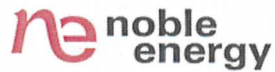


1625 Broadway
Suite 2200
Denver, CO 80202

Tel: 303.228-4000
Fax: 303.228-4280
www.nobleenergyinc.com



February 19, 2013

Mr. Rick Allison
Department Of Natural Resources
Oil & Gas Conservation Commission
1120 Lincoln St., Suite 801
Denver CO 80203-2136

RE: Groundwater Report
Miller I South CaCl Release
Remediation#7412
Tracking#2223090
SENW Sec. 29, T5N R64W
Weld County, Colorado

Dear Mr. Allison:

Please find attached a Groundwater Report for the Miller I South CaCl release location.

Noble Energy Inc. would like to claim business confidentiality protection for the information submitted in this letter, the supporting materials attached and all previous and subsequent correspondence related to this matter. Please contact the Noble Energy Environmental Department at (720)587-2026 if you have any questions or require additional information.

Sincerely,

A handwritten signature in black ink, appearing to read 'Jacob Evans', with a long horizontal flourish extending to the right.

Jacob Evans
Senior Environmental Specialist

Attachments



GROUNDWATER MONITORING REPORT JANUARY 2013

MILLER SOUTH #1 SPREAD FIELD COGCC TRACKING #2223090 & REMEDIATION #7412

LT Environmental, Inc. (LTE), under the direction of Noble Energy, Inc. (Noble), conducted groundwater monitoring activities at the Miller South #1 Spread Field (Site). Site history was described in preceding reports. This work has been conducted per the conditions of approval (COA) (Doc #2614122) following the submission of the Form 27 Site Investigation and Remediation Workplan (Doc #200370331).

The COA stated that sufficient data has not been collected to determine whether monitored natural attenuation is feasible for remediation of chloride in groundwater at this site. The COA requires the following actions to document the extent of chloride impact in groundwater and determine whether sulfate and chloride will stabilize and decline:

1. Conduct quarterly groundwater monitoring of all monitoring wells at the site (SB01R, SB02R, SB03R, SB04R, SB05R, SB06R, SB07R, SB08R, SB10, SB11, SB12, SB13, SB14, SB15, SB16, SB17, SB18, SB19, SB20, SB21, SB22, SB23) for four consecutive quarters. The number of monitoring wells sampled may be reduced after additional data is collected.
2. Analyze groundwater samples for chloride, sulfate, and TDS.
3. If site conditions change or potential receptors at this location appear at risk of impact by chloride in groundwater, additional remediation activities may be required.
4. Correctly label and plot groundwater monitoring points and estimate groundwater flow direction based on groundwater elevations to a 0.01 foot resolution.

LTE advanced a total of 24 soil borings on September 10 and 11, 2012. Soil borings (Background 01, Background 02, SB01R through SB08R, and SB10 through SB23) were installed using a direct-push drill rig operate by ACI Services of Denver, Colorado. On January 8, 2013, LTE installed replacement monitoring well SB05R2 using a hand auger. The monitoring well was constructed of 1-inch diameter polyvinyl chloride (PVC) casing extending from the surface stickups to a depth of approximately 10 feet below ground surface. The lower five feet of the monitoring well consists of 0.010-inch factory-slotted PVC well screen. Silica sand was placed from the bottom of the well to one foot above the screen to act as filter pack for the monitoring well. Bentonite chips were placed from the top of the silica sand to the ground surface and hydrated to provide a seal against surface contamination and precipitation infiltration. A well completion diagram is provided as Attachment 1, and a site map with soil boring locations is provided as Figure 1.

Twenty-two groundwater samples (SB01R through SB04R, SB05R2, SB06R through SB08R, and SB10 through SB23) were collected on January 8, 2013, from the soil boring locations and submitted to Summit Scientific for analysis of chloride and sulfate by EPA Method 300.0 and total dissolved solids (TDS) with a laboratory TDS meter. During sampling, depth to groundwater ranged from 2.75 feet below top of casing (btoc) in soil boring SB01R to 9.40 feet btoc in SB20. The groundwater flow direction is to the northwest with an average gradient of approximately 0.006 feet per foot (ft/ft). A relative groundwater elevation map is presented as Figure 2.

Groundwater analytical results are illustrated on Figures 3, 4, and 5 and presented in Table 1. The laboratory analytical report is provided as Attachment 2. The COGCC Table 910-1 groundwater standards for chloride, sulfate, and TDS are based on 1.25 times the background concentration (Background01 and Background02). It is apparent from the analytical results that natural site variability exists for these constituents in the groundwater. As seen by the data collected at the Site, the natural variations of constituent concentrations fluctuate much more than 25%. It is likely that chloride, sulfate, and TDS, which occur naturally in groundwater and the subsurface, have large scale regional effects and subsequent variations due to the high levels of unregulated agricultural activities throughout the area. Other industrial, residential, and non oil and gas related activities also can affect inorganic groundwater impact. Due to the composition of the release (calcium-chloride-enriched water), chloride is the best indicator to determine the extent of impact. However, all waters contain varying concentrations of chloride depending on the mineral content of the earth and regional activities in a given area. In addition to naturally occurring chloride, chloride can occur in surface water as a result of several sources including road salting, agricultural runoff, and mineral accumulation due to water evaporation precipitating chloride and other constituents.

Analytical results do not reveal obvious trends in chloride, sulfate, and TDS concentrations in groundwater. The data do not indicate a clear increasing or decreasing trend, and fluctuations are likely the result of natural variability and seasonal fluctuations in the alluvial water table. LTE, under the direction of Noble, will continue to conduct quarterly groundwater monitoring events for one year. The next quarterly groundwater monitoring event is scheduled for March 2013.

FIGURES



IMAGE COURTESY OF ESRI/BING MAPS

LEGEND

- ⊗ MONITORING WELL
- ↑ ESTIMATED GROUNDWATER FLOW DIRECTION
- SURFICIAL RELEASE EXTENT
- SPREAD FIELD BOUNDARY

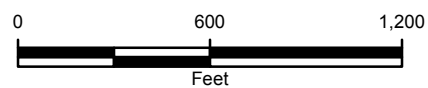


FIGURE 1
SITE MAP
 MILLER SOUTH #1 SPREAD FIELD
 WELD COUNTY, COLORADO

NOBLE ENERGY, INC.



