Laboratory Control Spikes

Laboratory Control Spike (LCS-1)

QC Batch: 86000 | Date Analyzed: 2011-11-01 | Analyzed By: ZLM
Prep Batch: 73017 | QC Preparation: 2011-11-01 | Prepared By: ZLM

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.103	mg/L	1	0.100	<0.000765	103	70 - 130
Toluene		1	0.0993	mg/L	1	0.100	<0.000719	99	70 - 130
Ethylbenzene		1	0.0973	mg/L	1	0.100	<0.000860	97	70 - 130
Xylene		1	0.289	mg/L	1	0.300	<0.000942	96	70 - 130

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

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	0.107	mg/L	1	0.100	<0.000765	107	70 - 130	4	20
Toluene		1	0.102	mg/L	1	0.100	<0.000719	102	70 - 130	3	20
Ethylbenzene		1	0.0998	mg/L	1	0.100	<0.000860	100	70 - 130	2	20
Xylene		1	0.294	mg/L	1	0.300	<0.000942	98	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
Trifluorotoluene (TFT)	0.100	0.0953	mg/L	1	0.100	100	95	70 - 130
4-Bromofluorobenzene (4-BFB)	0.0975	0.0923	mg/L	1	0.100	98	92	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 86200 | Date Analyzed: 2011-11-03 | Analyzed By: AR
Prep Batch: 73107 | QC Preparation: 2011-11-03 | Prepared By: AR

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride		2	22.9	mg/L	1	25.0	<0.265	92	90 - 110

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

continued ...

control spikes continued ...

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride		2	23.4	mg/L	1	25.0	<0.265	94	90 - 110	2	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: 86204 | Date Analyzed: 2011-11-03 | Analyzed By: AR
Prep Batch: 73108 | QC Preparation: 2011-11-03 | Prepared By: AR

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride		2	23.1	mg/L	1	25.0	<0.265	92	90 - 110

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

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride		2	23.1	mg/L	1	25.0	<0.265	92	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: 86206 | Date Analyzed: 2011-11-04 | Analyzed By: AR
Prep Batch: 73109 | QC Preparation: 2011-11-03 | Prepared By: AR

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride		2	23.1	mg/L	1	25.0	<0.265	92	90 - 110

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

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride		2	23.3	mg/L	1	25.0	<0.265	93	90 - 110	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: 281152

QC Batch: 86000 | Date Analyzed: 2011-11-01 | Analyzed By: ZLM
Prep Batch: 73017 | QC Preparation: 2011-11-01 | Prepared By: ZLM

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.102	mg/L	1	0.100	<0.000765	102	70 - 130
Toluene		1	0.0935	mg/L	1	0.100	<0.000719	94	70 - 130
Ethylbenzene		1	0.0881	mg/L	1	0.100	<0.000860	88	70 - 130
Xylene		1	0.260	mg/L	1	0.300	<0.000942	87	70 - 130

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

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	0.0891	mg/L	1	0.100	<0.000765	89	70 - 130	14	20
Toluene		1	0.0813	mg/L	1	0.100	<0.000719	81	70 - 130	14	20
Ethylbenzene		1	0.0776	mg/L	1	0.100	<0.000860	78	70 - 130	13	20
Xylene		1	0.228	mg/L	1	0.300	<0.000942	76	70 - 130	13	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)	0.102	0.101	mg/L	1	0.1	102	101	70 - 130
4-Bromofluorobenzene (4-BFB)	0.107	0.106	mg/L	1	0.1	107	106	70 - 130

Matrix Spike (MS-1) Spiked Sample: 281157

QC Batch: 86200 | Date Analyzed: 2011-11-03 | Analyzed By: AR
Prep Batch: 73107 | QC Preparation: 2011-11-03 | Prepared By: AR

Param		F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	Q1	Qs	2	3870	mg/L	50	1380	2750	81	90 - 110

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

Param		F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	Q1	Qs	2	3880	mg/L	50	1380	2750	82	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: 281163

QC Batch: 86204 | Date Analyzed: 2011-11-03 | Analyzed By: AR
Prep Batch: 73108 | QC Preparation: 2011-11-03 | Prepared By: AR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride		2	382	mg/L	10	275	128	92	90 - 110

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

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride		2	384	mg/L	10	275	128	93	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: 281167

QC Batch: 86206 | Date Analyzed: 2011-11-04 | Analyzed By: AR
Prep Batch: 73109 | QC Preparation: 2011-11-03 | Prepared By: AR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride Qs	Qs	2	40900	mg/L	50	1380	40900	0	90 - 110

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

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride Qs	Qs	2	43300	mg/L	50	1380	40900	0	90 - 110	6	20

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

Calibration Standards

Standard (CCV-1)

QC Batch: 86000 | Date Analyzed: 2011-11-01 | Analyzed By: ZLM

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.106	106	80 - 120	2011-11-01
Toluene		1	mg/L	0.100	0.102	102	80 - 120	2011-11-01
Ethylbenzene		1	mg/L	0.100	0.0994	99	80 - 120	2011-11-01
Xylene		1	mg/L	0.300	0.297	99	80 - 120	2011-11-01

Standard (CCV-2)

QC Batch: 86000 | Date Analyzed: 2011-11-01 | Analyzed By: ZLM

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.109	109	80 - 120	2011-11-01
Toluene		1	mg/L	0.100	0.104	104	80 - 120	2011-11-01
Ethylbenzene		1	mg/L	0.100	0.101	101	80 - 120	2011-11-01
Xylene		1	mg/L	0.300	0.300	100	80 - 120	2011-11-01

