

Sierrita Operations Environment, Land & Water Department 6200 West Duval Mine Road PO Box 527 Green Valley, Arizona 85622-0527

October 29, 2013

Via Certified Mail # 7011 1150 0000 0283 7983 Return Receipt Requested

Ms. Mindi Cross Arizona Department of Environmental Quality Water Quality Compliance Section 1110 West Washington Street Phoenix, Arizona 85007-2935

Re: Semiannual Groundwater Monitoring Report for Samples Collected During the Second & Third Quarters 2013. Mitigation Order on Consent Docket No. P-50-06

Dear Ms. Cross:

Attached please find three (3) hard copies and one (1) disc of the Semiannual Groundwater Monitoring Report for Samples Collected During the Second and Third Quarters 2013, prepared by Clear Creek Associates for Freeport-McMoRan Sierrita Inc. (Sierrita). This document provides results of groundwater monitoring conducted during the Second and third quarters of 2013, as agreed upon and described in the letter from ADEQ to Sierrita dated April 17, 2009.

Please do not hesitate to contact me at (520) 393-2252 if you have any questions regarding this submittal.

Sincerely,

Kanyembo Katapa, P.E. Environmental Engineer Freeport-McMoRan Sierrita Inc.

KK/ms Attachment 20131029_001

 xc: Henry Darwin, Arizona Department of Environmental Quality Marcia Colquitt, Arizona Department of Environmental Quality John Broderick, Sierrita Lana Fretz, Sierrita Ned Hall, Freeport-McMoRan Copper & Gold Stuart Brown, Freeport-McMoRan Copper & Gold Jim Norris, Clear Creek Associates

SEMIANNUAL GROUNDWATER MONITORING REPORT FOR SAMPLES COLLECTED DURING THE SECOND AND THIRD QUARTERS 2013

MITIGATION ORDER ON CONSENT DOCKET NO. P-50-06 PIMA COUNTY, ARIZONA



Prepared for:

FREEPORT-MCMORAN SIERRITA INC. 6200 West Duval Mine Road Green Valley, Arizona 85614

Prepared by:

CLEAR CREEK ASSOCIATES, P.L.C.

221 North Court Avenue Tucson, Arizona 85701 (520) 622-3222

October 21, 2013

SEMIANNUAL GROUNDWATER MONITORING REPORT FOR SAMPLES COLLECTED DURING SECOND AND THIRD QUARTERS 2013

MITIGATION ORDER ON CONSENT DOCKET NO. P-50-06 PIMA COUNTY, ARIZONA

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Arizona Registered Geologist No. 30842

October 21, 2013

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1. INTRODUCTION

This report provides the results of groundwater monitoring conducted in the second and third quarters 2013 in the vicinity of the Freeport-McMoRan Sierrita Inc. (Sierrita) Tailing Impoundment (STI). Monitoring was conducted by Sierrita to characterize groundwater sulfate concentrations and groundwater elevations in the vicinity of the STI. This semiannual groundwater monitoring report was prepared by Clear Creek Associates on behalf of Sierrita.

1.1 Scope of Groundwater Monitoring

Quarterly groundwater monitoring pursuant to the Mitigation Order on Consent Docket No. P-50-06 has been conducted since the fourth quarter 2006 according to the specifications of the Work Plan (HGC, 2006a) submitted to and approved by Arizona Department of Environmental Quality (ADEQ). The purpose of the groundwater monitoring under the Work Plan is to document sulfate concentrations and water levels to determine the lateral and vertical extent of the sulfate plume and to provide data for conceptual and numerical models of the plume. Submittal of the Aquifer Characterization Report (HGC, 2009a), Feasibility Study (HGC, 2008), and Mitigation Plan (HGC, 2009b) fulfilled the objectives of monitoring recommended by the Work Plan.

In 2009, the groundwater monitoring requirements were revised in collaboration with ADEQ. The objectives of the revised groundwater monitoring plan are to track the location of the plume edge and to monitor drinking water supply wells near the plume prior to implementation of the additional mitigation measures recommended in the Feasibility Study.

The details of the pre-implementation groundwater monitoring are described in letters from Sierrita to ADEQ on May 15, 2009 (Sierrita, 2009a) and June 12, 2009 (Sierrita, 2009b). Wells identified for annual, quarterly, and semiannual monitoring for pre-implementation groundwater monitoring are shown in Table 1 and Figure 1.

Groundwater sampling and analysis methods followed by Sierrita are described in the Quality Assurance Project Plan (QAPP) contained in Appendix E of the Work Plan (HGC, 2006a). Results of groundwater monitoring are presented in Section 2.1.



Four groundwater extraction wells, IW-25, IW-26, IW-27, and IW-28, were installed along the southern portion of the STI (Figure 1) in 2010. These wells began pumping in April 2012 and were added to the annual groundwater monitoring schedule (Table 1) pursuant to Task 2.2 of the Work Plan.



2. GROUNDWATER MONITORING

2.1 Monitoring Results

All wells were sampled according to the schedule presented in the pre-implementation groundwater monitoring plan (Table 1) except ESP-1, I-10, and IW-27 which were not operational during the second quarter 2013. Water level measurements were collected according to Table 1 except: HAVEN GOLF, which does not have a sounding tube; IW-27, which was not visited because it offline; and MH-1, which could not be located.

Analytical results and groundwater elevation data for the second and third quarters 2013 are tabulated in Tables 2 and 3, respectively. Figure 2 shows the concentrations of dissolved sulfate in the wells sampled in the second quarter 2013. Figure 3 shows the dissolved sulfate concentrations in drinking water supply wells in the vicinity of the plume and their corresponding sentinel wells in the third quarter 2013. The highest sulfate concentration measured at co-located wells was used for concentration contouring¹. Sulfate concentrations are reported as received from the laboratory with no modifications to the number of significant figures. Groundwater elevations were calculated using depth to water measurements taken under non-pumping conditions whenever possible. Third quarter 2013 groundwater elevations are consistent with second quarter 2013 and historical data. Figures 2 through 5 show only the most recent data for wells at which multiple measurements were made during the sampling period.

¹ The 250 milligram per liter (mg/L) sulfate contour in the vicinity of the MO-2007-1 wells is drawn based on the calculated distances that the sulfate plume could have migrated since groundwater concentrations at MO-2007-1C exceeded 250 mg/L in the fourth quarter of 2009. The calculated distances are 1,520 feet for second quarter 2013 and 1,620 feet for third quarter 2013. The distance migrated was calculated based on groundwater velocity of 405 feet per year determined using an average hydraulic gradient of 0.00895 between MO-2007-1C and TMM-1, a hydraulic conductivity of 31 feet per day, and an assumed effective porosity of 25 percent. The distance is considered a maximum because groundwater velocity was calculated with the highest measured hydraulic gradients between the MO-2007-1 wells and TMM-1 and the highest hydraulic conductivity measured at the MO-2007-1 wells.



2.2 Quality Assurance/Quality Control Review

Pursuant to Section 6.4 of the QAPP, a data verification report was prepared for quality assurance and quality control purposes. The data verification report reviews groundwater data collected by Sierrita during the second and third quarters 2013, and is included as Appendix A. Analytical laboratory reports for samples collected in second and third quarters 2013 are provided in portable document format on the compact diskette in Appendix B. As determined by the analytical data verification review, all data are of acceptable quality for use in the groundwater monitoring program conducted pursuant to the Mitigation Order.



3. FINDINGS

This semiannual data report provides the results of groundwater monitoring conducted in the vicinity of the STI for the second and third quarters 2013. Groundwater samples were collected from 71 plume area wells and depth to water measurements were collected from 90 wells during the second quarter 2013. In the third quarter 2013, groundwater samples and depth to water measurements were collected from 14 plume area wells.

- Sulfate concentration data indicate that the sulfate plume from the STI (as defined by the 250 mg/L sulfate concentration contour) extends northeast from the southeastern corner of the tailing impoundment to the east of co-located wells CW-3/MO-2007-5. The plume then extends north from wells CW-3/MO-2007-5 to the west of wells NP-2/MO-2007-3 and north to well TMM-1 (Figures 2 and 3). Comparison of the second quarter 2013 and the third quarter 2013 sulfate concentration data with those collected in previous quarters indicates that there has not been any significant change to the overall plume geometry, although some northward migration of the plume is interpreted in the vicinity of the MO-2007-1 wells.
- Appendix C presents time series graphs of sulfate concentrations for drinking water supply wells in the vicinity of the edge of the plume, sentinel wells between the plume and the drinking supply wells, and other monitoring wells that document the edge of the plume. Sulfate concentrations at all drinking water supply wells are less than the interim action trigger level of 135 mg/L (HGC, 2006b). The time series graphs for water supply wells CW-9, CW-10, and GV-01- GVDWID indicate that sulfate concentrations are steady over time. Sulfate concentrations at CW-6 have an increasing trend after 2010 with a maximum sulfate concentration of 91.94 mg/L in the second quarter 2013. The time series graph for GV-02-GVDWID indicates that sulfate concentrations declined starting in the first quarter 2011 and are relatively stable since the first quarter of 2013.
- Sulfate concentrations reported for groundwater samples collected from sentinel wells are
 less than the 135 mg/L trigger level for more frequent monitoring at sentinel wells
 (Sierrita, 2009a). Since 2007, concentrations are steady over time at MO-2007-3B, MO2007-4A, MO-2007-4B, and MO-2007-6A; decrease at MO-2007-3C and MO-2007-6B;
 and increase at NP-2, MO-2007-4C, and MO-2009-1. The samples collected from MO2007-3B, MO-2007-4A, MO-2007-4B, and MO-2007-4C during this monitoring period
 appear to be anomalously low and were not considered in characterizing the trend.
- Data presented in the time series graphs indicate that sulfate concentrations increased in wells MO-2007-1B and MO-2007-1C along the north edge of the plume. The sulfate concentrations in ESP-1, MO-2007-1B and MO-2007-1C are expected to increase until the mitigation measures identified by the Feasibility Study and Mitigation Plan are implemented. ESP-1 was not sampled in the third quarter 2013 because the well is not

operational. The apparent decline in concentration for the last sample at MO-2007-1B needs to be verified by future sampling.

• Appendix D presents time series graphs of groundwater elevation at the sentinel wells. The time series graphs show that water levels at MO-2007-3B, MO-2007-3C, MO-2007-4A, MO-2007-4B, MO-2007-4C, and NP-2 are relatively steady over time; and water levels at MO-2007-6A, MO-2007-6B, and MO-2009-1 have been decreasing since second quarter 2012. Groundwater elevations for the sentinel wells are typically slightly higher in the first and second quarters than during the third and fourth quarters. The June 2007 and August 2007 water levels at NP-2 and the October 2012 water level at MO-2007-3B appear to be anomalous and are not used for trend analysis.



4. **REFERENCES**

- Hydro Geo Chem, Inc. (HGC). 2006a. Work Plan to Characterize and Mitigate Sulfate with Respect to Drinking Water Supplies in the Vicinity of the Phelps Dodge Sierrita Tailing Impoundment, Pima County, Arizona. August 11, 2006, revised October 31, 2006.
- HGC. 2006b. Interim Action Identification, Technical Memorandum for Mitigation Order on Consent Docket No. P-50-06, Pima County, Arizona. December 22, 2006.
- HGC. 2008. Feasibility Study for Mitigation of Sulfate in the Vicinity of the Freeport-McMoRan Sierrita Inc. Tailing Impoundment, Mitigation Order on Consent Docket No. P-50-06. October 22, 2008.
- HGC. 2009a. Revision 1, Aquifer Characterization Report, Task 5 of Aquifer Characterization Plan, Mitigation Order on Consent Docket No. P-50-06. Pima County, Arizona. January 30, 2009.
- HGC. 2009b. Mitigation Plan for Sulfate with Respect to Drinking Water Supplies in the Vicinity of the Freeport-McMoRan Sierrita Inc. Tailing Impoundment, Mitigation Order on Consent Docket No. P-50-06. May 8, 2009.
- Sierrita. 2009a. Letter from Ned Hall (Sierrita) to Cynthia Campbell (ADEQ) Regarding Mitigation Order on Consent Docket P-50-06, Response to ADEQ Comments on Recommended Groundwater Monitoring for Sulfate. May 15, 2009.
- Sierrita. 2009b. Letter from Ned Hall (Sierrita) to Cynthia Campbell (ADEQ) Regarding Mitigation Order on Consent Docket P-50-06, Supplemental Information on Recommended Groundwater Monitoring for Sulfate. June 12, 2009.



TABLES

TABLE 1 Sampling Schedule for Pre-Implementation Groundwater Monitoring

Well Name	ADWR 55 Well Registry No.	Owner	Quarterly Sampling First Quarter	Annual Sampling Second Quarter	Quarterly Sampling Third Quarter	Semiannual Sampling Fourth Quarter
CC of GV	501760	Sierrita		✓		
CW-3	627483	CWC		\checkmark		✓
CW-6	627485	CWC	\checkmark	\checkmark	✓	✓
CW-7	502546	CWC		WLO		
CW-8	543600	CWC		WLO		
CW-9	588121	CWC	~	\checkmark	✓	✓
CW-10	207982	CWC	~	\checkmark	✓	✓
ESP-1	623102	Sierrita		\checkmark		✓
ESP-2	623103	Sierrita		\checkmark		✓
ESP-3	623104	Sierrita		\checkmark		✓
ESP-4	623105	Sierrita		\checkmark		✓
ESP-5	623106	Sierrita		WLO		
GV-01-GVDWID	603428	GVDWID	✓	\checkmark	✓	\checkmark
GV-02-GVDWID	603429	GVDWID	✓	\checkmark	✓	✓
GV-SI-GVDWID	208825	GVDWID		\checkmark		
HAVEN GOLF	515867	Haven Golf		\checkmark		
I-10	608525	TBPI		\checkmark		
IW-1	623129	Sierrita		\checkmark		
IW-2A	216464	Sierrita		\checkmark		
IW-3A	623131	Sierrita		\checkmark		
IW-4	623132	Sierrita		\checkmark		
IW-5A	623133	Sierrita		\checkmark		
IW-6A	545565	Sierrita		\checkmark		
IW-8	508236	Sierrita		\checkmark		
IW-9	508238	Sierrita		\checkmark		
IW-10	508237	Sierrita		\checkmark		
IW-11	508235	Sierrita		\checkmark		
IW-12	545555	Sierrita		\checkmark		
IW-13	545556	Sierrita		\checkmark		
IW-14	545557	Sierrita		\checkmark		
IW-15	545558	Sierrita		\checkmark		
IW-16	545559	Sierrita		WLO		
IW-17	545560	Sierrita		WLO		
IW-18	545561	Sierrita		WLO		
IW-19	545562	Sierrita		\checkmark		
IW-20	545563	Sierrita		\checkmark		



TABLE 1 Sampling Schedule for Pre-Implementation Groundwater Monitoring

Well Name	ADWR 55 Well Registry No.	Owner	Quarterly Sampling First Quarter	Annual Sampling Second Quarter	Quarterly Sampling Third Quarter	Semiannual Sampling Fourth Quarter
IW-21	545564	Sierrita		\checkmark		
IW-22	200554	Sierrita		✓		
IW-23	200555	Sierrita		\checkmark		
IW-24	200556	Sierrita		\checkmark		
IW-25	219596	Sierrita		\checkmark		
IW-26	219143	Sierrita		\checkmark		
IW-27	219136	Sierrita		\checkmark		
IW-28	219137	Sierrita		\checkmark		
M-8	87390	TBPI		\checkmark		✓
M-9	501652	TBPI		\checkmark		
M-10	501653	TBPI		\checkmark		✓
M-20	906595	TBPI		✓		
MH-1	803629	Sierrita		WLO		
MH-3	803630	Sierrita		WLO		
MH-5	803632	Sierrita		WLO		
MH-6	803633	Sierrita		WLO		
MH-7	803634	Sierrita		WLO		
MH-9	803635	Sierrita		WLO		
MH-10	803636	Sierrita		✓		
MH-11	803637	Sierrita		✓		
MH-13A	904071	Sierrita		✓		
MH-13B	904072	Sierrita		✓		
MH-13C	904073	Sierrita		✓		
MH-14	528098	Sierrita		WLO		
MH-15E	528094	Sierrita		WLO		
MH-15W	528093	Sierrita		WLO		
MH-16E	528100	Sierrita		WLO		
MH-16W	528099	Sierrita		WLO		
MH-24	563799	Sierrita		WLO		
MH-25A	201528	Sierrita		✓		
MH-25B	208429	Sierrita		✓		
MH-25C	208426	Sierrita		✓		
MH-26A	201527	Sierrita		✓		
MH-26B	208427	Sierrita		✓		
MH-26C	208428	Sierrita		✓		
MH-28	903648	Sierrita		✓		✓



TABLE 1 Sampling Schedule for Pre-Implementation Groundwater Monitoring

Well Name	ADWR 55 Well Registry No.	Owner	Quarterly Sampling First Quarter	Annual Sampling Second Quarter	Quarterly Sampling Third Quarter	Semiannual Sampling Fourth Quarter
MH-29	903649	Sierrita		✓		~
MH-30	903884	Sierrita		✓		
MO-2007-1A	907342	Sierrita		\checkmark		~
MO-2007-1B	907210	Sierrita		\checkmark		~
MO-2007-1C	907209	Sierrita		✓		~
MO-2007-2	906765	Sierrita		✓		
MO-2007-3B ¹	906816	Sierrita	✓	✓	✓	✓
MO-2007-3C ¹	906817	Sierrita	✓	✓	✓	✓
MO-2007-4A ²	907213	Sierrita	✓	✓	✓	~
MO-2007-4B ²	907212	Sierrita	✓	✓	✓	~
MO-2007-4C ²	907211	Sierrita	✓	✓	✓	~
MO-2007-5B	907456	Sierrita		✓		~
MO-2007-5C	907457	Sierrita		✓		~
MO-2007-6A ³	907607	Sierrita	✓	✓	✓	~
MO-2007-6B ³	907606	Sierrita	✓	✓	✓	~
MO-2009-1 ⁴	910458	Sierrita	✓	✓	✓	~
NP-2 ¹	605898	CWC	✓	✓	✓	~
PZ-7	561870	Sierrita		✓		
PZ-8	561866	Sierrita		✓		
TMM-1	616156	Pima County		✓		~
1350	ND	TBPI		WLO		

Notes:

ADWR = Arizona Department of Water Resources

CC OF GV = Country Club of Green Valley

CWC = Community Water Company of Green Valley

GVDWID = Green Valley Domestic Water Improvement District

ND = No Data

Sierrita = Freeport-McMoRan Sierrita Inc.

TBPI = Twin Buttes Properties, Inc.

WLO = Water Level Only

- ¹ Sentinel Well for CW-9
- ² Sentinel Well for CW-6
- ³ Sentinel Well for GV-01-GVDWID and GV-02-GVDWID
- ⁴ Sentinel Well for CW-10



Well Name	ADWR 55 Registry No.	Sample Date	pH (SU)	Temperature (deg C)	Specific Conductance (µS/cm)	Sulfate, Dissolve (mg/L)
		1/15/07	7.31	23.0	767	133
		4/16/07	7.44	22.6	767	133
		7/9/07	7.58	24.5		104
		1/10/08 4/16/08	7.27 7.37	22.5 25.2		143 69.4
		7/7/08	6.97	23.7		119
CC OF GV	501760	10/9/08	7.26	24.8	476	72.4
		2/4/09	8.08	13.8	399	107
		4/21/09	6.92	19.8	767 658 689 426 736 476 399 526 929 494 565 706 449 432 398 484 430 347 520 419 475 460 390 437 517 473 473 473 473 473 473 473 473 473 474 NM 418 507 475 368 382 416 431 431	90.1
		4/22/10 4/21/11	6.99 6.95	21.26 17.6		95 82
		6/26/12	7.13	27.7	767 767 767 658 689 426 736 476 399 526 929 494 565 706 449 444 432 398 484 430 347 520 419 475 460 390 437 517 473 473 473 473 473 473 473 473 473 473 473 475 368 382 416 431 317 377 377 377 377 377 377	88.69
		5/14/13	7.46	23.3		147.80
		6/6/07	7.74	25.3		57.9
		8/10/07	7.40	25.9		59.5
		1/11/08 4/17/08	7.55 7.32	25.1		55.7 54.1
		7/11/08	7.53	25.6 25.7		56.7
		10/6/08	7.50	25.3		56.2
		2/9/09	7.68	24.3		54.3
		4/24/09	6.75	25.4		56.2
CW-3	627483	12/31/09	7.57	23.8		56.2
		4/22/10 10/25/10	7.32 7.60	23.03 25.5		57.7 57.6
		5/2/11	7.55	26.4		56.8
		12/5/11	7.79	22.7		55.18
		6/18/12	7.57	28.4		61.70
		12/13/12	7.64	24.1		63.84
		12/13/12 DUP	7.64 7.63	24.1 24.4		64.04
		6/13/13 12/4/06	7.63 NM	24.4 NM		70.8 46.2
		1/3/07	7.73	26.8		49.2
		1/3/07	7.73	26.8	418	49.5
		5/14/07	7.58	26.1		68.7
		7/10/07	7.60	26.9		57.6
		7/10/07 1/8/08	7.60	26.9 27.1		58 48.9
		4/15/08	7.25	26.9		51.2
		7/8/08	7.43	27.2	416	47.9
		10/7/08	7.52	26.6		51.5
		10/7/08 DUP	7.52	26.6		51.5
		2/6/09 4/22/09	7.87 7.62	26.6 25.3		48.2 47.9
		4/22/09 DUP	7.62	25.3		47.3
		9/17/09	7.18	24.8		70
CW-6	627485	11/5/09	7.52	25.1		59.7
0110	021400	2/10/10	7.68	24.4		46.6
		5/14/10 7/27/10	7.70 7.50	26.50 27.5		52.1 55.2
		10/14/10	7.67	27.5		55.2
		2/24/11	7.57	23.4		70.3
		4/28/11	7.66	25.2	453	58.1
		7/20/11	7.52	25.5	417	81
		12/14/11	7.76	23.7	429	54.50
		12/14/11 DUP 1/24/12	7.76 7.49	23.7 25.2	429 303	54.42 60.17
		5/9/12	7.70	26.5	489	80.99
		8/29/12	7.44	25.2	537	82.24
		12/12/12	7.47	23.6	541	82.98
		2/6/13	7.32	24.0	457	76.54
		5/15/13	7.63	24.7	513	91.94
		7/17/13 1/3/07	7.47 7.38	25.3 27.4	500 1799	91.6 807
		5/14/07	7.40	27.4	1799	874
		7/10/07	7.32	27.4	1945	860
CW-7	502546	1/8/08	7.26	27.3	1860	1080
011-1		4/15/08	7.31	27.6	1758	900
		7/8/08	7.11	27.9	2037	890



Well Name	ADWR 55 Registry No.	Sample Date	pH (SU)	Temperature (deg C)	Specific Conductance (µS/cm)	Sulfate, Dissolved (mg/L)
		1/24/07	7.67	29.7	1232	449
		5/14/07	7.69	29.4	1379	529
CW-8	543600	7/10/07	7.63	29.8	1401	500
0110	010000	1/8/08	7.59	7.6		466
		4/15/08	7.54	29.5		441
		7/8/08 12/4/06	7.40 NM	29.8	Conductance (μS/cm) 1232 1379 1401 1160 1135 1373 NM 387 414 356 347 396 395 300 361 379 376 351 345 390 389 347 377 379 373 262 356 377 379 373 262 356 372 382 325 367 374 NM 385 392 403 334 339 385 380 295 349 380 375 36	504
		1/3/07	7.74	NM 27.0		44.5 44.9
		5/14/07	7.74	27.5		47.8
		7/10/07	7.68	22.6		46.7
		1/8/08	7.55	27.3	356	47.3
		4/15/08	7.39	27.4	347	43.7
		7/8/08	7.26	27.9	396	44.1
		10/7/08	7.50	27.7		43.5
		2/6/09	7.79	26.8		45.1
		4/22/09	7.81	26.3		44.3
		7/30/09	7.57	28.3		43.8
		11/5/09 2/10/10	6.82 7.55	27.4 26.0		44.7
CW-9	588121	5/14/10	7.62	28.1		43.4
011 0	000121	7/27/10	7.58	28.4		44.1
		10/14/10	7.72	27.5		44.2
		2/24/11	7.75	26.3		42.7
		4/28/11	7.68	28.8	377	44.4
		7/20/11	7.71	27.8		43.9
		12/14/11	7.69	26.5		43.80
		1/24/12	7.70	25.1		45.60
		5/9/12	7.67	28.3		44.39
		8/29/12	7.62	27.9		43.94
		12/12/12 2/6/13	7.75 7.43	26.6 26.7		42.14 39.87
		5/15/13	7.70	27.0		45.78
		7/17/13	7.66	28.1		43.7
		12/4/06	NM	NM		37.2
		1/24/07	7.90	30.2		48.6
		5/14/07	7.81	31.3	392	52.8
		7/10/07	7.82	31.3		51.7
		1/8/08	7.79	28.2		45.3
		4/15/08	7.51	30.6		50.8
		7/8/08	7.34	31.2		50.5
		10/7/08	7.59	30.5		48.3
		2/6/09 4/22/09	7.91 7.71	29.8 29.2		51.3 47.9
		7/30/09	7.60	31.5		47.9
		7/30/09 DUP	7.60	31.5		49.2
		11/5/09	7.60	29.7		49.9
		2/10/10	7.69	28.4		44.9
CW-10	207982	5/14/10	7.79	30.7		49.1
GW-10	201902	7/27/10	7.69	31.4		48.9
		10/14/10	7.74	30.2		48.5
		2/24/11	7.83	29.3		50.2
		2/24/11 DUP	7.83	29.3	070	50.2
		4/28/11	7.54	27.9		49.6
		7/20/11 12/14/11	7.72	31.4 29.8		50.7 49.24
		1/24/12	7.01	29.0		52.32
		5/9/12	7.85	30.9		52.52
		8/29/12	7.74	31.4	369	50.95
		12/12/12	7.77	29.3	392	52.33
		2/6/13	7.52	29.3	332	47.91
		5/15/13	7.85	30.6	365	52.35
		5/15/13 DUP	7.85	30.6	365	52.77
	1	7/17/13	8.12	31.5	353	54.8



Well Name	ADWR 55 Registry No.	Sample Date	pH (SU)	Temperature (deg C)	Specific Conductance (µS/cm)	Sulfate, Dissolved (mg/L)
		12/4/06	NM	NM	NM	262
		1/3/07	7.65	28.0	869	242
		5/14/07	7.70	28.7	592	113
		7/10/07 1/23/08	7.66 7.73	28.8 27.6	584 492	94
		4/18/08	7.61	29.6	492	100
		7/25/08	7.52	28.4	561	104
ESP-1	623102	10/30/08	7.55	26.9	576	121
LOI	023102	1/29/09	7.44	25.2	491	113
		4/16/09	7.72	25.4	541	130
		11/10/09 4/28/10	7.45 7.49	26.8 28.7	649 639	173 204
		10/15/10	7.49	27.7	953	291
		5/3/11	7.51	28.1	1060	359
		12/13/11	7.49	26.1	1046	387.52
		6/19/12	7.43	30.4	1221	395.72
		12/4/06	NM 7.82	NM 28.4	NM 377	29.6
		1/3/07 5/14/07	7.82	28.4	368	31.3 28.4
		7/10/07	7.73	28.9	380	28.6
		1/23/08	7.85	25.8	366	30
		4/18/08	7.80	27.3	325	27.6
		7/25/08	7.65	28.6	361	26.8
		10/30/08 10/30/08 DUP	7.22 7.22	27.5	374 374	30.1 30
		1/29/09	6.38	27.5	317	27.8
ESP-2	623103	4/16/09	7.55	24.0	307	28.2
		11/10/09	7.58	27.0	343	28.9
		4/28/10	7.67	27.9	324	28.7
		10/15/10	7.78	27.6	355	27.9
		10/15/10 DUP 5/3/11	7.78	27.6	355 361	27.8 28.1
		5/3/11 DUP	7.72	27.8	361	28.1
		11/22/11	7.84	26.0	350	26.65
		6/19/12	7.65	31.7	387	27.75
		11/21/12	7.55	28.8	333	26.79
		5/20/13	7.70	28.2	350	27.86
		12/4/06 1/3/07	NM 7.83	NM 27.8	NM 393	36.2 37.5
		5/14/07	7.78	28.8	374	36.6
		5/14/07	7.78	28.8	374	36.6
		7/10/07	7.84	29.2	378	36.6
		1/23/08	7.99	26.1	373	30
		4/18/08	7.82	27.8	322	35.7
		7/25/08	7.70 7.58	28.2	358 375	34 36.8
ESP-3	623104	1/29/09	7.73	23.9	327	35.2
		4/16/09	7.62	26.1	327	35.3
		11/12/09	7.71	27.0	354	39.5
		4/28/10	7.77	25.8	326	35.8
		10/15/10	7.76 7.82	27.5	356 362	35.2
		5/3/11 11/22/11	7.82	27.2 27.6	362	35.1 34.18
		6/19/12	7.87	30.6	390	34.98
		11/21/12	7.59	28.4	327	35.4
		5/22/13	7.71	26.7	368	35.87
		3/20/07	7.67	26.7	1187	393
		6/4/07 7/24/07	7.45	28.4	733	<u>385</u> 410
		7/24/07	7.34 7.34	28.4 28.4	918 918	410 420
		1/23/08	7.83	24.4	787	520
		4/18/08	7.71	27.2	821	462
		7/25/08	7.52	28.6	1096	420
F05 /	000 / 07	10/30/08	7.23	25.9	962	489
ESP-4	623105	1/29/09	7.52	24.7	950	522
		4/16/09 10/23/09	7.30	25.4 27.8	873 954	521 485
		4/28/10	7.37	26.7	936	558
		4/28/10 DUP	7.37	26.7	936	520
		10/15/10	7.41	27.9	1356	539
	1	- (-) -)	7.54	07.4	4.405	EOE
		5/3/11 11/12/12	7.54 7.60	27.1 26.3	1465 1337	<u>595</u> 618.5



Well Name	ADWR 55 Registry No.	Sample Date	pH (SU)	Temperature (deg C)	Specific Conductance (µS/cm)	Sulfate, Dissolve (mg/L)
		8/6/06	NM	NM	NM	41.2
		1/9/07	8.00	25.8	424	40.9
		4/10/07	7.69	27.2	421	43.2
		7/11/07	7.64	26.8	447	41.5
		1/7/08	7.49	25.7	422	45.7
		4/16/08 7/7/08	7.29 7.14	25.8	399 466	44.1
		10/9/08	7.14	26.1 26.6	400	45.2 39
		2/4/09	7.50	26.4	338	42.3
		4/22/09	7.05	27.8	380	40.6
		7/29/09	7.17	24.6	606	44.3
		11/4/09	7.45	25.1	415	45.1
		1/27/10	7.54	24.5	411	47.0
GV-01-GVDWID	603428	4/1/10	7.49	24.6	420	48.5
		7/28/10 10/14/10	7.20 7.29	<u>28.1</u> 26.4	<u>348</u> 411	<u>39.4</u> 38.4
		1/20/11	7.04	23.0	411	40.0
		4/28/11	7.30	27.5	400	40.0
		7/20/11	6.88	27.1	429	39.6
		12/7/11	7.68	25.4	416	39.31
		3/14/12	7.61	26.0	406	35.56
		6/7/12	7.21	26.9	420	37.87
		8/29/12	7.38	27.6	409	36.15
		11/15/12	7.27	23.9	450	33.95
		1/29/13 5/16/13	7.34 7.64	24.9 26.8	373 398	38.61 38.80
		7/11/13	7.79	26.4	398	42.60
		7/11/13 DUP	7.79	26.4	367	42.5
		8/6/06	NM	NM	NM	48.6
		10/4/06	NM	NM	NM	95.3
		1/9/07	7.68	23.6	626	103
		4/10/07	7.60	24.1	479	106
		7/11/07	7.50	24.0	649	98
		1/7/08 4/16/08	7.32	23.3 23.7	611 553	98
		7/7/08	7.12	23.8	642	93.2
		10/9/08	7.12	24.2	599	93.5
		2/4/09	7.36	23.9	489	98.8
		4/22/09	6.67	26.5	485	79.5
		7/29/09	7.02	26.4	427	91.6
		11/4/09	7.25	24.3	547	93.2
		1/27/10	7.47	22.0	547	94.9
GV-02-GVDWID	603429	1/27/10 DUP	7.47	22.0	547	94.5
GV-02-GVDWD	003429	4/1/10 7/28/10	7.33 7.23	22.9 24.6	555 650	99.5 83
		10/14/10	7.36	24.5	629	90.7
		1/20/11	7.37	23.1	611	92.7
		4/28/11	7.43	24.5	612	87.3
		7/20/11	7.35	24.0	624	87.2
		12/7/11	7.53	21.8	578	77.88
		3/14/12	7.37	23.8	566	77.35
		6/7/12	7.14	24.0	559	71.78
		8/29/12 8/29/12 DUP	7.49 7.49	26.3	495 495	62.98 63.26
		11/15/12	7.55	23.4	543	63.97
		1/29/13	7.35	22.7	457	61.02
		1/29/13 DUP	7.35	22.7	457	61.23
		5/16/13	7.54	24.4	482	63.14
		7/11/13	7.72	24.4	423	64.20
		10/4/06	NM	NM	NM	5.9
		1/9/07	7.90	26.7	358	5.7
		4/10/07 7/11/07	7.48 7.59	26.8	367 389	6.6
		1/7/08	7.59	27.1	389	6.9 8
		4/16/08	7.27	26.4	331	2
	200005	7/7/08	7.18	27.2	382	<0.5
GV-SI-GVDWID	208825	10/9/08	7.44	26.7	352	5.4
		2/4/09	7.56	27.3	290	6.2
		4/22/09	6.95	28.0	330	5.6
		4/1/10	7.55	26.1	339	6.9
		4/28/11	7.57	27.1	364	6.0
		6/20/12	7.33	28.5	367	8.46



Well Name	ADWR 55 Registry No.	Sample Date	pH (SU)	Temperature (deg C)	Specific Conductance (µS/cm)	Sulfate, Dissolved (mg/L)
		2/6/07	7.28	23.0	683	107
		4/16/07	7.26	23.3	655	105
		7/9/07	7.57			80.1
		1/7/08 4/15/08	7.18			99 106
		7/7/08	6.93			112
HAVEN GOLF	515867	10/7/08	7.31	27.8	588	92.3
HAVEN GOLF	515867	2/4/09	7.33	23.7	554	120
		2/4/09 DUP	7.33	23.7	23.3 655 32.8 622 21.0 610 24.8 629 23.9 727 27.8 588 23.7 554 23.6 306 20.8 726 20.4 588 23.7 554 23.6 306 20.8 726 20.4 588 279.0 633 23.5 537 28.8 878 31.3 1013 24.6 1164 29.5 836 30.9 1036 29.7 1034 27.6 1040 28.0 997 NM NM 25.1 1033 26 918 32.7 884 28.5 959 29.6 1134 29.0 1092 29.6 1148 27.1 2110	119
		4/21/09 4/22/10	7.40 6.85			109 109
		4/21/11	7.10			95
		5/29/12	6.41			88.05
		5/7/13	7.46		588 633 537 878 1013 1164 836 1036 1034 1040 997 NM 1033 918 884 959 847 1228 1201 1134 1092 1148 2110 1689	105.13
		4/16/07	7.17			533
		7/11/07	7.13			550
		1/8/08 4/14/08	7.46			520
I-10	608525	7/21/08	7.29			490 480
		10/28/08	7.18			526
		1/20/09	7.13			544
		5/12/09	7.15			495
		11/15/06	NM			490
		1/10/07	6.97			520
		4/9/07	7.24			480
		7/16/07 1/16/08	6.86 7.38			510 610
		5/7/08	6.87			610
		7/23/08	6.57			670
IW-1	623129	10/24/08	7.01			700
		1/27/09	6.61			660
		4/20/09	7.01			670
		4/12/10	6.79			940
		5/11/11 5/21/12	7.02			1050 900
		4/15/13	7.25			900
		11/15/06	NM			100
		1/10/07	6.91			110
		4/3/07	7.08			90
		7/16/07	7.18			90
		1/16/08	7.76			70
		4/22/08 7/23/08	6.99 6.88			80 60
IW-2A	216464	10/24/08	7.43	30.3	474	60
		1/27/09	7.02	25	420	53
		4/20/09	6.85	28.0	405	54
		4/12/10	7.04	NM	28.9	77
		5/11/11	7.12	26.7	541	87
		5/11/11 DUP 5/21/12	7.12	26.7	541 638	88
		4/15/13	7.01	31.1 27.0	550	121 123
		11/15/06	NM	NM	NM	1590
		4/3/07	7.29	25.1	1374	1540
		7/16/07	6.85	29.8	1184	1500
		1/16/08	7.20	27.4	1280	1490
		4/22/08	7.03	29.3	1224	1420
		7/23/08	6.62	29.3	1789	1460
IW-3A	623131	10/27/08	6.97	28.7	1679	1450
		1/27/09 1/27/09 DUP	6.82 6.82	23.1 23.1	1520 1520	1550 1310
		4/20/09	6.69	27.2	1448	1400
		4/12/10	6.55	27.5	1380	1500
		5/11/11	6.75	25.6	2260	1650
	1	6/20/12	6.51	275.0	3170	1700



Well Name	ADWR 55 Registry No.	Sample Date	рН (SU)	Temperature (deg C)	Specific Conductance (µS/cm)	Sulfate, Dissolved (mg/L)
		1/18/07	6.81	22.4	2210	1610
		1/18/07	6.81	22.4	2210	1590
		4/11/07	6.6	28.2	1252	1600
		7/18/07	6.61	29.1		1450
		1/16/08	7.00	25.2		1590
		4/22/08	6.59 6.70	28.6 31.0		1540 1640
IW-4	623132	7/23/08 10/24/08	6.92	27.9		1630
		1/27/09	6.58	23.9		1460
		4/20/09	6.79	25.6	1604	1400
		4/12/10	6.49	26.8	1483	1600
		5/11/11	6.57	25.8	1462 1326 1264 1899 1924 1718 1604 1483 3070 2650 2750 1511 1716 1380 1326 1370 1886 1560 1635 1476 2800 2910 NM 1562 1627 1609 1489 1309 1510 1999 1959 1710 1437 3390 2950 3030 1523 1328 1386 1301	1700
		5/21/12	6.57	27.5		1500
		4/15/13	6.93 7.34	24.2		1800
		1/16/07 7/18/07	6.82	23.1 27.0		<u>1710</u> 1610
		1/16/08	7.11	24.1		1690
		4/21/08	6.64	27.5		1550
		7/23/08	6.76	30.1		1730
		10/27/08	6.57	26.8	1886	1720
IW-5A	219131	1/27/09	6.44	19.5		1630
0/1	2.0101	4/20/09	6.73	24.7		1600
		4/12/10	6.59	25.7		1800
		4/12/10 DUP 4/20/11	6.59 6.78	25.7 22.2		1700 1740
		5/22/12	6.68	26.6		1600
		4/15/13	6.84	24.2		1760
		4/15/13 DUP	6.84	24.2		1740
		11/15/06	NM	NM		1760
		1/16/07	7.25	22.5		1800
		4/9/07	6.69	26		1830
		7/25/07	6.67	24.5		1930
		1/16/08	7.21	23.1		1910
		1/16/08 DUP 4/21/08	7.21 7.30	23.1 25.4		1800 1920
IW-6A	545565	7/17/08	6.84	27.1		1850
		10/24/08	6.61	25.5		1930
		1/26/09	6.58	21.9	1959	1600
		4/20/09	6.78	25.6		1700
		4/12/10	6.99	34.2		1800
		5/11/11	6.82	23.4		1900
		5/22/12 4/15/13	6.61 6.86	27.3 23.9		1800 1840
		4/3/07	7.11	23.9		1760
		7/18/07	6.82	29.5		1870
		1/16/08	7.30	24.3		1900
		4/22/08	6.86	27.5	1301	1700
		7/23/08	6.78	27.5		1870
IW-8	508236	10/24/08	6.85	27.4	1976	1890
		1/27/09 4/20/09	6.38 6.75	20.4 25.4	1816 1620	1630 1700
		4/20/09	6.52	25.4	1620	1900
		5/11/11	6.67	23.9	1965	1900
		5/21/12	6.62	28.7	2670	1700
		5/14/13	6.96	26.9	2800	1700
		11/15/06	NM	NM	NM	1760
		1/18/07	7.40	22.6	1690	1670
		4/11/07 7/18/07	6.73 6.78	25.1 29.4	1424 1547	1750 1810
		1/16/08	7.01	29.4	1359	1810
		4/22/08	6.86	28.5	1328	1670
		7/23/08	6.88	28.8	1420	1730
IW-9	508239	10/24/08	6.88	28.6	1981	1720
100-9	000209	10/24/08 DUP	6.88	28.6	1981	1720
		1/27/09	6.69	21.7	1774	1500
		4/20/09	6.79	26.9	1585	1600
		4/12/10	6.95	29.2	1579	1800
		4/12/10 DUP 5/26/11	6.95 6.95	29.2 26.2	1579 3850	1800 1810
		5/26/11	6.58	26.2	2680	1700
	1	4/15/13	6.90	25.6	2880	1730



Well Name	ADWR 55 Registry No.	Sample Date	pH (SU)	Temperature (deg C)	Specific Conductance (µS/cm)	Sulfate, Dissolved (mg/L)
		11/15/06	NM	NM	NM	1650
		1/16/07	7.38	23.7	1303	1670
		4/3/07	7.11	26.7	1520	1750
		7/18/07	6.78			1770
		1/16/08 4/21/08	7.91 6.68			1800
		7/23/08	6.90			1470 1740
IW-10	508237	10/24/08	6.77			1730
		1/27/09	6.64	20.7	1560	1490
		4/20/09	6.80	24.8	1607	1600
		4/12/10	6.61	28.3 1734 24.0 537 27.2 1338 28.4 1460 27.0 1969 20.7 1560 24.8 1607 26.5 1431 24.3 3310 26.5 2880 NM NM 21.7 1516 26.2 1342 26.8 1788 22.3 1370 26 1303 26 1303 26 1303 26 1303 26 1303 26 1303 26 1303 26.3 1958 19.1 1540 25.1 1632 24.4 1830 25.5 2810 25.7 280 25.8 1444 25.9 1345 25.2 1483 23.4 1428 23.4 1428<		1700
		5/11/11	6.67		1734 537 1338 1460 1969 1560 1607 1431 3310 2890 2980 NM 1516 1342 1788 1370 1303 1303 14830 1958 1540 1632 1492 3250 2810 2890 1444 1345 1483 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1427 1576 1579 3120	1800
		5/22/12 4/15/13	6.78 6.85			1700
		11/21/06	0.05 NM			<u>1740</u> 1600
		1/16/07	7.10			1700
		4/9/07	6.76			1760
		7/18/07	6.84	26.8	1788	1770
		1/16/08	7.15			1800
		4/21/08	6.53			1770
11.07 4.4	E00005	4/21/08 DUP	6.53			1850
IW-11	508235	7/29/08 10/24/08	6.58 6.89			1720 2260
		1/27/09	6.56			1600
		4/20/09	6.64			1600
		4/12/10	6.63			1700
		5/11/11	6.51			1700
		5/22/12	6.76			1600
		4/15/13	6.82			1730
		1/16/07	6.93			1620
		4/17/07	6.56			1630
		7/25/07 1/16/08	6.55 6.87			1700 1700
		1/16/08 DUP	6.87			1700
		4/11/08	6.51			1580
IW-12	545555	7/17/08	6.76			1630
100-12		10/24/08	6.81	26.5	1879	1520
		1/26/09	6.70			1440
		4/20/09	6.63			1500
		4/12/10	6.70			1500
		5/11/11 5/22/12	6.74 6.66			1700 1600
		5/14/13	6.92	27.2	1540 1632 1492 3250 2810 2890 1444 1345 1483 1428 1428 1428 1428 1426 1917 1879 1792 1576 1579 3120 2640 2540 1430 1560 1599 1502 1898 1999	1500
		4/17/07	6.81	25.8		1690
		7/25/07	6.61	25.1		1940
		7/25/07	6.61	25.1	1560	1780
		1/16/08	6.64	24.0		1800
		4/11/08	6.61	26.8		1800
IW-13	FAFFER	7/17/08	6.6	30		1850
100-13	545556	10/24/08 1/26/09	6.70 6.49	26.1 23.6	1999	1930 1600
		4/20/09	6.73	23.0	1697	1700
		4/12/10	6.64	24.1	1669	1900
		5/11/11	6.70	25.3	3360	1900
		6/20/12	6.67	25.9	3450	1900
		4/15/13	6.73	24.9	3030	1760
		11/15/06	NM	NM	NM	1820
		1/16/07	6.72	22.4	1484	1790
		1/16/07 4/16/07	6.72 6.63	22.4 24.4	1484 1383	1810 1790
		7/25/07	6.51	24.4	1462	1910
		1/16/08	7.03	23.2	1646	1800
		4/11/08	6.49	26.8	1460	1810
IW-14	545557	7/16/08	6.59	29.9	1901	1870
		10/24/08	6.51	26.4	1929	1840
		1/26/09	6.52	23	1869	1600
		4/20/09	6.66	27.1	1612	1700
		4/21/10	6.89	24.8	1428	1900
		5/11/11 5/22/12	7.54	25.7	3460	1900
	1	J/22/12	6.48	31.8	2620	1800



Well Name	ADWR 55 Registry No.	Sample Date	pH (SU)	Temperature (deg C)	Specific Conductance (µS/cm)	Sulfate, Dissolved (mg/L)
		11/15/06	NM	NM	NM	1710
		1/16/07	7.04	23.9	1420	1730
		4/16/07	6.82	27.4	1314	1740
		7/25/07	6.32	26.6	1388	1760
		1/16/08 4/11/08	7.07 6.42	22.3	1561 1395	1740 1670
		7/15/08	6.75	31.3	1790	1730
		10/24/08	6.6	26.0	1892	1850
IW-15	545558	1/27/09	6.86	21.8	1935	1630
		4/20/09	7.71	28.5	1302	1600
		4/20/09 DUP	7.71	28.5	1302	1700
		4/12/10	6.69	25.0	1669	1700
		5/11/11	7.54	26.2	3270	1800
		5/11/11 DUP 5/22/12	7.54 6.74	26.2 29.4	3270 2850	1800 1800
		5/14/13	7.03	27.1	2770	1700
		11/15/06	NM	NM	NM	1730
		1/16/07	7.18	23.8	1415	1730
		4/17/07	6.86	26.8	1320	1770
		4/17/07	6.86	26.8	1320	1790
		7/25/07	6.63	26.5	1368	1800
IW-16	545559	1/16/08	7.07	23.3	1561	1740
		4/11/08 7/15/08	6.64 6.52	26.4 31.2	1404 1778	1770 1840
		10/24/08	6.35	25.7	1879	1850
		1/26/09	6.44	23.9	1773	1620
		4/20/09	6.69	27.1	1347	1700
		4/12/10	6.79	25.6	1652	1800
		11/15/06	NM	NM	NM	1570
		1/16/07	6.79	21.8	1402	1600
		4/16/07	6.90	26.3	1303	1670
		7/25/07 1/16/08	6.61 6.74	27.2	1348 1485	1730 1720
IW-17	545560	4/11/08	6.49	28.5	1398	1730
	0.0000	7/15/08	6.63	31.7	1853	1770
		10/24/08	6.70	27.0	1864	1720
		1/26/09	6.41	24.1	1828	1480
		4/20/09	6.77	30.1	1332	1600
		4/12/10	6.63	26.5	1604	1700
		11/21/06	NM	NM	NM	1610
		1/18/07 4/16/07	7.26 6.80	15.4 24.9	1460 1161	1660 1610
		7/25/07	6.45	24.9	1293	1760
		1/14/08	6.39	21.9	1899	1700
IW-18	545561	4/11/08	6.61	27.5	1388	1540
		7/15/08	6.71	30.2	1847	1710
		10/24/08	6.34	27.1	1883	1680
		1/26/09	6.39	24.7	1779	1460
		4/20/09	6.77	29.9	1337	1700
		4/29/10 11/21/06	6.63 NM	23.7 NM	1455 NM	1600 1570
		1/11/07	7.19	25.1	1802	1630
		4/16/07	6.69	26.7	1296	1630
		7/25/07	6.91	26.3	1310	1650
		1/10/08	6.39	22.4	1881	1800
		1/10/08 DUP	6.39	22.4	1881	1800
114/ 10	F 45500	4/11/08	6.62	26.3	1409	1680
IW-19	545562	7/15/08	6.78	29.4	1807	1670
		10/24/08	6.6	28.7	1685	1710
		1/26/09 4/20/09	6.47 6.82	24.3 27.9	1852 1366	1370 1600
		4/20/09	6.62	27.9	1366	1600
		5/11/11	6.68	26.6	3200	1700
		5/22/12	6.56	30.7	2730	1300
		5/14/13	6.85	28.7	2690	1600



Well Name	ADWR 55 Registry No.	Sample Date	рН (SU)	Temperature (deg C)	Specific Conductance (µS/cm)	Sulfate, Dissolved (mg/L)
		11/21/06	NM	NM	NM	1550
		1/11/07	7.23	26.4	2360	1630
		4/9/07	7.07	27.2	1260	1500
		7/24/07	6.69	30.8	1822	1580
		1/9/08 4/11/08	6.72 6.74	26.4 27.3	1710 1400	1700 1560
		7/15/08	6.6	29.4	1400	1640
IW-20	545563	10/24/08	6.81	28.6	1779	1600
		1/26/09	6.48	24.1	1837	1450
		4/20/09	6.76	30.0	1375	1500
		4/29/10	6.62	24.2	1417	1600
		5/11/11	7.07	26.3	3080	1600
		6/20/12 6/17/13	6.67 7.21	28.2 31.1	3080 1785	1600
		6/17/13 DUP	7.21	31.1	1785	1900 1800
		11/21/06	NM	NM	NM	1580
		1/11/07	7.15	27.8	1848	1620
		4/17/07	6.85	29.4	1424	1650
		7/24/07	6.68	30.6	1828	1630
		1/9/08	6.33	25.4	1975	1800
		4/11/08	6.85	24.6	1375	1610
IW-21	EAFECA	4/11/08 DUP	6.85	24.6	1375	1610
100-21	545564	7/29/08 10/24/08	6.49 6.91	29 29.7	1780 1833	<u>1670</u> 1640
		1/26/09	6.59	25.7	1410	1390
		4/20/09	6.83	30.7	1422	1600
		4/12/10	6.72	28.1	1621	1700
		5/11/11	6.77	29.6	3140	1700
		6/20/12	6.65	29.2	3130	1700
		4/15/13	6.94	28.8	2840	1690
		11/21/06	NM	NM	NM	1710
		1/23/07 4/9/07	6.90 7.09	22.1 26	1253 1325	1660 1740
		7/18/07	6.99	28.1	1683	1740
		1/16/08	7.19	23.1	1378	1700
		4/21/08	6.53	28.7	1362	1760
		4/21/08 DUP	6.53	28.7	1362	1410
IW-22	200554	7/23/08	6.86	28.9	1370	1760
		10/24/08	6.89	26.4	1929	1720
		1/27/09	6.58	19.9	1570	1610
		4/20/09	6.77 6.59	25.5 25.4	1635 1472	1700
		4/12/10 5/11/11	6.75	25.4	3290	1800 1800
		5/22/12	6.72	24.5	2870	1600
		4/15/13	7.19	22.5	2990	1810
		11/21/06	NM	NM	NM	1540
		1/23/07	6.6	22.8	1249	1640
		4/11/07	6.88	26.7	1528	1670
		7/25/07	6.49	24.7	1541	1670
		1/16/08 4/21/08	7.17 6.71	24.3 28.6	1303 1314	1680 1710
		7/23/08	6.84	27.5	1420	1730
IW-23	200555	10/24/08	6.81	27.9	1966	1780
		1/27/09	6.52	19.9	1963	1650
		4/20/09	6.82	25.4	1607	1700
		4/12/10	6.81	26.6	1491	1700
		5/11/11	6.83	24.6	3280	1800
		5/22/12	6.72	28.9	2700	1600
		4/15/13 7/18/07	6.79 6.78	24.0 29.0	2930 1739	1800 1790
		1/16/08	7.06	29.0	1739	1790
		4/22/08	6.68	28.7	1141	1650
		4/22/08 DUP	6.68	28.7	1141	1750
		7/23/08	6.68	30.7	1420	1730
		10/24/08	6.71	28.1	1058	1640
IW-24	200556	1/27/09	6.43	21.3	1510	1560
		4/20/09	6.79	25.6	1604	1600
		4/20/09 DUP	6.79	25.6	1604	1500
		4/12/10 5/11/11	6.70 6.76	27.1 24.6	1450 3260	1600 1700
		5/22/12	6.47	24.6	2800	1700
		4/15/13	6.83	24.4	2800	1900



Well Name	ADWR 55 Registry No.	Sample Date	рН (SU)	Temperature (deg C)	Specific Conductance (µS/cm)	Sulfate, Dissolved (mg/L)
IW-25	219596	4/15/13	7.01	27.6	932	390
IW-26	219143	4/15/13	7.00	25.6	2620	1700
IW-28	219137	4/15/13	7.03	24.2	2930	1720
		12/6/06	7.50	25.5	380	NA
		12/6/06 4/16/07	7.60 7.87	NM 23.1	380 424	NA <0.5
		7/11/07	7.67	28.2	424	16.5
		1/9/08	7.68	23.7	458	50
		4/15/08	6.85	28	362	28.7
		7/25/08	7.62	27	398	24.5
		10/28/08	7.67	27.8	406	26.3
		10/28/08 DUP	7.67	27.8	406	26.2
M-8	087390	1/20/09	7.49 7.62	25.2	397	36.8
		5/12/09 11/5/09	7.62	26.8 26.6	387 382	29.6 31.4
		5/28/10	7.63	26.9	448	45.1
		10/21/10	7.64	25.5	435	46.9
		6/15/11	7.57	26.1	501	59.3
		11/17/11	7.88	23.6	522	84.577
		6/29/12	7.73	27.9	417	24
		10/29/12	7.62	25.7	419	16.45
		4/17/13	7.74	27.1	567	140.61
		5/21/13 1/17/07	7.78 7.50 ²	27.0 26.0	374 460	28.85 NA
		7/11/07	7.50	20.0	334	NA
		1/8/08	6.51	25.7	533	80
		1/8/08	7.67	26.7	480.7	65
		4/14/08	7.74	27.8	422	67.2
		7/21/08	7.52	29.5	485	68.7
M-9	501652	10/28/08	7.66	30.3	503	74.8
		1/20/09	7.64	24.1	470 487	81.6
		5/13/09 7/14/09	7.54 7.60	27.3 27.0	487	80.2 81.7
		6/16/10	7.63	26.6	511	77
		6/2/11	7.59	27.1	525	75
		6/27/12	7.26	27.4	581	81
		5/1/13	7.81	26.5	461	66.05
		7/19/06	NM	NM	NM	66
		1/16/07	7.90	29.0	440	NA
		4/16/07	7.97	28.2	475	72.6
		7/12/07 1/8/08	8.05 7.91	27.0	322 537	NA 73
		4/15/08	7.99	27.6	428	81
		7/21/08	7.69	31	489	89.8
		10/28/08	8.08	28.1	521	97.1
		1/20/09	7.91	29	467	95
M-10	501653	5/12/09	7.77	26.9	487	97
		7/14/09	7.20	25.0	420	96
		11/5/09 11/5/00 DLIP	7.13 7.13	30.5 30.5	479 479	110 107
		11/5/09 DUP 5/28/10	7.13	30.5	479	107
		10/21/10	7.76	27.1	585	139
		5/10/11	7.86	28.9	641	149
		11/16/11	8.04	27.6	612	162
		6/25/12	7.61	29.8	162	162
		10/29/12	7.88	27.0	645	158
		4/17/13	7.90	28.9	618	170.32
		3/22/07	7.10	27.0	3500	NA
		7/12/07 1/9/08	7.44 7.15	27.0 25.6	1970 1853	NA 1750
		1/9/08	7.13	26.3	2878	1750
		4/14/08	7.18	27	1277	1550
		7/25/08	6.99	27.6	1857	1550
M-20	906595	10/28/08	7.03	28.2	1688	1660
		1/20/09	6.95	27.1	1506	1760
		5/12/09	6.88	28.0	1501	1580
		5/28/10	7.22	28.2	3050	1620
		5/9/11 6/26/12	7.29 7.15	27.8 28.3	2790 3050	1710 1722.9
		4/23/13	7.50	26.6	2720	1801.6



Well Name	ADWR 55 Registry No.	Sample Date	pH (SU)	Temperature (deg C)	Specific Conductance (µS/cm)	Sulfate, Dissolved (mg/L)
		11/8/06	NM	NM	NM	1330
		1/9/07	6.70	28.5	1717	1310
		4/3/07	6.86	30.2	1267	1360
		7/16/07 1/3/08	6.87 6.41	31.4 24.8	1138 1626	1410 1430
		4/28/08	6.60	31	973	1450
		7/31/08	7.07	32.5	1827	1550
MH-10	803636	11/4/08	7.02	26.0	1856	1450
		1/2/09	6.54	26.1	1798	1400
		4/14/09 4/26/10	6.62 7.05	28.1	1260 1365	1260 1500
		4/26/10 DUP	7.05	29.9 29.9	1365	1400
		5/18/11	7.03	27.4	2900	1600
		6/5/12	6.88	29.3	2910	1500
		6/10/13	7.17	30.2	1791	1720
		1/11/07	7.33	25.0	1778	1590
		4/10/07 7/17/07	7.02 6.87	28.3 28.8	1327 1848	1580 1650
		1/4/08	6.44	26.3	1690	1560
		4/29/08	6.48	30.2	959	1700
		7/29/08	6.97	32.2	1767	1550
MH-11	803637	11/7/08	7.01	27.1	1350	1560
		1/16/09	7.04	27.5	1454	1400
		5/13/09 4/27/10	6.62 6.61	31.0 29.3	1569 1382	1500 1400
		5/24/11	6.77	23.3	2650	1500
		5/30/12	6.83	30.3	2730	1440
		4/23/13	7.34	27.7	2410	1480
		11/10/06	NM	NM	NM	1680
		1/24/07	7.87	25.0	1458	1700
		4/18/07 7/17/07	7.1 6.98	27.4 28.1	1609 1553	1720 1760
		1/4/08	6.97	26.1	1810	1700
		4/29/08	7.09	28.8	1174	1800
		7/16/08	7.03	27.4	1824	1720
MH-13A	904071	7/16/08 DUP	7.03	27.4	1824	1710
		10/20/08	7.07	27.7	1984	1800
		1/23/09 4/15/09	6.84 7.12	25.1 25.6	1510 1643	1700 1650
		4/21/10	7.24	25.3	1384	1700
		5/23/11	7.12	26.9	3450	1840
		6/11/12	7.10	27.6	3340	1680
		4/3/13	7.20	25.9	2870	1760
		11/10/06	NM	NM	NM	1080
		1/24/07 4/18/07	8.07 7.36	25.9 30	1262 1396	1100 1120
		7/17/07	7.28	28.5	1786	1120
		1/4/08	7.21	27.2	1576	1110
		4/29/08	7.26	29.6	985	1110
		7/16/08	7.42	31.5	1589	1110
MH-13B	904072	10/20/08 1/23/09	7.34 7.13	29.6 26.6	1627 1639	1080 1130
		4/15/09	7.13	25.4	1639	1130
		4/15/09 DUP	7.50	25.4	1370	1100
		4/21/10	7.57	28.8	1100	1030
		5/23/11	7.28	28.3	2400	1090
		5/23/11 DUP	7.28	28.3	2400	1110
		6/11/12	7.24	29.1	2310	1020
		4/3/13 11/10/06	7.42 NM	27.5 NM	1818 NM	1050 90
		1/24/07	9.12	22.9	450	100
		4/18/07	9.2	29.1	379	20
		7/17/07	8.78	33.8	380	20
		1/4/08	8.99	26.6	396	20
		5/7/08	8.71	30.4	363	40
MH-13C	904073	7/16/08 10/20/08	8.69 8.90	32.01 32.8	371 380	70 60
		1/27/09	7.99	27.3	380	30
		4/15/09	8.79	25.9	421	42
			- · · · ·			
		4/21/10	8.84	28.0	385	27
		4/21/10 5/23/11 6/11/12	8.84 8.65 8.61	28.0 30.4 30.7	385 364 411	27 43 50



Well Name	ADWR 55 Registry No.	Sample Date	рН (SU)	Temperature (deg C)	Specific Conductance (µS/cm)	Sulfate, Dissolved (mg/L)
		11/13/06	NM	NM	NM	190
		1/10/07	8.09	26.0	344	10
		4/4/07	7.82	26.6	322	<10
		7/20/07	7.63	28.6	431	<10
		1/2/08 4/25/08	7.91 7.54	25.3	401 311	10 30
		7/2/08	7.66	27.6	342	<10
MH-25A	201528	10/17/08	7.84	27.5	333	50
		1/5/09	7.75	24.5	336	12
		4/15/09	7.81	25.1	350	4
		4/13/10	7.76	25.3	334	9
		4/27/11	7.76	25.9	358	16
		5/1/12	7.83	27.8	376	13
		4/3/13 11/13/06	7.69 NM	26.8 NM	335 NM	9 1660
		1/10/07	7.54	26.1	1440	1680
		4/4/07	7.32	28.7	1333	1550
		7/20/07	7.16	28.4	1649	1760
		1/2/08	7.10	26.5	1900	1730
		4/25/08	7.05	28.6	1138	1750
		7/2/08	7.04	28.6	1851	1650
MH-25B	208429	10/17/08	7.74	28.8	1768	1660
		1/5/09	7.22	24.9	1581	1590
		4/15/09	7.25	25.2	1483	1600
		4/13/10	7.59	28.1	1120	900
		4/27/11	7.35	27.0 29.3	3050	1810
		6/15/11 5/1/12	7.31 7.31	29.3	3690 1864	1700 1690
		4/3/13	7.46	29.3	2620	1700
		11/13/06	NM	NM	NM	1290
		1/10/07	7.46	26.3	1361	1250
		4/13/07	7.24	26	1357	1260
		7/20/07	7.13	30.2	1599	1240
		1/2/08	7.25	28.2	1608	1250
		4/25/08	7.20	30	1031	1240
		7/2/08	7.13	28.4	1736	1330
MH-25C	208426	10/17/08	7.17	30.4	1624	1270
		1/5/09	7.15	27	1466	1250
		4/15/09 4/13/10	7.28	26.6 27.6	1368 1292	1270 1600
		4/13/10	8.41	27.0	1292	1290
		5/1/12	7.39	29.5	1667	1290
		4/3/13	7.44	28.0	1838	1230
		4/3/13 DUP	7.44	28.0	1838	1290
		11/13/06	NM	NM	NM	10
		1/15/07	7.89	26.2	316	<10
		4/4/07	7.83	27	325	10
		7/19/07	7.80	26.9	428	20
		1/2/08	7.72	25.3	395	<10
		4/25/08	7.62	25.3	317	100
MH-26A	201527	7/2/08 10/17/08	7.57 7.70	27.8	337 327	20 20
WIT FZUA	201327	1/5/09		27.4	327	13
		4/21/09	7.65	26.3	343	10
		4/13/10	7.60	26.7	332	8
		4/27/11	7.78	25.7	357	8
		4/27/11 DUP	7.78	25.7	357	9
		5/2/12	7.59	27.5	386	9
		4/4/13	7.72	27.0	350	8
		11/13/06	NM	NM	NM	1560
		1/15/07	7.53	26.4	1310	1590
		4/4/07	7.31	30.5	1448	1620
		7/19/07 7/19/07	7.10 7.10	29.0 29.0	1652 1652	1590 1570
		1/2/08	7.09	29.0	1849	1670
		4/25/08	6.95	28.8	1095	1630
		7/2/08	6.98	29.1	1835	1660
MH-26B	208427	10/20/08	7.16	29.2	1760	1650
		1/5/09	7.07	26.4	1661	1540
		1/5/09 DUP	7.07	26.4	1661	1500
		4/21/09	6.85	28.8	1238	1520
		4/13/10	7.27	27.3	1290	1600
		5/5/11	7.17	27.2	2910	1710
	1	5/1/12	7.26	29.7	1912	1680
		5/1/12 DUP	7.26	29.7	1912	1750



MH-26C MH-28	208428	11/13/06 1/15/07 4/4/07 7/19/07 1/2/08 4/25/08 7/2/08 DUP 1/5/09 4/21/09 4/13/10 DUP 4/13/10 DUP 4/13/10 DUP 4/13/10 DUP 4/13/10 DUP 4/17/11 5/1/12 4/4/13 11/14/06 1/9/07 4/17/07 7/16/07 1/21/08	NM 7.89 7.55 7.55 7.68 8.58 7.90 7.90 7.36 7.49 7.57 7.57 7.57 7.57 7.57 7.56 7.58 NM 7.22 6.98 6.89	NM 24.6 29.5 30.5 28.2 27.8 30.8 25.7 29.6 28.4 29.1 30.6 29.1 30.6 29.3 NM 25.8	NM 1059 1128 1267 1267 1411 872 1251 1251 1270 1034 1078 1078 1078 1755 1428 1533	730 740 720 730 740 740 580 720 680 680 660 770 780 810 810 820
		4/4/07 7/19/07 7/19/07 1/2/08 4/25/08 7/2/08 0/2/08 4/21/09 4/13/10 4/13/10 4/13/10 4/13/10 0 4/13/10 0 4/27/11 5/1/12 4/4/13 11/14/06 1/9/07 4/17/07 7/16/07 1/21/08 4/8/08	7.58 7.55 7.68 8.58 7.90 7.90 7.36 7.49 7.57 7.57 7.57 7.59 7.56 7.58 NM 7.22 6.98	29.5 30.5 28.2 27.8 30.8 30.8 25.7 29.6 28.4 28.4 28.4 28.4 29.1 30.6 29.3 NM	1128 1267 1267 1411 872 1251 1251 1270 1034 1078 1078 1078 1755 1428 1533	720 730 740 740 580 720 720 680 680 660 770 780 810
		7/19/07 7/19/07 1/2/08 4/25/08 7/2/08 DUP 1/5/09 4/21/09 4/21/09 4/13/10 4/13/10 4/13/10 DUP 4/27/11 5/1/12 4/4/13 11/14/06 1/9/07 4/17/07 7/16/07 1/21/08 4/8/08	7.55 7.55 7.68 8.58 7.90 7.90 7.36 7.49 7.57 7.57 7.57 7.57 7.59 7.56 7.58 NM 7.22 6.98	30.5 30.5 28.2 27.8 30.8 30.8 25.7 29.6 28.4 28.4 28.4 28.4 29.1 30.6 29.3 NM	1267 1267 1411 872 1251 1251 1251 1270 1034 1078 1078 1078 1755 1428 1533	730 740 740 580 720 720 680 660 770 780 810
		7/19/07 1/2/08 4/25/08 7/2/08 DUP 1/5/09 4/21/09 4/21/09 4/3/10 DUP 4/3/10 DUP 4/27/11 5/1/12 4/4/13 11/14/06 1/9/07 4/17/07 7/16/07 1/21/08 4/8/08	7.55 7.68 8.58 7.90 7.90 7.36 7.49 7.57 7.57 7.57 7.59 7.56 7.58 NM 7.22 6.98	30.5 28.2 27.8 30.8 30.8 25.7 29.6 28.4 28.4 28.4 29.1 30.6 29.3 NM	1267 1411 872 1251 1251 1034 1078 1078 1078 1078 1755 1428 1533	740 740 580 720 720 680 660 770 780 810
		1/2/08 4/25/08 7/2/08 1/5/09 4/21/09 4/13/10 4/13/10 DUP 4/27/11 5/1/12 4/4/13 11/1/4/06 1/9/07 4/17/07 7/16/07 1/21/08 4/8/08	7.68 8.58 7.90 7.36 7.49 7.57 7.57 7.59 7.56 7.58 NM 7.22 6.98	28.2 27.8 30.8 25.7 29.6 28.4 28.4 29.1 30.6 29.3 NM	1411 872 1251 1251 1270 1034 1078 1078 1755 1428 1533	740 580 720 720 680 660 770 780 810
		4/25/08 7/2/08 7/2/08 DUP 1/5/09 4/21/09 4/13/10 4/13/10 DUP 4/27/11 5/1/12 4/4/13 11/14/06 1/9/07 4/17/07 7/16/07 1/21/08 4/8/08	8.58 7.90 7.90 7.36 7.57 7.57 7.59 7.56 7.58 NM 7.22 6.98	27.8 30.8 25.7 29.6 28.4 28.4 29.1 30.6 29.3 NM	872 1251 1270 1034 1078 1078 1755 1428 1533	580 720 720 680 660 770 780 810
		7/2/08 7/2/08 DUP 1/5/09 4/21/09 4/13/10 4/13/10 DUP 4/27/11 5/1/12 4/4/13 11/14/06 1/9/07 4/17/07 7/16/07 1/21/08 4/8/08	7.90 7.90 7.36 7.49 7.57 7.57 7.57 7.59 7.56 7.56 7.58 NM 7.22 6.98	30.8 30.8 25.7 29.6 28.4 28.4 29.1 30.6 29.3 NM	1251 1251 1270 1034 1078 1078 1755 1428 1533	720 720 680 660 770 780 810
		1/5/09 4/21/09 4/13/10 4/13/10 DUP 4/27/11 5/1/12 4/4/13 11/14/06 1/9/07 4/17/07 7/16/07 1/21/08 4/8/08	7.36 7.49 7.57 7.57 7.59 7.56 7.58 NM 7.22 6.98	25.7 29.6 28.4 28.4 29.1 30.6 29.3 NM	1270 1034 1078 1078 1755 1428 1533	680 660 770 780 810
MH-28	903548	4/21/09 4/13/10 4/13/10 DUP 4/27/11 5/1/12 4/4/13 11/14/06 1/9/07 4/17/07 7/16/07 1/21/08 4/8/08	7.49 7.57 7.57 7.59 7.56 7.58 NM 7.22 6.98	29.6 28.4 29.1 30.6 29.3 NM	1034 1078 1078 1755 1428 1533	660 770 780 810
MH-28	903548	4/13/10 4/13/10 DUP 4/27/11 5/1/12 4/4/13 11/14/06 1/9/07 4/17/07 7/16/07 1/21/08 4/8/08	7.57 7.57 7.59 7.56 7.58 NM 7.22 6.98	28.4 28.4 29.1 30.6 29.3 NM	1078 1078 1755 1428 1533	770 780 810
MH-28	903548	4/13/10 DUP 4/27/11 5/1/12 4/4/13 11/14/06 1/9/07 4/17/07 7/16/07 1/21/08 4/8/08	7.57 7.59 7.56 7.58 NM 7.22 6.98	28.4 29.1 30.6 29.3 NM	1078 1755 1428 1533	780 810
MH-28	903548	4/27/11 5/1/12 4/4/13 11/1/14/06 1/9/07 4/17/07 7/16/07 1/21/08 4/8/08	7.59 7.56 7.58 NM 7.22 6.98	29.1 30.6 29.3 NM	1755 1428 1533	810
MH-28	903548	4/4/13 11/14/06 1/9/07 4/17/07 7/16/07 1/21/08 4/8/08	7.58 NM 7.22 6.98	29.3 NM	1533	820
MH-28	903548	11/14/06 1/9/07 4/17/07 7/16/07 1/21/08 4/8/08	NM 7.22 6.98	NM		020
MH-28	903548	1/9/07 4/17/07 7/16/07 1/21/08 4/8/08	7.22 6.98			880
MH-28	903548	4/17/07 7/16/07 1/21/08 4/8/08	6.98	25.0	NM	1860
MH-28	903548	7/16/07 1/21/08 4/8/08		26.1	2690 1359	1920 1920
MH-28	903548	1/21/08 4/8/08		20.1	1206	1920
MH-28	903548		7.39	23.9	903	1940
MH-28	903548		6.99	25.5	1852	1900
MH-28	903548	7/1/08	6.95	26.62	3322	1680
MH-28	903548	10/6/08	6.97	26.7	3500	1910
	000010	1/8/09 4/7/09	7.05 6.84	25.7 26.4	3600 6300	1910 1860
		10/13/09	6.88	25.7	1589	1800
		4/15/10	7.11	25.1	1399	1900
		10/12/10	6.99	25.3	3460	1820
		5/17/11	6.94	25.6	3380	2000
		10/4/11	7.12	25.8	1390	1800
		5/21/12 10/9/12	6.64 6.97	28.8 26.8	3360 2980	1600 1900
		4/2/13	6.95	26.9	2930	1867.1
		11/14/06	NM	NM	NM	1640
		1/9/07	7.47	25.8	2600	1660
		1/9/07	7.47	25.8	2600	1650
		4/17/07 7/16/07	7.01 6.95	25.1 27.4	1345 1177	1690 1650
		1/18/08	7.17	27.4	1045	1710
		4/8/08	6.98	24.1	1580	1710
		7/1/08	6.99	25.95	3361	1730
		10/6/08	6.95	26.9	3300	1740
		1/9/09	7.03	25.7	9200	1730
MH-29	903649	4/7/09 4/7/09 DUP	6.80 6.80	26.4	7700 7700	1720 1700
		10/13/09	6.95	26.4 25.0	1421	1600
		10/13/09 DUP	6.95	25.0	1421	1700
		4/15/10	6.99	24.9	1358	1700
		10/12/10	7.04	23.9	3290	1520
		4/20/11	6.98	26.0	2950	1790
		4/20/11 DUP	6.98	26.0	2950	1770
		10/4/11 5/21/12	<u>6.91</u> 6.62	25.3 26.6	1765 3210	1600 1600
		10/9/12	6.97	26.3	2710	1700
		4/2/13	7.06	24.9	2750	1707.1
		11/10/06	NM	NM	NM	1690
		1/9/07	7.33	26.2	2780	1760
		4/9/07 7/11/07	7.3 7.18	27.3 31.9	1529 1694	1810 1820
		1/18/08	7.18	28.5	1147	1830
		4/8/08	7.27	27.1	1505	1830
		7/1/08	7.02	30.73	3740	1660
		10/6/08	6.95	29.8	3900	1810
MH-30	903884	1/7/09	7.12	28	3600	1840
		4/7/09	6.81	29.5	3400	1790
		4/7/09 DUP 4/15/10	6.81 6.96	29.5 28.9	3400 1697	1800 1480
		5/17/11	6.95	27.5	3360	1760
		5/17/11 DUP	6.95	27.5	3360	1750
		4/26/12	7.05	28.1	1618	1738
		6/6/13 6/6/13 DUP	7.26	29.5	2630	1760