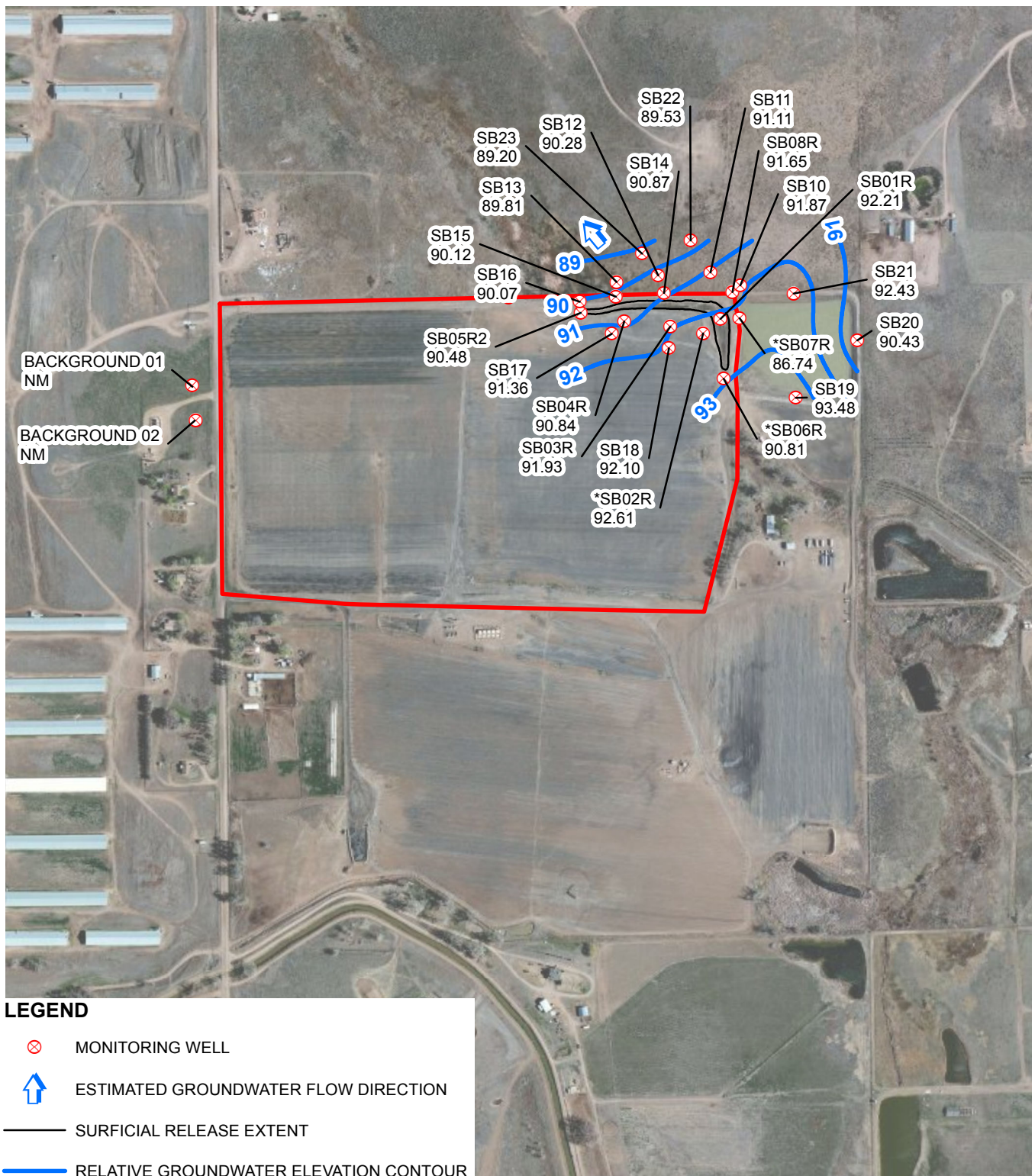


IMAGE COURTESY OF ESRI/BING MAPS

LEGEND



MONITORING WELL



ESTIMATED GROUNDWATER FLOW DIRECTION



SURFICIAL RELEASE EXTENT



RELATIVE GROUNDWATER ELEVATION CONTOUR

CONTOUR INTERVAL = 1 FOOT

GRADIENT = 0.006



SPREAD FIELD BOUNDARY

*GROUNDWATER ELEVATIONS FROM MONITORING WELLS SB02R, SB06R, AND SB07R WERE NOT USED GENERATE CONTOURS.
NM: NOT MEASURED

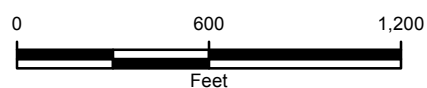
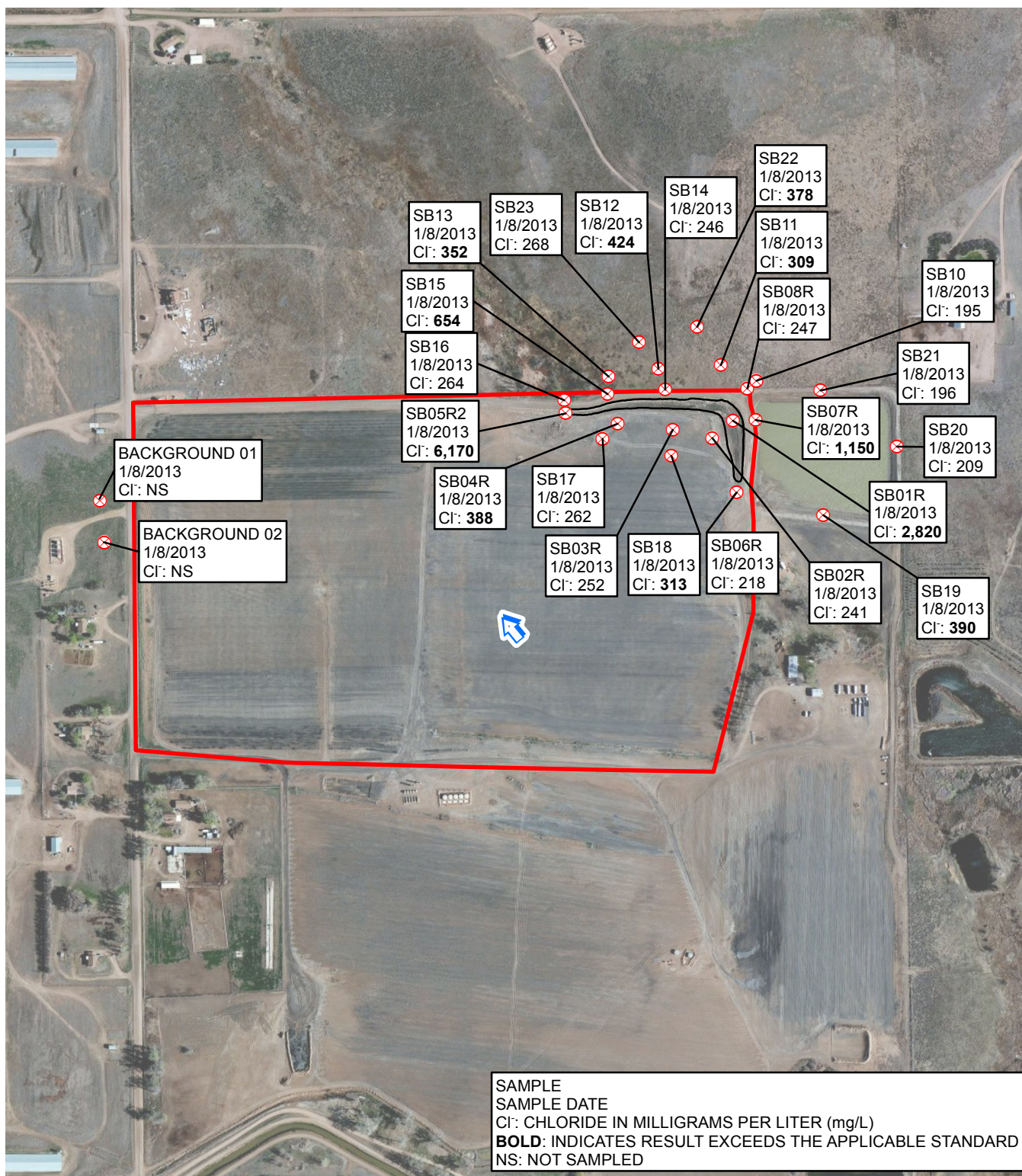


FIGURE 2
RELATIVE GROUNDWATER ELEVATION MAP
MILLER SOUTH #1 SPREAD FIELD
WELD COUNTY, COLORADO

NOBLE ENERGY, INC.





LEGEND

- MONITORING WELL
- ESTIMATED GROUNDWATER FLOW DIRECTION
- SURFICIAL RELEASE EXTENT
- SPREAD FIELD BOUNDARY

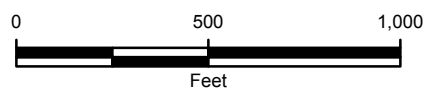


FIGURE 3
CHLORIDE GROUNDWATER ANALYTICAL RESULTS
MILLER SOUTH #1 SPREAD FIELD
WELD COUNTY, COLORADO

NOBLE ENERGY, INC.