Standard (CCV-3)

QC Batch: 86000 | Date Analyzed: 2011-11-01 | Analyzed By: ZLM

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.108	108	80 - 120	2011-11-01
Toluene		1	mg/L	0.100	0.102	102	80 - 120	2011-11-01
Ethylbenzene		1	mg/L	0.100	0.100	100	80 - 120	2011-11-01
Xylene		1	mg/L	0.300	0.298	99	80 - 120	2011-11-01

Standard (CCV-1)

QC Batch: 86200 Date Analyzed: 2011-11-03 Analyzed By: AR

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		2	mg/L	25.0	22.6	90	90 - 110	2011-11-03

Standard (CCV-2)

QC Batch: 86200 Date Analyzed: 2011-11-03 Analyzed By: AR

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		2	mg/L	25.0	22.9	92	90 - 110	2011-11-03

Standard (CCV-1)

QC Batch: 86204 Date Analyzed: 2011-11-03 Analyzed By: AR

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		2	mg/L	25.0	22.9	92	90 - 110	2011-11-03

Standard (CCV-2)

QC Batch: 86204 Date Analyzed: 2011-11-03 Analyzed By: AR

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		2	mg/L	25.0	23.2	93	90 - 110	2011-11-03

Standard (CCV-1)

QC Batch: 86206 Date Analyzed: 2011-11-04 Analyzed By: AR

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		2	mg/L	25.0	23.2	93	90 - 110	2011-11-04

Standard (CCV-2)

QC Batch: 86206 Date Analyzed: 2011-11-04 Analyzed By: AR

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		2	mg/L	25.0	23.8	95	90 - 110	2011-11-04

Appendix

Laboratory Certifications

C	Certifying Authority	Certification Number	Laboratory Location
-	NCTRCA	WFWB384444Y0909	TraceAnalysis
-	DBE	VN 20657	TraceAnalysis
-	HUB	1752439743100-86536	TraceAnalysis
-	WBE	237019	TraceAnalysis
1	NELAP	T104704219-11-4	Lubbock
2	NELAP	T104704392-10-TX	Midland

Standard Flags

F	Description
B	Analyte detected in the corresponding method blank above the method detection limit
H	Analyzed out of hold time
J	Estimated concentration
Jb	The analyte is positively identified and the value is approximated between the SDL and MQL. Sample contains less then ten times the concentration found in the method blank. The result should be considered non-detect to the SDL.
Je	Estimated concentration exceeding calibration range.
Qc	Calibration check outside of laboratory limits.
Qr	RPD outside of laboratory limits
Qs	Spike recovery outside of laboratory limits.
Qsr	Surrogate recovery outside of laboratory limits.
U	The analyte is not detected above the SDL

Attachments

The scanned attachments will follow this page.
Please note, each attachment may consist of more than one page.

WO # 11103128

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.: 115-6403129
PROJECT NAME: Celero / Rock Queen #1 TB

LAB I.D. NUMBER	DATE 2011	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FILTERED (Y/N)	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	ANALYSIS REQUEST: 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. 8081/608	Chloride	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)	Major Anions/Cations, pH, TDS
28|160	10/25	0925	W		X	MW-4	4	N	X		X		X											X				
161		1020				MW-7																						
162		1115				MW-3																						
163		1215				MW-5																						
164		1308				MW-2																						
165		1348				MW-6																						
166	▼	1620	▼		▼	MW-1	▼	▼	▼		▼		▼											▼				

RELINQUISHED BY: (Signature) — Date: 10/31/11 Time: 1140
RECEIVED BY: (Signature) — Date: 10/31/11 Time: 1140
SAMPLED BY: (Print & Initial) JT/GA — Date: 10/25/11 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
ADDRESS:
CITY: Midland STATE: TX ZIP:
CONTACT: PHONE:
RECEIVED BY: (Signature)
DATE: TIME:
RUSH Charges Authorized: Yes No

SAMPLE CONDITION WHEN RECEIVED: Intact 3.9°C
REMARKS: 3.90

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

WO # 11103128

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.: 115-6403129
PROJECT NAME: Celero / Rock Queen #1 TB

LAB I.D. NUMBER	DATE 2011	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
28/160	10/25	0925	W		X	MW-4	4	N	X		X		X												X			
161		1020				MW-7																						
162		1115				MW-3																						
163		1215				MW-5																						
164		1308				MW-2																						
165		1348				MW-6																						
166		1620				MW-1																						

ANALYSIS REQUEST (Circle or Specify Method No.)

RELINQUISHED BY: (Signature) — Date: 10/31/11 Time: 1140 — RECEIVED BY: (Signature) — Date: 10/31/11 Time: 1140
SAMPLED BY: (Print & Initial) JT/GA — Date: 10/25/11 Time:
RELINQUISHED BY: (Signature) — Date: 10/31/11 Time: 1600 — 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) Brenda Ward
ADDRESS: CITY: Midland STATE: TX ZIP:
CONTACT: PHONE: DATE: 11/1/11 TIME: 8:40
RUSH Charges Authorized: Yes No
SAMPLE CONDITION WHEN RECEIVED: Intact 3.9°C
REMARKS: LS ZN003973 2.9/3.1° 3.9°

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