Well Name	ADWR 55 Registry No.	Sample Date	pH (SU)	Temperature (deg C)	Specific Conductance (µS/cm)	Sulfate, Dissolved (mg/L)
		8/8/07	7.17	29.0	370	19.2
		1/24/08	7.83	24.0	370	20
		4/9/08	7.42	24.1	383	21
		7/14/08 10/17/08	7.41 7.46	27.9	359 357	16.6 17.9
		1/16/09	7.46	27.7 22.6	365	17.9
		4/1/09	7.55	26.5	387	18.2
		7/1/09	7.64	28.5	361	16.3
MO-2007-1A	907342	10/22/09	7.53	26.4	360	16.6
		10/22/09 DUP	7.53	26.4	360	16.6
		4/16/10 10/13/10	7.52 7.51	26.7 27.5	357 372	18.5 16
		5/5/11	7.51	27.3	401	17.9
		10/6/11	7.79	23.4	371	16.143
		6/12/12	7.40	27.9	371	16.98
		10/24/12	7.69	25.1	368	16.5
		4/8/13	7.55	25.6	363	17.92
		8/2/07 1/24/08	7.41 7.78	30.7 26.9	321 375	18.9 30
		4/9/08	7.70	23.1	400	35
		7/14/08	7.68	26.6	402	39.8
		10/17/08	7.56	28.1	423	54.3
		1/16/09	7.49	28.2	427	69.7
		4/1/09	7.78	26.4	511	84.1
		7/1/09	7.57 7.63	30.1	527 600	99
MO-2007-1B	907210	10/22/09 4/16/10	7.63	28.5 26.9	663	143 212
		10/13/10	7.46	28.7	1026	337
		10/13/10 DUP	7.46	28.7	1026	360
		5/5/11	7.42	28.6	1214	479
		10/6/11	7.84	24.8	1178	604.67
		10/6/11 DUP 6/12/12	7.84 6.99	24.8 29.0	1178 1664	614.84
		10/24/12	7.56	29.0	1460	766.0 975.8
		4/8/13	7.57	26.5	1577	873.7
		7/31/07	7.35	27.9	523	112
		1/24/08	7.84	26.9	520	140
		4/9/08	7.57	27.3	596	149
		4/9/08 DUP 7/14/08	7.57 7.64	27.3 31.4	596 608	153 165
		10/21/08	7.80	29.8	573	146
		1/16/09	7.17	27.5	652	233
		1/16/09 DUP	7.17	27.5	652	218
		4/1/09	7.66	27.1	700	229
MO-2007-1C	907209	7/1/09	7.33	30.8	367	236
		7/1/09 DUP 10/22/09	7.33 7.66	<u>30.8</u> 28.1	367 356	227 301
		4/16/10	7.66	28.5	730	320
		10/13/10	7.72	29.1	1004	377
		4/20/11	7.28	29.2	1009	381
		10/6/11	8.10	25.9	942	393.94
		6/12/12	7.05	29.5	1085	406.4
		10/24/12 10/24/12 DUP	8.40	26.5	694 694	239.2
		4/8/13	7.88	26.4	1017	416.3
		6/14/07	7.05	32.2	1372	591
		8/9/07	7.11	32.2	1271	520
		1/22/08	7.48	30.9	757	530
		4/17/08 7/14/08	7.32	29.8 31.3	818 987	473 472
		7/14/08 DUP	7.11	31.3	987	446
MO 2007 2	006765	1/16/09	7.27	30.6	1200	456
MO-2007-2	906765	4/1/09	7.34	28.5	922	458
		4/13/10	7.17	30.3	855	439
		4/13/10 DUP	7.17	30.3	855	450
		4/27/11 4/27/11 DUP	7.27 7.27	28.7 28.7	1249 1249	507 503
		5/2/12	7.30	31.8	1249	503
		4/8/13	7.34	30.1	1164	455.7



Well Name	ADWR 55 Registry No.	Sample Date	pH (SU)	Temperature (deg C)	Specific Conductance (µS/cm)	Sulfate, Dissolve (mg/L)
		1/21/08	7.94	26.5	353	40
		4/16/08	7.77	28.2	322	37
		7/14/08 10/22/08	7.70 7.69	<u>30.2</u> 28.1	338 379	37.8 42.4
		10/22/08 DUP	7.69	28.1	379	41.6
		1/19/09	7.82	28.1	342	36.9
		1/19/09 DUP	7.82	28.1	342	36.4
		4/1/09 7/27/09	7.89 7.78	25.7 28.2	376 353	<u>38.2</u> 37.2
		10/22/09	7.76	28.0	354	39.1
		1/20/10	7.97	27.6	328	37.9
		4/14/10	7.83	28.6	336	40.4
		7/21/10 10/26/10	7.86	27.7 26.6	372 361	38.7 39.1
MO-2007-3B	906816	1/18/11	7.83	27.3	353	38.2
		5/4/11	7.81	29.3	359	38.1
		7/6/11	7.75	30.2	362	38.3
		10/5/11 11/22/11	8.04 8.00	25.7 26.1	395 286	37.822 36.7
		1/11/12	7.55	27.0	200	39.00
		5/8/12	7.88	30.8	329	37.64
		8/7/12	7.88	29.1	419	36.26
		10/10/12 1/8/13	7.94 8.10	28.1 27.0	390 374	37.01 33.77
		4/9/13	8.10	27.0	374	33.77
		5/21/13	8.17	26.9	284	26.96
		8/27/13	8.59	27.8	204	3.47
		8/27/13 DUP	8.59	27.8	204	4.13
		6/28/07 1/21/08	7.93 8.21	32.2 27.6	570 507	136 130
		4/15/08	7.87	30.1	477	127
		7/17/08	7.98	32.7	493	126
		10/21/08	8.07	32.9	519	103
		1/19/09 4/1/09	8.00 8.09	<u>30.7</u> 28.3	490 541	<u>113</u> 115
		7/22/09	8.07	31.4	510	107
		10/22/09	8.01	29.8	488	108
		1/20/10	8.20	26.2	469	103
		4/14/10 7/21/10	8.07 8.05	<u> </u>	465 511	<u>110</u> 101
MO-2007-3C	906817	10/26/10	7.92	29.5	471	101
		1/18/11	8.06	29.1	492	106
		5/4/11	8.11	30.4	504	107
		7/6/11 10/5/11	8.02 8.28	32.5 29.3	248 524	101 96.818
		1/11/12	7.92	29.3	283	104.03
		5/7/12	8.10	30.3	440	95.99
		8/7/12	7.93	30.7	553	93.25
		10/10/12	8.04	29.4	487	99.13
		1/8/13 1/8/13 DUP	8.09 8.09	26.5 26.5	431 431	62.35 62.62
		4/9/13	8.35	28.2	432	89.78
		8/27/13	8.81	29.6	324	47.0
		1/22/08	7.82	25.0	405	40
		4/16/08 7/18/08	7.65	25.8	372 416	33.1 35.3
		10/22/08	7.58	26.9	420	40.1
		1/19/09	7.52	28	392	35.9
		4/2/09	7.85	26.8	393	36.7
		4/2/09 DUP 7/1/09	7.85 7.55	26.8 26.4	393 395	36.5 36.3
		10/26/09	7.64	20.4	395	35.7
		1/26/10	7.66	25.7	356	36.0
		4/14/10	7.63	25.2	379	37.0
MO-2007-4A	907213	7/21/10	7.54	26.9	420 414	34.9
		10/13/10 1/19/11	7.55 7.61	26.1 25.8	414 403	35.2 35.8
		5/4/11	7.57	26.5	403	35.9
		7/6/11	7.47	27.4	417	35.3
		10/5/11	7.82	24.1	435	34.47
		1/17/12 5/7/12	7.54 7.49	24.5 24.7	274 381	37.55 35.62
		8/13/12	7.53	24.7	378	35.62
		10/23/12	7.48	27.2	380	94.87
		2/21/13	7.53	28.6	337	33.48
	1	4/10/13	7.82	26.0	319	34.69



Well Name	ADWR 55 Registry No.	Sample Date	pH (SU)	Temperature (deg C)	Specific Conductance (µS/cm)	Sulfate, Dissolved (mg/L)
		1/7/08	7.69	25.5	445	NA
		4/16/08	7.66	26.9	343	33.6
		7/18/08	7.57	29.2	391	34.8
		7/18/08 DUP	7.57	29.2	391	35.1
		10/22/08 1/21/09	7.73	<u>30.8</u> 27.3	407 377	<u>34.7</u> 32.9
		4/2/09	7.93	28.3	363	32.9
		7/1/09	7.64	27.8	370	34.7
		10/26/09	7.68	28.7	348	34.5
		1/26/10	7.74	23.7	332	34.1
		4/14/10	7.76	25.1	342	35.1
		7/21/10	7.71	30.2	379	34
MO-2007-4B	907212	7/21/10 DUP	7.71	30.2	379 378	34.9
WIO-2007-4D	907212	10/13/10 1/19/11	7.69 7.73	28.1 26.9	378	<u>34.2</u> 34.6
		1/19/11 DUP	7.73	26.9	367	34.4
		5/4/11	7.72	28.1	379	34.5
		7/6/11	7.73	28.0	381	34.4
		10/5/11	8.01	27.6	401	34.194
		10/5/11 DUP	8.01	27.6	401	33.36
		1/17/12	7.81	26.7	259	33.14
		5/7/12 8/13/12	7.83	29.0 28.2	342 353	34.25 34.02
		10/23/12	7.72	27.9	364	34.37
		2/21/13	7.75	25.7	299	32.01
		4/10/13	8.06	24.7	312	33.31
		7/10/13	8.48	25.9	200	4.51
		8/16/07	7.62	35.2	472	78.7
		1/22/08	8.33	27.3	465	80
		4/16/08	8.19	29.9	420	80
		7/18/08 10/22/08	8.27 8.45	31.9 31.8	467 467	78.6 85.9
		1/21/09	8.84	29.1	467	78.5
		4/2/09	8.48	30.3	444	81
		7/1/09	8.25	31.1	446	82.7
		10/26/09	8.22	30.5	427	83.9
		10/26/09 DUP	8.22	30.5	427	83.8
		1/26/10	8.40	30.0	409	83.2
		4/14/10 7/21/10	8.11	27.6	423 467	87.7 85.6
MO-2007-4C	907211	10/13/10	8.23 8.19	32.4	467	86.5
		1/19/11	8.21	28.9	447	87.6
		5/4/11	8.27	30.1	468	88.1
		7/6/11	8.17	30.8	468	85
		10/5/11	8.43	30.0	505	89.355
		1/12/12	8.52	29.5	329	92.92
		5/7/12 8/13/12	8.32 8.31	30.6	439 451	91.70 91.22
		8/13/12 8/13/12 DUP	8.31	28.8	451	91.22
		10/23/12	8.86	28.5	436	94.65
		2/21/13	7.97	28.4	384	90.93
		4/10/13	8.46	29.3	362	93.24
		7/10/13	8.59	26.6	344	66.7
		1/7/08	7.96	26.7	1138	NA
		4/17/08 7/24/08	7.94 7.86	27.7	877 1040	390 343
		10/23/08	7.86	<u>31.1</u> 26.8	1040	412
		1/21/09	7.92	20.8	1080	412
		4/2/09	8.15	30.6	958	366
MO-2007-5B	907456	1/25/10	7.98	28.8	1010	462
IVIO-2007-5B	907456	4/27/10	7.90	29.3	987	427
		12/10/10	7.92	27.1	1215	454
		6/24/11	7.98	31.0	1199	513
		11/21/11	7.98	27.2	1249	494.3
		6/20/12 11/6/12	7.62 7.53	30.0 26.6	1465 1420	519.3 453.9
		6/12/13	8.07	27.8	1036	433.9



Well Name	ADWR 55 Registry No.	Sample Date	pH (SU)	Temperature (deg C)	Specific Conductance (µS/cm)	Sulfate, Dissolved (mg/L)
		8/23/07	7.46	31.4	780	248
		1/7/08	8.26	27.0	851	NA
		4/17/08 7/24/08	8.34 8.30	29.7 31.3	680 746	259 233
		10/23/08	9.11	31.3	746	257
		1/23/09	9.30	21.1	710	222
		5/13/09	7.64	31.4	715	235
MO-2007-5C	907457	10/27/09	7.55	30.1	651	238
		4/27/10 4/27/10 DUP	7.17 7.17	32.3 32.3	663 663	245
		12/10/10	7.95	30.5	709	248 251
		5/24/11	7.76	29.7	682	238
		11/21/11	8.58	26.4	780	235.98
		6/18/12	8.35	30.0	816	238.89
		11/6/12	8.43 8.88	26.3	763	262.57
		6/13/13 1/22/08	7.84	25.8 26.5	704 380	251 30
		1/22/08 DUP	7.84	26.5	380	30
		4/18/08	7.61	27.2	346	20.5
		7/24/08	7.47	28.3	390	16.9
		10/23/08	7.49	25.8	388	18.6
		1/22/09 4/2/09	7.48	26.2 25.5	364 378	26.9 23.7
		7/22/09	7.00	29.5	373	19.8
		10/26/09	7.52	27.9	349	23.5
		1/20/10	7.66	26.2	343	24.6
		4/21/10	7.59	27.3	375	34.7
		8/10/10	7.86	31.2	386	26.8
MO-2007-6A	907607	10/26/10 1/18/11	7.74	28.3 26.7	381 376	33.9 30.2
WO 2007-0A	507007	5/5/11	7.59	29.0	384	29.2
		7/7/11	7.72	29.1	397	36.6
		7/7/11 DUP	7.72	29.1	397	37.1
		10/6/11	8.05	25.8	402	34.109
		1/11/12 1/11/12 DUP	7.47	26.8 26.8	234 234	43.51 42.97
		6/12/12	7.65	28.2	389	34.98
		8/13/12	7.84	29.2	362	36.91
		10/18/12	7.77	28.8	368	30.42
		1/8/13	7.70	27.6	354	25.17
		4/9/13	8.04	28.5	329	32.44
		4/9/13 DUP 7/10/13	8.04 8.20	28.5 27.9	329 270	32.94 18.30
		1/21/08	8.13	29.8	467	80
		4/17/08	8.09	29.9	453	90.4
		7/24/08	8.00	33.8	473	81.5
		10/23/08	8.01	28.9	446	63.2
		1/22/09 4/2/09	7.45	29.9	443	84.5 75.7
		7/22/09	7.86	32.7	444 427	63.5
		10/26/09	7.90	30.5	398	62.1
		1/20/10	8.05	27.4	406	69.7
		4/21/10	7.95	29.5	380	57.9
		4/21/10 DUP	7.95	29.5	380	57.9
MO-2007-6B	907606	8/10/10 8/10/10 DUP	7.86 7.86	<u>31.2</u> 31.2	438 438	68.8 68.6
	001000	10/26/10	7.89	30.8	399	57.7
		1/18/11	7.85	30.4	396	58.5
		5/5/11	7.84	32.8	404	57.2
		7/7/11	7.88	32.8	405	57.5
		10/6/11 1/11/12	8.08 7.57	27.0 29.9	405 235	55.342
		6/12/12	7.62	31.5	399	57.78 55.99
		8/13/12	7.61	32.2	374	56.54
		10/18/12	7.82	29.8	383	50.70
		1/8/13	7.68	27.2	380	37.31
	1	4/9/13	8.03	29.8	361	54.72



Well Name	ADWR 55 Registry No.	Sample Date	рН (SU)	Temperature (deg C)	Specific Conductance (µS/cm)	Sulfate, Dissolved (mg/L)
		4/24/09	7.23	31.3	397	62.1
		7/29/09	8.18	32.9	495	97.7
		7/29/09 DUP	8.18	32.9	495	96.4
		11/3/09 1/25/10	8.17 8.23	29.5 29.2	513 481	109 82.1
		4/20/10	8.21	30.4	467	99
		8/10/10	8.23	31.4	528	109
		12/15/10	8.29	29.0	504	95
		12/15/10 DUP	8.29	29.0	504	94
MO-2009-1	910458	2/2/11	8.69	26.9	432	92
		6/16/11 8/31/11	8.30 8.33	<u>32.7</u> 31.1	468 560	102
		12/1/11	8.57	28.9	479	91.82
		1/11/12	8.18	29.9	292	93.84
		5/9/12	8.47	25.8	479	97.69
		8/15/12	8.47	32.7	454	102.4
		11/29/12	8.64	26.5	480	94.26
		1/8/13 4/10/13	8.79 8.67	27.0 29.8	522 403	98.57 105.80
		7/11/13	8.67	29.8	403	118
		7/18/07	7.30	23.2	816	NA
		6/4/07	7.20	25.9	411	41.2
		8/13/07	7.16	26.0	441	41.7
		1/11/08	7.60	25.0	760	43.5
		1/11/08 DUP 4/17/08	7.60 7.34	25.0 25.4	760 379	43.8 40
		4/17/08 DUP	7.34	25.4	379	33
		7/11/08	7.62	25.9	455	40.5
		10/6/08	7.57	25.1	405	39.7
		2/9/09	7.61	25.3	337	42.4
		4/24/09	6.89	24.6	510	32.1
		9/17/09 12/31/09	6.68 7.60	26.6 23.6	414 387	40 40.7
		2/17/10	6.35	23.0	450	40.7
	CO 4000	2/17/10 DUP	6.35	24.7	450	42.0
NP-2	624028	4/22/10	7.25	23.49	447	41.9
		8/5/10	7.67	26.0	429	41.2
		10/25/10	7.66	25.3	446	41.4
		1/19/11 5/3/11	7.69 7.84	25.5 25.3	402 413	41.9 43.5
		7/18/11	7.72	25.8	413	43.5
		7/18/11 DUP	7.72	25.8	431	44.6
		12/5/11	8.11	23.1	396	58.63
		3/21/12	7.86	24.9	337	64.11
		6/18/12	7.83	26.9	463	64.90
		8/15/12 11/29/12	8.01 8.02	26.3 24.1	357 396	65.72 70.13
		2/20/13	7.94	23.6	376	69.34
		6/17/13	7.96	25.6	379	71.6
		8/27/13	7.82	25.4	337	64.3
		11/16/06	NM	NM	NM	270
		1/12/07	7.30	21.6	920	340
		4/17/07 7/24/07	7.13	23.8 28.2	979	360
		1/7/08	7.02	19.2	1106	400
		4/28/08	7.09	27.6	699	440
		7/11/08	7.29	24.5	1173	400
PZ-7	561870	7/11/08 DUP	7.29	24.5	1173	400
		10/14/08	8.31	25.0	1300	420
		1/13/09 4/6/09	7.46 6.90	21.6 24.2	5200 1100	440 460
		4/23/10	6.12	24.2	1400	460
		5/18/11	7.04	24.2	1463	472
		5/18/11 DUP	7.04	24.2	1463	470
	6/6/12	6.93	25.9	1458	489.1	



Well Name	ADWR 55 Registry No.	Sample Date	рН (SU)	Temperature (deg C)	Specific Conductance (µS/cm)	Sulfate, Dissolved (mg/L)
		11/14/06	NM	NM	NM	470
		1/10/07	6.6	21.0	985	460
		4/11/07	7.41	19.8	1074	540
		7/12/07	7.27	27.3	935	450
		1/3/08	7.52	23.1	1045	320
		4/8/08	7.16	25.4	962	500
PZ-8	561866	7/1/08	7.15	26.49	1203	400
PZ-0	000100	10/8/08	7.22	28.2	1400	460
		1/8/09	7.05	22.3	1000	330
		4/8/09	6.54	24.1	900	280
		4/22/10	6.88	16.3	1230	305
		4/21/11	7.05	21.5	1147	364
		4/25/12	6.41	24.1	935	344.9
		6/10/13	7.35	26.7	943	380
		6/19/07	7.73	29.7	351	14.1
		8/6/07	8.04	25.2	505	<10
		1/10/08	7.77	24.2	254	<0.5
		4/18/08	7.54	25.1	268	<1
		7/9/08	7.94	27.3	296	7.3
		10/9/08	8.14	29.7	281	<0.5
		2/4/09	7.80	24.4	236	5.7
		4/21/09	7.92	26.7	281	5.5
TMM-1	616156	10/14/09	8.12	31.1	256	0.6
		4/20/10	8.08	27.0	281	12
		10/6/10	8.56	27.4	269	<0.5
		4/21/11	7.96	26.8	303	11.6
		12/21/11	7.10	20.4	1580	<0.5
		5/15/12	8.28	28.8	32.8	7.93
		11/23/12	7.64	22.8	479	<0.5
		11/23/12 DUP	7.64	22.8	479	<0.5
		6/19/13	8.41	29.9	263	1.43

Notes:

ADWR = Arizona Department of Water Resources

SU = Standard Units

deg C = degrees Celsius

 μ S/cm = microsiemens per centimeter

mg/L = milligrams per Liter

NA = not analyzed

NM = not measured

DUP = Duplicate sample



TABLE 3Compilation of Groundwater Elevation Data

Well Name	ADWR 55 Registry No.	Survey Source	UTM North (m)	UTM East (m)	Measuring Point Elevation (ft amsl)	Date	Depth to Water (ft)	Groundwater Elevation (ft amsl)
1350						7/12/07	474.29	2558.96
		Sierrita				11/8/07	477.30	2555.95
						1/9/08	477.00	2556.25
			3528649.387	499296.387	3033.25	4/14/08	475.50	2557.75
						8/7/08	477.88	2555.37
	NR					11/5/08	479.21	2554.04
						1/19/09 6/29/09	477.33 479.57	2555.92 2553.68
						5/28/10	478.78	2554.47
						5/9/11	480.42	2552.83
						6/29/12	479.57	2553.68
						5/23/13	481.16	2552.09
CC OF GV			3527876.220	501635.382		1/15/07	253.15	2570.30
		HGC			2823.45	4/16/07	254.20 259.79	2569.25
						7/9/07 1/10/08	259.79	2563.66 2566.19
	501760					7/7/08	261.09	2562.36
						11/14/08	263.13	2560.32
						2/4/09	258.48	2564.97
						4/21/09	258.79	2564.66
						4/22/10	259.51	2563.94
						5/14/13	258.20	2565.25
		HGC	3523809.985			6/6/07 8/10/07	265.35 267.40	2558.10 2556.05
						11/6/07	269.98	2553.47
						1/11/08	264.40	2559.05
	627483					4/17/08	266.46	2556.99
						7/11/08	270.95	2552.50
CW-3				500047.663	-	10/6/08	271.78	2551.67
					0044 74	2/9/09	267.51	2555.94
					2941.71	4/24/09 12/31/09	269.06 272.10	2554.39 2551.35
						4/22/10	272.10	2551.55
						10/25/10	273.54	2549.91
						5/2/11	272.50	2550.95
						12/5/11	274.20	2549.25
						6/26/12	259.51	2563.94
						12/13/12	278.81	2544.64
						6/13/13 12/4/06	283.48 247.50	2539.97 2619.50
		CWC	3525794.239	500891.072		1/3/07	247.30	2622.00
						5/24/07	252.25	2614.75
						7/10/07	252.15	2614.85
						10/2/07	253.05	2613.95
						1/8/08	245.81	2621.19
						4/17/08 7/8/08	254.20 253.80	2612.80 2613.20
						10/7/08	253.80	2610.70
						2/6/09	249.27	2617.73
						4/22/09	253.15	2613.85
						9/22/09	256.80	2610.20
	627485					11/5/09	258.10	2608.90
CW-6					2867.00	2/10/10	250.76	2616.24
						5/14/10	252.78	2614.22
						7/27/10 10/14/10	257.35 257.22	2609.65 2609.78
						2/24/11	257.22	2616.62
						4/28/11	254.32	2612.68
						7/20/11	257.20	2609.80
						12/14/11	253.57	2613.43
						1/24/12	252.33	2614.67
						5/9/12	255.74	2611.26
						8/29/12	258.30	2608.70
						12/12/12 2/6/13	256.33 254.67	2610.67 2612.33
						5/15/13	259.27	2607.73
						7/17/13	263.01	



TABLE 3Compilation of Groundwater Elevation Data

Well Name	ADWR 55 Registry No.	Survey Source	UTM North (m)	UTM East (m)	Measuring Point Elevation (ft amsl)	Date	Depth to Water (ft)	Groundwater Elevation (ft amsl)
CW-7						2/2/07	425.00	2562.50
						5/14/07	424.15	2563.35
						7/10/07	426.50	2561.00
						10/2/07	427.60	2559.90
	502546	cwc	3528094.155	499659.842	2987.50	1/8/08	427.50	2560.00
						4/17/08	426.40	2561.10
						7/8/08	428.40	2559.10
						10/7/08	429.80	2557.70
						2/6/09	426.62	2560.88
						4/22/09	424.30	2563.20
						5/14/10	438.35	2549.15
						4/28/11	429.50	2558.00
						5/9/12	425.90	2561.60
						5/15/13	458.53	2528.97
CW-8					-	1/3/07 5/24/07	336.50 338.14	2621.00 2619.36
						8/10/07	338.14	2619.36
						10/2/07	340.60	2616.90
			3525661.191			1/8/08	337.97	2619.53
					-	4/17/08	339.20	2618.30
		CWC		499798.520	2957.50	7/8/08	341.75	2615.75
	543600					10/7/08	342.75	2614.75
						2/6/09	339.12	2618.38
						4/22/09	341.20	2616.30
						4/12/10	342.00	2615.50
						4/28/11	342.68	2614.82
						5/9/12	340.12	2617.38
						5/15/13	347.39	2610.11
						12/4/06	306.00	2528.30
						1/3/07	304.20	2530.10
		CWC	3528740.784			5/24/07	309.40	2524.90
	588121					7/10/07	310.20	2524.10
						10/2/07	310.70	2523.60
						1/8/08	308.82	2525.48
						4/17/08	308.00	2526.30
						7/8/08	315.60	2518.70
						10/7/08	316.05	2518.25
						2/6/09	309.80	2524.50
						4/22/09	311.10	2523.20
						7/30/09	316.5	2517.80
						11/5/09	321.60	2512.70
CW-9				501072.040	2834.30	2/10/10	316.69	2517.61
						5/14/10	316.20	2518.10
						7/27/10	313.63	2520.67
						10/14/10	318.65	2515.65
						2/24/11	309.94	2524.36
						4/28/11	313.41	2520.89
						7/20/11	315.45	2518.85
						12/14/11 1/24/12	314.17	2520.13
						5/9/12	312.56	2521.74
						5/9/12 8/29/12	314.39 318.12	2519.91 2516.18
						8/29/12	318.12	2516.18
						2/6/13	317.48 313.90	2516.82
						5/15/13	313.90	2520.40
						7/17/13	313.79 316.52	2520.51
						1/11/13	310.32	2011.10



TABLE 3Compilation of Groundwater Elevation Data

Well Name	ADWR 55 Registry No.	Survey Source	UTM North (m)	UTM East (m)	Measuring Point Elevation (ft amsl)	Date	Depth to Water (ft)	Groundwater Elevation (ft amsl)
						12/4/06		2690.25
					-			
				Ulim East (m) Elevation (ft amsl) Data 12/ 1/3 5/2 7/3 12/ 1/3 5/2 7/3 13/ 5/2 7/3 13/ 5/2 7/3 500913.364 2868.50 200 200 4/11 7/12 7/13 7/13 500913.364 2868.50 201 7/13 10/ 202 7/13 11/2 7/13 11/2 5/13 11/2 7/13 11/2 5/13 11/2 7/13 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2				
					-			
					-			
	CW-10 207982 C							
011/ 40		014/0	0500455 500	500040.004	0000 50			
CVV-10		CWC	3523455.502	500913.364	2868.50			
								2669.98
				Of M Of M East (m) Elevation (t amst) Date W 12/4/06 17 17 17 17 17 17 17 17 17 17 17 17 17 17 17 17 17 17 10/2/07 19 11/10/09 19 12/12/11 11 11/11 11 11/2/0/0 11 11/2/1/1 11 11/2/1/1 11 11/2/1/1 11 11/2/1/1 11 11/2/1/1 11 11/2/1/1 11/2/1/1 11/2/1/1 11/2/1/1 </td <td>195.31</td> <td>2673.19</td>	195.31	2673.19		
					191.62	2676.88		
					ļ Į	Date Water (ft) Elevation (ft amsl) 12/4/06 178.25 2690.25 1/3/07 177.20 2691.30 5/24/07 196.30 2672.20 7/10/07 198.79 2669.71 10/2/07 190.85 2687.55 1/8/08 180.95 2665.25 1/8/08 187.95 2660.55 7/8/08 203.25 2665.25 10/7/08 190.65 2677.85 2/6/09 184.40 2684.10 4/22/09 191.12 2677.38 7/30/09 197.3 2671.20 11/5/09 199.10 2669.40 2/10/10 186.00 2682.50 5/14/10 190.10 2678.40 7/20/11 198.52 2669.98 10/14/10 195.31 2672.35 7/20/11 199.73 2677.00 12/2/4/11 191.62 2676.88 4/28/11 191.62 2676.80 1/2/12/12 199.93 2668.75 </td <td>2672.35</td>	2672.35	
								2668.75
						12/14/11	191.70	2676.80
						1/24/12		2678.77
								2671.30
								2667.00
								2668.57
						2/6/13	197.87	2670.63
								2659.00
							177.20 26 196.30 26 198.79 26 190.85 26 180.95 26 180.95 26 190.85 26 190.85 26 180.95 26 190.65 26 190.65 26 191.12 26 197.3 26 199.10 26 198.52 26 199.10 26 199.11 26 199.12 26 199.13 26 199.14 26 198.52 26 191.62 26 191.70 26 199.75 26 191.70 26 199.75 26 191.70 26 199.73 26 201.50 26 212.61 26 350.10 26 355.20 26 355.47 </td <td></td>	
				18/08 180.95 4/17/08 180.95 17/8/08 203.25 10/7/08 190.65 10/7/08 190.65 26(09 184.40 4/22/09 191.12 7/30/09 197.3 11/5/09 199.10 22/10/10 186.00 5/14/10 190.10 7/27/10 198.52 10/7/21/10 198.52 10/14/10 195.31 2/24/11 191.62 4/28/11 196.15 7/20/11 199.75 12/14/11 199.75 12/14/11 199.75 12/14/11 199.73 12/12/12 199.33 2/6/13 197.87 5/9/12 201.50 12/12/12 199.33 2/6/13 197.87 5/15/13 209.50 7/1/10/07 351.11 10/12/07 343.00 10/30/08 355.67 11/28/06 352.20 11/30/07 350.10 5/20/13 357.76 11/12/07 343.00 10/30/08 355.67 11/29/09 <t< td=""><td></td></t<>				
505 /		O						
ESP-1	623102	Sierrita	3526448.677	500913.364 2868.50 5/24/07 196.30 500913.364 2868.50 1/8/08 180.95 1/8/08 180.95 1/8/08 180.95 1/15/09 199.10 203.25 10/7/08 190.65 2/6(0) 184.40 4/22/09 191.12 1/3009 197.3 11/5/09 199.10 2/10/10 186.00 5/14/10 190.10 7/20/11 198.52 10/7/08 190.10 7/20/11 198.52 10/7/14/10 195.31 11/2/11 191.62 4/28/11 196.15 7/20/11 199.78 11/2/12 199.23 2/2/11 197.87 5/15/13 209.50 11/2/12 199.33 11/2/20/6 352.20 1/3/07 350.10 5/2/4/07 190.55 7/10/07 351.11 10/12/07 343.30 10/30/08 355.43 11/28/06 352.20 1/3/07 353.10 5/2/4/07 355.10 5/2/4/07 355.10 5/2/4/07 349.15 <td></td> <td></td>				
					12/4/06 178.25 269 1/3/07 177.20 269 5/24/07 196.30 267 7/10/07 198.79 266 10/2/07 190.85 267 1/8/08 180.95 268 4/17/08 187.95 268 1/8/08 180.95 266 10/7/08 190.65 267 2/6/09 184.40 268 4/22/09 191.12 267 7/30/09 197.3 267 11/5/09 199.10 266 10/14/10 190.52 266 10/14/10 195.31 267 7/20/11 191.62 267 4/28/11 196.15 266 10/14/10 195.31 267 7/20/11 199.75 266 12/14/11 191.70 267 7/20/11 197.87 267 5/51/3 20.50 265 7/17/13 212.61 265			
					-			
				n OTM East (m) Elevation (ft amsl) Date Wat (ft (ft m) 12/4/06 173 13/07 177. 5/24/07 196. 7/10/07 190. 10/207 190. 10/207 190. 10/207 190. 10/207 190. 10/207 190. 10/207 190. 10/207 190. 10/207 190. 10/207 190. 10/207 190. 10/207 190. 10/207 190. 10/207 190. 10/10 196. 2/210/10 198. 2/210/10 198. 10/14/10 195. 2/21/11 190. 2/21/21 199. 2/6/13 197. 2/21/21 199. 2/6/13 197. 1/21/21 199. 2/6/13 197. 1/21/21 199.				
					(ft amsl) (ft) (ft) (ft) 12/4/06 178.25 24 1/3/07 177.20 22 5/24/07 196.30 22 5/24/07 198.79 22 1/8/08 180.95 22 1/8/08 180.95 22 1/8/08 187.95 22 1/8/08 190.65 22 1/9/7/08 190.65 22 2/8/09 184.40 22 2/8/09 191.12 22 2/10/10 186.00 22 2/10/10 186.00 22 2/10/10 186.00 22 2/10/14 199.10 22 2/10/14 198.52 22 11/509 199.10 22 2/10/14 198.52 22 10/14/10 195.51 22 1/2/12 199.93 22 2/2/11 199.73 22 1/2/12 19.93.00 22			
						= / + + /0 =		050150
						Item (ft) 12/4/06 178.25 1/3/07 177.20 5/24/07 196.30 7/10/07 198.79 10/2/07 190.85 1/8/08 180.95 4/17/08 187.95 7/8/08 203.25 10/7/08 190.65 2/6/09 184.40 4/22/09 191.12 7/30/09 197.3 11/5/09 199.10 2/10/10 186.00 5/14/10 190.10 7/20/11 195.31 2/24/11 191.62 4/28/11 196.15 7/20/11 199.75 12/14/11 191.70 1/24/12 189.73 5/9/12 201.50 12/14/11 191.70 1/24/12 189.73 5/9/12 201.50 12/14/11 191.72 12/2/12 199.93 2/6/13 197.87 5/15/13 209.50		
					Description (m) Elevation (ft amsl) Date Water (ft) 12/4/06 178.25 1/3/07 177.20 5/24/07 196.33 7/10/07 198.33 10/2/07 9913.364 2868.50 26609 184.44 4/22/09 191.12 7/30/09 197.3 11/5/09 9913.364 2868.50 26610 184.04 4/22/09 191.12 7/30/09 197.3 11/5/09 9913.364 2868.50 5/14/10 199.10 2/10/10 186.00 5/14/10 199.10 2/10/10 9913.364 2868.50 5/14/10 199.10 2/10/10 186.00 5/14/10 199.10 2/10/11 199.10 2/10/10 9913.364 2868.50 5/15/13 199.52 10/7/08 199.11 2/10/10 199.10 2/10/10 199.10 2/10/10 199.10 2/10/10 199.10 2/10/11 199.10 2/10/11 199.10 2/10/11 199.10 2/2/11 199.10 2/2/11 199.10 2/2/2/11 199.10 2/2/2/2/2/2/2/2/2/2/2/2/2/2/2/2/2/2/2/			
				O I M East (m) Elevation (t amsl) Date W 12/4/06 17 13/07 13/07 13/07 13/07 13/07 13/07 10/10/207 19 10/10/207 19 10/10/207 19 10/10/207 19 10/10/207 19 18/08 88 4/17/08 18 4/17/08 18 11/15/09 19 2/6/09 18 11/15/09 19 2/10/10 18 2/11/10 19 2/2/21/10 19 7/20/11 19 2/2/21/1 19 4/2/21/1 19 4/2/11 19 2/12/12 11/2/11 2/12/11 19 2/2/21/1 19 2/2/21/1 19 2/2/21/1 19 2/2/21/1 19 2/2/21/1 11/2/2/0 2/2/21/1				
ESP-2	623103	Sierrita	3526924.656	500241 637	2934 60			
20. 2		2.0						2593.15
				499969.682 2953.43 1/3/07 4/10/07 10/12/07 10/30/08 1/29/09 4/16/09 4/16/09 4/28/10 10/15/10 5/3/11 11/12/11 11/12/11 5/2/3/11 11/22/13 11/12/11 5/20/13 11/28/06 1/3/07 5/14/07 7/10/07 10/12/07 11/28/08 1/3/07 11/28/08 1/3/07 5/14/07 7/10/07 10/12/07 1/23/08 4/18/08 7/25/08 10/30/08 1/29/09 4/16/09 11/10/09 4/28/10 10/15/10 5/3/11 11/22/11 11/29/09 4/16/09 11/10/91 11/12/11 6/19/12 11/12/11		2588.10		
								2590.61
								2590.01
								2589.16
								2587.34
								2587.76
						11/21/12	3/12/11	2586 10



TABLE 3Compilation of Groundwater Elevation Data

Well Name	ADWR 55 Registry No.	Survey Source	UTM North (m)	UTM East (m)	Measuring Point Elevation (ft amsl)	Date	Depth to Water (ft)	Groundwater Elevation (ft amsl)
						11/28/06	360.40	2575.40
						1/3/07	358.60	2577.20
						5/14/07	355.85	2579.95
						7/1/07	358.05	2577.75
						10/30/08	361.12	2574.68
						1/29/09	410.05	2525.75
						4/16/09	353.20	2582.60
ESP-3	623104	Sierrita	3527377.239	500234.067	2935.80	11/12/09	363.37	2572.43
						4/28/10	361.69	2574.11
						10/15/10	365.00	2570.80
						5/3/11	363.35	2572.45
						11/22/11	364.91	2570.89
						6/19/12	364.50	2571.30
						11/21/12	357.92	2577.88
						5/22/13	356.23	2579.57
						11/28/06	349.20	2609.40
						1/12/07	348.30	2610.30
						5/4/07	346.90	2611.70
						7/24/07	348.80	2609.80
						10/12/07	352.41	2606.19
						1/23/08	349.65	2608.95
						4/18/08	350.39	2608.21
						7/25/08	352.13	2606.47
ESP-4	623105	Sierrita	3526132.758	499916.830	2958.60	10/30/08	355.42	2603.18
E3P-4	623105	Siemia	3520132.758	499910.830	2958.60	1/29/09	352.50	2606.10
						4/16/09	356.87	2601.73
						10/23/09	355.64	2602.96
						4/28/10	351.56	2607.04
						10/15/10	358.16	2600.44
						5/3/11	355.65	2602.95
						11/22/11	356.91	2601.69
						11/12/12	358.92	2599.68
						5/20/13	363.95	2594.65
						2/12/07	219.50	2600.50
						5/4/07	217.75	2602.25
						7/3/07	224.60	2595.40
						11/8/07	228.42	2591.58
						1/28/08	222.00	2598.00
						4/22/08	220.08	2599.92
ESP-5	623106	Sierrita	3527082.232	502007.895	2820.00	8/7/08	225.88	2594.12
_3, 0	0_0100	elenna	552. 502.202	002007.000		11/3/08	228.92	2591.08
						2/17/09	221.89	2598.11
						6/2/09	224.10	2595.90
						4/28/10	223.28	2596.72
						5/3/11	224.15	2595.85
						6/19/12	229.73	2590.27
						5/20/13	230.08	2589.92



TABLE 3Compilation of Groundwater Elevation Data

Well Name	ADWR 55 Registry No.	Survey Source	UTM North (m)	UTM East (m)	Measuring Point Elevation (ft amsl)	Date	Depth to Water (ft)	Groundwater Elevation (ft amsl)
						1/9/07	221.00	2721.35
						4/10/07	218.11	2724.24
						8/6/07	231.00	2711.35
						1/7/08	221.50	2720.85
						4/16/08	225.50	2716.85
						7/7/08		2711.35
						11/25/08	228.00	2714.35
					_			2721.85
								2740.45
					-			2709.55
GV-01-GVDWID	603428	GVDWID	3522254.157	499812.869	2942.35			2717.55 2715.23
GV-01-GVDWID	003420	GVDWID	3322234.137	499012.009	2942.35			2715.23
					-			2718.35
					-			2711.35
								2709.15
								2708.10
						6/7/12	242.28	2700.07
						8/29/12	231.00	2711.35
						11/15/12	239.00	2703.35
							238.61	2703.74
								2688.26
								2694.16
								2745.17
					-			2743.37
					-			2730.02
					-			2731.14 2739.85
					-			2735.52
								2729.42
								2730.89
								2737.59
								2698.57
						11/4/09	203.50	2726.97
						1/27/10	195.15	2735.32
GV-02-GVDWID	603429	GVDWID	3521654.457	499786 207	2930 47	4/1/10	197.10	2733.37
01 02 010110	000420	OVENIE	0021004.407	4337 00.207	2000.47			2727.71
					_			2725.92
								2731.59
					-			2725.70
					-			2724.33
					-			2726.04 2726.12
					-			2718.71
					-			2711.47
					-			2715.96
								2720.98
						5/16/13		2710.99
						7/11/13	220.75	2709.72
						01/09/07	237.50	2805.15
						04/10/07	238.55	2804.10
						08/06/07	240.31	2802.34
				499786.207 2930.47 12/7/11 233.20 3/14/12 234.25 6/7/12 242.28 8/29/12 231.00 11/15/12 239.00 1/29/13 238.61 5/16/13 254.09 7/11/13 248.19 1/9/07 185.30 4/10/07 187.10 7/11/13 248.19 1/9/07 185.30 4/10/07 187.10 7/11/13 248.19 1/9/07 187.10 7/11/13 248.19 1/9/07 187.10 7/11/13 248.19 1/9/07 187.10 7/11/13 248.19 1/9/07 187.10 7/11/16 194.95 7/7/08 190.58 2/4/09 192.88 7/29/09 231.90 11/2/01 195.15 1/20/11 198.88 4/28/11 204.77 7/28/10 202.76 10/14/10 204.43 3/14/12 204.43 3/14/12 204.43 3/14/12 204.43 3/14/12 204.43	2798.25			
						8/6/07 231.00 1/7/08 221.50 4/16/08 225.50 7/7/08 231.00 11/25/08 228.00 3/3/09 220.50 7/29/09 201.9 11/4/09 232.80 1/27/10 224.80 4/1/10 227.12 10/14/10 233.00 3/18/11 231.00 12/7/11 233.20 3/14/12 234.25 6/7/12 242.28 8/29/12 231.00 11/15/12 239.00 1/29/13 238.61 5/16/13 254.09 7/11/17 200.45 10/3/07 199.33 1/7/08 190.62 4/16/08 194.95 7/7/08 201.05 11/25/08 199.58 2/4/09 192.88 7/29/09 231.9 11/4/09 203.50 1/27/10 195.15 4/10/10 197.10	2804.90	
	000005	1100	0540500 000	407007 475	0040.05			2795.10
GV-SI-GVDWID	208825	HGC	3519509.930	497227.175	3042.65			2797.15
								2796.65
								2795.19
								2795.05 2785.65
								2785.65
								2784.73
					1			Z110.1Z



TABLE 3Compilation of Groundwater Elevation Data

Well Name	ADWR 55 Registry No.	Survey Source	UTM North (m)	UTM East (m)	Measuring Point Elevation (ft amsl)	Date	Depth to Water (ft)	Groundwater Elevation (ft amsl)
						1/15/07	655.89	2554.69
						4/16/07	630.00	2580.58
						7/10/07	656.00	2554.58
I-10	608525	Sierrita	325607.430	977264.441	3210.58			
								Water (ft) Elevation (ft amsl) 655.89 2554.69 630.00 2580.58 656.00 2554.58 659.58 2551.00 658.80 2551.78 657.10 2553.48 660.82 2549.76 660.80 2549.78 662.39 2548.19 661.26 2549.32 360.95 2783.74 386.70 2757.99 399.90 2744.79 400.45 2744.24 398.90 2744.79 400.85 2738.84 404.80 2739.89 400 2744.69 370.50 2774.19 394.45 2750.24 398.81 2704.88 404.30 2693.99 406.80 2691.49 344.00 2754.29 381.00 2717.29 412.90 2699.38 358.80 2753.48 410.18 2702.10 394.91 2717.37
					-			
					-			
					-			
					-			
					-			
				Jorth (m) UM East (m) Elevation (ft amsl) Date 1/15/07 1/15/07 1/15/07 1/15/07 7.430 977264.441 3210.58 1/15/07 1/15/07 7.430 977264.441 3210.58 1/15/07 1/15/07 7.430 977264.441 3210.58 1/12/08 1/12/08 7.779 496905.892 3144.69 1/12/16/06 1/12/10/1 7.779 496905.892 3144.69 1/12/10/1 1/12/08 3.637 497546.637 3098.29 1/12/10/1 1/1/11 5/13/09 1/1/11 5/2/24/07 1/1/1 5/2/24/07 1/1/11 1/1/11 1/1/11 5/1/101 5/1/101 1/1/1 1/1/11 5/1/111 5/2/1/12 1/1/1/1 1/1/1 3.637 497546.637 3098.29 2/2/24/07 1/1/2/0 7.953 497469.228 3112.28 5/1/1/1 5/1/1/1 5/2/1/12 2.640 497366.220 3121.45 7/29/08 1/2				
IW-1	623129	Sierrita	3521277.779	496905.892	3144.69			
	023129							
							370.50	
							394.45	
						5/11/11	392.80	2751.89
							438.48	
						4/15/13	439.81	2704.88
						12/16/06 ¹		
IW-2	623130	Sierrita	497546.637	497546 637	3098 29			
100 2	020100	Cicinia	407040.007	457 540.007	0000.20			
					-	$\begin{array}{r rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$		
IW-2A	216464	Sierrita	3521337.953	497469.228	3112.28			
					-			
					-			
					-	4		
					-			
					-			
IW-3A	201732	Sierrita	3521722.640	497366 220	3121 45			
	201102	elenna	00211221010	101 0001220	0.2.1.10			
							401.37	
					f		449.56	
						4	417.70	
						4	425.30	
							428.90	2708.16
						1/19/08	433.70	2703.36
				5607.430 977264.441 3210.58	441.90			
							409.22	
IW-4	623132	Sierrita	3522465.879	497371.700	3137.06		452.10	
				496905.892 3144.69 10/19/07 ¹ 3385.7 496905.892 3144.69 10/24/08 ¹ 400.4 1/21/09 400.4 400.4 400.4 1/21/09 400.5 507/08 ¹ 398.2 7/29/08 ¹ 405.8 400.4 400.4 1/21/09 400.5 41/31/09 370.5 4/15/13 439.8 5/21/12 438.4 4/15/13 439.8 5/21/12 438.4 4/15/13 439.8 5/21/12 438.4 4/15/13 439.8 5/21/12 438.4 4/15/13 439.8 5/21/12 440.5 4/15/13 439.8 5/21/12 404.5 4/25/08 ¹ 412.5 5/13/09 388.8 4/15/13 3112.28 5/21/12 404.3 4/25/08 ¹ 421.0 410.5 5/21/12 404.3 4/25/08 ¹ 421.0 421.0 421.0 422.5 4/15/13 429.7 5/11/11 421.5 5/21/12 <td></td> <td></td>				
IW-5	623133	Sierrita	3522814.850	497369.528	3137.65			
IW-5A	219131					J/22/12	400.00	



TABLE 3Compilation of Groundwater Elevation Data

Well Name	ADWR 55 Registry No.	Survey Source	UTM North (m)	UTM East (m)	Measuring Point Elevation (ft amsl)	Date	Depth to Water (ft)	Groundwater Elevation (ft amsl)
						11/15/06 ¹	425.00	2707.26
						2/24/07 ¹	433.60	2698.66
						7/31/07 ¹	432.28	2699.98
						10/17/07 ¹	433.35	2698.91
						1/29/08	416.90	2715.36
						4/22/08 ¹	415.45	2716.81
IW-6A	545565	Sierrita	3523708.756	497381.226	3132.26	7/29/08 ¹	416.82	2715.44
111 0/1	040000	Olemia	0020100.100	437301.220	0102.20	10/24/08 ¹	419.33	2712.93
						1/29/09	418	2714.26
						5/13/09	387.30	2744.96
						4/12/10	384.70	2747.56
						5/11/11	410.61	2721.65
						5/22/12	419.75	2712.51
						4/15/13	433.21	2699.05
						2/24/07 ¹	434.05	2688.14
						7/31/07 ¹	438.75	2683.44
						10/19/07 ¹	436.80	2685.39
						1/29/08	437.25	2684.94
						4/25/08 ¹	436.70	2685.49
						7/29/08 ¹	437.00	2685.19
IW-8	508236	Sierrita	3522020.520	497368.253	3122.19	10/24/08 ¹	436.92	2685.27
						1/21/09	439	2683.19
						5/13/09	377.80	2744.39
						4/12/10	438.36	2683.83
						5/11/11	430.52	2691.67
						5/21/12	438.67	2683.52
						5/14/13	379.15	2743.04
						11/15/06 ¹	402.72	2700.22
						2/24/071	405.95	2696.99
						7/21/071	405.68	2697.26
						10/19/07 ¹	379.00	2723.94
						1/19/08	491.10	2611.84
						4/21/081	480.80	2622.14
IW-9	508238	Sierrita	3522207.639	497369.791	3102.94	7/29/081	473.00	2629.94
						10/24/081	475.03	2627.91
						1/21/09	469	2633.94
						5/13/09	357.20	2745.74
						4/12/10	426.67	
						5/26/11		
						5/21/12		
						4/15/13		
						<u>11/15/06¹</u>		
						2/24/07 ¹		
						7/21/071		
						<u>10/18/07¹</u> 1/19/08		
						4/21/08 ¹		
IW-10	508237	Sierrita	3523122.199	497370.367	3129.64	7/29/081		
						10/24/08 ¹		
						1/21/09 5/13/09		
						4/12/10		126.67 2676.27 103.43 2599.51 18.95 2583.99 102.13 2600.81 164.05 2665.59 163.40 2666.24 164.22 2665.42 165.75 2663.89 165.75 2663.89 163.29 2666.35 166.11 2663.53 168.33 2661.31 465 2664.64 391.20 2738.44 163.16 2666.48 156.68 2672.96
						4/12/10 5/11/11		
						5/11/11 5/22/12	456.68	
								2663.07
L	1		1	1		4/15/13	405.06	2724.58



TABLE 3Compilation of Groundwater Elevation Data

Well Name	ADWR 55 Registry No.	Survey Source	UTM North (m)	UTM East (m)	Measuring Point Elevation (ft amsl)	Date	Depth to Water (ft)	Groundwater Elevation (ft amsl)
						11/21/06 ¹		2697.95
					-	2/24/07 ¹		2699.15
					-	7/31/07 ¹	428.50	2698.70
						10/17/07 ¹	430.00	2697.20
						1/29/08	430.00	2697.20
						4/22/08 ¹		2699.20
IW-11	508235	Sierrita	3523428.954	497371.414	3127.20	7/29/081		
					-	10/24/08 ¹		
					-	1/21/09		
						4/12/10		
					-	5/11/11		
					-	5/22/12		
						4/15/13	463.19	2664.01
						2/24/07 ¹	456.20	2681.98
						7/21/071	428.78	
					-	10/17/07 ¹		
					-	7/29/081		
IW-12	803638	Sierrita	3523969.869	497364.911	3138.18	10/24/08 ¹		
100-12	003030	Siemia	3323909.009	497304.911	5150.10	5/13/09		
					-	4/12/10		
					-	5/11/11		
						5/22/12	411.45	2726.73
						5/14/13	420.22	2717.96
						7/31/07		
					-		1/07 ¹ 428.50 2698.70 17/07 ¹ 430.00 2697.20 29/08 430.00 2697.20 2/08 ¹ 428.00 2699.20 9/08 ¹ 430.90 2696.30 24/08 ¹ 433.01 2694.19 21/09 429 2698.20 3/09 379.70 2747.50 1/11 414.21 2712.99 22/12 439.67 2687.53 15/13 463.19 2664.01 4/07 ¹ 456.20 2681.98 1/07 ¹ 433.00 2705.18 9/08 ¹ 425.90 2712.28 24/08 ¹ 425.90 2712.28 29/09 427 2711.18 33/09 375.80 2762.38 12/10 425.40 2712.78 21/10 425.40 2712.78 21/14 2733.05 2732.40 29/08 412.21 2731.14 20/07 413.30 2733.35 29/08 </td <td></td>	
					-		428.05 428.50 430.00 430.00 430.00 430.00 430.00 430.00 430.00 430.00 430.00 430.00 430.00 430.00 430.00 433.01 429 379.70 421.14 414.21 439.67 463.19 456.20 425.90 425.90 425.90 425.90 425.40 415.81 411.45 420.22 412.13 413.30 412.21 410.42 410.01 410.42 410.85 404.66 401.85 404.63 404.66 401.85 404.66 401.85 404.66 407.00 480.00 474.60 480.00 <td></td>	
IW-13	545556	Sierrita	3524166.673	497363.820	3143.35			
					-			
						4/12/10		
						5/11/11	401.85	
						6/20/12		
					-			
					-			
					-			
					-			
IW-14	545557	Sierrita	3526924.656	407267 126	2146 42	7/29/081		
100-14	545557	Siemia	3520924.050	497307.120	3140.42	10/24/08 ¹	467.07	2679.35
						1/29/09		
						4/21/10		
						7/31/07 ¹		
				$.673 497363.820 3143.35 \begin{array}{c cccc} 10/17/07^1 & 413.30 \\ 1/29/08 & 412.21 \\ 4/22/08^1 & 410.42 \\ 7/29/08^1 & 410.02 \\ 7/29/09 & 411 \\ 5/13/09 & 388.90 \\ 4/12/10 & 404.66 \\ 5/11/11 & 401.85 \\ 6/20/12 & 405.53 \\ 4/15/13 & 410.89 \\ 11/15/06^1 & 471.68 \\ 2/24/07^1 & 463.35 \\ 7/31/07^1 & 474.00 \\ 10/16/07^1 & 480.00 \\ 1/29/08 & 478.50 \\ 4/21/08^1 & 457.75 \\ 7/29/08^1 & 477.00 \\ 1/29/08 & 478.50 \\ 4/21/08^1 & 457.75 \\ 7/29/08^1 & 478.06 \\ 10/24/08^1 & 467.07 \\ 1/29/09 & 466 \\ 5/11/11 & 404.48 \\ 5/22/12 & 458.57 \\ 4/15/13 & 460.72 \\ 11/15/06^1 & 422.20 \\ 5/11/11 & 404.48 \\ 5/22/12 & 458.57 \\ 4/15/13 & 460.72 \\ 11/15/08^1 & 427.27 \\ 2/24/07^1 & 429.89 \\ 7/31/07^1 & 430.55 \\ 10/16/07^1 & 390.30 \\ 1/29/08 & 430.45 \\ 4/22/08^1 & 429.70 \\ 7/29/08^1 & 430.49 \\ 1/29/09 & 430 \\ 5/13/09 & 388.00 \\ \end{array}$				
IW-15	545558	Sierrita	3526924.656	497372.873	3152.02			
						$\begin{array}{r rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$		
								2722.02 2764.02
								2732.63
								2737.20
								2741.48
	1							2712.38



TABLE 3Compilation of Groundwater Elevation Data

Well Name	ADWR 55 Registry No.	Survey Source	UTM North (m)	UTM East (m)	Measuring Point Elevation (ft amsl)	Date	Depth to Water (ft)	Groundwater Elevation (ft amsl)
						11/15/06 ¹	409.69	2753.16
						2/24/07 ¹		2752.90
						7/31/07 ¹		2753.35
						10/16/07 ¹		2753.68
						1/29/08		2753.65
						4/22/08 ¹		2753.96
IW-16	545559	Sierrita	3526924.656	497370.651	3162.85	7/29/08 ¹		2753.83
100 10	040000	Olemia	0020024.000	407070.001	0102.00	10/24/08 ¹		2754.56
						1/29/09		2753.85
						5/13/09		2760.85
						4/12/10		2757.17
						6/29/11		2823.55
						6/27/12		2760.05
						5/14/13		2755.75
						11/15/06 ¹	429.15	2731.61
						2/24/07 ¹		2731.06
						7/26/07 ¹		2732.79
						10/16/07 ¹		2733.06
						1/29/08		2732.64
						4/22/08 ¹		2732.53
IW-17	545560	Sierrita	3525002.869	497373.717	3160.76	7/29/08 ¹		2732.36
						10/24/08 ¹		2732.31
						1/29/09		2732.76
						5/13/09		2735.76
						4/12/10		2735.64
						6/29/11		2738.66
						6/27/12		2736.66
						5/14/13		2731.90
						11/21/06 ¹		2722.13
						2/24/071		2721.60
						7/21/071		
						10/16/07 ¹		
						1/19/08		
IW-18	545561	Sierrita	3525169.771	497374.056	3171.15			
			$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$					
						1/29/08	Water (ft) Eleva (ft ar (ft ar)(ft ar (ft ar)(ft ar)(
						4/21/08 ¹		
IW-19	545562	Sierrita	3525343.392	497373.630	3155.39	7/29/081		
100-13	343302	Siema	55255 4 5.572	431313.030	5155.59	<u>10/24/08¹</u> 1/29/09		
						5/13/09		
						4/12/10		35 2724.80 25 2725.90 75 2724.40 48 2723.67 30 2724.15 30 2724.85 7 2724.15 30 2724.85 7 2724.15 50 2728.21 35 2735.80 97 2734.18 11 2728.04 50 2736.79 55 2710.74 35 2704.39 38 2703.51 38 2704.31 2704.39 20 2741.49 2710.15 15 2719.24 35 2719.24
						5/11/11		
						5/11/11		
						5/22/12		
			1			5/14/13	409.00	2110.00



TABLE 3Compilation of Groundwater Elevation Data

Well Name	ADWR 55 Registry No.	Survey Source	UTM North (m)	UTM East (m)	Measuring Point Elevation (ft amsl)	Date	Depth to Water (ft)	Groundwater Elevation (ft amsl)
						11/21/06 ¹	421.25	2742.96
						1/29/07	445.30	2718.91
						7/26/07 ¹	426.21	2738.00
			y UTM North (m) UTM East (m) Elevation (ft amsi) a 3525568.770 497364.739 3164.21 a 3525773.266 497374.585 3171.37 a 3523273.592 497369.590 3128.25 a 3522970.788 497369.237 3128.53	10/16/07 ¹	424.15	2740.06		
					1/29/08	424.65	2739.56	
						4/21/08 ¹	425.15	2739.06
IW-20	545563	Sierrita	3525568 770	497364 739	3164 21	7/29/08 ¹	422.99	2741.22
111 20	040000	Olemia	0020000.110	401004.100	0104.21	10/24/08 ¹	424.14	2740.07
								2722.21
								2750.21
								2746.14
			by UTM North (m) UTM East (m) a 3525568.770 497364.739 a 3525773.266 497374.585 a 3523273.592 497369.590				2751.06	
								2749.71
								2746.95
					-			2746.57
					-			2721.72
				525568.770 497364.739 3164.21 1 525773.266 497374.585 3171.37 1 523273.592 497369.590 3128.25 1			2717.33	
					10/16/07 ¹ 44 1/29/08 44 3171 37 4/21/08 ¹ 44		2729.27	
					-			2729.69
IW-21	545664	Sierrita	3525773.266	497374.585	3171.37			2729.87
					-			2717.37
					-			2728.29
					-			2687.37
					-			2755.77
					-			2435.37
								2558.79
					-			2693.50
					-			2694.67
					-			2698.25
								2692.50
					-			2689.75
					-			2688.95 2686.17
IW-22	200554	Sierrita	3523273.592	497369.590	3128.25			2672.36
					-			2686.25
					-			2744.25
					-			2693.63
					-			2697.04
					-			2679.47
					-			2668.53
								2584.03
								2629.33
								2628.53
					497364.739 3164.21		2609.58	
IW-23	200555	Sierrita	3522970 788	497369 237	3128 53			2753.53
20	200000	0.0.110	0022070.700		0.20.00		422.99 424.14 442 414.00 418.07 413.15 414.50 417.26 424.80 449.65 454.04 442.10 441.68 441.50 444.68 441.50 454.04 442.10 441.68 441.50 454.00 443.08 484 415.60 736.00 612.58 433.75 433.50 433.50 433.50 433.50 434.75 438.50 439.30 442.08 455.89 442 384.00 434.62 431.21 448.78 459.72 500.00 500.00 518.95 375.00 538.78 516.15	2589.75
								2612.38
								2605.32
								2646.42
								2590.79
								2660.79
						$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	2646.30	
114/07	0000	o ,	0500000 50 /	10707 . 070	04/0.00			2765.29
IW-24	200556	Sierrita	3522633.594	49/371.670	3113.29			2590.39
								2657.24
								2600.41
								2580.08
IW-25	219596	Sierrita	3521725.393	497631.672	3091.66			2669.14
IW-26	219143	Sierrita	3522307.296					2607.82
IW-28	219137	Sierrita	3523178.619					2662.82



TABLE 3Compilation of Groundwater Elevation Data

Well Name	ADWR 55 Registry No.	Survey Source	UTM North (m)	UTM East (m)	Measuring Point Elevation (ft amsl)	Date	Depth to Water (ft)	Groundwater Elevation (ft amsl)
					(it allist)	4/45/07		
					-		460.92 458.83	2538.61 2540.70
				UTM East (m) Elevation (t ams) Date 1/15/07 4/1607 7/10/07 10/8/07 11/9/08 7/25/08 10/22/09 5/12/09 5/12/09 11/5/09 5/28/10 10/21/10 6/15/11 11/17/11 6/29/12 4/17/13 5/22/13 10/29/12 4/17/13 5/22/13 10/29/12 4/17/13 5/22/13 10/29/12 4/17/13 5/21/13 5/21/13 5/21/13 5/21/13 5/21/13 1/15/07 7/16/07 10/8/07 1/8/06 10/28/08 11/15/07 11/		462.57	2536.96	
							465.65	2533.88
						1/9/08	464.68	2534.85
							462.50	2537.03
					-		466.18	2533.35
							468.82 466.25	2530.71 2533.28
M-8	87390	Sierrita	3529692.237	499658 916	2999 53		465.10	2533.28
	01000	elerina	0020002.201	1000001010	2000.00		465.60	2533.93
					-		466.61	2532.92
							471.61	2527.92
							467.35	2532.18
							471.23	2528.30
					-		464.98	2534.55
							472.66	2526.87
							466.32 464.70	2533.21 2534.83
							442.70	2531.11
					-		445.76	2528.05
					-		450.75	2523.06
						10/8/07	453.15	2520.66
							447.50	2526.31
					-			
M-9	501652	Sierrita	3530303.954	499984.173	2973.81			
					-			
					-			
					-			
							452.35	2521.46
							455.78	2518.03
					-			
					-			2532.03
							475.48	2530.20
							480.15	2525.53
		O I I						
M-10	501653	Sierrita	3530143.114	499659.027	3005.68			
					-			
						10/21/10	486.40	2519.28
							478.33	2527.35
						11/16/11	484.66	2521.02
				4 499659.027 3005.68 7/10/07 47 1/8/08 47 1/8/08 47 1/1/8/08 47 4/14/08 47 1/28/08 48 10/28/08 48 1/20/09 47 5/12/09 47 11/5/09 48 1/20/10 48 6/4/10 48 6/4/10 48 6/25/12 48 10/22/10 47 11/16/11 47 11/16/11 47 10/29/12 48 10/29/12 48 10/29/12 48 10/29/12 48 10/29/12 48 10/29/12 48 10/29/12 48 10/29/12 48 10/29/12 48 10/29/12 48 10/15/07 48 10/29/12 48 11/15/07 48 10/29/12 48 11/16/11 49 49 49 49 10/208 42 11/1/207 48 19/	493.26	3547.26		
							495.80	3549.80
								3548.22
M-20	906595	TBPI	3528491.771	499082.070	3054.00		493.70	3547.70
-			-					
							448.50 2525.31 454.27 2519.54 457.72 2516.09 450.78 2523.03 452.00 2521.81 453.85 2519.96 452.35 2521.46 455.78 2518.03 473.80 2500.01 477.72 2532.96 473.65 2532.03 477.47 2534.21 477.16 2528.08 475.48 2530.20 480.15 2525.53 483.70 2521.98 475.85 2529.83 478.80 2526.39 486.40 2519.28 478.33 2527.35 486.64 2519.28 478.33 2527.35 486.64 2519.28 478.33 2527.35 486.64 2519.28 478.33 2527.05 486.64 2519.02 486.64 2519.04 478.63 2527.05 486.64 2519.04	
						6/26/12		
	1		1		1	4/23/13		



N:\Projects\G & K\055039_Sierrita Mitigation Order\Groundwater Monitoring\Groundwater Monitoring Reports\2013 Q2 and Q3 Semiannual Report\

TABLE 3Compilation of Groundwater Elevation Data

Well Name	ADWR 55 Registry No.	Survey Source	UTM North (m)	UTM East (m)	Measuring Point Elevation (ft amsl)	Date	Depth to Water (ft)	Groundwater Elevation (ft amsl)
						11/21/06	443.90	2735.37
						1/10/07	444.15	2735.12
				U I M East (m) Elevation (t amsi) Date 11/21/06 (1/10/07 11/21/06 (1/10/07 11/21/06 (1/10/07 4/20/07 7/3/07 11/8/07 11/8/07 11/21/08 8/7/08 11/14/09 2/17/09 6/2/09 4/13/10 4/13/10 4/13/10 2/17/09 6/2/09 4/13/10 4/13/10 4/13/10 4/13/10 4/13/10 4/13/10 4/13/10 4/13/10 4/13/10 4/13/10 4/13/10 4/13/10 4/13/10 4/13/10 4/13/10 4/13/10 4/13/10 4/13/10 4/13/10 4/13/10 4/13/10 4/13/10 4/13/10 4/13/10 4/13/10 4/12/13 11/2/106 1/12/07 11/2/107 1/12/07 11/2/108 1/12/108 4/13/10 1/12/108 4/13/10 1/12/108 4/13/10 1/12/108	442.70	2736.57		
			UIM North (m) UIM East (m) Elevation (ft amsi) Date W 3525872.911 497372.392 3179.27 11/21/06 4 4/20/07 4 4/20/07 4 4/20/07 4 4/20/07 4 4/20/07 4 4/20/08 4 4/20/08 4 4/1/48/08 4 4/1/48/08 4 4/1/14/08 4 4/1/14/08 4 4/19/11 4 4/25/12 4 4/230/7 4 4/230/7 4 4/230/7 4 4/25/12 4 4/230/7 4 4/21/10 4 4/22/10 4 4/22/10	441.33	2737.94			
						11/8/07	theWater (ft)Elevation (ft amsl)1/06 443.90 2735.37 0/07 444.15 2735.12 0/07 442.70 2736.57 0/07 442.70 2736.57 0/07 441.33 2737.94 3/07 440.10 2739.30 $4/08$ 439.97 2739.30 $4/08$ 440.44 2738.83 1/08 439.65 2773.62 $7/09$ 440.90 2738.37 $7/09$ 440.90 2738.37 $7/09$ 440.90 2738.37 $7/09$ 440.90 2738.37 $7/09$ 440.70 2778.57 $3/10$ 438.62 2740.65 $5/12$ 436.95 2742.32 $8/06$ 427.70 2728.17 $3/07$ 425.51 2730.36 $1/07$ 422.15 2733.72 $3/07$ 425.44 2730.43 $9/08$ 424.15 2731.07 $1/08$ 425.44 2730.43 $9/08$ 424.15 2736.34 $1/1$ 420.10 2735.77 $5/12$ 419.53 2736.34 $1/14$ 420.10 2732.07 $3/07$ 392.95 2730.52 $3/08$ 391.40 2732.17 $3/07$ 392.95 2730.52 $3/08$ 391.40 2732.17 $3/07$ 392.95 2730.52 $3/08$ 391.40 2732.17 $3/07$ 392.95 2730.52 $3/07$ 392.9	2739.17
								2739.30
MH-1	803629	Sierrita	3525872 911	497372 392	3179 27			
	000020	Clonida	0020072.011	101012.002	0110.21			
					-			
					-			
					-			
					-			
					-			
MH-3	803630	Sierrita	2525270 191	107172 120	2155 97			
IVIT-3	803030	Siema	3323270.101	497472.430	3155.07			
					-			
					-			
					-			
					-			
					-			
					-			
					-			
					-			
					-			
					-			
MH-5	803632	Sierrita	3523725.339	497477.352	3123.47			
						4/13/10	381.47	2742.00
						4/18/11	387.96	2735.51
							398.80	
								2719.88
								2752.32
								2755.65
						4/20/07	374.80	2759.17
				311 497372.332 3173.27 8/7/08 439.65 11/14/08 441.45 2/17/09 440.90 6/2/09 440.70 4/13/10 438.62 4/19/11 436.65 4/25/12 436.95 4/19/11 436.65 4/25/12 436.95 4/23/07 422.51 1/1/4/08 427.70 2/23/07 427.31 4/23/07 422.51 1/19/08 424.40 1/1/2/08 425.44 7/29/08 424.15 1/0/24/08 426.10 2/17/09 425.46 6/2/09 425.46 6/2/09 425.12 430.89 4/13/10 418.92 4/13/10 418.92 4/13/10 418.92 4/19/11 420.07 391.60 3339 497477.352 3123.47 8/7/08 391.40 4/24/08 390.30 3339 497477.352 3123.47 8/7/08 391.40 4/14/10 381.40 4/13/10 489.43 497436.646 3133.97 8/7/08				
					Elevation (ft amsi) Date Water (ft) 11/21/06 443.90 1/10/07 444.15 4/20/07 442.70 7/3/07 441.33 11/8/07 440.10 1/28/08 439.97 4/24/08 440.44 8/7/08 439.65 11/14/08 441.45 2/17/09 440.90 6/2/09 440.70 4/13/10 438.62 4/19/11 436.65 4/25/12 438.95 12/18/06 427.70 2/23/07 422.31 4/23/07 422.51 7/21/07 424.22 10/20/07 422.42 10/20/07 422.480 4/21/08 425.44 7/29/08 424.15 10/24/08 426.10 2/17/09 425.48 4/13/10 418.92 4/19/11 420.01 4/25/12 419.53 4/21/08 390.70 4/24/08 </td <td>380.30</td> <td></td>	380.30		
							379.15	
14110	000000	0	0500750 /5/	107100010	0400.07			
MH-6	803633	Sierrita	3522770.451	497436.646	3133.97			
						4/2/13	402.02	2731.95



TABLE 3Compilation of Groundwater Elevation Data

Well Name	ADWR 55 Registry No.	Survey Source	UTM North (m)	UTM East (m)	Measuring Point Elevation (ft amsl)	Date	Depth to Water (ft)	Groundwater Elevation (ft amsl)
						11/21/06	357.85	2753.38
						1/12/07	360.20	2751.03
						4/20/07	368.20	2743.03
						7/3/07	370.20	2741.03
						11/8/07		
						1/28/08	371.00	2740.23
		-						
MH-7	803634	Sierrita	3522016.471	497502.475	3111.23			
					-			
					-			
					-			
					-			
					-			
					-			
					-			
					-			
MH-9	803635	Sierrita	3521252.607	496438,181	3162.57			
					-			
					-			
						4/19/11	375.11	2787.46
						4/26/12	380.49	2782.08
						5/23/13	386.04	2776.53
						11/8/06	346.70	2841.14
						1/9/07	364.80	2823.04
							355.65	2832.19
							356.75	
						10/16/07		
MH-10	803636	Sierrita	3521236.861	495717.770	3187.84			
					-			
					-			
					-			
				UTM East (m) Elevation (ft amsi) Date 11/21/06 1/1/2/07 11/21/06 1/1/2/07 11/21/06 1/1/2/07 497502.475 3111.23 8/8/08 11/14/08 2/17/09 6/2/09 4/18/11 6/14/12 5/23/13 11/8/06 11/8/06 11/8/06 11/8/06 11/8/06 11/9/07 4/26/07 7/3/07 11/8/06 11/1/8/06 11/8/06 11/1/2/07 4/18/11 6/1/1/12 5/23/13 11/8/06 11/8/06 11/1/4/08 11/8/06 11/1/4/08 11/14/08 2/17/09 6/2/09 4/15/10 4/24/08 11/8/06 11/14/08 11/1/4/08 11/14/08 11/1/4/08 11/14/08 11/1/4/08 11/14/08 11/1/4/08 11/14/08 11/1/4/08 11/14/08 11/1/4/08 11/14/08 11/1/4/08 11/14/08 11/1/1/07 4/16/10				
MH-11	803637	Sierrita	3524463.648	498749.381	3041.76			
					(m) Elevation (ft amsi) Date Date Water (ft) Elevation (ft) 497502.475 3111.23 11/21/06 357.85 27 11/20/7 360.20 27 4/20/07 386.20 27 11/8/07 370.20 27 11/8/07 370.60 27 11/8/07 370.60 27 11/8/08 371.00 27 11/8/08 371.00 27 4/24/08 370.92 27 11/14/08 372.22 27 11/14/08 372.23 27 4/13/10 372.63 27 4/13/10 372.63 27 4/18/11 380.58 27 11/8/06 380.58 27 11/8/07 362.55 27 11/8/07 367.95 27 11/8/08 371.30 27 11/8/07 367.08 27 11/8/07 365.25 27 11/8/07 366.50			
							1/21/06 357.85 2753.38 1/12/07 360.20 2751.03 1/20/07 368.20 2743.03 1/18/07 370.20 2741.03 11/8/07 370.60 2740.23 1/28/08 371.00 2740.23 1/28/08 372.22 2739.01 1/14/08 373.20 2738.03 2/17/09 372.48 2738.75 6/2/09 371.53 2739.70 4/13/10 372.63 2738.60 4/18/11 368.76 2742.47 5/14/12 381.09 2730.14 5/23/13 391.31 2719.92 11/8/06 380.58 2781.99 1/9/07 362.10 2800.47 4/20/07 363.60 2798.97 7/3/07 365.25 2797.32 11/8/06 368.58 2793.99 4/22/08 367.08 2792.19 1/14/08 371.70 2790.60 6/2/09 370.30 2782.27	
	1		1		1			