IMAGE COURTESY OF ESRI/BING MAPS

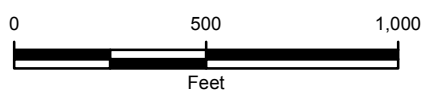
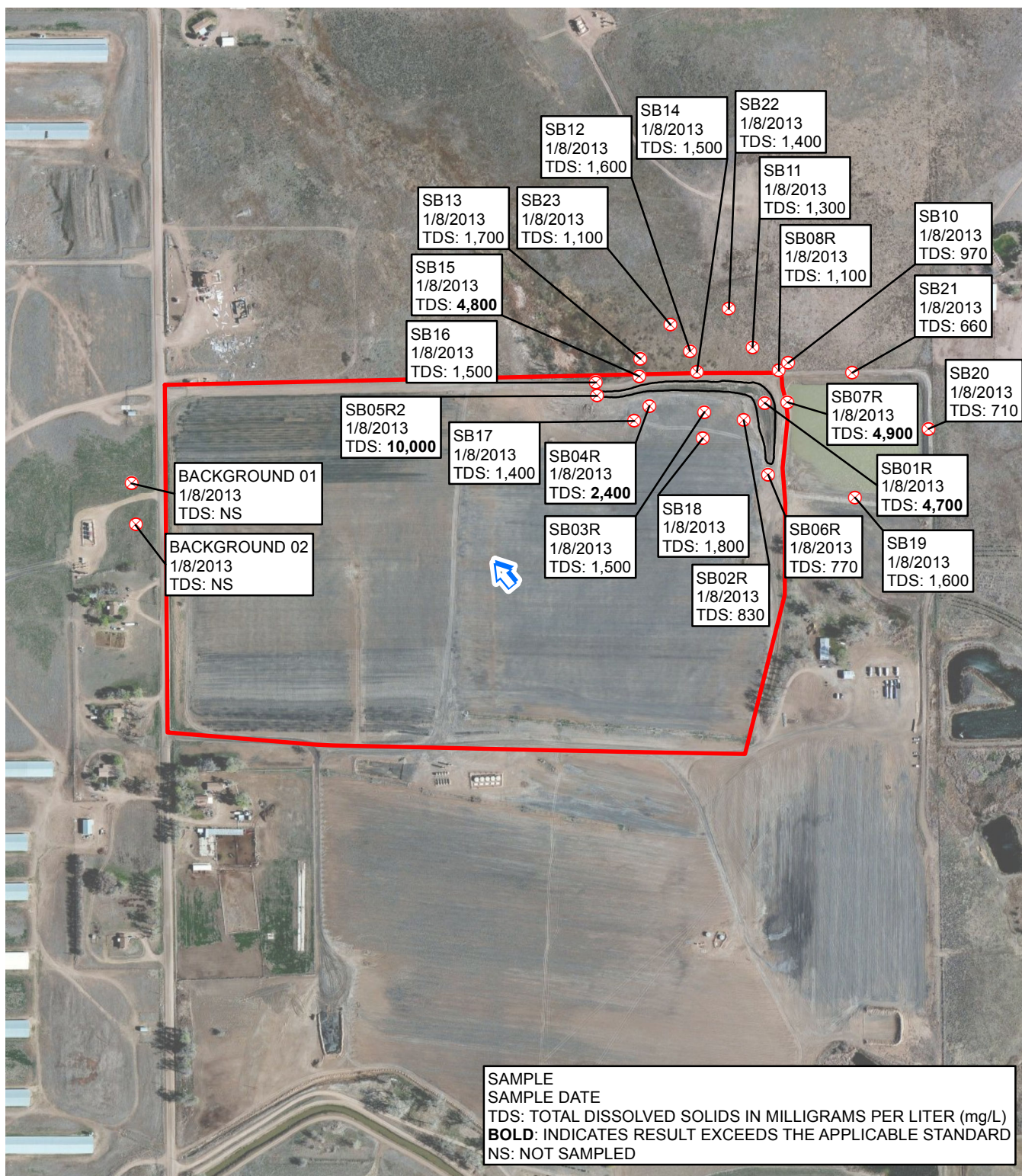


FIGURE 4
SULFATE GROUNDWATER ANALYTICAL RESULTS
MILLER SOUTH #1 SPREAD FIELD
WELD COUNTY, COLORADO

NOBLE ENERGY, INC.





LEGEND

- ⊗ MONITORING WELL
- ↑ ESTIMATED GROUNDWATER FLOW DIRECTION
- SURFICIAL RELEASE EXTENT
- SPREAD FIELD BOUNDARY

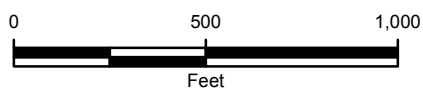


FIGURE 5
 TOTAL DISSOLVED SOLIDS
 GROUNDWATER ANALYTICAL RESULTS
 MILLER SOUTH #1 SPREAD FIELD
 WELD COUNTY, COLORADO
 NOBLE ENERGY, INC.



TABLE

TABLE 2

**GROUNDWATER ANALYTICAL RESULTS
MILLER SOUTH #1 SPREAD FIELD
WELD COUNTY, COLORADO
NOBLE ENERGY, INC.**

Sample Location	Date Sampled	Depth to Water (feet btoc)	Relative Groundwater Elevation (feet)	Chloride (mg/L)	Sulfate (mg/L)	Total Dissolved Solids (mg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)
Background 01	9/12/2012	15.36	95.015	236	514	1,600	<1.0	<1.0	<1.0	<1.0
Background 02	9/12/2012	17.40	94.91	217	433	1,400	<1.0	<1.0	<1.0	<1.0
SB01	3/8/2012	3.30	NM	1,260	1,070	4,600	NA	NA	NA	NA
SB01R	9/11/2012	4.24	90.72	181	372	1,300	<1.0	<1.0	<1.0	<1.0
	1/8/2013	2.75	92.21	2,820	1,010	4,700	NA	NA	NA	NA
SB02	3/8/2012	6.46	NM	220	584	1,700	NA	NA	NA	NA
SB02R	9/11/2012	8.03	91.30	214	300	1,100	<1.0	<1.0	<1.0	<1.0
	1/8/2013	6.72	92.61	241	366	830	NA	NA	NA	NA
SB03	3/8/2012	6.22	NM	348	1,070	3,100	NA	NA	NA	NA
SB03R	9/11/2012	7.50	90.33	278	646	2,300	<1.0	<1.0	<1.0	<1.0
	1/8/2013	5.90	91.93	252	741	1,500	NA	NA	NA	NA
SB04	3/8/2012	7.08	NM	296	1,220	3,100	NA	NA	NA	NA
SB04R	9/11/2012	7.94	89.73	488	1,600	4,800	<1.0	<1.0	<1.0	<1.0
	1/8/2013	6.83	90.84	388	1,330	2,400	NA	NA	NA	NA
SB05	3/8/2012	7.94	NM	208	896	2,400	NA	NA	NA	NA
SB05R	9/11/2012	6.51	88.62	291	1,060	3,000	<1.0	<1.0	<1.0	<1.0
SB05R2	1/8/2013	4.65	90.48	6,170	1,570	10,000	NA	NA	NA	NA
SB06	3/8/2012	7.82	NM	147	280	890	NA	NA	NA	NA
SB06R	9/11/2012	7.45	89.68	186	325	1,200	<1.0	<1.0	<1.0	<1.0
	1/8/2013	6.32	90.81	218	401	770	NA	NA	NA	NA
SB07	3/8/2012	6.93	NM	1,020	1,620	4,700	NA	NA	NA	NA
SB07R	9/11/2012	9.68	84.95	773	896	3,400	<1.0	<1.0	<1.0	<1.0
	1/8/2013	7.89	86.74	1,150	2,930	4,900	NA	NA	NA	NA
SB08	3/8/2012	9.73	NM	182	395	1,100	NA	NA	NA	NA
SB08R	9/11/2012	11.77	89.27	2,140	500	1,600	<1.0	<1.0	<1.0	<1.0
	1/8/2013	9.39	91.65	247	736	1,100	NA	NA	NA	NA
SB09 (background)	3/8/2012	8.09	NM	270	573	2,000	NA	NA	NA	NA
SB10	3/9/2012	9.64	NM	157	414	1,100	NA	NA	NA	NA
	9/12/2012	10.39	89.90	146	203	1,000	<1.0	<1.0	<1.0	<1.0
	1/8/2013	8.42	91.87	195	356	970	NA	NA	NA	NA
SB11	3/9/2012	8.58	NM	267	717	1,900	NA	NA	NA	NA
	9/12/2012	9.78	89.05	263	639	1,900	<1.0	<1.0	<1.0	<1.0
	1/8/2013	7.72	91.11	309	808	1,300	NA	NA	NA	NA
SB12	3/9/2012	6.16	NM	300	1,230	2,500	NA	NA	NA	NA
	9/12/2012	8.70	88.03	270	643	1,900	<1.0	<1.0	<1.0	<1.0
	1/8/2013	6.45	90.28	424	921	1,600	NA	NA	NA	NA
SB13	3/9/2012	5.61	NM	439	1,210	2,900	NA	NA	NA	NA
	9/12/2012	7.43	87.40	314	902	2,400	<1.0	<1.0	<1.0	<1.0
	1/8/2013	5.02	89.81	352	1,010	1,700	NA	NA	NA	NA
SB14	3/9/2012	6.15	NM	125	991	1,900	NA	NA	NA	NA
	9/12/2012	8.32	88.83	246	1,010	2,500	<1.0	<1.0	<1.0	<1.0
	1/8/2013	6.28	90.87	246	999	1,500	NA	NA	NA	NA
SB15	3/9/2012	10.97	NM			No Sample - Dry				
	9/12/2012	7.89	87.88	292	900	2,500	<1.0	<1.0	<1.0	<1.0
	1/8/2013	5.65	90.12	654	3,520	4,800	NA	NA	NA	NA

TABLE 2 (continued)

GROUNDWATER ANALYTICAL RESULTS
MILLER SOUTH #1 SPREAD FIELD
WELD COUNTY, COLORADO
NOBLE ENERGY, INC.

Sample Location	Date Sampled	Depth to Water (feet btoc)	Relative Groundwater Elevation (feet)	Chloride (mg/L)	Sulfate (mg/L)	Total Dissolved Solids (mg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)
SB16	3/9/2012	7.36	NM	297	730	2,200	NA	NA	NA	NA
	9/12/2012	9.15	88.52	194	597	2,000	<1.0	<1.0	<1.0	<1.0
	1/8/2013	7.60	90.07	264	734	1,500	NA	NA	NA	NA
SB17	9/11/2012	5.55	90.14	237	584	2,100	<1.0	<1.0	<1.0	<1.0
	1/8/2013	4.33	91.36	262	621	1,400	NA	NA	NA	NA
SB18	9/11/2012	7.75	90.85	290	920	3,000	<1.0	<1.0	<1.0	<1.0
	1/8/2013	6.50	92.10	313	866	1,800	NA	NA	NA	NA
SB19	9/11/2012	8.56	91.77	196	317	1,300	<1.0	<1.0	<1.0	<1.0
	1/8/2013	6.85	93.48	390	831	1,600	NA	NA	NA	NA
SB20	9/11/2012	10.33	89.50	183	180	1,000	<1.0	<1.0	<1.0	<1.0
	1/8/2013	9.40	90.43	209	329	710	NA	NA	NA	NA
SB21	9/11/2012	10.17	90.62	162	490	1,200	<1.0	<1.0	<1.0	<1.0
	1/8/2013	8.36	92.43	196	350	660	NA	NA	NA	NA
SB22	9/12/2012	11.14	87.53	355	815	2,200	<1.0	<1.0	<1.0	<1.0
	1/8/2013	9.14	89.53	378	884	1,400	NA	NA	NA	NA
SB23	9/12/2012	11.25	86.21	212	515	1,500	<1.0	<1.0	<1.0	<1.0
	1/8/2013	8.26	89.20	268	712	1,100	NA	NA	NA	NA
COGCC Table 910-1				295	642.5	2,000	5	560	700	1,400

NOTES:

btoc - below top of casing

µg/L - micrograms per liter

mg/L - milligrams per liter

NA - Not analyzed

< - indicates result is less than the stated laboratory reporting limit

COGCC - Colorado Oil and Gas Conservation Commission

BOLD - indicates result exceeds the applicable standard

Chloride, sulfate, and total dissolved solids standard is <1.25 x background concentrations

ATTACHMENT 1

WELL COMPLETION DIAGRAM

SB05R2

SB04R

Pooling Area



Compliance _m Engineering _m Remediation
LT Environmental, Inc.
4600 W. 60th Avenue
Arvada, Colorado 80003

BORING LOG/MONITORING WELL COMPLETION DIAGRAM

Boring/Well Number: SB05R2	Project: Miller South #1 CaCl
Date: 1/8/2013	Project Number: 008312061
Logged By: G. Muniz	Drilled By: LTE
Elevation: NA	Drilling Method: Hand Auger
Detector: None	Sampling Method: Not Sampled
Gravel Pack: 10-20 Silica Sand	Seal: Bentonite Chips
Casing Type: PVC	Grout: NA
Screen Type: PVC	Diameter: 1"
Slot: 0.010"	Length: 5'
	Hole Diameter: 3.25"
	Depth to Liquid: NA
	Total Depth: 10'
	Depth to Water: 6'

Penetration Resistance	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithology/Remarks	Well Completion
					0				Stickup: 32.4"	
					1					
					2					
					3					
					4			SP		
					5					
					6					
					7					
					8			CL		
					9					
					10					
					11				Well TD: 12.70' (from stickup height)	
					12					
					13					
					14					
					15					

Loose, poorly-graded sand,
No staining or odor

Silty, clay, pliable,
No staining or odor

ATTACHMENT 2
LABORATORY ANALYTICAL REPORT

Summit Scientific

741 Corporate Circle – Suite I ♦ Golden, Colorado 80401

303.277.9310 - laboratory ♦ 303.277.9531 - fax

January 24, 2013

Liz Houle
LT Environmental, Inc.
4600 West 60th Avenue
Arvada, CO 80003
RE: NEP - Miller S #1 CaCl

Enclosed are the results of analyses for samples received by Summit Scientific on 01/08/13 17:00. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Paul Shrewsbury For Joseph J Egry IV
Laboratory Director



LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: NEP - Miller S #1 CaCl

Project Number: 0083-12061
Project Manager: Liz Houle

Reported:
01/24/13 11:07

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SB01R	R301042-01	Water	01/08/13 00:00	01/08/13 17:00
SB02R	R301042-02	Water	01/08/13 00:00	01/08/13 17:00
SB03R	R301042-03	Water	01/08/13 00:00	01/08/13 17:00
SB04R	R301042-04	Water	01/08/13 00:00	01/08/13 17:00
SB05R2	R301042-05	Water	01/08/13 00:00	01/08/13 17:00
SB06R	R301042-06	Water	01/08/13 00:00	01/08/13 17:00
SB07R	R301042-07	Water	01/08/13 00:00	01/08/13 17:00
SB08R	R301042-08	Water	01/08/13 00:00	01/08/13 17:00
SB21	R301042-09	Water	01/08/13 00:00	01/08/13 17:00
SB10	R301042-10	Water	01/08/13 00:00	01/08/13 17:00
SB11	R301042-11	Water	01/08/13 00:00	01/08/13 17:00
SB12	R301042-12	Water	01/08/13 00:00	01/08/13 17:00
SB13	R301042-13	Water	01/08/13 00:00	01/08/13 17:00
SB14	R301042-14	Water	01/08/13 00:00	01/08/13 17:00
SB15	R301042-15	Water	01/08/13 00:00	01/08/13 17:00
SB16	R301042-16	Water	01/08/13 00:00	01/08/13 17:00
SB17	R301042-17	Water	01/08/13 00:00	01/08/13 17:00
SB18	R301042-18	Water	01/08/13 00:00	01/08/13 17:00
SB19	R301042-19	Water	01/08/13 00:00	01/08/13 17:00
SB20	R301042-20	Water	01/08/13 00:00	01/08/13 17:00
SB22	R301042-21	Water	01/08/13 00:00	01/08/13 17:00
SB23	R301042-22	Water	01/08/13 00:00	01/08/13 17:00

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: NEP - Miller S #1 CaCl

Project Number: 0083-12061
Project Manager: Liz Houle

Reported:
01/24/13 11:07

Summit Scientific R301042.1

741 Corporate Circle Suite 1 • Golden, Colorado 80401
303-277-9310 • 303-274-9333 Fax

Client: LT Environmental Page 1 of 3
Address: LT Environmental
City/State/Zip: Golden, CO
Phone: 303-277-9310 Fax: 303-274-9333
Project Manager: Liz Houle
E-Mail: lhoule@ltenv.com
Project Name: Miller S #1 CaCl
Project Number: 0083-12061