TABLE 3Compilation of Groundwater Elevation Data

Well Name	ADWR 55 Registry No.	Survey Source	UTM North (m)	UTM East (m)	Measuring Point Elevation (ft amsl)	Date	Depth to Water (ft)	Groundwater Elevation (ft amsl)
						11/10/06	327.84	2698.39
						1/24/07	326.35	2699.88
					_	4/18/07		2698.09
								2695.25
								2694.53
								2695.38
MIL 404	004074	Oʻla mita	0500700 440	400000 057	0000.00			2694.43
MH-13A	904071	Sierrita	3523793.443	498823.857	3026.23			2692.45
					-			2691.59 2693.25
								2693.25
								2692.96
					-			2691.83
					-			2688.33
					-			2681.65
								2694.93
					-			2695.05
								2693.42
						7/17/07	335.47	2690.16
						10/3/07	335.90	2689.73
						1/4/08	334.85	2690.78
						4/29/08	336.35	2689.28
MH-13B	904072	Sierrita	3523787.358	498829.881	3025.63	7/16/08	337.92	2687.71
					_	10/20/08	339.14	2686.49
								2688.43
				(m) Elevation (ft amsi) Date (ft) Water (ft) 11/10/06 327.84 1/24/07 326.35 4/18/07 328.14 1/7/07 330.98 4/18/07 328.14 1/7/107 330.98 10/4/07 331.80 1/4/08 330.85 4/29/08 331.80 1/14/08 330.85 4/29/08 331.80 1/12/09 332.98 4/15/09 332.19 4/15/09 332.19 4/15/09 332.19 4/12/10 333.77 5/23/11 334.40 6/11/12 337.90 4/11/10 332.19 4/12/10 332.29 11/10/06 330.70 1/24/07 335.47 10/30/7 35.90 1/1/10 334.85 4/18/07 332.21 1/1/10 334.85 4/21/10 334.85 4/21/07 335.47 10/20/08 339.14 1/22/07 335.45 4/15/09 336.50 4/11/12 337.47 5/23/11	2689.13			
								2688.16
								2686.88
					-			2683.13
								2676.65
					-			2693.08
								2693.01 2690.66
								2688.64
					-			2687.71
					-			2688.04
					-			2686.91
MH-13C	904073	Sierrita	3523793.032	498797.461	3028.46			2685.11
								2683.89
								2684.64
						4/15/09	343.08	2685.38
						4/21/10	343.86	2684.60
								2684.16
								2679.71
								2674.84
								2726.18
								2726.71
								2727.88
				U I M East (m) Elevation (ft ams) Date 11/10/06 11/24/07 1/24/07 1/24/07 4/18/07 7/17/07 10/4/07 1/4/08 4/29/08 7/16/08 10/20/08 1/23/09 4/15/09 4/15/09 4/15/09 4/15/09 4/15/09 4/15/09 4/11/12 4/3/13 11/10/06 1/24/07 4/18/07 7/16/08 10/20/08 1/23/09 4/15/09 4/15/09 4/18/07 7/16/08 10/20/08 1/24/07 4/18/07 7/16/08 10/20/08 1/24/07 4/18/07 7/16/08 10/20/08 1/23/09 4/15/09 4/15/09 4/21/10 5/23/11 6/11/12 4/3/13 11/10/06 1/24/07 4/15/09 4/21/10 5/23/11 6/11/12 4/3/13 11/10/06 1/24/07 4/15/09 <td></td> <td>2729.26</td>		2729.26		
								2730.66
								2728.59
								2728.33 2729.54
MH-14	528098	Sierrita	3525269.340	497517.626	3153.46			2727.43
						6/11/12 337.90 4/3/13 344.58 11/10/06 330.70 1/24/07 330.58 4/18/07 332.21 7/17/07 335.47 10/3/07 335.90 1/4/08 334.85 4/29/08 336.35 7/16/08 337.92 10/20/08 339.14 1/23/09 337.20 4/15/09 336.50 4/21/10 337.47 5/23/11 338.75 6/11/12 342.50 4/3/13 348.98 11/10/06 335.38 1/24/07 335.45 4/18/07 337.80 7/17/07 339.82 10/4/07 340.75 1/4/08 343.35 10/20/08 341.55 3028.46 7/16/08 343.35 10/20/08 344.57 1/23/09 343.86 5/23/11 344.30 6/11/12 348.75 4/21/00	2727.56	
								2728.56
								2730.55
								2731.64
								2734.52
								2733.63
	1		1					2727.87



TABLE 3Compilation of Groundwater Elevation Data

Well Name	ADWR 55 Registry No.	Survey Source	UTM North (m)	UTM East (m)	Measuring Point Elevation (ft amsl)	Date	Depth to Water (ft)	Groundwater Elevation (ft amsl)
						11/10/06	385.25	2726.12
						2/23/07	384.07	2727.30
						4/23/07	385.11	2726.26
						7/21/07	385.80	2725.57
						10/20/07	387.08	2724.29
						1/18/08	386.60	2724.77
	500004	Oʻla mita	0500074.007	407504 000	0444.07	4/21/08	386.18	2725.19
MH-15E	528094	Sierrita	3523274.327	497584.800	3111.37	7/29/08	387.39	2723.98
					-	10/24/08 2/17/09	388.51	2722.86 2723.91
					-	6/2/09	387.46 386.98	2723.91
						4/13/10	386.17	2725.20
						4/18/11	382.69	2728.68
					-	6/14/12	391.96	2719.41
					-	4/2/13	407.42	2703.95
						12/18/06	391.30	2725.77
					-	2/23/07	390.00	2727.07
						4/23/07	391.18	2725.89
						7/11/07	390.85	2726.22
						10/17/07	393.10	2723.97
						1/18/08	392.90	2724.17
						4/8/08	391.00	2726.07
MH-15W	528093	Sierrita	3523275.003	497524.067	3117.07	7/1/08	392.70	2724.37
						10/6/08	394.00	2723.07
					-	1/7/09	392.55	2724.52
					-	5/6/09	390.25	2726.82
					-	4/15/10	390.58	2726.49
					-	8/12/10 5/17/11	389.20 388.95	2727.87 2728.12
						4/25/12	397.62	2728.12
						5/28/13	409.15	2707.92
						12/18/06	344.70	2753.02
					-	2/23/07	349.39	2748.33
						4/23/07	352.85	2744.87
						7/21/07	355.00	2742.72
						10/20/07	355.55	2742.17
						1/19/08	355.30	2742.42
					_	4/21/08	355.15	2742.57
MH-16E	528100	Sierrita	3521870.233	497576.673	3097.72	7/29/08	356.78	2740.94
						10/24/08	357.62	2740.10
						2/17/09	357.02	2740.70
					-	6/2/09	354.15	2743.57
					-	4/13/10	357.71	2740.01
						4/18/11	354.93	2742.79
						4/26/12 5/23/13	362.82 364.82	2734.90 2732.90
	1					12/18/06	364.82	2753.62
						2/23/07	352.18	2748.06
						4/23/07	355.75	2744.49
						7/11/07	357.47	2742.77
					-	10/17/07	357.75	2742.49
						1/3/08	357.80	2742.44
						4/24/08	357.87	2742.37
MH-16W	528099	Sierrita	3521870.818	497516.074	3100.24	7/22/08	359.24	2741.00
	520033	Siellila	33210/0.010	43/310.0/4	5100.24	10/8/08	360.03	2740.21
						3/19/09	358.73	2741.51
						4/7/09	358.60	2741.64
						4/15/10	360.31	2739.93
						8/12/10	360.42	2739.82
						5/17/11	357.55	2742.69
						4/25/12	364.24	2736.00
						4/2/13	377.99	2722.25



TABLE 3Compilation of Groundwater Elevation Data

Well Name	ADWR 55 Registry No.	Survey Source	UTM North (m)	UTM East (m)	Measuring Point Elevation (ft amsl)	Date	Depth to Water (ft)	Groundwater Elevation (ft amsl)
						11/21/06	397.50	2733.66
						4/20/07	399.35	2731.81
						8/3/07	399.33	2731.83
						11/8/07	400.50	2730.66
						1/30/08	396.90	2734.26
						4/24/08	395.89	2735.27
MH-24	563799	Sierrita	3523709.046	497390.515	3131.16	8/7/08	396.78	2734.38
					-	11/14/08	396.88 396.31	2734.28
					-	2/17/09 6/2/09	396.50	2734.85 2734.66
					-	4/13/10	386.43	2744.73
					-	4/18/11	392.84	2738.32
						4/25/12	396.58	2734.58
					-	4/2/13	408.56	2722.60
						11/13/06	454.11	2602.46
					ļ Į	1/10/07	453.10	2603.47
						4/4/07	452.20	2604.37
						7/20/07	454.02	2602.55
						10/3/07	454.69	2601.88
						1/2/08	454.82	2601.75
1411.054	004500	0	0500540 475	400000 0 40	0050 57	4/25/08	454.47	2602.10
MH-25A	201528	Sierrita	3526510.175	498880.349	3056.57	7/2/08	455.68	2600.89
					-	10/17/08 1/5/09	457.49 457	2599.08 2599.57
					-	4/15/09	455.90	2600.67
					-	4/13/10	458.10	2598.47
					-	4/27/11	459.25	2597.32
					-	5/1/12	459.69	2596.88
					-	4/3/13	461.70	2594.87
						11/13/06	455.36	2602.86
						1/10/07	454.28	2603.94
						4/4/07	453.20	2605.02
						7/20/07	455.32	2602.90
					-	10/3/07	456.01	2602.21
						1/2/08	456.05	2602.17
						4/25/08 7/2/08	456.02 457.10	2602.20 2601.12
MH-25B	208429	Sierrita	3526515.244	498870.343	3058.22	10/17/08	458.39	2599.83
						1/5/09	458.38	2599.84
					-	4/15/09	457.28	2600.94
						4/13/10	458.27	2599.95
						4/27/11	460.35	2597.87
						6/15/11	460.85	2597.37
						5/1/12	460.90	2597.32
						4/3/13	463.02	2595.20
						11/13/06	454.65	2602.59
						1/10/07	453.57	2603.67
						4/13/07 7/20/07	452.30 454.42	2604.94 2602.82
						10/3/07	455.19	2602.05
						1/2/08	455.06	2602.03
						4/25/08	454.84	2602.40
MH-25C	208426	Siorrito	3536404 433	498874.666	2057 24	7/2/08	456.23	2601.01
INILI-790	208426	Sierrita	3526491.132	4900/4.000	3057.24	10/17/08	457.49	2599.75
						1/5/09	457.30	2599.94
						4/15/09	456.41	2600.83
						4/13/10	459.28	2597.96
						4/27/11	459.16	2598.08
						6/15/11	459.52	2597.72
						5/1/12	459.76	2597.48
						4/3/13	461.80	2595.44



TABLE 3Compilation of Groundwater Elevation Data

Well Name	ADWR 55 Registry No.	Survey Source	UTM North (m)	UTM East (m)	Measuring Point Elevation	Date	Depth to Water	Groundwater Elevation
			()	()	(ft amsl)		(ft)	(ft amsl)
						11/13/06	495.74	2575.15
					-	1/15/07	495.65	2575.24
					-	4/4/07 7/19/07	493.75 495.02	2577.14 2575.87
					-	10/2/07	496.12	2574.77
					-	1/2/08	496.28	2574.61
				408952 602		4/25/08	495.73	2575.16
MH-26A	201527	Sierrita	3527818.233	498852.692	3070.89	7/2/08	496.98	2573.91
					-	10/17/08 1/5/09	498.23 498.76	2572.66 2572.13
					-	4/21/09	497.85	2573.04
					-	4/13/10	499.68	2571.21
						4/27/11	500.71	2570.18
					-	5/2/12	501.05	2569.84
						4/4/13 11/13/06	501.96 493.00	2568.93 2577.50
					F	1/15/07	493.00	2577.65
						4/4/07	490.78	2579.72
						7/19/07	492.01	2578.49
						10/2/07	493.18	2577.32
					-	1/2/08	493.76	2576.74
MH-26B	208427	Sierrita	3527814.016	498839.900	3070.50	4/25/08 7/2/08	492.98 494.10	2577.52 2576.40
WII 1-20D	200427	Glernia	3527014.010	490039.900	3070.30	10/20/08	494.10	2575.19
						1/5/09	495.88	2574.62
						4/21/09	494.90	2575.60
						4/13/10	496.77	2573.73
					-	5/5/11	497.73	2572.77
					-	5/1/12 4/4/13	498.00 499.03	2572.50 2571.47
		Sierrita	3527806.770	498865.240		11/13/06	499.03	2574.66
					-	1/15/07	494.10	2575.01
						4/4/07	492.30	2576.81
					-	7/19/07	493.62	2575.49
					-	10/2/07 1/2/08	496.58	2572.53
					3069.11	4/25/08	495.35 494.37	2573.76 2574.74
MH-26C	208428					7/2/08	495.55	2573.56
						10/20/08	496.78	2572.33
						1/5/09	497.21	2571.90
					-	4/21/09	493.95	2575.16
					-	4/13/10 4/27/11	498.14 499.14	2570.97 2569.97
					-	5/1/12	499.44	2569.67
						4/4/13	500.61	2568.50
						11/14/06	401.10	2741.08
						2/19/07	401.10	2741.08
						4/17/07	402.32	2739.86
						7/16/07	403.18 403.00	2739.00 2739.18
						1/21/08	402.72	2739.46
						4/8/08	401.90	2740.28
						7/1/08	401.48	2740.70
						10/6/08	402.17	2740.01
MH-28	903548	Sierrita	3524609.980	497471.427	3142.18	1/7/09	402	2740.18
						4/7/09 10/13/09	401.06 401.10	2741.12 2741.08
						4/15/10	395.65	2746.53
						8/12/10	398.60	2743.58
						10/12/10	399.00	2743.18
						5/17/11	396.89	2745.29
						10/4/11	397.90	2744.28
						5/21/12 10/9/12	398.64 403.77	2743.54 2738.41
	1				1	10/3/12	+03.11	2100.41



TABLE 3Compilation of Groundwater Elevation Data

Well Name	ADWR 55 Registry No.	Survey Source	UTM North (m)	UTM East (m)	Measuring Point Elevation (ft amsl)	Date	Depth to Water (ft)	Groundwater Elevation (ft amsl)
						11/14/06	378.05	2745.10
						2/19/07	376.58	2746.57
						4/17/07	376.75	2746.40
						7/16/07	379.07	2744.08
						10/11/07	381.92	2741.23
						1/18/08	380.41	2742.74
					-	4/8/08	380.16	2742.99
						7/1/08	380.50	2742.65
					-	10/7/08	381.52	2741.63
N/11.00	000040	0	0500005 540	407004.000	0400.45	1/9/09	380.25	2742.90
MH-29	903649	Sierrita	3522805.518	497604.326	3123.15	4/7/09	379.90	2743.25
					-	10/13/09	380.52	2742.63
					-	4/15/10	379.59	2743.56
					-	8/12/10	378.65	2744.50
					-	10/12/10	379.31	2743.84
					-	4/20/11	377.75	2745.40
					-	5/23/11 10/4/11	377.80 380.25	2745.35 2742.90
					-	5/21/12	389.39	2733.76
					F	10/9/12	365.70	2757.45
					F	4/2/13	392.00	2731.15
						11/10/06	422.78	2809.67
				496682.307		1/9/07	421.65	2810.80
		Sierrita	3525926.812		-	4/9/07	419.32	2813.13
					-	7/11/07	416.85	2815.60
					-	10/2/07	416.95	2815.50
	903884				-	1/18/08	417.34	2815.11
					-	4/8/08	418.12	2814.33
MH-30					3232.45	7/1/08	417.71	2814.74
						10/6/08	417.11	2815.34
						1/7/09	416.37	2816.08
						4/7/09	415.10	2817.35
						4/15/10	412.03	2820.42
						5/17/11	412.18	2820.27
						4/26/12	420.61	2811.84
						6/6/13	427.36	2805.09
						7/30/07	425.87	2541.78
						10/9/07	428.32	2539.33
						1/24/08	426.32	2541.33
						4/9/08	424.72	2542.93
						7/14/08	428.42	2539.23
						10/17/08	431.02	2536.63
						1/16/09	428.90	2538.75
MO 2007 44	007040	Ciamita	0500004 000	500040 047	2007.05	4/1/09	426.86	2540.79
MO-2007-1A	907342	Sierrita	3529331.380	500016.947	2967.65	7/1/09	426.90	2540.75
						10/22/09 4/16/10	434.05 428.89	2533.60 2538.76
						4/16/10	428.89	
								2533.56
						5/5/11 10/6/11	429.31 433.60	2538.34 2534.05
						6/12/12	433.60	2534.05
						10/24/12	431.38 435.12	2536.27
						4/8/13	435.12 429.69	2532.53
				l		4/0/13	423.03	2001.90



TABLE 3Compilation of Groundwater Elevation Data

Well Name	ADWR 55 Registry No.	Survey Source	UTM North (m)	UTM East (m)	Measuring Point Elevation (ft amsl)	Date	Depth to Water (ft)	Groundwater Elevation (ft amsl)
						7/30/07	425.67	2541.15
						10/9/07	429.20	2537.62
						1/24/08	426.41	2540.41
						4/9/08	425.05	2541.77
						7/14/08	428.98	2537.84
						10/17/08	431.64	2535.18
						1/16/09	429.05	2537.77
						4/1/09	427.23	2539.59
MO-2007-1B	907210	Sierrita	3529325.119	500021.574	2966.82	7/1/09	427.70	2539.12
						10/22/09	434.90	2531.92
						4/16/10	429.13	2537.69
						10/13/10	434.47	2532.35
						5/5/11	429.65	2537.17
						10/6/11	434.10	2532.72
						6/12/12	431.95	2534.87
						10/24/12	435.62	2531.20
						4/8/13	429.03	2537.79
						7/30/07	423.87	2544.71
						10/9/07	427.02	2541.56
						1/24/08	424.00	2544.58
			3529328.959			4/9/08	423.30	2545.28
						7/14/08	426.73	2541.85
				500013.405		10/21/08	429.49	2539.09
						1/16/09	426.75	2541.83
						4/1/09	424.90	2543.68
MO-2007-1C	907209	Sierrita			2968.58	7/1/09	428.81	2539.77
						10/22/09	427.60	2540.98
						4/16/10	426.93	2541.65
						10/13/10	431.88	2536.70
						4/20/11	427.32	2541.26
						10/6/11	431.80	2536.78
						6/12/12	429.40	2539.18
						10/24/12	433.08	2535.50
					_	4/8/13	426.50	2542.08
						8/9/07	575.30	2578.53
						10/9/07	576.60	2577.23
						1/22/08	577.22	2576.61
						4/17/08	576.65	2577.18
						7/14/08	577.35	2576.48
MO-2007-2	906765	Sierrita	3527621.102	497912.410	3153.83	10/17/08	578.54	2575.29
						1/15/09	579.10	2574.73
						4/1/09	578.38	2575.45
						4/13/10	580.50	2573.33
						4/27/11	581.41	2572.42
						5/2/12	581.75	2572.08
						4/8/13	582.45	2571.38



TABLE 3Compilation of Groundwater Elevation Data

Well Name	ADWR 55 Registry No.	Survey Source	UTM North (m)	UTM East (m)	Measuring Point Elevation (ft amsl)	Date	Depth to Water (ft)	Groundwater Elevation (ft amsl)
						9/10/07	359.38	2552.77
						10/9/07	359.55	2552.60
						1/21/08	357.13	2555.02
						4/16/08	357.10	2555.05
						7/14/08	358.71	2553.44
						10/22/08	361.77	2550.38
						1/19/09	358.95	2553.20
						4/1/09	357.70	2554.45
						7/27/09	361.21	2550.94
						10/22/09	365.50	2546.65
						3/11/10	359.36	2552.79
						4/14/10	360.30	2551.85
MO 0007 0D	000040	O' a mita	0500500.004	500500 404	0040.45	7/21/10	362.20	2549.95
MO-2007-3B	906816	Sierrita	3528508.801	500522.491	2912.15	10/26/10	364.82	2547.33
						1/18/11	361.99	2550.16
						5/4/11	361.59	2550.56
						7/6/11	363.80	2548.35
						11/22/11	365.10	2547.05
						1/11/12	363.36	2548.79
						5/8/12	362.09	2550.06
						8/7/12	363.87	2548.28
						10/10/12	420.52	2491.63
					-	1/8/13	362.33	2549.82
					-	4/9/13	360.13	2552.02
						5/21/13	359.84	2552.31
						8/27/13	365.16	2546.99
						7/5/07	356.30	2555.60
						10/10/07	359.85	2552.05
						1/21/08	356.74	2555.16
						4/15/08	357.18	2554.72
						7/14/08	359.84	2552.06
						10/21/08	361.99	2549.91
						1/19/09	359.61	2552.29
						4/1/09	358	2553.90
						7/22/09	362	2549.90
						10/22/09	362.80	2549.10
						3/11/10	359.62	2552.28
						4/14/10	360.45	2551.45
MO-2007-3C	906817	Sierrita	3528508.743	500529.713	2911.90	7/21/10	367.50	2544.40
						10/26/10	365.13	2546.77
						1/18/11	361.62	2550.28
						5/4/11	361.61	2550.29
						7/6/11	363.75	2548.15
						10/5/11	365.50	2546.40
						1/11/12	363.36	2548.54
						5/7/12	362.35	2549.55
						8/7/12	364.49	2547.41
						10/10/12	366.50	2545.40
						1/8/13	362.59	2549.31
						4/9/13	360.45	2551.45
						8/27/13	365.47	2546.43

TABLE 3Compilation of Groundwater Elevation Data

Well Name	ADWR 55 Registry No.	Survey Source	UTM North (m)	UTM East (m)	Measuring Point Elevation (ft amsl)	Date	Depth to Water (ft)	Groundwater Elevation (ft amsl)
						10/9/07	307.67	2615.96
						1/22/08	303.85	2619.78
						4/16/08	305.46	2618.17
						7/17/08	308.05	2615.58
						10/22/08	309.65	2613.98
						1/19/09	306.28	2617.35
						4/2/09	306.69	2616.94
						7/1/09	307.92	2615.71
						10/26/09	309.10	2614.53
						1/26/10	308.52	2615.11
						4/14/10	308.53	2615.10
MO-2007-4A	907213	Sierrita	3525634.956	500383.682	2923.63	7/21/10	311.05	2612.58
WO-2007-4A	307213	Olemia	3323034.330	300303.002	2920.00	10/13/10	312.00	2611.63
						1/19/11	308.82	2614.81
						5/4/11	309.68	2613.95
						7/6/11	311.75	2611.88
						10/5/11	312.50	2611.13
						1/17/12	310.05	2613.58
						5/7/12	310.42	2613.21
						8/13/12	313.30	2610.33
						10/23/12	314.17	2609.46
						2/21/13	311.70	2611.93
						4/10/13	312.68	2610.95
						7/10/13	316.31	2607.32
						10/11/07	308.72	2614.85
						1/7/08	304.22	2619.35
						4/16/08	306.48	2617.09
						7/18/08	308.95	2614.62
						10/22/08	310.77	2612.80
						1/21/09	306	2617.57
						4/2/09	306.72	2616.85
						7/1/09	309.1	2614.47
						10/26/09	313.00	2610.57
						1/26/10	308.29	2615.28
						4/14/10	308.79	2614.78
MO-2007-4B	907212	Sierrita	3525613.952	500380.947	2923.57	7/21/10	311.22	2612.35
MO 2007 4D	507212	Olemia	0020010.002	000000.047	2020.01	10/13/10	312.39	2611.18
						1/19/11	308.84	2614.73
						5/4/11	310.40	2613.17
						7/6/11	312.85	2610.72
						10/5/11	313.50	2610.07
						1/17/12	309.81	2613.76
						5/7/12	311.47	2612.10
						8/13/12	314.42	2609.15
						10/23/12	315.28	2608.29
						2/21/13	311.79	2611.78
						4/10/13	313.17	2610.40
1						7/10/13	317.96	2605.61



TABLE 3Compilation of Groundwater Elevation Data

Well Name	ADWR 55 Registry No.	Survey Source	UTM North (m)	UTM East (m)	Measuring Point Elevation (ft amsl)	Date	Depth to Water (ft)	Groundwater Elevation (ft amsl)
						8/12/07	307.13	2616.53
						10/12/07	308.78	2614.88
						1/22/08	304.90	2618.76
						4/16/08	306.75	2616.91
						7/18/08	309.10	2614.56
						10/22/08	311.41	2612.25
						1/21/09	306.80	2616.86
						4/2/09	311.49	2612.17
						7/1/09	311.68	2611.98
					-	10/26/09	311.30	2612.36
					-	1/26/10	309.53	2614.13
		O . 1.				4/14/10	309.58	2614.08
MO-2007-4C	907211	Sierrita	3525624.484	500382.217	2923.66	7/21/10	312.75	2610.91
					-	10/13/10	313.49	2610.17
					-	1/19/11	309.94	2613.72
					-	5/4/11	311.53	2612.13
					-	7/6/11	314.05	2609.61
					-	10/5/11	314.80	2608.86
					-	1/12/12 5/7/12	311.00 312.37	2612.66 2611.29
						8/13/12	315.55	2608.11
						10/23/12	316.47	2607.19
					-	2/21/13	312.89	2610.77
					-	4/10/13	314.14	2609.52
					-	7/10/13	318.94	2604.72
				500013.850		10/12/07	268.27	2676.08
					-	1/7/08	262.09	2682.26
			3523743.376		-	4/17/08	266.22	2678.13
						7/24/08	268.61	2675.74
						10/23/08	272.16	2672.19
						1/21/09	265.83	2678.52
						4/2/09	269.20	2675.15
MO-2007-5B	907456	Sierrita			2944.35	1/25/10	268.30	2676.05
						4/27/10	268.02	2676.33
						12/10/10	272.31	2672.04
						6/24/11	275.70	2668.65
						11/21/11	273.28	2671.07
						6/20/12	277.46	2666.89
						11/6/12	280.33	2664.02
						6/12/13	288.32	2656.03
						8/23/07	294.04	2650.87
						10/13/07	289.70	2655.21
						1/7/08	285.09	2659.82
						4/17/08	281.52	2663.39
						7/24/08	282.42	2662.49
						10/23/08	285.03	2659.88
						1/22/09	281.38	2663.53
MO-2007-5C	907457	Sierrita	3523736.459	500014.152	2944.91	5/13/09	282.35	2662.56
						10/27/09	284.70	2660.21
						4/27/10	276.49	2668.42
						12/10/10	278.31	2666.60
						5/24/11 11/21/11	278.21	2666.70
							280.98	2663.93
						6/18/12	281.66	2663.25
						11/6/12	286.84	2658.07
						6/13/13	292.47	2652.44



TABLE 3Compilation of Groundwater Elevation Data

MO-2007-6A	907607	Sierrita	3521842.050	498367.161	(ft amsl) 3043.37	10/2/07 1/22/08 4/18/08 7/24/08 10/23/08 1/22/09 4/2/09 7/22/09 10/26/09 3/11/10 4/21/10 8/10/10 10/26/10	(ft) 303.60 303.27 304.02 305.81 307.85 305.87 304.87 307.15 307.00 306.15 306.44 309.12 200.87	(ft amsl) 2739.77 2740.10 2739.35 2737.56 2735.52 2735.52 2736.22 2736.37 2736.93 2736.93 2734.25
MO-2007-6A	907607	Sierrita	3521842.050	498367.161	3043.37	1/22/08 4/18/08 7/24/08 10/23/08 1/22/09 4/2/09 7/22/09 10/26/09 3/11/10 4/21/10 8/10/10	303.27 304.02 305.81 307.85 305.87 304.87 307.15 307.00 306.15 306.44 309.12	2740.10 2739.35 2737.56 2735.52 2737.50 2738.50 2736.22 2736.37 2737.22 2736.93 2734.25
MO-2007-6A	907607	Sierrita	3521842.050	498367.161	3043.37	4/18/08 7/24/08 10/23/08 1/22/09 4/2/09 7/22/09 10/26/09 3/11/10 4/21/10 8/10/10	304.02 305.81 307.85 305.87 304.87 307.15 307.00 306.15 306.44 309.12	2739.35 2737.56 2735.52 2737.50 2738.50 2736.22 2736.37 2737.22 2736.93 2734.25
MO-2007-6A	907607	Sierrita	3521842.050	498367.161	3043.37	10/23/08 1/22/09 4/2/09 7/22/09 10/26/09 3/11/10 4/21/10 8/10/10	307.85 305.87 304.87 307.15 307.00 306.15 306.44 309.12	2735.52 2737.50 2738.50 2736.22 2736.37 2737.22 2736.93 2734.25
MO-2007-6A	907607	Sierrita	3521842.050	498367.161	3043.37	1/22/09 4/2/09 7/22/09 10/26/09 3/11/10 4/21/10 8/10/10	305.87 304.87 307.15 307.00 306.15 306.44 309.12	2737.50 2738.50 2736.22 2736.37 2737.22 2736.93 2734.25
MO-2007-6A	907607	Sierrita	3521842.050	498367.161	3043.37	4/2/09 7/22/09 10/26/09 3/11/10 4/21/10 8/10/10	304.87 307.15 307.00 306.15 306.44 309.12	2738.50 2736.22 2736.37 2737.22 2736.93 2734.25
MO-2007-6A	907607	Sierrita	3521842.050	498367.161	3043.37	7/22/09 10/26/09 3/11/10 4/21/10 8/10/10	307.15 307.00 306.15 306.44 309.12	2736.22 2736.37 2737.22 2736.93 2734.25
MO-2007-6A	907607	Sierrita	3521842.050	498367.161	3043.37	10/26/09 3/11/10 4/21/10 8/10/10	307.00 306.15 306.44 309.12	2736.37 2737.22 2736.93 2734.25
MO-2007-6A	907607	Sierrita	3521842.050	498367.161	3043.37	3/11/10 4/21/10 8/10/10	306.15 306.44 309.12	2737.22 2736.93 2734.25
MO-2007-6A	907607	Sierrita	3521842.050	498367.161	3043.37	4/21/10 8/10/10	306.44 309.12	2736.93 2734.25
MO-2007-6A	907607	Sierrita	3521842.050	498367.161	3043.37			
		olonid	0021042.000	+30007.101	0040.07	10/26/10	000.05	
							308.95	2734.42
					-	1/18/11	307.78	2735.59
					-	5/5/11	308.13	2735.24
						7/7/11 10/6/11	309.90 311.10	2733.47 2732.27
						1/11/12	311.24	2732.13
						6/12/12	314.95	2728.42
		1				8/13/12	317.93	2725.44
						10/18/12	316.94	2726.43
	1					1/8/13	321.98	2721.39
						4/9/13	323.05	2720.32
						7/10/13 10/4/07	326.23 319.17	2717.14 2723.88
					-	1/21/08	314.78	2728.27
						4/17/08	314.75	2728.30
						7/24/08	317.04	2726.01
				498367.887 3043		10/23/08	318.17	2724.88
						1/22/09	316.58	2726.47
						4/2/09	316.05	2727.00
			3521849.495		-	7/22/09	317.49 319.37	2725.56 2723.68
	907606				-	3/11/10	316.58	2726.47
		Sierrita				4/21/10	316.64	2726.41
MO-2007-6B					3043.05	8/10/10	318.40	2724.65
WO-2007-0B					3043.03	10/26/10	318.66	2724.39
						1/18/11	317.52	2725.53
						5/5/11	317.00	2726.05
						7/7/11 10/6/11	318.58 319.92	2724.47 2723.13
						1/11/12	320.03	2723.02
						6/12/12	325.69	2717.36
						8/13/12	329.12	2713.93
						10/18/12	332.52	2710.53
						1/8/13	333.92	2709.13
						4/9/13	335.80	2707.25
						7/10/13 6/2/09	337.52 226.35	2705.53 2664.43
						7/29/09	220.35	2668.32
						11/3/09	225.90	2664.88
						1/25/10	212.26	2678.52
						4/20/10	219.94	2670.84
						8/10/10	227.88	2662.90
						12/15/10	215.16	2675.62
						2/2/11	214.99	2675.79
MO-2009-1	910458	Sierrita	3523369.438	500534.089	2890.78	6/16/11 8/31/11	226.45 223.97	2664.33 2666.81
	0.0100	0.01110	0020000.400	00000 1.000	2000.70	12/1/11	223.97 219.96	2670.82
						1/11/12	222.55	2668.23
						5/9/12	225.63	2665.15
						8/15/12	234.23	2656.55
						11/29/12	229.30	2661.48
						1/8/13	229.63	2661.15
						4/10/13	233.98	2656.80
						7/11/13 8/27/13	238.53 360.56	2652.25 2530.22



N:\Projects\G & K\055039_Sierrita Mitigation Order\Groundwater Monitoring\Groundwater Monitoring Reports\2013 Q2 and Q3 Semiannual Report\

TABLE 3Compilation of Groundwater Elevation Data

Well Name	ADWR 55 Registry No.	Survey Source	UTM North (m)	UTM East (m)	Measuring Point Elevation (ft amsl)	Date	Depth to Water (ft)	Groundwater Elevation (ft amsl)
						6/7/07	138.00	2768.56
						8/13/07	156.00	2750.56
						11/6/07	355.10	2551.46
						1/11/08	353.67	2552.89
						4/17/08	352.20	2554.36
						7/11/08	355.10	2551.46
						10/9/08	356.24	2550.32
						2/9/09	355.00	2551.56
						4/24/09	354.80	2551.76
						9/22/09	358.90	2547.66
						12/31/09	358.57	2547.99
						2/17/10	357.20	2549.36
NP-2	605898	HGC	3528517.116	500582.904	2906.56	4/22/10	356.38	2550.18
141 2	000000		00200111110	000002.001	2000.00	8/5/10	357.93	2548.63
						10/25/10	360.80	2545.76
						1/19/11	358.68	2547.88
						5/3/11	358.30	2548.26
						7/18/11	359.72	2546.84
						12/5/11	360.27	2546.29
						3/21/12	358.10	2548.46
						6/18/12	359.28	2547.28
						8/15/12	360.45	2546.11
						11/29/12	360.79	2545.77
						2/20/13	356.92	2549.64
						6/17/13	358.19	2548.37
						8/27/13	360.56	2546.00
						11/16/06	139.55	3409.62
						1/12/07	139.50	3409.67
			3526357.485	492533.171		4/9/07	139.65	3409.52
						7/24/07	139.76	3409.41
						10/16/07	139.49	3409.68
						1/7/08	139.25	3409.92
					3549.17	4/28/08	139.59	3409.58
PZ-7	561870	Sierrita				7/11/08	139.71	3409.46
						10/14/08	139.73	3409.44
						2/9/09	139.79	3409.38
						4/6/09	139.80	3409.37
						4/23/10	140.22	3408.95
						5/18/11	140.62	3408.55
						6/6/12	136.67	3412.50
						6/10/13	136.91	3412.26
						11/14/06	206.30	3274.06
						1/10/07	207.42	3272.94
						4/17/07	198.52	3281.84
						7/12/07	209.46	3270.90
						10/5/07	205.30	3275.06
						1/3/08	212.94	3267.42
	E64000	Ciorrita	2524400 042	400070 004	2402.20	4/8/08	217.43	3262.93
PZ-8	561866	Sierrita	3524196.243	492972.681	3480.36	7/1/08	221.70	3258.66
						10/8/08	222.49	3257.87
						1/8/09	223.63	3256.73
						4/8/09	224.72	3255.64
						4/20/10	227.87	3252.49
						4/19/11	228.73	3251.63
						4/25/12	229.66	3250.70
						6/10/13	230.86	3249.50



TABLE 3 Compilation of Groundwater Elevation Data

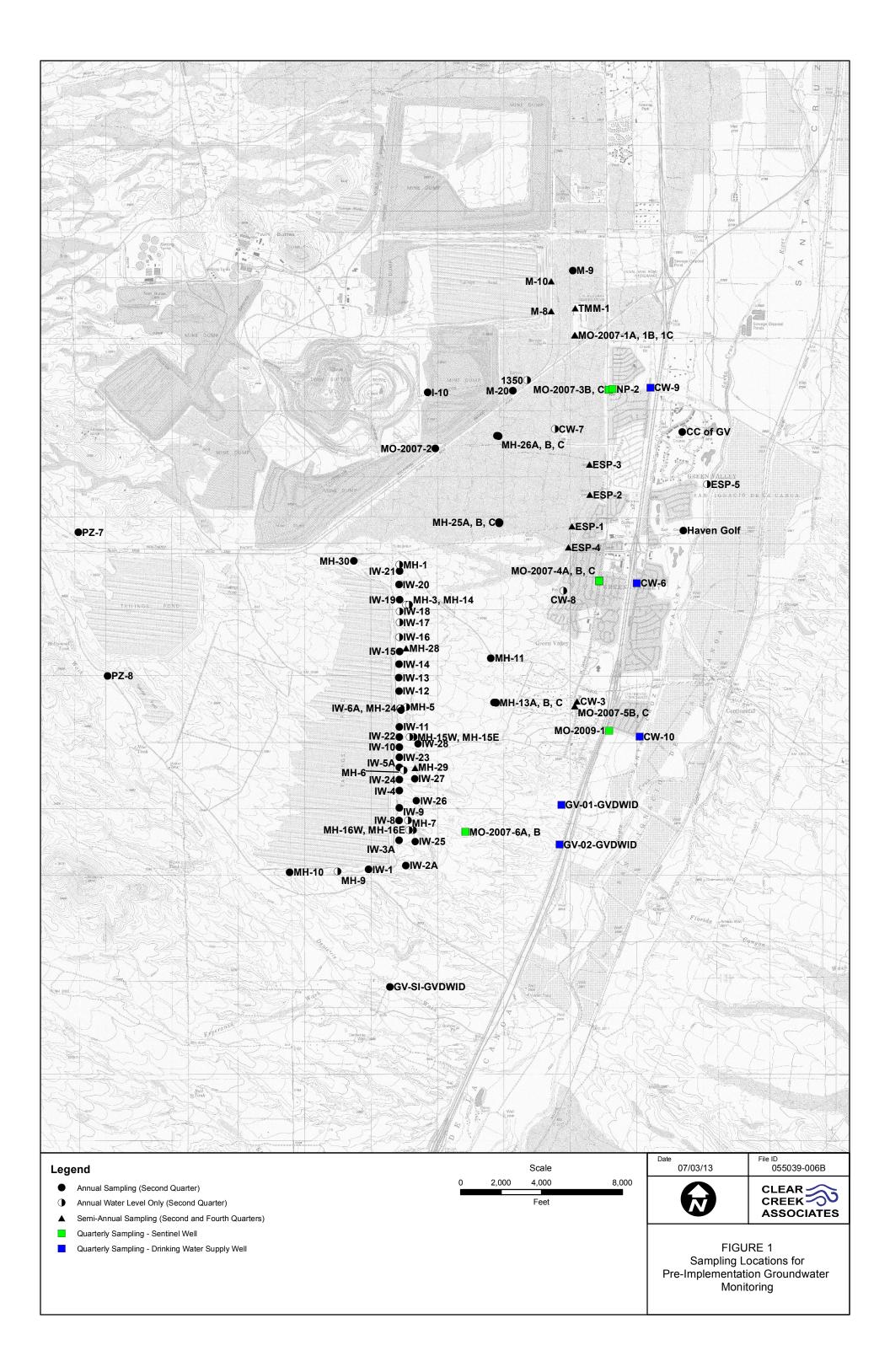
Well Name	ADWR 55 Registry No.	Survey Source	UTM North (m)	UTM East (m)	Measuring Point Elevation (ft amsl)	Date	Depth to Water (ft)	Groundwater Elevation (ft amsl)
						6/18/07	432.50	2534.58
						6/19/07	432.00	2535.08
						10/4/07	437.58	2529.50
						1/10/08	435.75	2531.33
						4/18/08	433.30	2533.78
						7/9/08	437.37	2529.71
						10/9/08	439.80	2527.28
						2/4/09	436.62	2530.46
TMM-1	616156	HGC	3529736.231	500018.323	2967.08	4/21/09	433.35	2533.73
						10/14/09	444.00	2523.08
						4/20/10	436.99	2530.09
						10/6/10	442.98	2524.10
						4/21/11	437.13	2529.95
						12/21/11	435.50	2531.58
						5/15/12	438.57	2528.51
						11/23/12	443.30	2523.78
						6/19/13	439.14	2527.94

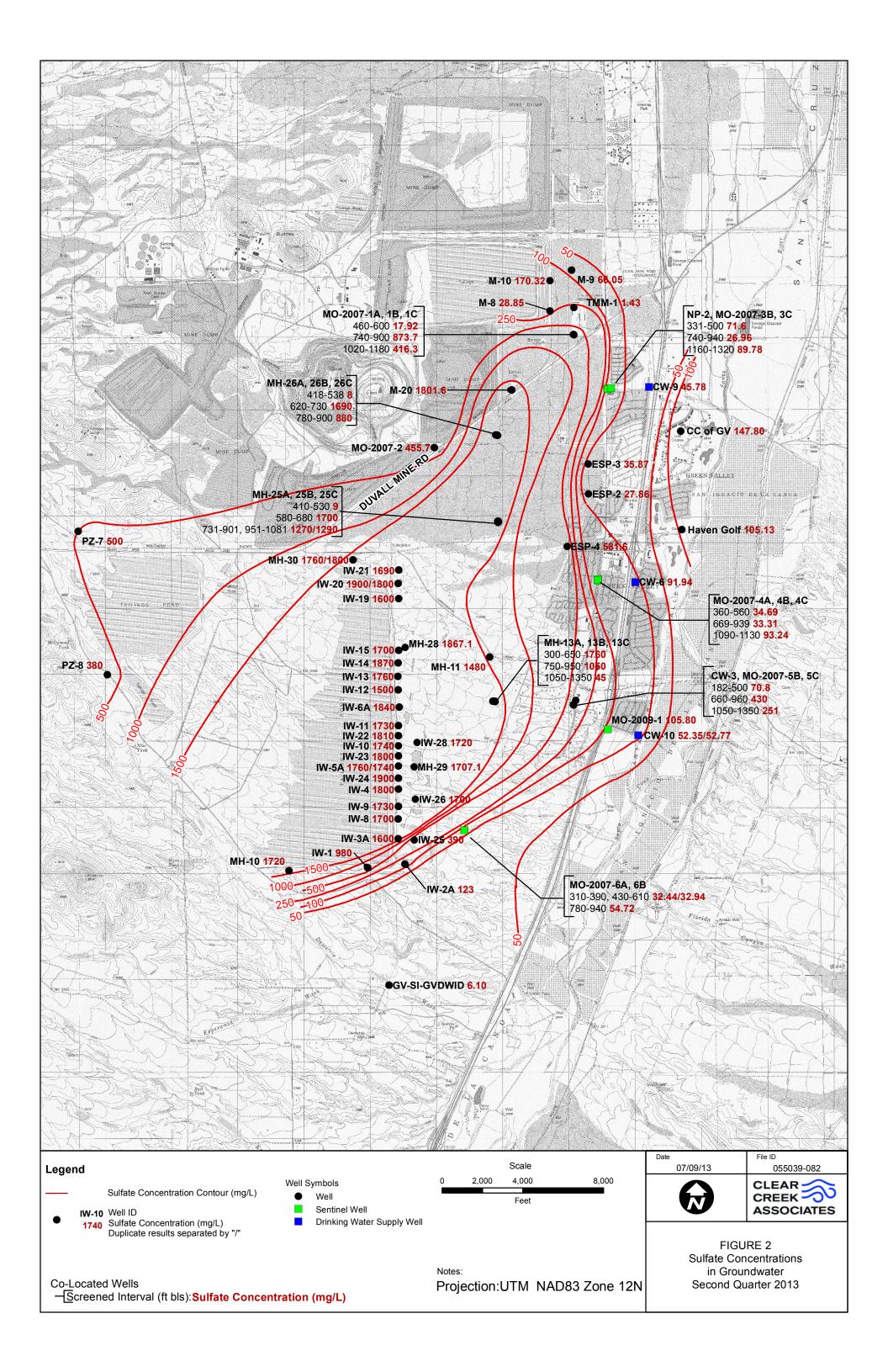
Notes:

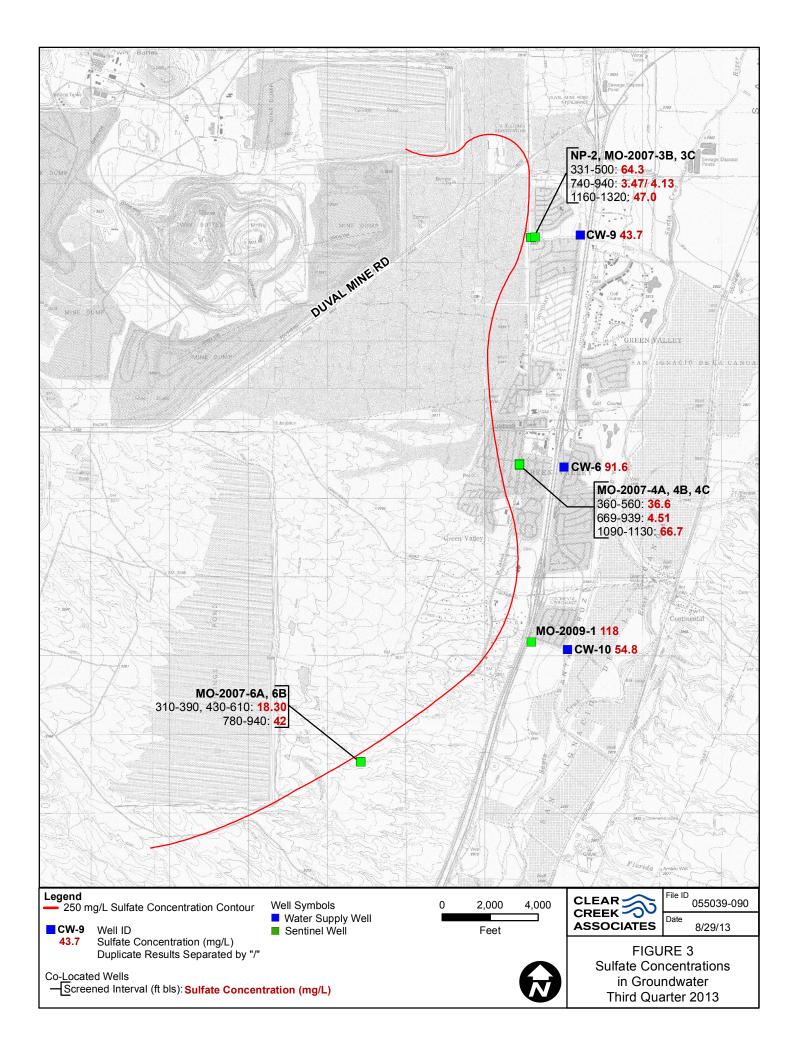
ADWR = Arizona Department of Water Resources CWC = Community Water Company of Green Valley ft amsl = feet above mean sea level GVDWID = Green Valley Domestic Water Improvement District HGC = Hydro Geo Chem, Inc. m = meters ND = No elevation data NR = No record Sierrita = Freeport-McMoRan Sierrita Inc. TBPI = Twin Buttes Properties, Inc. UTM = Universal Transverse Mercator, Zone 12 North American Datum 1983 (NAD83) ¹ = Water level measurement was collected under dynamic conditions

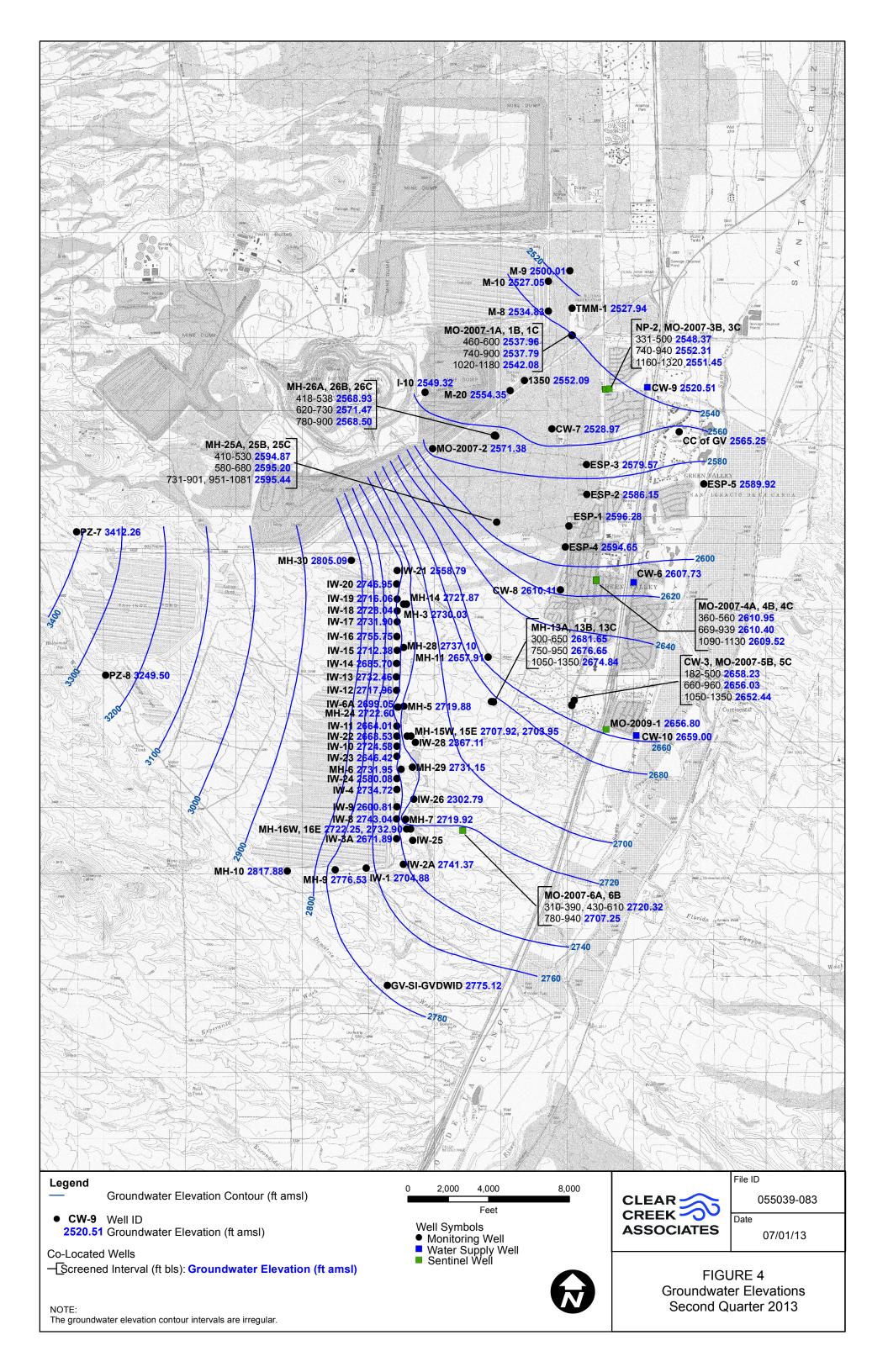


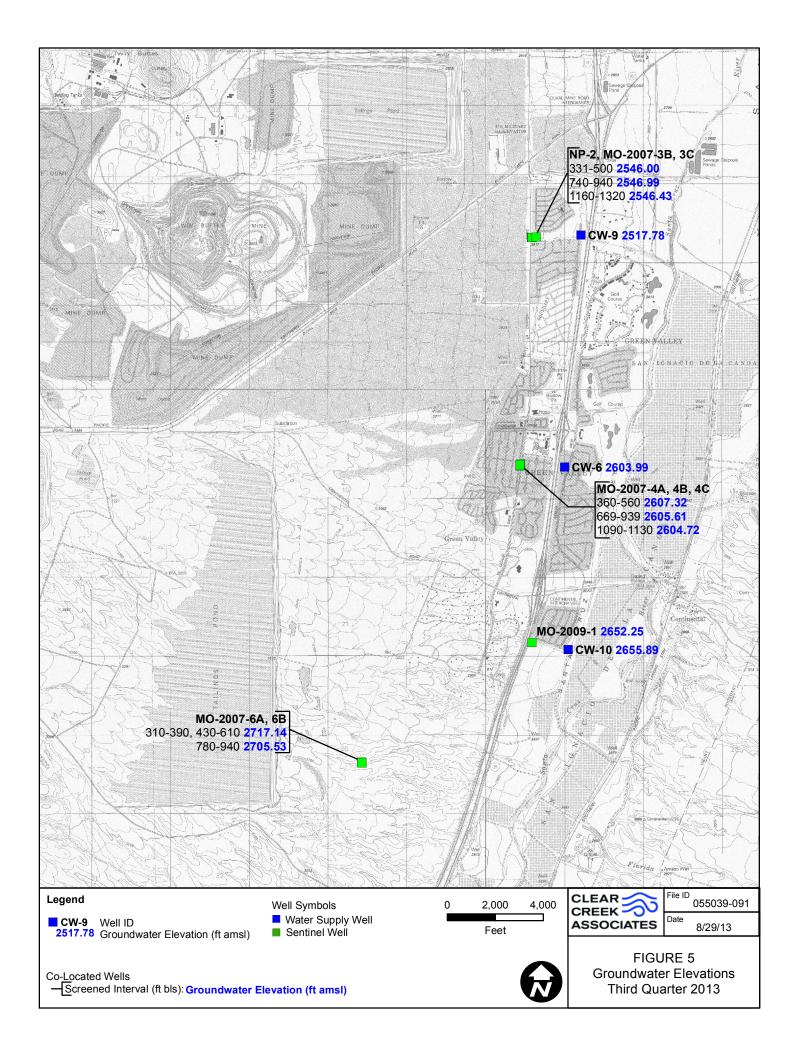
FIGURES











APPENDIX A

DATA VERIFICATION REPORT

APPENDIX A

DATA VERIFICATION REPORT

Prepared for:

FREEPORT-MCMORAN SIERRITA INC.

6200 West Duval Mine Road Green Valley, Arizona 85614

Prepared by:

CLEAR CREEK ASSOCIATES, P.L.C.

221 North Court Avenue Suite 101 Tucson, Arizona 85701

October 21, 2013

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1. INTRODUCTION

This report summarizes the data verification review of groundwater samples collected and analyzed during the second and third quarters 2013 by Freeport-McMoRan Sierrita Inc. (Sierrita) pursuant to the Mitigation Order on Consent Docket No. P-50-06. All analytical results for groundwater samples collected during this reporting period were provided to Sierrita by ACZ Laboratories, Inc. (ACZ) for preparation of the Semiannual Groundwater Monitoring Report.

This report does not review field sampling or sample handling procedures for Sierrita. Sierrita collected samples following the methods in the *Quality Assurance/Quality Control (QA/QC) Plan for Water Monitoring, Phelps Dodge Sierrita, Inc.* (PDSI, 2005) in Appendix E of the Work Plan (Hydro Geo Chem, Inc. [HGC], 2006). Laboratory QA/QC data are evaluated according to the data quality indicators (DQIs) given in the Quality Assurance Project Plan (QAPP) (HGC, 2006).

Appendix B of the main text of this report contains laboratory reports for samples collected by Sierrita, including Chain of Custody (COC) forms, laboratory correspondence, QC summaries, data qualifiers, and any case narratives. The analytical results for all 110 samples collected are contained in 22 reports with the ACZ Project numbers in the following table.

The results of the internal QA/QC tests performed by ACZ are presented with the laboratory reports included in Appendix B. Based on the results of surrogate spike recoveries, matrix spike recovery, and matrix spike duplicate tests, ACZ did not advise any modifications to be made regarding the usability and data validation status of the laboratory test results.



ACZ Project ID	Wells Reported		
Number of dupli	sampled: 71 samples collected (including duplicates and multiple samples from one well): 80 cate samples collected: 6 alyzed samples: 4		
L11462	MH-28, MH-29		
L11464	MH-13B, MH-13A, MH-13C, MH-25B, MH-25A, MH-25C, MH-26C, MH-26B, MH-26A, DUP20130403A		
L11560	MO-2007-1A, MO-2007-1B, MO-2007-1C, MO-2007-2, MO-2007-3B, MO-2007-3C, MO-2007-6A, MO-2007-6B, DUP20130409A, MO-2007-4B, MO-2007-4A, MO-2007 -4C, MO-2009-1		
L11669	M-10, M-8		
L11670	IW-1, IW-2A, IW-25, IW-9, IW-26, IW-4, IW-24, IW-5A, IW-23, IW-10, IW-28, IW-22, IW-11, IW-6A, IW-13, IW-14, IW-21, DUP20130415A		
L11775	M-20, MH-11		
L11886	M-9		
L11989	HAVENGOLF		
L12127	CCGV, IW-3A, IW-8, IW-12, IW-15, IW-19, CW-10, CW-6, CW-9, DUP20130515A,		
L12128	GV-1, GV-2, SIWELL		
L12157	MO-2007-1C, MO-2007-3B, M-8 (RERUNS)		
L12188	M-8, MO-2007-3B (RESAMPLES)		
L12268	ESP-2, ESP-4, ESP-3		
L12553	MH-30, DUP20130606A		
L12705	PZ-7, MH-10, PZ-8, MO-2007-5B, MO-2007-5C, CW-3		
L12808	CCGV (RERUNS)		
L12833	NP-2, IW-20, DUP20130617A, TMM-1		
L13140	MH-27		
Number of dupli	sampled: 14 samples collected (including duplicates and multiple samples from one well): 16 cate samples collected: 2 alyzed samples: 3		
L13273	MO-2007-4B, MO-2007-4C, MO-2007-4A, MO-2007-6A, MO-2007-6B, GV-1, GV-2, MO-2009-1, DUP20130711A		
L13390	CW-10, CW-6, CW-9		
L14121	L14121 NP-2, MO-2007-3B, MO-2007-3C, DUP20130827A		
L13569	MO-2007-4B, MO-2007-4C, MO-2007-6A (RERUNS)		

2. LABORATORY QUALITY CONTROL

As specified in the QAPP, laboratory QC was maintained for all analyses through proper licensure, the use of approved analytical methods, QC measurements, appropriate turnaround time for analysis (timeliness), method detection limits (MDLs), and practical quantitation limits (PQLs). Each of these controls are discussed in the following subsections.

The review of laboratory QC included a review to identify any qualified data and an assessment of their significance. Additionally, the laboratory QC summaries were reviewed to verify that results met QA criteria.

2.1 Licensure

ACZ is licensed with the Arizona Department of Health Services (license number AZ0102) and is accredited in accordance with the National Environmental Laboratory Accreditation Conference.

2.2 Analytical Methods

The following methods were used for sulfate analysis during this monitoring period:

- U.S. Environmental Protection Agency (EPA) 300.0 (Ion-Chromatography)
- ASTM International Method D516-02 (Turbidimetric)

2.3 Method Detection Limits (MDLs) and Practical Quantification Limits (PQLs)

The MDLs and PQLs of the analytical methods used by ACZ are shown in the following table. The MDLs for analyses of samples were equal to, or less than, the target MDLs identified in the QAPP.

Method	MDL (mg/L)	PQL (mg/L)	Target MDL ¹ (mg/L)
EPA 300.0	0.5	3	10
D516-02	5	30	10

mg/L = milligrams per liter

¹ Target MDL from Table E.2 of QAPP

2.4 Timeliness

Holding time was derived from the methods utilized and was calculated beginning from the time of sample collection in the field. All samples submitted for sulfate analysis were analyzed within the 28 day holding time specified by each of the methods used for analysis. Three samples M-8, MO-2007-1C, and CC of GV, were analyzed a second time outside of the 28 day holding time but are not reported in the main report. One sample, MO-2007-3B was re-analyzed outside of the 28 day holding time and is reported in the main text. A confirmation sample was collected at MO-2007-3B and is used for interpretation of the results.

2.5 Quality Control Measurements

The following laboratory QC samples were prepared and analyzed:

- Preparation blanks, calibration blanks, and calibration verification standards
- Analytical spikes and analytical spike duplicates
- Laboratory control samples
- Laboratory duplicate samples

2.5.1 Preparation Blanks, Calibration Blanks, and Calibration Verification Standards

Preparation blanks were run with each group of samples submitted for sulfate analysis. Preparation blanks were prepared from analyte-free water and treated as routine samples. Analytical results of the preparation blanks showed that no target analytes were detected at the indicated MDL.

Initial calibration blanks and initial calibration verification standards were analyzed prior to each group of samples. The results for each initial calibration blank analyzed showed no detections of

CLEAR Sierrita Semiannual Groundwater October 21, Monitoring Report 4 05503 ASSOCIATES Appendix A Data Verification Report	EAR EEK Monit SOCIATES Apper
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the target analyte. Analytical results for the initial calibration verification standards and laboratory fortified blanks showed percent recoveries that were within the acceptance criteria specified by the ACZ QA plan and the QAPP.

2.5.2 Analytical Spikes and Analytical Spike Duplicates

Analytical spike and spike duplicate samples were analyzed for 10 percent of the samples analyzed. The spike samples were prepared by adding a sulfate spike to one randomly chosen sample out of every ten samples analyzed. Spike recoveries for most analyses were between 90 and 110 percent. Instances in which analytical spike recoveries were high, low or unusable are qualified with an "M1", "M2", or "M3" flag, respectively. The "M1" flag was used on reports L11464, L11560, L11669, L11775, and L13390. The "M2" qualifier was used on reports L11670 and L12705. The "M3" qualifier was used on reports L11462, L11464, L11670, L11775, L12127, L12705, L12833, and L13140. In all cases where a qualifier was used, the method control sample recovery was checked to ensure that it was acceptable. The method control samples were prepared by adding a sulfate spike to de-ionized water.

2.5.3 Laboratory Control Samples

Laboratory control samples were run for each group of samples submitted for sulfate analysis following the analytical method. Recoveries for all laboratory control samples were within the acceptance criteria specified by ACZ.

2.5.4 Laboratory Duplicate Samples

Analyses of laboratory duplicate samples were also reviewed as part of this data verification report. Field duplicate samples are discussed in Section 3.1. The relative percent difference (RPD) for all laboratory duplicate samples were within 20 percent, which is the tolerance range set by the laboratory. The RPD was not used for data validation if the sample concentration was less than ten times the method detection limit. In cases where the RPD was used for data validation based on laboratory standard operating procedure, the results met QA criteria and demonstrated appropriate levels of precision for laboratory analysis of these samples.

 Sierrita Semiannual Groundwater Monitoring Report Appendix A Data Verification Report October 21, 2013 055039-1.0 In the second quarter 2013, two samples were each analyzed three times due to an error on the chain of custody form. The samples, MH-28 and MH-29, were analyzed twice using ATSM Method D516-02 and once using EPA method 300.0. The results are shown below.

ACZ Project No.	Well ID	Analysis 1 (mg/L) D516-02	Analysis 2 (mg/L) D516-02	Analysis 3 (mg/L) 300.0	RPD 1 and 2	RPD 1 and 3	RPD 2 and 3
L11462	MH-28	1850	1870	1867.1	1.08%	0.92%	0.16%
L11462	MH-28	1730	1670	1707.1	3.53%	1.33%	2.20%

The samples can be treated like laboratory duplicate samples because the laboratory completed multiple analyses on the same sample. There is also an opportunity to compare results from the same sample across the two methods used for MO sampling. The range of RPD values was 0.16% to 3.53%, all within the 20 percent acceptance criteria for laboratory duplicates. The analyses demonstrate appropriate levels of precision for laboratory analysis.

2.5.5 Sample Re-Analysis and Confirmation Samples

During the second and third quarters 2013, seven field samples were re-analyzed by ACZ at the request of Sierrita and two confirmation samples were collected based on comparison to historical results. Re-analysis is completed by conducting additional analysis on an existing sample using the same sample preparation and method for analysis. Confirmation samples are discrete samples collected from the well in a separate sampling event than the original sample. The results are shown on the table below.



Well ID	Sample (mg/l)	Re-Analysis (mg/l)	Confirmation Sample	Sample - Re-analysis RPD	Confirmation Sample RPD
CC of GV	147.80	129	NONE	13.04%	NONE
M-8	138.89	140.61	28.85	1.23%	131.90%
MO-2007-1C	416.3	425.0	NONE	2.07%	NONE
MO-2007-3B	180.87	37.54	29.96	131.25%	23.65%
MO-2007-4B	4.51	4.53	NONE	0.44%	NONE
MO-2007-4C	66.7	65.6	NONE	1.66%	NONE
MO-2007-6A	18.3	19.1	NONE	4.28%	NONE

The re-analysis at CC of GV, MO-2007-1C, MO-2007-4B, MO-2007-4C, and MO-2007-6A confirmed the results of the first analysis and the first analysis was used on tables and figures in the main text. The re-analysis at M-8 confirmed the first analysis but a confirmation sample indicates the first sample is probably anomalous. The results for the reanalysis and the confirmation sample are shown on tables and the confirmation sample result is shown on figures. The re-analysis at MO-2007-3B did not confirm the initial results. The confirmation sample at MO-2007-3B confirms the second analysis. The second analysis and the confirmation sample are shown on table and the confirmation sample result is shown on figures. All of the results will be confirmed by future samples.



3. DATA QUALITY INDICATORS

The QAPP provides several DQIs for assessing the overall quality of the data. The DQIs include the following:

- Precision
- Bias
- Accuracy
- Representativeness
- Comparability
- Completeness
- Sensitivity

Each of the DQIs are discussed below in relation to groundwater sampling and analysis conducted by Sierrita.

3.1 Precision

Precision indicates how well a measurement can be reproduced. Precision of the analytical results is quantified by calculating the RPD between duplicate samples. For the purposes of QA/QC, precision was quantified by calculating the RPDs between duplicates among the following groups of duplicate samples:

- Laboratory duplicate samples
- Field duplicate samples

As discussed in Sections 2.5.2 and 2.5.4, there were no exceedances of RPD QA criteria based on laboratory standard operating procedures for any laboratory duplicates. During this monitoring period, eight field duplicate samples were collected by Sierrita for filtered sulfate analysis. Six were collected in the second quarter 2013 (DUP20130403A, DUP20130409A, DUP20130415A, DUP20130515A, DUP20130606A, and DUP20130617A) and two were collected in the third quarter 2013 (DUP20130711A and DUP20130827A). The collection of six field duplicate samples in the second quarter 2013 does not meet the QA/QC goal of collecting one duplicate sample for every ten groundwater samples collected, as stated in Section 6 of

Sierrita's quality assurance quality control plan. As a corrective action, Clear Creek will review the QA/QC goals for duplicate samples with Sierrita. The collection of two field duplicate samples in third quarter 2013 does meet the QA/QC goal of collecting one duplicate for every ten groundwater samples collected.

Results of the field duplicate samples collected are provided in the table below. The range of RPD values was 0.24 to 17.37 percent, all within the 20 percent acceptance criteria for field duplicates, as stated in Section 3.3.1 of the QAPP. Overall, the DQI for precision is met.

ACZ Project No.	Well ID	Duplicate ID	Sample (mg/l)	Duplicate (mg/l)	RPD
L11464	MH-25C	DUP20130403A	1270	1290	1.56%
L11569	MO-2007-6A	DUP20130409A	32.44	32.94	1.53%
L11670	IW-5A	DUP20130415A	1760	1740	1.14%
L12127	CW-10	DUP20130515A	52.35	52.77	0.80%
L12553	MH-30	DUP20130606A	1760	1800	2.25%
L12833	IW-20	DUP20130617A	1900	1800	5.41%
L13273	GV-01-GVDWID	DUP20130711A	42.60	42.5	0.24%
L14121	MO-2007-3B	DUP21030827A	3.47	4.13	17.37

mg/L = milligrams per liter RPD = Relative Percent Difference

3.2 Bias

Bias is a systematic distortion of measurements causing consistent errors in one direction. Bias was managed in this dataset through consistent application of standardized sample collection and analysis procedures.

3.3 Accuracy

Accuracy is a measure of the agreement of a measurement to a known value and is determined using the recoveries from laboratory control samples. As discussed in Sections 2.5.1, 2.5.2, and 2.5.3 respectively, there were no significant exceedances of the recovery QA criteria for any of the calibration standards, analytical spikes, or laboratory control standards. Based on this



information, the overall accuracy of the data is sufficient for the purpose of aquifer characterization.

3.4 Representativeness

All well samples were taken from locations specified in the Pre-implementation Monitoring Plan (Sierrita, 2009) using sampling procedures specified in the QAPP. Therefore, the samples provide a good representation of groundwater quality at the locations. The analytical data are representative of groundwater conditions because the analyses were conducted using standard procedures and methods that met QA/QC guidelines of the QAPP.

3.5 Comparability

All samples were collected using standardized procedures (PDSI, 2005) and were analyzed by ACZ using standardized methods. Insofar as standardized sample collection and analytical methods are adhered to, the sample results should be comparable.

3.6 Completeness

All samples collected by Sierrita were subsequently analyzed and reported by ACZ. All samples analyzed by ACZ satisfy the QA/QC criteria for this project and are usable for aquifer characterization. Thus, the completeness of analytical results is 100 percent.

3.7 Sensitivity

The analytical methods used to analyze the samples meet the MDL requirements specified in Table E.2 of the QAPP. Therefore, the analytical sensitivity is considered acceptable for use in aquifer characterization.



Sierrita Semiannual Groundwater Monitoring Report Appendix A Data Verification Report

4. REFERENCES

- Hydro Geo Chem, Inc. (HGC). 2006. Work Plan to Characterize and Mitigate Sulfate with Respect to Drinking Water Supplies in the Vicinity of the Phelps Dodge Sierrita Tailing Impoundment, Pima County, Arizona. August 11, 2006, revised October 31, 2006.
- Phelps Dodge Sierrita, Inc. (PDSI). 2005. Quality Assurance/Quality Control Plan for Water Monitoring, Phelps Dodge Sierrita, Inc. June 2005.
- Sierrita. 2009. Letter from Ned Hall (Sierrita) to Cynthia Campbell (ADEQ) Regarding Mitigation Order on Consent, Docket P-50-06, Response to ADEQ Comments on Recommended Groundwater Monitoring for Sulfate. May 15, 2009.



Sierrita Semiannual Groundwater Monitoring Report Data Verification Report

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APPENDIX B

ANALYTICAL DATA REPORTS



Jon Anderson FMI Gold & Copper - Sierrita P.O. Box 527 6200 West Duval Mine Road Green Valley, AZ 85622-0527

Cc: Ben Daigneau

Project ID: ZS000003Q8 ACZ Project ID: L11462– SULFATE ONLY

Jon Anderson:

Enclosed are analytical reports for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on April 05, 2013. This project was assigned to ACZ's project number, **L11462**. Please reference this number in all future inquiries.

At the request of Phelps Dodge Sierrita, Inc. (PDSI), this laboratory report has been prepared to contain only information specific to samples and analytes identified by PDSI as evaluated pursuant to Mitigation Order No. P-500-06 with Arizona Department of Environmental Quality. Samples and analytes unrelated to the Mitigation Order, but which may be identified on the chain of custody and sample receipt, have been reported to PDSI in a separate report.

All analyses were performed according to ACZ's Quality Assurance Plan. The enclosed results relate only to the samples received under **L11462**. Each section of this report has been reviewed and approved by the appropriate Laboratory Supervisor, or a qualified substitute. Except as noted, the test results for the methods and parameters listed on ACZ's current NELAC certificate letter (#ACZ) meet all the requirements of NELAC.

This report should be used or copied only in its entirety. ACZ is not responsible for the consequences arising from the use of a partial report.

ACZ disposes of samples and sub-samples thirty days after the analytical results are reported to the client. That time frame has elapsed for this project. If the samples are determined to be hazardous, additional charges apply for disposal (typically less than \$10/sample). If you would like the samples to be held longer than ACZ's stated policy or to be returned, please contact your Project Manager or Customer Service Representative for further details and associated costs. ACZ retains analytical reports for five years. Please notify your Project Manager if you have other needs. If you have any questions, please contact your Project Manager or Customer Service Representative.

S. Habermehl

Scott Habermehl has reviewed and approved this report.







April 30, 2013

Analytical

Report



Project ID:	ZS000003Q8
Sample ID:	MH-28

ACZ Sample ID: L11462-01 Date Sampled: 04/02/13 13:09 Date Received: 04/05/13 Sample Matrix: Ground Water

Wet Chemistry								
Parameter	EPA Method	Result	Qual XQ	Units	MDL	PQL	Date	Analyst
Sulfate	D516-02 - Turbidimetric	1850	*	mg/L	50	300	04/11/13 14:53	lhb



Project ID:	ZS000003Q8
Sample ID:	MH-28

ACZ Sample ID: L11462-02 Date Sampled: 04/02/13 13:09 Date Received: 04/05/13 Sample Matrix: Ground Water

Wet Chemistry									
Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Sulfate	M300.0 - Ion Chromatography	1867.1		*	mg/L	25	125	04/24/13 18:29	tcd



Project ID:	ZS000003Q8
Sample ID:	MH-28

ACZ Sample ID: L11462-03 Date Sampled: 04/02/13 13:09 Date Received: 04/05/13 Sample Matrix: Ground Water

Wet Chemistry								
Parameter	EPA Method	Result	Qual XQ	Units	MDL	PQL	Date	Analyst
Sulfate	D516-02 - Turbidimetric	1870	*	mg/L	50	300	04/11/13 14:53	lhb



Project ID:	ZS000003Q8
Sample ID:	MH-29

ACZ Sample ID: L11462-04 Date Sampled: 04/02/13 15:21 Date Received: 04/05/13 Sample Matrix: Ground Water

Wet Chemistry								
Parameter	EPA Method	Result	Qual XQ	Units	MDL	PQL	Date	Analyst
Sulfate	D516-02 - Turbidimetric	1730	*	mg/L	50	300	04/11/13 14:53	B lhb

ACZ	Laboratorie	s, Inc.
	Steamboat Springs, CO	•

Project ID:	ZS000003Q8
Sample ID:	MH-29

ACZ Sample ID: L11462-05 Date Sampled: 04/02/13 15:21 Date Received: 04/05/13 Sample Matrix: Ground Water

Wet Chemistry									
Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Sulfate	M300.0 - Ion Chromatography	1707.1		*	mg/L	25	125	04/24/13 18:46	6 tcd



Project ID:	ZS000003Q8
Sample ID:	MH-29

ACZ Sample ID: L11462-06 Date Sampled: 04/02/13 15:21 Date Received: 04/05/13 Sample Matrix: Ground Water

Wet Chemistry								
Parameter	EPA Method	Result	Qual XQ	Units	MDL	PQL	Date	Analyst
Sulfate	D516-02 - Turbidimetric	1670	*	mg/L	50	300	04/15/13 16:18	3 tcd



Inorganic Reference

Batch	Explanations		
Fourd	A distinct set of samples analyzed at a specific time		
Found	Value of the QC Type of interest		
Limit	Upper limit for RPD, in %.		
Lower	Lower Recovery Limit, in % (except for LCSS, mg/Kg)	A II	
MDL	Method Detection Limit. Same as Minimum Reporting Limit.		
PCN/SCN	A number assigned to reagents/standards to trace to the man	iutacturer's certific	ate of analysis
PQL	Practical Quantitation Limit, typically 5 times the MDL.	0.1	
QC	True Value of the Control Sample or the amount added to the	•	
Rec	Recovered amount of the true value or spike added, in % (exc		/Kg)
RPD	Relative Percent Difference, calculation used for Duplicate QC	Types	
Upper Sample	Upper Recovery Limit, in % (except for LCSS, mg/Kg) Value of the Sample of interest		
	· ·		
C Sample Typ		1.0014/0	Laboratory Control Compley Water Durlingt
AS	Analytical Spike (Post Digestion)	LCSWD	Laboratory Control Sample - Water Duplicate
ASD	Analytical Spike (Post Digestion) Duplicate	LFB	Laboratory Fortified Blank
CCB	Continuing Calibration Blank	LFM	Laboratory Fortified Matrix
CCV	Continuing Calibration Verification standard	LFMD	Laboratory Fortified Matrix Duplicate
DUP	Sample Duplicate	LRB	Laboratory Reagent Blank
ICB	Initial Calibration Blank	MS	Matrix Spike
ICV	Initial Calibration Verification standard	MSD	Matrix Spike Duplicate
ICSAB	Inter-element Correction Standard - A plus B solutions	PBS	Prep Blank - Soil
LCSS	Laboratory Control Sample - Soil	PBW	Prep Blank - Water
LCSSD LCSW	Laboratory Control Sample - Soil Duplicate Laboratory Control Sample - Water	PQV SDL	Practical Quantitation Verification standard Serial Dilution
Duplicates Spikes/Forti	ified Matrix Determines sample matrix interferen		
Standard	Verifies the validity of the calibration.		
Z Qualifiers	(Qual)		
В	Analyte concentration detected at a value between MDL and F		
	,	PQL. The associat	ed value is an estimated quantity.
н	Analysis exceeded method hold time. pH is a field test with an		
H L	-	n immediate hold t	
	Analysis exceeded method hold time. pH is a field test with an	n immediate hold t gative threshold.	ime.
L	Analysis exceeded method hold time. pH is a field test with an Target analyte response was below the laboratory defined neg	n immediate hold t gative threshold. e level of the asso	ime. iciated value.
L	Analysis exceeded method hold time. pH is a field test with ar Target analyte response was below the laboratory defined neg The material was analyzed for, but was not detected above th The associated value is either the sample quantitation limit or	n immediate hold t gative threshold. e level of the asso	ime. iciated value.
L U	Analysis exceeded method hold time. pH is a field test with ar Target analyte response was below the laboratory defined neg The material was analyzed for, but was not detected above th The associated value is either the sample quantitation limit or	n immediate hold t gative threshold. e level of the asso the sample detect	ime. iciated value. ion limit.
L U ethod Referei	Analysis exceeded method hold time. pH is a field test with an Target analyte response was below the laboratory defined neg The material was analyzed for, but was not detected above th The associated value is either the sample quantitation limit or nces	n immediate hold t gative threshold. e level of the asso the sample detect and Wastes, Marc	ime. iciated value. ion limit. h 1983.
L U ethod Referen	Analysis exceeded method hold time. pH is a field test with ar Target analyte response was below the laboratory defined neg The material was analyzed for, but was not detected above th The associated value is either the sample quantitation limit or nces EPA 600/4-83-020. Methods for Chemical Analysis of Water a	n immediate hold t gative threshold. e level of the asso the sample detect and Wastes, Marc nic Substances in l	ime. iciated value. ion limit. h 1983. Environmental Samples, August 1993.
L U ethod Referen (1) (2)	Analysis exceeded method hold time. pH is a field test with ar Target analyte response was below the laboratory defined neg The material was analyzed for, but was not detected above th The associated value is either the sample quantitation limit or nces EPA 600/4-83-020. Methods for Chemical Analysis of Water a EPA 600/R-93-100. Methods for the Determination of Inorgan	n immediate hold t gative threshold. e level of the asso the sample detect and Wastes, Marc nic Substances in l	ime. iciated value. ion limit. h 1983. Environmental Samples, August 1993.
L U ethod Referen (1) (2) (3)	Analysis exceeded method hold time. pH is a field test with an Target analyte response was below the laboratory defined neg The material was analyzed for, but was not detected above th The associated value is either the sample quantitation limit or nces EPA 600/4-83-020. Methods for Chemical Analysis of Water a EPA 600/R-93-100. Methods for the Determination of Inorgan EPA 600/R-94-111. Methods for the Determination of Metals	n immediate hold t gative threshold. e level of the asso the sample detect and Wastes, Marc nic Substances in l in Environmental S	ime. iciated value. ion limit. h 1983. Environmental Samples, August 1993.
L U ethod Referen (1) (2) (3) (4)	Analysis exceeded method hold time. pH is a field test with an Target analyte response was below the laboratory defined neg The material was analyzed for, but was not detected above th The associated value is either the sample quantitation limit or nces EPA 600/4-83-020. Methods for Chemical Analysis of Water a EPA 600/R-93-100. Methods for the Determination of Inorgan EPA 600/R-94-111. Methods for the Determination of Metals EPA SW-846. Test Methods for Evaluating Solid Waste.	n immediate hold t gative threshold. e level of the asso the sample detect and Wastes, Marc nic Substances in l in Environmental S	ime. iciated value. ion limit. h 1983. Environmental Samples, August 1993.
L U ethod Referen (1) (2) (3) (4) (5)	Analysis exceeded method hold time. pH is a field test with an Target analyte response was below the laboratory defined neg The material was analyzed for, but was not detected above th The associated value is either the sample quantitation limit or nces EPA 600/4-83-020. Methods for Chemical Analysis of Water a EPA 600/R-93-100. Methods for the Determination of Inorgan EPA 600/R-94-111. Methods for the Determination of Metals EPA SW-846. Test Methods for Evaluating Solid Waste.	n immediate hold t gative threshold. e level of the asso the sample detect and Wastes, Marc nic Substances in I in Environmental s ater.	ime. iciated value. ion limit. h 1983. Environmental Samples, August 1993. Samples - Supplement I, May 1994.
L U ethod Referen (1) (2) (3) (4) (5) emments	Analysis exceeded method hold time. pH is a field test with an Target analyte response was below the laboratory defined neg The material was analyzed for, but was not detected above th The associated value is either the sample quantitation limit or nces EPA 600/4-83-020. Methods for Chemical Analysis of Water a EPA 600/R-93-100. Methods for the Determination of Inorgar EPA 600/R-94-111. Methods for the Determination of Metals EPA SW-846. Test Methods for Evaluating Solid Waste. Standard Methods for the Examination of Water and Wastewar	n immediate hold t gative threshold. e level of the asso the sample detect and Wastes, Marc nic Substances in l in Environmental s ater. y if the rounded va	ime. iciated value. ion limit. h 1983. Environmental Samples, August 1993. Samples - Supplement I, May 1994.
L U (1) (2) (3) (4) (5) mments (1)	Analysis exceeded method hold time. pH is a field test with an Target analyte response was below the laboratory defined neg The material was analyzed for, but was not detected above th The associated value is either the sample quantitation limit or nces EPA 600/4-83-020. Methods for Chemical Analysis of Water a EPA 600/R-93-100. Methods for the Determination of Inorgan EPA 600/R-94-111. Methods for the Determination of Metals EPA SW-846. Test Methods for Evaluating Solid Waste. Standard Methods for the Examination of Water and Wasteward QC results calculated from raw data. Results may vary slight	n immediate hold t gative threshold. e level of the asso the sample detect and Wastes, Marc nic Substances in l in Environmental s ater. y if the rounded va ported on a dry we	ime. iciated value. ion limit. h 1983. Environmental Samples, August 1993. Samples - Supplement I, May 1994.
L U ethod Referen (1) (2) (3) (4) (5) 0 mments (1) (2)	Analysis exceeded method hold time. pH is a field test with an Target analyte response was below the laboratory defined neg The material was analyzed for, but was not detected above th The associated value is either the sample quantitation limit or nces EPA 600/4-83-020. Methods for Chemical Analysis of Water a EPA 600/R-93-100. Methods for the Determination of Inorgan EPA 600/R-94-111. Methods for the Determination of Metals EPA SW-846. Test Methods for Evaluating Solid Waste. Standard Methods for the Examination of Water and Wastewar QC results calculated from raw data. Results may vary slight Soil, Sludge, and Plant matrices for Inorganic analyses are results	n immediate hold t gative threshold. e level of the asso the sample detect and Wastes, Marc nic Substances in 1 in Environmental s ater. y if the rounded va ported on a dry we s received" basis.	ime. ciated value. ion limit. h 1983. Environmental Samples, August 1993. Samples - Supplement I, May 1994. slues are used in the calculations. sight basis.
L U ethod Referent (1) (2) (3) (4) (5) 0 mments (1) (2) (3)	Analysis exceeded method hold time. pH is a field test with an Target analyte response was below the laboratory defined neg The material was analyzed for, but was not detected above th The associated value is either the sample quantitation limit or nces EPA 600/4-83-020. Methods for Chemical Analysis of Water a EPA 600/R-93-100. Methods for the Determination of Inorgan EPA 600/R-94-111. Methods for the Determination of Metals EPA SW-846. Test Methods for Evaluating Solid Waste. Standard Methods for the Examination of Water and Wastewar QC results calculated from raw data. Results may vary slight Soil, Sludge, and Plant matrices for Inorganic analyses are rep Animal matrices for Inorganic analyses are reported on an "as	n immediate hold t gative threshold. e level of the asso the sample detect and Wastes, Marc nic Substances in 1 in Environmental s ater. y if the rounded va ported on a dry we s received" basis.	ime. ciated value. ion limit. h 1983. Environmental Samples, August 1993. Samples - Supplement I, May 1994. slues are used in the calculations. sight basis.
L U ethod Referent (1) (2) (3) (4) (5) 0 mments (1) (2) (3)	Analysis exceeded method hold time. pH is a field test with an Target analyte response was below the laboratory defined neg The material was analyzed for, but was not detected above th The associated value is either the sample quantitation limit or nces EPA 600/4-83-020. Methods for Chemical Analysis of Water a EPA 600/R-93-100. Methods for the Determination of Inorgan EPA 600/R-94-111. Methods for the Determination of Metals EPA SW-846. Test Methods for Evaluating Solid Waste. Standard Methods for the Examination of Water and Wastewar QC results calculated from raw data. Results may vary slight Soil, Sludge, and Plant matrices for Inorganic analyses are rep Animal matrices for Inorganic analyses are reported on an "as An asterisk in the "XQ" column indicates there is an extended	n immediate hold t gative threshold. e level of the asso the sample detect and Wastes, March nic Substances in 1 in Environmental s ater. y if the rounded va ported on a dry we s received" basis. qualifier and/or ce	ime. ciated value. ion limit. h 1983. Environmental Samples, August 1993. Samples - Supplement I, May 1994. slues are used in the calculations. sight basis.

REP001.09.12.01



Alkalinity as CaC	O3		SM2320B	- Titration	l								
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG341864													
WG341864PBW1	PBW	04/10/13 17:53				U	mg/L		-20	20			
WG341864LCSW2	LCSW	04/10/13 18:07	WC130328-	820		750.7	mg/L	91.5	90	110			
WG341864LCSW5	LCSW	04/10/13 21:28	WC130328-	820		767.2	mg/L	93.6	90	110			
WG341864PBW2	PBW	04/10/13 21:36				U	mg/L		-20	20			
L11478-08DUP	DUP	04/11/13 0:13			265	248.4	mg/L				6.5	20	
WG341864LCSW8	LCSW	04/11/13 0:26	WC130328-	820		770.4	mg/L	94	90	110			
WG341864PBW3	PBW	04/11/13 0:35				2.1	mg/L		-20	20			
WG341864LCSW11	LCSW	04/11/13 3:56	WC130328-	820		785.3	mg/L	95.8	90	110			
WG341864PBW4	PBW	04/11/13 4:05				U	mg/L		-20	20			
WG341864LCSW14	LCSW	04/11/13 7:25	WC130328-	820		797.5	mg/L	97.3	90	110			
Aluminum, disso	lved		M200.7 IC	Р									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG341763													
WG341763ICV	ICV	04/09/13 19:58	II130114-3	2		2.021	mg/L	101.1	95	105			
WG341763ICB	ICB	04/09/13 20:04				U	mg/L		-0.09	0.09			
WG341763LFB	LFB	04/09/13 20:17	II130326-2	1		1.049	mg/L	104.9	85	115			
L11462-03AS	AS	04/09/13 20:26	II130326-2	1	U	1.14	mg/L	114	85	115			
L11462-03ASD	ASD	04/09/13 20:29	II130326-2	1	U	1.131	mg/L	113.1	85	115	0.79	20	
Antimony, dissol ^y	ved		M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG341855													
WG341855ICV1	ICV	04/11/13 14:36	MS130402-2	.02		.02188	mg/L	109.4	90	110			
WG341855ICB1	ICB	04/11/13 14:39				U	mg/L		-0.0012	0.0012			
WG341855LFB	LFB	04/11/13 14:42	MS130329-1	.01		.00906	mg/L	90.6	85	115			
L11460-05AS	AS	04/11/13 15:39	MS130329-1	.01	U	.00922	mg/L	92.2	70	130			
L11460-05ASD	ASD	04/11/13 15:42	MS130329-1	.01	U	.00937	mg/L	93.7	70	130	1.61	20	
WG341927													
WG341927ICV	ICV	04/11/13 22:23	MS130402-2	.02		.02078	mg/L	103.9	90	110			
WG341927ICB	ICB	04/11/13 22:26				U	mg/L		-0.0012	0.0012			
WG341927LFB	LFB	04/11/13 22:30	MS130329-1	.01		.00995	mg/L	99.5	85	115			
L11372-02AS	AS	04/11/13 22:39	MS130329-1	.01	U	.01044	mg/L	104.4	70	130			
L11372-02ASD	ASD	04/11/13 22:43	MS130329-1	.01	U	.01046	mg/L	104.6	70	130	0.19	20	



Arsenic, dissolv	/ed		M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG341855													
WG341855ICV1	ICV	04/11/13 14:36	MS130402-2	.05		.0515	mg/L	103	90	110			
WG341855ICB1	ICB	04/11/13 14:39				U	mg/L		-0.0006	0.0006			
WG341855LFB	LFB	04/11/13 14:42	MS130329-1	.05005		.04672	mg/L	93.3	85	115			
L11460-05AS	AS	04/11/13 15:39	MS130329-1	.05005	U	.05375	mg/L	107.4	70	130			
L11460-05ASD	ASD	04/11/13 15:42	MS130329-1	.05005	U	.05131	mg/L	102.5	70	130	4.64	20	
WG341927													
WG341927ICV	ICV	04/11/13 22:23	MS130402-2	.05		.05227	mg/L	104.5	90	110			
WG341927ICB	ICB	04/11/13 22:26				U	mg/L		-0.0006	0.0006			
WG341927LFB	LFB	04/11/13 22:30	MS130329-1	.05005		.0479	mg/L	95.7	85	115			
L11372-02AS	AS	04/11/13 22:39	MS130329-1	.05005	.0032	.05047	mg/L	94.4	70	130			
L11372-02ASD	ASD	04/11/13 22:43	MS130329-1	.05005	.0032	.05176	mg/L	97	70	130	2.52	20	
Barium, dissolv	ed		M200.7 IC	P									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG341763													
WG341763ICV	ICV	04/09/13 19:58	ll130114-3	2		1.953	mg/L	97.7	95	105			
WG341763ICB	ICB	04/09/13 20:04				U	mg/L		-0.009	0.009			
WG341763LFB	LFB	04/09/13 20:17	II130326-2	.5		.4992	mg/L	99.8	85	115			
L11462-03AS	AS	04/09/13 20:26	II130326-2	.5	.05	.5591	mg/L	101.8	85	115			
L11462-03ASD	ASD	04/09/13 20:29	II130326-2	.5	.05	.5591	mg/L	101.8	85	115	0	20	
Beryllium, disso	olved		M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG341855													
WG341855ICV1	ICV	04/11/13 14:36	MS130402-2	.05		.04981	mg/L	99.6	90	110			
WG341855ICB1	ICB	04/11/13 14:39				U	mg/L		-0.00015	0.00015			
WG341855LFB	LFB	04/11/13 14:42	MS130329-1	.0501		.04538	mg/L	90.6	85	115			
L11460-05AS	AS	04/11/13 15:39	MS130329-1	.0501	.00014	.04274	mg/L	85	70	130			
L11460-05ASD	ASD	04/11/13 15:42	MS130329-1	.0501	.00014	.04175	mg/L	83.1	70	130	2.34	20	
WG341927													
WG341927ICV	ICV	04/11/13 22:23	MS130402-2	.05		.04487	mg/L	89.7	90	110			
WG341927ICB	ICB	04/11/13 22:26				U	mg/L		-0.00015	0.00015			
WG341927LFB	LFB	04/11/13 22:30	MS130329-1	.0501		.04255	mg/L	84.9	85	115			
L11372-02AS	AS	04/11/13 22:39	MS130329-1	.0501	U	.04542	mg/L	90.7	70	130			
L11372-02ASD	ASD	04/11/13 22:43	MS130329-1	.0501	U	.04717	mg/L	94.2	70	130	3.78	20	



Cadmium, disso	olved		M200.8 I	CP-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG341855													
WG341855ICV1	ICV	04/11/13 14:36	MS130402-2	.05		.05162	mg/L	103.2	90	110			
WG341855ICB1	ICB	04/11/13 14:39				U	mg/L		-0.0003	0.0003			
WG341855LFB	LFB	04/11/13 14:42	MS130329-1	.0501		.04521	mg/L	90.2	85	115			
L11460-05AS	AS	04/11/13 15:39	MS130329-1	.0501	.0011	.04546	mg/L	88.5	70	130			
L11460-05ASD	ASD	04/11/13 15:42	MS130329-1	.0501	.0011	.04426	mg/L	86.1	70	130	2.67	20	
WG341927													
WG341927ICV	ICV	04/11/13 22:23	MS130402-2	.05		.05044	mg/L	100.9	90	110			
WG341927ICB	ICB	04/11/13 22:26				U	mg/L		-0.0003	0.0003			
WG341927LFB	LFB	04/11/13 22:30	MS130329-1	.0501		.04654	mg/L	92.9	85	115			
L11372-02AS	AS	04/11/13 22:39	MS130329-1	.0501	U	.04527	mg/L	90.4	70	130			
L11372-02ASD	ASD	04/11/13 22:43	MS130329-1	.0501	U	.04603	mg/L	91.9	70	130	1.66	20	
Calcium, dissol	ved		M200.7 I	CP									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG341763													
	1011			100						105			
WG341763ICV	ICV	04/09/13 19:58	II130114-3	100		97.75	mg/L	97.8	95	105			
WG341763ICB	ICB	04/09/13 20:04				U	mg/L		-0.6	0.6			
WG341763LFB	LFB	04/09/13 20:17	II130326-2	67.95918	500	72.62	mg/L	106.9	85	115			
L11462-03AS	AS	04/09/13 20:26	II130326-2	67.95918	599	650.5	mg/L	75.8	85	115	10	00	M3
L11462-03ASD	ASD	04/09/13 20:29	II130326-2	67.95918	599	642.1	mg/L	63.4	85	115	1.3	20	M3
Chloride			SM45000	Я-Е									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG341899													
WG341899ICB	ICB	04/11/13 10:50				U	mg/L		-3	3			
WG341899ICV	ICV	04/11/13 10:50	WI130131-1	54.945		58.3	mg/L	106.1	90	110			
WG341899LFB1	LFB	04/11/13 11:20	WI130201-8	30		31.8	mg/L	106	90	110			
WG341899LFB2	LFB	04/11/13 11:24	WI130201-8	30		32.1	mg/L	107	90	110			
L11461-04AS	AS	04/11/13 11:43	10XCL	30	140	167	mg/L	90	90	110			
L11462-03DUP	DUP	04/11/13 11:43			140	135	mg/L				3.6	20	
Chromium, diss	olved		M200.7 I	CP									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG341763													
WG341763ICV	ICV	04/09/13 19:58	II130114-3	2		1.963	mg/L	98.2	95	105			
			1130114-3	2		1.963 U	-	50.Z					
WG341763ICB	ICB LFB	04/09/13 20:04 04/09/13 20:17	11120226.2	E			mg/L	102.9	-0.03 85	0.03			
WG341763LFB			II130326-2	.5		.514	mg/L	102.8	85 85	115 115			
L11462-03AS	AS	04/09/13 20:26	II130326-2	.5	U	.498	mg/L	99.6	85 85	115	0.2	20	
L11462-03ASD	ASD	04/09/13 20:29	II130326-2	.5	U	.497	mg/L	99.4	85	115	0.2	20	



Cobalt, dissolved	I		M200.7 IC	CP									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG341763													
WG341763ICV	ICV	04/09/13 19:58	II130114-3	2.002		2.008	mg/L	100.3	95	105			
WG341763ICB	ICB	04/09/13 20:04				U	mg/L		-0.03	0.03			
WG341763LFB	LFB	04/09/13 20:17	II130326-2	.5		.495	mg/L	99	85	115			
L11462-03AS	AS	04/09/13 20:26	II130326-2	.5	U	.491	mg/L	98.2	85	115			
L11462-03ASD	ASD	04/09/13 20:29	II130326-2	.5	U	.479	mg/L	95.8	85	115	2.47	20	
Conductivity @25	5C		SM2510B										
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG341864													
WG341864LCSW1	LCSW	04/10/13 17:56	PCN41036	1408.8		1421.1	umhos/cm	100.9	90	110			
WG341864LCSW4	LCSW	04/10/13 21:17	PCN41036	1408.8		1413	umhos/cm	100.3	90	110			
L11478-08DUP	DUP	04/11/13 0:13			3930	3930	umhos/cm				0	20	
WG341864LCSW7	LCSW	04/11/13 0:15	PCN41036	1408.8		1402.8	umhos/cm	99.6	90	110			
WG341864LCSW10	LCSW	04/11/13 3:44	PCN41036	1408.8		1394.7	umhos/cm	99	90	110			
WG341864LCSW13	LCSW	04/11/13 7:13	PCN41036	1408.8		1386.6	umhos/cm	98.4	90	110			
Copper, dissolve	d		M200.7 IC	CP									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG341763													
WG341763ICV	ICV	04/09/13 19:58	II130114-3	2		1.95	mg/L	97.5	95	105			
WG341763ICB	ICB	04/09/13 20:04				U	mg/L		-0.03	0.03			
WG341763LFB	LFB	04/09/13 20:17	II130326-2	.5		.497	mg/L	99.4	85	115			
L11462-03AS	AS	04/09/13 20:26	II130326-2	.5	U	.52	mg/L	104	85	115			
L11462-03ASD	ASD	04/09/13 20:29	II130326-2	.5	U	.517	mg/L	103.4	85	115	0.58	20	
Cyanide, total			M335.4 -	Colorimetr	ic w/ distil	lation							
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG341866													
WG341866ICV	ICV	04/10/13 16:28	WI130405-7	.3		.2968	mg/L	98.9	90	110			
WG341866ICB	ICB	04/10/13 16:29				U	mg/L		-0.003	0.003			
WG341872													
WG341831LRB	LRB	04/10/13 18:08				U	mg/L		-0.003	0.003			
WG341831LFB	LFB	04/10/13 18:09	WI130405-2	.2		.2013	mg/L	100.7	90	110			
L11461-02DUP	DUP	04/10/13 18:10		.=	.004	U.	mg/L				200	20	
	LFM	04/10/13 18:12	WI130405-2	.2	.05	.2302	mg/L	90.1	90	110			



Inorganic QC Summary

FMI Gold & Copper - Sierrita

Fluoride			SM4500F	-C									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG341906													
WG341906ICV	ICV	04/11/13 12:41	WC130410-	2.002		1.96	mg/L	97.9	95	105			
WG341906ICB	ICB	04/11/13 12:49				U	mg/L		-0.3	0.3			
WG341906LFB1	LFB	04/11/13 13:03	WC130313-	5.005		4.75	mg/L	94.9	90	110			
L11372-01AS	AS	04/11/13 13:09	WC130313-	5.005	.6	5.32	mg/L	94.3	90	110			
L11372-01DUP	DUP	04/11/13 13:16			.6	.57	mg/L				5.1	20	R
L11462-04AS	AS	04/11/13 14:11	WC130313-	5.005	.2	4.69	mg/L	89.7	90	110			
L11462-04DUP	DUP	04/11/13 14:18			.2	.22	mg/L				9.5	20	R
WG341906LFB2	LFB	04/11/13 15:18	WC130313-	5.005		4.65	mg/L	92.9	90	110			
Iron, dissolved			M200.7 I	CP									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG341763													
WG341763ICV	ICV	04/09/13 19:58	II130114-3	2		2.006	mg/L	100.3	95	105			
WG341763ICB	ICB	04/09/13 20:04				U	mg/L		-0.06	0.06			
WG341763LFB	LFB	04/09/13 20:17	II130326-2	1		1.036	mg/L	103.6	85	115			
L11462-03AS	AS	04/09/13 20:26	II130326-2	1	1.33	2.284	mg/L	95.4	85	115			
L11462-03ASD	ASD	04/09/13 20:29	II130326-2	1	1.33	2.265	mg/L	93.5	85	115	0.84	20	
Lead, dissolved			M200.8 I	CP-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG341855													
WG341855ICV1	ICV	04/11/13 14:36	MS130402-2	.05		.05152	mg/L	103	90	110			
WG341855ICB1	ICB	04/11/13 14:39				U	mg/L		-0.0003	0.0003			
WG341855LFB	LFB	04/11/13 14:42	MS130329-1	.05005		.04423	mg/L	88.4	85	115			
L11460-05AS	AS	04/11/13 15:39	MS130329-1	.05005	U	.04621	mg/L	92.3	70	130			
L11460-05ASD	ASD	04/11/13 15:42	MS130329-1	.05005	U	.04584	mg/L	91.6	70	130	0.8	20	
WG341927													
WG341927ICV	ICV	04/11/13 22:23	MS130402-2	.05		.04908	mg/L	98.2	90	110			
WG341927ICB	ICB	04/11/13 22:26				U	mg/L		-0.0003	0.0003			
WG341927LFB	LFB	04/11/13 22:30	MS130329-1	.05005		.04494	mg/L	89.8	85	115			
L11372-02AS	AS	04/11/13 22:39	MS130329-1	.05005	U	.04767	mg/L	95.2	70	130			
L11372-02ASD	ASD	04/11/13 22:43	MS130329-1	.05005	U	.04854	mg/L	97	70	130	1.81	20	
Magnesium, dis	solved		M200.7 I	CP									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG341763													
WG341763ICV	ICV	04/09/13 19:58	II130114-3	100		100.8	mg/L	100.8	95	105			
WG341763ICB	ICB	04/09/13 20:04				U	mg/L		-0.6	0.6			
WG341763LFB	LFB	04/09/13 20:17	II130326-2	49.99941		52.42	mg/L	104.8	85	115			
L11462-03AS	AS	04/09/13 20:26	II130326-2	49.99941	117	168.2	mg/L	102.4	85	115			
							0						



Manganese, dis	solved		M200.7 I	СР									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG341763													
WG341763ICV	ICV	04/09/13 19:58	II130114-3	2		1.9138	mg/L	95.7	95	105			
WG341763ICB	ICB	04/09/13 20:04				U	mg/L		-0.015	0.015			
WG341763LFB	LFB	04/09/13 20:17	II130326-2	.5		.5084	mg/L	101.7	85	115			
L11462-03AS	AS	04/09/13 20:26	II130326-2	.5	.052	.5572	mg/L	101	85	115			
L11462-03ASD	ASD	04/09/13 20:29	II130326-2	.5	.052	.553	mg/L	100.2	85	115	0.76	20	
Mercury, dissol	ved		M245.1 (CVAA									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG341718													
WG341718ICV	ICV	04/09/13 11:54	II130325-2	.005025		.0048	mg/L	95.5	95	105			
WG341718ICB	ICB	04/09/13 11:57				U	mg/L		-0.0002	0.0002			
WG341718LRB	LRB	04/09/13 11:59				U	mg/L		-0.00044	0.00044			
WG341718LFB	LFB	04/09/13 12:01	II130320-2	.002002		.00194	mg/L	96.9	85	115			
L11462-03LFM	LFM	04/09/13 12:42	II130320-2	.002002	U	.00195	mg/L	97.4	85	115			
L11462-03LFMD	LFMD	04/09/13 12:44	II130320-2	.002002	U	.00193	mg/L	96.4	85	115	1.03	20	
Molybdenum, d	issolved		M200.7 I	СР									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qua
WG341763													
WG341763ICV	ICV	04/09/13 19:58	ll130114-3	2		1.974	mg/L	98.7	95	105			
WG341763ICB	ICB	04/09/13 20:04				U	mg/L		-0.06	0.06			
WG341763LFB	LFB	04/09/13 20:17	II130326-2	.5		.497	mg/L	99.4	85	115			
L11462-03AS	AS	04/09/13 20:26	II130326-2	.5	.02	.549	mg/L	105.8	85	115			
L11462-03ASD	ASD	04/09/13 20:29	II130326-2	.5	.02	.533	mg/L	102.6	85	115	2.96	20	



Nickel, dissolved			M200.7 IC	P									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG341818													
WG341818ICV	ICV	04/10/13 9:37	ll130114-3	2		1.963	mg/L	98.2	95	105			
WG341818ICB	ICB	04/10/13 9:41				U	mg/L		-0.03	0.03			
WG341818LFB	LFB	04/10/13 9:53	II130326-2	.5		.489	mg/L	97.8	85	115			
L11462-03AS	AS	04/10/13 10:08	II130326-2	.5	.01	.511	mg/L	100.2	85	115			
L11462-03ASD	ASD	04/10/13 10:11	II130326-2	.5	.01	.502	mg/L	98.4	85	115	1.78	20	
Nickel, dissolved			M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG341855													
WG341855ICV1	ICV	04/11/13 14:36	MS130402-2	.05		.04932	mg/L	98.6	90	110			
WG341855ICB1	ICB	04/11/13 14:39				U	mg/L		-0.0018	0.0018			
WG341855LFB	LFB	04/11/13 14:42	MS130329-1	.05005		.04583	mg/L	91.6	85	115			
L11460-05AS	AS	04/11/13 15:39	MS130329-1	.05005	.0027	.04189	mg/L	78.3	70	130			
L11460-05ASD	ASD	04/11/13 15:42	MS130329-1	.05005	.0027	.04027	mg/L	75.1	70	130	3.94	20	
WG341927													
WG341927ICV	ICV	04/11/13 22:23	MS130402-2	.05		.04999	mg/L	100	90	110			
WG341927ICB	ICB	04/11/13 22:26				U	mg/L		-0.0018	0.0018			
WG341927LFB	LFB	04/11/13 22:30	MS130329-1	.05005		.047	mg/L	93.9	85	115			
L11372-02AS	AS	04/11/13 22:39	MS130329-1	.05005	U	.03857	mg/L	77.1	70	130			
L11372-02ASD	ASD	04/11/13 22:43	MS130329-1	.05005	U	.03957	mg/L	79.1	70	130	2.56	20	
Nitrate/Nitrite as	N		M353.2 - I	H2SO4 pr	eserved								
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG342144													
WG342144ICV	ICV	04/16/13 22:11	WI130411-3	2.416		2.302	mg/L	95.3	90	110			
WG342144ICB	ICB	04/16/13 22:11	WI130411-3	2.410		2.302 U	mg/L	90.0	-0.06	0.06			
	IСБ	04/10/13 22.12				U	mg/∟		-0.00	0.00			
WG342150													
WG342150LFB1	LFB	04/16/13 23:15	WI130215-3	2		1.988	mg/L	99.4	90	110			
L11461-01AS	AS	04/16/13 23:18	WI130215-3	2	1.34	3.213	mg/L	93.7	90	110			
L11461-02DUP	DUP	04/16/13 23:20			1.32	1.314	mg/L				0.5	20	
WG342150LFB2	LFB	04/16/13 23:50	WI130215-3	2		1.955	mg/L	97.8	90	110			
pH (lab)			SM4500H	+ B									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG341864													
WG341864LCSW3	LCSW	04/10/13 18:11	PCN40853	6		6.01	units	100.2	98	102			
WG341864LCSW6	LCSW	04/10/13 21:31	PCN40853	6		6.02	units	100.3	98	102			
	DUP	04/11/13 0:13			8.3	8.34	units				0.5	20	
L11478-08DUP				-				100.2	00	100			
	LCSW	04/11/13 0:29	PCN40853	6		6.01	units	100.2	98	102			
L11478-08DUP WG341864LCSW9 WG341864LCSW12		04/11/13 0:29 04/11/13 4:00	PCN40853 PCN40853	6 6		6.01 6.01	units	100.2	98 98	102			

Potassium, diss	olved		M200.7 IC	CP									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG341763													
WG341763ICV	ICV	04/09/13 19:58	II130114-3	20		19.8	mg/L	99	95	105			
NG341763ICB	ICB	04/09/13 20:04				U	mg/L		-0.9	0.9			
NG341763LFB	LFB	04/09/13 20:17	II130326-2	99.97161		104	mg/L	104	85	115			
_11462-03AS	AS	04/09/13 20:26	II130326-2	99.97161	9	118.7	mg/L	109.7	85	115			
11462-03ASD	ASD	04/09/13 20:29	II130326-2	99.97161	9	119	mg/L	110	85	115	0.25	20	
Residue, Filteral	ole (TDS) @180C	SM25400)									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
NG341646													
NG341646PBW	PBW	04/05/13 16:40				U	mg/L		-20	20			
WG341646LCSW	LCSW	04/05/13 16:40	PCN40254	260		242	mg/L	93.1	80	120			
.11462-03DUP	DUP	04/05/13 16:59		200	3150	3190	mg/L	00.1	50	.20	1.3	20	
NG341647												_,	
NG341647PBW	PBW	04/05/13 17:01				U	mg/L		-20	20			
VG341647LCSW	LCSW	04/05/13 17:01	PCN40254	260		250	mg/L	96.2	80	120			
11465-01DUP	DUP	04/05/13 17:11			790	786	mg/L				0.5	20	
Selenium, disso	lved		M200.8 IC	CP-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
NG341855													
VG341855ICV1	ICV	04/11/13 14:36	MS130402-2	.05		.05262	mg/L	105.2	90	110			
VG341855ICB1	ICB	04/11/13 14:39	1001001022	.00		.00202	mg/L	100.2	-0.0003	0.0003			
WG341855LFB	LFB	04/11/13 14:42	MS130329-1	.05005		.04634	mg/L	92.6	85	115			
_11460-05AS	AS	04/11/13 15:39	MS130329-1	.05005	.0003	.05592	mg/L	111.1	70	130			
.11460-05ASD	ASD	04/11/13 15:42	MS130329-1	.05005	.0003	.05675	mg/L	112.8	70	130	1.47	20	
NG341927							5						
VG341927ICV	ICV	04/11/13 22:23	MS130402-2	.05		.05209	mg/L	104.2	90	110			
VG341927ICB	ICB	04/11/13 22:26				U	mg/L		-0.0003	0.0003			
VG341927LFB	LFB	04/11/13 22:30	MS130329-1	.05005		.04455	mg/L	89	85	115			
11372-02AS	AS	04/11/13 22:39	MS130329-1	.05005	U	.04761	mg/L	95.1	70	130			
11372-02ASD	ASD	04/11/13 22:43	MS130329-1	.05005	U	.05186	mg/L	103.6	70	130	8.55	20	
Sodium, dissolv	ed		M200.7 IC	CP									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
NG341763													
WG341763ICV	ICV	04/09/13 19:58	II130114-3	100		99.83	mg/L	99.8	95	105			
WG341763ICB	ICB	04/09/13 20:04				U	mg/L		-0.9	0.9			
VG341763LFB	LFB	04/09/13 20:17	II130326-2	100.0416		102	mg/L	102	85	115			
_11462-03AS	AS	04/09/13 20:26	II130326-2	100.0416	162	264.2	mg/L	102.2	85	115			
			II130326-2	100.0416	162	265.2	mg/L	103.2	85	115	0.38	20	



Sulfate			D516-02 -	Turbidim	etric								
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG341914													
WG341914ICB	ICB	04/11/13 13:33				U	mg/L		-3	3			
WG341914ICV	ICV	04/11/13 13:33	WI130401-1	20		20	mg/L	100	90	110			
WG341914LFB	LFB	04/11/13 14:37	WI121025-3	10		9.3	mg/L	93	90	110			
L11460-05AS	AS	04/11/13 14:50	SO4TURB25	20	1220	1256	mg/L	180	90	110			M3
L11460-03DUP	DUP	04/11/13 14:59			1360	1365	mg/L				0.4	20	
WG342060													
WG342060ICB	ICB	04/15/13 14:20				U	mg/L		-3	3			
WG342060ICV	ICV	04/15/13 14:20	WI130401-1	20		19.3	mg/L	96.5	90	110			
L11460-01DUP	DUP	04/15/13 14:49			1630	1667	mg/L				2.2	20	
L11460-02AS	AS	04/15/13 14:49	SO4TURB5	100	1740	1794	mg/L	54	90	110			M3
WG342060LFB	LFB	04/15/13 14:58	WI121025-3	10		9.7	mg/L	97	90	110			
Sulfate			M300.0 - I	on Chrom	atography	,							
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG342446													
WG342446ICV	ICV	04/22/13 18:27	WI130315-7	50		49.27	mg/L	98.5	90	110			
WG342446ICB	ICB	04/22/13 18:45				U	mg/L		-1.5	1.5			
WG342446LFB1	LFB	04/22/13 19:02	WI121018-8	30		31.09	mg/L	103.6	90	110			
WG342446LFB2	LFB	04/23/13 3:30	WI121018-8	30		31.51	mg/L	105	90	110			
L11423-03DUP	DUP	04/23/13 8:10			U	U	mg/L				0	20	RA
L11423-04AS	AS	04/23/13 9:20	WI121018-8	30	U	29.88	mg/L	99.6	90	110			
Thallium, dissol	ved		M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG341855													
WG341855ICV1	ICV	04/11/13 14:36	MS130402-2	.05		.05467	mg/L	109.3	90	110			
WG341855ICB1	ICB	04/11/13 14:39				U	mg/L		-0.0003	0.0003			
WG341855LFB	LFB	04/11/13 14:42	MS130329-1	.05005		.04723	mg/L	94.4	85	115			
L11460-05AS	AS	04/11/13 15:39	MS130329-1	.05005	U	.05074	mg/L	101.4	70	130			
L11460-05ASD	ASD	04/11/13 15:42	MS130329-1	.05005	U	.05021	mg/L	100.3	70	130	1.05	20	
WG341927													
WG341927ICV	ICV	04/11/13 22:23	MS130402-2	.05		.05338	mg/L	106.8	90	110			
WG341927ICB	ICB	04/11/13 22:26				U	mg/L		-0.0003	0.0003			
WG341927LFB	LFB	04/11/13 22:30	MS130329-1	.05005		.04783	mg/L	95.6	85	115			
L11372-02AS	AS	04/11/13 22:39	MS130329-1	.05005	U	.04849	mg/L	96.9	70	130			



Uranium, dissol	ved		M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG341855													
WG341855ICV1	ICV	04/11/13 14:36	MS130402-2	.05		.05339	mg/L	106.8	90	110			
WG341855ICB1	ICB	04/11/13 14:39				U	mg/L		-0.0003	0.0003			
WG341855LFB	LFB	04/11/13 14:42	MS130329-1	.05		.0472	mg/L	94.4	85	115			
L11460-05AS	AS	04/11/13 15:39	MS130329-1	.05	.0089	.0607	mg/L	103.6	70	130			
L11460-05ASD	ASD	04/11/13 15:42	MS130329-1	.05	.0089	.06078	mg/L	103.8	70	130	0.13	20	
WG341927													
WG341927ICV	ICV	04/11/13 22:23	MS130402-2	.05		.05268	mg/L	105.4	90	110			
WG341927ICB	ICB	04/11/13 22:26				U	mg/L		-0.0003	0.0003			
WG341927LFB	LFB	04/11/13 22:30	MS130329-1	.05		.0486	mg/L	97.2	85	115			
L11372-02AS	AS	04/11/13 22:39	MS130329-1	.05	.0001	.05495	mg/L	109.7	70	130			
L11372-02ASD	ASD	04/11/13 22:43	MS130329-1	.05	.0001	.05629	mg/L	112.4	70	130	2.41	20	
Zinc, dissolved			M200.7 IC	5									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG341763													
WG341763ICV	ICV	04/09/13 19:58	II130114-3	2		1.966	mg/L	98.3	95	105			
WG341763ICB	ICB	04/09/13 20:04				U	mg/L		-0.03	0.03			
WG341763LFB	LFB	04/09/13 20:17	II130326-2	.5		.514	mg/L	102.8	85	115			
L11462-03AS	AS	04/09/13 20:26	II130326-2	.5	1.45	1.916	mg/L	93.2	85	115			
L11462-03ASD	ASD	04/09/13 20:29	II130326-2	.5	1.45	1.894	mg/L	88.8	85	115	1.15	20	



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FMI Gold & Copper - Sierrita

ACZ ID	WOR <u>KNUM</u>	PARAMETER	METHOD	QUAL	DESCRIPTION
L11462-01	WG341906	Fluonde	SM4500F-C	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG341914	Sulfate	D516-02 - Turbidimetric	М3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
L11462-02	WG342446	Sulfate	M300.0 - Ion Chromatography	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
L11462-03	WG341763	Calcium, dissolved	M200.7 ICP	М3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
	WG341872	Cyanide, total	M335.4 - Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG341906	Fluoride	SM4500F-C	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG341914	Sulfate	D516-02 - Turbidimetric	М3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
L11462-04	WG341906	Fluoride	SM4500F-C	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG341914	Sulfate	D516-02 - Turbidimetric	М3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
L11462-05	WG342446	Sulfate	M300.0 - Ion Chromatography	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
L11462-06	WG341763	Calcium, dissolved	M200.7 ICP	М3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
	WG341864	Conductivity @25C	SM2510B	ZW	Method deviation. The sample was centrifuged prior to analysis due to high solid content.
	WG341872	Cyanide, total	M335.4 - Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG341906	Fluoride	SM4500F-C	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG341864	рН	SM4500H+ B	ZW	Method deviation. The sample was centrifuged prior to analysis due to high solid content.
	WG342060	Sulfate	D516-02 - Turbidimetric	М3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
	WG341864	Total Alkalinity	SM2320B - Titration	ZW	Method deviation. The sample was centrifuged prior to analysis due to high solid content.



ACZ Project ID: L11462

No certification qualifiers associated with this analysis

AGZ Laboratories, Inc. 2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493		Sample Receipt				
FMI Gold & Copper - Sierrita	ACZ Proje	ect ID:		L11462		
ZS000003Q8	Date Rec	eived: 0	4/05/201	3 10:04		
	Receive	ed By:		ksj		
	Date Pi	rinted:	4	4/5/2013		
Receipt Verification						
		YES	NO	NA		
1) Is a foreign soil permit included for applicable samples?				Х		
2) Is the Chain of Custody or other directive shipping papers present?		Х				
3) Does this project require special handling procedures such as CLP protocol?				Х		
4) Are any samples NRC licensable material?				Х		
5) If samples are received past hold time, proceed with requested short hold time analy	vses?	Х				
6) Is the Chain of Custody complete and accurate?			Х			
The 'sampled by' field on the Chain of Custody was not completed.						
7) Were any changes made to the Chain of Custody prior to ACZ receiving the sample	s?		Х			
Samples/Containers						
		YES	NO	NA		
8) Are all containers intact and with no leaks?		Х				
9) Are all labels on containers and are they intact and legible?		Х				

10) Do the sample labels and Chain of Custody match for Sample ID, Date, and Time?

11) For preserved bottle types, was the pH checked and within limits?

12) Is there sufficient sample volume to perform all requested work?

13) Is the custody seal intact on all containers?

14) Are samples that require zero headspace acceptable?

15) Are all sample containers appropriate for analytical requirements?

16) Is there an Hg-1631 trip blank present?

17) Is there a VOA trip blank present?

18) Were all samples received within hold time?

Chain of Custody Related Remarks

Client Contact Remarks

Shipping Containers

Cooler Id	Temp (°C)	Rad ($\mu R/Hr$)	Custody Seal Intact?
NA17372	2.5	12	Yes

Client must contact an ACZ Project Manager if analysis should not proceed for samples received outside of their thermal preservation acceptance criteria.

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	ACZ Labor	atories, Inc.		4(0)		().	-All	N ⇒f	CUS	SI Crum
	2773 Downhill Drive Steamboat Spi	rings, CO 80487 (800) 334-	5493			ک ا						
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	Company: Freeport-McMoRan	Sierrita Inc		Green Valley, AZ 85614								
	E-mail: jonathan_anderson@fm			Telephone: 520-393-2714								
	Corry of Report to:			_	. hdair			raalraac	agiata	c		
	Name: Ben Daigneau	****						reekass	ociate	s.com		
	Company: Clear Creek Associa	ucs		Telepi	hone: :	520-62	2-3222	,				
	Invoice to:											ļ
	Name:			Addre	SS:						•	
	Company:											
	E-mail:]	Telep								
	If sample(s) received past holding analysis before expiration, shall A If "NO" then ACZ will contact clier	CZ proceed with requeste	d short	HT ana	lyses?					YES NO		
	is indicated, ACZ will proceed wit						a will b	e qualifie	ed.			
	Are samples for CO DW Complian	-								YES		
	If yes, please include state forms. PROJECT INFORMATION	. Results will be reported t	o PQL.		ANALN	ALS R	ENTRES	TED iait	or heins	NO	×	romby r
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0	REMARKS							•				
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Š	Copy of report to Bell Daignea	tu contains only 504 1	csuits v	viin Q	c Sunn	ina y.						
462 Chain of Custo	UPS Tracking # 1Z67 7E4 23	1001 093 3										
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Jon Anderson FMI Gold & Copper - Sierrita P.O. Box 527 6200 West Duval Mine Road Green Valley, AZ 85622-0527

Cc: Ben Daigneau

Project ID: ZS000003Q8 ACZ Project ID: L11464– SULFATE ONLY

Jon Anderson:

Enclosed are analytical reports for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on April 05, 2013. This project was assigned to ACZ's project number, **L11464**. Please reference this number in all future inquiries.

At the request of Phelps Dodge Sierrita, Inc. (PDSI), this laboratory report has been prepared to contain only information specific to samples and analytes identified by PDSI as evaluated pursuant to Mitigation Order No. P-500-06 with Arizona Department of Environmental Quality. Samples and analytes unrelated to the Mitigation Order, but which may be identified on the chain of custody and sample receipt, have been reported to PDSI in a separate report.

All analyses were performed according to ACZ's Quality Assurance Plan. The enclosed results relate only to the samples received under **L11464**. Each section of this report has been reviewed and approved by the appropriate Laboratory Supervisor, or a qualified substitute. Except as noted, the test results for the methods and parameters listed on ACZ's current NELAC certificate letter (#ACZ) meet all the requirements of NELAC.

This report should be used or copied only in its entirety. ACZ is not responsible for the consequences arising from the use of a partial report.

ACZ disposes of samples and sub-samples thirty days after the analytical results are reported to the client. That time frame has elapsed for this project. If the samples are determined to be hazardous, additional charges apply for disposal (typically less than \$10/sample). If you would like the samples to be held longer than ACZ's stated policy or to be returned, please contact your Project Manager or Customer Service Representative for further details and associated costs. ACZ retains analytical reports for five years. Please notify your Project Manager if you have other needs. If you have any questions, please contact your Project Manager or Customer Service Representative.

S. Habermehl

Scott Habermehl has reviewed and approved this report.







April 30, 2013

Analytical

Report



Project ID:	ZS000003Q8
Sample ID:	MH-13B

ACZ Sample ID: L11464-01 Date Sampled: 04/03/13 10:09 Date Received: 04/05/13 Sample Matrix: Ground Water

Wet Chemistry								
Parameter	EPA Method	Result	Qual XQ	Units	MDL	PQL	Date	Analyst
Sulfate	D516-02 - Turbidimetric	1050	*	mg/L	50	300	04/15/13 16:18	tcd



Project ID:	ZS000003Q8
Sample ID:	MH-13A

ACZ Sample ID: L11464-02 Date Sampled: 04/03/13 12:23 Date Received: 04/05/13 Sample Matrix: Ground Water

Wet Chemistry								
Parameter	EPA Method	Result	Qual XQ	Units	MDL	PQL	Date	Analyst
Sulfate	D516-02 - Turbidimetric	1760	*	mg/L	50	300	04/15/13 16:18	tcd



Project ID:	ZS000003Q8
Sample ID:	MH-13C

ACZ Sample ID: L11464-03 Date Sampled: 04/03/13 12:39 Date Received: 04/05/13 Sample Matrix: Ground Water

Wet Chemistry								
Parameter	EPA Method	Result	Qual XQ	Units	MDL	PQL	Date	Analyst
Sulfate	D516-02 - Turbidimetric	45	*	mg/L	5	30	04/15/13 14:49	tcd



Project ID:	ZS000003Q8					
Sample ID:	MH-25B					

ACZ Sample ID: L11464-04 Date Sampled: 04/03/13 14:30 Date Received: 04/05/13 Sample Matrix: Ground Water

Wet Chemistry								
Parameter	EPA Method	Result	Qual XQ	Units	MDL	PQL	Date	Analyst
Sulfate	D516-02 - Turbidimetric	1700	*	mg/L	50	300	04/15/13 16:18	3 tcd



Project ID:	ZS000003Q8
Sample ID:	MH-25A

ACZ Sample ID: L11464-05 Date Sampled: 04/03/13 15:09 Date Received: 04/05/13 Sample Matrix: Ground Water

Wet Chemistry								
Parameter	EPA Method	Result	Qual XQ	Units	MDL	PQL	Date	Analyst
Sulfate	D516-02 - Turbidimetric	9	*	mg/L	1	5	04/15/13 14:58	3 tcd



Project ID:	ZS000003Q8
Sample ID:	MH-25C

ACZ Sample ID: L11464-06 Date Sampled: 04/03/13 15:47 Date Received: 04/05/13 Sample Matrix: Ground Water

Wet Chemistry								
Parameter	EPA Method	Result	Qual XQ	Units	MDL	PQL	Date	Analyst
Sulfate	D516-02 - Turbidimetric	1270	*	mg/L	50	300	04/15/13 15:12	tcd



Project ID:	ZS000003Q8
Sample ID:	MH-26C

ACZ Sample ID: L11464-07 Date Sampled: 04/04/13 11:26 Date Received: 04/05/13 Sample Matrix: Ground Water

Wet Chemistry								
Parameter	EPA Method	Result	Qual XQ	Units	MDL	PQL	Date	Analyst
Sulfate	D516-02 - Turbidimetric	880	*	mg/L	50	300	04/15/13 15:12	2 tcd



Project ID:	ZS000003Q8
Sample ID:	MH-26B

ACZ Sample ID: L11464-08 Date Sampled: 04/04/13 11:27 Date Received: 04/05/13 Sample Matrix: Ground Water

Wet Chemistry								
Parameter	EPA Method	Result	Qual XQ	Units	MDL	PQL	Date	Analyst
Sulfate	D516-02 - Turbidimetric	1690	*	mg/L	50	300	04/15/13 16:18	tcd



Project ID:	ZS000003Q8
Sample ID:	MH-26A

ACZ Sample ID: L11464-09 Date Sampled: 04/04/13 11:44 Date Received: 04/05/13 Sample Matrix: Ground Water

Wet Chemistry								
Parameter	EPA Method	Result	Qual XQ	Units	MDL	PQL	Date	Analyst
Sulfate	D516-02 - Turbidimetric	8	*	mg/L	1	5	04/15/13 14:59	tcd



Project ID:	ZS000003Q8
Sample ID:	DUP20130403A

ACZ Sample ID: L11464-10 Date Sampled: 04/03/13 00:00 Date Received: 04/05/13 Sample Matrix: Ground Water

Wet Chemistry								
Parameter	EPA Method	Result	Qual XQ	Units	MDL	PQL	Date	Analyst
Sulfate	D516-02 - Turbidimetric	1290	*	mg/L	50	300	04/15/13 15:12	tcd



Inorganic Reference

Batch	A distinct set of samples analyzed at a specific time		
Found	Value of the QC Type of interest		
Limit	Upper limit for RPD, in %.		
Lower	Lower Recovery Limit, in % (except for LCSS, mg/Kg)		
MDL	Method Detection Limit. Same as Minimum Reporting Limit.	Allows for instrume	ant and annual fluctuations
PCN/SCN	A number assigned to reagents/standards to trace to the mar		
PQL	Practical Quantitation Limit, typically 5 times the MDL.		
	True Value of the Control Sample or the amount added to the	Snike	
Rec	Recovered amount of the true value or spike added, in % (ex-		/Ka)
RPD	Relative Percent Difference, calculation used for Duplicate Q0		
Upper	Upper Recovery Limit, in % (except for LCSS, mg/Kg)		
Sample	Value of the Sample of interest		
C Sample Ty	pes		
AS	Analytical Spike (Post Digestion)	LCSWD	Laboratory Control Sample - Water Duplicate
ASD	Analytical Spike (Post Digestion) Duplicate	LFB	Laboratory Fortified Blank
ССВ	Continuing Calibration Blank	LFM	Laboratory Fortified Matrix
CCV	Continuing Calibration Verification standard	LFMD	Laboratory Fortified Matrix Duplicate
DUP	Sample Duplicate	LRB	Laboratory Reagent Blank
ICB	Initial Calibration Blank	MS	Matrix Spike
ICV	Initial Calibration Verification standard	MSD	Matrix Spike Duplicate
ICSAB	Inter-element Correction Standard - A plus B solutions	PBS	Prep Blank - Soil
LCSS	Laboratory Control Sample - Soil	PBW	Prep Blank - Water
LCSSD	Laboratory Control Sample - Soil Duplicate	PQV	Practical Quantitation Verification standard
LCSW	Laboratory Control Sample - Water	SDL	Serial Dilution
Sample Ty	pe Explanations		
Blanks		ontamination in the	prep method or calibration procedure.
Control Sar	nples Verifies the accuracy of the method,	including the prep	procedure.
Duplicates	Verifies the precision of the instrume	ent and/or method.	
Duplicates Spikes/Fort			
		ices, if any.	
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Spikes/Fort Standard Z Qualifiers B H L U (1) (2) (3) (4) (5) (1) (2) (3) (4) (5)	tified Matrix Determines sample matrix interferent Verifies the validity of the calibration (Qual) Analyte concentration detected at a value between MDL and Analysis exceeded method hold time. pH is a field test with a Target analyte response was below the laboratory defined neither material was analyzed for, but was not detected above the The associated value is either the sample quantitation limit or Inces EPA 600/R-83-020. Methods for Chemical Analysis of Water EPA 600/R-93-100. Methods for the Determination of Inorganic EPA 600/R-94-111. Methods for the Determination of Metals EPA SW-846. Test Methods for Evaluating Solid Waste. Standard Methods for the Examination of Water and Wasteweith Soil, Sludge, and Plant matrices for Inorganic analyses are reAnimal matrices for Inorganic analyses are reported on an "at An asterisk in the "XQ" column indicates there is an extended	PQL. The associat n immediate hold t gative threshold. ie level of the associat the sample detect and Wastes, March nic Substances in f in Environmental s ater. y if the rounded va ported on a dry we s received" basis. qualifier and/or ce	ime. ciated value. ion limit. h 1983. Environmental Samples, August 1993. Samples - Supplement I, May 1994. lues are used in the calculations. ight basis.

REP001.09.12.01



Antimony, disso	olved		M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG341927													
WG341927ICV	ICV	04/11/13 22:23	MS130402-2	.02		.02078	mg/L	103.9	90	110			
WG341927ICB	ICB	04/11/13 22:26				U	mg/L		-0.0012	0.0012			
WG341927LFB	LFB	04/11/13 22:30	MS130329-1	.01		.00995	mg/L	99.5	85	115			
L11372-02AS	AS	04/11/13 22:39	MS130329-1	.01	U	.01044	mg/L	104.4	70	130			
L11372-02ASD	ASD	04/11/13 22:43	MS130329-1	.01	U	.01046	mg/L	104.6	70	130	0.19	20	
L11464-06AS	AS	04/11/13 23:25	MS130329-1	.02	U	.02338	mg/L	116.9	70	130			
L11464-06ASD	ASD	04/11/13 23:29	MS130329-1	.02	U	.02224	mg/L	111.2	70	130	5	20	
Arsenic, dissolv	ved		M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG341927													
WG341927ICV	ICV	04/11/13 22:23	MS130402-2	.05		.05227	mg/L	104.5	90	110			
WG341927ICB	ICB	04/11/13 22:26				U	mg/L	10 110	-0.0006	0.0006			
WG341927LFB	LFB	04/11/13 22:30	MS130329-1	.05005		.0479	mg/L	95.7	85	115			
L11372-02AS	AS	04/11/13 22:39	MS130329-1	.05005	.0032	.05047	mg/L	94.4	70	130			
L11372-02ASD	ASD	04/11/13 22:43	MS130329-1	.05005	.0032	.05176	mg/L	97	70	130	2.52	20	
L11464-06AS	AS	04/11/13 23:25	MS130329-1	.1001	.0021	.11418	mg/L	112	70	130			
L11464-06ASD	ASD	04/11/13 23:29	MS130329-1	.1001	.0021	.117	mg/L	114.8	70	130	2.44	20	
Beryllium, disse	olved		M200.8 IC	P-MS									
Beryllium, disso ACZ ID	olved Type	Analyzed	M200.8 IC PCN/SCN	P-MS QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
-		Analyzed			Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
ACZ ID WG341927	Туре		PCN/SCN	QC	Sample						RPD	Limit	Qual
ACZ ID WG341927 WG341927ICV	Type	04/11/13 22:23			Sample	.04487	mg/L	Rec 89.7	90	110	RPD	Limit	Qual
ACZ ID WG341927	Туре		PCN/SCN	QC	Sample		mg/L mg/L				RPD	Limit	Qual
ACZ ID WG341927 WG341927ICV WG341927ICB	Type ICV ICB	04/11/13 22:23 04/11/13 22:26	PCN/SCN MS130402-2	QC .05	Sample U	.04487 U	mg/L	89.7	90 -0.00015	110 0.00015	RPD	Limit	Qual
ACZ ID WG341927 WG341927ICV WG341927ICB WG341927LFB	Type ICV ICB LFB	04/11/13 22:23 04/11/13 22:26 04/11/13 22:30	PCN/SCN MS130402-2 MS130329-1	QC .05 .0501		.04487 U .04255	mg/L mg/L mg/L	89.7 84.9	90 -0.00015 85	110 0.00015 115	RPD 3.78	Limit 20	Qual
ACZ ID WG341927 WG341927ICV WG341927ICB WG341927LFB L11372-02AS	Type ICV ICB LFB AS	04/11/13 22:23 04/11/13 22:26 04/11/13 22:30 04/11/13 22:39	PCN/SCN MS130402-2 MS130329-1 MS130329-1	QC .05 .0501 .0501	U	.04487 U .04255 .04542	mg/L mg/L mg/L mg/L	89.7 84.9 90.7	90 -0.00015 85 70	110 0.00015 115 130			Qual
ACZ ID WG341927 WG341927ICV WG341927ICB WG341927ICB L11372-02AS L11372-02ASD	Type ICV ICB LFB AS ASD	04/11/13 22:23 04/11/13 22:26 04/11/13 22:30 04/11/13 22:39 04/11/13 22:43	PCN/SCN MS130402-2 MS130329-1 MS130329-1 MS130329-1	QC .05 .0501 .0501 .0501	U U	.04487 U .04255 .04542 .04717	mg/L mg/L mg/L mg/L mg/L	89.7 84.9 90.7 94.2	90 -0.00015 85 70 70	110 0.00015 115 130 130			Qual
ACZ ID WG341927 WG341927ICV WG341927ICB WG341927LFB L11372-02AS L11372-02ASD L11464-06AS	Type ICV ICB LFB AS ASD AS ASD	04/11/13 22:23 04/11/13 22:26 04/11/13 22:30 04/11/13 22:39 04/11/13 22:43 04/11/13 23:25	PCN/SCN MS130402-2 MS130329-1 MS130329-1 MS130329-1 MS130329-1	QC .05 .0501 .0501 .0501 .1002 .1002	U U U	.04487 U .04255 .04542 .04717 .10928	mg/L mg/L mg/L mg/L mg/L	89.7 84.9 90.7 94.2 109.1	90 -0.00015 85 70 70 70 70	110 0.00015 115 130 130 130	3.78	20	Qual
ACZ ID WG341927 WG341927ICV WG341927ICB WG341927ICB UG341927LFB L11372-02AS L11372-02ASD L11464-06AS L11464-06ASD	Type ICV ICB LFB AS ASD AS ASD	04/11/13 22:23 04/11/13 22:26 04/11/13 22:30 04/11/13 22:39 04/11/13 22:43 04/11/13 23:25	PCN/SCN MS130402-2 MS130329-1 MS130329-1 MS130329-1 MS130329-1	QC .05 .0501 .0501 .0501 .1002 .1002	U U U	.04487 U .04255 .04542 .04717 .10928	mg/L mg/L mg/L mg/L mg/L mg/L	89.7 84.9 90.7 94.2 109.1	90 -0.00015 85 70 70 70 70	110 0.00015 115 130 130 130	3.78	20	Qual
ACZ ID WG341927 WG341927ICV WG341927ICB WG341927ICB UG341927LFB L11372-02AS L11372-02ASD L11464-06ASD L11464-06ASD Cadmium, disso ACZ ID	Type ICV ICB LFB AS ASD AS ASD	04/11/13 22:23 04/11/13 22:26 04/11/13 22:30 04/11/13 22:39 04/11/13 22:43 04/11/13 23:25 04/11/13 23:29	PCN/SCN MS130402-2 MS130329-1 MS130329-1 MS130329-1 MS130329-1 MS130329-1 MS130329-1	QC .05 .0501 .0501 .0501 .1002 .1002 P-MS	U U U U	.04487 U .04255 .04542 .04717 .10928 .10604	mg/L mg/L mg/L mg/L mg/L mg/L	89.7 84.9 90.7 94.2 109.1 105.8	90 -0.00015 85 70 70 70 70 70	110 0.00015 115 130 130 130 130	3.78 3.01	20 20	
ACZ ID WG341927 WG341927ICV WG341927ICB WG341927ICB UG341927LFB L11372-02AS L11372-02ASD L11464-06AS L11464-06ASD Cadmium, disse	Type ICV ICB LFB AS ASD AS ASD	04/11/13 22:23 04/11/13 22:26 04/11/13 22:30 04/11/13 22:39 04/11/13 22:39 04/11/13 22:43 04/11/13 23:25 04/11/13 23:29 Analyzed	PCN/SCN MS130402-2 MS130329-1 MS130329-1 MS130329-1 MS130329-1 MS130329-1 MS130329-1	QC .05 .0501 .0501 .0501 .1002 .1002 P-MS	U U U U	.04487 U .04255 .04542 .04717 .10928 .10604	mg/L mg/L mg/L mg/L mg/L mg/L	89.7 84.9 90.7 94.2 109.1 105.8	90 -0.00015 85 70 70 70 70 70 70	110 0.00015 115 130 130 130 130	3.78 3.01	20 20	
ACZ ID WG341927 WG341927ICV WG341927ICB WG341927ICB UG341927LFB L11372-02AS L11372-02ASD L11464-06AS L11464-06ASD Cadmium, disse ACZ ID WG341927 WG341927ICV	Type ICV ICB LFB AS ASD AS ASD olved Type	04/11/13 22:23 04/11/13 22:26 04/11/13 22:30 04/11/13 22:39 04/11/13 22:39 04/11/13 23:25 04/11/13 23:29 Analyzed	PCN/SCN MS130402-2 MS130329-1 MS130329-1 MS130329-1 MS130329-1 MS130329-1 MS130329-1 MS130329-1 MS130329-1 MS130329-1	QC .05 .0501 .0501 .0501 .1002 .1002 P-MS QC	U U U U	.04487 U .04255 .04542 .04717 .10928 .10604 Found	mg/L mg/L mg/L mg/L mg/L Units	89.7 84.9 90.7 94.2 109.1 105.8 Rec	90 -0.00015 85 70 70 70 70 70 70 70 20	110 0.00015 115 130 130 130 130 Upper	3.78 3.01	20 20	
ACZ ID WG341927 WG341927ICV WG341927ICB WG341927ICB UG341927LFB L11372-02AS L11372-02ASD L11464-06ASD Cadmium, disse ACZ ID WG341927 WG341927ICV WG341927ICB	Type ICV ICB LFB AS ASD AS ASD olved Type ICV ICB	04/11/13 22:23 04/11/13 22:26 04/11/13 22:30 04/11/13 22:39 04/11/13 22:39 04/11/13 22:25 04/11/13 23:29 Analyzed 04/11/13 22:23 04/11/13 22:26	PCN/SCN MS130402-2 MS130329-1 MS130329-1 MS130329-1 MS130329-1 M200.8 IC PCN/SCN MS130402-2	QC .05 .0501 .0501 .002 .1002 P-MS QC .05	U U U U	.04487 U .04255 .04542 .04717 .10928 .10604 Found .05044 U	mg/L mg/L mg/L mg/L mg/L Units mg/L	89.7 84.9 90.7 94.2 109.1 105.8 Rec 100.9	90 -0.00015 85 70 70 70 70 70 70 70 70 70 90 -0.0003	110 0.00015 115 130 130 130 130 Upper 110 0.0003	3.78 3.01	20 20	
ACZ ID WG341927 WG341927ICV WG341927ICB WG341927ICB WG341927LFB L11372-02AS L11372-02ASD L11464-06AS L11464-06ASD Cadmium, disse ACZ ID WG341927ICV WG341927ICV WG341927ICB WG341927LFB	Type ICV ICB LFB AS ASD AS ASD olved Type ICV ICB LFB	04/11/13 22:23 04/11/13 22:26 04/11/13 22:30 04/11/13 22:39 04/11/13 22:39 04/11/13 22:43 04/11/13 23:25 04/11/13 23:29 Analyzed 04/11/13 22:23 04/11/13 22:23	PCN/SCN MS130402-2 MS130329-1 MS130329-1 MS130329-1 MS130329-1 MS130329-1 MS130329-1 MS130329-1 MS130329-1 MS130329-1	QC .0501 .0501 .0501 .1002 .1002 P-MS QC .05	U U U Sample	.04487 U .04255 .04542 .04717 .10928 .10604 Found .05044 U .04654	mg/L mg/L mg/L mg/L mg/L Units	89.7 84.9 90.7 94.2 109.1 105.8 Rec 100.9 92.9	90 -0.00015 85 70 70 70 70 70 70 70 70 70 70 90 -0.0003 85	110 0.00015 115 130 130 130 130 130 Upper 110 0.0003 115	3.78 3.01	20 20	
ACZ ID WG341927 WG341927ICV WG341927ICB WG341927ICB UG341927LFB L11372-02AS L11372-02ASD L11464-06AS L11464-06ASD Cadmium, disse ACZ ID WG341927 WG341927ICV WG341927ICB	Type ICV ICB LFB AS ASD AS ASD olved Type ICV ICB	04/11/13 22:23 04/11/13 22:26 04/11/13 22:30 04/11/13 22:39 04/11/13 22:39 04/11/13 22:25 04/11/13 23:29 Analyzed 04/11/13 22:23 04/11/13 22:23 04/11/13 22:30 04/11/13 22:39	PCN/SCN MS130402-2 MS130329-1 MS130329-1 MS130329-1 MS130329-1 MS130329-1 MS130402-2 MS130329-1 MS130329-1 MS130329-1	QC .05 .0501 .0501 .002 .1002 P-MS QC .05	U U U Sample	.04487 U .04255 .04542 .04717 .10928 .10604 Found .05044 U	mg/L mg/L mg/L mg/L mg/L Units mg/L	89.7 84.9 90.7 94.2 109.1 105.8 Rec 100.9 92.9 90.4	90 -0.00015 85 70 70 70 70 70 70 70 70 70 90 -0.0003	110 0.00015 115 130 130 130 130 Upper 110 0.0003	3.78 3.01	20 20	
ACZ ID WG341927 WG341927ICV WG341927ICB WG341927ICB UG341927LFB L11372-02AS L11372-02ASD L11464-06AS L11464-06ASD Cadmium, disse ACZ ID WG341927 WG341927ICV WG341927ICB WG341927LFB L11372-02AS	Type ICV ICB LFB AS ASD AS ASD Olved Type ICV ICB LFB AS	04/11/13 22:23 04/11/13 22:26 04/11/13 22:30 04/11/13 22:39 04/11/13 22:39 04/11/13 22:43 04/11/13 23:25 04/11/13 23:29 Analyzed 04/11/13 22:23 04/11/13 22:23	PCN/SCN MS130402-2 MS130329-1 MS130329-1 MS130329-1 MS130329-1 MS130329-1 M200.8 IC PCN/SCN MS130402-2 MS130329-1	QC .0501 .0501 .0501 .1002 .1002 P-MS QC .05 .0501 .0501	U U U Sample U U	.04487 U .04255 .04542 .04717 .10928 .10604 Found .05044 U .04654 .04527 .04603	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	89.7 84.9 90.7 94.2 109.1 105.8 Rec 100.9 92.9 90.4 91.9	90 -0.00015 85 70 70 70 70 70 70 70 70 70 70 70 70 70	110 0.00015 115 130 130 130 130 130 Upper 110 0.0003 115 130	3.78 3.01 RPD	20 20 Limit	
ACZ ID WG341927 WG341927ICV WG341927ICB WG341927LFB L11372-02AS L11372-02ASD L11464-06AS L11464-06AS Cadmium, disse ACZ ID WG341927 WG341927ICV WG341927ICB WG341927LFB L11372-02AS L11372-02AS L11372-02AS	Type ICV ICB LFB AS ASD AS ASD Olved Type ICV ICB LFB AS ASD	04/11/13 22:23 04/11/13 22:26 04/11/13 22:30 04/11/13 22:39 04/11/13 22:39 04/11/13 22:43 04/11/13 23:25 04/11/13 23:29 Analyzed 04/11/13 22:23 04/11/13 22:26 04/11/13 22:30 04/11/13 22:39 04/11/13 22:43	PCN/SCN MS130402-2 MS130329-1 MS130329-1 MS130329-1 MS130329-1 M200.8 IC PCN/SCN MS130402-2 MS130329-1 MS130329-1 MS130329-1 MS130329-1	QC .05 .0501 .0501 .0501 .1002 .1002 P-MS QC .05 .0501 .0501 .0501	U U U Sample	.04487 U .04255 .04542 .04717 .10928 .10604 Found .05044 U .04654 .04527	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	89.7 84.9 90.7 94.2 109.1 105.8 Rec 100.9 92.9 90.4	90 -0.00015 85 70 70 70 70 70 70 70 Lower 90 -0.0003 85 70 70	110 0.00015 115 130 130 130 130 130 Upper 110 0.0003 115 130 130	3.78 3.01 RPD	20 20 Limit	



Chromium, diss	olved		M200.7 I	CP									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG341763													
WG341763ICV	ICV	04/09/13 19:58	II130114-3	2		1.963	mg/L	98.2	95	105			
WG341763ICB	ICB	04/09/13 20:04				U	mg/L		-0.03	0.03			
WG341763LFB	LFB	04/09/13 20:17	II130326-2	.5		.514	mg/L	102.8	85	115			
L11462-03AS	AS	04/09/13 20:26	II130326-2	.5	U	.498	mg/L	99.6	85	115			
L11462-03ASD	ASD	04/09/13 20:29	II130326-2	.5	U	.497	mg/L	99.4	85	115	0.2	20	
L11480-01AS	AS	04/09/13 21:38	II130326-2	.5	U	.524	mg/L	104.8	85	115			
L11480-01ASD	ASD	04/09/13 21:41	II130326-2	.5	U	.51	mg/L	102	85	115	2.71	20	
Cobalt, dissolve	əd		M200.7 I	CP									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG341763													
WG341763ICV	ICV	04/09/13 19:58	II130114-3	2.002		2.008	mg/L	100.3	95	105			
WG341763ICB	ICB	04/09/13 20:04		2.002		U	mg/L		-0.03	0.03			
WG341763LFB	LFB	04/09/13 20:17	II130326-2	.5		.495	mg/L	99	85	115			
L11462-03AS	AS	04/09/13 20:26	II130326-2	.5	U	.491	mg/L	98.2	85	115			
L11462-03ASD	ASD	04/09/13 20:29	II130326-2	.5	U	.479	mg/L	95.8	85	115	2.47	20	
L11480-01AS	AS	04/09/13 21:38	II130326-2	.5	U	.512	mg/L	102.4	85	115			
L11480-01ASD	ASD	04/09/13 21:41	II130326-2	.5	U	.515	mg/L	103	85	115	0.58	20	
Copper, dissolv	red		M200.7 I	CP									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG341763													
		04/00/40 40:50	11420444.2	0		4.05		07.5	05	105			
WG341763ICV	ICV	04/09/13 19:58	II130114-3	2		1.95	mg/L	97.5	95	105			
WG341763ICB	ICB	04/09/13 20:04	11400000 0	_		U	mg/L	00.4	-0.03	0.03			
WG341763LFB	LFB	04/09/13 20:17	II130326-2	.5		.497	mg/L	99.4	85	115			
L11462-03AS	AS	04/09/13 20:26	II130326-2	.5	U	.52	mg/L	104	85	115	0.50		
L11462-03ASD	ASD	04/09/13 20:29	II130326-2	.5	U	.517	mg/L	103.4	85	115	0.58	20	
L11480-01AS L11480-01ASD	AS	04/09/13 21:38	II130326-2	.5	U	.516	mg/L	103.2	85	115	0	20	
	ASD	04/09/13 21:41	II130326-2	.5	U	.516	mg/L	103.2	85	115	0	20	
Fluoride			SM4500F										
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG341906													
WG341906ICV	ICV	04/11/13 12:41	WC130410-	2.002		1.96	mg/L	97.9	95	105			
WG341906ICB	ICB	04/11/13 12:49				U	mg/L		-0.3	0.3			
WG341906LFB1	LFB	04/11/13 13:03	WC130313-	5.005		4.75	mg/L	94.9	90	110			
L11462-04AS	AS	04/11/13 14:11	WC130313-	5.005	.2	4.69	mg/L	89.7	90	110			
L11462-04DUP	DUP	04/11/13 14:18			.2	.22	mg/L				9.5	20	RA
WG341906LFB2	LFB	04/11/13 15:18	WC130313-	5.005		4.65	mg/L	92.9	90	110			
L11464-09AS	AS	04/11/13 15:33	WC130313-	5.005	.6	5.32	mg/L	94.3	90	110			
L11404-09A3	7.0	0 1/ 1/ 10 10.00	110100010	0.000	.0	0.02	mg/L	34.5	30	110			