Sample Description	Date Sampled	Time Sampled	Number of Containers	Preservative	Matrix	Analyze For:	Special Instructions
5801	1/8/13		3	X HCl	Air - Center Serial #		
5802	1/8/13		3	X HNO ₃	Soil		
5803	1/8/13		3	X HCl	Groundwater		
5804	1/8/13		3	X HNO ₃	Other (Specify)		
5805	1/8/13		3	X HCl	Air - Center Serial #		
5806	1/8/13		3	X HNO ₃	Soil		
5807	1/8/13		3	X HCl	Groundwater		
5808	1/8/13		3	X HNO ₃	Other (Specify)		
5809	1/8/13		3	X HCl	Air - Center Serial #		
5810	1/8/13		3	X HNO ₃	Soil		
5811	1/8/13		3	X HCl	Groundwater		
5812	1/8/13		3	X HNO ₃	Other (Specify)		
5813	1/8/13		3	X HCl	Air - Center Serial #		
5814	1/8/13		3	X HNO ₃	Soil		
5815	1/8/13		3	X HCl	Groundwater		
5816	1/8/13		3	X HNO ₃	Other (Specify)		
5817	1/8/13		3	X HCl	Air - Center Serial #		
5818	1/8/13		3	X HNO ₃	Soil		
5819	1/8/13		3	X HCl	Groundwater		
5820	1/8/13		3	X HNO ₃	Other (Specify)		
5821	1/8/13		3	X HCl	Air - Center Serial #		
5822	1/8/13		3	X HNO ₃	Soil		
5823	1/8/13		3	X HCl	Groundwater		
5824	1/8/13		3	X HNO ₃	Other (Specify)		
5825	1/8/13		3	X HCl	Air - Center Serial #		
5826	1/8/13		3	X HNO ₃	Soil		
5827	1/8/13		3	X HCl	Groundwater		
5828	1/8/13		3	X HNO ₃	Other (Specify)		
5829	1/8/13		3	X HCl	Air - Center Serial #		
5830	1/8/13		3	X HNO ₃	Soil		
5831	1/8/13		3	X HCl	Groundwater		
5832	1/8/13		3	X HNO ₃	Other (Specify)		
5833	1/8/13		3	X HCl	Air - Center Serial #		
5834	1/8/13		3	X HNO ₃	Soil		
5835	1/8/13		3	X HCl	Groundwater		
5836	1/8/13		3	X HNO ₃	Other (Specify)		
5837	1/8/13		3	X HCl	Air - Center Serial #		
5838	1/8/13		3	X HNO ₃	Soil		
5839	1/8/13		3	X HCl	Groundwater		
5840	1/8/13		3	X HNO ₃	Other (Specify)		
5841	1/8/13		3	X HCl	Air - Center Serial #		
5842	1/8/13		3	X HNO ₃	Soil		
5843	1/8/13		3	X HCl	Groundwater		
5844	1/8/13		3	X HNO ₃	Other (Specify)		
5845	1/8/13		3	X HCl	Air - Center Serial #		
5846	1/8/13		3	X HNO ₃	Soil		
5847	1/8/13		3	X HCl	Groundwater		
5848	1/8/13		3	X HNO ₃	Other (Specify)		
5849	1/8/13		3	X HCl	Air - Center Serial #		
5850	1/8/13		3	X HNO ₃	Soil		
5851	1/8/13		3	X HCl	Groundwater		
5852	1/8/13		3	X HNO ₃	Other (Specify)		
5853	1/8/13		3	X HCl	Air - Center Serial #		
5854	1/8/13		3	X HNO ₃	Soil		
5855	1/8/13		3	X HCl	Groundwater		
5856	1/8/13		3	X HNO ₃	Other (Specify)		
5857	1/8/13		3	X HCl	Air - Center Serial #		
5858	1/8/13		3	X HNO ₃	Soil		
5859	1/8/13		3	X HCl	Groundwater		
5860	1/8/13		3	X HNO ₃	Other (Specify)		
5861	1/8/13		3	X HCl	Air - Center Serial #		
5862	1/8/13		3	X HNO ₃	Soil		
5863	1/8/13		3	X HCl	Groundwater		
5864	1/8/13		3	X HNO ₃	Other (Specify)		
5865	1/8/13		3	X HCl	Air - Center Serial #		
5866	1/8/13		3	X HNO ₃	Soil		
5867	1/8/13		3	X HCl	Groundwater		
5868	1/8/13		3	X HNO ₃	Other (Specify)		
5869	1/8/13		3	X HCl	Air - Center Serial #		
5870	1/8/13		3	X HNO ₃	Soil		
5871	1/8/13		3	X HCl	Groundwater		
5872	1/8/13		3	X HNO ₃	Other (Specify)		
5873	1/8/13		3	X HCl	Air - Center Serial #		
5874	1/8/13		3	X HNO ₃	Soil		
5875	1/8/13		3	X HCl	Groundwater		
5876	1/8/13		3	X HNO ₃	Other (Specify)		
5877	1/8/13		3	X HCl	Air - Center Serial #		
5878	1/8/13		3	X HNO ₃	Soil		
5879	1/8/13		3	X HCl	Groundwater		
5880	1/8/13		3	X HNO ₃	Other (Specify)		
5881	1/8/13		3	X HCl	Air - Center Serial #		
5882	1/8/13		3	X HNO ₃	Soil		
5883	1/8/13		3	X HCl	Groundwater		
5884	1/8/13		3	X HNO ₃	Other (Specify)		
5885	1/8/13		3	X HCl	Air - Center Serial #		
5886	1/8/13		3	X HNO ₃	Soil		
5887	1/8/13		3	X HCl	Groundwater		
5888	1/8/13		3	X HNO ₃	Other (Specify)		
5889	1/8/13		3	X HCl	Air - Center Serial #		
5890	1/8/13		3	X HNO ₃	Soil		
5891	1/8/13		3	X HCl	Groundwater		
5892	1/8/13		3	X HNO ₃	Other (Specify)		
5893	1/8/13		3	X HCl	Air - Center Serial #		
5894	1/8/13		3	X HNO ₃	Soil		
5895	1/8/13		3	X HCl	Groundwater		
5896	1/8/13		3	X HNO ₃	Other (Specify)		
5897	1/8/13		3	X HCl	Air - Center Serial #		
5898	1/8/13		3	X HNO ₃	Soil		
5899	1/8/13		3	X HCl	Groundwater		
5900	1/8/13		3	X HNO ₃	Other (Specify)		
5901	1/8/13		3	X HCl	Air - Center Serial #		
5902	1/8/13		3	X HNO ₃	Soil		
5903	1/8/13		3	X HCl	Groundwater		
5904	1/8/13		3	X HNO ₃	Other (Specify)		
5905	1/8/13		3	X HCl	Air - Center Serial #		
5906	1/8/13		3	X HNO ₃	Soil		
5907	1/8/13		3	X HCl	Groundwater		
5908	1/8/13		3	X HNO ₃	Other (Specify)		
5909	1/8/13		3	X HCl	Air - Center Serial #		
5910	1/8/13		3	X HNO ₃	Soil		
5911	1/8/13		3	X HCl	Groundwater		
5912	1/8/13		3	X HNO ₃	Other (Specify)		
5913	1/8/13		3	X HCl	Air - Center Serial #		
5914	1/8/13		3	X HNO ₃	Soil		
5915	1/8/13		3	X HCl	Groundwater		
5916	1/8/13		3	X HNO ₃	Other (Specify)		
5917	1/8/13		3	X HCl	Air - Center Serial #		
5918	1/8/13		3	X HNO ₃	Soil		
5919	1/8/13		3	X HCl	Groundwater		
5920	1/8/13		3	X HNO ₃	Other (Specify)		
5921	1/8/13		3	X HCl	Air - Center Serial #		
5922	1/8/13		3	X HNO ₃	Soil		
5923	1/8/13		3	X HCl	Groundwater		
5924	1/8/13		3	X HNO ₃	Other (Specify)		
5925	1/8/13		3	X HCl	Air - Center Serial #		
5926	1/8/13		3	X HNO ₃	Soil		
5927	1/8/13		3	X HCl	Groundwater		
5928	1/8/13		3	X HNO ₃	Other (Specify)		
5929	1/8/13		3	X HCl	Air - Center Serial #		
5930	1/8/13		3	X HNO ₃	Soil		
5931	1/8/13		3	X HCl	Groundwater		
5932	1/8/13		3	X HNO ₃	Other (Specify)		
5933	1/8/13		3	X HCl	Air - Center Serial #		
5934	1/8/13		3	X HNO ₃	Soil		
5935	1/8/13		3	X HCl	Groundwater		
5936	1/8/13		3	X HNO ₃	Other (Specify)		
5937	1/8/13		3	X HCl	Air - Center Serial #		
5938	1/8/13		3	X HNO ₃	Soil		
5939	1/8/13		3	X HCl	Groundwater		
5940	1/8/13		3	X HNO ₃	Other (Specify)		
5941	1/8/13		3	X HCl	Air - Center Serial #		
5942	1/8/13		3	X HNO ₃	Soil		
5943	1/8/13		3	X HCl	Groundwater		
5944	1/8/13		3	X HNO ₃	Other (Specify)		
5945	1/8/13		3	X HCl	Air - Center Serial #		
5946	1/8/13		3	X HNO ₃	Soil		
5947	1/8/13		3	X HCl	Groundwater		
5948	1/8/13		3	X HNO ₃	Other (Specify)		
5949	1/8/13		3	X HCl	Air - Center Serial #		
5950	1/8/13		3	X HNO ₃	Soil		
5951	1/8/13		3	X HCl	Groundwater		
5952	1/8/13		3	X HNO ₃	Other (Specify)		
5953	1/8/13		3	X HCl	Air - Center Serial #		
5954	1/8/13		3	X HNO ₃	Soil		
5955	1/8/13		3	X HCl	Groundwater		
5956	1/8/13		3	X HNO ₃	Other (Specify)		
5957	1/8/13		3	X HCl	Air - Center Serial #		
5958	1/8/13		3	X HNO ₃	Soil		
5959	1/8/13		3	X HCl	Groundwater		
5960	1/8/13		3	X HNO ₃	Other (Specify)		
5961	1/8/13		3	X HCl	Air - Center Serial #		
5962	1/8/13		3	X HNO ₃	Soil		
5963	1/8/13		3	X HCl	Groundwater		
5964	1/8/13		3	X HNO ₃	Other (Specify)		
5965	1/8/13		3	X HCl	Air - Center Serial #		
5966	1/8/13		3	X HNO ₃	Soil		
5967	1/8/13		3	X HCl	Groundwater		
5968	1/8/13		3	X HNO ₃	Other (Specify)		
5969	1/8/13		3	X HCl	Air - Center Serial #		
5970	1/8/13		3	X HNO ₃	Soil		
5971	1/8/13		3	X HCl	Groundwater		
5972	1/8/13		3	X HNO ₃	Other (Specify)		
5973	1/8/13		3	X HCl	Air - Center Serial #		
5974	1/8/13		3	X HNO ₃	Soil		
5975	1/8/13		3	X HCl	Groundwater		
5976	1/8/13		3	X HNO ₃	Other (Specify)		
5977	1/8/13		3	X HCl	Air - Center Serial #		
5978	1/8/13		3	X HNO ₃	Soil		
5979	1/8/13		3	X HCl	Groundwater		
5980	1/8/13		3	X HNO ₃	Other (Specify)		
5981	1/8/13		3	X HCl	Air - Center Serial #		
5982	1/8/13		3	X HNO ₃	Soil		
5983	1/8/13		3	X HCl	Groundwater		
5984	1/8/13		3	X HNO ₃	Other (Specify)		
5985	1/8/13		3	X HCl	Air - Center Serial #		
5986	1/8/13		3	X HNO ₃	Soil		
5987	1/8/13		3	X HCl	Groundwater		
5988	1/8/13		3	X HNO ₃	Other (Specify)		
5989	1/8/13		3	X HCl	Air - Center Serial #		
5							



LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: NEP - Miller S #1 CaCl

Project Number: 0083-12061
Project Manager: Liz Houle

Reported:
01/24/13 11:07

Summit Scientific
R30042.2

711 Corporate Circle Suite 1 • Golden, Colorado 80401
303-277-9310 • 303-274-5933 Fax

Client: Miller LT Page 2 of 3
Address: LT
City/State/Zip: LT
Phone: LT Fax: LT
Project Manager: Liz Houle
E-Mail: liz@summit-sc.com
Project Name: Miller S #1 CaCl
Project Number: 0083-12061

Sample Description	Date Sampled	Time Sampled	Number of Containers	Preservative				Matrix				Analyze For:				Special Instructions
				HCl	HNO ₃	None	Other (Specify)	Groundwater	Soil	Air - Canister Serial #	Other (Specify)	TDS	Chlorides			
5611	1/8/13		3			X										
5612	1/8/13		3			X										
5613	1/8/13		3			X										
5614	1/8/13		3			X										
5615	1/8/13		3			X										
5616	1/8/13		3			X										
5617	1/8/13		3			X										
5618	1/8/13		3			X										
5619	1/8/13		3			X										
5620	1/8/13		3			X										

Relinquished by:	Date/Time:	Received by:	Date/Time:	Turn Around Time (Check)	Notes:
<u>M. Miller</u>	<u>1/8/13 1715</u>	<u>[Signature]</u>	<u>1/8/13 1700</u>	<input checked="" type="checkbox"/> 24 Hours <input type="checkbox"/> 48 Hours <input type="checkbox"/> 72 Hours <input type="checkbox"/> Standard	

Relinquished by:	Date/Time:	Received in Lab by:	Date/Time:	Sample Integrity:
				Temperature: <u>1.8</u> Impact: <u>Yes</u> No

www.summit-sc.com

LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: NEP - Miller S #1 CaCl

Project Number: 0083-12061

Project Manager: Liz Houle

Reported:

01/24/13 11:07

R301042.3

Summit Scientific

5

741 Corporate Circle Suite I • Golden, Colorado 80401
303-277-9310 • 303-374-5933 Fax

Page 3 of 3

Client: Noble LTF

Manager: 612 17662

Chaudhary, P. K.

Name: M. L. G. S. # 1601

Number: 008312061

[illegible]

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LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: NEP - Miller S #1 CaCl

Project Number: 0083-12061
Project Manager: Liz Houle

Reported:
01/24/13 11:07

SB01R
R301042-01 (Water)

Summit Scientific

Anions by EPA Method 300.0

Date Sampled: **01/08/13 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chloride	2820	100	mg/L	100	3010905	01/09/13	01/10/13	EPA 300.0	

Date Sampled: **01/08/13 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sulfate	1010	10.0	"	10	"	"	"	"	

Miscellaneous Physical/Conventional Chemistry Parameters

Date Sampled: **01/08/13 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Total Dissolved Solids	4700	1.0	mg/L	1	3010903	01/09/13	01/09/13	TDS Meter	

Summit Scientific

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LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: NEP - Miller S #1 CaCl

Project Number: 0083-12061

Project Manager: Liz Houle

Reported:
01/24/13 11:07

SB02R
R301042-02 (Water)

Summit Scientific

Anions by EPA Method 300.0

Date Sampled: **01/08/13 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chloride	241	10.0	mg/L	10	3010905	01/09/13	01/10/13	EPA 300.0	

Date Sampled: **01/08/13 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sulfate	366	10.0	"	"	"	"	"	"	

Miscellaneous Physical/Conventional Chemistry Parameters

Date Sampled: **01/08/13 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Total Dissolved Solids	830	1.0	mg/L	1	3010903	01/09/13	01/09/13	TDS Meter	

Summit Scientific

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LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: NEP - Miller S #1 CaCl

Project Number: 0083-12061
Project Manager: Liz Houle

Reported:
01/24/13 11:07

SB03R
R301042-03 (Water)

Summit Scientific

Anions by EPA Method 300.0

Date Sampled: **01/08/13 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chloride	252	10.0	mg/L	10	3010905	01/09/13	01/10/13	EPA 300.0	

Date Sampled: **01/08/13 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sulfate	741	10.0	"	"	"	"	"	"	

Miscellaneous Physical/Conventional Chemistry Parameters

Date Sampled: **01/08/13 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Total Dissolved Solids	1500	1.0	mg/L	1	3010903	01/09/13	01/09/13	TDS Meter	

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Arvada CO, 80003

Project: NEP - Miller S #1 CaCl

Project Number: 0083-12061

Project Manager: Liz Houle

Reported:
01/24/13 11:07

SB04R
R301042-04 (Water)

Summit Scientific

Anions by EPA Method 300.0

Date Sampled: **01/08/13 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chloride	388	10.0	mg/L	10	3010905	01/09/13	01/10/13	EPA 300.0	

Date Sampled: **01/08/13 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sulfate	1330	100	"	100	"	"	"	"	

Miscellaneous Physical/Conventional Chemistry Parameters

Date Sampled: **01/08/13 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Total Dissolved Solids	2400	1.0	mg/L	1	3010903	01/09/13	01/09/13	TDS Meter	

Summit Scientific

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4600 West 60th Avenue
Arvada CO, 80003

Project: NEP - Miller S #1 CaCl
Project Number: 0083-12061
Project Manager: Liz Houle

Reported:
01/24/13 11:07

SB05R2
R301042-05 (Water)

Summit Scientific

Anions by EPA Method 300.0

Date Sampled: **01/08/13 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chloride	6170	100	mg/L	100	3010905	01/09/13	01/10/13	EPA 300.0	

Date Sampled: **01/08/13 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sulfate	1570	100	"	"	"	"	"	"	

Miscellaneous Physical/Conventional Chemistry Parameters

Date Sampled: **01/08/13 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Total Dissolved Solids	10000	1.0	mg/L	1	3010903	01/09/13	01/09/13	TDS Meter	

Summit Scientific

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Arvada CO, 80003

Project: NEP - Miller S #1 CaCl

Project Number: 0083-12061

Project Manager: Liz Houle

Reported:
01/24/13 11:07

SB06R
R301042-06 (Water)