Lead, dissolved			M200.8 IC	CP-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG341927													
WG341927ICV I	ICV	04/11/13 22:23	MS130402-2	.05		.04908	mg/L	98.2	90	110			
WG341927ICB I	ICB	04/11/13 22:26				U	mg/L		-0.0003	0.0003			
WG341927LFB l	LFB	04/11/13 22:30	MS130329-1	.05005		.04494	mg/L	89.8	85	115			
L11372-02AS	AS	04/11/13 22:39	MS130329-1	.05005	U	.04767	mg/L	95.2	70	130			
L11372-02ASD	ASD	04/11/13 22:43	MS130329-1	.05005	U	.04854	mg/L	97	70	130	1.81	20	
L11464-06AS	AS	04/11/13 23:25	MS130329-1	.1001	.0006	.11464	mg/L	113.9	70	130			
L11464-06ASD	ASD	04/11/13 23:29	MS130329-1	.1001	.0006	.10786	mg/L	107.2	70	130	6.09	20	
Magnesium, disso	lved		M200.7 IC	CP									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG341763													
WG341763ICV I	ICV	04/09/13 19:58	II130114-3	100		100.8	mg/L	100.8	95	105			
	ICB	04/09/13 20:04				U	mg/L		-0.6	0.6			
WG341763LFB L	LFB	04/09/13 20:17	II130326-2	49.99941		52.42	mg/L	104.8	85	115			
L11462-03AS	AS	04/09/13 20:26	II130326-2	49.99941	117	168.2	mg/L	102.4	85	115			
L11462-03ASD	ASD	04/09/13 20:29	II130326-2	49.99941	117	167.1	mg/L	100.2	85	115	0.66	20	
L11480-01AS	AS	04/09/13 21:38	II130326-2	49.99941	6.4	58.69	mg/L	104.6	85	115			
L11480-01ASD	ASD	04/09/13 21:41	II130326-2	49.99941	6.4	58.5	mg/L	104.2	85	115	0.32	20	
Molybdenum, diss	olved		M200.7 IC	CP									
ACZ ID 1	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG341763													
WG341763ICV I	ICV	04/09/13 19:58	II130114-3	2		1.974	mg/L	98.7	95	105			
WG341763ICB I	ICB	04/09/13 20:04				U	mg/L		-0.06	0.06			
WG341763LFB L	LFB	04/09/13 20:17	II130326-2	.5		.497	mg/L	99.4	85	115			
L11462-03AS	AS	04/09/13 20:26	II130326-2	.5	.02	.549	mg/L	105.8	85	115			
L11462-03ASD	ASD	04/09/13 20:29	II130326-2	.5	.02	.533	mg/L	102.6	85	115	2.96	20	
L11480-01AS	AS	04/09/13 21:38	II130326-2	.5	U	.511	mg/L	102.2	85	115			
L11480-01ASD	ASD	04/09/13 21:41	II130326-2	.5	U	.493	mg/L	98.6	85	115	3.59	20	
Nickel, dissolved			M200.8 IC	CP-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG341927													
	ICV	04/11/13 22:23	MS130402-2	.05		.04999	mg/L	100	90	110			
WG341927ICB I	ICB	04/11/13 22:26				U	mg/L		-0.0018	0.0018			
WG341927LFB l	LFB	04/11/13 22:30	MS130329-1	.05005		.047	mg/L	93.9	85	115			
L11372-02AS	AS	04/11/13 22:39	MS130329-1	.05005	U	.03857	mg/L	77.1	70	130			
L11372-02ASD	ASD	04/11/13 22:43	MS130329-1	.05005	U	.03957	mg/L	79.1	70	130	2.56	20	
111164 0640	AS	04/11/12 22:25	M6120220 1	.1001	U	.092	ma/l	91.9	70	130			
L11464-06AS	A3	04/11/13 23:25	MS130329-1	.1001	0	.092	mg/L	91.9	70	150			

Nitrate/Nitrite as	N		M353.2 - H	H2SO4 pr	eserved								
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG342011													
WG342011ICV	ICV	04/13/13 14:37	WI130411-3	2.416		2.3	mg/L	95.2	90	110			
WG342011ICB	ICB	04/13/13 14:38				U	mg/L		-0.06	0.06			
WG342012													
WG342012LFB1	LFB	04/13/13 15:10	WI130215-3	2		2.053	mg/L	102.7	90	110			
L11464-01AS	AS	04/13/13 15:12	WI130215-3	2	1.17	3.106	mg/L	96.8	90	110			
L11464-02DUP	DUP	04/13/13 15:14			.8	.797	mg/L				0.4	20	
WG342012LFB2	LFB	04/13/13 15:44	WI130215-3	2		2.007	mg/L	100.4	90	110			
Residue, Filtera	ble (TDS) @180C	SM2540C										
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG341648													
WG341648PBW	PBW	04/05/13 17:22				U	mg/L		-20	20			
WG341648LCSW	LCSW	04/05/13 17:22	PCN40254	260		248	mg/L	95.4	80	120			
L11464-10DUP	DUP	04/05/13 17:41			2180	2180	mg/L				0	20	
Selenium, disso	lved		M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG341927													
WG341927ICV	ICV	04/11/13 22:23	MS130402-2	.05		.05209	mg/L	104.2	90	110			
WG341927ICB	ICB	04/11/13 22:26				U	mg/L		-0.0003	0.0003			
WG341927LFB	LFB	04/11/13 22:30	MS130329-1	.05005		.04455	mg/L	89	85	115			
L11372-02AS	AS	04/11/13 22:39	MS130329-1	.05005	U	.04761	mg/L	95.1	70	130			
L11372-02ASD	ASD	04/11/13 22:43	MS130329-1	.05005	U	.05186	mg/L	103.6	70	130	8.55	20	
L11464-06AS							ing/∟	100.0					
	AS	04/11/13 23:25	MS130329-1	.1001	.002	.11126	mg/L	109.2	70	130			
L11464-06ASD	AS ASD	04/11/13 23:25 04/11/13 23:29	MS130329-1 MS130329-1	.1001 .1001			•				7.59	20	
L11464-06ASD Sulfate				.1001	.002 .002	.11126	mg/L	109.2	70	130	7.59	20	
			MS130329-1	.1001	.002 .002	.11126	mg/L	109.2	70	130	7.59 RPD	20 Limit	Qual
Sulfate	ASD	04/11/13 23:29	MS130329-1 D516-02 -	.1001 Turbidime	.002 .002 etric	.11126 .12004	mg/L mg/L	109.2 117.9	70 70	130 130			Qual
Sulfate ACZ ID	ASD	04/11/13 23:29	MS130329-1 D516-02 -	.1001 Turbidime	.002 .002 etric	.11126 .12004	mg/L mg/L	109.2 117.9	70 70	130 130			Qual
Sulfate ACZ ID WG342060	ASD Type	04/11/13 23:29 Analyzed	MS130329-1 D516-02 -	.1001 Turbidime	.002 .002 etric	.11126 .12004 Found	mg/L mg/L Units	109.2 117.9	70 70 Lower	130 130 Upper			Qual
Sulfate ACZ ID WG342060 WG342060ICB	ASD Type ICB	04/11/13 23:29 Analyzed 04/15/13 14:20	MS130329-1 D516-02 - PCN/SCN	.1001 Turbidimo QC	.002 .002 etric	.11126 .12004 Found	mg/L mg/L Units mg/L	109.2 117.9 Rec	70 70 Lower	130 130 Upper			Qual
Sulfate ACZ ID WG342060 WG342060ICB WG342060ICV	ASD Type ICB ICV	04/11/13 23:29 Analyzed 04/15/13 14:20 04/15/13 14:20	MS130329-1 D516-02 - PCN/SCN	.1001 Turbidimo QC	.002 .002 etric Sample	.11126 .12004 Found U 19.3	mg/L mg/L Units mg/L mg/L	109.2 117.9 Rec	70 70 Lower	130 130 Upper	RPD	Limit	Qual
Sulfate ACZ ID WG342060 WG342060ICB WG342060ICV L11460-01DUP	ASD Type ICB ICV DUP	04/11/13 23:29 Analyzed 04/15/13 14:20 04/15/13 14:20 04/15/13 14:49	MS130329-1 D516-02 - PCN/SCN WI130401-1	.1001 Turbidime QC 20	.002 .002 etric Sample	.11126 .12004 Found U 19.3 1667	mg/L mg/L Units mg/L mg/L mg/L	109.2 117.9 Rec 96.5	70 70 Lower -3 90	130 130 Upper 3 110	RPD	Limit	
Sulfate ACZ ID WG342060 WG342060ICB WG342060ICV L11460-01DUP L11460-02AS	ASD Type ICB ICV DUP AS	04/11/13 23:29 Analyzed 04/15/13 14:20 04/15/13 14:20 04/15/13 14:49 04/15/13 14:49	MS130329-1 D516-02 - PCN/SCN WI130401-1 SO4TURB5	.1001 Turbidime QC 20 100	.002 .002 etric Sample	.11126 .12004 Found U 19.3 1667 1794	mg/L mg/L Units mg/L mg/L mg/L	109.2 117.9 Rec 96.5 54	70 70 Lower -3 90 90	130 130 Upper 3 110 110	RPD	Limit	



Thallium, disso	lved		M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG341927													
WG341927ICV	ICV	04/11/13 22:23	MS130402-2	.05		.05338	mg/L	106.8	90	110			
WG341927ICB	ICB	04/11/13 22:26				U	mg/L		-0.0003	0.0003			
WG341927LFB	LFB	04/11/13 22:30	MS130329-1	.05005		.04783	mg/L	95.6	85	115			
L11372-02AS	AS	04/11/13 22:39	MS130329-1	.05005	U	.04849	mg/L	96.9	70	130			
L11372-02ASD	ASD	04/11/13 22:43	MS130329-1	.05005	U	.04944	mg/L	98.8	70	130	1.94	20	
L11464-06AS	AS	04/11/13 23:25	MS130329-1	.1001	U	.11602	mg/L	115.9	70	130			
L11464-06ASD	ASD	04/11/13 23:29	MS130329-1	.1001	U	.11604	mg/L	115.9	70	130	0.02	20	



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ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L11464-01	WG341906	Fluoride	SM4500F-C	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG342060	Sulfate	D516-02 - Turbidimetric	М3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
L11464-02	WG341906	Fluoride	SM4500F-C	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG342060	Sulfate	D516-02 - Turbidimetric	М3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
L11464-03	WG341906	Fluoride	SM4500F-C	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG342060	Sulfate	D516-02 - Turbidimetric	М3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
L11464-04	WG341906	Fluoride	SM4500F-C	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG342060	Sulfate	D516-02 - Turbidimetric	М3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
L11464-05	WG341906	Fluoride	SM4500F-C	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG342060	Sulfate	D516-02 - Turbidimetric	М3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
L11464-06	WG341906	Fluoride	SM4500F-C	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG342060	Sulfate	D516-02 - Turbidimetric	М3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
L11464-07	WG341906	Fluoride	SM4500F-C	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG342060	Sulfate	D516-02 - Turbidimetric	М3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
L11464-08	WG341906	Fluoride	SM4500F-C	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG342060	Sulfate	D516-02 - Turbidimetric	M1	Matrix spike recovery was high, the recovery of the associated control sample (LCS or LFB) was acceptable.
L11464-09	WG341906		SM4500F-C	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG342060	Sulfate	D516-02 - Turbidimetric	M1	Matrix spike recovery was high, the recovery of the associated control sample (LCS or LFB) was acceptable.



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FMI Gold & Copper - Sierrita

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L11464-10	WG341906	Fluoride	SM4500F-C		Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG342060	Sulfate	D516-02 - Turbidimetric	M1	Matrix spike recovery was high, the recovery of the associated control sample (LCS or LFB) was acceptable.



ACZ Project ID: L11464

No certification qualifiers associated with this analysis

ACZ Laboratories, Inc. 2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493		Sample Receipt					
FMI Gold & Copper - Sierrita ZS000003Q8	ACZ Proj Date Rec Receiv Date P	eived: 0₄ ed By:	L11464 4/05/2013 10:04 ksj 4/5/2013				
Receipt Verification							
		YES	NO	NA			
1) Is a foreign soil permit included for applicable samples?				Х			
2) Is the Chain of Custody or other directive shipping papers present?		Х					
3) Does this project require special handling procedures such as CLP protocol?				Х			
4) Are any samples NRC licensable material?				Х			
5) If samples are received past hold time, proceed with requested short hold time ar	nalyses?	Х					
6) Is the Chain of Custody complete and accurate?			Х				
The 'sampled by' field on the Chain of Custody was not completed.							
7) Were any changes made to the Chain of Custody prior to ACZ receiving the sam	ples?		Х				
Samples/Containers							
		YES	NO	NA			
8) Are all containers intact and with no leaks?		Х					
9) Are all labels on containers and are they intact and legible?		Х					
10) Do the sample labels and Chain of Custody match for Sample ID, Date, and Tim	ie?	Х					
11) For preserved bottle types, was the pH checked and within limits?		Х					
12) Is there sufficient sample volume to perform all requested work?		Х					
13) Is the custody seal intact on all containers?				Х			

- 14) Are samples that require zero headspace acceptable?
- 15) Are all sample containers appropriate for analytical requirements?
- 16) Is there an Hg-1631 trip blank present?
- 17) Is there a VOA trip blank present?
- 18) Were all samples received within hold time?

Chain of Custody Related Remarks

The first sample on the COC was removed from this project as it was a duplicate of the sample on L11463.

Client Contact Remarks

Shipping Containers

Cooler Id	Temp (°C)	Rad ($\mu R/\text{Hr})$
NA17372	2.5	12

Custody Seal Intact? _____ Yes

Client must contact an ACZ Project Manager if analysis should not proceed for samples received outside of their thermal preservation acceptance criteria.

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Name: Jon Andersoni	•		A			Sec. 1 8	fier P	Las J				
		-	Address: 6200 W. Duval Mine Road									
	AcMoRan Sierrita Inc.	-	Green Valley, AZ 85614 Telephone: 520-393-2714									
E-mail: jonathan_ande	erson@imi.com		Telep	hone:	520-39	3-2/14						
Copy of Report to												
Name: Ben Daigneau		_	E-mail: bdaigneau@clearcreekassociates.com									
Company: Clear Cree	k Associates		Telephone: 520-622-3222									
thive de to:												
Name:	· · · · · · · · · · · · · · · · · · ·		Address:									
Company:	· · · · · · · · · · · · · · · · · · ·											
E-mail:			Telep						-	·		
If sample(s) received past holding time (HT), or if insufficier												
	ion, shall ACZ proceed with reques ontact client for further instruction				10"				NO		J	
	roceed with the requested analyse					a will be	e qualif	ied.				
	Are samples for CO DW Compliance Monitoring?								YES			
	tate forms. Results will be reporte	d to PQL			YSES RI	CHEE	1 E D		NO	×.		
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Project/PO #: ZS000		_	Containers	ы Ш	L.	!						
	orting state for compliance testing:			A 300	l H			ĺ				
Sampler's Name:	Niconcoble material? Vec. No.	_	of C	y EP	la							
SAMPLE IDENTIFIC	Clicensable material? Yes No	Matrix	#	SO4 by EPA 300 or EPA 375	Quarterly							
MII-30	<u>4/2/2013 : 1056</u>	GW		×	170	4.5	12	Se	el	h10	103	
MH-13B	4/3/2013 : 1009	GW	3		X					<u> </u>	<u> </u>	
MH-13A	4/3/2013 : 1223	GW	3		×			1				
MH-13C	4/3/2013 : 1239	GW	3		×		-		1			
MH-25B	4/3/2013 : 1430	GW	3		x				1		†	
MH-25A	4/3/2013 : 1509	GW	3		×			-				
MH-25C	4/3/2013 : 1547	GW	3		×							
MH-26C	4/4/2013 : 1126	GW	3		×							
MH-26B	4/4/2013 : 1127	GW	3		×							
	4/4/2013 : 1144	GW	3	1	×			I	1	1	1	

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	boratories,	Inc.	\mathbf{N}	46	24		(HA	iN of	CUS	STOLY	
2773 Downhill Drive Steambo	oat Springs, CO 80487	(800) 334-5493			- 1							
Report to												
Name: Jon Andersoni			Addre	ss: 620	0 W. I	Duval I	Mine I	Road				_
Company: Freeport-McM	oRan Sierrita Inc.			Gre	en Va	lley, A	Z 856	14				
E-mail:jonathan_andersor	n@fmi.com		Telep	hone:	520-39	3-2714	4					
Copy of Report to:												
Name: Ben Daigneau			E-mai	I: bdai	gneau@)cleare	creeka	ssociat	es.com			
Company: Clear Creek As	ssociates		Telep	hone:	520-62	2-3222	2	_				
Invoice to:										-		
Name:			Addre	SS:								
Company:											· · · · ·	
E-mail:			Telep	hone:								
· · · · · · · · · · · · · · · · · · ·	olding time (HT) of if i		· · ·		oto				YES			
If sample(s) received past h analysis before expiration, s	• • •				ere				NO		1	
If "NO" then ACZ will contact					0"					·	,	ł
is indicated, ACZ will proce						a will b	e quali	fied.				
Are samples for CO DW Cor	mpliance Monitoring?								YES			
lf yes, please include state i	forms. Results will be	reported to PQL.							NO	X		
PROJECTINFORMATION	N			ANA. Y	/SES R	FOURS	61ED (a	ttach li	st or us	e quotr	endenber	
Quote #:				375								
Project/PO #: ZS0000030			Containers	SO4 by EPA 300 or EPA 375								
	orting state for compliance testing:			00								
	ance testing.		L O	A 30	1							
Sampler's Name:			5	L di	ש							
Are any samples NRC lice			#	8	Quarterly							
SAMPLE IDENTIFICATI		IME Matro		on -	<u> </u>						<u> </u>	
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Matrix SW (Surface Water	r) · GW (Ground Water) · W	W (Waste Water) · D	W (Drink	ing Wate	r) · SL (S	ludge) ·	SO (Soil) · OL (O)il) · Othe	· (Specify	()	
REMARKS												
UPS Tracking #1Z 867 7	E4 22 1001 002 2											
Ur5 Hacking #12.8077	E4 23 1001 093 3											
•												
$ \land$	Please refer to ACZ	s terms & conditi	ons loc	ated or	the re	verse	side of	this C	OC			
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FRMAD050.01.15.09



Analytical Report

May 02, 2013

Report to: Jon Anderson FMI Gold & Copper - Sierrita 6200 West Duval Mine Rd. Green Valley, AZ 85614

cc: Ben Daigneau

Bill to: Accounts Payable FMI Gold & Copper - Sierrita P.O. Box 2671 Phoenix, AZ 85002-2671

Project ID: ZS000003Q8 ACZ Project ID: L11560

Jon Anderson:

Enclosed are the analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on April 12, 2013. This project has been assigned to ACZ's project number, L11560. Please reference this number in all future inquiries.

All analyses were performed according to ACZ's Quality Assurance Plan. The enclosed results relate only to the samples received under L11560. Each section of this report has been reviewed and approved by the appropriate Laboratory Supervisor, or a qualified substitute.

Except as noted, the test results for the methods and parameters listed on ACZ's current NELAC certificate letter (#ACZ) meet all requirements of NELAC.

This report shall be used or copied only in its entirety. ACZ is not responsible for the consequences arising from the use of a partial report.

All samples and sub-samples associated with this project will be disposed of after June 01, 2013. If the samples are determined to be hazardous, additional charges apply for disposal (typically \$11/sample). If you would like the samples to be held longer than ACZ's stated policy or to be returned, please contact your Project Manager or Customer Service Representative for further details and associated costs. ACZ retains analytical raw data reports for ten years.

If you have any questions or other needs, please contact your Project Manager.

S. Habermehl

Scott Habermehl has reviewed and approved this report.





ACZ	Laboratories, Inc.
2773 Downhill Drive	Steamboat Springs, CO 80487 (800) 334-5493

Project ID:	ZS000003Q8
Sample ID:	MO-2007-1A

ACZ Sample ID: L11560-01 Date Sampled: 04/08/13 10:02 Date Received: 04/12/13 Sample Matrix: Ground Water

Wet Chemistry								
Parameter	EPA Method	Result	Qual XC) Units	MDL	PQL	Date	Analyst
Sulfate	M300.0 - Ion Chromatography	17.92		mg/L	0.5	2.5	04/25/13 10:40	0 tcd

ACZ	Laboratories, Inc.
2773 Downhill Drive	Steamboat Springs, CO 80487 (800) 334-5493

Project ID:	ZS000003Q8
Sample ID:	MO-2007-1B

ACZ Sample ID: L11560-02 Date Sampled: 04/08/13 12:00 Date Received: 04/12/13 Sample Matrix: Ground Water

Wet Chemistry								
Parameter	EPA Method	Result	Qual XC	Units	MDL	PQL	Date	Analyst
Sulfate	M300.0 - Ion Chromatography	873.7		mg/L	25	125	04/25/13 11:15	5 tcd

ACZ	Laboratories, Inc.
2773 Downhill Drive	Steamboat Springs, CO 80487 (800) 334-5493

Project ID:	ZS000003Q8
Sample ID:	MO-2007-1C

ACZ Sample ID: L11560-03 Date Sampled: 04/08/13 12:58 Date Received: 04/12/13 Sample Matrix: Ground Water

Wet Chemistry								
Parameter	EPA Method	Result	Qual XQ	Units	MDL	PQL	Date	Analyst
Sulfate	M300.0 - Ion Chromatography	416.3		mg/L	5	25	04/25/13 11:50) tcd

ACZ	Laboratories, Inc.	
2773 Downhill Drive	Steamboat Springs, CO 80487 (800) 334-5	493

Project ID:	ZS000003Q8
Sample ID:	MO-2007-2

ACZ Sample ID: L11560-04 Date Sampled: 04/08/13 14:56 Date Received: 04/12/13 Sample Matrix: Ground Water

Wet Chemistry									
Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Sulfate	M300.0 - Ion Chromatography	455.7		*	mg/L	5	25	05/01/13 17:06	6 lhb

ACZ	Laboratories, Inc.
2773 Downhill Drive	Steamboat Springs, CO 80487 (800) 334-5493

Project ID:	ZS000003Q8
Sample ID:	MO-2007-3B

ACZ Sample ID: L11560-05 Date Sampled: 04/09/13 12:40 Date Received: 04/12/13 Sample Matrix: Ground Water

Wet Chemistry								
Parameter	EPA Method	Result	Qual XQ	Units	MDL	PQL	Date	Analyst
Sulfate	M300.0 - Ion Chromatography	180.87		mg/L	2.5	12.5	04/25/13 12:25	tcd

ACZ	Laboratories, Inc.
2773 Downhill Drive	Steamboat Springs, CO 80487 (800) 334-5493

FMI Gold & Cop	per - Sierrita	ACZ Sample ID:	L11560-06
Project ID:	ZS00003Q8	Date Sampled:	04/09/13 12:46
Sample ID:	MO-2007-3C	Date Received:	04/12/13
		Sample Matrix:	Ground Water

Wet Chemistry								
Parameter	EPA Method	Result	Qual XQ	Units	MDL	PQL	Date	Analyst
Sulfate	M300.0 - Ion Chromatography	89.78		mg/L	2.5	12.5	04/25/13 13:18	tcd

ACZ	Laboratories, Inc.
2773 Downhill Drive	Steamboat Springs, CO 80487 (800) 334-5493

Project ID:	ZS000003Q8
Sample ID:	MO-2007-6A

ACZ Sample ID: L11560-07 Date Sampled: 04/09/13 14:19 Date Received: 04/12/13 Sample Matrix: Ground Water

Wet Chemistry								
Parameter	EPA Method	Result	Qual XQ	Units	MDL	PQL	Date	Analyst
Sulfate	M300.0 - Ion Chromatography	32.44		mg/L	0.5	2.5	04/25/13 13:35	5 tcd

ACZ	Laboratories, Inc.
2773 Downhill Drive	Steamboat Springs, CO 80487 (800) 334-5493

ACZ Sample ID: L11560-08

FMI Gold & Copper - Sierrita

Project ID:	ZS00003Q8	Date Sampled:	04/09/13 15:41
Sample ID:	MO-2007-6B	Date Received:	04/12/13
		Sample Matrix:	Ground Water

Wet Chemistry								
Parameter	EPA Method	Result	Qual XQ	Units	MDL	PQL	Date	Analyst
Sulfate	M300.0 - Ion Chromatography	54.72		mg/L	0.5	2.5	04/25/13 13:53	tcd

ACZ	Laboratories, Inc.
2773 Downhill Drive	Steamboat Springs, CO 80487 (800) 334-5493

Project ID:	ZS000003Q8
Sample ID:	DUP20130409A

ACZ Sample ID: **L11560-09** Date Sampled: 04/09/13 00:00 Date Received: 04/12/13 Sample Matrix: Ground Water

Wet Chemistry								
Parameter	EPA Method	Result	Qual XQ	Units	MDL	PQL	Date	Analyst
Sulfate	M300.0 - Ion Chromatography	32.94		mg/L	0.5	2.5	04/25/13 14:10) tcd

ACZ	Laboratories, Inc.
	Steamboat Springs, CO 80487 (800) 334-5493

Project ID:	ZS000003Q8	
Sample ID:	MO-2007-4B	

ACZ Sample ID: L11560-10 Date Sampled: 04/10/13 11:46 Date Received: 04/12/13 Sample Matrix: Ground Water

Wet Chemistry								
Parameter	EPA Method	Result	Qual XQ	Units	MDL	PQL	Date	Analyst
Sulfate	M300.0 - Ion Chromatography	33.31		mg/L	0.5	2.5	04/25/13 14:45	5 tcd

ACZ	Laboratories, Inc.
2773 Downhill Drive	Steamboat Springs, CO 80487 (800) 334-5493

Project ID:	ZS000003Q8
Sample ID:	MO-2007-4A

ACZ Sample ID: L11560-11 Date Sampled: 04/10/13 12:47 Date Received: 04/12/13 Sample Matrix: Ground Water

Wet Chemistry								
Parameter	EPA Method	Result	Qual XQ	Units	MDL	PQL	Date	Analyst
Sulfate	M300.0 - Ion Chromatography	34.69		mg/L	0.5	2.5	04/25/13 15:20) tcd

ACZ	Laboratories, Inc.
	Steamboat Springs, CO 80487 (800) 334-5493

Project ID:	ZS000003Q8
Sample ID:	MO-2007-4C

ACZ Sample ID: L11560-12 Date Sampled: 04/10/13 13:03 Date Received: 04/12/13 Sample Matrix: Ground Water

Wet Chemistry								
Parameter	EPA Method	Result	Qual XQ	Units	MDL	PQL	Date	Analyst
Sulfate	M300.0 - Ion Chromatography	93.24		mg/L	0.5	2.5	04/25/13 15:38	3 tcd

ACZ	Laboratories, Inc.
2773 Downhill Drive	Steamboat Springs, CO 80487 (800) 334-5493

Project ID:	ZS000003Q8
Sample ID:	MO-2009-1

ACZ Sample ID: L11560-13 Date Sampled: 04/10/13 15:29 Date Received: 04/12/13 Sample Matrix: Ground Water

Wet Chemistry									
Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Sulfate	M300.0 - Ion Chromatography	105.80			mg/L	1	5	04/25/13 16:30) tcd



Inorganic Reference

Found Value of the OC Type of interest Limit Upper limit for RPD, n %, Lower Lower Recovery Limit, in % (except for LCSS, mg/Kg) MDL Method Detection Limit. Same as Minimum Reporting Limit. Allows for instrument and annual fluctuations. PCN/SCM A number assigned to reagent/sitandards to trace to the manufacturer's certificate of analysis PCN Practical Quantitation Limit. typically 5 times the MDL. QC True Value of the Control Sample or the amount added to the Spike Refere Recovered amount of the true value or spike added, in % (except for LCSS, mg/Kg) Sample Value of the Sample or interest Sample Value of the Sample or interest Sample Value of the Sample or interest Sample Vse Losoratory Control Sample - Water Duplicate Analytical Spike (Post Digestion) LCSWD Laboratory Fortified Blank CCC Continuing Calibration Verification standard LFM Laboratory Fortified Marix CCSA Initial Calibration Verification standard MSD Matrix Spike CLSA Initial Calibration Verification standard LFM Laboratory Fortified Marix CCC Continuing Calibration Verification standard LFM Laborator	Patah	Explanations						
Luni Upper limit for RPD, n %. Lower Recovery Limit, in % (except for LCSS, mg/Kg) Lower Recovery Limit, in % (except for LCSS, mg/Kg) RCW Practical Quantitation Unit. Systep 8 sites the to the manufacturer's certificate of analysis PCW2KP Practical Quantitation Unit. Typical 9% times the MDL. QC True Value of the Control Sample or the amount added to the Spike Rec Recovered amount of the true value or spike added, in % (except for LCSS, mg/Kg) Rec Recovered amount of the true value or spike added in % (except for LCSS, mg/Kg) Rec Recovered amount of the true value or spike added in % (except for LCSS, mg/Kg) Rec Recovered amount of the true value or spike added in % (except for LCSS, mg/Kg) Sample Value of the Sample or Interest PCM Particle Percent Difference, calculation used for Dipclicate C Types Upper Upper Recovery Limit, in % (except for LCSS, mg/Kg) Sample Value of the Sample or Interest PCM Particle Spike (Post Digestion) LCSW Laboratory Control Sample - Valuer Others AS Analytical Spike (Post Digestion) Duplcate LFB Laboratory Forfited Matrix CCC C Continuing Calibration Blank LFM Laboratory Forfited Matrix CCC C Continuing Calibration Standard LFM Laboratory Forfited Matrix CCC C Continuing Calibration Standard KCSA Inter-element Correction Standard MSD Matrix Spike Duplcate LCSS Laboratory Control Sample - Sol M PBW Prep Blank - Matrix Spike Duplcate LCSS Laboratory Control Sample - Sol M PBW Prep Blank - Matrix Spike PCM PARCEMAND PAR	Batch	A distinct set of samples analyzed at a specific time						
Lower Roovery Link, in % (except for LCSS, mg/Kg) MOL Method Detection Link. Same as Minimum Reporting Link. Allows for instrument and annual fluctuations // Allows for instrument and annual fluctuation Allows for instrument and annual fluctuations // Allows for instrument and annual fluctuation allows for the instrument and annual fluctuation // Allows for instrument and annual fluctuation // Allows for instrument and annual fluctuation // Allows								
MoL Method Delection Limit. Same as Minimum Reporting Limit. Allows for instrument and annual fluctuations. PCN SCN A number assigned to reagents standards to trace to the manufacturer's certificate of analysis PCN Practical Quantitation Unit. typically Stime at the MDL. Recovered amount of the true value or syste added, mik (scopet for LCSS, mg/Kg) Report Vere Upper Recovery Limit, ni % (scopet for LCSS, mg/Kg) Sample Value of the Sample of interest Laboratory Control Sample - Water Duplicate Sample Value of the Sample of Digetsion Duplicate LFB Laboratory Fortified Blank CGB Continuing Calibration Blank LFM Laboratory Fortified Matrix CGV Continuing Calibration Verification standard LFMD Laboratory Fortified Matrix CGV Continuing Calibration Verification standard LFMD Laboratory Fortified Matrix CGSD Laboratory Control Sample - Sol PRP Reserve LCSSU Laboratory Control Sample - Sol PRP Reserve LCSSU Laboratory Control Sample - Sol PRP Reserve Reserve LCSSU Laboratory Control Sample - Sol PRP Reserve Reserve Reserve Reserve Reserve Reserve Reserve Re								
PCNSCM A number assigned to reagents/standards to trace to the manufacturer's certificate of analysis PQL Practical Quantitation Limit, typically 5 times the MDL. QC Tue Value of the Control Sample of the anount added to the Spike Rec Recovered amount of the true value or spike added, in % (except for LCSS, mg/Kg) RPD Relative Percent Difference, calculation used for Duplicate QC Types Upper Recovery Limit, in % (except for LCSS, mg/Kg) Laboratory Control Sample - Water Duplicate AS Analytical Spike (Post Digestion) LCSWD Laboratory Fortified Matrix CCW Continuing Calibration Blank LFM Laboratory Fortified Matrix CCW Continuing Calibration Vertification standard LFM Laboratory Fortified Matrix CV Continuing Calibration Standard MSD Matrix Spike Duplicate LCSA Laboratory Control Sample - Soil Duplicate RB Laboratory Fortified Matrix LCSA Laboratory Control Sample - Soil Duplicate RB Laboratory Control Sample - Soil Duplicate LCSA Laboratory Control Sample - Soil Duplicate PGV Practical Quantitation Vertification standard LCSA Laboratory Control Sample - Soil Duplicate PGV Practical Quantitation Vertificatio								
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QC True Value of the Control Sample or the amount added to the Spike Rec Recovered amount of the true value or spike added, in % (except for LCSS, mg/Kg) PRD Relative Parcent Difference, scialulation used for Duplicate OC Tryes Sample Value of the Sample of interest Sample Trype Value of the Sample of interest Sample Trype Laboratory Control Sample - Water Duplicate AS Analytical Spike (Post Digestion) AS Analytical Spike (Post Digestion) Duplicate LFB Laboratory Fortified Matrix Low Laboratory Fortified Matrix CCC Continuing Calibration Verification standard LFM Laboratory Fortified Matrix CCK Continuing Calibration Verification standard MSD Matrix Spike LCSM Initial Calibration Nerification standard MSD Matrix Spike LCSM Laboratory Control Sample - Soil Duplicate PQV Prep Blank. Vater LCSM Laboratory Control Sample - Soil Duplicate PQV Prep Caluantiation Verification standard LCSW Laboratory Control Sample - Soil Duplicate PQV Prep Caluantiation Verification standard LCSW Laboratory Control Sample - Soil Duplicate PQV <td></td> <td colspan="6"></td>								
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Inter-element Correction Standard - A plus B solutions PBS Prep Blank - Soil LCSS Laboratory Control Sample - Soil PBW Prep Blank - Water LCSW Laboratory Control Sample - Soil Duplicate PQV Practical Quantitation Verification standard LCSW Laboratory Control Sample - Water SDL Serial Dilution Samples Verifies that there is no or minimal contamination in the prep method or calibration procedure. Control Samples Verifies the accuracy of the method, including the prep procedure. Duplicates Verifies the precision of the instrument and/or method. Spikes/Fortified Matrix Determines sample matrix interferences, if any. Standard Verifies the validity of the calibration. Z Outlifes (Cuel) Analysis exceeded method hold time. PI is a field test with an immediate hold time. L Target analyte response was below the laboratory defined negative threshold. U The associated value is either the sample quantitation limit or the sample detection limit. the dool/R-39-100. Methods for Chemical Analysis of Water and Wastes, March 1983. (2) EPA 600/R-94-111. Methods for Evaluating Solid Waste. (3) EPA 600/R-94-111. Methods for the Determination of Mates in Environmental Samples - Suppl								
LCSS Laboratory Control Sample - Soil PBW Prep Blank - Water LCSSD Laboratory Control Sample - Soil Duplicate PQV Practical Quantitation Verification standard LCSW Laboratory Control Sample - Water SDL Serial Dilution Sample Type Explanations Serial Dilution Serial Dilution Control Samples Verifies the accuracy of the method, including the prep procedure. Duplicates Verifies the precision of the instrument and/or method. Spikes/Fortified Matrix Determines sample matrix interferences, if any. Standard Verifies the validity of the calibration. Z Qualifiers (Qual) Educoncentration detected at a value between MDL and PQL. The associated value is an estimated quantity. H Analysic exceeded method hold time. PH is a field test with an immediate hold time. L Target analyte response was below the laboratory defined negative threshold. U The material was analyzed for, but was not detected above the level of the associated value. The associated value is either the sample quantitation film organic Substances in Environmental Samples, August 1993. (2) EPA 600/R-93-100. Methods for the Determination of Metals in Environmental Samples - Supplement I, May 1994. (4) EPA 600/R-94-111. Methods for the Determination of Metal								
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REP001.09.12.01



Sulfate			M300.0 - I	on Chron	natography	,							
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG342446													
WG342446ICV	ICV	04/22/13 18:27	WI130315-7	50		49.27	mg/L	98.5	90	110			
WG342446ICB	ICB	04/22/13 18:45				U	mg/L		-1.5	1.5			
WG342627													
WG342627LFB1	LFB	04/25/13 9:47	WI121018-8	30		31.52	mg/L	105.1	90	110			
L11560-01DUP	DUP	04/25/13 10:57			17.92	17.83	mg/L				0.5	20	
L11560-02AS	AS	04/25/13 11:32	WI121018-8	1500	873.7	2519.9	mg/L	109.7	90	110			
L11560-09DUP	DUP	04/25/13 14:28			32.94	32.88	mg/L				0.2	20	
L11560-10AS	AS	04/25/13 15:03	WI121018-8	30	33.31	63.01	mg/L	99	90	110			
WG342627LFB2	LFB	04/25/13 18:15	WI121018-8	30		31.23	mg/L	104.1	90	110			
WG342832													
L11397-01DUP	DUP	04/29/13 17:34			301.5	313.7	mg/L				4	20	
WG342832LFB1	LFB	05/01/13 12:26	WI130501-1	30		30.37	mg/L	101.2	90	110			
WG342832LFB2	LFB	05/01/13 12:43	WI130501-1	30		30.51	mg/L	101.7	90	110			
L11560-04AS	AS	05/01/13 17:23	WI130501-1	300	455.7	861.2	mg/L	135.2	90	110			M1



2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Extended Qualifier Report

ACZ ID	WORKNUM	PARAMETER	METHOD	QUA	_ DESCRIPTION
L11560-04	WG342832	Sulfate	M300.0 - Ion Chromatography	M1	Matrix spike recovery was high, the recovery of the associated control sample (LCS or LFB) was acceptable.



ACZ Project ID: L11560

No certification qualifiers associated with this analysis

ACZ Laboratories, Inc. 2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493	Sample Receipt					
FMI Gold & Copper - Sierrita ZS000003Q8	ACZ Proje Date Rec Receive	eived: 0	4/12/20 ⁻	L11560 13 09:20 ksj		
Receipt Verification	Date Pr		4/	/12/2013		
1) Is a foreign soil permit included for applicable samples?		YES	NO	NA X		
2) Is the Chain of Custody or other directive shipping papers present?		X		~		
3) Does this project require special handling procedures such as CLP protocol?				Х		
4) Are any samples NRC licensable material?				Х		
			1	1		

- 5) If samples are received past hold time, proceed with requested short hold time analyses?
- 6) Is the Chain of Custody complete and accurate?

The 'sampled by' field on the Chain of Custody was not completed.

7) Were any changes made to the Chain of Custody prior to ACZ receiving the samples?

Samples/Containers

	YES	NO	NA
8) Are all containers intact and with no leaks?	Х		
9) Are all labels on containers and are they intact and legible?	Х		
10) Do the sample labels and Chain of Custody match for Sample ID, Date, and Time?	Х		
11) For preserved bottle types, was the pH checked and within limits?			Х
12) Is there sufficient sample volume to perform all requested work?	Х		
13) Is the custody seal intact on all containers?			Х
14) Are samples that require zero headspace acceptable?			Х
15) Are all sample containers appropriate for analytical requirements?	Х		
16) Is there an Hg-1631 trip blank present?			Х
17) Is there a VOA trip blank present?			Х
18) Were all samples received within hold time?	Х		

Chain of Custody Related Remarks

Client Contact Remarks

Shipping Containers

Cooler Id	Temp (°C)	Rad ($\mu R/Hr$)	Custody Seal Intact?
3869	3.8	11	Yes

Client must contact an ACZ Project Manager if analysis should not proceed for samples received outside of their thermal preservation acceptance criteria.

Х

Х

Х

FCUSTODY

Name: Address: 6200 W. Duval Minc Road Company: Freeport-McMoRan Sierrita Inc. E-mail: Green Valley, AZ 85614 Telephone: 520-648-8844 Company: Clear Creek Associates Invoice to: E-mail: Name: E-mail: Company: Clear Creek Associates Invoice to: E-mail: Name: Address: Company: Clear Creek Associates Telephone: 520-622-3222 Invoice to: Address: Name: Company: Company: E-mail: If sample(s) received past holding time (HT), or if insufficient HT remains to complete analysis before expiration, shall ACZ proceed with the quested short HT analyses? If "No" then ACZ will conceed with the requested analyses, even if HT is expired, and data will be qualified. Are asyneles for CO DW Compliance Monitoring? If yes, please include state forms. Reporting state for compliance testing: Sampler's Name: Are any samples NRC licensable material? Yes No SAMPLE IDENTIFICATION DATICTINI MO-2007-1A 4/8/2013; 1200 MO-2007-1B	ACZ Lab	oratories, Inc. Springs, CO 80487 (800),334	-5493				C	HAIN)						
Name: Green Valley, AZ 85614 E-mail; jonathan_anderson@fmi.com Telephone: 520-648-8844 Ski y rd-Rosor 10 E-mail: bdaigneau@clearcreekassociates Company: Clear Creek Associates Telephone: 520-622-3222 Invoice 16 Address: Name: Address: Company: Telephone: 520-622-3222 Invoice 16 Address: Name: Address: Company: Telephone: 520-622-3222 Invoice 16 Address: Name: Address: Company: Telephone: E-mail: Telephone: If sample(s) received past holding time (HT), or if insufficient HT remains to complete analyses? in 'NO' then ACZ will contact client for further instruction. If neither "YES" nor "NO" is indicated, ACZ will proceed with the requested analyses, even if HT is expired, and data will be qualified. Are samples for CO DW Compliance Monitoring? If yes, please include state forms. Results will be reported to PQL. PROJECT INI ORMATION AvAI YSESTRI OUESTED adhere the generation of the															
Company: Telephone: 520-648-8844 E-mail: jointhan_anderson@fmi.com Telephone: 520-648-8844 Name: E-mail: bdaigneau@clearcreekassociates Company: Clear Creek Associates Telephone: 520-622-3222 Name: Address: Telephone: 520-622-3222 Company: E-mail: Address: Telephone: Telephone: E-mail: Telephone: 520-622-3222 Telephone: Telephon	ame: Jon Anderson		4 4	Addres	s: 6200 V	V. Duval	Mine R	oad							
Image:	Company: Freeport-McMol	Ran Sierrita Inc.	1 L					4							
Name: E-mail: bdaigneau@clearcreekassociates Invorceto: Telephone: 520-622-3222 Invorceto: Address:	E-mail: jonathan_anderson@)fmi.com) Ľ	Teleph	one: 520	-648-884	4		_						
Name: E-mail: bdaigneau@clearcreckassociates Ityracc t6: Telephone: 520-622-3222 Name: Address:	by y of Report to														
Company: Clear Creek Associates Telephone: 520-622-3222 Name: Address: Company: Telephone: E-mail: Telephone: If sample(s) received past holding time (HT), or if insufficient HT remains to complete analysis before expiration, shall ACZ proceed with requested short HT analyses? If "NO" then ACZ will contact client for further instruction. If neither "YES" nor "NO" Is incleated, ACZ will contact client for further instruction. If neither "YES" nor "NO" Is incleated, ACZ will contact client for further instruction? If yes, please include state forms. Results will be reported to PQL. PROJLCT INI ORMA HON Quote #: Project/PO #: ZS000003Q8 Reporting state for compliance testing: Sampler's Name: Are any samples NRC licensable material? Yes No SAMPLE IDENTIFICATION DATENTINE MO-2007-1A 4/8/2013; 1200 MO-2007-1B 4/8/2013; 1258 MO-2007-2 4/8/2013; 1246 MO-2007-3B 4/9/2013; 1419 MO-2007-6A 4/9/2013; 1541 MO-2007-6B 4/9/2013 MO-2007-6B 4/9/2013 MO-2007-6B 4/9/2013 MO-2007-6B 4/9/2013 <td></td> <td></td> <td></td> <td>E-mail:</td> <td>bdaigne</td> <td>au@clear</td> <td>creekas</td> <td>sociates.</td> <td>cot</td>				E-mail:	bdaigne	au@clear	creekas	sociates.	cot						
Invatic 16: Address: Name:	the second se	ociates] [T <u>eleph</u>	ione: 520	-622- <u>3</u> 22	2								
Name: Address: Company: Telephone: E-mail: Telephone: If sample(s) received past holding time (HT), or if insufficient HT remains to complete analysis before expiration, shall ACZ proceed with requested short HT analyses? If "NO" then ACZ will contact client for further instruction. If neither "YES" nor "NO" is indicated, ACZ will proceed with the requested analyses, even if HT is expired, and data will be qualified. Are samples for CO DW Compliance Monitoring? If yes, please include state forms. Results will be reported to PQL. PROjLCT INL ORMA HON Quote #: Project/PO #: ZS000003Q8 Reporting state for compliance testing: Sampler's Name: Are any samples NRC licensable material? Yes No MO-2007-1A 4/8/2013; 1200 MO-2007-1B 4/8/2013; 1200 MO-2007-2 4/8/2013; 1258 MO-2007-3B 4/9/2013; 1246 MO-2007-3B 4/9/2013; 1246 MO-2007-6A 4/9/2013; 1419 MO-2007-6B 4/9/2013 MO-2007-6B 4/9/2013 MO-2007-6B 4/9/2013 MO-2007-6B 4/9/2013								i.							
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Matrix SW (Surface Water) · GW (Ground Water) · WW (Waste Water) · DW (Drinking Water) · SL (Sludge) · SO (Soil) · OL (Oil REMARKS	Matrix SW (Surface Water) · GW (Ground Water) · WW (Wast	e Water) · D	W (Drink	ung Water)	SL (Sludge)	· SU (SOI								

	conditions located on the reverse side of this COC.
Diagon refer to AC7's terms &	conditions located on the reverse side of this COC.
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Jeff Joy	4/11/13;1500		
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		- WW. 1213	Tito

FRMAD050.01.15.09

Yellow - Retain for your records. White - Return with sample.

611560

CHAIN of CUSTCOT

ACZ	Laboratories,	Inc.
773 Downhill Drive	Steamboat Springs, CO 80487	(800) 334-5493

Region to					_							
Name: Jon Anderson			Addres	s: 620) W. D	uval N	line R	oad				\dashv
Company: Freeport-McMoRan	Sierrita Inc.				en Va <u>ll</u>			4			<u> </u>	-
E-mail: jonathan_anderson@fmi			Teleph	one: 5	20-393	-2714						
Copy of Report to												
Name: Ben Daigneau								sociates	s.com			
Company: Clear Creek Associat	ies		Teleph	ione: 5	20-622	2-3222			<u> </u>			
Invoice to:												
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If sample(s) received past holding	time (HT), or if insufficien	it HT rer	nains to	compl	ete				YES			
analysis before expiration, shall A	CZ proceed with requeste	d short	HT anal	yses?					NO			
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				21100,0					YES	T		-
Are samples for CO DW Complian If yes, please include state forms.		o POI							NO	×		
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Project/PO #: ZS000003Q8		1	ers	EPA 375								
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MO-2007-4A	4/10/2013 ; 1247	GW	1	×								
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Matrix SW (Surface Water) · GW	(Ground Water) WW (Waste	Water) · C	W (Drink	ing Wate	r) · SL (S	ludge)	SO (Soil) · OL (Oi	i) Other	(Specify)	
REMARKS												
Copy of report to Ben Daigne	au contains only "SO4"	results	with Q	C Sum	mary.							
UPS Tracking # 1Z 867 7E4 2	23 1001 090 6											
Plea	se refer to ACZ's terms &	condit	ions loc					i this CC	DC.		<u>انى بىن بى</u>	
RELINQUISHED BY	DATH.	HMi			RECEI	VED F	Y:			[7A]	L. [^b ."	
Jeff Joy	4/11/2013	; 1500							1			
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FRMAD050.01.15.09

White - Return with sample. Yellow - Retain for your records.



Analytical Report

May 02, 2013

Report to: Jon Anderson FMI Gold & Copper - Sierrita 6200 West Duval Mine Rd. Green Valley, AZ 85614

cc: Ben Daigneau

Bill to: Accounts Payable FMI Gold & Copper - Sierrita P.O. Box 2671 Phoenix, AZ 85002-2671

Project ID: ZS000003Q8 ACZ Project ID: L11669

Jon Anderson:

Enclosed are the analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on April 19, 2013. This project has been assigned to ACZ's project number, L11669. Please reference this number in all future inquiries.

All analyses were performed according to ACZ's Quality Assurance Plan. The enclosed results relate only to the samples received under L11669. Each section of this report has been reviewed and approved by the appropriate Laboratory Supervisor, or a qualified substitute.

Except as noted, the test results for the methods and parameters listed on ACZ's current NELAC certificate letter (#ACZ) meet all requirements of NELAC.

This report shall be used or copied only in its entirety. ACZ is not responsible for the consequences arising from the use of a partial report.

All samples and sub-samples associated with this project will be disposed of after June 01, 2013. If the samples are determined to be hazardous, additional charges apply for disposal (typically \$11/sample). If you would like the samples to be held longer than ACZ's stated policy or to be returned, please contact your Project Manager or Customer Service Representative for further details and associated costs. ACZ retains analytical raw data reports for ten years.

If you have any questions or other needs, please contact your Project Manager.

S. Habermehl

Scott Habermehl has reviewed and approved this report.





ACZ	Laboratorie	s, Inc.
	Steamboat Springs, CO	•

Project ID:	ZS000003Q8
Sample ID:	M-10

ACZ Sample ID: L11669-01 Date Sampled: 04/17/13 13:08 Date Received: 04/19/13 Sample Matrix: Ground Water

Wet Chemistry									
Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Sulfate	M300.0 - Ion Chromatography	170.32		*	mg/L	2.5	12.5	05/01/13 13:01	lhb

ACZ	Laboratories, Inc.
	Steamboat Springs, CO 80487 (800) 334-5493

Project ID:	ZS000003Q8
Sample ID:	M-8

ACZ Sample ID: L11669-02 Date Sampled: 04/17/13 15:26 Date Received: 04/19/13 Sample Matrix: Ground Water

Wet Chemistry									
Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Sulfate	M300.0 - Ion Chromatography	138.89		*	mg/L	1	5	05/01/13 13:18	B lhb



Inorganic Reference

Batch	Explanations		
Found	A distinct set of samples analyzed at a specific time		
Found	Value of the QC Type of interest		
Limit	Upper limit for RPD, in %.		
Lower	Lower Recovery Limit, in % (except for LCSS, mg/Kg)	All	
MDL	Method Detection Limit. Same as Minimum Reporting Limit.		
PCN/SCN	A number assigned to reagents/standards to trace to the man	iutacturer's certifica	ate of analysis
PQL	Practical Quantitation Limit, typically 5 times the MDL.	0.1	
QC	True Value of the Control Sample or the amount added to the	•	
Rec	Recovered amount of the true value or spike added, in % (exc		/Kg)
RPD	Relative Percent Difference, calculation used for Duplicate QC	JTypes	
Upper Sample	Upper Recovery Limit, in % (except for LCSS, mg/Kg) Value of the Sample of interest		
	·		
C Sample Typ		1.0014/0	Laboratory Control Compley Water Durlingt
AS	Analytical Spike (Post Digestion)	LCSWD	Laboratory Control Sample - Water Duplicate
ASD	Analytical Spike (Post Digestion) Duplicate	LFB	Laboratory Fortified Blank
CCB	Continuing Calibration Blank	LFM	Laboratory Fortified Matrix
CCV	Continuing Calibration Verification standard	LFMD	Laboratory Fortified Matrix Duplicate
DUP	Sample Duplicate	LRB	Laboratory Reagent Blank
ICB	Initial Calibration Blank	MS	Matrix Spike
ICV	Initial Calibration Verification standard	MSD	Matrix Spike Duplicate
ICSAB	Inter-element Correction Standard - A plus B solutions	PBS	Prep Blank - Soil
LCSS	Laboratory Control Sample - Soil	PBW	Prep Blank - Water
LCSSD LCSW	Laboratory Control Sample - Soil Duplicate Laboratory Control Sample - Water	PQV SDL	Practical Quantitation Verification standard Serial Dilution
Duplicates Spikes/Forti	fied Matrix Determines sample matrix interferen		
Standard	Verifies the validity of the calibration.		
Z Qualifiers	(Qual)		
В	Analyte concentration detected at a value between MDL and	PQL. The associat	
			ed value is an estimated quantity.
Н	Analysis exceeded method hold time. pH is a field test with a	n immediate hold t	
H L	Analysis exceeded method hold time. pH is a field test with an Target analyte response was below the laboratory defined neg		
		gative threshold.	ime.
L	Target analyte response was below the laboratory defined new	gative threshold. ne level of the asso	ime. iciated value.
L	Target analyte response was below the laboratory defined neg The material was analyzed for, but was not detected above th The associated value is either the sample quantitation limit or	gative threshold. ne level of the asso	ime. iciated value.
L U	Target analyte response was below the laboratory defined neg The material was analyzed for, but was not detected above th The associated value is either the sample quantitation limit or	gative threshold. he level of the asso the sample detect	ime. iciated value. ion limit.
L U ethod Referer	Target analyte response was below the laboratory defined neg The material was analyzed for, but was not detected above th The associated value is either the sample quantitation limit or nces	gative threshold. he level of the asso the sample detect and Wastes, Marc	ime. iciated value. ion limit. h 1983.
L U ethod Referen (1)	Target analyte response was below the laboratory defined neg The material was analyzed for, but was not detected above th The associated value is either the sample quantitation limit or nces EPA 600/4-83-020. Methods for Chemical Analysis of Water	gative threshold. he level of the asso the sample detect and Wastes, Marc nic Substances in I	ime. iciated value. ion limit. h 1983. Environmental Samples, August 1993.
L U ethod Referer (1) (2)	Target analyte response was below the laboratory defined new The material was analyzed for, but was not detected above the The associated value is either the sample quantitation limit or nces EPA 600/4-83-020. Methods for Chemical Analysis of Water EPA 600/R-93-100. Methods for the Determination of Inorgan	gative threshold. he level of the asso the sample detect and Wastes, Marc nic Substances in I	ime. iciated value. ion limit. h 1983. Environmental Samples, August 1993.
L U ethod Referen (1) (2) (3)	Target analyte response was below the laboratory defined new The material was analyzed for, but was not detected above the The associated value is either the sample quantitation limit or nces EPA 600/4-83-020. Methods for Chemical Analysis of Water EPA 600/R-93-100. Methods for the Determination of Inorgan EPA 600/R-94-111. Methods for the Determination of Metals	gative threshold. the level of the asso the sample detect and Wastes, Marc nic Substances in I in Environmental S	ime. iciated value. ion limit. h 1983. Environmental Samples, August 1993.
L U ethod Referen (1) (2) (3) (4)	Target analyte response was below the laboratory defined neg The material was analyzed for, but was not detected above the The associated value is either the sample quantitation limit or nces EPA 600/4-83-020. Methods for Chemical Analysis of Water EPA 600/R-93-100. Methods for the Determination of Inorgan EPA 600/R-94-111. Methods for the Determination of Metals EPA SW-846. Test Methods for Evaluating Solid Waste.	gative threshold. the level of the asso the sample detect and Wastes, Marc nic Substances in I in Environmental S	ime. iciated value. ion limit. h 1983. Environmental Samples, August 1993.
L U ethod Referen (1) (2) (3) (4) (5)	Target analyte response was below the laboratory defined neg The material was analyzed for, but was not detected above the The associated value is either the sample quantitation limit or nces EPA 600/4-83-020. Methods for Chemical Analysis of Water EPA 600/R-93-100. Methods for the Determination of Inorgan EPA 600/R-94-111. Methods for the Determination of Metals EPA SW-846. Test Methods for Evaluating Solid Waste.	gative threshold. the level of the asso the sample detect and Wastes, Marc nic Substances in I in Environmental s ater.	ime. iciated value. ion limit. h 1983. Environmental Samples, August 1993. Samples - Supplement I, May 1994.
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L U ethod Referent (1) (2) (3) (4) (5) omments (1) (2)	Target analyte response was below the laboratory defined near The material was analyzed for, but was not detected above the The associated value is either the sample quantitation limit or nces EPA 600/4-83-020. Methods for Chemical Analysis of Water EPA 600/R-93-100. Methods for the Determination of Inorgan EPA 600/R-94-111. Methods for the Determination of Metals EPA SW-846. Test Methods for Evaluating Solid Waste. Standard Methods for the Examination of Water and Wastewar QC results calculated from raw data. Results may vary slight Soil, Sludge, and Plant matrices for Inorganic analyses are results	gative threshold. the level of the asso the sample detect and Wastes, Marc nic Substances in I in Environmental S ater. ly if the rounded va ported on a dry we s received" basis.	ime. ciated value. ion limit. h 1983. Environmental Samples, August 1993. Samples - Supplement I, May 1994. slues are used in the calculations. sight basis.
L U ethod Referent (1) (2) (3) (4) (5) 0 mments (1) (2) (3)	Target analyte response was below the laboratory defined near The material was analyzed for, but was not detected above the The associated value is either the sample quantitation limit or nces EPA 600/4-83-020. Methods for Chemical Analysis of Water EPA 600/R-93-100. Methods for the Determination of Inorgan EPA 600/R-94-111. Methods for the Determination of Metals EPA SW-846. Test Methods for Evaluating Solid Waste. Standard Methods for the Examination of Water and Wastewar QC results calculated from raw data. Results may vary slight! Soil, Sludge, and Plant matrices for Inorganic analyses are reported on an "as	gative threshold. the level of the asso the sample detect and Wastes, Marc nic Substances in I in Environmental S ater. ly if the rounded va ported on a dry we s received" basis.	ime. ciated value. ion limit. h 1983. Environmental Samples, August 1993. Samples - Supplement I, May 1994. slues are used in the calculations. sight basis.
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REP001.09.12.01

Sulfate													
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG342446													
WG342446ICV	ICV	04/22/13 18:27	WI130315-7	50		49.27	mg/L	98.5	90	110			
WG342446ICB	ICB	04/22/13 18:45				U	mg/L		-1.5	1.5			
WG342832													
L11397-01DUP	DUP	04/29/13 17:34			301.5	313.7	mg/L				4	20	
WG342832LFB1	LFB	05/01/13 12:26	WI130501-1	30		30.37	mg/L	101.2	90	110			
WG342832LFB2	LFB	05/01/13 12:43	WI130501-1	30		30.51	mg/L	101.7	90	110			
L11560-04AS	AS	05/01/13 17:23	WI130501-1	300	455.7	861.2	mg/L	135.2	90	110			Ν



(800) 334-5493

Inorganic Extended Qualifier Report

FMI Gold & Copper - Sierrita

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L11669-01	WG342832	Sulfate	M300.0 - Ion Chromatography	M1	Matrix spike recovery was high, the recovery of the associated control sample (LCS or LFB) was acceptable.
L11669-02	WG342832	Sulfate	M300.0 - Ion Chromatography	M1	Matrix spike recovery was high, the recovery of the associated control sample (LCS or LFB) was acceptable.



ACZ Project ID: L11669

No certification qualifiers associated with this analysis

4 **AGZ** Laboratories, Inc. 2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Sample Receipt

FMI Gold & Copper - Sierrita	ACZ Proje	ect ID:		L11669
ZS00003Q8	Date Rec		4/19/201	3 09:54
	Receive Data Di	-	4/	ksj
Receipt Verification	Date Pi	intea:	4/	19/2013
		YES	NO	NA
1) Is a foreign soil permit included for applicable samples?				Х
2) Is the Chain of Custody or other directive shipping papers present?		Х		
3) Does this project require special handling procedures such as CLP protocol?				Х
4) Are any samples NRC licensable material?				Х
5) If samples are received past hold time, proceed with requested short hold time	ne analyses?	Х		
6) Is the Chain of Custody complete and accurate?		Х		
7) Were any changes made to the Chain of Custody prior to ACZ receiving the	samples?		Х	
Samples/Containers				
		YES	NO	NA
8) Are all containers intact and with no leaks?		Х		
9) Are all labels on containers and are they intact and legible?		Х		
10) Do the sample labels and Chain of Custody match for Sample ID, Date, and	I Time?	Х		
11) For preserved bottle types, was the pH checked and within limits?				Х
12) Is there sufficient sample volume to perform all requested work?		Х		
13) Is the custody seal intact on all containers?				Х
14) Are samples that require zero headspace acceptable?				Х
15) Are all sample containers appropriate for analytical requirements?		Х		
16) Is there an Hg-1631 trip blank present?				Х
17) Is there a VOA trip blank present?				Х
18) Were all samples received within hold time?		Х		
Chain of Custody Related Remarks				
Client Contact Remarks				
Shipping Containers				
	stody Seal In			
3805 2.1 11 Yes				

Client must contact an ACZ Project Manager if analysis should not proceed for samples received

Name: Jonathan Anderso											
	n		Addres	ss: 620	<u>0 W. I</u>	Duval N	line R	load			
Company: Freeport-McM	loRan Sierrita Inc.					ley, Až		.4			
E-mail: jonathan_anderso	n@fmi.com		Teleph	ione: 5	20-39	3-27 <u>14</u>				<u> </u>	
Cop. of Report to											
Name: Ben Daigneau			E-mail	: bdaig	neau@	clearc	reekas	sociate	es.com		
Company: Clear Creek A	ssociates		Teleph	none: 5	20-62	2-3222					
hive de fot											
Name:	······································		Addres	SS:							
Company:											
E-mail:			Telept	none:							
If sample(s) received past I	nolding time (HT), or if insuffic	ient HT rer	nains to	compl	ete				YES		
analysis before expiration,	shall ACZ proceed with reque	sted short	HT anal	yses?	0 "				NO	Li	
If "NO" then ACZ will conta is indicated ACZ will proce	act client for further instruction sed with the requested analyse). If neithe es.even if	r 165 HT is ex	nor N pired.a	und dat	a wili be	e qualif	ied.			
Are samples for CO DW Co									YES		
	forms. Results will be reported	ed to PQL.	-					-	NO	×	
PROJECT INFORMATIC	N			ANA. Y	'SES R	FOUES	нра —	ttach lis	stor os	e que des	0.020
Quote #:				1375							
Project/PO #: ZS000003	Q8		Jers	EPA					1		
Reporting state for compl		Containers	80 or								
Sampler's Name: Jeff Joy		Ī	EPA 300								
	ensable material? Yes No		to to	SO4 by E							
SAMPLE IDENTIFICA		Matux		So							
M-10	4/17/13 : 1308	GW	1	×							
M-8	4/17/13 : 1526	GW	1	×							
				T							
				Γ							
						Ι					
					1	Γ					
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FRMAD050.01.15.09



Jon Anderson FMI Gold & Copper - Sierrita P.O. Box 527 6200 West Duval Mine Road Green Valley, AZ 85622-0527

Cc: Ben Daigneau

Project ID: ZS000003Q8 ACZ Project ID: L11670– SULFATE ONLY

Jon Anderson:

Enclosed are analytical reports for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on April 19, 2013. This project was assigned to ACZ's project number, **L11670**. Please reference this number in all future inquiries.

At the request of Phelps Dodge Sierrita, Inc. (PDSI), this laboratory report has been prepared to contain only information specific to samples and analytes identified by PDSI as evaluated pursuant to Mitigation Order No. P-500-06 with Arizona Department of Environmental Quality. Samples and analytes unrelated to the Mitigation Order, but which may be identified on the chain of custody and sample receipt, have been reported to PDSI in a separate report.

All analyses were performed according to ACZ's Quality Assurance Plan. The enclosed results relate only to the samples received under **L11670**. Each section of this report has been reviewed and approved by the appropriate Laboratory Supervisor, or a qualified substitute. Except as noted, the test results for the methods and parameters listed on ACZ's current NELAC certificate letter (#ACZ) meet all the requirements of NELAC.

This report should be used or copied only in its entirety. ACZ is not responsible for the consequences arising from the use of a partial report.

ACZ disposes of samples and sub-samples thirty days after the analytical results are reported to the client. That time frame has elapsed for this project. If the samples are determined to be hazardous, additional charges apply for disposal (typically less than \$10/sample). If you would like the samples to be held longer than ACZ's stated policy or to be returned, please contact your Project Manager or Customer Service Representative for further details and associated costs. ACZ retains analytical reports for five years. Please notify your Project Manager if you have other needs. If you have any questions, please contact your Project Manager or Customer Service Representative.

S. Habermehl

Scott Habermehl has reviewed and approved this report.



REPAD.01.11.00.01



June 5, 2013



	Laboratorie ve Steamboat Springs, CO		4-5493			Ino		iic Anal <u>y</u> Results	ytical
FMI Gold & Co	opper - Sierrita				ACZ S	ample II	D: L1	1670-01	
Project ID:	ZS000003Q8				Date	Sample	d: 04,	/15/13 08:5	0
Sample ID:	IW-1				Date	Receive	d: 04/	/19/13	
					Sam	ole Matri	k: Gr	ound Water	-
Wet Chemistry									
Parameter	EPA Method	Dilution	Result	Qual XQ	Units	MDL	PQL	Date	Analyst

mg/L

50

300

04/25/13 14:44

lhb

Arizona license number: AZ0102

D516-02 - Turbidimetric

50

Sulfate

	Laboratorie Ve Steamboat Springs, CO		4-5493			Ino		ic Anal esults	ytical
FMI Gold & Co	opper - Sierrita				ACZ S	ample ID	: L11	670-02	
Project ID:	ZS000003Q8				Date	Sampled	: 04/	15/13 09:1	2
Sample ID:	IW-2A				Date	Received	: 04/	19/13	
					Sam	ole Matrix	: Gro	ound Wate	r
Wet Chemistry									
Parameter	EPA Method	Dilution	Result	Qual XQ	Units	MDL	PQL	Date	Analyst

mg/L

30

5

04/25/13 14:43

Arizona license number: AZ0102

D516-02 - Turbidimetric

5

Sulfate

lhb

	Laboratorie		34-5493			Inc		iic Anal Results	ytical
FMI Gold & C	opper - Sierrita				ACZ	Sample II	D: L1	1670-03	
Project ID:	ZS000003Q8				Dat	e Sample	d: 04/	/15/13 09:2	22
Sample ID:	IW-25				Date	e Receive	d: 04/	/19/13	
					Sar	nple Matri	x: Gr	ound Wate	r
Wet Chemistry									
Parameter	EPA Method	Dilution	Result	Qual XQ	Units	MDL	PQL	Date	Analyst

mg/L

20

100

04/25/13 14:53

lhb

Arizona license number: AZ0102

D516-02 - Turbidimetric

20

Sulfate

ACZ 2773 Downhill Driv	Laboratorie	es, Inc. 80487 (800) 334	4-5493			In	orga	inic Anal Results	ytical
FMI Gold & Co	opper - Sierrita				A	CZ Sample	ID: L	.11670-04	
Project ID:	ZS000003Q8				I	Date Sampl	led: (04/15/13 09:4	3
Sample ID:	IW-9				[Date Receiv	ed: C)4/19/13	
						Sample Mat	trix: (Ground Wate	r
Wet Chemistry									
Parameter	EPA Method	Dilution	Result	Qual X	Q Units	s MDL	PQL	Date	Analyst

mg/L

80

400

04/25/13 14:55

lhb

Arizona license number: AZ0102

Sulfate

D516-02 - Turbidimetric

75

	Laboratorie e Steamboat Springs, CO		4-5493				In		nic Anal Results	ytical
FMI Gold & Co	opper - Sierrita					ACZ	Sample	ID: <i>L</i>	11670-05	
Project ID:	ZS000003Q8					Dat	e Sample	ed: 04	4/15/13 09:5	2
Sample ID:	IW-26					Date	Receiv	ed: 04	4/19/13	
						San	nple Mat	rix: G	Fround Wate	r
Wet Chemistry										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst

mg/L

100

500

1700

Arizona license number: AZ0102

D516-02 - Turbidimetric

100

Sulfate

04/25/13 14:45

lhb

	Laboratorie Ve Steamboat Springs, CO		4-5493			Inor		ic Anal esults	ytical
FMI Gold & Co	opper - Sierrita				ACZ Sa	mple ID:	L11	670-06	
Project ID:	ZS000003Q8				Date S	ampled:	04/1	15/13 10:0	0
Sample ID:	IW-4				Date R	eceived	04/1	19/13	
					Sample	e Matrix:	Gro	und Water	~
Wet Chemistry									
Parameter	EPA Method	Dilution	Result	Qual XQ	Units I	MDL P	PQL	Date	Analyst

mg/L

100

500

04/25/13 14:45

lhb

1800

100

Arizona license number: AZ0102

D516-02 - Turbidimetric

Sulfate

	Laboratories, Inc. e Steamboat Springs, CO 80487 (800) 334-5493	Ir	norganic Analyt Results
FMI Gold & Co Project ID: Sample ID:	opper - Sierrita ZS000003Q8 IW-24	Date Samp Date Recei	e ID: L11670-07 pled: 04/15/13 10:10 ived: 04/19/13 atrix: <i>Ground Water</i>

Wet Chemistry Parameter EPA Method Dilution Result Qual XQ Units MDL PQL Date Analyst Sulfate D516-02 - Turbidimetric 100 1900 mg/L 100 500 04/25/13 14:45 lhb

Arizona license number: AZ0102

REPIN.02.06.05.01

ACZ 2773 Downhill Driv	Laboratorie ve Steamboat Springs, CO	s, Inc. 80487 (800) 33	4-5493			Ino		ic Anal esults	ytical
FMI Gold & Co	opper - Sierrita				ACZ S	Sample II	D: L1 :	1670-08	
Project ID:	ZS000003Q8				Date	Sample	d: 04/	15/13 10:1	17
Sample ID:	IW-5A				Date	Received	d: 04/	19/13	
					Sam	ple Matri	x: Gro	ound Wate	r
Wet Chemistry									
Parameter	EPA Method	Dilution	Result	Qual XQ	Units	MDL	PQL	Date	Analyst

mg/L

80

400

04/25/13 14:55

lhb

1760

75

Arizona license number: AZ0102

D516-02 - Turbidimetric

Sulfate

AGZ Laboratories, Inc. 2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493							Ino	Inorganic Analyt Results			
FMI Gold & Co	opper - Sierrita					ACZ	Sample ID): L1	1670-09		
Project ID:	ZS000003Q8					Dat	e Sampled	l: <i>04,</i>	/15/13 10:26		
Sample ID:	IW-23					Dat	e Received	l: 04,	/19/13		
						Sar	nple Matrix	: Gr	ound Water		
Wet Chemistry											
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	2	

mg/L

80

400

75

Arizona license number: AZ0102

D516-02 - Turbidimetric

Sulfate

tical

04/25/13 14:55

Analyst

lhb

ACZ Laboratories, Inc. 2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493	Inor
FMI Gold & Copper - Sierrita	ACZ Sample ID
Project ID: ZS000003Q8	Date Sampled
Sample ID: IW-10	Date Received

ACZ Sample ID:	L11670-10
Date Sampled:	04/15/13 10:44
Date Received:	04/19/13
Sample Matrix:	Ground Water

Wet Chemistry									
Parameter	EPA Method	Dilution	Result	Qual XQ	Units	MDL	PQL	Date	Analyst
Sulfate	D516-02 - Turbidimetric	75	1740		mg/L	80	400	04/25/13 14:55	5 lhb

ACZ	Laboratories, Inc.
2773 Downhill Drive	Steamboat Springs, CO 80487 (800) 334-5493

Project ID:	ZS000003Q8
Sample ID:	IW-28

ACZ Sample ID: L11670-11 Date Sampled: 04/15/13 10:52 Date Received: 04/19/13 Sample Matrix: Ground Water

Wet Chemistry										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Sulfate	D516-02 - Turbidimetric	75	1720		*	mg/L	80	400	04/25/13 14:57	7 lhb

ACZ	Laboratories, Inc.
2773 Downhill Drive	Steamboat Springs, CO 80487 (800) 334-5493

Project ID:	ZS000003Q8
Sample ID:	IW-22

ACZ Sample ID: L11670-12 Date Sampled: 04/15/13 11:00 Date Received: 04/19/13 Sample Matrix: Ground Water

Wet Chemistry										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Sulfate	D516-02 - Turbidimetric	75	1810		*	mg/L	80	400	04/25/13 14:57	7 lhb

ACZ	Laboratories, Inc.
2773 Downhill Drive	Steamboat Springs, CO 80487 (800) 334-5493

Project ID:	ZS000003Q8
Sample ID:	IW-11

ACZ Sample ID: L11670-13 Date Sampled: 04/15/13 12:47 Date Received: 04/19/13 Sample Matrix: Ground Water

Wet Chemistry										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Sulfate	D516-02 - Turbidimetric	75	1730		*	mg/L	80	400	04/25/13 14:59) lhb

ACZ	Laboratories, Inc.
2773 Downhill Drive	Steamboat Springs, CO 80487 (800) 334-5493

Project ID:	ZS000003Q8
Sample ID:	IW-6A

ACZ Sample ID: L11670-14 Date Sampled: 04/15/13 12:55 Date Received: 04/19/13 Sample Matrix: Ground Water

Wet Chemistry										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Sulfate	D516-02 - Turbidimetric	75	1840		*	mg/L	80	400	04/25/13 14:59) lhb

ACZ	Laboratories, Inc.
2773 Downhill Drive	Steamboat Springs, CO 80487 (800) 334-5493

Project ID:	ZS000003Q8
Sample ID:	IW-13

ACZ Sample ID: L11670-15 Date Sampled: 04/15/13 13:09 Date Received: 04/19/13 Sample Matrix: Ground Water

Wet Chemistry										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Sulfate	D516-02 - Turbidimetric	75	1760		*	mg/L	80	400	04/25/13 14:59	9 lhb

ACZ	Laboratories, Inc.
	Steamboat Springs, CO 80487 (800) 334-5493

Project ID:	ZS000003Q8
Sample ID:	IW-14

ACZ Sample ID: L11670-16 Date Sampled: 04/15/13 13:20 Date Received: 04/19/13 Sample Matrix: Ground Water

Wet Chemistry										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Sulfate	D516-02 - Turbidimetric	75	1870		*	mg/L	80	400	04/25/13 15:00) lhb

ACZ	Laboratories, Inc.
2773 Downhill Drive	Steamboat Springs, CO 80487 (800) 334-5493

Project ID:	ZS000003Q8
Sample ID:	IW-21

ACZ Sample ID: L11670-17 Date Sampled: 04/15/13 13:50 Date Received: 04/19/13 Sample Matrix: Ground Water

Wet Chemistry										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Sulfate	D516-02 - Turbidimetric	75	1690		*	mg/L	80	400	04/25/13 15:00) lhb

ACZ	Laboratories, Inc.
2773 Downhill Drive	Steamboat Springs, CO 80487 (800) 334-5493

Project ID:	ZS000003Q8
Sample ID:	DUP20130415A

ACZ Sample ID: L11670-18 Date Sampled: 04/15/13 00:00 Date Received: 04/19/13 Sample Matrix: Ground Water

Wet Chemistry										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Sulfate	D516-02 - Turbidimetric	75	1740		*	mg/L	80	400	04/25/13 15:00) lhb



Inorganic Reference

Patch	A distinct set of samples analyzed at a specific time		
Batch	A distinct set of samples analyzed at a specific time		
Found	Value of the QC Type of interest		
Limit	Upper limit for RPD, in %.		
Lower	Lower Recovery Limit, in % (except for LCSS, mg/Kg)		
MDL	Method Detection Limit. Same as Minimum Reporting Limit.		
PCN/SCN	A number assigned to reagents/standards to trace to the man	utacturer's certific	ate of analysis
PQL	Practical Quantitation Limit, typically 5 times the MDL.		
QC	True Value of the Control Sample or the amount added to the	•	
Rec	Recovered amount of the true value or spike added, in % (exc		/Kg)
RPD	Relative Percent Difference, calculation used for Duplicate QC	, Types	
Upper	Upper Recovery Limit, in % (except for LCSS, mg/Kg)		
Sample	Value of the Sample of interest		
Sample Ty	pes		
AS	Analytical Spike (Post Digestion)	LCSWD	Laboratory Control Sample - Water Duplicate
ASD	Analytical Spike (Post Digestion) Duplicate	LFB	Laboratory Fortified Blank
ССВ	Continuing Calibration Blank	LFM	Laboratory Fortified Matrix
CCV	Continuing Calibration Verification standard	LFMD	Laboratory Fortified Matrix Duplicate
DUP	Sample Duplicate	LRB	Laboratory Reagent Blank
ICB	Initial Calibration Blank	MS	Matrix Spike
ICV	Initial Calibration Verification standard	MSD	Matrix Spike Duplicate
ICSAB	Inter-element Correction Standard - A plus B solutions	PBS	Prep Blank - Soil
LCSS	Laboratory Control Sample - Soil	PBW	Prep Blank - Water
LCSSD	Laboratory Control Sample - Soil Duplicate	PQV	Practical Quantitation Verification standard
LCSW Sample Ty Blanks Control Sar		SDL	Serial Dilution e prep method or calibration procedure. o procedure.
Sample Ty Blanks Control Sar Duplicates	pe Explanations Verifies that there is no or minimal co	SDL ontamination in the including the prep nt and/or method.	e prep method or calibration procedure. p procedure.
Sample Ty Blanks Control Sar Duplicates	pe Explanations Verifies that there is no or minimal comples Verifies the accuracy of the method, Verifies the precision of the instrume	SDL ontamination in the including the prep nt and/or method. ces, if any.	e prep method or calibration procedure. p procedure.
Sample Ty Blanks Control Sar Duplicates Spikes/Fort	pe Explanations Verifies that there is no or minimal comples Verifies the accuracy of the method, Verifies the precision of the instrume Utified Matrix Determines sample matrix interferent Verifies the validity of the calibration.	SDL ontamination in the including the prep nt and/or method. ces, if any.	e prep method or calibration procedure. p procedure.
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Sample Ty Blanks Control Sar Duplicates Spikes/Fort Standard Z Qualifiers B H L U	pe Explanations Verifies that there is no or minimal comples mples Verifies the accuracy of the method, Verifies the precision of the instrume tified Matrix Determines sample matrix interferen Verifies the validity of the calibration. state Verifies the value between MDL and It Analyte concentration detected at a value between MDL and It Analysis exceeded method hold time. PH is a field test with an Target analyte response was below the laboratory defined neg The material was analyzed for, but was not detected above th The associated value is either the sample quantitation limit or	SDL ontamination in the including the prep nt and/or method. ces, if any. PQL. The associat n immediate hold t gative threshold. e level of the assoc	e prep method or calibration procedure. procedure. ted value is an estimated quantity. ime. pciated value.
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REP001.09.12.01



Antimony, diss	olved		M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG342796													
WG342796ICV	ICV	04/27/13 1:50	MS130416-2	.02		.02044	mg/L	102.2	90	110			
WG342796ICB	ICB	04/27/13 1:54				U	mg/L		-0.0012	0.0012			
WG342796LFB	LFB	04/27/13 1:57	MS130329-1	.01		.01012	mg/L	101.2	85	115			
L11670-02AS	AS	04/27/13 2:13	MS130329-1	.01	U	.00952	mg/L	95.2	70	130			
L11670-02ASD	ASD	04/27/13 2:16	MS130329-1	.01	U	.00971	mg/L	97.1	70	130	1.98	20	
L11670-12AS	AS	04/27/13 2:58	MS130329-1	.02	U	.0244	mg/L	122	70	130			
L11670-12ASD	ASD	04/27/13 3:01	MS130329-1	.02	U	.02302	mg/L	115.1	70	130	5.82	20	
Arsenic, dissol	ved		M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG342796													
WG342796ICV	ICV	04/27/13 1:50	MS130416-2	.05		.05125	mg/L	102.5	90	110			
WG342796ICB	ICB	04/27/13 1:54	100 TO 70 Z			.00120 U	mg/L	102.0	-0.0006	0.0006			
WG342796LFB	LFB	04/27/13 1:57	MS130329-1	.05005		.0484	mg/L	96.7	85	115			
L11670-02AS	AS	04/27/13 2:13	MS130329-1	.05005	.0058	.06062	mg/L	109.5	70	130			
L11670-02ASD	ASD	04/27/13 2:16	MS130329-1	.05005	.0058	.05921	mg/L	106.7	70	130	2.35	20	
L11670-12AS	AS	04/27/13 2:58	MS130329-1	.1001	.0030	.1188	mg/L	117.6	70	130	2.00	20	
L11670-12AS	ASD	04/27/13 3:01	MS130329-1 MS130329-1	.1001	.0011	.11642	mg/L	117.0	70	130	2.02	20	
		0 11211 10 0.01					ing/L	110.2	10	100	2.02	20	
Beryllium, diss		Anolymod	M200.8 IC	-	Comple	Found	Unite	Dec	Lower	Linner		limit	Qual
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG342796													
WG342796ICV	ICV	04/27/13 1:50	MS130416-2	.05		.04633	mg/L	92.7	90	110			
WG342796ICB	ICB	04/27/13 1:54				U	mg/L		-0.00015	0.00015			
WG342796LFB	LFB	04/27/13 1:57	MS130329-1	.0501		.04647	mg/L	92.8	85	115			
L11670-02AS	AS	04/27/13 2:13	MS130329-1	.0501	U	.05088	mg/L	101.6	70	130			
L11670-02ASD	ASD	04/27/13 2:16	MS130329-1	.0501	U	.05089	mg/L	101.6	70	130	0.02	20	
L11670-12AS	AS	04/27/13 2:58	MS130329-1	.1002	U	.11482	mg/L	114.6	70	130			
L11670-12ASD	ASD	04/27/13 3:01	MS130329-1	.1002	U	.10992	mg/L	109.7	70	130	4.36	20	
Cadmium, diss	olved		M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG342796													
WG342796ICV	ICV	04/27/13 1:50	MS130416-2	.05		.04968	mg/L	99.4	90	110			
WG342796ICB	ICB	04/27/13 1:54				U	mg/L		-0.0003	0.0003			
	LFB	04/27/13 1:57	MS130329-1	.0501		.04835	mg/L	96.5	85	115			
WG342796LFB		04/27/13 2:13	MS130329-1	.0501	U	.04989	mg/L	99.6	70	130			
WG342796LFB L11670-02AS	AS	$0 - 1 \le 1$					5						
	AS ASD	04/27/13 2:16	MS130329-1	.0501	U	.04901	mg/L	97.8	70	130	1.78	20	
L11670-02AS				.0501 .1002	U U	.04901 .10506	mg/L mg/L	97.8 104.9	70 70	130 130	1.78	20	



Chromium, diss	solved		M200.7 I	CP									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG342517													
WG342517ICV	ICV	04/23/13 23:57	II130114-3	2		1.996	mg/L	99.8	95	105			
WG342517ICB	ICB	04/24/13 0:03				U	mg/L		-0.03	0.03			
WG342517LFB	LFB	04/24/13 0:15	II130326-2	.5		.531	mg/L	106.2	85	115			
L11667-01AS	AS	04/24/13 0:25	II130326-2	.5	U	.497	mg/L	99.4	85	115			
L11667-01ASD	ASD	04/24/13 0:28	II130326-2	.5	U	.528	mg/L	105.6	85	115	6.05	20	
L11670-10AS	AS	04/24/13 1:08	II130326-2	1	U	1.039	mg/L	103.9	85	115			
L11670-10ASD	ASD	04/24/13 1:12	II130326-2	1	U	.969	mg/L	96.9	85	115	6.97	20	
Cobalt, dissolve	ed		M200.7 I	СР									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG342517													
WG342517ICV	ICV	04/23/13 23:57	II130114-3	2.002		2.041	mg/L	101.9	95	105			
WG342517ICB	ICB	04/24/13 0:03				U	mg/L		-0.03	0.03			
WG342517LFB	LFB	04/24/13 0:15	II130326-2	.5		.525	mg/L	105	85	115			
L11667-01AS	AS	04/24/13 0:25	II130326-2	.5	U	.486	mg/L	97.2	85	115			
L11667-01ASD	ASD	04/24/13 0:28	II130326-2	.5	U	.524	mg/L	104.8	85	115	7.52	20	
L11670-10AS	AS	04/24/13 1:08	II130326-2	1	U	1.055	mg/L	105.5	85	115			
L11670-10ASD	ASD	04/24/13 1:12	II130326-2	1	U	.968	mg/L	96.8	85	115	8.6	20	
Copper, dissolv	ved		M200.7 I	СР									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG342517													
WG342517ICV	ICV	04/23/13 23:57	II130114-3	2		2.011	mg/L	100.6	95	105			
WG342517ICB	ICB	04/24/13 0:03		-		U	mg/L		-0.03	0.03			
WG342517LFB	LFB	04/24/13 0:15	II130326-2	.5		.525	mg/L	105	85	115			
L11667-01AS	AS	04/24/13 0:25	II130326-2	.5	.02	.511	mg/L	98.2	85	115			
L11667-01ASD	ASD	04/24/13 0:28	II130326-2	.5	.02	.536	mg/L	103.2	85	115	4.78	20	
L11670-10AS	AS	04/24/13 1:08	II130326-2	1	U	1.063	mg/L	106.3	85	115			
L11670-10ASD	ASD	04/24/13 1:12	II130326-2	1	U	1.002	mg/L	100.2	85	115	5.91	20	
Fluoride			SM4500F	-C									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG342888													
WG342888ICV	ICV	04/30/13 10:23	WC130423-	2.002		1.96	mg/L	97.9	95	105			
WG342888ICB	ICB	04/30/13 10:31				U	mg/L		-0.3	0.3			
WG342888LFB	LFB	04/30/13 10:45	WC130313-	5.005		4.57	mg/L	91.3	90	110			
L11667-01AS	AS	04/30/13 10:51	WC130313-	5.005	.5	4.93	mg/L	88.5	90	110			M2
L11667-01DUP	DUP	04/30/13 10:59			.5	.45	mg/L				10.5	20	RA
L11670-10AS	AS	04/30/13 11:50	WC130313-	5.005	.2	4.63	mg/L	88.5	90	110			M2
L11670-10DUP	DUP	04/30/13 11:53			.2	.23	mg/L				14	20	RA
							3						



Lead, dissolved			M200.8 IC	CP-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG342796													
WG342796ICV	ICV	04/27/13 1:50	MS130416-2	.05		.05078	mg/L	101.6	90	110			
WG342796ICB	ICB	04/27/13 1:54				U	mg/L		-0.0003	0.0003			
WG342796LFB	LFB	04/27/13 1:57	MS130329-1	.05005		.04858	mg/L	97.1	85	115			
L11670-02AS	AS	04/27/13 2:13	MS130329-1	.05005	.0008	.05022	mg/L	98.7	70	130			
L11670-02ASD	ASD	04/27/13 2:16	MS130329-1	.05005	.0008	.05024	mg/L	98.8	70	130	0.04	20	
L11670-12AS	AS	04/27/13 2:58	MS130329-1	.1001	.0029	.11352	mg/L	110.5	70	130			
L11670-12ASD	ASD	04/27/13 3:01	MS130329-1	.1001	.0029	.10934	mg/L	106.3	70	130	3.75	20	
Magnesium, dis	solved		M200.7 IC	CP									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG342517													
WG342517ICV	ICV	04/23/13 23:57	II130114-3	100		102.05	mg/L	102.1	95	105			
WG342517ICB	ICB	04/24/13 0:03				U	mg/L		-0.6	0.6			
WG342517LFB	LFB	04/24/13 0:15	II130326-2	49.99941		54.1	mg/L	108.2	85	115			
L11667-01AS	AS	04/24/13 0:25	II130326-2	49.99941	41.5	94.55	mg/L	106.1	85	115			
L11667-01ASD	ASD	04/24/13 0:28	II130326-2	49.99941	41.5	95.77	mg/L	108.5	85	115	1.28	20	
L11670-10AS	AS	04/24/13 1:08	II130326-2	99.99882	104	190.18	mg/L	86.2	85	115			
L11670-10ASD	ASD	04/24/13 1:12	II130326-2	99.99882	104	179.28	mg/L	75.3	85	115	5.9	20	MA
Molybdenum, di	incolved		M200.7 IC	סי									
morybachan, a	issoiveu		WZ00.7 IC										
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
					Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
ACZ ID					Sample	Found 2.037	Units mg/L	Rec 101.9	Lower 95	Upper 105	RPD	Limit	Qual
ACZ ID WG342517	Туре	Analyzed	PCN/SCN	QC	Sample						RPD	Limit	Qual
ACZ ID WG342517 WG342517ICV	Type	Analyzed 04/23/13 23:57	PCN/SCN	QC	Sample	2.037	mg/L mg/L		95	105	RPD	Limit	Qual
ACZ ID WG342517 WG342517ICV WG342517ICB	Type ICV ICB	Analyzed 04/23/13 23:57 04/24/13 0:03	PCN/SCN	QC 2	Sample	2.037 U	mg/L	101.9	95 -0.06	105 0.06	RPD	Limit	Qual
ACZ ID WG342517 WG342517ICV WG342517ICB WG342517LFB	Type ICV ICB LFB	Analyzed 04/23/13 23:57 04/24/13 0:03 04/24/13 0:15	PCN/SCN II130114-3 II130326-2	QC 2 .5		2.037 U .539	mg/L mg/L mg/L	101.9 107.8	95 -0.06 85	105 0.06 115	RPD 0.18	Limit 20	Qual
ACZ ID WG342517 WG342517ICV WG342517ICB WG342517LFB L11667-01AS	Type ICV ICB LFB AS	Analyzed 04/23/13 23:57 04/24/13 0:03 04/24/13 0:15 04/24/13 0:25	PCN/SCN II130114-3 II130326-2 II130326-2	QC 2 .5 .5	.02	2.037 U .539 .559	mg/L mg/L mg/L mg/L	101.9 107.8 107.8	95 -0.06 85 85	105 0.06 115 115			Qual
ACZ ID WG3425177 WG342517ICV WG342517ICB WG342517LFB L11667-01AS L11667-01ASD	Type ICV ICB LFB AS ASD	Analyzed 04/23/13 23:57 04/24/13 0:03 04/24/13 0:15 04/24/13 0:25 04/24/13 0:28	PCN/SCN II130114-3 II130326-2 II130326-2 II130326-2	QC 2 .5 .5 .5	.02 .02	2.037 U .539 .559 .56	mg/L mg/L mg/L mg/L mg/L	101.9 107.8 107.8 108	95 -0.06 85 85 85	105 0.06 115 115 115			Qual
ACZ ID WG3425177 WG342517ICV WG342517ICB WG342517ICB L11667-01AS L11667-01ASD L11670-10AS	Type ICV ICB LFB AS ASD ASD ASD	Analyzed 04/23/13 23:57 04/24/13 0:03 04/24/13 0:15 04/24/13 0:25 04/24/13 0:28 04/24/13 1:08	PCN/SCN II130114-3 II130326-2 II130326-2 II130326-2 II130326-2	QC 2 .5 .5 .5 1 1	.02 .02 .1	2.037 U .539 .559 .56 1.136	mg/L mg/L mg/L mg/L mg/L	101.9 107.8 107.8 108 103.6	95 -0.06 85 85 85 85	105 0.06 115 115 115 115 115	0.18	20	Qual
ACZ ID WG3425177 WG3425171CV WG3425171CB WG3425171CB L11667-01AS L11667-01AS L11670-10AS L11670-10ASD	Type ICV ICB LFB AS ASD ASD ASD	Analyzed 04/23/13 23:57 04/24/13 0:03 04/24/13 0:15 04/24/13 0:25 04/24/13 0:28 04/24/13 1:08	PCN/SCN II130114-3 II130326-2 II130326-2 II130326-2 II130326-2 II130326-2	QC 2 .5 .5 .5 1 1	.02 .02 .1	2.037 U .539 .559 .56 1.136	mg/L mg/L mg/L mg/L mg/L	101.9 107.8 107.8 108 103.6	95 -0.06 85 85 85 85	105 0.06 115 115 115 115 115	0.18	20	Qual
ACZ ID WG342517 WG342517ICV WG342517ICB WG342517ICB L11667-01AS L11667-01ASD L11670-10AS L11670-10ASD Nickel, dissolve	Type ICV ICB LFB AS ASD AS ASD d	Analyzed 04/23/13 23:57 04/24/13 0:03 04/24/13 0:15 04/24/13 0:25 04/24/13 0:28 04/24/13 1:08 04/24/13 1:12	PCN/SCN II130114-3 II130326-2 II130326-2 II130326-2 II130326-2 II130326-2 II130326-2	QC 2 .5 .5 1 1 2 CP-MS	.02 .02 .1 .1	2.037 U .539 .559 .56 1.136 1.119	mg/L mg/L mg/L mg/L mg/L mg/L	101.9 107.8 107.8 108 103.6 101.9	95 -0.06 85 85 85 85 85	105 0.06 115 115 115 115 115 115	0.18 1.51	20 20	
ACZ ID WG342517 WG342517ICV WG342517ICB WG342517ICB UG342517LFB L11667-01AS L11667-01AS L11667-01ASD L11670-10ASD L11670-10ASD Nickel, dissolve ACZ ID	Type ICV ICB LFB AS ASD AS ASD d	Analyzed 04/23/13 23:57 04/24/13 0:03 04/24/13 0:15 04/24/13 0:25 04/24/13 0:28 04/24/13 1:08 04/24/13 1:12 Analyzed	PCN/SCN II130114-3 II130326-2 II130326-2 II130326-2 II130326-2 II130326-2 II130326-2	QC 2 .5 .5 1 1 2 CP-MS	.02 .02 .1 .1	2.037 U .539 .559 .56 1.136 1.119	mg/L mg/L mg/L mg/L mg/L Units	101.9 107.8 107.8 108 103.6 101.9	95 -0.06 85 85 85 85 85	105 0.06 115 115 115 115 115 115	0.18 1.51	20 20	
ACZ ID WG342517 WG342517ICV WG342517ICV WG342517ICB WG342517LFB L11667-01AS L11667-01ASD L11670-10AS L11670-10ASD Nickel, dissolve ACZ ID WG342796	Type ICV ICB LFB AS ASD AS ASD d Type	Analyzed 04/23/13 23:57 04/24/13 0:03 04/24/13 0:15 04/24/13 0:25 04/24/13 0:28 04/24/13 1:08 04/24/13 1:12	PCN/SCN II130114-3 II130326-2 II130326-2 II130326-2 II130326-2 II130326-2 II130326-2 II130326-2 II130326-2 II130326-2	QC 2 .5 .5 1 1 CP-MS QC	.02 .02 .1 .1	2.037 U .539 .559 .56 1.136 1.119 Found	mg/L mg/L mg/L mg/L mg/L Units	101.9 107.8 107.8 108 103.6 101.9 Rec	95 -0.06 85 85 85 85 85	105 0.06 115 115 115 115 115 115	0.18 1.51	20 20	
ACZ ID WG342517 WG342517ICV WG342517ICV WG342517ICB WG342517LFB L11667-01AS L11667-01ASD L11670-10AS L11670-10ASD Nickel, dissolve ACZ ID WG342796 WG342796ICV	Type ICV ICB LFB AS ASD AS ASD d Type ICV	Analyzed 04/23/13 23:57 04/24/13 0:03 04/24/13 0:15 04/24/13 0:25 04/24/13 0:28 04/24/13 1:08 04/24/13 1:12 Analyzed 04/27/13 1:50 04/27/13 1:54	PCN/SCN II130114-3 II130326-2 II130326-2 II130326-2 II130326-2 II130326-2 II130326-2 II130326-2 II130326-2 II130326-2	QC 2 .5 .5 1 1 CP-MS QC	.02 .02 .1 .1	2.037 U .539 .559 .56 1.136 1.119	mg/L mg/L mg/L mg/L mg/L Units	101.9 107.8 107.8 108 103.6 101.9 Rec 99.4	95 -0.06 85 85 85 85 85 85 20	105 0.06 115 115 115 115 115 Upper	0.18 1.51	20 20	
ACZ ID WG3425177 WG342517ICV WG342517ICB WG342517ICB WG342517LFB L11667-01AS L11667-01ASD L11670-10ASD L11670-10ASD Nickel, dissolve ACZ ID WG342796ICV WG342796ICB WG342796LFB	Type ICV ICB LFB AS ASD AS ASD d Type ICV ICB LFB	Analyzed 04/23/13 23:57 04/24/13 0:03 04/24/13 0:15 04/24/13 0:25 04/24/13 0:28 04/24/13 1:08 04/24/13 1:12 Analyzed 04/27/13 1:50 04/27/13 1:57	PCN/SCN II130114-3 II130326-2 II13026-2 II130026-2	QC 2 .5 .5 1 1 CP-MS QC .05	.02 .02 .1 .1 Sample	2.037 U .539 .559 .56 1.136 1.119 Found .04969 U .04806	mg/L mg/L mg/L mg/L mg/L Units	101.9 107.8 107.8 108 103.6 101.9 Rec 99.4 96	95 -0.06 85 85 85 85 85 85 Lower 90 -0.0018 85	105 0.06 115 115 115 115 115 115 Upper 110 0.0018 115	0.18 1.51	20 20	
ACZ ID WG342517 WG342517ICV WG342517ICV WG342517ICB WG342517LFB L11667-01AS L11667-01ASD L11670-10ASD L11670-10ASD Nickel, dissolve ACZ ID WG342796ICV WG342796ICB WG342796LFB L11670-02AS	Type ICV ICB LFB AS ASD AS ASD d Type ICV ICB	Analyzed 04/23/13 23:57 04/24/13 0:03 04/24/13 0:15 04/24/13 0:25 04/24/13 0:28 04/24/13 1:08 04/24/13 1:12 Analyzed 04/27/13 1:50 04/27/13 1:57 04/27/13 2:13	PCN/SCN II130114-3 II130326-2 II130326-2 II130326-2 II130326-2 II130326-2 II130326-2 II130326-2 M200.8 IC PCN/SCN MS130416-2 MS130329-1 MS130329-1	QC 2 .5 .5 1 1 CP-MS QC .05	.02 .02 .1 .1 Sample	2.037 U .539 .559 .56 1.136 1.119 Found .04969 U	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	101.9 107.8 107.8 108 103.6 101.9 Rec 99.4 96 95.3	95 -0.06 85 85 85 85 85 85 Lower 90 -0.0018 85 70	105 0.06 115 115 115 115 115 115 115 110 0.0018 115 130	0.18 1.51	20 20	
ACZ ID WG3425177 WG342517ICV WG342517ICB WG342517ICB WG342517LFB L11667-01AS L11667-01ASD L11670-10AS L11670-10ASD Nickel, dissolve ACZ ID WG342796ICV WG342796ICB WG342796LFB	Type ICV ICB LFB AS ASD AS ASD d Type ICV ICB LFB AS	Analyzed 04/23/13 23:57 04/24/13 0:03 04/24/13 0:15 04/24/13 0:25 04/24/13 0:28 04/24/13 1:08 04/24/13 1:12 Analyzed 04/27/13 1:50 04/27/13 1:57 04/27/13 2:13 04/27/13 2:16	PCN/SCN II130114-3 II130326-2 II130326-2 II130326-2 II130326-2 II130326-2 II130326-2 II130326-2 M200.8 IC PCN/SCN MS130416-2 MS130329-1 MS130329-1 MS130329-1	QC 2 .5 .5 1 1 2 CP-MS QC .05 .05005 .05005	.02 .02 .1 .1 Sample	2.037 U .539 .559 .56 1.136 1.119 Found .04969 U .04806 .0477	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	101.9 107.8 107.8 103.6 101.9 Rec 99.4 96 95.3 92.8	95 -0.06 85 85 85 85 85 85 Lower 90 -0.0018 85	105 0.06 115 115 115 115 115 115 Upper 110 0.0018 115	0.18 1.51 RPD	20 20 Limit	
ACZ ID WG342517 WG342517ICV WG342517ICB WG342517ICB WG342517LFB L11667-01AS L11667-01ASD L11670-10ASD Nickel, dissolve ACZ ID WG342796 WG342796ICV WG342796ICB WG342796LFB L11670-02AS L11670-02ASD	Type ICV ICB LFB AS ASD AS ASD d Type ICV ICB LFB AS ASD	Analyzed 04/23/13 23:57 04/24/13 0:03 04/24/13 0:15 04/24/13 0:25 04/24/13 0:28 04/24/13 1:08 04/24/13 1:12 Analyzed 04/27/13 1:50 04/27/13 1:57 04/27/13 2:13	PCN/SCN II130114-3 II130326-2 II130326-2 II130326-2 II130326-2 II130326-2 II130326-2 II130326-2 M200.8 IC PCN/SCN MS130416-2 MS130329-1 MS130329-1	QC 2 .5 .5 .5 1 1 2 CP-MS QC .05 .05005 .05005 .05005	.02 .02 .1 .1 .1 Sample	2.037 U .539 .559 .56 1.136 1.119 Found 04969 U .04806 .0477 .04644	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	101.9 107.8 107.8 108 103.6 101.9 Rec 99.4 96 95.3	95 -0.06 85 85 85 85 85 85 Lower 90 -0.0018 85 70 70	105 0.06 115 115 115 115 115 115 110 0.0018 115 130 130	0.18 1.51 RPD	20 20 Limit	

Nitrate/Nitrite as	N		M353.2 - H	12SO4 pre	served								
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG342802													
WG342802ICV	ICV	04/27/13 14:59	WI130411-3	2.416		2.575	mg/L	106.6	90	110			
WG342802ICB	ICB	04/27/13 15:00				U	mg/L		-0.06	0.06			
WG342805													
WG342805LFB1	LFB	04/27/13 18:32	WI130215-3	2		1.995	mg/L	99.8	90	110			
WG342805LFB2	LFB	04/27/13 19:06	WI130215-3	2		1.986	mg/L	99.3	90	110			
L11670-09AS	AS	04/27/13 19:09	WI130215-3	2	.85	2.963	mg/L	105.7	90	110			
L11670-10DUP	DUP	04/27/13 19:11			.73	.726	mg/L				0.5	20	
L11668-05AS	AS	04/27/13 19:31	WI130215-3	20	9.9	30.72	mg/L	104.1	90	110			
L11668-06DUP	DUP	04/27/13 19:34			18.4	18.57	mg/L				0.9	20	
Residue, Filteral	ble (TDS) @180C	SM2540C										
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG342343													
WG342343PBW	PBW	04/19/13 3:40				U	mg/L		-20	20			
WG342343LCSW	LCSW	04/19/13 4:12	PCN42170	260		252	mg/L	96.9	80	120			
L11672-02DUP	DUP	04/19/13 15:59		200	2520	2628	mg/L	0010		.20	4.2	20	
WG342342							5						
WG342342PBW	PBW	04/19/13 15:20				U	mg/L		-20	20			
WG342342LCSW	LCSW	04/19/13 15:20	PCN42170	260		248	mg/L	95.4	80	120			
L11670-10DUP	DUP	04/19/13 15:30		200	3120	3104	mg/L			.20	0.5	20	
L11684-08DUP	DUP	04/19/13 15:39			100	96	mg/L				4.1	20	
Selenium, disso	lved		M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG342796													
WG342796ICV	ICV	04/27/13 1:50	MS130416-2	.05		.05163	mg/L	103.3	90	110			
WG342796ICB	ICB	04/27/13 1:54				U	mg/L		-0.0003	0.0003			
WG342796LFB	LFB	04/27/13 1:57	MS130329-1	.05005		.04812	mg/L	96.1	85	115			
L11670-02AS	AS	04/27/13 2:13	MS130329-1	.05005	.0007	.05529	mg/L	109.1	70	130			
L11670-02ASD	ASD	04/27/13 2:16	MS130329-1	.05005	.0007	.05578	mg/L	110	70	130	0.88	20	
L11670-12AS	AS	04/27/13 2:58	MS130329-1	.1001	.0013	.11142	mg/L	110	70	130			
L11670-12ASD	ASD	04/27/13 3:01	MS130329-1	.1001	.0013	.10982	mg/L	108.4	70	130	1.45	20	
Sulfate			D516-02 -	Turbidime	tric								
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG342700													
WG342700ICB	ICB	04/25/13 10:09				U	mg/L		-3	3			
WG342700ICV	ICV	04/25/13 10:09	WI130416-2	20		20.5	mg/L	102.5	90	110			
WG342700LFB	LFB	04/25/13 14:35	WI130416-3	9.99		10	mg/L	100.1	90	110			
L11670-02AS	AS	04/25/13 14:43	SO4TURB5	10	123	132.2	mg/L	92	90	110			
L11670-01DUP	DUP	04/25/13 14:44			980	1028	mg/L				4.8	20	
L11670-11DUP	DUP	04/25/13 14:57			1720	1772	mg/L				3	20	
L11670-12AS	AS	04/25/13 14:57	SO4TURB15	50 0000025	1810	1804	mg/L	-12	90	110			M3



Thallium, disso	lved		M200.8 IC	M200.8 ICP-MS										
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual	
WG342796														
WG342796ICV	ICV	04/27/13 1:50	MS130416-2	.05		.05392	mg/L	107.8	90	110				
WG342796ICB	ICB	04/27/13 1:54				U	mg/L		-0.0003	0.0003				
WG342796LFB	LFB	04/27/13 1:57	MS130329-1	.05005		.05065	mg/L	101.2	85	115				
L11670-02AS	AS	04/27/13 2:13	MS130329-1	.05005	U	.05232	mg/L	104.5	70	130				
L11670-02ASD	ASD	04/27/13 2:16	MS130329-1	.05005	U	.05245	mg/L	104.8	70	130	0.25	20		
L11670-12AS	AS	04/27/13 2:58	MS130329-1	.1001	U	.1176	mg/L	117.5	70	130				
L11670-12ASD	ASD	04/27/13 3:01	MS130329-1	.1001	U	.11196	mg/L	111.8	70	130	4.91	20		



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FMI Gold & Copper - Sierrita

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L11670-01	WG342888	Fluoride	SM4500F-C	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
			SM4500F-C	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
L11670-02	WG342888	Fluoride	SM4500F-C	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
			SM4500F-C	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
L11670-03	WG342888	Fluoride	SM4500F-C	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
			SM4500F-C	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
L11670-04	WG342888	Fluoride	SM4500F-C	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
			SM4500F-C	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
L11670-05	WG342796	Beryllium, dissolved	M200.8 ICP-MS	VC	CCV recovery was above the acceptance limits. Target analyte was not detected in the sample [< MDL].
	WG342888	Fluoride	SM4500F-C	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
			SM4500F-C	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
L11670-06	WG342796	Beryllium, dissolved	M200.8 ICP-MS	VC	CCV recovery was above the acceptance limits. Target analyte was not detected in the sample [< MDL].
	WG342888	Fluoride	SM4500F-C	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
			SM4500F-C	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
L11670-07	WG342796	Beryllium, dissolved	M200.8 ICP-MS	VC	CCV recovery was above the acceptance limits. Target analyte was not detected in the sample [< MDL].
	WG342888	Fluoride	SM4500F-C	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
			SM4500F-C	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
L11670-08	WG342796	Beryllium, dissolved	M200.8 ICP-MS	VC	CCV recovery was above the acceptance limits. Target analyte was not detected in the sample [< MDL].
	WG342888	Fluoride	SM4500F-C	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
			SM4500F-C	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).



FMI Gold & Copper - Sierrita

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L11670-09	WG342796	Beryllium, dissolved	M200.8 ICP-MS	IA	Internal standard recovery exceeded the acceptance limits. Concentration of associated target analyte(s) in the sample is < MDL.
			M200.8 ICP-MS	VC	CCV recovery was above the acceptance limits. Target analyte was not detected in the sample [< MDL].
	WG342517	Magnesium, dissolved	M200.7 ICP	MA	Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits.
	WG342888	Fluoride	SM4500F-C	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
			SM4500F-C	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
L11670-10	WG342796	Beryllium, dissolved	M200.8 ICP-MS	IA	Internal standard recovery exceeded the acceptance limits. Concentration of associated target analyte(s) in the sample is < MDL.
			M200.8 ICP-MS	VC	CCV recovery was above the acceptance limits. Target analyte was not detected in the sample [< MDL].
	WG342517	Magnesium, dissolved	M200.7 ICP	MA	Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits.
	WG342888	Fluoride	SM4500F-C	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
			SM4500F-C	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
L11670-11	WG342796	Beryllium, dissolved	M200.8 ICP-MS	IA	Internal standard recovery exceeded the acceptance limits. Concentration of associated target analyte(s) in the sample is < MDL.
			M200.8 ICP-MS	VC	CCV recovery was above the acceptance limits. Target analyte was not detected in the sample [< MDL].
	WG342517	Magnesium, dissolved	M200.7 ICP	MA	Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits.
	WG342888	Fluoride	SM4500F-C	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
			SM4500F-C	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG342700	Sulfate	D516-02 - Turbidimetric	М3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
L11670-12	WG342796	Beryllium, dissolved	M200.8 ICP-MS	IA	Internal standard recovery exceeded the acceptance limits. Concentration of associated target analyte(s) in the sample is < MDL.
			M200.8 ICP-MS	VC	CCV recovery was above the acceptance limits. Target analyte was not detected in the sample [< MDL].
	WG342517	Magnesium, dissolved	M200.7 ICP	MA	Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits.
	WG342888	Fluoride	SM4500F-C	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
			SM4500F-C	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG342700	Sulfate	D516-02 - Turbidimetric	М3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.



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ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L11670-13	WG342796	Beryllium, dissolved	M200.8 ICP-MS	IA	Internal standard recovery exceeded the acceptance limits. Concentration of associated target analyte(s) in the sample is < MDL.
			M200.8 ICP-MS	VC	CCV recovery was above the acceptance limits. Target analyte was not detected in the sample [< MDL].
	WG342517	Magnesium, dissolved	M200.7 ICP	MA	Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits.
	WG342888	Fluoride	SM4500F-C	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
			SM4500F-C	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG342700	Sulfate	D516-02 - Turbidimetric	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
L11670-14	WG342796	Beryllium, dissolved	M200.8 ICP-MS	IA	Internal standard recovery exceeded the acceptance limits. Concentration of associated target analyte(s) in the sample is < MDL.
			M200.8 ICP-MS	VC	CCV recovery was above the acceptance limits. Target analyte was not detected in the sample [< MDL].
	WG342517	Magnesium, dissolved	M200.7 ICP	MA	Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits.
	WG342888	Fluoride	SM4500F-C	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
			SM4500F-C	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG342700	Sulfate	D516-02 - Turbidimetric	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
L11670-15	WG342796	Beryllium, dissolved	M200.8 ICP-MS	IA	Internal standard recovery exceeded the acceptance limits. Concentration of associated target analyte(s) in the sample is < MDL.
			M200.8 ICP-MS	VC	CCV recovery was above the acceptance limits. Target analyte was not detected in the sample [< MDL].
	WG342517	Magnesium, dissolved	M200.7 ICP	MA	Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits.
	WG342888	Fluoride	SM4500F-C	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
			SM4500F-C	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG342700	Sulfate	D516-02 - Turbidimetric	М3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.



FMI Gold & Copper - Sierrita

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L11670-16	WG342796	Beryllium, dissolved	M200.8 ICP-MS	IA	Internal standard recovery exceeded the acceptance limits. Concentration of associated target analyte(s) in the sample is < MDL.
			M200.8 ICP-MS	VC	CCV recovery was above the acceptance limits. Target analyte was not detected in the sample [< MDL].
	WG342517	Magnesium, dissolved	M200.7 ICP	MA	Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits.
	WG342888	Fluoride	SM4500F-C	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
			SM4500F-C	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG342700	Sulfate	D516-02 - Turbidimetric	М3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
L11670-17	WG342796	Beryllium, dissolved	M200.8 ICP-MS	IA	Internal standard recovery exceeded the acceptance limits. Concentration of associated target analyte(s) in the sample is < MDL.
			M200.8 ICP-MS	VC	CCV recovery was above the acceptance limits. Target analyte was not detected in the sample [< MDL].
	WG342517	Magnesium, dissolved	M200.7 ICP	MA	Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits.
	WG342888	Fluoride	SM4500F-C	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
			SM4500F-C	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG342700	Sulfate	D516-02 - Turbidimetric	М3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
L11670-18	WG342796	Beryllium, dissolved	M200.8 ICP-MS	IA	Internal standard recovery exceeded the acceptance limits. Concentration of associated target analyte(s) in the sample is < MDL.
			M200.8 ICP-MS	VC	CCV recovery was above the acceptance limits. Target analyte was not detected in the sample [< MDL].
	WG342517	Magnesium, dissolved	M200.7 ICP	MA	Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits.
	WG342888	Fluoride	SM4500F-C	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
			SM4500F-C	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG342700	Sulfate	D516-02 - Turbidimetric	М3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.



ACZ Project ID: L11670

No certification qualifiers associated with this analysis

AGZ Laboratories, Inc. 2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493 2

Sample Receipt

FMI Gold & Copper - Sierrita	ACZ Proje	ect ID:		L11670
ZS000003Q8	Date Rece	eived: C	04/19/201	3 09:55
	Receive	•		ksj
	Date Pr	inted:	4/	19/2013
Receipt Verification		YES	NO	NA
1) Is a foreign soil permit included for applicable samples?		123		X
2) Is the Chain of Custody or other directive shipping papers present?		Х		
3) Does this project require special handling procedures such as CLP protocol?				Х
4) Are any samples NRC licensable material?				Х
5) If samples are received past hold time, proceed with requested short hold time ana	lyses?	Х		
6) Is the Chain of Custody complete and accurate?		Х		
7) Were any changes made to the Chain of Custody prior to ACZ receiving the sample	es?		Х	
Samples/Containers				
		YES	NO	NA
8) Are all containers intact and with no leaks?		Х		
9) Are all labels on containers and are they intact and legible?		Х		
10) Do the sample labels and Chain of Custody match for Sample ID, Date, and Time	?	Х		
11) For preserved bottle types, was the pH checked and within limits?		Х		
12) Is there sufficient sample volume to perform all requested work?		Х		
13) Is the custody seal intact on all containers?				Х
14) Are samples that require zero headspace acceptable?				Х
15) Are all sample containers appropriate for analytical requirements?		Х		
16) Is there an Hg-1631 trip blank present?				Х
17) Is there a VOA trip blank present?				Х
18) Were all samples received within hold time?		Х		
Chain of Custody Related Remarks				
Client Contact Remarks				
Shipping Containers				
Cooler Id Temp (°C) Rad (uR/Hr) Custody	Seal Int	act?		

Cooler Id	Temp (
3415	2

____ 12

 °C)
 Rad (µR/Hr)
 Custody Seal Intact?

 12
 Yes

 Yes

Client must contact an ACZ Project Manager if analysis should not proceed for samples received outside of their thermal preservation acceptance criteria.

Mamon Ton Andonesa			Addre	ss: 6200 V	V. Duval	Mine R	oad		
Name: Jon Anderson Company: Freeport-M	cMoRan Sierrita Inc		7.0010		Valley, A				
Company: Freeport-M E-mail: jonathan_ander			Telen	none: 520			·		
Capa of Report to			F		_		_		
Name:	<u> </u>	{	E-mai						
Company:			Telep						
levoide to:			_						
Name:	<u></u>	_	Addre	ss:					
Company:			ļ						
E-mail:			Telep		· •.•			YES	
If sample(s) received pa	ist holding time (HT), or if insuffic on, shall ACZ proceed with reque	cient HT rer	nains to HT ana	o complete lyses?				NO	
If "NO" then ACZ will co	intact client for further instruction	n. If neithe	r "YES"	nor "NO"				1	
is indicated, ACZ will pr	oceed with the requested analys	es, even if l	HT is ex	pired, and	data will b	e qualif	ied.	YES	
Are samples for CO DW	Compliance Monitoring? ate forms. Results will be reporte	ed to POI						NO	x
If yes, please include st PROJECT INFORMA				7552 Y 18	s RS DOES	stell pa	tantika		equita de
Quote #:			I						
Project/PO #: ZS0000	0308		ers						
Reporting state for cor			of Containers	5					
Sampler's Name: Jeff			5	<u> </u>					
	licensable material? Yes No	1	je te	Quarterly					
SAMPLE ID: N (200		for a three	••••	σ		<u> </u>			
IW-1	4/15/13 : 0850	GW	3	×		_			
IW-2A	4/15/13 : 0912	GW	3	×		 _			┝╼╋
IW-25	4/15/13 : 0922	GW	3	×			 		┝━┿
IW-9	4/15/13 : 0943	GW	3	↓ × ↓ -			 		┝╍╋
IW-26	4/15/13 : 0952	GW	3	×		- 			┝╌╌┼╍
IW-4	4/15/13 : 1000	GW	3	×		-			
IW-24	4/15/13 : 1010	GW	3	×	_ _		╂		┝╍┿
IW-5A	4/15/13 : 1017	GW	3	× –				 	┝┈┾╴
IW-23	4/15/13 : 1026	GW	3	×]		
	4/15/13 : 1044	GW	3	×					

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2773 Downhill Drive Steamb	oat Springs, CO 80487 (800) :	334-5493									
	<u></u>		Addre		W Duvs	al Mine l	Road				
lame: Jon Anderson Company: Freeport-McM	A Ran Sierrita Inc		Address: 6200 W. Duval Mine Road Green Valley, AZ 85614								
E-mail: jonathan_andersor			Telepi		0-393-27						
			Гюер	none. 52							
lopy of Report to			r								
Name:			E-mai	l:		<u> </u>					
Company:			Telep	hone:							
nye (left)					_						
Name:			Addre	SS:			<u> </u>				
Company:											
 E-mail:			Telep	hone:							
sample(s) received past h	olding time (HT), or if insuffi	cient HT re	mains to	o complet	e			YES			
inalysis before expiration,	shall ACZ proceed with requi	ested short	HT ana	lyses?	n			ио Г	J		
f "NO" then ACZ will conta	ct client for further instructio ed with the requested analys	n. If neithe ies, even if	ল r⊏S" HTisea	nor NO xpired. an	d data wil	l be quali	ified.				
Are samples for CO DW Co								YES			
	forms. Results will be report	ed to PQL.							×		
PROJECT INFORMATIO	N			A.5475 3.5	FR Record	ESTE DE	1000043	1.1.515173	par for Galaxies an		
Quote #:					1						
Project/PO #: ZS000003	Q8		of Containers								
Reporting state for compli			ntail	Quarterly							
Sampler's Name: Jeff Joy			Ī	ば							
	ensable material? Yes No		to to	n Sin Sin Sin Sin Sin Sin Sin Sin Sin Si							
SAMPLE IDENTIFICAT		i.Gapp	< T	Ø							
IW-28	4/15/13 : 1052	GW	3	×							
IW-22	4/15/13 : 1100	GW	3	×							
TW-11	4/15/13 : 1247	GW	3	×							
IW-6A	4/15/13 : 1255	GW	3	×							
IW-13	4/15/13 : 1309	GW	3	×							
IW-14	4/15/13 : 1320	GW	3	×							
IW-21	4/15/13:1350	GŴ	3	×							
DUP20130415A	4/15/13:0000	GW	3	×							
D012013011011				† †							
		-	1			·					
Matrix SW (Surface Wate	ar) · GW (Ground Water) · WW (Wa	ste Water) · D)W (Drink	king Water)	SL (Sludge	e) · SO (So	il) OL (Oil)	· Other (S	Specify)		
REMARKS			-	-							
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UPS Tracking # 1Z 867	7E4 23 1001 091 5										
CHAIN OF CUSTODY	CORRECTION										
CHAIN OF CUSTODI	UNRECTION										
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	Please refer to ACZ's term		ions lo				of this CO	U.		ر الالتين	
RELINCERSET		TH:h			L CEIVEI						
Jeff Joy	4/18/13	: 1530	1	AUL	- 4	1197	13		0955		
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White - Return with sample. Yellow - Retain for your records.



Analytical Report

May 07, 2013

Report to: Jon Anderson FMI Gold & Copper - Sierrita 6200 West Duval Mine Rd. Green Valley, AZ 85614

cc: Ben Daigneau

Bill to: Accounts Payable FMI Gold & Copper - Sierrita P.O. Box 2671 Phoenix, AZ 85002-2671

Project ID: ZS000003Q8 ACZ Project ID: L11775

Jon Anderson:

Enclosed are the analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on April 26, 2013. This project has been assigned to ACZ's project number, L11775. Please reference this number in all future inquiries.

All analyses were performed according to ACZ's Quality Assurance Plan. The enclosed results relate only to the samples received under L11775. Each section of this report has been reviewed and approved by the appropriate Laboratory Supervisor, or a qualified substitute.

Except as noted, the test results for the methods and parameters listed on ACZ's current NELAC certificate letter (#ACZ) meet all requirements of NELAC.

This report shall be used or copied only in its entirety. ACZ is not responsible for the consequences arising from the use of a partial report.

All samples and sub-samples associated with this project will be disposed of after June 06, 2013. If the samples are determined to be hazardous, additional charges apply for disposal (typically \$11/sample). If you would like the samples to be held longer than ACZ's stated policy or to be returned, please contact your Project Manager or Customer Service Representative for further details and associated costs. ACZ retains analytical raw data reports for ten years.

If you have any questions or other needs, please contact your Project Manager.

S. Habermehl

Scott Habermehl has reviewed and approved this report.





ACZ	Laboratories, Inc.
	Steamboat Springs, CO 80487 (800) 334-5493

Project ID:	ZS000003Q8
Sample ID:	M-20

ACZ Sample ID: L11775-01 Date Sampled: 04/23/13 09:02 Date Received: 04/26/13 Sample Matrix: Ground Water

Wet Chemistry									
Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Sulfate	M300.0 - Ion Chromatography	1801.6			mg/L	25	125	05/03/13 2:53	tcd

Arizona license number: AZ0102



Project ID:	ZS000003Q8
Sample ID:	MH-11

Inorganic Analytical Results

ACZ Sample ID:	L11775-02
Date Sampled:	04/23/13 11:16
Date Received:	04/26/13
Sample Matrix:	Ground Water

Metals Analysis									
Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Antimony, dissolved	M200.8 ICP-MS		U		mg/L	0.0008	0.004	05/03/13 12:45	pmc
Arsenic, dissolved	M200.8 ICP-MS	0.0030			mg/L	0.0004	0.002	05/03/13 12:45	pmc
Beryllium, dissolved	M200.8 ICP-MS		U		mg/L	0.0001	0.0005	05/03/13 12:45	pmc
Cadmium, dissolved	M200.8 ICP-MS		U		mg/L	0.0002	0.001	05/03/13 12:45	pmc
Chromium, dissolved	M200.7 ICP		U		mg/L	0.02	0.1	05/01/13 21:52	jjc
Cobalt, dissolved	M200.7 ICP		U		mg/L	0.02	0.1	05/01/13 21:52	jjc
Copper, dissolved	M200.7 ICP		U		mg/L	0.02	0.1	05/01/13 21:52	jjc
Lead, dissolved	M200.8 ICP-MS		U		mg/L	0.0002	0.001	05/03/13 12:45	pmc
Magnesium, dissolved	M200.7 ICP	102			mg/L	0.4	2	05/01/13 21:52	jjc
Molybdenum, dissolve	d M200.7 ICP		U		mg/L	0.04	0.2	05/01/13 21:52	jjc
Nickel, dissolved	M200.8 ICP-MS		U		mg/L	0.001	0.006	05/03/13 12:45	pmc
Selenium, dissolved	M200.8 ICP-MS	0.0020			mg/L	0.0002	0.0005	05/03/13 12:45	pmc
Thallium, dissolved	M200.8 ICP-MS		U		mg/L	0.0002	0.001	05/03/13 12:45	pmc
Wet Chemistry									
Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Fluoride	SM4500F-C	0.2	В	*	mg/L	0.1	0.5	05/03/13 20:15	ljr
Nitrate/Nitrite as N	M353.2 - H2SO4 preserved	1.42		*	mg/L	0.02	0.1	05/04/13 16:09	pjb
Residue, Filterable (TDS) @180C	SM2540C	2460			mg/L	10	20	04/26/13 14:34	mss3
Sulfate	D516-02 - Turbidimetric	1480		*	mg/L	50	300	05/06/13 15:36	jlf

Arizona license number: AZ0102



Inorganic Reference

FoundVLimitULowerLMDLMPCN/SCNAPQLPQCTRecRRPDRUpperU	alue of the QC Type o lpper limit for RPD, in 9 ower Recovery Limit, i lethod Detection Limit. a number assigned to n rractical Quantitation Li rue Value of the Contr Recovered amount of the lealtive Percent Different		ufacturer's certifica	
Limit U Lower L MDL A PQL P QC T Rec R RPD R Upper U	pper limit for RPD, in 9 ower Recovery Limit, i lethod Detection Limit. number assigned to n ractical Quantitation Li rue Value of the Contr Recovered amount of the letative Percent Different	%. n % (except for LCSS, mg/Kg) Same as Minimum Reporting Limit. eagents/standards to trace to the man mit, typically 5 times the MDL. ol Sample or the amount added to the	ufacturer's certifica	
Lower L MDL M PCN/SCN A PQL P QC T Rec R RPD R Upper U	ower Recovery Limit, i lethod Detection Limit. number assigned to n ractical Quantitation Li rue Value of the Contr lecovered amount of the letative Percent Differe	n % (except for LCSS, mg/Kg) Same as Minimum Reporting Limit. eagents/standards to trace to the man mit, typically 5 times the MDL. ol Sample or the amount added to the	ufacturer's certifica	
MDLMPCN/SCNAPQLPQCTRecRRPDRUpperU	lethod Detection Limit. number assigned to ruractical Quantitation Li rue Value of the Contru- lecovered amount of the letative Percent Different	Same as Minimum Reporting Limit. eagents/standards to trace to the man mit, typically 5 times the MDL. ol Sample or the amount added to the	ufacturer's certifica	
PCN/SCN A PQL P QC T Rec R RPD R Upper U	number assigned to r rractical Quantitation Li rue Value of the Contr Recovered amount of th Relative Percent Differe	eagents/standards to trace to the man mit, typically 5 times the MDL. ol Sample or the amount added to the	ufacturer's certifica	
PQL P QC T Rec R RPD R Upper U	ractical Quantitation Li rue Value of the Contr Recovered amount of the relative Percent Differe	mit, typically 5 times the MDL. ol Sample or the amount added to the		
QC T Rec R RPD R Upper U	rue Value of the Contr lecovered amount of th lelative Percent Differe	ol Sample or the amount added to the	Spike	
Rec R RPD R Upper U	Recovered amount of the Relative Percent Differe	•	бріке	
RPD R Upper U	elative Percent Differe	ie liue value of spike added, in 76 (exc	•	Wa)
Upper U		nce, calculation used for Duplicate OC	1 0	kg)
	Inner Recovery Limit i	n % (except for LCSS, mg/Kg)	, Types	
•	alue of the Sample of			
C Sample Types	;			
	nalytical Spike (Post D	ligestion)	LCSWD	Laboratory Control Sample - Water Duplicate
	nalytical Spike (Post D		LFB	Laboratory Fortified Blank
	continuing Calibration E		LFM	Laboratory Fortified Matrix
	continuing Calibration V		LFMD	Laboratory Fortified Matrix Duplicate
	ample Duplicate		LRB	Laboratory Reagent Blank
	nitial Calibration Blank		MS	Matrix Spike
	nitial Calibration Verifica	ation standard	MSD	Matrix Spike Duplicate
	nter-element Correction	n Standard - A plus B solutions	PBS	Prep Blank - Soil
	aboratory Control Sam		PBW	Prep Blank - Water
	aboratory Control Sam		PQV	Practical Quantitation Verification standard
LCSW L	aboratory Control Sam	iple - Water	SDL	Serial Dilution
Control Sample Duplicates Spikes/Fortified Standard		Verifies the accuracy of the method, Verifies the precision of the instrume Determines sample matrix interferen Verifies the validity of the calibration.	ent and/or method. ices, if any.	procedure.
CZ Qualifiers (Q		venines the validity of the calibration.		
		etected at a value between MDL and I	PQL. The associat	ed value is an estimated quantity.
		hod hold time. pH is a field test with a		
	•	e was below the laboratory defined neg		
		zed for, but was not detected above th	-	ciated value.
Т	he associated value is	either the sample quantitation limit or	the sample detecti	ion limit.
ethod Reference	s			
(1) E	PA 600/4-83-020. Me	thods for Chemical Analysis of Water	and Wastes, Marc	h 1983.
(2) E	PA 600/R-93-100. Me	thods for the Determination of Inorgar	nic Substances in E	Environmental Samples, August 1993.
(3) E	PA 600/R-94-111. Me	thods for the Determination of Metals	in Environmental S	Samples - Supplement I, May 1994.
(4) E		thods for Evaluating Solid Waste.		
	tandard Methods for th	ne Examination of Water and Wastewa	ater.	
(5) Somments	- - - - - - - - - -			
(5) Somments (1) C		om raw data. Results may vary slightl	-	
(5) S omments (1) C (2) S	oil, Sludge, and Plant	matrices for Inorganic analyses are re	ported on a dry we	
(5) S omments (1) C (2) S (3)	oil, Sludge, and Plant nimal matrices for Inor	matrices for Inorganic analyses are reganic analyses are reported on an "as	ported on a dry we s received" basis.	ight basis.
(5) S mments (1) C (2) S (3) A (4) A	oil, Sludge, and Plant nimal matrices for Inor n asterisk in the "XQ"	matrices for Inorganic analyses are re ganic analyses are reported on an "as column indicates there is an extended	ported on a dry we s received" basis.	ight basis.
(5) S particular (5) S (1) C (2) S (3) A (4) A a	oil, Sludge, and Plant nimal matrices for Inor n asterisk in the "XQ" ssociated with the resu	matrices for Inorganic analyses are re ganic analyses are reported on an "as column indicates there is an extended	ported on a dry we s received" basis. qualifier and/or ce	ight basis. rtification qualifier

REP001.09.12.01

Antimony, diss	olved		M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG343123													
WG343123ICV	ICV	05/03/13 11:09	MS130416-2	.02		.02102	mg/L	105.1	90	110			
WG343123ICB	ICB	05/03/13 11:12				.0005	mg/L		-0.0012	0.0012			
WG343123LFB	LFB	05/03/13 11:15	MS130329-1	.01		.00995	mg/L	99.5	85	115			
L11642-03AS	AS	05/03/13 11:22	MS130329-1	.01	U	.0094	mg/L	94	70	130			
L11642-03ASD	ASD	05/03/13 11:25	MS130329-1	.01	U	.00977	mg/L	97.7	70	130	3.86	20	
Arsenic, dissol	ved		M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG343123													
WG343123ICV	ICV	05/03/13 11:09	MS130416-2	.05		.05241	mg/L	104.8	90	110			
WG343123ICB	ICB	05/03/13 11:12				U	mg/L		-0.0006	0.0006			
WG343123LFB	LFB	05/03/13 11:15	MS130329-1	.05005		.04763	mg/L	95.2	85	115			
L11642-03AS	AS	05/03/13 11:22	MS130329-1	.05005	.0004	.0531	mg/L	105.3	70	130			
L11642-03ASD	ASD	05/03/13 11:25	MS130329-1	.05005	.0004	.05298	mg/L	105.1	70	130	0.23	20	
Beryllium, diss	olved		M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG343123													
WG343123ICV	ICV	05/03/13 11:09	MS130416-2	.05		.0474	mg/L	94.8	90	110			
WG343123ICB	ICB	05/03/13 11:12				U	mg/L		-0.00015	0.00015			
WG343123LFB	LFB	05/03/13 11:15	MS130329-1	.0501		.04679	mg/L	93.4	85	115			
L11642-03AS	AS	05/03/13 11:22	MS130329-1	.0501	.00007	.04915	mg/L	98	70	130			
L11642-03ASD	ASD	05/03/13 11:25	MS130329-1	.0501	.00007	.04929	mg/L	98.2	70	130	0.28	20	
Cadmium, diss	olved		M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG343123													
WG343123ICV	ICV	05/03/13 11:09	MS130416-2	.05		.05139	mg/L	102.8	90	110			
WG343123ICB	ICB	05/03/13 11:12				U	mg/L		-0.0003	0.0003			
WG343123LFB	LFB	05/03/13 11:15	MS130329-1	.0501		.04898	mg/L	97.8	85	115			
L11642-03AS	AS	05/03/13 11:22	MS130329-1	.0501	U	.04966	mg/L	99.1	70	130			
L11642-03ASD	ASD	05/03/13 11:25	MS130329-1	.0501	U	.04957	mg/L	98.9	70	130	0.18	20	
Chromium, dise	solved		M200.7 IC	P									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG342989													
WG342989ICV	ICV	05/01/13 20:38	II130114-3	2		1.996	mg/L	99.8	95	105			
WG342989ICB	ICB	05/01/13 20:44		<u>~</u>		U	mg/L	00.0	-0.03	0.03			
WG342989LFB	LFB	05/01/13 20:56	II130426-4	.5		.51	mg/L	102	-0.03	115			
L11777-08AS	AS	05/01/13 20:50	II130426-4 II130426-4	.5	U	.508	mg/L	102	85 85	115			
L11777-08ASD	ASD	05/01/13 22:14	II130426-4	.5	U	.507	mg/L	101.0	85 85	115	0.2	20	
	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	50/01/10 22.17	1100-20-4	.0	0	.007	y/∟		00	110	0.2	20	

Cobalt, dissolve	d		M200.7 IC	CP									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG342989													
WG342989ICV	ICV	05/01/13 20:38	II130114-3	2.002		2.03	mg/L	101.4	95	105			
WG342989ICB	ICB	05/01/13 20:44				U	mg/L		-0.03	0.03			
WG342989LFB	LFB	05/01/13 20:56	II130426-4	.5		.511	mg/L	102.2	85	115			
L11777-08AS	AS	05/01/13 22:14	II130426-4	.5	U	.511	mg/L	102.2	85	115			
L11777-08ASD	ASD	05/01/13 22:17	II130426-4	.5	U	.515	mg/L	103	85	115	0.78	20	
Copper, dissolve	ed		M200.7 I	CP									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG342989													
WG342989ICV	ICV	05/01/13 20:38	II130114-3	2		1.996	mg/L	99.8	95	105			
WG342989ICB	ICB	05/01/13 20:44				U	mg/L		-0.03	0.03			
WG342989LFB	LFB	05/01/13 20:56	II130426-4	.5		.517	mg/L	103.4	85	115			
L11777-08AS	AS	05/01/13 22:14	ll130426-4	.5	U	.519	mg/L	103.8	85	115			
L11777-08ASD	ASD	05/01/13 22:17	II130426-4	.5	U	.52	mg/L	104	85	115	0.19	20	
Fluoride			SM4500F	-C									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG343165													
WG343165ICV	ICV	05/03/13 16:51	WC130430-	2.002		2.04	mg/L	101.9	95	105			
WG343165ICB	ICB	05/03/13 16:59		2.002		U.U	mg/L	101.0	-0.3	0.3			
WG343165LFB1	LFB	05/03/13 17:13	WC130313-	5.005		4.87	mg/L	97.3	90	110			
L11693-03AS	AS	05/03/13 18:56	WC130313-	4004	U	3775	mg/L	94.3	90	110			
L11693-03DUP	DUP	05/03/13 19:02			U	U	mg/L				0	20	R
WG343165LFB2	LFB	05/03/13 20:24	WC130313-	5.005	-	4.76	mg/L	95.1	90	110	-		
Lead, dissolved			M200.8 I	CP-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG343123													
WG343123ICV	ICV	05/03/13 11:09	MS130416-2	.05		.05221	mg/L	104.4	90	110			
WG343123ICB	ICB	05/03/13 11:12				U	mg/L		-0.0003	0.0003			
WG343123LFB	LFB	05/03/13 11:15	MS130329-1	.05005		.04951	mg/L	98.9	85	115			
_11642-03AS	AS	05/03/13 11:22	MS130329-1	.05005	U	.04939	mg/L	98.7	70	130			
L11642-03ASD	ASD	05/03/13 11:25	MS130329-1	.05005	U	.04974	mg/L	99.4	70	130	0.71	20	
Magnesium, dis	solved		M200.7 I	CP									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG342989													
WG342989	ICV	05/01/13 20:38	1130114-3	100		101 03	ma/l	101	95	105			
WG342989 WG342989ICV	ICV ICB	05/01/13 20:38 05/01/13 20:44	ll130114-3	100		101.03 U	mg/L mg/l	101	95 -0.6	105 0.6			
WG342989 WG342989ICV WG342989ICB	ICB	05/01/13 20:44				U	mg/L		-0.6	0.6			
			II130114-3 II130426-4 II130426-4	100 49.99941 49.99941	2.5		°.	101 107.2 108.1					

Molybdenum, di	ssolved		M200.7 IC	P									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG342989													
WG342989ICV	ICV	05/01/13 20:38	II130114-3	2		2.03	mg/L	101.5	95	105			
WG342989ICB	ICB	05/01/13 20:44				U	mg/L		-0.06	0.06			
WG342989LFB	LFB	05/01/13 20:56	II130426-4	.5		.531	mg/L	106.2	85	115			
L11777-08AS	AS	05/01/13 22:14	II130426-4	.5	U	.534	mg/L	106.8	85	115			
L11777-08ASD	ASD	05/01/13 22:17	II130426-4	.5	U	.529	mg/L	105.8	85	115	0.94	20	
Nickel, dissolve	d		M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG343123													
WG343123ICV	ICV	05/03/13 11:09	MS130416-2	.05		.05046	mg/L	100.9	90	110			
WG343123ICB	ICB	05/03/13 11:12				U	mg/L		-0.0018	0.0018			
WG343123LFB	LFB	05/03/13 11:15	MS130329-1	.05005		.04849	mg/L	96.9	85	115			
L11642-03AS	AS	05/03/13 11:22	MS130329-1	.05005	U	.04798	mg/L	95.9	70	130			
L11642-03ASD	ASD	05/03/13 11:25	MS130329-1	.05005	U	.04854	mg/L	97	70	130	1.16	20	
Nitrate/Nitrite as	N		M353.2 - I	H2SO4 pr	eserved								
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG343179													
WG343179ICV	ICV	05/04/13 14:13	WI130411-3	2.416		2.577	mg/L	106.7	90	110			
WG343179ICB	ICB	05/04/13 14:14				U	mg/L		-0.06	0.06			
WG343182													
WG343182LFB	LFB	05/04/13 15:49	WI130215-3	2		2.012	mg/L	100.6	90	110			
L11774-03AS	AS	05/04/13 16:08	WI130215-3	2	U	2.254	mg/L	112.7	90	110			N
L11775-02DUP	DUP	05/04/13 16:10			1.42	1.43	mg/L				0.7	20	
Residue, Filteral	ole (TDS) @180C	SM2540C										
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG342774													
WG342774PBW	PBW	04/26/13 14:15				U	mg/L		-20	20			
WG342774LCSW	LCSW	04/26/13 14:16	PCN42172	260		278	mg/L	106.9	80	120			
L11779-06DUP	DUP	04/26/13 14:44			780	778	mg/L				0.3	10	
Selenium, disso	lved		M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG343123													
WG343123ICV	ICV	05/03/13 11:09	MS130416-2	.05		.05277	mg/L	105.5	90	110			
WG343123ICB	ICB	05/03/13 11:12				U.00277	mg/L		-0.0003	0.0003			
WG343123LFB	LFB	05/03/13 11:15	MS130329-1	.05005		.04942	mg/L	98.7	85	115			
L11642-03AS	AS	05/03/13 11:22	MS130329-1	.05005	.0005	.05536	mg/L	109.6	70	130			
LI 1042-03A3													



Inorganic QC Summary

FMI Gold & Copper - Sierrita

Sulfate			D516-02 -	Turbidim	etric								
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG343220													
WG343220ICB	ICB	05/06/13 12:48				U	mg/L		-3	3			
WG343220ICV	ICV	05/06/13 12:49	WI130502-2	20		20.4	mg/L	102	90	110			
WG343220LFB	LFB	05/06/13 14:36	WI130416-3	9.99		10.3	mg/L	103.1	90	110			
L11740-05DUP	DUP	05/06/13 15:34			1550	1560	mg/L				0.6	20	
L11763-01AS	AS	05/06/13 15:34	SO4TURB50	100	4700	4840	mg/L	140	90	110			М3
Sulfate			M300.0 - I	on Chrom	natography	1							
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG343086													
WG343086ICV	ICV	05/02/13 15:13	WI130315-7	50		52.07	mg/L	104.1	90	110			
WG343086ICB	ICB	05/02/13 15:31				U	mg/L		-1.5	1.5			
WG343086LFB1	LFB	05/02/13 16:06	WI130501-1	30		30.5	mg/L	101.7	90	110			
WG343086LFB2	LFB	05/03/13 0:33	WI130501-1	30		30.4	mg/L	101.3	90	110			
L11773-02DUP	DUP	05/03/13 1:08			1943	1989	mg/L				2.3	20	
L11773-03AS	AS	05/03/13 2:18	WI130501-1	300	1062	1379.5	mg/L	105.8	90	110			
L11773-03AS	AS	05/03/13 13:32	WI130501-1	600	1055.4	1676.9	mg/L	103.6	90	110			
Thallium, disso	lved		M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG343123													
WG343123ICV	ICV	05/03/13 11:09	MS130416-2	.05		.05431	mg/L	108.6	90	110			
WG343123ICB	ICB	05/03/13 11:12				U	mg/L		-0.0003	0.0003			
WG343123LFB	LFB	05/03/13 11:15	MS130329-1	.05005		.05136	mg/L	102.6	85	115			
L11642-03AS	AS	05/03/13 11:22	MS130329-1	.05005	U	.05105	mg/L	102	70	130			
L11642-03ASD	ASD	05/03/13 11:25	MS130329-1	.05005	U	.05169	mg/L	103.3	70	130	1.25	20	



FMI Gold & Copper - Sierrita

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L11775-02	WG343165	Fluoride	SM4500F-C	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG343182	Nitrate/Nitrite as N	M353.2 - H2SO4 preserved	M1	Matrix spike recovery was high, the recovery of the associated control sample (LCS or LFB) was acceptable.
	WG343220	Sulfate	D516-02 - Turbidimetric	М3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.



ACZ Project ID: L11775

No certification qualifiers associated with this analysis

AGZ Laboratories, Inc. 2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Sample Receipt

FMI Gold & Copper - Sierrita	ACZ Project ID:						
ZS00003Q8	Date Rece	vived: 04	4/26/201	3 11:38			
	Receive	-		gac			
	Date Pri	nted:	4/:	29/2013			
Receipt Verification		YES	NO	NA			
1) Is a foreign soil permit included for applicable samples?		1110	NO	X			
2) Is the Chain of Custody or other directive shipping papers present?		Х					
3) Does this project require special handling procedures such as CLP protocol?				Х			
4) Are any samples NRC licensable material?				Х			
5) If samples are received past hold time, proceed with requested short hold time	analyses?	Х					
6) Is the Chain of Custody complete and accurate?		Х					
7) Were any changes made to the Chain of Custody prior to ACZ receiving the sa	amples?		Х				
Samples/Containers							
		YES	NO	NA			
8) Are all containers intact and with no leaks?		Х					
9) Are all labels on containers and are they intact and legible?		Х					
10) Do the sample labels and Chain of Custody match for Sample ID, Date, and T	Time?	Х					
11) For preserved bottle types, was the pH checked and within limits?		Х					
12) Is there sufficient sample volume to perform all requested work?		Х					
13) Is the custody seal intact on all containers?				Х			
14) Are samples that require zero headspace acceptable?				Х			
15) Are all sample containers appropriate for analytical requirements?		Х					
16) Is there an Hg-1631 trip blank present?				Х			
17) Is there a VOA trip blank present?				Х			
18) Were all samples received within hold time?		Х					
Chain of Custody Related Remarks							
Client Contact Remarks							
Shipping Containers							

Cooler Id	Temp (°C)	Rad ($\mu R/Hr$)	Custody Seal Intact?
3490	3	13	Yes

Client must contact an ACZ Project Manager if analysis should not proceed for samples received outside of their thermal preservation acceptance criteria.

2773 Downhill Drive Stu	Laboratories, Inc eamboat Springs, CO 80487 (800)	334-5493	H	74			ified. YES NO ified. YES NO Attach list or use quote rom atta			
Report to:										
Name: Jon Anderson			Addre	ess: 62	00 W. Du	val Mine	Road			
	McMoRan Sierrita Inc.		, danc			y, AZ 85				
E-mail: jonathan_and			Telep		520-393-		014	*		
Copy of Report to:		•								
Name: Ben Daignea	u		E-mai	il: bdai	gneau@c	learcreek	associat	tes.com		
Company: Clear Cre	ek Associates		Telep	hone:	520-622-	3222				
Invoice to:						·				
Name:			Addre	ess:						
Company:										
E-mail:			Telep	hone:						
	ast holding time (HT), or if insuffi			-	lete					
,	tion, shall ACZ proceed with requ contact client for further instruction			•	0"			NO		
	proceed with the requested analys					vill be qua	lified.			
	N Compliance Monitoring?									
If yes, please include s PROJECT INFORMA	state forms. Results will be repor	ted to PQL			VOES DEC	HESTED	uttach li			
	a tion									
Quote #:	000208	_	ŝ	PA 37		1				
Project/PO #: ZS000		_	Containers	ш ठ						
	teporting state for compliance testing:			A 300	[원]					
			of C	ý EP	<u>a</u>					
SAMPLE IDENTIFI	Clicensable material? Yes No CATION DATE:TIME	 Matrix	#	SO4 by EPA 300 or EPA 375	Quarterly					
M-20	4/23/13 : 0902	GW	1	×						
MH-11	4/23/13 : 1116	GW	3		×					
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5 										
	Water) · GW (Ground Water) · WW (Wa	ste Water) · D\	N (Drinki	ing Wate	r) · SL (Slud	ge) · SO (So	oil) · OL (C	iil) · Other ((Specify)	
REMARKS										
UPS Tracking # 1Z	867 7E4 23 1001 097 9									
1										
1										
	Please refer to ACZ's term	s & conditio	ons loc	ated or	the reve	rse side o	of this C	DC.		
RELINQUI		s & conditio	ons loc		n the reve RECLIVE		f this C	OC.	DATECON	

FRMAD050.01.15.09



Analytical Report

May 20, 2013

Report to: Jon Anderson FMI Gold & Copper - Sierrita 6200 West Duval Mine Rd. Green Valley, AZ 85614

cc: Ben Daigneau

Bill to: Accounts Payable FMI Gold & Copper - Sierrita P.O. Box 2671 Phoenix, AZ 85002-2671

Project ID: ZS000003Q8 ACZ Project ID: L11886

Jon Anderson:

Enclosed are the analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on May 03, 2013. This project has been assigned to ACZ's project number, L11886. Please reference this number in all future inquiries.

All analyses were performed according to ACZ's Quality Assurance Plan. The enclosed results relate only to the samples received under L11886. Each section of this report has been reviewed and approved by the appropriate Laboratory Supervisor, or a qualified substitute.

Except as noted, the test results for the methods and parameters listed on ACZ's current NELAC certificate letter (#ACZ) meet all requirements of NELAC.

This report shall be used or copied only in its entirety. ACZ is not responsible for the consequences arising from the use of a partial report.

All samples and sub-samples associated with this project will be disposed of after June 19, 2013. If the samples are determined to be hazardous, additional charges apply for disposal (typically \$11/sample). If you would like the samples to be held longer than ACZ's stated policy or to be returned, please contact your Project Manager or Customer Service Representative for further details and associated costs. ACZ retains analytical raw data reports for ten years.

If you have any questions or other needs, please contact your Project Manager.

S. Habermehl

Scott Habermehl has reviewed and approved this report.