Summit Scientific

Anions by EPA Method 300.0

Date Sampled: **01/08/13 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chloride	218	10.0	mg/L	10	3010905	01/09/13	01/10/13	EPA 300.0	

Date Sampled: **01/08/13 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sulfate	401	10.0	"	"	"	"	"	"	

Miscellaneous Physical/Conventional Chemistry Parameters

Date Sampled: **01/08/13 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Total Dissolved Solids	770	1.0	mg/L	1	3010903	01/09/13	01/09/13	TDS Meter	

Summit Scientific

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Arvada CO, 80003

Project: NEP - Miller S #1 CaCl
Project Number: 0083-12061
Project Manager: Liz Houle

Reported:
01/24/13 11:07

SB07R
R301042-07 (Water)

Summit Scientific

Anions by EPA Method 300.0

Date Sampled: **01/08/13 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chloride	1150	100	mg/L	100	3010905	01/09/13	01/10/13	EPA 300.0	

Date Sampled: **01/08/13 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sulfate	2930	100	"	"	"	"	"	"	

Miscellaneous Physical/Conventional Chemistry Parameters

Date Sampled: **01/08/13 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Total Dissolved Solids	4900	1.0	mg/L	1	3010903	01/09/13	01/09/13	TDS Meter	

Summit Scientific

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Project: NEP - Miller S #1 CaCl

Project Number: 0083-12061
Project Manager: Liz Houle

Reported:
01/24/13 11:07

SB08R
R301042-08 (Water)

Summit Scientific

Anions by EPA Method 300.0

Date Sampled: **01/08/13 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chloride	247	10.0	mg/L	10	3010905	01/09/13	01/10/13	EPA 300.0	

Date Sampled: **01/08/13 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sulfate	736	10.0	"	"	"	"	"	"	

Miscellaneous Physical/Conventional Chemistry Parameters

Date Sampled: **01/08/13 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Total Dissolved Solids	1100	1.0	mg/L	1	3010903	01/09/13	01/09/13	TDS Meter	

Summit Scientific

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Arvada CO, 80003

Project: NEP - Miller S #1 CaCl

Project Number: 0083-12061

Project Manager: Liz Houle

Reported:
01/24/13 11:07

SB21
R301042-09 (Water)

Summit Scientific

Anions by EPA Method 300.0

Date Sampled: **01/08/13 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chloride	196	10.0	mg/L	10	3010905	01/09/13	01/10/13	EPA 300.0	

Date Sampled: **01/08/13 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sulfate	350	10.0	"	"	"	"	"	"	

Miscellaneous Physical/Conventional Chemistry Parameters

Date Sampled: **01/08/13 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Total Dissolved Solids	660	1.0	mg/L	1	3010903	01/09/13	01/09/13	TDS Meter	

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4600 West 60th Avenue
Arvada CO, 80003

Project: NEP - Miller S #1 CaCl

Project Number: 0083-12061
Project Manager: Liz Houle

Reported:
01/24/13 11:07

SB10
R301042-10 (Water)

Summit Scientific

Anions by EPA Method 300.0

Date Sampled: **01/08/13 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chloride	195	10.0	mg/L	10	3010905	01/09/13	01/10/13	EPA 300.0	

Date Sampled: **01/08/13 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sulfate	356	10.0	"	"	"	"	"	"	

Miscellaneous Physical/Conventional Chemistry Parameters

Date Sampled: **01/08/13 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Total Dissolved Solids	970	1.0	mg/L	1	3010903	01/09/13	01/09/13	TDS Meter	

Summit Scientific

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LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: NEP - Miller S #1 CaCl

Project Number: 0083-12061
Project Manager: Liz Houle

Reported:
01/24/13 11:07

SB11
R301042-11 (Water)

Summit Scientific

Anions by EPA Method 300.0

Date Sampled: **01/08/13 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chloride	309	10.0	mg/L	10	3010905	01/09/13	01/10/13	EPA 300.0	

Date Sampled: **01/08/13 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sulfate	808	10.0	"	"	"	"	"	"	

Miscellaneous Physical/Conventional Chemistry Parameters

Date Sampled: **01/08/13 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Total Dissolved Solids	1300	1.0	mg/L	1	3010903	01/09/13	01/09/13	TDS Meter	

Summit Scientific

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LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: NEP - Miller S #1 CaCl
Project Number: 0083-12061
Project Manager: Liz Houle

Reported:
01/24/13 11:07

SB12
R301042-12 (Water)

Summit Scientific

Anions by EPA Method 300.0

Date Sampled: **01/08/13 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chloride	424	10.0	mg/L	10	3010905	01/09/13	01/10/13	EPA 300.0	

Date Sampled: **01/08/13 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sulfate	921	10.0	"	"	"	"	"	"	

Miscellaneous Physical/Conventional Chemistry Parameters

Date Sampled: **01/08/13 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Total Dissolved Solids	1600	1.0	mg/L	1	3010904	01/09/13	01/09/13	TDS Meter	

Summit Scientific

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LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: NEP - Miller S #1 CaCl
Project Number: 0083-12061
Project Manager: Liz Houle

Reported:
01/24/13 11:07

SB13
R301042-13 (Water)

Summit Scientific

Anions by EPA Method 300.0

Date Sampled: **01/08/13 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chloride	352	10.0	mg/L	10	3010905	01/09/13	01/10/13	EPA 300.0	

Date Sampled: **01/08/13 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sulfate	1010	10.0	"	"	"	"	"	"	

Miscellaneous Physical/Conventional Chemistry Parameters

Date Sampled: **01/08/13 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Total Dissolved Solids	1700	1.0	mg/L	1	3010904	01/09/13	01/09/13	TDS Meter	

Summit Scientific

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LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: NEP - Miller S #1 CaCl

Project Number: 0083-12061

Project Manager: Liz Houle

Reported:
01/24/13 11:07

SB14
R301042-14 (Water)

Summit Scientific

Anions by EPA Method 300.0

Date Sampled: **01/08/13 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chloride	246	10.0	mg/L	10	3010905	01/09/13	01/10/13	EPA 300.0	

Date Sampled: **01/08/13 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sulfate	999	10.0	"	"	"	"	"	"	

Miscellaneous Physical/Conventional Chemistry Parameters

Date Sampled: **01/08/13 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Total Dissolved Solids	1500	1.0	mg/L	1	3010904	01/09/13	01/09/13	TDS Meter	

Summit Scientific

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LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: NEP - Miller S #1 CaCl
Project Number: 0083-12061
Project Manager: Liz Houle

Reported:
01/24/13 11:07

SB15
R301042-15 (Water)

Summit Scientific

Anions by EPA Method 300.0

Date Sampled: **01/08/13 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chloride	654	10.0	mg/L	10	3010905	01/09/13	01/10/13	EPA 300.0	

Date Sampled: **01/08/13 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sulfate	3520	100	"	100	"	"	"	"	

Miscellaneous Physical/Conventional Chemistry Parameters

Date Sampled: **01/08/13 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Total Dissolved Solids	4800	1.0	mg/L	1	3010904	01/09/13	01/09/13	TDS Meter	

Summit Scientific

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LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: NEP - Miller S #1 CaCl
Project Number: 0083-12061
Project Manager: Liz Houle

Reported:
01/24/13 11:07

SB16
R301042-16 (Water)

Summit Scientific

Anions by EPA Method 300.0

Date Sampled: **01/08/13 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chloride	264	10.0	mg/L	10	3010905	01/09/13	01/10/13	EPA 300.0	

Date Sampled: **01/08/13 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sulfate	734	10.0	"	"	"	"	"	"	

Miscellaneous Physical/Conventional Chemistry Parameters

Date Sampled: **01/08/13 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Total Dissolved Solids	1500	1.0	mg/L	1	3010904	01/09/13	01/09/13	TDS Meter	

Summit Scientific

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LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: NEP - Miller S #1 CaCl

Project Number: 0083-12061
Project Manager: Liz Houle

Reported:
01/24/13 11:07

SB17
R301042-17 (Water)

Summit Scientific

Anions by EPA Method 300.0

Date Sampled: **01/08/13 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chloride	262	10.0	mg/L	10	3010905	01/09/13	01/10/13	EPA 300.0	

Date Sampled: **01/08/13 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sulfate	621	10.0	"	"	"	"	"	"	

Miscellaneous Physical/Conventional Chemistry Parameters

Date Sampled: **01/08/13 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Total Dissolved Solids	1400	1.0	mg/L	1	3010904	01/09/13	01/09/13	TDS Meter	

Summit Scientific

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LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: NEP - Miller S #1 CaCl

Project Number: 0083-12061

Project Manager: Liz Houle

Reported:
01/24/13 11:07

SB18
R301042-18 (Water)

Summit Scientific

Anions by EPA Method 300.0

Date Sampled: **01/08/13 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chloride	313	10.0	mg/L	10	3010905	01/09/13	01/10/13	EPA 300.0	

Date Sampled: **01/08/13 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sulfate	866	10.0	"	"	"	"	"	"	

Miscellaneous Physical/Conventional Chemistry Parameters

Date Sampled: **01/08/13 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Total Dissolved Solids	1800	1.0	mg/L	1	3010904	01/09/13	01/09/13	TDS Meter	

Summit Scientific

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LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: NEP - Miller S #1 CaCl

Project Number: 0083-12061
Project Manager: Liz Houle

Reported:
01/24/13 11:07

SB19
R301042-19 (Water)

Summit Scientific

Anions by EPA Method 300.0

Date Sampled: **01/08/13 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chloride	390	10.0	mg/L	10	3010905	01/09/13	01/10/13	EPA 300.0	

Date Sampled: **01/08/13 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sulfate	831	10.0	"	"	"	"	"	"	

Miscellaneous Physical/Conventional Chemistry Parameters

Date Sampled: **01/08/13 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Total Dissolved Solids	1600	1.0	mg/L	1	3010904	01/09/13	01/09/13	TDS Meter	

Summit Scientific

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LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: NEP - Miller S #1 CaCl

Project Number: 0083-12061

Project Manager: Liz Houle

Reported:
01/24/13 11:07

SB20
R301042-20 (Water)

Summit Scientific

Anions by EPA Method 300.0

Date Sampled: **01/08/13 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chloride	209	10.0	mg/L	10	3010905	01/09/13	01/10/13	EPA 300.0	

Date Sampled: **01/08/13 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sulfate	329	10.0	"	"	"	"	"	"	

Miscellaneous Physical/Conventional Chemistry Parameters

Date Sampled: **01/08/13 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Total Dissolved Solids	710	1.0	mg/L	1	3010904	01/09/13	01/09/13	TDS Meter	

Summit Scientific

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LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: NEP - Miller S #1 CaCl

Project Number: 0083-12061

Project Manager: Liz Houle

Reported:
01/24/13 11:07

SB22
R301042-21 (Water)

Summit Scientific

Anions by EPA Method 300.0

Date Sampled: **01/08/13 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chloride	378	10.0	mg/L	10	3010906	01/09/13	01/10/13	EPA 300.0	

Date Sampled: **01/08/13 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sulfate	884	10.0	"	"	"	"	"	"	

Miscellaneous Physical/Conventional Chemistry Parameters

Date Sampled: **01/08/13 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Total Dissolved Solids	1400	1.0	mg/L	1	3010904	01/09/13	01/09/13	TDS Meter	

Summit Scientific

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LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: NEP - Miller S #1 CaCl

Project Number: 0083-12061

Project Manager: Liz Houle

Reported:
01/24/13 11:07

SB23
R301042-22 (Water)

Summit Scientific

Anions by EPA Method 300.0

Date Sampled: **01/08/13 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chloride	268	10.0	mg/L	10	3010906	01/09/13	01/10/13	EPA 300.0	

Date Sampled: **01/08/13 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sulfate	712	10.0	"	"	"	"	"	"	

Miscellaneous Physical/Conventional Chemistry Parameters

Date Sampled: **01/08/13 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Total Dissolved Solids	1100	1.0	mg/L	1	3010904	01/09/13	01/09/13	TDS Meter	

Summit Scientific

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LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: NEP - Miller S #1 CaCl
Project Number: 0083-12061
Project Manager: Liz Houle

Reported:
01/24/13 11:07

Anions by EPA Method 300.0 - Quality Control

Summit Scientific

Reporting				Spike	Source	%REC			RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch 3010905 - General Prep

Blank (3010905-BLK1)

Prepared: 01/09/13 Analyzed: 01/10/13

Chloride	ND	1.00	mg/L
Sulfate	ND	1.00	"

LCS (3010905-BS1)

Prepared: 01/09/13 Analyzed: 01/10/13

Chloride	11.5	1.00	mg/L	11.1	104	90-110
Sulfate	11.1	1.00	"	11.1	100	90-110

LCS Dup (3010905-BSD1)

Prepared: 01/09/13 Analyzed: 01/10/13

Chloride	11.5	1.00	mg/L	11.1	104	90-110	0.00963	10
Sulfate	11.1	1.00	"	11.1	100	90-110	0.00996	10

Matrix Spike (3010905-MS1)

Source: R301042-01

Prepared: 01/09/13 Analyzed: 01/10/13

Sulfate	985	10.0	mg/L	11.1	1010	NR	80-120			QM-4X
Chloride	2410	100	"	11.1	2820	NR	80-120			QM-4X

Matrix Spike Dup (3010905-MSD1)

Source: R301042-01

Prepared: 01/09/13 Analyzed: 01/10/13

Sulfate	1010	10.0	mg/L	11.1	1010	NR	80-120	2.49	20	QM-4X
Chloride	2420	100	"	11.1	2820	NR	80-120	0.469	20	QM-4X

Batch 3010906 - General Prep

Blank (3010906-BLK1)

Prepared: 01/09/13 Analyzed: 01/10/13

Chloride	ND	1.00	mg/L
Sulfate	ND	1.00	"

LCS (3010906-BS1)

Prepared: 01/09/13 Analyzed: 01/10/13

Chloride	11.8	1.00	mg/L	11.1	106	90-110
Sulfate	11.1	1.00	"	11.1	100	90-110

Summit Scientific

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LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: NEP - Miller S #1 CaCl
Project Number: 0083-12061
Project Manager: Liz Houle

Reported:
01/24/13 11:07

Anions by EPA Method 300.0 - Quality Control
Summit Scientific

Analyte	Reporting			Spike	Source	%REC		RPD		Notes
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	

Batch 3010906 - General Prep

LCS Dup (3010906-BSD1)

Prepared: 01/09/13 Analyzed: 01/10/13

Chloride	11.8	1.00	mg/L	11.1		106	90-110	0.0189	10	
Sulfate	11.1	1.00	"	11.1		100	90-110	0.339	10	

Matrix Spike (3010906-MS1)

Source: R301042-21

Prepared: 01/09/13 Analyzed: 01/10/13

Sulfate	813	10.0	mg/L	11.1	884	NR	80-120			QM-4X
Chloride	354	10.0	"	11.1	378	NR	80-120			QM-4X

Matrix Spike Dup (3010906-MSD1)

Source: R301042-21

Prepared: 01/09/13 Analyzed: 01/10/13

Chloride	354	10.0	mg/L	11.1	378	NR	80-120	0.0377	20	QM-4X
Sulfate	813	10.0	"	11.1	884	NR	80-120	0.0137	20	QM-4X

Summit Scientific

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LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: NEP - Miller S #1 CaCl
Project Number: 0083-12061
Project Manager: Liz Houle

Reported:
01/24/13 11:07

Miscellaneous Physical/Conventional Chemistry Parameters - Quality Control
Summit Scientific

Analyte	Reporting			Spike	Source		%REC		RPD	
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch 3010903 - General Preparation

Blank (3010903-BLK1)

Prepared & Analyzed: 01/09/13

Total Dissolved Solids ND 1.0 mg/L

Duplicate (3010903-DUP1)

Source: R301042-01

Prepared & Analyzed: 01/09/13

Total Dissolved Solids 4600 1.0 mg/L 4700 1.17 0

Batch 3010904 - General Preparation

Blank (3010904-BLK1)

Prepared & Analyzed: 01/09/13

Total Dissolved Solids ND 1.0 mg/L

Duplicate (3010904-DUP1)

Source: R301042-12

Prepared & Analyzed: 01/09/13

Total Dissolved Solids 1600 1.0 mg/L 1600 0.436 0

Summit Scientific

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LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: NEP - Miller S #1 CaCl

Project Number: 0083-12061
Project Manager: Liz Houle

Reported:
01/24/13 11:07

Notes and Definitions

QM-4X The spike recovery was outside of QC acceptance limits for the MS and/or MSD due to analyte concentration at 4 times or greater the spike concentration. The QC batch was accepted based on LCS and/or LCSD recoveries within the acceptance limits.

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

dry Sample results reported on a dry weight basis

RPD Relative Percent Difference

Summit Scientific

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