	ACZ Laboratories, Inc. 2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493 FMI Gold & Copper - Sierrita								ic Anal lesults	ytica
FMI Gold & Co Project ID:	opper - Sierrita ZS000003Q8						•	ID: L1	1886-01 ′01/13 12:1	0
Sample ID:	M-9						e Sampi e Receiv		/03/13 /03/13	U
						Sar	nple Mat	rix: Gro	ound Wate	r
Wet Chemistry										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Anal

66.05

mg/L

0.5

2.5

Arizona license number: AZ0102

Sulfate

05/16/13 11:18

lyst

tcd

M300.0 - Ion Chromatography

1



Inorganic Reference

Batch	Explanations										
Fourd	A distinct set of samples analyzed at a specific time										
Found	Value of the QC Type of interest										
Limit	Upper limit for RPD, in %. Lower Recovery Limit, in % (except for LCSS, mg/Kg) Method Detection Limit. Same as Minimum Reporting Limit. Allows for instrument and annual fluctuations.										
Lower		A II	and an all successful to the stand stand								
MDL											
PCN/SCN	A number assigned to reagents/standards to trace to the man	iutacturer's certific	ate of analysis								
PQL	Practical Quantitation Limit, typically 5 times the MDL.	0.1									
QC	True Value of the Control Sample or the amount added to the	•									
Rec	Recovered amount of the true value or spike added, in % (exc		/Kg)								
RPD	Relative Percent Difference, calculation used for Duplicate QC	Types									
Upper Sample	Upper Recovery Limit, in % (except for LCSS, mg/Kg) Value of the Sample of interest										
	· ·										
C Sample Typ		1.0014/0	Laboratory Control Compley Water Durlingt								
AS	Analytical Spike (Post Digestion)	LCSWD	Laboratory Control Sample - Water Duplicate								
ASD	Analytical Spike (Post Digestion) Duplicate	LFB	Laboratory Fortified Blank								
CCB	Continuing Calibration Blank	LFM	Laboratory Fortified Matrix								
CCV	Continuing Calibration Verification standard	LFMD	Laboratory Fortified Matrix Duplicate								
DUP	Sample Duplicate	LRB	Laboratory Reagent Blank								
ICB	Initial Calibration Blank	MS	Matrix Spike								
ICV	Initial Calibration Verification standard	MSD	Matrix Spike Duplicate								
ICSAB	Inter-element Correction Standard - A plus B solutions	PBS	Prep Blank - Soil								
LCSS	Laboratory Control Sample - Soil	PBW	Prep Blank - Water								
LCSSD LCSW	Laboratory Control Sample - Soil Duplicate Laboratory Control Sample - Water	PQV SDL	Practical Quantitation Verification standard Serial Dilution								
Duplicates Spikes/Forti	ified Matrix Determines sample matrix interferen										
Standard	Verifies the validity of the calibration.										
Z Qualifiers	(Qual)										
В	Analyte concentration detected at a value between MDL and F										
	,	PQL. The associat	ed value is an estimated quantity.								
н	Analysis exceeded method hold time. pH is a field test with an										
H L	-	n immediate hold t									
	Analysis exceeded method hold time. pH is a field test with an	n immediate hold t gative threshold.	ime.								
L	Analysis exceeded method hold time. pH is a field test with an Target analyte response was below the laboratory defined neg	n immediate hold t gative threshold. e level of the asso	ime. iciated value.								
L	Analysis exceeded method hold time. pH is a field test with ar Target analyte response was below the laboratory defined neg The material was analyzed for, but was not detected above th The associated value is either the sample quantitation limit or	n immediate hold t gative threshold. e level of the asso	ime. iciated value.								
L U	Analysis exceeded method hold time. pH is a field test with ar Target analyte response was below the laboratory defined neg The material was analyzed for, but was not detected above th The associated value is either the sample quantitation limit or	n immediate hold t gative threshold. e level of the asso the sample detect	ime. iciated value. ion limit.								
L U ethod Referei	Analysis exceeded method hold time. pH is a field test with an Target analyte response was below the laboratory defined neg The material was analyzed for, but was not detected above th The associated value is either the sample quantitation limit or nces	n immediate hold t gative threshold. e level of the asso the sample detect and Wastes, Marc	ime. iciated value. ion limit. h 1983.								
L U ethod Referen	Analysis exceeded method hold time. pH is a field test with ar Target analyte response was below the laboratory defined neg The material was analyzed for, but was not detected above th The associated value is either the sample quantitation limit or nces EPA 600/4-83-020. Methods for Chemical Analysis of Water a	n immediate hold t gative threshold. e level of the asso the sample detect and Wastes, Marc nic Substances in l	ime. iciated value. ion limit. h 1983. Environmental Samples, August 1993.								
L U ethod Referen (1) (2)	Analysis exceeded method hold time. pH is a field test with ar Target analyte response was below the laboratory defined neg The material was analyzed for, but was not detected above th The associated value is either the sample quantitation limit or nces EPA 600/4-83-020. Methods for Chemical Analysis of Water a EPA 600/R-93-100. Methods for the Determination of Inorgan	n immediate hold t gative threshold. e level of the asso the sample detect and Wastes, Marc nic Substances in l	ime. iciated value. ion limit. h 1983. Environmental Samples, August 1993.								
L U ethod Referen (1) (2) (3)	Analysis exceeded method hold time. pH is a field test with an Target analyte response was below the laboratory defined neg The material was analyzed for, but was not detected above th The associated value is either the sample quantitation limit or nces EPA 600/4-83-020. Methods for Chemical Analysis of Water a EPA 600/R-93-100. Methods for the Determination of Inorgan EPA 600/R-94-111. Methods for the Determination of Metals	n immediate hold t gative threshold. e level of the asso the sample detect and Wastes, Marc nic Substances in l in Environmental S	ime. iciated value. ion limit. h 1983. Environmental Samples, August 1993.								
L U ethod Referen (1) (2) (3) (4)	Analysis exceeded method hold time. pH is a field test with an Target analyte response was below the laboratory defined neg The material was analyzed for, but was not detected above th The associated value is either the sample quantitation limit or nces EPA 600/4-83-020. Methods for Chemical Analysis of Water a EPA 600/R-93-100. Methods for the Determination of Inorgan EPA 600/R-94-111. Methods for the Determination of Metals EPA SW-846. Test Methods for Evaluating Solid Waste.	n immediate hold t gative threshold. e level of the asso the sample detect and Wastes, Marc nic Substances in l in Environmental S	ime. iciated value. ion limit. h 1983. Environmental Samples, August 1993.								
L U ethod Referen (1) (2) (3) (4) (5)	Analysis exceeded method hold time. pH is a field test with an Target analyte response was below the laboratory defined neg The material was analyzed for, but was not detected above th The associated value is either the sample quantitation limit or nces EPA 600/4-83-020. Methods for Chemical Analysis of Water a EPA 600/R-93-100. Methods for the Determination of Inorgan EPA 600/R-94-111. Methods for the Determination of Metals EPA SW-846. Test Methods for Evaluating Solid Waste.	n immediate hold t gative threshold. e level of the asso the sample detect and Wastes, Marc nic Substances in I in Environmental s ater.	ime. iciated value. ion limit. h 1983. Environmental Samples, August 1993. Samples - Supplement I, May 1994.								
L U ethod Referen (1) (2) (3) (4) (5) emments	Analysis exceeded method hold time. pH is a field test with an Target analyte response was below the laboratory defined neg The material was analyzed for, but was not detected above th The associated value is either the sample quantitation limit or nces EPA 600/4-83-020. Methods for Chemical Analysis of Water a EPA 600/R-93-100. Methods for the Determination of Inorgar EPA 600/R-94-111. Methods for the Determination of Metals EPA SW-846. Test Methods for Evaluating Solid Waste. Standard Methods for the Examination of Water and Wastewar	n immediate hold t gative threshold. e level of the asso the sample detect and Wastes, Marc nic Substances in l in Environmental s ater. y if the rounded va	ime. iciated value. ion limit. h 1983. Environmental Samples, August 1993. Samples - Supplement I, May 1994.								
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L U ethod Referent (1) (2) (3) (4) (5) 0 mments (1) (2) (3)	Analysis exceeded method hold time. pH is a field test with an Target analyte response was below the laboratory defined neg The material was analyzed for, but was not detected above th The associated value is either the sample quantitation limit or nces EPA 600/4-83-020. Methods for Chemical Analysis of Water a EPA 600/R-93-100. Methods for the Determination of Inorgan EPA 600/R-94-111. Methods for the Determination of Metals EPA SW-846. Test Methods for Evaluating Solid Waste. Standard Methods for the Examination of Water and Wastewar QC results calculated from raw data. Results may vary slight Soil, Sludge, and Plant matrices for Inorganic analyses are rep Animal matrices for Inorganic analyses are reported on an "as	n immediate hold t gative threshold. e level of the asso the sample detect and Wastes, Marc nic Substances in 1 in Environmental s ater. y if the rounded va ported on a dry we s received" basis.	ime. ciated value. ion limit. h 1983. Environmental Samples, August 1993. Samples - Supplement I, May 1994. slues are used in the calculations. sight basis.								
L U ethod Referent (1) (2) (3) (4) (5) 0 mments (1) (2) (3)	Analysis exceeded method hold time. pH is a field test with an Target analyte response was below the laboratory defined neg The material was analyzed for, but was not detected above th The associated value is either the sample quantitation limit or nces EPA 600/4-83-020. Methods for Chemical Analysis of Water a EPA 600/R-93-100. Methods for the Determination of Inorgan EPA 600/R-94-111. Methods for the Determination of Metals EPA SW-846. Test Methods for Evaluating Solid Waste. Standard Methods for the Examination of Water and Wastewar QC results calculated from raw data. Results may vary slightly Soil, Sludge, and Plant matrices for Inorganic analyses are rep Animal matrices for Inorganic analyses are reported on an "as An asterisk in the "XQ" column indicates there is an extended	n immediate hold t gative threshold. e level of the asso the sample detect and Wastes, Marc nic Substances in 1 in Environmental s ater. y if the rounded va ported on a dry we s received" basis. qualifier and/or ce	ime. ciated value. ion limit. h 1983. Environmental Samples, August 1993. Samples - Supplement I, May 1994. slues are used in the calculations. sight basis.								

REP001.09.12.01

Sulfate		M300.0 - Ion Chromatography											
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG343679													
WG343679ICV	ICV	05/15/13 12:35	WI130315-7	50		51.86	mg/L	103.7	90	110			
WG343679ICB	ICB	05/15/13 12:53				U	mg/L		-1.5	1.5			
WG343765													
WG343765LFB	LFB	05/16/13 9:50	WI130501-1	30		30.33	mg/L	101.1	90	110			
L11694-04DUP	DUP	05/16/13 10:25			142.79	142.59	mg/L				0.1	20	
L11755-01AS	AS	05/16/13 11:00	WI130501-1	300	368.8	684.5	mg/L	105.2	90	110			



ACZ Project ID: L11886

FMI Gold & Copper - Sierrita

ACZ ID	WORKNUM PARAMETER	METHOD	QUAL DESCRIPTION	

No extended qualifiers associated with this analysis



ACZ Project ID: L11886

No certification qualifiers associated with this analysis

4 **AGZ** Laboratories, Inc. 2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Sample Receipt

FMI Gold & Copper - Sierrita ZS000003Q8	ACZ Proje Date Rece Receive	eived: 0		L11886 3 10:00 ksj
	Date Pr	inted:	5	5/3/2013
Receipt Verification				
1) Is a foreign soil permit included for applicable samples?		YES	NO	NA X
2) Is the Chain of Custody or other directive shipping papers present?		X		
3) Does this project require special handling procedures such as CLP protocol?				X
4) Are any samples NRC licensable material?				X
5) If samples are received past hold time, proceed with requested short hold tim	e analvses?	Х		
6) Is the Chain of Custody complete and accurate?	,	X		
7) Were any changes made to the Chain of Custody prior to ACZ receiving the s	samples?		Х	<u></u>
Samples/Containers	··· F ··			
Samples/Containers		YES	NO	NA
8) Are all containers intact and with no leaks?		X		
9) Are all labels on containers and are they intact and legible?		Х		
10) Do the sample labels and Chain of Custody match for Sample ID, Date, and	Time?	Х		
11) For preserved bottle types, was the pH checked and within limits?				Х
12) Is there sufficient sample volume to perform all requested work?		Х		
13) Is the custody seal intact on all containers?				Х
14) Are samples that require zero headspace acceptable?				Х
15) Are all sample containers appropriate for analytical requirements?		Х		
16) Is there an Hg-1631 trip blank present?				Х
17) Is there a VOA trip blank present?				Х
18) Were all samples received within hold time?		Х		
Chain of Custody Related Remarks				
Client Contact Remarks				
Shipping Containers				
	tody Seal Int			
4100 4.7 15 Yes				

Client must contact an ACZ Project Manager if analysis should not proceed for samples received outside of their thermal preservation acceptance criteria.

			atories, l	nc. 🗋	_\){	$\mathbb{R}^{\mathcal{F}}$	21~		CH	AIN .	of CUS	STOL		
	2773 Down!	ill Drive Steamboat Sp	rings, CO 80487 (800) 334-5493		Ľ	JY ()						
	Report to													
	Name: Jon	Anderson			Addre	ess: 620	00 W. Di	uval Mi	ne Roa	ad				
		Freeport-McMoRan					een Valle		85614					
	E-mail: jon	athan_anderson@fm	ni.com		Telep	hone:	520-393-	-2714						
	Copy of R	eport to.		· · · · ·										
	Name: Be	n Daigneau			E-ma	il: bdai	gneau@c	clearcre	ekasso	ciates.c	om			
	Company:	Clear Creek Associa	ates		Telep	hone:	520-622-	-3222						
	Invoice to													
	Name:				Addro	ess:								
	Company:							-						
	E-mail:				Teler	hone:		•						
		received past holding	g time (HT), or if in	sufficient HT	Telephone: remains to complete YES									
	analysis be	fore expiration, shall /	ACZ proceed with	requested sh	ort HT and	alyses?				N	10]		
		ACZ will contact clie ACZ will proceed will						will be a	ualifier	d.				
		s for CO DW Complia		naryses, even		, pirou, i					ES			
		se include state forms		eported to PC	L.						10 x			
	PROJECT	INFORMATION				ARALY	YSES RE(DUESTE	D (atta	ch list or	cuse quot	"norm" - "		
	Quote #:					\ 375								
	Project/PC	#: ZS000003Q8			Containers	EP.								
	Reporting	state for compliance	testing:		ntai	° 000								
	Sampler's	Name: Jeff Joy			<u>і — і ш</u>									
	Are any sa	mples NRC licensab	le material? Yes	No	# •	SO4 by I								
	SAMPLE	DENTIFICATION	DATE: UN	At. Mar	uix	S S	┟──┼					<u> </u>		
	M-9		5/1/13 : 1210	GV	V 1	×								
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	Matrix	-	/ (Ground Water) · WV	V (Waste Water)	⊡ DW (Drinl	king Wate	r) · SL (Slu	dge) · SO	(Soil) · C	OL (Oil) · C	other (Specing	/)		
	REMARK	ò												
11886 Chain of Custody	UPS Trac	king # 1Z 867 7E4 2	23 1001 172 7											
					ditions lo				e of th	is COC.				
		#: ZS000003Q8 tate for compliance testing: larne: Jeff Joy mples NRC licensable material? Yes No IDENTIFICATION DATE TIME. 5/1/13 : 1210 5/1/13 : 1210 SW (Surface Water) · GW (Ground Water) · WW (Wester Water) SW (Surface Water) · GW (Ground Water) · WW (Wester Water) SW (Surface Water) · GW (Ground Water) · WW (Wester Water) SW (Surface Water) · GW (Ground Water) · WW (Wester Water) SW (Surface Water) · GW (Ground Water) · WW (Wester Water) SW (Surface Water) · GW (Ground Water) · WW (Wester Water) SW (Surface Water) · GW (Ground Water) · WW (Water Water) SW (Surface Water) · GW (Ground Water) · WW (Water Water) SW (Surface Water) · GW (Ground Water) · WW (Water Water) SW (Surface Water) · GW (Ground Water) · WW (Water Water) SW (Surface Water) · GW (Ground Water) · WW (Water Water) SW (Surface Water) · GW (Ground Water) · WW (Water Water) SW (Surface Water) · GW (Ground Water) · WW (Water Water) SW (Surface Water) · GW (Ground Water) · WW (Water Water) SW (Surface Water) · GW (Ground Water) · WW (Water Water) SW (Surface Water) · GW (Ground Water) · WW (Water) SW (Surface Water) · GW (Ground Water) · WW (Water) SW (Surface Water) · GW (Ground Water) · WW (Water) SW (Surface Water) · GW (Ground Water) · WW (Water) SW (Surface Water) · GW (Ground Water) · WW (Water) · WW (Water) SW (Surface Water) · GW (Ground Water) · WW (Water) · WW		da el tume.			RECEIV:	DBY.		2		DATE ILL		
	Jeff Joy	A	5 /1 /	13 : 1530			17	87		<u> </u>	>3.2	SID:DD		
			·· ·											

FRMAD050.01.15.09

White - Return with sample. Yellow - Retain for your records.



Analytical Report

May 20, 2013

Report to: Jon Anderson FMI Gold & Copper - Sierrita 6200 West Duval Mine Rd. Green Valley, AZ 85614

cc: Ben Daigneau

Bill to: Accounts Payable FMI Gold & Copper - Sierrita P.O. Box 2671 Phoenix, AZ 85002-2671

Project ID: ZS000003Q8 ACZ Project ID: L11989

Jon Anderson:

Enclosed are the analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on May 10, 2013. This project has been assigned to ACZ's project number, L11989. Please reference this number in all future inquiries.

All analyses were performed according to ACZ's Quality Assurance Plan. The enclosed results relate only to the samples received under L11989. Each section of this report has been reviewed and approved by the appropriate Laboratory Supervisor, or a qualified substitute.

Except as noted, the test results for the methods and parameters listed on ACZ's current NELAC certificate letter (#ACZ) meet all requirements of NELAC.

This report shall be used or copied only in its entirety. ACZ is not responsible for the consequences arising from the use of a partial report.

All samples and sub-samples associated with this project will be disposed of after June 19, 2013. If the samples are determined to be hazardous, additional charges apply for disposal (typically \$11/sample). If you would like the samples to be held longer than ACZ's stated policy or to be returned, please contact your Project Manager or Customer Service Representative for further details and associated costs. ACZ retains analytical raw data reports for ten years.

If you have any questions or other needs, please contact your Project Manager.

S. Habermehl

Scott Habermehl has reviewed and approved this report.







Project ID:	ZS000003Q8
Sample ID:	HAVENGOLF

ACZ Sample ID: L11989-01 Date Sampled: 05/07/13 09:00 Date Received: 05/10/13 Sample Matrix: Ground Water

Wet Chemistry										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Sulfate	M300.0 - Ion Chromatography	2	105.13		*	mg/L	1	5	05/16/13 1:26	tcd

Arizona license number: AZ0102



Inorganic Reference

Batch	Explanations										
Fourd	A distinct set of samples analyzed at a specific time										
Found	Value of the QC Type of interest										
Limit	Upper limit for RPD, in %. Lower Recovery Limit, in % (except for LCSS, mg/Kg) Method Detection Limit. Same as Minimum Reporting Limit. Allows for instrument and annual fluctuations.										
Lower		A II									
MDL											
PCN/SCN	A number assigned to reagents/standards to trace to the man	iutacturer's certific	ate of analysis								
PQL	Practical Quantitation Limit, typically 5 times the MDL.	0.1									
QC	True Value of the Control Sample or the amount added to the	•									
Rec	Recovered amount of the true value or spike added, in % (exc		/Kg)								
RPD	Relative Percent Difference, calculation used for Duplicate QC	Types									
Upper Sample	Upper Recovery Limit, in % (except for LCSS, mg/Kg) Value of the Sample of interest										
	· ·										
C Sample Typ		1.0014/0	Laboratory Control Compley Water Durlingt								
AS	Analytical Spike (Post Digestion)	LCSWD	Laboratory Control Sample - Water Duplicate								
ASD	Analytical Spike (Post Digestion) Duplicate	LFB	Laboratory Fortified Blank								
CCB	Continuing Calibration Blank	LFM	Laboratory Fortified Matrix								
CCV	Continuing Calibration Verification standard	LFMD	Laboratory Fortified Matrix Duplicate								
DUP	Sample Duplicate	LRB	Laboratory Reagent Blank								
ICB	Initial Calibration Blank	MS	Matrix Spike								
ICV	Initial Calibration Verification standard	MSD	Matrix Spike Duplicate								
ICSAB	Inter-element Correction Standard - A plus B solutions	PBS	Prep Blank - Soil								
LCSS	Laboratory Control Sample - Soil	PBW	Prep Blank - Water								
LCSSD LCSW	Laboratory Control Sample - Soil Duplicate Laboratory Control Sample - Water	PQV SDL	Practical Quantitation Verification standard Serial Dilution								
Duplicates Spikes/Forti	ified Matrix Determines sample matrix interferen										
Standard	Verifies the validity of the calibration.										
Z Qualifiers	(Qual)										
В	Analyte concentration detected at a value between MDL and F										
	,	PQL. The associat	ed value is an estimated quantity.								
н	Analysis exceeded method hold time. pH is a field test with an										
H L	-	n immediate hold t									
	Analysis exceeded method hold time. pH is a field test with an	n immediate hold t gative threshold.	ime.								
L	Analysis exceeded method hold time. pH is a field test with an Target analyte response was below the laboratory defined neg	n immediate hold t gative threshold. e level of the asso	ime. iciated value.								
L	Analysis exceeded method hold time. pH is a field test with ar Target analyte response was below the laboratory defined neg The material was analyzed for, but was not detected above th The associated value is either the sample quantitation limit or	n immediate hold t gative threshold. e level of the asso	ime. iciated value.								
L U	Analysis exceeded method hold time. pH is a field test with ar Target analyte response was below the laboratory defined neg The material was analyzed for, but was not detected above th The associated value is either the sample quantitation limit or	n immediate hold t gative threshold. e level of the asso the sample detect	ime. iciated value. ion limit.								
L U ethod Referei	Analysis exceeded method hold time. pH is a field test with an Target analyte response was below the laboratory defined neg The material was analyzed for, but was not detected above th The associated value is either the sample quantitation limit or nces	n immediate hold t gative threshold. e level of the asso the sample detect and Wastes, Marc	ime. iciated value. ion limit. h 1983.								
L U ethod Referen	Analysis exceeded method hold time. pH is a field test with ar Target analyte response was below the laboratory defined neg The material was analyzed for, but was not detected above th The associated value is either the sample quantitation limit or nces EPA 600/4-83-020. Methods for Chemical Analysis of Water a	n immediate hold t gative threshold. e level of the asso the sample detect and Wastes, Marc nic Substances in l	ime. iciated value. ion limit. h 1983. Environmental Samples, August 1993.								
L U ethod Referen (1) (2)	Analysis exceeded method hold time. pH is a field test with ar Target analyte response was below the laboratory defined neg The material was analyzed for, but was not detected above th The associated value is either the sample quantitation limit or nces EPA 600/4-83-020. Methods for Chemical Analysis of Water a EPA 600/R-93-100. Methods for the Determination of Inorgan	n immediate hold t gative threshold. e level of the asso the sample detect and Wastes, Marc nic Substances in l	ime. iciated value. ion limit. h 1983. Environmental Samples, August 1993.								
L U ethod Referen (1) (2) (3)	Analysis exceeded method hold time. pH is a field test with an Target analyte response was below the laboratory defined neg The material was analyzed for, but was not detected above th The associated value is either the sample quantitation limit or nces EPA 600/4-83-020. Methods for Chemical Analysis of Water a EPA 600/R-93-100. Methods for the Determination of Inorgan EPA 600/R-94-111. Methods for the Determination of Metals	n immediate hold t gative threshold. e level of the asso the sample detect and Wastes, Marc nic Substances in l in Environmental S	ime. iciated value. ion limit. h 1983. Environmental Samples, August 1993.								
L U ethod Referen (1) (2) (3) (4)	Analysis exceeded method hold time. pH is a field test with an Target analyte response was below the laboratory defined neg The material was analyzed for, but was not detected above th The associated value is either the sample quantitation limit or nces EPA 600/4-83-020. Methods for Chemical Analysis of Water a EPA 600/R-93-100. Methods for the Determination of Inorgan EPA 600/R-94-111. Methods for the Determination of Metals EPA SW-846. Test Methods for Evaluating Solid Waste.	n immediate hold t gative threshold. e level of the asso the sample detect and Wastes, Marc nic Substances in l in Environmental S	ime. iciated value. ion limit. h 1983. Environmental Samples, August 1993.								
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L U ethod Referen (1) (2) (3) (4) (5) emments	Analysis exceeded method hold time. pH is a field test with an Target analyte response was below the laboratory defined neg The material was analyzed for, but was not detected above th The associated value is either the sample quantitation limit or nces EPA 600/4-83-020. Methods for Chemical Analysis of Water a EPA 600/R-93-100. Methods for the Determination of Inorgar EPA 600/R-94-111. Methods for the Determination of Metals EPA SW-846. Test Methods for Evaluating Solid Waste. Standard Methods for the Examination of Water and Wastewar	n immediate hold t gative threshold. e level of the asso the sample detect and Wastes, Marc nic Substances in l in Environmental s ater. y if the rounded va	ime. iciated value. ion limit. h 1983. Environmental Samples, August 1993. Samples - Supplement I, May 1994.								
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L U ethod Referent (1) (2) (3) (4) (5) 0 mments (1) (2) (3)	Analysis exceeded method hold time. pH is a field test with an Target analyte response was below the laboratory defined neg The material was analyzed for, but was not detected above th The associated value is either the sample quantitation limit or nces EPA 600/4-83-020. Methods for Chemical Analysis of Water a EPA 600/R-93-100. Methods for the Determination of Inorgan EPA 600/R-94-111. Methods for the Determination of Metals EPA SW-846. Test Methods for Evaluating Solid Waste. Standard Methods for the Examination of Water and Wastewar QC results calculated from raw data. Results may vary slight Soil, Sludge, and Plant matrices for Inorganic analyses are rep Animal matrices for Inorganic analyses are reported on an "as	n immediate hold t gative threshold. e level of the asso the sample detect and Wastes, Marc nic Substances in 1 in Environmental s ater. y if the rounded va ported on a dry we s received" basis.	ime. ciated value. ion limit. h 1983. Environmental Samples, August 1993. Samples - Supplement I, May 1994. slues are used in the calculations. sight basis.								
L U ethod Referent (1) (2) (3) (4) (5) 0 mments (1) (2) (3)	Analysis exceeded method hold time. pH is a field test with an Target analyte response was below the laboratory defined neg The material was analyzed for, but was not detected above th The associated value is either the sample quantitation limit or nces EPA 600/4-83-020. Methods for Chemical Analysis of Water a EPA 600/R-93-100. Methods for the Determination of Inorgan EPA 600/R-94-111. Methods for the Determination of Metals EPA SW-846. Test Methods for Evaluating Solid Waste. Standard Methods for the Examination of Water and Wastewar QC results calculated from raw data. Results may vary slightly Soil, Sludge, and Plant matrices for Inorganic analyses are rep Animal matrices for Inorganic analyses are reported on an "as An asterisk in the "XQ" column indicates there is an extended	n immediate hold t gative threshold. e level of the asso the sample detect and Wastes, Marc nic Substances in 1 in Environmental s ater. y if the rounded va ported on a dry we s received" basis. qualifier and/or ce	ime. ciated value. ion limit. h 1983. Environmental Samples, August 1993. Samples - Supplement I, May 1994. slues are used in the calculations. sight basis.								

REP001.09.12.01

Sulfate		M300.0 - Ion Chromatography											
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG343679													
WG343679ICV	ICV	05/15/13 12:35	WI130315-7	50		51.86	mg/L	103.7	90	110			
WG343679ICB	ICB	05/15/13 12:53				U	mg/L		-1.5	1.5			
WG343679LFB1	LFB	05/15/13 13:28	WI130501-1	30		31.54	mg/L	105.1	90	110			
WG343679LFB2	LFB	05/15/13 22:14	WI130501-1	30		31.06	mg/L	103.5	90	110			
L11947-06DUP	DUP	05/15/13 22:49			U	U	mg/L				0	20	R
L11961-01AS	AS	05/15/13 23:59	WI130501-1	1500	3192.1	4752.2	mg/L	104	90	110			



2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Extended Qualifier Report

FMI Gold & Copper - Sierrita

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L11989-01	WG343679	Sulfate	M300.0 - Ion Chromatography	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).



ACZ Project ID: L11989

No certification qualifiers associated with this analysis

AGZ Laboratories, Inc. 2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Sample Receipt

FMI Gold & Copper - Sierrita ZS000003Q8	ACZ Project Date Rece			L1198
2300003Q8	Receive		55/10/201	ks 09.5
	Date Pri	•	5/	10/201
Receipt Verification				
	Г	YES	NO	NA
1) Is a foreign soil permit included for applicable samples?				Х
2) Is the Chain of Custody or other directive shipping papers present?		Х		
3) Does this project require special handling procedures such as CLP protocol?				Х
4) Are any samples NRC licensable material?				Х
5) If samples are received past hold time, proceed with requested short hold time and	alyses?	Х		
6) Is the Chain of Custody complete and accurate?		Х		
7) Were any changes made to the Chain of Custody prior to ACZ receiving the sample	les?		Х	
Samples/Containers				
	г	YES	NO	NA
8) Are all containers intact and with no leaks?		Х		
9) Are all labels on containers and are they intact and legible?		Х		
10) Do the sample labels and Chain of Custody match for Sample ID, Date, and Time	?	Х		
11) For preserved bottle types, was the pH checked and within limits?				Х
12) Is there sufficient sample volume to perform all requested work?		Х		
13) Is the custody seal intact on all containers?				Х
14) Are samples that require zero headspace acceptable?				Х
15) Are all sample containers appropriate for analytical requirements?		Х		
16) Is there an Hg-1631 trip blank present?				Х
17) Is there a VOA trip blank present?				Х
18) Were all samples received within hold time?		Х		
Chain of Custody Related Remarks				
Client Contact Remarks				
Shipping Containers				
Cooler Id Temp (°C) Rad (uR/Hr) Custody	seal Int	act?		

 Cooler Id
 Temp (°C)
 Rad (µR/Hr)
 Custody Seal Intact?

 2325
 3.1
 15
 Yes

Client must contact an ACZ Project Manager if analysis should not proceed for samples received outside of their thermal preservation acceptance criteria.

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	Downhill Drive Steamboat Sp	rings, CO 80487 (800) 33	4- 54 00-		10		ļ						
Repo								Caro D	and				
	: Jon Anderson	Signita Inc.	-	Addre	ss: 620	-		·					
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		ini.com		Telepi	none: J	520-39.	J•4/14						
Copy	of Report to.			E-mail: bdaigneau@clearcreekassociates.com									
	e: Ben Daigneau		4						sociate	s.com	<u> </u>		
Comp	any: Clear Creek Associa	ates		Telep	hone: 5	520-622	2-3222	;					
Invo.	ce to:												
Name	9:			Addre	SS:							. <u></u> .	
Comp	bany:												
E-ma	il:		Telephone:										
	ple(s) received past holding					ete				YES			
	sis before expiration, shall / " then ACZ will contact clie					O "				NO			
	icated, ACZ will proceed will						a will be	e qualif	ied.				
	amples for CO DW Complia									YES			
	please include state forms	. Results will be reported	I to PQL.				ALL C	1612.5.5	t sists to	NO	×	numb	
	JECT INFORMATION					- 51 5 IST	-00-5	TED 14	taun (o	0.01.051	r quor -		
Quot			-	δ	EPA 375								
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	bler's Name: Jeff Joy		-	of Containers	by EP/								
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Ma	trix SW (Surface Water) · GW	/ (Ground Water) · WW (Waste	Water) · D	W (Drinki	ing Water	r) · SL (SI	udge) · S	SO (Soil)	· OL (Oil	l) · Other	(Specify)	
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Jeff	Joy A	5/7/13 : 1	530			1	02			51	242	010	. _

FRMAD050.01.15.09



Jon Anderson FMI Gold & Copper - Sierrita P.O. Box 527 6200 West Duval Mine Road Green Valley, AZ 85622-0527

Cc: Ben Daigneau

Project ID: ZS000003Q8 ACZ Project ID: L12127– SULFATE ONLY

Jon Anderson:

Enclosed are analytical reports for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on May 17, 2013. This project was assigned to ACZ's project number, L12127. Please reference this number in all future inquiries.

At the request of Phelps Dodge Sierrita, Inc. (PDSI), this laboratory report has been prepared to contain only information specific to samples and analytes identified by PDSI as evaluated pursuant to Mitigation Order No. P-500-06 with Arizona Department of Environmental Quality. Samples and analytes unrelated to the Mitigation Order, but which may be identified on the chain of custody and sample receipt, have been reported to PDSI in a separate report.

All analyses were performed according to ACZ's Quality Assurance Plan. The enclosed results relate only to the samples received under **L12127**. Each section of this report has been reviewed and approved by the appropriate Laboratory Supervisor, or a qualified substitute. Except as noted, the test results for the methods and parameters listed on ACZ's current NELAC certificate letter (#ACZ) meet all the requirements of NELAC.

This report should be used or copied only in its entirety. ACZ is not responsible for the consequences arising from the use of a partial report.

ACZ disposes of samples and sub-samples thirty days after the analytical results are reported to the client. That time frame has elapsed for this project. If the samples are determined to be hazardous, additional charges apply for disposal (typically less than \$10/sample). If you would like the samples to be held longer than ACZ's stated policy or to be returned, please contact your Project Manager or Customer Service Representative for further details and associated costs. ACZ retains analytical reports for five years. Please notify your Project Manager if you have other needs. If you have any questions, please contact your Project Manager or Customer Service Representative.

S. Habermehl

Scott Habermehl has reviewed and approved this report.



REPAD.01.11.00.01



July 8, 2013



	Laboratorie ve Steamboat Springs, CO		4-5493			Inorg	ganic Analy Results	/tical
FMI Gold & Co	opper - Sierrita				ACZ Sam	ple ID:	L12127-01	
Project ID:	ZS000003Q8				Date Sa	impled:	05/14/13 09:58	3
Sample ID:	CCGV				Date Re	ceived:	05/17/13	
					Sample	Matrix:	Ground Water	
Wet Chemistry								
Parameter	EPA Method	Dilution	Result	Qual XQ	Units M	DL PO	QL Date	Analyst

148

mg/L

1

5

05/22/13 20:45

tcd

Arizona license number: AZ0102

M300.0 - Ion Chromatography

2

Sulfate

ACZ	Laboratories, Inc.
	Steamboat Springs, CO 80487 (800) 334-5493

Project ID:	ZS000003Q8
Sample ID:	IW-3A

ACZ Sample ID: L12127-02 Date Sampled: 05/14/13 10:50 Date Received: 05/17/13 Sample Matrix: Ground Water

Wet Chemistry										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Sulfate	D516-02 - Turbidimetric	100	1600		*	mg/L	100	500	05/28/13 17:21	bsu

ACZ	Laboratories, Inc.
2773 Downhill Drive	Steamboat Springs, CO 80487 (800) 334-5493

Project ID:	ZS000003Q8
Sample ID:	IW-8

ACZ Sample ID: L12127-03 Date Sampled: 05/14/13 11:00 Date Received: 05/17/13 Sample Matrix: Ground Water

Wet Chemistry										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Sulfate	D516-02 - Turbidimetric	100	1700		*	mg/L	100	500	05/28/13 17:23	B bsu

ACZ	Laboratories, Inc.
	Steamboat Springs, CO 80487 (800) 334-5493

Project ID:	ZS000003Q8
Sample ID:	IW-12

ACZ Sample ID: L12127-04 Date Sampled: 05/14/13 11:40 Date Received: 05/17/13 Sample Matrix: Ground Water

Wet Chemistry										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Sulfate	D516-02 - Turbidimetric	100	1500		*	mg/L	100	500	05/28/13 17:23	B bsu

ACZ	Laboratories, Inc.
2773 Downhill Drive	Steamboat Springs, CO 80487 (800) 334-5493

Project ID:	ZS000003Q8
Sample ID:	IW-15

ACZ Sample ID: L12127-05 Date Sampled: 05/14/13 11:50 Date Received: 05/17/13 Sample Matrix: Ground Water

Wet Chemistry										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Sulfate	D516-02 - Turbidimetric	100	1700		*	mg/L	100	500	05/28/13 17:23	3 bsu

ACZ	Laboratories, Inc.
	Steamboat Springs, CO 80487 (800) 334-5493

Project ID:	ZS000003Q8
Sample ID:	IW-19

ACZ Sample ID: L12127-06 Date Sampled: 05/14/13 11:58 Date Received: 05/17/13 Sample Matrix: Ground Water

Wet Chemistry										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Sulfate	D516-02 - Turbidimetric	100	1600		*	mg/L	100	500	05/28/13 17:23	bsu

	Laboratories, re Steamboat Springs, CO 804		84-5493				In		nic Analy Results	tical
FMI Gold & Co Project ID: Sample ID:	ppper - Sierrita ZS000003Q8 CW-10					Dat Date	e Sample e Receive	ed: 0 ed: 0	12127-07 5/15/13 08:51 5/17/13 Ground Water	
Wet Chemistry Parameter Sulfate	EPA Method M300.0 - Ion Chromatography	Dilution	Result 52.4	Qual	XQ	Units mg/L	MDL 0.5	PQL 2.5	Date 05/22/13 21:03	Analyst 3 tcd

Arizona license number: AZ0102

ACZ 2773 Downhill Driv	Laboratorie ve Steamboat Springs, CO	s, Inc. 80487 (800) 33	94-5493			Ino		ic Anal esults	ytical
FMI Gold & Co	opper - Sierrita				ACZ S	Sample II	D: L1 2	2127-08	
Project ID:	ZS000003Q8				Date	Sample	d: 05/	15/13 09:4	13
Sample ID:	CW-6				Date	Receive	d: 05/	17/13	
					Sam	ple Matri	x: Gro	ound Wate	r
Wet Chemistry									
Parameter	EPA Method	Dilution	Result	Qual XQ	Units	MDL	PQL	Date	Analyst

2

mg/L

1

5

05/23/13 15:19

tcd

Arizona license number: AZ0102

M300.0 - Ion Chromatography

Sulfate

	-						In		nic Anal Results	ytical
FMI Gold & Co	opper - Sierrita					ACZ	Sample	ID: <i>L</i>	12127-09	
Project ID:	ZS000003Q8					Date	e Sample	ed: 0	5/15/13 10:5	0
Sample ID:	CW-9					Date	Receive	ed: 0	5/17/13	
						San	nple Mat	rix: G	Fround Water	r
Wet Chemistry										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst

mg/L

0.5

2.5

05/22/13 22:13

tcd

Arizona license number: AZ0102

M300.0 - Ion Chromatography

1

Sulfate

	Laboratories, re Steamboat Springs, CO 804		84-5493				In		nic Analy Results	tical
FMI Gold & Co Project ID: Sample ID:	opper - Sierrita ZS000003Q8 DUP20130515A					Dat Date	e Sample e Receive	ed: 0 ed: 0	. 12127-10 5/15/13 00:00 5/17/13 Ground Water	
Wet Chemistry Parameter Sulfate	EPA Method M300.0 - Ion Chromatography	Dilution	Result 52.8	Qual	XQ	Units mg/L	MDL 0.5	PQL 2.5	Date 05/22/13 22:30	Analyst tcd



Inorganic Reference

Batch Found	Explanations		
rouna	A distinct set of samples analyzed at a specific time		
	Value of the QC Type of interest		
Limit	Upper limit for RPD, in %.		
Lower	Lower Recovery Limit, in % (except for LCSS, mg/Kg)		
MDL	Method Detection Limit. Same as Minimum Reporting Limit.		
PCN/SCN	A number assigned to reagents/standards to trace to the man	iufacturer's certific	ate of analysis
PQL	Practical Quantitation Limit, typically 5 times the MDL.		
QC	True Value of the Control Sample or the amount added to the	•	
Rec	Recovered amount of the true value or spike added, in % (exc		/Kg)
RPD	Relative Percent Difference, calculation used for Duplicate QC	Types	
Upper	Upper Recovery Limit, in % (except for LCSS, mg/Kg)		
Sample	Value of the Sample of interest		
Sample Typ	bes		
AS	Analytical Spike (Post Digestion)	LCSWD	Laboratory Control Sample - Water Duplicate
ASD	Analytical Spike (Post Digestion) Duplicate	LFB	Laboratory Fortified Blank
ССВ	Continuing Calibration Blank	LFM	Laboratory Fortified Matrix
CCV	Continuing Calibration Verification standard	LFMD	Laboratory Fortified Matrix Duplicate
DUP	Sample Duplicate	LRB	Laboratory Reagent Blank
ICB	Initial Calibration Blank	MS	Matrix Spike
ICV	Initial Calibration Verification standard	MSD	Matrix Spike Duplicate
ICSAB	Inter-element Correction Standard - A plus B solutions	PBS	Prep Blank - Soil
LCSS	Laboratory Control Sample - Soil	PBW	Prep Blank - Water
LCSSD	Laboratory Control Sample - Soil Duplicate	PQV	Practical Quantitation Verification standard
LCSW	Laboratory Control Sample - Water	SDL	Serial Dilution
Duplicates Spikes/Forti	ified Matrix Determines sample matrix interferen		
Standard	Verifies the validity of the calibration.		
Z Qualifiers	(Qual)		
В	Analyte concentration detected at a value between MDL and F	PQL. The associat	ed value is an estimated quantity.
н	Analysis exceeded method hold time. pH is a field test with an	n immediate hold t	
			ime.
L	Target analyte response was below the laboratory defined neg		ime.
	Target analyte response was below the laboratory defined neg The material was analyzed for, but was not detected above the	gative threshold.	
L		gative threshold. e level of the asso	ciated value.
L U	The material was analyzed for, but was not detected above the The associated value is either the sample quantitation limit or	gative threshold. e level of the asso	ciated value.
L U ethod Referen	The material was analyzed for, but was not detected above the The associated value is either the sample quantitation limit or nces	gative threshold. e level of the asso the sample detect	iciated value. ion limit.
L U ethod Referen (1)	The material was analyzed for, but was not detected above the The associated value is either the sample quantitation limit or nces EPA 600/4-83-020. Methods for Chemical Analysis of Water a	gative threshold. e level of the asso the sample detect and Wastes, Marc	iciated value. ion limit. h 1983.
L U ethod Referen (1) (2)	The material was analyzed for, but was not detected above the The associated value is either the sample quantitation limit or nces EPA 600/4-83-020. Methods for Chemical Analysis of Water a EPA 600/R-93-100. Methods for the Determination of Inorgan	gative threshold. e level of the asso the sample detect and Wastes, Marc hic Substances in l	iciated value. ion limit. h 1983. Environmental Samples, August 1993.
L U ethod Referen (1) (2) (3)	The material was analyzed for, but was not detected above the The associated value is either the sample quantitation limit or nces EPA 600/4-83-020. Methods for Chemical Analysis of Water a EPA 600/R-93-100. Methods for the Determination of Inorgan EPA 600/R-94-111. Methods for the Determination of Metals	gative threshold. e level of the asso the sample detect and Wastes, Marc hic Substances in l	iciated value. ion limit. h 1983. Environmental Samples, August 1993.
L U thod Referen (1) (2) (3) (4)	The material was analyzed for, but was not detected above the The associated value is either the sample quantitation limit or nces EPA 600/4-83-020. Methods for Chemical Analysis of Water a EPA 600/R-93-100. Methods for the Determination of Inorgan EPA 600/R-94-111. Methods for the Determination of Metals EPA SW-846. Test Methods for Evaluating Solid Waste.	gative threshold. e level of the asso the sample detect and Wastes, Marc hic Substances in l in Environmental s	iciated value. ion limit. h 1983. Environmental Samples, August 1993.
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REP001.09.12.01



Antimony, diss	olved		M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG344364													
WG344364ICV	ICV	05/25/13 3:48	MS130416-2	.02		.02079	mg/L	104	90	110			
WG344364ICB	ICB	05/25/13 3:51				.0004	mg/L		-0.0012	0.0012			
WG344364LFB	LFB	05/25/13 3:54	MS130508-1	.01		.01004	mg/L	100.4	85	115			
L12040-01AS	AS	05/25/13 4:26	MS130508-1	.02	U	.02098	mg/L	104.9	70	130			
L12040-01ASD	ASD	05/25/13 4:29	MS130508-1	.02	U	.02084	mg/L	104.2	70	130	0.67	20	
L12127-06AS	AS	05/25/13 5:11	MS130508-1	.02	U	.02414	mg/L	120.7	70	130			
L12127-06ASD	ASD	05/25/13 5:15	MS130508-1	.02	U	.02448	mg/L	122.4	70	130	1.4	20	
Arsenic, dissol	ved		M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG344364													
WG344364ICV	ICV	05/25/13 3:48	MS130416-2	.05		.05211	mg/L	104.2	90	110			
WG344364ICB	ICB	05/25/13 3:51				U	mg/L		-0.0006	0.0006			
WG344364LFB	LFB	05/25/13 3:54	MS130508-1	.05005		.04916	mg/L	98.2	85	115			
L12040-01AS	AS	05/25/13 4:26	MS130508-1	.1001	.0025	.11168	mg/L	109.1	70	130			
L12040-01ASD	ASD	05/25/13 4:29	MS130508-1	.1001	.0025	.11296	mg/L	110.3	70	130	1.14	20	
L12127-06AS	AS	05/25/13 5:11	MS130508-1	.1001	.0029	.11526	mg/L	112.2	70	130			
L12127-06ASD	ASD	05/25/13 5:15	MS130508-1	.1001	.0029	.11716	mg/L	114.1	70	130	1.63	20	
Beryllium, diss	olved		M200.8 IC	P-MS									
		Analymad	PCN/SCN	QC	Sample	Found	Unite	Rec	Lower	Upper	RPD	Limit	Qual
ACZ ID	Туре	Analyzed	PCN/SCN		Gampie	i ounu	Units	Nec		oppor	RFD	LIIIII	Quai
ACZ ID WG344364	Туре	Analyzed	PCN/SCN	QU	oumpie	round	Onits	Nec		oppor	RFD	LIIII	Quai
	Type	05/25/13 3:48	MS130416-2	.05	Campie	.04739		94.8	90	110	KFD	Linin	Quai
WG344364					oumpic		mg/L				KFU	Linin	Quai
WG344364 WG344364ICV WG344364ICB	ICV	05/25/13 3:48 05/25/13 3:51	MS130416-2	.05	cumpic	.04739 U	mg/L mg/L	94.8	90 -0.00015	110 0.00015	KF U	Linin	Quai
WG344364 WG344364ICV	ICV ICB	05/25/13 3:48 05/25/13 3:51 05/25/13 3:54	MS130416-2 MS130508-1		.0043	.04739 U .04708	mg/L mg/L mg/L	94.8 94	90	110			Quai
WG344364 WG344364ICV WG344364ICB WG344364LFB	ICV ICB LFB	05/25/13 3:48 05/25/13 3:51	MS130416-2 MS130508-1 MS130508-1	.05		.04739 U	mg/L mg/L mg/L mg/L	94.8	90 -0.00015 85	110 0.00015 115	0.19	20	Quai
WG344364 WG344364ICV WG344364ICB WG344364LFB L12040-01AS	ICV ICB LFB AS	05/25/13 3:48 05/25/13 3:51 05/25/13 3:54 05/25/13 4:26	MS130416-2 MS130508-1	.05 .0501 .1002	.0043	.04739 U .04708 .1077	mg/L mg/L mg/L	94.8 94 103.2	90 -0.00015 85 70	110 0.00015 115 130			Quai
WG344364 WG344364ICV WG344364ICB WG344364LFB L12040-01AS L12040-01ASD	ICV ICB LFB AS ASD	05/25/13 3:48 05/25/13 3:51 05/25/13 3:54 05/25/13 4:26 05/25/13 4:29	MS130416-2 MS130508-1 MS130508-1 MS130508-1	.05 .0501 .1002 .1002	.0043 .0043	.04739 U .04708 .1077 .1075	mg/L mg/L mg/L mg/L mg/L	94.8 94 103.2 103	90 -0.00015 85 70 70	110 0.00015 115 130 130			Quai
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WG344364 WG344364ICV WG344364ICB WG344364LFB L12040-01AS L12040-01ASD L12127-06AS L12127-06ASD Cadmium, disse	ICV ICB LFB AS ASD AS ASD	05/25/13 3:48 05/25/13 3:51 05/25/13 3:54 05/25/13 4:26 05/25/13 4:29 05/25/13 5:11 05/25/13 5:15	MS130416-2 MS130508-1 MS130508-1 MS130508-1 MS130508-1 MS130508-1 MS130508-1	.05 .0501 .1002 .1002 .1002 .1002	.0043 .0043 U U	.04739 U .04708 .1077 .1075 .10516 .1081	mg/L mg/L mg/L mg/L mg/L mg/L	94.8 94 103.2 103 105 107.9	90 -0.00015 85 70 70 70 70 70	110 0.00015 115 130 130 130 130	0.19 2.76	20 20	
WG344364 WG344364ICV WG344364ICB WG344364LFB L12040-01AS L12040-01ASD L12127-06AS L12127-06ASD Cadmium, disse ACZ ID WG344364	ICV ICB LFB AS ASD AS ASD olved	05/25/13 3:48 05/25/13 3:51 05/25/13 3:54 05/25/13 4:26 05/25/13 4:29 05/25/13 5:11 05/25/13 5:15 Analyzed	MS130416-2 MS130508-1 MS130508-1 MS130508-1 MS130508-1 MS130508-1 M200.8 IC PCN/SCN	.05 .0501 .1002 .1002 .1002 .1002 :P-MS QC	.0043 .0043 U U	.04739 U .04708 .1077 .1075 .10516 .1081	mg/L mg/L mg/L mg/L mg/L mg/L	94.8 94 103.2 103 105 107.9 Rec	90 -0.00015 85 70 70 70 70 70 70	110 0.00015 115 130 130 130 130	0.19 2.76	20 20	
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WG344364 WG344364ICV WG344364ICB WG344364LFB L12040-01AS L12040-01ASD L12127-06ASD L12127-06ASD Cadmium, disse ACZ ID WG344364 WG344364ICV WG344364ICS	ICV ICB LFB AS ASD AS ASD olved Type ICV ICB	05/25/13 3:48 05/25/13 3:51 05/25/13 3:54 05/25/13 4:26 05/25/13 4:29 05/25/13 5:11 05/25/13 5:15 Analyzed 05/25/13 3:48 05/25/13 3:51	MS130416-2 MS130508-1 MS130508-1 MS130508-1 MS130508-1 MS130508-1 M200.8 IC PCN/SCN MS130416-2	.05 .0501 .1002 .1002 .1002 .1002 .1002 :P-MS QC	.0043 .0043 U U	.04739 U .04708 .1077 .1075 .10516 .1081 Found .05291 U	mg/L mg/L mg/L mg/L mg/L Units mg/L	94.8 94 103.2 103 105 107.9 Rec 105.8	90 -0.00015 85 70 70 70 70 70 70 70 70 70 90 -0.0003	110 0.00015 115 130 130 130 130 Upper 110 0.0003	0.19 2.76	20 20	
WG344364 WG344364ICV WG344364ICB WG344364LFB L12040-01AS L12040-01ASD L12127-06AS L12127-06ASD Cadmium, disse ACZ ID WG344364ICV WG344364ICV WG344364ICB WG344364LFB	ICV ICB LFB AS ASD AS ASD olved Type ICV ICB LFB	05/25/13 3:48 05/25/13 3:51 05/25/13 3:54 05/25/13 4:26 05/25/13 5:11 05/25/13 5:15 Analyzed 05/25/13 3:48 05/25/13 3:51 05/25/13 3:54	MS130416-2 MS130508-1 MS130508-1 MS130508-1 MS130508-1 M200.8 IC PCN/SCN MS130416-2 MS130508-1	.05 .0501 .1002 .1002 .1002 .1002 .1002 .1002 .005 .0501	.0043 .0043 U U Sample	.04739 U .04708 .1077 .1055 .10516 .1081 Found .05291 U .05143	mg/L mg/L mg/L mg/L mg/L Units	94.8 94 103.2 103 105 107.9 Rec 105.8 102.7	90 -0.00015 85 70 70 70 70 70 70 70 70 70 70 90 -0.0003 85	110 0.00015 115 130 130 130 130 130 Upper 110 0.0003 115	0.19 2.76	20 20	
WG344364 WG344364ICV WG344364ICB WG344364LFB L12040-01AS L12127-06AS L12127-06AS L12127-06ASD Cadmium, disse ACZ ID WG344364ICV WG344364ICB WG344364ICB WG344364LFB L12040-01AS	ICV ICB LFB AS ASD AS ASD olved Type ICV ICB LFB AS	05/25/13 3:48 05/25/13 3:51 05/25/13 3:54 05/25/13 4:26 05/25/13 5:11 05/25/13 5:15 Analyzed 05/25/13 3:48 05/25/13 3:51 05/25/13 3:54 05/25/13 4:26	MS130416-2 MS130508-1 MS130508-1 MS130508-1 MS130508-1 M200.8 IC PCN/SCN MS130416-2 MS130508-1 MS130508-1	.05 .0501 .1002 .1002 .1002 .1002 .1002 .005 .05 .0501 .1002	.0043 .0043 U U Sample	.04739 U .04708 .1077 .1055 .10516 .1081 Found .05291 U .05143 .14244	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	94.8 94 103.2 103 105 107.9 Rec 105.8 102.7 105	90 -0.00015 85 70 70 70 70 70 70 70 70 70 70 70 70 70	110 0.00015 115 130 130 130 130 130 Upper 110 0.0003 115 130	0.19 2.76 RPD	20 20 Limit	
WG344364 WG344364ICV WG344364ICB WG344364LFB L12040-01AS L12127-06AS L12127-06AS L12127-06ASD Cadmium, disse ACZ ID WG344364 WG344364ICV WG344364LFB L12040-01AS L12040-01ASD	ICV ICB LFB AS ASD AS ASD olved Type ICV ICB LFB AS ASD	05/25/13 3:48 05/25/13 3:51 05/25/13 3:54 05/25/13 4:26 05/25/13 4:29 05/25/13 5:11 05/25/13 5:15 Analyzed 05/25/13 3:48 05/25/13 3:54 05/25/13 4:26 05/25/13 4:29	MS130416-2 MS130508-1 MS130508-1 MS130508-1 MS130508-1 MS130508-1 MS130416-2 MS130508-1 MS130508-1 MS130508-1 MS130508-1	.05 .0501 .1002 .1002 .1002 .1002 .1002 .05 .0501 .1002 .1002	.0043 .0043 U U Sample .0372 .0372	.04739 U .04708 .1077 .1055 .10516 .1081 Found .05291 U .05143 .14244 .1425	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	94.8 94 103.2 103 105 107.9 Rec 105.8 102.7 105 105.1	90 -0.00015 85 70 70 70 70 70 70 70 Lower 90 -0.0003 85 70 70	110 0.00015 115 130 130 130 130 130 Upper 110 0.0003 115 130 130	0.19 2.76 RPD	20 20 Limit	



Inorganic QC Summary

FMI Gold & Copper - Sierrita

Chromium, diss	solved		M200.7 IC	CP									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG344214													
WG344214ICV	ICV	05/24/13 23:51	II130510-1	2		1.986	mg/L	99.3	95	105			
WG344214ICB	ICB	05/24/13 23:57				U	mg/L		-0.03	0.03			
WG344214LFB	LFB	05/25/13 0:09	II130502-1	.5		.509	mg/L	101.8	85	115			
L12126-03AS	AS	05/25/13 0:59	II130502-1	.5	U	.5	mg/L	100	85	115			
L12126-03ASD	ASD	05/25/13 1:02	II130502-1	.5	U	.505	mg/L	101	85	115	1	20	
Cobalt, dissolve	əd		M200.7 IC	CP									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qua
WG344079													
NG344079ICV	ICV	05/23/13 4:17	II130510-1	2.002		2.031	mg/L	101.4	95	105			
WG344079ICB	ICB	05/23/13 4:23				.012	mg/L		-0.03	0.03			
WG344079LFB	LFB	05/23/13 4:35	II130502-1	.5		.509	mg/L	101.8	85	115			
L12126-05AS	AS	05/23/13 5:28	II130502-1	.5	.01	.534	mg/L	104.8	85	115			
L12126-05ASD	ASD	05/23/13 5:31	II130502-1	.5	.01	.532	mg/L	104.4	85	115	0.38	20	
Copper, dissolv			M200.7 I										
ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qua
WG344079	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	,, j											
	1011					4 000		~~~~		105			
WG344079ICV	ICV	05/23/13 4:17	II130510-1	2		1.992	mg/L	99.6	95	105			
WG344079ICB	ICB	05/23/13 4:23				.013	mg/L		-0.03	0.03			
WG344079LFB	LFB	05/23/13 4:35	II130502-1	.5		.513	mg/L	102.6	85	115			
L12126-05AS	AS	05/23/13 5:28	II130502-1	.5	.01	.551	mg/L	108.2	85	115			
_12126-05ASD	ASD	05/23/13 5:31	II130502-1	.5	.01	.548	mg/L	107.6	85	115	0.55	20	
Fluoride			SM4500F	-C									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qua
WG344248													
WG344248ICV	ICV	05/23/13 14:12	WC130510-	2.002		1.98	mg/L	98.9	95	105			
WG344248ICB	ICB	05/23/13 14:19				U	mg/L		-0.3	0.3			
WG344246													
WG344246ICV	ICV	05/23/13 15:17	WC130510-	2.002		1.96	mg/L	97.9	95	105			
WG344246ICB	ICB	05/23/13 15:22				U	mg/L		-0.3	0.3			
WG344246LFB1	LFB	05/23/13 15:29	WC130313-	5.005		4.75	mg/L	94.9	90	110			
L12046-03AS	AS	05/23/13 16:44	WC130313-	5.005	1.2	6.01	mg/L	96.1	90	110			
L12046-03DUP	DUP	05/23/13 16:48			1.2	1.25	mg/L				4.1	20	
		05/23/13 17:38	WC130313-	5.005	=	4.8	mg/L	95.9	90	110			
WG344246I FR2													
WG344246LFB2 L12127-05AS	LFB AS	05/23/13 17:45	WC130313-	5.005	.2	4.89	mg/L	93.7	90	110			



Lead, dissolved			M200.8 IC	CP-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG344364													
WG344364ICV	ICV	05/25/13 3:48	MS130416-2	.05		.05404	mg/L	108.1	90	110			
WG344364ICB	ICB	05/25/13 3:51				U	mg/L		-0.0003	0.0003			
NG344364LFB	LFB	05/25/13 3:54	MS130508-1	.05005		.05185	mg/L	103.6	85	115			
_12040-01AS	AS	05/25/13 4:26	MS130508-1	.1001	U	.1108	mg/L	110.7	70	130			
12040-01ASD	ASD	05/25/13 4:29	MS130508-1	.1001	U	.11044	mg/L	110.3	70	130	0.33	20	
_12127-06AS	AS	05/25/13 5:11	MS130508-1	.1001	.0004	.11284	mg/L	112.3	70	130			
12127-06ASD	ASD	05/25/13 5:15	MS130508-1	.1001	.0004	.11538	mg/L	114.9	70	130	2.23	20	
Magnesium, dis	solved		M200.7 I	CP									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
NG344079													
NG344079ICV	ICV	05/23/13 4:17	II130510-1	100		101.75	mg/L	101.8	95	105			
WG344079ICB	ICB	05/23/13 4:23				U	mg/L		-0.6	0.6			
VG344079LFB	LFB	05/23/13 4:35	II130502-1	49.99941		51.64	mg/L	103.3	85	115			
_12126-05AS	AS	05/23/13 5:28	II130502-1	49.99941	10.7	66.03	mg/L	110.7	85	115			
_12126-05ASD	ASD	05/23/13 5:31	II130502-1	49.99941	10.7	65.92	mg/L	110.4	85	115	0.17	20	
Nolybdenum, di	issolved		M200.7 I	CP									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
NG344079						_					_	_	_
	101/	05/00/40 4:47	11400540.4	0		0.000		404.0	05	405			
VG344079ICV	ICV	05/23/13 4:17	II130510-1	2		2.023	mg/L	101.2	95	105			
WG344079ICB	ICB	05/23/13 4:23	11400500 4	_		U	mg/L	404.0	-0.06	0.06			
VG344079LFB	LFB	05/23/13 4:35	II130502-1	.5		.524	mg/L	104.8	85	115			
12126-05AS	AS	05/23/13 5:28	II130502-1	.5	.47	.995	mg/L	105	85	115	0.0	20	
12126-05ASD	ASD	05/23/13 5:31	II130502-1	.5	.47	1.003	mg/L	106.6	85	115	0.8	20	
lickel, dissolve			M200.8 I										
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
NG344364													
VG344364ICV	ICV	05/25/13 3:48	MS130416-2	.05		.05242	mg/L	104.8	90	110			
VG344364ICB	ICB	05/25/13 3:51				U	mg/L		-0.0018	0.0018			
VG344364LFB	LFB	05/25/13 3:54	MS130508-1	.05005		.05018	mg/L	100.3	85	115			
.12040-01AS	AS	05/25/13 4:26	MS130508-1	.1001	.286	.392	mg/L	105.9	70	130			
12040-01ASD	ASD	05/25/13 4:29	MS130508-1	.1001	.286	.3938	mg/L	107.7	70	130	0.46	20	
12127-06AS	AS	05/25/13 5:11	MS130508-1	.1001	U	.0967	mg/L	96.6	70	130			
_12127-06ASD	ASD	05/25/13 5:15	MS130508-1	.1001	U	.1001	mg/L	100	70	130	3.46	20	
Nitrate/Nitrite as	s N		M353.2 -	H2SO4 pre	eserved								
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
NG344369													
	ICV	05/25/13 14:05	WI130411-3	2.416		2.506	mg/L	103.7	90	110			
NG344369ICV		05/25/13 14:07		-		U	mg/L		-0.06	0.06			
	ICB						-	100					
WG344369ICB			WI130215-3	2		2.119	ma/L	106	90	110			
NG344369ICV NG344369ICB NG344369LFB1 NG344369LFB2	LFB	05/25/13 14:10	WI130215-3 WI130215-3	2 2		2.119 2.025	mg/L mg/L	106 101.3	90 90	110 110			
WG344369ICB			WI130215-3 WI130215-3 WI130215-3	2 2 2	.69	2.119 2.025 2.741	mg/L mg/L mg/L	106 101.3 102.6	90 90 90	110 110 110			



Residue, Filtera	ble (TDS) @180C	SM2540C										
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG343904													
WG343904PBW	PBW	05/17/13 14:07				U	mg/L		-20	20			
WG343904LCSW	LCSW	05/17/13 14:09	PCN42164	260		250	mg/L	96.2	80	120			
L12130-01DUP	DUP	05/17/13 15:07			3040	3026	mg/L				0.5	10	
Selenium, disso	lved		M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG344364													
WG344364ICV	ICV	05/25/13 3:48	MS130416-2	.05		.05245	mg/L	104.9	90	110			
WG344364ICB	ICB	05/25/13 3:51				U	mg/L		-0.0003	0.0003			
WG344364LFB	LFB	05/25/13 3:54	MS130508-1	.05005		.04925	mg/L	98.4	85	115			
L12040-01AS	AS	05/25/13 4:26	MS130508-1	.1001	U	.11198	mg/L	111.9	70	130			
L12040-01ASD	ASD	05/25/13 4:29	MS130508-1	.1001	U	.11162	mg/L	111.5	70	130	0.32	20	
L12127-06AS	AS	05/25/13 5:11	MS130508-1	.1001	.0006	.11052	mg/L	109.8	70	130			
L12127-06ASD	ASD	05/25/13 5:15	MS130508-1	.1001	.0006	.1132	mg/L	112.5	70	130	2.4	20	
Sulfate			D516-02 -	Turbidim	etric								
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG344446													
WG344446ICB	ICB	05/28/13 12:46				U	mg/L		-3	3			
WG344446ICV	ICV	05/28/13 12:46	WI130520-7	20		20.5	mg/L	102.5	90	110			
WG344446LFB	LFB	05/28/13 16:49	WI130416-3	9.99		9.5	mg/L	95.1	90	110			
L12126-03DUP	DUP	05/28/13 17:17			600	607	mg/L				1.2	20	
L12126-05AS	AS	05/28/13 17:21	SO4TURB20	10	290	284	mg/L	-60	90	110			ľ
Sulfate			M300.0 - I	on Chrom	atography	/							
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG343679													
WG343679ICV	ICV	05/15/13 12:35	WI130315-7	50		51.86	mg/L	103.7	90	110			
WG343679ICB	ICB	05/15/13 12:53				U	mg/L		-1.5	1.5			
WG344142													
WG344142LFB1	LFB	05/22/13 16:40	WI130501-1	30		30.72	mg/L	102.4	90	110			
L12102-01DUP	DUP	05/22/13 17:50			3165.1	3153	mg/L				0.4	20	
L12102-02AS	AS	05/22/13 18:25	WI130501-1	3000	1892	5048	mg/L	105.2	90	110			
L12127-07DUP	DUP	05/22/13 21:20			52.35	52.83	mg/L				0.9	20	
L12127-08AS	AS	05/22/13 21:55	WI130501-1	30	89.3	116.82	mg/L	91.7	90	110			
WG344142LFB2	LFB	05/23/13 1:08	WI130501-1	30		30.82	mg/L	102.7	90	110			
L12127-08AS	AS	05/23/13 15:36	WI130501-1	60	91.94	153.55	mg/L	102.7	90	110			



Thallium, disso	lved		M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG344364													
WG344364ICV	ICV	05/25/13 3:48	MS130416-2	.05		.05342	mg/L	106.8	90	110			
WG344364ICB	ICB	05/25/13 3:51				U	mg/L		-0.0003	0.0003			
WG344364LFB	LFB	05/25/13 3:54	MS130508-1	.05005		.05079	mg/L	101.5	85	115			
L12040-01AS	AS	05/25/13 4:26	MS130508-1	.1001	U	.1102	mg/L	110.1	70	130			
L12040-01ASD	ASD	05/25/13 4:29	MS130508-1	.1001	U	.11036	mg/L	110.2	70	130	0.15	20	
L12127-06AS	AS	05/25/13 5:11	MS130508-1	.1001	U	.11154	mg/L	111.4	70	130			
L12127-06ASD	ASD	05/25/13 5:15	MS130508-1	.1001	U	.11526	mg/L	115.1	70	130	3.28	20	



(800) 334-5493

FMI Gold & Copper - Sierrita

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L12127-02	WG344446	Sulfate	D516-02 - Turbidimetric	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
L12127-03	WG344446	Sulfate	D516-02 - Turbidimetric	М3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
L12127-04	WG344446	Sulfate	D516-02 - Turbidimetric	М3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
L12127-05	WG344246	Fluoride	SM4500F-C	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG344446	Sulfate	D516-02 - Turbidimetric	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
L12127-06	WG344246	Fluoride	SM4500F-C	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG344446	Sulfate	D516-02 - Turbidimetric	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.



ACZ Project ID: L12127

No certification qualifiers associated with this analysis

ACZ	Laboratories, Inc.
0770 0	Otherskie at Omission 00, 00407 (000) 004 540

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Sample Receipt

MI Gold & Copper - Sierrita	ACZ Proje	ect ID:		L12127
ZS000003Q8	Date Rece	eived: 0	5/17/201	3 10:33
	Receive	-		ks
	Date Pr	inted:	5/	17/2013
Receipt Verification		VEO	NO	
1) Is a foreign soil permit included for applicable samples?		YES	NO	NA X
2) Is the Chain of Custody or other directive shipping papers present?		Х		
3) Does this project require special handling procedures such as CLP protocol?				Х
4) Are any samples NRC licensable material?				Х
5) If samples are received past hold time, proceed with requested short hold time	ne analyses?	Х		
6) Is the Chain of Custody complete and accurate?		Х		
7) Were any changes made to the Chain of Custody prior to ACZ receiving the s	samples?		Х	
Samples/Containers				
		YES	NO	NA
8) Are all containers intact and with no leaks?		X		
9) Are all labels on containers and are they intact and legible?		Х		
10) Do the sample labels and Chain of Custody match for Sample ID, Date, and	I Time?	Х		
11) For preserved bottle types, was the pH checked and within limits?		Х		
12) Is there sufficient sample volume to perform all requested work?		Х		
13) Is the custody seal intact on all containers?				Х
14) Are samples that require zero headspace acceptable?				Х
15) Are all sample containers appropriate for analytical requirements?		Х		
16) Is there an Hg-1631 trip blank present?				Х
17) le there a $1/0.0$ tria blank responses				Х
17) Is there a VOA trip blank present?				

Client Contact Remarks

Shipping Containers

Cooler	Id
2594	

Rad (µR/Hr) -----12 Custody Seal Intact? -----Yes

Was ice present in the shipment container(s)?

Yes - Wet ice was present in the shipment container(s).

Temp (°C)

4

Client must contact an ACZ Project Manager if analysis should not proceed for samples received outside of their thermal preservation acceptance criteria.

Name: Address: Company: Freeport-McMoRan Sierrita Inc. E-mail: jonathan_anderson@fmi.com Green Valley, AZ 85614 Copy of Report to: Telephone: 520-393-2714 Company: Clear Creek Associates E-mail: bdaigneau@clearcreekassociates.com Company: Clear Creek Associates E-mail: bdaigneau@clearcreekassociates.com Name: Address: Company: E-mail: bdaigneau@clearcreekassociates.com If 'NO' then AC2 will contact cleart for further instruction. If netiter 'YES' nor 'NO' Moderes: is indicated, AC2 will proceed with the requested analyses, even If HT is expired, and data will be qualified. YES Reporting state for compliance testing: X X Sampler's Name: Jeff Joy X YES Are any samples NRC licensable material? Yes No X YES SAMPI IF ID NHU ICATION XXIIIINO<	Report to:	boat Springs, CO_80487_(800) :									
Company: Freeport-McMoRan Sierrita Inc. Green Valley, AZ 85614 E-mail: jonathan_anderson@fmi.com Telephone: 520-393-2714 Copy_of Report to: E-mail: bdaigneau@clearcreekassociates.com Company: Clear Creek Associates E-mail: bdaigneau@clearcreekassociates.com Company: Clear Creek Associates E-mail: bdaigneau@clearcreekassociates.com Name: Address: Company: E-mail: bdaigneau E-mail: blaigneau Address: Company: Felephone: Fraeport. YES Invoxet to: Address: Name: Address: Company: Telephone: If 'NO' then ACZ will contact client for further instruction. If neither 'YES' nor 'NO'' NO is indicated, AC2 will proceed with the requested analyses, even if HT is expired, and data will be qualified. XFS Are samples for CO DW Compliance Monitoring? YES NO Project/PO #: ZS000003Q8 Yes Yes Yes Reporting state for compliance testing: Sample's Name: Jeff Joy Yes Yes SAME! FIDENTHEACTION Matrix Image: Sinetop in the state on the state on the state on the s				Addre	ss: 620	00 W. D	uval N	fine R	load		
E-mail: jonathan_anderson@fmi.com Telephone: 520-393-2714 Conv of Report to Amme: Ben Daigneau E-mail: bdaigneau@clearcreekassociates.com Company: Clear Creek Associates Telephone: 520-622-3222 Invo cte to: Address: Name: Company: Clear Creek Associates E-mail: Address: Company: Telephone: 520-622-3222 If sample(s) received past holding time (HT), or if insufficient HT demains to complete analysis before expiration, shall ACZ proceed with requested short HT analyses? NO If sample(s) received past holding time (HT), or if insufficient HT demains to complete analysis before expiration, shall ACZ proceed with requested short HT analyses? NO If samples for CO DW Compliance Monitoring? YES NO If yes, please include state forms. Results will be reported to POL. NO X PROJECT INFORMATION DA LE HIM Matrix YES NO Quote #: Simpler's Name: Jeff Jov Are any samples NRC Cleonsable material? Yes No YES YES YES Sampler's Name: Jeff Jov DA LE HIM Matrix YES YES YES YES IW-3A S/14/13 : 1050 GW 3		MoRan Sierrita Inc.									
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Company: Clear Creek Associates Telephone: 520-622-3222 Invorce to: Name: Address:				E-ma	il: bdai;	gneau@	clearc	reekas	sociat	es.com	
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Matrix SW (Surface Water) · GW (Ground Water) · WW (Waste Water) · DW (Drinking Water) · SL (Sludge) · SO (Soil) · OL (Oil) · Other (Specify)	Matrix SW (Surface Wa						deal C	O (Call)	0.00	il) . Other	(Coopify)



Analytical Report

May 28, 2013

Report to: Jon Anderson FMI Gold & Copper - Sierrita 6200 West Duval Mine Rd. Green Valley, AZ 85614

cc: Ben Daigneau

Bill to: Accounts Payable FMI Gold & Copper - Sierrita P.O. Box 2671 Phoenix, AZ 85002-2671

Project ID: ZS000003Q8 ACZ Project ID: L12128

Jon Anderson:

Enclosed are the analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on May 17, 2013. This project has been assigned to ACZ's project number, L12128. Please reference this number in all future inquiries.

All analyses were performed according to ACZ's Quality Assurance Plan. The enclosed results relate only to the samples received under L12128. Each section of this report has been reviewed and approved by the appropriate Laboratory Supervisor, or a qualified substitute.

Except as noted, the test results for the methods and parameters listed on ACZ's current NELAC certificate letter (#ACZ) meet all requirements of NELAC.

This report shall be used or copied only in its entirety. ACZ is not responsible for the consequences arising from the use of a partial report.

All samples and sub-samples associated with this project will be disposed of after June 27, 2013. If the samples are determined to be hazardous, additional charges apply for disposal (typically \$11/sample). If you would like the samples to be held longer than ACZ's stated policy or to be returned, please contact your Project Manager or Customer Service Representative for further details and associated costs. ACZ retains analytical raw data reports for ten years.

If you have any questions or other needs, please contact your Project Manager.

S. Habermehl

Scott Habermehl has reviewed and approved this report.





ACZ 2773 Downhill Driv	Laboratorie ve Steamboat Springs, CO	es, Inc. 80487 (800) 33	34-5493				Ine	org	anic Analy Results	ytical
FMI Gold & Co	opper - Sierrita					ACZ	Sample	ID:	L12128-01	
Project ID:	ZS000003Q8					Dat	te Sample	ed:	05/16/13 08:3	3
Sample ID:	GV-1					Dat	e Receive	ed:	05/17/13	
						Sar	nple Mati	rix:	Ground Water	
Wet Chemistry										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQ	L Date	Analyst

1

mg/L

0.5

2.5

Arizona license number: AZ0102

Sulfate

M300.0 - Ion Chromatography

tcd

05/22/13 23:23

	Laboratorie ve Steamboat Springs, CO		1-5493			Ino		ic Anal lesults	ytical
FMI Gold & Co	opper - Sierrita				ACZ	Sample II	D: L1	2128-02	
Project ID:	ZS000003Q8				Date	e Sample	d: 05/	/16/13 09:1	13
Sample ID:	GV-2				Date	Receive	d: 05/	/17/13	
					Sam	ple Matri	x: Gr	ound Wate	r
Wet Chemistry									
Parameter	EPA Method	Dilution	Result	Qual XQ	Units	MDL	PQL	Date	Analyst

mg/L

0.5

2.5

05/22/13 23:40

tcd

63.14

1

Arizona license number: AZ0102

Sulfate

M300.0 - Ion Chromatography

	Laboratorie ve Steamboat Springs, CO		4-5493			Ino		ic Anal esults	ytical
FMI Gold & C	opper - Sierrita				ACZS	Sample ID): L12	128-03	
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					Sam	ple Matrix	: Gro	und Wate	r
Wet Chemistry									
Parameter	EPA Method	Dilution	Result	Qual XC) Units	MDL	PQL	Date	Analyst

mg/L

0.5

2.5

05/22/13 23:58

tcd

6.10

1

Arizona license number: AZ0102

Sulfate

M300.0 - Ion Chromatography



Inorganic Reference

Batch	Explanations		
Fourd	A distinct set of samples analyzed at a specific time		
Found	Value of the QC Type of interest		
Limit	Upper limit for RPD, in %.		
Lower	Lower Recovery Limit, in % (except for LCSS, mg/Kg)	A II	and an all successful to the second
MDL	Method Detection Limit. Same as Minimum Reporting Limit.		
PCN/SCN	A number assigned to reagents/standards to trace to the man	iutacturer's certific	ate of analysis
PQL	Practical Quantitation Limit, typically 5 times the MDL.	0.1	
QC	True Value of the Control Sample or the amount added to the	•	
Rec	Recovered amount of the true value or spike added, in % (exc		/Kg)
RPD	Relative Percent Difference, calculation used for Duplicate QC	Types	
Upper Sample	Upper Recovery Limit, in % (except for LCSS, mg/Kg) Value of the Sample of interest		
	· ·		
C Sample Typ		1.0014/0	Laboratory Control Compley Water Durlingt
AS	Analytical Spike (Post Digestion)	LCSWD	Laboratory Control Sample - Water Duplicate
ASD	Analytical Spike (Post Digestion) Duplicate	LFB	Laboratory Fortified Blank
CCB	Continuing Calibration Blank	LFM	Laboratory Fortified Matrix
CCV	Continuing Calibration Verification standard	LFMD	Laboratory Fortified Matrix Duplicate
DUP	Sample Duplicate	LRB	Laboratory Reagent Blank
ICB	Initial Calibration Blank	MS	Matrix Spike
ICV	Initial Calibration Verification standard	MSD	Matrix Spike Duplicate
ICSAB	Inter-element Correction Standard - A plus B solutions	PBS	Prep Blank - Soil
LCSS	Laboratory Control Sample - Soil	PBW	Prep Blank - Water
LCSSD LCSW	Laboratory Control Sample - Soil Duplicate Laboratory Control Sample - Water	PQV SDL	Practical Quantitation Verification standard Serial Dilution
Duplicates Spikes/Forti	ified Matrix Determines sample matrix interferen		
Standard	Verifies the validity of the calibration.		
Z Qualifiers	(Qual)		
В	Analyte concentration detected at a value between MDL and F		
	,	PQL. The associat	ed value is an estimated quantity.
н	Analysis exceeded method hold time. pH is a field test with an		
H L	-	n immediate hold t	
	Analysis exceeded method hold time. pH is a field test with an	n immediate hold t gative threshold.	ime.
L	Analysis exceeded method hold time. pH is a field test with an Target analyte response was below the laboratory defined neg	n immediate hold t gative threshold. e level of the asso	ime. iciated value.
L	Analysis exceeded method hold time. pH is a field test with ar Target analyte response was below the laboratory defined neg The material was analyzed for, but was not detected above th The associated value is either the sample quantitation limit or	n immediate hold t gative threshold. e level of the asso	ime. iciated value.
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L U ethod Referen	Analysis exceeded method hold time. pH is a field test with ar Target analyte response was below the laboratory defined neg The material was analyzed for, but was not detected above th The associated value is either the sample quantitation limit or nces EPA 600/4-83-020. Methods for Chemical Analysis of Water a	n immediate hold t gative threshold. e level of the asso the sample detect and Wastes, Marc nic Substances in l	ime. iciated value. ion limit. h 1983. Environmental Samples, August 1993.
L U ethod Referen (1) (2)	Analysis exceeded method hold time. pH is a field test with ar Target analyte response was below the laboratory defined neg The material was analyzed for, but was not detected above th The associated value is either the sample quantitation limit or nces EPA 600/4-83-020. Methods for Chemical Analysis of Water a EPA 600/R-93-100. Methods for the Determination of Inorgan	n immediate hold t gative threshold. e level of the asso the sample detect and Wastes, Marc nic Substances in l	ime. iciated value. ion limit. h 1983. Environmental Samples, August 1993.
L U ethod Referen (1) (2) (3)	Analysis exceeded method hold time. pH is a field test with an Target analyte response was below the laboratory defined neg The material was analyzed for, but was not detected above th The associated value is either the sample quantitation limit or nces EPA 600/4-83-020. Methods for Chemical Analysis of Water a EPA 600/R-93-100. Methods for the Determination of Inorgan EPA 600/R-94-111. Methods for the Determination of Metals	n immediate hold t gative threshold. e level of the asso the sample detect and Wastes, Marc nic Substances in l in Environmental S	ime. iciated value. ion limit. h 1983. Environmental Samples, August 1993.
L U ethod Referen (1) (2) (3) (4)	Analysis exceeded method hold time. pH is a field test with an Target analyte response was below the laboratory defined neg The material was analyzed for, but was not detected above th The associated value is either the sample quantitation limit or nces EPA 600/4-83-020. Methods for Chemical Analysis of Water a EPA 600/R-93-100. Methods for the Determination of Inorgan EPA 600/R-94-111. Methods for the Determination of Metals EPA SW-846. Test Methods for Evaluating Solid Waste.	n immediate hold t gative threshold. e level of the asso the sample detect and Wastes, Marc nic Substances in l in Environmental S	ime. iciated value. ion limit. h 1983. Environmental Samples, August 1993.
L U ethod Referen (1) (2) (3) (4) (5)	Analysis exceeded method hold time. pH is a field test with an Target analyte response was below the laboratory defined neg The material was analyzed for, but was not detected above th The associated value is either the sample quantitation limit or nces EPA 600/4-83-020. Methods for Chemical Analysis of Water a EPA 600/R-93-100. Methods for the Determination of Inorgan EPA 600/R-94-111. Methods for the Determination of Metals EPA SW-846. Test Methods for Evaluating Solid Waste.	n immediate hold t gative threshold. e level of the asso the sample detect and Wastes, Marc nic Substances in I in Environmental s ater.	ime. iciated value. ion limit. h 1983. Environmental Samples, August 1993. Samples - Supplement I, May 1994.
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REP001.09.12.01

Sulfate			M300.0 - Io	on Chron	natography	/							
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG343679													
WG343679ICV	ICV	05/15/13 12:35	WI130315-7	50		51.86	mg/L	103.7	90	110			
WG343679ICB	ICB	05/15/13 12:53				U	mg/L		-1.5	1.5			
WG344142													
WG344142LFB1	LFB	05/22/13 16:40	WI130501-1	30		30.72	mg/L	102.4	90	110			
L12127-07DUP	DUP	05/22/13 21:20			52.35	52.83	mg/L				0.9	20	
L12127-08AS	AS	05/22/13 21:55	WI130501-1	30	89.3	116.82	mg/L	91.7	90	110			
WG344142LFB2	LFB	05/23/13 1:08	WI130501-1	30		30.82	mg/L	102.7	90	110			
L12127-08AS	AS	05/23/13 15:36	WI130501-1	60	91.94	153.55	mg/L	102.7	90	110			



(800) 334-5493

ACZ Project ID: L12128

FMI Gold & Copper - Sierrita

ACZ ID	WORKNUM PARAMETER	METHOD	QUAL DESCRIPTION	

No extended qualifiers associated with this analysis



ACZ Project ID: L12128

No certification qualifiers associated with this analysis

ACZ	Laboratories, Inc.
	Other web and Oracle and OC 20107 (2000) 201 510

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

4

Sample Receipt

FMI Gold & Copper - Sierrita	ACZ Proje	ct ID:		L12128
ZS000003Q8	Date Rece		5/17/201	3 10:33
	Receive	•		ksj
	Date Pri	inted:	5/	17/2013
Receipt Verification		YES	NO	NA
1) Is a foreign soil permit included for applicable samples?		123		X
2) Is the Chain of Custody or other directive shipping papers present?		Х		
3) Does this project require special handling procedures such as CLP protocol?				Х
4) Are any samples NRC licensable material?				Х
5) If samples are received past hold time, proceed with requested short hold time	e analyses?	Х		
6) Is the Chain of Custody complete and accurate?		Х		
7) Were any changes made to the Chain of Custody prior to ACZ receiving the s	amples?		Х	
Samples/Containers				
		YES	NO	NA
8) Are all containers intact and with no leaks?		X		
9) Are all labels on containers and are they intact and legible?		X		
10) Do the sample labels and Chain of Custody match for Sample ID, Date, and	Time?	Х		
11) For preserved bottle types, was the pH checked and within limits?				Х
12) Is there sufficient sample volume to perform all requested work?		Х		
13) Is the custody seal intact on all containers?				Х
14) Are samples that require zero headspace acceptable?				Х
15) Are all sample containers appropriate for analytical requirements?		Х		
16) Is there an Hg-1631 trip blank present?				Х
17) Is there a VOA trip blank present?				Х
18) Were all samples received within hold time?		Х		
Chain of Custody Related Remarks				
Client Contact Remarks				

Shipping Containers

Cooler Id	
2594	

Rad (µR/Hr) -----12

Custody Seal Intact? -----Yes

Was ice present in the shipment container(s)?

Yes - Wet ice was present in the shipment container(s).

Temp (°C)

4

Client must contact an ACZ Project Manager if analysis should not proceed for samples received outside of their thermal preservation acceptance criteria.

Name: Jon Anderson		Addre	ss: 620	0 W. D	uval N	/line R	load				
Company: Freeport-Mc	MoRan Sierrita Inc.		Green Valley, AZ 85614								
E-mail: jonathan_anders	son@fmi.com		Telep	hone: 5	20-648	8-8844					
Copy of Report to:		<u>i</u>									
Name: Ben Daigneau		-	E-mai	I: bdaig	neau@	clearc	reekas	sociat	es.com		
Company: Clear Creek	Associates		Telep	hone: 5	20-393	3-2714					
Invoice to:								·			
Name:			Addre	SS:							
Company:											
E-mail:			Telep	hone:			-				
	t holding time (HT), or if insuffic				ete				YES		
analysis before expiration	n, shall ACZ proceed with reque stact client for further instructio	ested short	HT ana r "YES"	ilyses? ' nor "N	0 "				NO		l
	ceed with the requested analys					will be	e qualif	ied.			_
Are samples for CO DW (YES			
	te forms. Results will be report	ed to PQL.			'SI S RE	-OLIES	 11-10-7-4	ttach b	NO storus	×.	10.0
PROJECT INFORMATI					an an Indi					ļ	
Quote #:			srs	EPA 375							
Project/PO #: ZS000003Q8			aine	ш ъ (
Reporting state for compliance testing: Sampler's Name: Jeff Joy		-	of Containers	EPA 300 or							
	icensable material? Yes No			by EP							
SAMPLE IDENTIFICA		Matrix	*	SO4							
GV-1	5/16/13:0833	GW	1	×						1	
GV-2	5/16/13:0913	GW	1	×							
SIWELL	5/16/13 : 1018	GW	1	×							L.
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Analytical Report

May 23, 2013

Report to: Jon Anderson FMI Gold & Copper - Sierrita 6200 West Duval Mine Rd. Green Valley, AZ 85614

cc: Ben Daigneau

Bill to: Accounts Payable FMI Gold & Copper - Sierrita P.O. Box 2671 Phoenix, AZ 85002-2671

Project ID: ZS000003Q8 ACZ Project ID: L12157

Jon Anderson:

Enclosed are the analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on May 20, 2013. This project has been assigned to ACZ's project number, L12157. Please reference this number in all future inquiries.

All analyses were performed according to ACZ's Quality Assurance Plan. The enclosed results relate only to the samples received under L12157. Each section of this report has been reviewed and approved by the appropriate Laboratory Supervisor, or a qualified substitute.

Except as noted, the test results for the methods and parameters listed on ACZ's current NELAC certificate letter (#ACZ) meet all requirements of NELAC.

This report shall be used or copied only in its entirety. ACZ is not responsible for the consequences arising from the use of a partial report.

All samples and sub-samples associated with this project will be disposed of after June 22, 2013. If the samples are determined to be hazardous, additional charges apply for disposal (typically \$11/sample). If you would like the samples to be held longer than ACZ's stated policy or to be returned, please contact your Project Manager or Customer Service Representative for further details and associated costs. ACZ retains analytical raw data reports for ten years.

If you have any questions or other needs, please contact your Project Manager.

S. Habermehl

Scott Habermehl has reviewed and approved this report.





May 23, 2013

Project ID: ZS000003Q8 ACZ Project ID: L12157

Sample Receipt

ACZ Laboratories, Inc. (ACZ) received 3 ground water samples from FMI Gold & Copper - Sierrita on May 20, 2013. The samples were received in good condition. Upon receipt, the sample custodian removed the samples from the cooler, inspected the contents, and logged the samples into ACZ's computerized Laboratory Information Management System (LIMS). The samples were assigned ACZ LIMS project number L12157. The custodian verified the sample information entered into the computer against the chain of custody (COC) forms and sample bottle labels.

Holding Times

Any analyses not performed within EPA recommended holding times have been qualified with an "H" flag.

Sample Analysis

These samples were analyzed for inorganic parameters. The individual methods are referenced on both, the ACZ invoice and the analytical reports. The extended qualifier reports may contain footnotes qualifying specific elements due to QC failures. In addition the following has been noted with this specific project:

1. This project is a client requested re-analysis of some earlier reported samples.



Project ID:	ZS000003Q8
Sample ID:	MO-2007-1C

ACZ Sample ID: L12157-01 Date Sampled: 04/08/13 12:58 Date Received: 05/20/13 Sample Matrix: Ground Water

Wet Chemistry										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Sulfate	M300.0 - Ion Chromatography	10	425.0	Н	*	mg/L	5	25	05/22/13 1:10	tcd

ACZ	Laboratories, Inc.
2773 Downhill Drive	Steamboat Springs, CO 80487 (800) 334-5493

Project ID:	ZS000003Q8
Sample ID:	MO-2007-3B

ACZ Sample ID:	L12157-02
Date Sampled:	04/09/13 12:40
Date Received:	05/20/13
Sample Matrix:	Ground Water

Wet Chemistry										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Sulfate	M300.0 - Ion Chromatography	1	37.54	Н	*	mg/L	0.5	2.5	05/22/13 1:28	tcd

ACZ	Laboratorie	s, Inc.
	Steamboat Springs, CO	•

Project ID:	ZS000003Q8						
Sample ID:	M-8						

ACZ Sample ID: L12157-03 Date Sampled: 04/17/13 15:26 Date Received: 05/20/13 Sample Matrix: Ground Water

Wet Chemistry										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Sulfate	M300.0 - Ion Chromatography	5	140.61	Н	*	mg/L	2.5	12.5	05/22/13 14:55	5 tcd



Inorganic Reference

Batch Found Limit Lower MDL	A distinct set of samp Value of the QC Type	nes analyzed at a specific time						
Limit Lower MDL	value of the QC Type	A distinct set of samples analyzed at a specific time						
Lower MDL	Upper limit for RPD, in %.							
MDL								
	Lower Recovery Limit, in % (except for LCSS, mg/Kg)							
	Method Detection Limit. Same as Minimum Reporting Limit. Allows for instrument and annual fluctuations.							
PCN/SCN	-	o reagents/standards to trace to the main	nulacturer's certilica	ate of analysis				
PQL		Limit, typically 5 times the MDL.	0					
QC		ntrol Sample or the amount added to the	•	(()				
Rec RPD		of the true value or spike added, in % (ex	, , ,	/Kg)				
		erence, calculation used for Duplicate Q	CTypes					
Upper Sample	Value of the Sample	it, in % (except for LCSS, mg/Kg) of interest						
Sample Ty	mes							
AS	Analytical Spike (Pos	t Digestion)	LCSWD	Laboratory Control Sample - Water Duplicate				
AS ASD			LFB					
ASD CCB		t Digestion) Duplicate n Blank	LFB	Laboratory Fortified Blank				
CCV	Continuing Calibratio		LFM LFMD	Laboratory Fortified Matrix				
DUP	-	n Verification standard	LFMD LRB	Laboratory Fortified Matrix Duplicate				
ICB	Sample Duplicate Initial Calibration Blar	ak.	LRB MS	Laboratory Reagent Blank Matrix Spike				
	Initial Calibration Veri							
ICV			MSD	Matrix Spike Duplicate				
ICSAB		tion Standard - A plus B solutions	PBS	Prep Blank - Soil				
LCSS	Laboratory Control S		PBW	Prep Blank - Water				
LCSSD LCSW	Laboratory Control S	ample - Soil Duplicate	PQV SDL	Practical Quantitation Verification standard Serial Dilution				
Duplicates Spikes/For	tified Matrix	Verifies the precision of the instrum Determines sample matrix interfere						
Standard		Verifies the validity of the calibration	1.					
Z Qualifiers	(Qual)							
В	•	n detected at a value between MDL and						
Н	Analysis exceeded m	nethod hold time. pH is a field test with a	an immediate hold t	ime.				
L		nse was below the laboratory defined ne	-					
U		alyzed for, but was not detected above the e is either the sample quantitation limit on						
thod Refere		Methods for Chemical Analysis of Mater	and Waston More					
(1)		Methods for Chemical Analysis of Water Methods for the Determination of Inorga						
(2)		Methods for the Determination of Inorga Methods for the Determination of Metals						
(3)		Methods for the Determination of Metals		Samples - Supplement I, May 1994.				
(4) (5)		Methods for Evaluating Solid Waste. Ir the Examination of Water and Wastew	ator					
(5)			valel.					
		from raw data . Doculta may yor stick	the if the reunded we					
mments								
(1)	(2) Soil, Sludge, and Plant matrices for Inorganic analyses are reported on a dry weight basis.							
(1) (2)	-							
(1) (2) (3)	Animal matrices for I			artification qualifier				
(1) (2)	Animal matrices for lu An asterisk in the "XC	Q" column indicates there is an extended		rtification qualifier				
(1) (2) (3) (4)	Animal matrices for lu An asterisk in the "X0 associated with the re	Q" column indicates there is an extended esult.	d qualifier and/or ce					
(1) (2) (3)	Animal matrices for lu An asterisk in the "X0 associated with the re	Q" column indicates there is an extended	d qualifier and/or ce					

REP001.09.12.01

ACZ Project ID: L12157

Sulfate			M300.0 - Io	on Chron	natography	/							
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG343679													
WG343679ICV	ICV	05/15/13 12:35	WI130315-7	50		51.86	mg/L	103.7	90	110			
WG343679ICB	ICB	05/15/13 12:53				U	mg/L		-1.5	1.5			
WG344045													
WG344045LFB1	LFB	05/21/13 13:13	WI130501-1	30		30.66	mg/L	102.2	90	110			
WG344045LFB2	LFB	05/21/13 21:40	WI130501-1	30		30.14	mg/L	100.5	90	110			
L12041-04DUP	DUP	05/21/13 22:15			U	U	mg/L				0	20	RA
L12041-05AS	AS	05/22/13 13:45	WI130501-1	150	178.59	333.78	mg/L	103.5	90	110			



(800) 334-5493

FMI Gold & Copper - Sierrita

ACZ Project ID: L12157

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L12157-01	WG344045	Sulfate	M300.0 - Ion Chromatography	H3	Sample was received and analyzed past holding time.
			M300.0 - Ion Chromatography	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
L12157-02	WG344045	Sulfate	M300.0 - Ion Chromatography	H3	Sample was received and analyzed past holding time.
			M300.0 - Ion Chromatography	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
L12157-03	WG344045	Sulfate	M300.0 - Ion Chromatography	H3	Sample was received and analyzed past holding time.
			M300.0 - Ion Chromatography	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).



ACZ Project ID: L12157

No certification qualifiers associated with this analysis

AGZ Laboratories, Inc. 2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493			ample eceipt	
FMI Gold & Copper - Sierrita ZS000003Q8	ACZ Proje Date Rece		4/12/201	L11560 I3 09:20
	Receive Date Pr		4/	ksj 12/2013
Receipt Verification	Date 11	inteo.	- - /	12/2010
		YES	NO	NA
1) Is a foreign soil permit included for applicable samples?				Х
2) Is the Chain of Custody or other directive shipping papers present?		Х		
3) Does this project require special handling procedures such as CLP protocol?				Х
4) Are any samples NRC licensable material?				Х

- 5) If samples are received past hold time, proceed with requested short hold time analyses?
- 6) Is the Chain of Custody complete and accurate?

The 'sampled by' field on the Chain of Custody was not completed.

7) Were any changes made to the Chain of Custody prior to ACZ receiving the samples?

Samples/Containers

	0	
8) Are all containers intact and with no leaks?	Х	
9) Are all labels on containers and are they intact and legible?	Х	
10) Do the sample labels and Chain of Custody match for Sample ID, Date, and Time?	Х	
11) For preserved bottle types, was the pH checked and within limits?		Х
12) Is there sufficient sample volume to perform all requested work?	Х	
13) Is the custody seal intact on all containers?		Х
14) Are samples that require zero headspace acceptable?		Х
15) Are all sample containers appropriate for analytical requirements?	Х	
16) Is there an Hg-1631 trip blank present?		Х
17) Is there a VOA trip blank present?		Х
18) Were all samples received within hold time?	Х	
	-	

Chain of Custody Related Remarks

Client Contact Remarks

Shipping Containers

Cooler Id	Temp (°C)	Rad ($\mu R/Hr$)	Custody Seal Intact?
3869	3.8	11	Yes

Client must contact an ACZ Project Manager if analysis should not proceed for samples received outside of their thermal preservation acceptance criteria.

NA

Х

YES

Х

Х

NO

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		poratories, Inc.					ı				
	2773 Downhill Drive Steambo	at Springs, CO 80487 (800),334-	5493		-						
	Name: Jon Anderson		4 4	ddres		W. Duva					_
	Company: Freeport-McM	oRan Sierrita Inc.	┦┣			n Valley,		4			
	E-mail: jonathan_anderson	@fmi.com		eleph	one: 5	20-648-88					
								•			
	Name: Ben Daigneau					neau@clea		sociates	s.com		
	Company: Clear Creek As	ssociates		Teleph	one: 5	20-622-32	22				_
	Name:			Addres	8:						
	Company:		┧┟					<u></u>			
	E-mail:			Teleph					YES		
	If sample(s) received past h	olding time (HT), or if insufficien	nt HT rema ad abort H	ains to IT ensit	compie	ite			NO		
		shall ACZ proceed with request ct client for further instruction.	IT NAILINET	теа) "			-		
·	is indicated, ACZ will proce	ed with the requested analyses,	, even if H	T is ex	pired, a	nd data will	be quali	led.	YES		
	Are samples for CO DW Co							NO	×		
	if yes, please include state	forms. Results will be reported	to Pac.			a Adama					
				375							
	Quote #: Project/PO #: ZS000003	08	1	lers	EPA						
	Reporting state for compl		7 I	of Containers	8					Į	
б	Sampler's Name:			3	9 3 10 3						
, to	Are any samples NRC lic	ensable material? Yes No		to#	SO4 by EPA 300 or EPA 375						
Custody / ~						┝━╍╋╍╸			┝──┨		
- ,	MO-2007-1A	4/8/2013 ; 1002	GW	1	×				┝╼╴┥		
- ``	MO-2007-1B	4/8/2013 ; 1200	GW	1	×	┝━╍┼╍╸		╉──	┞╌╌╌┫		<u></u>
	MO-2007-1C	4/8/2013 ; 1258	GW	1	×		_		┢╾╍┥		
	MO-2007-2	4/8/2013 ; 1456	GW	1	×	┟──┟─╸		╉───	┼──┤		
L12157 Chain	MO-2007-3B	4/9/2013 ; 1240	GW	$\frac{1}{1}$	×	┠───┦╼╸	-+	+			
	MO-2007-3C	4/9/2013 ; 1246	GW	1	×			+			
	MO-2007-6A	4/9/2013 ; 1419	GW		×	┟╼╾╉╼		+	┟───┤		
		4/9/2013 ; 1541	GW GW		x	╂───╂─		+	1		
	DUP20130409A	4/9/2013	GW	$\frac{1}{1}$	×	┼──┼──		+			
	MO-2007-4B	4/10/2013 ; 1146 ter) · GW (Ground Water) · WW (Waste	Water) - Di	V (Drink	ing Wete	r) · SL (Sludg	e) · 80 (80	I) - OL (O	ll) · Other	(Specify)	
		ar) · Gw (Ground Water) · ···· (
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I	Jeff Joy	4/11/13;	1500			1					

FRMAD050.01.15.09

White - Return with sample. Yellow

sample. Yellow - Retain for your records.

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#Relog # LI2 157

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Name: Jonathan Anderso	n		Addree	s: 6200 `	W. Duval	Mine R	load				
Company: Freeport-McN	IoRan Sierrita Inc.				Valley, /		4				
E-mail: jonathan_anderso	n@fmi.com	Telephone: 520-393-2714									
						ļ.					
Name: Ben Daigneau			E-mail: bdaigneau@clearcreekassociates.com								
Company: Clear Creek A	ssociates		Telept	ione: 52	0-622-322	22					
Name:			Addrei	88:							
Compeny:											
E-mail:			Telept	_							
If eemola(s) received past	holding time (HT), or if insuffici	ent HT ren	nains to	complet	9			YES NO			
analysis before expiration	, shall ACZ proceed with reque act client for further instruction	ited short . If neithe	HT anal r "YES"	yses? nor "NO"					J		
is indicated, ACZ will proc	eed with the requested analyse	s, even if l	IT is ex	pired, and	d deta wili	be quali	ied.				
Are samples for CO DW C	ompliance Monitoring?							YES NO	x		
	forms. Results will be reporte	d to PQL.					-	110			
For the second				375			1				
Quote #:		S.	EPA 3								
Project/PO #: ZS00000		of Containers	5			1					
Reporting state for compliance testing:			l g	9€ ¥¢					1		
Sampler's Name: Jeff Jo	censable material? Yes No	-	fot	SO4 by EPA 300			1				
Are any samples the				8				<u> </u>			
M-10	4/17/13 : 1308	GW	1	×				L	┝──┾		
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l	Please refer to ACZ's term		las - 1-	محم المغمر		a akia a	f fhie Ci	DC.			
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FRMAD050.01.15.09

White - Return with sample. Yellow - Retain for your records.



Analytical Report

May 28, 2013

Report to: Jon Anderson FMI Gold & Copper - Sierrita 6200 West Duval Mine Rd. Green Valley, AZ 85614

cc: Ben Daigneau

Bill to: Accounts Payable FMI Gold & Copper - Sierrita P.O. Box 2671 Phoenix, AZ 85002-2671

Project ID: ZS000003Q8 ACZ Project ID: L12188

Jon Anderson:

Enclosed are the analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on May 22, 2013. This project has been assigned to ACZ's project number, L12188. Please reference this number in all future inquiries.

All analyses were performed according to ACZ's Quality Assurance Plan. The enclosed results relate only to the samples received under L12188. Each section of this report has been reviewed and approved by the appropriate Laboratory Supervisor, or a qualified substitute.

Except as noted, the test results for the methods and parameters listed on ACZ's current NELAC certificate letter (#ACZ) meet all requirements of NELAC.

This report shall be used or copied only in its entirety. ACZ is not responsible for the consequences arising from the use of a partial report.

All samples and sub-samples associated with this project will be disposed of after June 27, 2013. If the samples are determined to be hazardous, additional charges apply for disposal (typically \$11/sample). If you would like the samples to be held longer than ACZ's stated policy or to be returned, please contact your Project Manager or Customer Service Representative for further details and associated costs. ACZ retains analytical raw data reports for ten years.

If you have any questions or other needs, please contact your Project Manager.

S. Habermehl

Scott Habermehl has reviewed and approved this report.





ACZ	Laboratories, Inc.	
	ve Steamboat Springs, CO 80487 (800) 334-5493	
FMI Gold & C	opper - Sierrita	ACZ Sa
Project ID:	ZS000003Q8	Date S
-		

ACZ Sample ID:	L12188-01
Date Sampled:	05/21/13 10:49
Date Received:	05/22/13
Sample Matrix:	Ground Water

Wet Chemistry										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Sulfate	M300.0 - Ion Chromatography	1	28.85			mg/L	0.5	2.5	05/23/13 2:18	tcd

Arizona license number: AZ0102

Sample ID: M-8

ACZ	Laboratories, Inc.
2773 Downhill Drive	Steamboat Springs, CO 80487 (800) 334-5493

Project ID:	ZS000003Q8
Sample ID:	MO-2007-3B

ACZ Sample ID: L12188-02 Date Sampled: 05/21/13 12:59 Date Received: 05/22/13 Sample Matrix: Ground Water

Wet Chemistry									
Parameter	EPA Method	Dilution	Result	Qual XQ	Units	MDL	PQL	Date	Analyst
Sulfate	M300.0 - Ion Chromatography	1	26.96		mg/L	0.5	2.5	05/23/13 2:53	tcd

Arizona license number: AZ0102



Inorganic Reference

Batch	Explanations		
Found	A distinct set of samples analyzed at a specific time		
Found	Value of the QC Type of interest		
Limit	Upper limit for RPD, in %.		
Lower	Lower Recovery Limit, in % (except for LCSS, mg/Kg)	All	and an all successful to the stand stand
MDL	Method Detection Limit. Same as Minimum Reporting Limit.		
PCN/SCN	A number assigned to reagents/standards to trace to the man	iutacturer's certifica	ate of analysis
PQL	Practical Quantitation Limit, typically 5 times the MDL.	0.1	
QC	True Value of the Control Sample or the amount added to the	•	
Rec	Recovered amount of the true value or spike added, in % (exc		/Kg)
RPD	Relative Percent Difference, calculation used for Duplicate QC	JTypes	
Upper Sample	Upper Recovery Limit, in % (except for LCSS, mg/Kg) Value of the Sample of interest		
	·		
C Sample Typ		1.0014/0	Laboratory Control Compley Water Durlingt
AS	Analytical Spike (Post Digestion)	LCSWD	Laboratory Control Sample - Water Duplicate
ASD	Analytical Spike (Post Digestion) Duplicate	LFB	Laboratory Fortified Blank
CCB	Continuing Calibration Blank	LFM	Laboratory Fortified Matrix
CCV	Continuing Calibration Verification standard	LFMD	Laboratory Fortified Matrix Duplicate
DUP	Sample Duplicate	LRB	Laboratory Reagent Blank
ICB	Initial Calibration Blank	MS	Matrix Spike
ICV	Initial Calibration Verification standard	MSD	Matrix Spike Duplicate
ICSAB	Inter-element Correction Standard - A plus B solutions	PBS	Prep Blank - Soil
LCSS	Laboratory Control Sample - Soil	PBW	Prep Blank - Water
LCSSD LCSW	Laboratory Control Sample - Soil Duplicate Laboratory Control Sample - Water	PQV SDL	Practical Quantitation Verification standard Serial Dilution
Duplicates Spikes/Forti	fied Matrix Determines sample matrix interferen		
Standard	Verifies the validity of the calibration.		
Z Qualifiers	(Qual)		
В	Analyte concentration detected at a value between MDL and	PQL. The associat	
			ed value is an estimated quantity.
Н	Analysis exceeded method hold time. pH is a field test with a	n immediate hold t	
H L	Analysis exceeded method hold time. pH is a field test with an Target analyte response was below the laboratory defined neg		
		gative threshold.	ime.
L	Target analyte response was below the laboratory defined new	gative threshold. ne level of the asso	ime. iciated value.
L	Target analyte response was below the laboratory defined neg The material was analyzed for, but was not detected above th The associated value is either the sample quantitation limit or	gative threshold. ne level of the asso	ime. iciated value.
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L U ethod Referer	Target analyte response was below the laboratory defined neg The material was analyzed for, but was not detected above th The associated value is either the sample quantitation limit or nces	gative threshold. he level of the asso the sample detect and Wastes, Marc	ime. iciated value. ion limit. h 1983.
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L U athod Referen (1) (2) (3) (4) (5) omments (1)	Target analyte response was below the laboratory defined near The material was analyzed for, but was not detected above the The associated value is either the sample quantitation limit or nces EPA 600/4-83-020. Methods for Chemical Analysis of Water EPA 600/R-93-100. Methods for the Determination of Inorgan EPA 600/R-94-111. Methods for the Determination of Metals EPA SW-846. Test Methods for Evaluating Solid Waste. Standard Methods for the Examination of Water and Wasteward QC results calculated from raw data. Results may vary slight	gative threshold. the level of the asso the sample detect and Wastes, Marc nic Substances in I in Environmental S ater. ly if the rounded va ported on a dry we	ime. iciated value. ion limit. h 1983. Environmental Samples, August 1993. Samples - Supplement I, May 1994.
L U ethod Referent (1) (2) (3) (4) (5) omments (1) (2)	Target analyte response was below the laboratory defined near The material was analyzed for, but was not detected above the The associated value is either the sample quantitation limit or nces EPA 600/4-83-020. Methods for Chemical Analysis of Water EPA 600/R-93-100. Methods for the Determination of Inorgan EPA 600/R-94-111. Methods for the Determination of Metals EPA SW-846. Test Methods for Evaluating Solid Waste. Standard Methods for the Examination of Water and Wastewar QC results calculated from raw data. Results may vary slight Soil, Sludge, and Plant matrices for Inorganic analyses are results	gative threshold. the level of the asso the sample detect and Wastes, Marc nic Substances in I in Environmental S ater. ly if the rounded va ported on a dry we s received" basis.	ime. ciated value. ion limit. h 1983. Environmental Samples, August 1993. Samples - Supplement I, May 1994. slues are used in the calculations. sight basis.
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L U ethod Referent (1) (2) (3) (4) (5) 0 mments (1) (2) (3)	Target analyte response was below the laboratory defined neg The material was analyzed for, but was not detected above the The associated value is either the sample quantitation limit or nces EPA 600/4-83-020. Methods for Chemical Analysis of Water EPA 600/R-93-100. Methods for the Determination of Inorgan EPA 600/R-94-111. Methods for the Determination of Metals EPA SW-846. Test Methods for Evaluating Solid Waste. Standard Methods for the Examination of Water and Wastewar QC results calculated from raw data. Results may vary slight Soil, Sludge, and Plant matrices for Inorganic analyses are re Animal matrices for Inorganic analyses are reported on an "as An asterisk in the "XQ" column indicates there is an extended	gative threshold. the level of the asso the sample detect and Wastes, Marc nic Substances in I in Environmental S ater. ly if the rounded va ported on a dry we s received" basis. I qualifier and/or ce	ime. ciated value. ion limit. h 1983. Environmental Samples, August 1993. Samples - Supplement I, May 1994. slues are used in the calculations. sight basis.

REP001.09.12.01

ACZ Project ID: L12188

Sulfate			M300.0 - Io	on Chron	natography	/							
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG343679													
WG343679ICV	ICV	05/15/13 12:35	WI130315-7	50		51.86	mg/L	103.7	90	110			
WG343679ICB	ICB	05/15/13 12:53				U	mg/L		-1.5	1.5			
WG344142													
WG344142LFB1	LFB	05/22/13 16:40	WI130501-1	30		30.72	mg/L	102.4	90	110			
WG344142LFB2	LFB	05/23/13 1:08	WI130501-1	30		30.82	mg/L	102.7	90	110			
L12188-01DUP	DUP	05/23/13 2:35			28.85	28.85	mg/L				0	20	
L12188-02AS	AS	05/23/13 3:10	WI130501-1	30	26.96	57.28	mg/L	101.1	90	110			



(800) 334-5493

ACZ Project ID: L12188

FMI Gold & Copper - Sierrita

ACZ ID	WORKNUM PARAMETER	METHOD	QUAL DESCRIPTION	

No extended qualifiers associated with this analysis



ACZ Project ID: L12188

No certification qualifiers associated with this analysis

AGE Laboratories, Inc. 2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Sample Receipt

FMI Gold & Copper - Sierrita	ACZ Proje	ect ID:		L12188
ZS000003Q8	Date Rec	eived: 0	5/22/201	13 09:54
	Receive	•		ksj
	Date Pr	rinted:	5/	22/2013
Receipt Verification		YES	NO	ΝΑ
1) Is a foreign soil permit included for applicable samples?		TES	NO	NA X
2) Is the Chain of Custody or other directive shipping papers present?		Х		
3) Does this project require special handling procedures such as CLP protocol?				Х
4) Are any samples NRC licensable material?				Х
5) If samples are received past hold time, proceed with requested short hold time	e analyses?	Х		
6) Is the Chain of Custody complete and accurate?		Х		
7) Were any changes made to the Chain of Custody prior to ACZ receiving the sa	amples?		Х	
Samples/Containers				
		YES	NO	NA
8) Are all containers intact and with no leaks?		X		
9) Are all labels on containers and are they intact and legible?		X		
10) Do the sample labels and Chain of Custody match for Sample ID, Date, and	Time?	X		
11) For preserved bottle types, was the pH checked and within limits?				Х
12) Is there sufficient sample volume to perform all requested work?		Х		
13) Is the custody seal intact on all containers?				Х
14) Are samples that require zero headspace acceptable?				Х
15) Are all sample containers appropriate for analytical requirements?		Х		
16) Is there an Hg-1631 trip blank present?				Х
17) Is there a VOA trip blank present?				Х
18) Were all samples received within hold time?		Х		
Chain of Custody Related Remarks				
Client Contact Remarks				

Shipping Containers

Cooler	Id
3711	

Rad ($\mu R/Hr$) _____ 12

Custody Seal Intact? -----Yes

Was ice present in the shipment container(s)?

Yes - Wet ice was present in the shipment container(s).

Temp (°C)

2.1

Client must contact an ACZ Project Manager if analysis should not proceed for samples received outside of their thermal preservation acceptance criteria.

L12188

Duval Min alley, AZ 8 93-2714 @clearcree 22-3222 a will be qua	35614 ekassociate	YES NO X	
alley, AZ 8 93-2714 Øclearcree 22-3222	35614 ekassociate	YES NO X	
alley, AZ 8 93-2714 Øclearcree 22-3222	35614 ekassociate	YES NO X	
93-2714 @clearcree 22-3222 a will be que	ekassociate	YES NO X	
@clearcree 22-3222 a will be qua	alified.	YES NO X	
22-3222 a will be qua	alified.	YES NO X	
22-3222 a will be qua	alified.	YES NO X	
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FRMAD050.01.15.09

L12188 Chain of Custody

•

White - Return with sample. Yellow - Retain for your records.



Analytical Report

June 10, 2013

Report to: Jon Anderson FMI Gold & Copper - Sierrita 6200 West Duval Mine Rd. Green Valley, AZ 85614

cc: Ben Daigneau

Bill to: Accounts Payable FMI Gold & Copper - Sierrita P.O. Box 2671 Phoenix, AZ 85002-2671

Project ID: ZS000003Q8 ACZ Project ID: L12268

Jon Anderson:

Enclosed are the analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on May 24, 2013. This project has been assigned to ACZ's project number, L12268. Please reference this number in all future inquiries.

All analyses were performed according to ACZ's Quality Assurance Plan. The enclosed results relate only to the samples received under L12268. Each section of this report has been reviewed and approved by the appropriate Laboratory Supervisor, or a qualified substitute.

Except as noted, the test results for the methods and parameters listed on ACZ's current NELAC certificate letter (#ACZ) meet all requirements of NELAC.

This report shall be used or copied only in its entirety. ACZ is not responsible for the consequences arising from the use of a partial report.

All samples and sub-samples associated with this project will be disposed of after July 10, 2013. If the samples are determined to be hazardous, additional charges apply for disposal (typically \$11/sample). If you would like the samples to be held longer than ACZ's stated policy or to be returned, please contact your Project Manager or Customer Service Representative for further details and associated costs. ACZ retains analytical raw data reports for ten years.

If you have any questions or other needs, please contact your Project Manager.

S. Habermehl

Scott Habermehl has reviewed and approved this report.





ACZ	Laboratories, Inc.
2773 Downhill Drive	Steamboat Springs, CO 80487 (800) 334-5493

FMI Gold & Copper - Sierrita Α Project ID: ZS000003Q8 Sample ID: ESP-4

ACZ Sample ID:	L12268-01
Date Sampled:	05/20/13 09:40
Date Received:	05/24/13
Sample Matrix:	Ground Water

Wet Chemistry									
Parameter	EPA Method	Dilution	Result	Qual XQ	Units	MDL	PQL	Date	Analyst
Sulfate	M300.0 - Ion Chromatography	10	581.6		mg/L	5	25	06/04/13 1:28	jlf

Arizona license number: AZ0102

	Laboratories, Inc. ve Steamboat Springs, CO 80487 (800) 334-5493	Inor	ganic Analyt Results
	opper - Sierrita ZS000003Q8 ESP-2	ACZ Sample ID: Date Sampled: Date Received:	05/20/13 11:33
		Sample Matrix:	Ground Water
Wet Chemistry			

wei Chemistry									
Parameter	EPA Method	Dilution	Result	Qual XQ	Units	MDL	PQL	Date	Analyst
Sulfate	M300.0 - Ion Chromatography	1	27.86		mg/L	0.5	2.5	06/04/13 2:03	jlf

Arizona license number: AZ0102

ACZ Laboratories, Inc.	
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493	
FMI Gold & Copper - Sierrita	AC

ACZ Sample ID:	L12268-03
Date Sampled:	05/22/13 10:59
Date Received:	05/24/13
Sample Matrix:	Ground Water

Wet Chemistry									
Parameter	EPA Method	Dilution	Result	Qual XQ	Units	MDL	PQL	Date	Analyst
Sulfate	M300.0 - Ion Chromatography	1	35.87		mg/L	0.5	2.5	06/04/13 17:46	6 jlf

Arizona license number: AZ0102

ZS000003Q8

ESP-3

Project ID:

Sample ID:



Inorganic Reference

Batch	Explanations							
Fourd	A distinct set of samples analyzed at a specific time							
Found	Value of the QC Type of interest							
Limit	Upper limit for RPD, in %.							
Lower	Lower Recovery Limit, in % (except for LCSS, mg/Kg)							
MDL	Method Detection Limit. Same as Minimum Reporting Limit.							
PCN/SCN	A number assigned to reagents/standards to trace to the man	iutacturer's certific	ate of analysis					
PQL	Practical Quantitation Limit, typically 5 times the MDL.	0.1						
QC	True Value of the Control Sample or the amount added to the	•						
Rec	Recovered amount of the true value or spike added, in % (exc		/Kg)					
RPD	Relative Percent Difference, calculation used for Duplicate QC	Types						
Upper Sample	Upper Recovery Limit, in % (except for LCSS, mg/Kg) Value of the Sample of interest							
	· ·							
C Sample Typ		1.0014/0	Laboratory Control Compley Water Durlingt					
AS	Analytical Spike (Post Digestion)	LCSWD	Laboratory Control Sample - Water Duplicate					
ASD	Analytical Spike (Post Digestion) Duplicate	LFB	Laboratory Fortified Blank					
CCB	Continuing Calibration Blank	LFM	Laboratory Fortified Matrix					
CCV	Continuing Calibration Verification standard	LFMD	Laboratory Fortified Matrix Duplicate					
DUP	Sample Duplicate	LRB	Laboratory Reagent Blank					
ICB	Initial Calibration Blank	MS	Matrix Spike					
ICV	Initial Calibration Verification standard	MSD	Matrix Spike Duplicate					
ICSAB	Inter-element Correction Standard - A plus B solutions	PBS	Prep Blank - Soil					
LCSS	Laboratory Control Sample - Soil	PBW	Prep Blank - Water					
LCSSD LCSW	Laboratory Control Sample - Soil Duplicate Laboratory Control Sample - Water	PQV SDL	Practical Quantitation Verification standard Serial Dilution					
Duplicates Spikes/Forti	ified Matrix Determines sample matrix interferen							
Standard	Verifies the validity of the calibration.							
Z Qualifiers	(Qual)							
В	Analyte concentration detected at a value between MDL and F							
	Analysis exceeded method hold time. pH is a field test with an immediate hold time.							
н	-							
H L	-	n immediate hold t						
	Analysis exceeded method hold time. pH is a field test with an	n immediate hold t gative threshold.	ime.					
L	Analysis exceeded method hold time. pH is a field test with an Target analyte response was below the laboratory defined neg	n immediate hold t gative threshold. e level of the asso	ime. iciated value.					
L	Analysis exceeded method hold time. pH is a field test with ar Target analyte response was below the laboratory defined neg The material was analyzed for, but was not detected above th The associated value is either the sample quantitation limit or	n immediate hold t gative threshold. e level of the asso	ime. iciated value.					
L U	Analysis exceeded method hold time. pH is a field test with ar Target analyte response was below the laboratory defined neg The material was analyzed for, but was not detected above th The associated value is either the sample quantitation limit or	n immediate hold t gative threshold. e level of the asso the sample detect	ime. iciated value. ion limit.					
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L U ethod Referen	Analysis exceeded method hold time. pH is a field test with ar Target analyte response was below the laboratory defined neg The material was analyzed for, but was not detected above th The associated value is either the sample quantitation limit or nces EPA 600/4-83-020. Methods for Chemical Analysis of Water a	n immediate hold t gative threshold. e level of the asso the sample detect and Wastes, Marc nic Substances in l	ime. iciated value. ion limit. h 1983. Environmental Samples, August 1993.					
L U ethod Referen (1) (2)	Analysis exceeded method hold time. pH is a field test with ar Target analyte response was below the laboratory defined neg The material was analyzed for, but was not detected above th The associated value is either the sample quantitation limit or nces EPA 600/4-83-020. Methods for Chemical Analysis of Water a EPA 600/R-93-100. Methods for the Determination of Inorgan	n immediate hold t gative threshold. e level of the asso the sample detect and Wastes, Marc nic Substances in l	ime. iciated value. ion limit. h 1983. Environmental Samples, August 1993.					
L U ethod Referen (1) (2) (3)	Analysis exceeded method hold time. pH is a field test with an Target analyte response was below the laboratory defined neg The material was analyzed for, but was not detected above th The associated value is either the sample quantitation limit or nces EPA 600/4-83-020. Methods for Chemical Analysis of Water a EPA 600/R-93-100. Methods for the Determination of Inorgan EPA 600/R-94-111. Methods for the Determination of Metals	n immediate hold t gative threshold. e level of the asso the sample detect and Wastes, Marc nic Substances in l in Environmental S	ime. iciated value. ion limit. h 1983. Environmental Samples, August 1993.					
L U ethod Referen (1) (2) (3) (4)	Analysis exceeded method hold time. pH is a field test with an Target analyte response was below the laboratory defined neg The material was analyzed for, but was not detected above th The associated value is either the sample quantitation limit or nces EPA 600/4-83-020. Methods for Chemical Analysis of Water a EPA 600/R-93-100. Methods for the Determination of Inorgan EPA 600/R-94-111. Methods for the Determination of Metals EPA SW-846. Test Methods for Evaluating Solid Waste.	n immediate hold t gative threshold. e level of the asso the sample detect and Wastes, Marc nic Substances in l in Environmental S	ime. iciated value. ion limit. h 1983. Environmental Samples, August 1993.					
L U ethod Referen (1) (2) (3) (4) (5)	Analysis exceeded method hold time. pH is a field test with an Target analyte response was below the laboratory defined neg The material was analyzed for, but was not detected above th The associated value is either the sample quantitation limit or nces EPA 600/4-83-020. Methods for Chemical Analysis of Water a EPA 600/R-93-100. Methods for the Determination of Inorgan EPA 600/R-94-111. Methods for the Determination of Metals EPA SW-846. Test Methods for Evaluating Solid Waste.	n immediate hold t gative threshold. e level of the asso the sample detect and Wastes, Marc nic Substances in I in Environmental s ater.	ime. iciated value. ion limit. h 1983. Environmental Samples, August 1993. Samples - Supplement I, May 1994.					
L U ethod Referen (1) (2) (3) (4) (5) emments	Analysis exceeded method hold time. pH is a field test with an Target analyte response was below the laboratory defined neg The material was analyzed for, but was not detected above th The associated value is either the sample quantitation limit or nces EPA 600/4-83-020. Methods for Chemical Analysis of Water a EPA 600/R-93-100. Methods for the Determination of Inorgar EPA 600/R-94-111. Methods for the Determination of Metals EPA SW-846. Test Methods for Evaluating Solid Waste. Standard Methods for the Examination of Water and Wastewar	n immediate hold t gative threshold. e level of the asso the sample detect and Wastes, Marc nic Substances in l in Environmental s ater. y if the rounded va	ime. iciated value. ion limit. h 1983. Environmental Samples, August 1993. Samples - Supplement I, May 1994.					
L U (1) (2) (3) (4) (5) mments (1)	Analysis exceeded method hold time. pH is a field test with an Target analyte response was below the laboratory defined neg The material was analyzed for, but was not detected above th The associated value is either the sample quantitation limit or nces EPA 600/4-83-020. Methods for Chemical Analysis of Water a EPA 600/R-93-100. Methods for the Determination of Inorgan EPA 600/R-94-111. Methods for the Determination of Metals EPA SW-846. Test Methods for Evaluating Solid Waste. Standard Methods for the Examination of Water and Wasteward QC results calculated from raw data. Results may vary slight	n immediate hold t gative threshold. e level of the asso the sample detect and Wastes, Marc nic Substances in l in Environmental s ater. y if the rounded va ported on a dry we	ime. iciated value. ion limit. h 1983. Environmental Samples, August 1993. Samples - Supplement I, May 1994.					
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REP001.09.12.01



ACZ Project ID: L12268

Sulfate	M300.0 - Ion Chromatography												
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG343679													
WG343679ICV	ICV	05/15/13 12:35	WI130315-7	50		51.86	mg/L	103.7	90	110			
WG343679ICB	ICB	05/15/13 12:53				U	mg/L		-1.5	1.5			
WG344814													
WG344814LFB1	LFB	06/03/13 17:18	WI130501-1	30		30.4	mg/L	101.3	90	110			
L12263-01DUP	DUP	06/03/13 21:58			1120.3	1151.2	mg/L				2.7	20	
L12263-02AS	AS	06/03/13 22:33	WI130501-1	3000	4861	7917	mg/L	101.9	90	110			
L12389-04DUP	DUP	06/04/13 4:23			358.28	365.61	mg/L				2	20	
L12263-01DUP	DUP	06/04/13 16:53			1175	1182.9	mg/L				0.7	20	
WG344814LFB2	LFB	06/04/13 17:28	WI130501-1	30		32.15	mg/L	107.2	90	110			
L12389-06AS	AS	06/04/13 19:31	WI130501-1	60	81.55	143.3	mg/L	102.9	90	110			



(800) 334-5493

ACZ Project ID: L12268

FMI Gold & Copper - Sierrita

ACZ ID	WORKNUM PARAMETER	METHOD	QUAL DESCRIPTION	

No extended qualifiers associated with this analysis



ACZ Project ID: L12268

No certification qualifiers associated with this analysis

AGE Laboratories, Inc. 2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Sample Receipt

FMI Gold & Copper - Sierrita		ect ID:		L12268
ZS000003Q8	Date Rec	eived:	05/24/20	13 09:54
	Receive	•		ks
	Date Pr	inted:	5/	/28/2013
Receipt Verification		YES	NO	NA
1) Is a foreign soil permit included for applicable samples?		TES	NO	X
2) Is the Chain of Custody or other directive shipping papers present?		X		
3) Does this project require special handling procedures such as CLP protocol?				Х
4) Are any samples NRC licensable material?				X
5) If samples are received past hold time, proceed with requested short hold time	analyses?	Х		
6) Is the Chain of Custody complete and accurate?		Х		
7) Were any changes made to the Chain of Custody prior to ACZ receiving the sa	amples?		Х	
Samples/Containers				
		YES	NO	NA
8) Are all containers intact and with no leaks?		X		
9) Are all labels on containers and are they intact and legible?		Х		
10) Do the sample labels and Chain of Custody match for Sample ID, Date, and	Time?	Х		
11) For preserved bottle types, was the pH checked and within limits?				Х
12) Is there sufficient sample volume to perform all requested work?		Х		
13) Is the custody seal intact on all containers?				Х
14) Are samples that require zero headspace acceptable?				Х
15) Are all sample containers appropriate for analytical requirements?		Х		
16) Is there an Hg-1631 trip blank present?				Х
17) Is there a VOA trip blank present?				Х
18) Were all samples received within hold time?		Х		
Chain of Custody Related Remarks				
Client Contact Remarks				

Shipping Containers

Cooler Id	
NA17658	

-----10

Rad (μ R/Hr) Custody Seal Intact? -----Yes

Was ice present in the shipment container(s)?

Yes - Wet ice was present in the shipment container(s).

Temp (°C)

5

Client must contact an ACZ Project Manager if analysis should not proceed for samples received outside of their thermal preservation acceptance criteria.

Science 1 Let Anderson Address: 6200 W. Duval Mine Road Company: Freeport-McMoRan Sierrita Inc. Green Valley, AZ 85614 E-mail: jonathan_anderson@fmi.com Telephone: 520-393-2714 Company: Clear Creck Associates Telephone: 520-393-2714 Company: Clear Creck Associates Telephone: 520-622-3222 Investor 10 Address: Company: Address: Company: Femail: bdaigneau@clearcreekassociates.com Company: Telephone: YES Mame: Company: Address: Company: Telephone: If ample(s) received past holding time (HT), or if insufficient HT remains to complete sciptain.shill AC2 proceed with the requested analyses, even If HT is expired, and data will be qualified. Are as maples for CO DW Compliance Monitoring? YES If voc. For CO W Compliance Monitoring? YES Reporting state for compliance testing: Signed to the compliance testing: Samper's Name: Jeff Joy Address Are any samples NRC licensable material? Yes No Signed to the compliance testing: Signed to the compliance testing: Signed to the compliance testing: Samper's Name: Jeff Joy Addrestore testing: <t< th=""><th>2773 Downhill Drive Stee</th><th>_aboratories, Inc amboat Springs, CO 80487 (800)</th><th>334-5403</th><th>\mathcal{O}</th><th><u> </u></th><th>28</th><th>)</th><th></th><th>1AT</th><th></th><th>CU;</th><th><u>}</u> ,)</th></t<>	2773 Downhill Drive Stee	_aboratories, Inc amboat Springs, CO 80487 (800)	334- 5403	\mathcal{O}	<u> </u>	28)		1AT		CU;	<u>}</u> ,)
Company: Preeport-McMoRan Sierrita Inc. Green Valley, AZ 85614 E-mail: jonathan_anderson@fmi.com Telephone: 520-393-2714 Corrpany: Clear Creek Associates Telephone: 520-393-2714 Company: Clear Creek Associates Telephone: 520-622-3222 Invested to Address: Company: Company: Clear Creek Associates Invested to Address: Company: Company: E-mail: Address: Company: Company: E-mail: Address: Company: Company: E-mail: Telephone: If sample(s) received past holding time (HT), or if insufficient HT remains to complete appration, shall ACZ proceed with trequested soft HT analyses? NO If 'NO' then AC2 will contact client for further instruction. If neither 'YES' nor 'NO' Is indicated, ACZ will proceed with the requested analyses, even if HT is expired, and data will be qualified. Are amples include state forms. Results will be reported to POL. NO X PROJECTIO F: State for compliance testing: State for compliance testing: State for compliance testing: Sampler's Name: Jeff' Joy Are any samples NRC licensable material? Yes No State for compliance testing: State for compliance testing:	Reportio:											
E-mail: jonathan_anderson@fmi.com Telephone: 520-393-2714 Coxy of Report to Image: Sen Daigneau E-mail: bdaigneau@clearcreekassociates.com Company: Clear Creek Associates Image: Sen Daigneau Image: Sen Daigneau Image: Sen Daigneau@clearcreekassociates.com Company: Clear Creek Associates Image: Sen Daigneau Image: Sen Daigneau@clearcreekassociates.com Telephone: Company: Clear Creek Associates Image: Sen Daigneau Image: Sen Daigneau Image: Sen Daigneau@clearcreekassociates.com Company: Clear Creek Associates Image: Sen Daigneau Image: Sen Daigneau Image: Sen Daigneau Company: Clear Creek Associates Image: Sen Daigneau Image: Sen Daigneau Image: Sen Daigneau Company: Clear Creek Associates Image: Sen Daigneau Image: Sen Daigneau Yes If sample(s) received past holding time (HT), or if insufficient HT requested short HT ranalyses? NO Image: Sen Daigneau If No Then ACZ will context bien for further instruction. In freether YES in re NO NO X Project/PO #: ZS00003Q8 YES NO X Reporting state for compliance testing: Sen Dei Thill Matrix Sen Deigneau Image: Sen Dei Daigneau Im	Name: Jon Anderson			Addre	ss: 620	00 W. D	uval Mi	ne Ro	ad			
Charge of Report to Name: E-mail: bdaigneau@clearcreekassociates.com Company: Clear Creek Associates Invocoto fo: Telephone: Name: Address: Company: E-mail: bdaigneau@clearcreekassociates.com Telephone: S20-622-3222 Invocoto fo: Address: Company: E-mail: If sample(s) received past holding time (HT), or if insufficient HT remains to complete analysis before expiration, shall A22 proceed with requested short HT analyses? NO If 'NO' then A2Z will contact client for further instruction. If neither 'YES' nor 'NO' is indicated, ACZ will conceed with the requested analyses, even if HT is expired, and data will be qualified. Are samples for CO DW Compliance Monitoring? YES If yes, please include state forms. Results will be reported to POL. NO PROJECTINEORMANTION Address Quote #: YES Project/PO #: ZS000003Q8 YES Reporting state for compliance testing: Sempler's Name: Jeff Joy Are any samples NRC licensable material? Yes No YES SMILL_DELNTIFICATION DATE: TMIL Sover Singli Set for compliance testing: Set Singli Set Singli Set S	Company: Freeport-M	IcMoRan Sierrita Inc.			Gre	en Vall	ey, AZ S	35614				
Name: E-mail: E-mail: bdaigneau@clearcreekassociates.com Company: Clear Creek Associates Telephone: 520-622-3222 Invotor full Name: Address:	E-mail: jonathan_ande	rson@fmi.com		Telep	hone:	520-393	-2714					
Company: Clear Creck Associates Telephone: 520-622-3222 Name:	Copy of Report to					·						
Numers:	Name: Ben Daigneau			E-mai	I: bdai	gneau@	learcre	ekasso	ociate	s.com		
Name;	Company: Clear Cree	k Associates		Telep	hone:	520-622	-3222					
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E-mail: Telephone: If sample(s) received past holding time (HT), or if insufficient HT remains to complete YES analysis before expiration, shall AC2 proceed with requested short HT analyses? NO If "NO" then AC2 will contact client for further instruction. If neither "YES" nor "NO" NO is indicated, AC2 will proceed with the requested analyses, even if HT is expired, and data will be qualified. Are samples for CO DW Compliance Monitoring? YES If yes, please include state forms. Results will be reported to POL. NO X PROJECT INFORMATION ANALYSI SIRUITISTED (allow that or User qualibring) Quote #: Project/PO #: ZS00003Q8 S Project/PO #: ZS00003Q8 S S Sampler's Name: Jeff Joy Are any samples NRC licensable material? Yes No S SAMPU_LIDENTIFICATION DATH TIMI Marrix S Matrix SV (Surface Water) - GW (Ground Water) - WW (Waste Water) - DW (Drinking Water) - SL (Sludge) - SO	Name:			Addre	SS:	_						
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	EMARKS		iste Water) · D	W (Drink	ing Wate	r) · SL (Slu	dge) · SO	(Soil)	OL (Oil)	- Other	(Specify	
Jeff Joy 5/23/13 : 1530 06 06 00 00 00 00 00 00 00 00 00 00 00	RELINGUIS	A		1	i		DBY:			N		

FRMAD050.01.15.09



Analytical Report

June 24, 2013

Report to: Jon Anderson FMI Gold & Copper - Sierrita 6200 West Duval Mine Rd. Green Valley, AZ 85614

cc: Ben Daigneau

Bill to: Accounts Payable FMI Gold & Copper - Sierrita P.O. Box 2671 Phoenix, AZ 85002-2671

Project ID: ZS000003Q8 ACZ Project ID: L12553

Jon Anderson:

Enclosed are the analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on June 07, 2013. This project has been assigned to ACZ's project number, L12553. Please reference this number in all future inquiries.

All analyses were performed according to ACZ's Quality Assurance Plan. The enclosed results relate only to the samples received under L12553. Each section of this report has been reviewed and approved by the appropriate Laboratory Supervisor, or a qualified substitute.

Except as noted, the test results for the methods and parameters listed on ACZ's current NELAC certificate letter (#ACZ) meet all requirements of NELAC.

This report shall be used or copied only in its entirety. ACZ is not responsible for the consequences arising from the use of a partial report.

All samples and sub-samples associated with this project will be disposed of after July 24, 2013. If the samples are determined to be hazardous, additional charges apply for disposal (typically \$11/sample). If you would like the samples to be held longer than ACZ's stated policy or to be returned, please contact your Project Manager or Customer Service Representative for further details and associated costs. ACZ retains analytical raw data reports for ten years.

If you have any questions or other needs, please contact your Project Manager.

S. Habermehl

Scott Habermehl has reviewed and approved this report.





ACZ	Laboratories, Inc.
2773 Downhill Drive	Steamboat Springs, CO 80487 (800) 334-5493

Project ID:	ZS000003Q8
Sample ID:	MH-30

ACZ Sample ID: L12553-01 Date Sampled: 06/06/13 11:55 Date Received: 06/07/13 Sample Matrix: Ground Water

Wet Chemistry									
Parameter	EPA Method	Dilution	Result	Qual X	(Q Uni	ts MDL	PQL	Date	Analyst
Sulfate	M300.0 - Ion Chromatography	100	1760		mg	L 50	250	06/19/13 2:20	tcd

Arizona license number: AZ0102

ACZ	Laboratories, Inc.
	Steamboat Springs, CO 80487 (800) 334-5493

Project ID:	ZS000003Q8
Sample ID:	DUP20130606A

ACZ Sample ID: L12553-02 Date Sampled: 06/06/13 00:00 Date Received: 06/07/13 Sample Matrix: Ground Water

Wet Chemistry										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Sulfate	M300.0 - Ion Chromatography	100	1800			mg/L	50	250	06/19/13 2:37	tcd

Arizona license number: AZ0102



Inorganic Reference

FoundValue ofLimitUpper linLowerLower RMDLMethodPCN/SCNA numberPQLPracticalQCTrue ValRecRecoverRPDRelativeUpperUpper R	t set of samples analyzed at a specific time the QC Type of interest nit for RPD, in %. ecovery Limit, in % (except for LCSS, mg/Kg) Detection Limit. Same as Minimum Reporting Limit er assigned to reagents/standards to trace to the ma I Quantitation Limit, typically 5 times the MDL. ue of the Control Sample or the amount added to the ed amount of the true value or spike added, in % (education of the true value or spike added, in % (education of the true value or spike added, in % (education of the true value or spike added, in % (education of the true value or spike added, in % (education of the true value or spike added, in % (education of the true value or spike added, in % (education of the true value or spike added, in % (education of the true value or spike added, in % (education of the true value or spike added) in % (education									
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PQLPracticalQCTrue ValRecRecoverRPDRelativeUpperUpper R	Quantitation Limit, typically 5 times the MDL. ue of the Control Sample or the amount added to the	anutacturer's certifica	A number assigned to reagents/standards to trace to the manufacturer's certificate of analysis							
QCTrue ValRecRecoverRPDRelativeUpperUpper R	ue of the Control Sample or the amount added to the									
RecRecoverRPDRelativeUpperUpper R	•									
RPD Relative Upper Upper R	ed amount of the true value or spike added in % (e	•								
Upper Upper R			'Kg)							
	Percent Difference, calculation used for Duplicate (QC Types								
Sample Value or	ecovery Limit, in % (except for LCSS, mg/Kg) the Sample of interest									
-										
Sample Types	Northe (Deet Direction)	LCSW/D	Laboratory Control Complex Water Durlingt							
-	al Spike (Post Digestion)	LCSWD	Laboratory Control Sample - Water Duplicate							
-	al Spike (Post Digestion) Duplicate	LFB	Laboratory Fortified Blank							
	ng Calibration Blank	LFM	Laboratory Fortified Matrix							
	ng Calibration Verification standard	LFMD	Laboratory Fortified Matrix Duplicate							
	Duplicate	LRB	Laboratory Reagent Blank							
	libration Blank	MS	Matrix Spike							
	libration Verification standard	MSD	Matrix Spike Duplicate							
	ment Correction Standard - A plus B solutions	PBS	Prep Blank - Soil							
	bry Control Sample - Soil	PBW	Prep Blank - Water							
	ory Control Sample - Soil Duplicate ory Control Sample - Water	PQV SDL	Practical Quantitation Verification standard Serial Dilution							
Duplicates Spikes/Fortified Matrix	Verifies the precision of the instrur Determines sample matrix interference									
Standard	Verifies the validity of the calibration	on.								
Z Qualifiers (Qual)										
B Analyte	concentration detected at a value between MDL an	d PQL. The associat	ed value is an estimated quantity.							
H Analysis	exceeded method hold time. $ {\rm pH}$ is a field test with	an immediate hold ti	ime.							
L Target a	nalyte response was below the laboratory defined r	negative threshold.								
U The mat	erial was analyzed for, but was not detected above	the level of the asso	ciated value.							
The ass	ociated value is either the sample quantitation limit of	or the sample detecti	ion limit.							
thod References										
(1) EPA 600	0/4-83-020. Methods for Chemical Analysis of Wate	er and Wastes, Marc	h 1983.							
(2) EPA 600	0/R-93-100. Methods for the Determination of Inorg	janic Substances in F	Environmental Samples, August 1993.							
(3) EPA 600	0/R-94-111. Methods for the Determination of Meta	als in Environmental S	Samples - Supplement I, May 1994.							
(4) EPA SW	/-846. Test Methods for Evaluating Solid Waste.									
(5) Standard	d Methods for the Examination of Water and Waste	water.								
omments										
(1) QC resu	Its calculated from raw data. Results may vary slig	htly if the rounded va	lues are used in the calculations.							
(0) 0 1 0	dge, and Plant matrices for Inorganic analyses are	reported on a dry we	ight basis.							
(2) Soil, Slu	natrices for Inorganic analyses are reported on an "	'as received" basis.								
			rtification qualifier							
(3) Animal r	isk in the "XQ" column indicates there is an extended	ed qualifier and/or ce								
(3)Animal r(4)An aster	isk in the "XQ" column indicates there is an extended ed with the result.	ed qualifier and/or ce	nuncauon quanner							
(3) Animal r(4) An asterassociat		-								

REP001.09.12.01

ACZ Project ID: L12553

Sulfate			M300.0 - Io	on Chron	natography	/							
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG343679													
WG343679ICV	ICV	05/15/13 12:35	WI130315-7	50		51.86	mg/L	103.7	90	110			
WG343679ICB	ICB	05/15/13 12:53				U	mg/L		-1.5	1.5			
WG345810													
WG345810LFB1	LFB	06/18/13 14:57	WI130501-1	30		31.6	mg/L	105.3	90	110			
WG345810LFB2	LFB	06/18/13 23:25	WI130501-1	30		31	mg/L	103.3	90	110			
L12578-01AS	AS	06/19/13 3:12	WI130501-1	30	28	58.5	mg/L	101.7	90	110			
L12578-01DUP	DUP	06/19/13 3:30			28	28	mg/L				0	20	



(800) 334-5493

ACZ Project ID: L12553

FMI Gold & Copper - Sierrita

ACZ ID	WORKNUM PARAMETER	METHOD	QUAL DESCRIPTION	

No extended qualifiers associated with this analysis



ACZ Project ID: L12553

No certification qualifiers associated with this analysis

AGE Laboratories, Inc. 2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Sample Receipt

FMI Gold & Copper - Sierrita	ACZ Proje	ct ID:		L12553
ZS00003Q8	Date Rece	eived: (06/07/201	3 10:07
	Receive	•		ksj
	Date Pr	inted:	6/	10/2013
Receipt Verification		YES	NO	NIA
1) Is a foreign soil permit included for applicable samples?		TES	NO	NA X
2) Is the Chain of Custody or other directive shipping papers present?		Х		
3) Does this project require special handling procedures such as CLP protocol?				Х
4) Are any samples NRC licensable material?				Х
5) If samples are received past hold time, proceed with requested short hold time	e analyses?	Х		
6) Is the Chain of Custody complete and accurate?		Х		
7) Were any changes made to the Chain of Custody prior to ACZ receiving the s	amples?		Х	
Samples/Containers				
		YES	NO	NA
8) Are all containers intact and with no leaks?		X		
9) Are all labels on containers and are they intact and legible?		Х		
10) Do the sample labels and Chain of Custody match for Sample ID, Date, and	Time?	Х		
11) For preserved bottle types, was the pH checked and within limits?				Х
12) Is there sufficient sample volume to perform all requested work?		Х		
13) Is the custody seal intact on all containers?				Х
14) Are samples that require zero headspace acceptable?				Х
15) Are all sample containers appropriate for analytical requirements?		Х		
16) Is there an Hg-1631 trip blank present?				Х
17) Is there a VOA trip blank present?				Х
18) Were all samples received within hold time?		Х		
Chain of Custody Related Remarks				
Client Contact Remarks				

Shipping Containers

Cooler	Id
3822	

Rad ($\mu R/Hr$) -----13

Custody Seal Intact? Yes

Was ice present in the shipment container(s)?

Yes - Wet ice was present in the shipment container(s).

Temp (°C)

5.3

Client must contact an ACZ Project Manager if analysis should not proceed for samples received outside of their thermal preservation acceptance criteria.

ACZ Laboratories, Inc. 2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334 Report 10:			4-5493-1000					CHAIN of CUSTO				
Report to:			Ţ									
Name: Jon Anderson			Addre		0 W. Duva							
Company: Freeport-Mcl					en Valley,		14	,				
E-mail:jonathan_anders	on@fmi.com		Telep	hone: 5	20-393-27	14						
Copy of Report to:			Ţ									
Name: Ben Daigneau			E-mail: bdaigneau@clearcreekassociates.com									
Company: Clear Creek	Associates		Telephone: 520-622-3222									
Invoice to:			1									
Name:		····	Addre	ss:								
Company:												
E-mail:			Telep						······			
	holding time (HT), or if insuff				ete			YES NO	·			
	i, shall ACZ proceed with required to the second structure of the second st)"			ן כיא				
is indicated, ACZ will proc	ceed with the requested analys					be quali	fied.					
Are samples for CO DW C	• •							YES				
If yes, please include state PROJECT INFORMATIC	e forms. Results will be repor	ted to PQL.				STED (a	ttach li	NO st or use	🗶 e quote num			
		1										
Quote #:	100		s a	EPA 375								
Project/PO #: ZS00000	· · · ·		Containers									
Reporting state for comp			onti	EPA 300 or								
Sampler's Name: Jeff Jo		—	of C									
Are any samples NRC lic SAMPLE IDENTIFICA	censable material?YesNoTIONDATE:TIME	Matrix	. ‡‡:	SO4 by								
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FRMAD050.01.15.09



July 08, 2013

Report to: Jon Anderson FMI Gold & Copper - Sierrita 6200 West Duval Mine Rd. Green Valley, AZ 85614

cc: Ben Daigneau

Bill to: Accounts Payable FMI Gold & Copper - Sierrita P.O. Box 2671 Phoenix, AZ 85002-2671

Project ID: ZS000003Q8 ACZ Project ID: L12705

Jon Anderson:

Enclosed are revised analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on June 14, 2013 and originally reported on July 08, 2013. Refer to the case narrative for an explanation of the changes. This project was assigned to ACZ's project number, L12705. Please reference this number in all future inquiries.

All analyses were performed according to ACZ's Quality Assurance Plan. The enclosed results relate only to the samples received under L12705. Each section of this report has been reviewed and approved by the appropriate Laboratory Supervisor, or a qualified substitute.

Except as noted, the test results for the methods and parameters listed on ACZ's current NELAC certificate letter (#ACZ) meet all requirements of NELAC.

This report shall be used or copied only in its entirety. ACZ is not responsible for the consequences arising from the use of a partial report.

All samples and sub-samples associated with this project will be disposed of after August 07, 2013. If the samples are determined to be hazardous, additional charges apply for disposal (typically less than \$10/sample). If you would like the samples to be held longer than ACZ's stated policy or to be returned, please contact your Project Manager or Customer Service Representative for further details and associated costs. ACZ retains analytical reports for five years.

If you have any questions or other needs, please contact your Project Manager.

S. Habermehl

Scott Habermehl has reviewed and approved this report.





July 08, 2013

Project ID: ZS000003Q8 ACZ Project ID: L12705

Sample Receipt

ACZ Laboratories, Inc. (ACZ) received 6 ground water samples from FMI Gold & Copper - Sierrita on June 14, 2013. The samples were received in good condition. Upon receipt, the sample custodian removed the samples from the cooler, inspected the contents, and logged the samples into ACZ's computerized Laboratory Information Management System (LIMS). The samples were assigned ACZ LIMS project number L12705. The custodian verified the sample information entered into the computer against the chain of custody (COC) forms and sample bottle labels.

Holding Times

All analyses were performed within EPA recommended holding times.

Sample Analysis

These samples were analyzed for inorganic parameters. The individual methods are referenced on both, the ACZ invoice and the analytical reports. The extended qualifier reports may contain footnotes qualifying specific elements due to QC failures. In addition the following has been noted with this specific project:

1. This project has been revised to report a revised value for Sulfate on L12705-02. The original data ponit had an incorect dilution recorded.

ACZ	Laboratories, Inc.
	Steamboat Springs, CO 80487 (800) 334-5493

Project ID:	ZS000003Q8
Sample ID:	PZ-7

ACZ Sample ID: L12705-01 Date Sampled: 06/10/13 11:13 Date Received: 06/14/13 Sample Matrix: Ground Water

Wet Chemistry									
Parameter	EPA Method	Dilution	Result	Qual XC) Units	MDL	PQL	Date	Analyst
Sulfate	M300.0 - Ion Chromatography	10	500	*	mg/L	5	25	06/25/13 16:03	tcd



Project ID:	ZS000003Q8
Sample ID:	MH-10

Inorganic Analytical Results

ACZ Sample ID:	L12705-02
Date Sampled:	06/10/13 15:12
Date Received:	06/14/13
Sample Matrix:	Ground Water

Metals Analysis									
Parameter	EPA Method	Dilution	Result	Qual XQ	Units	MDL	PQL	Date	Analyst
Antimony, dissolved	M200.8 ICP-MS	2		U	mg/L	0.0008	0.004	06/19/13 9:36	pmc
Arsenic, dissolved	M200.8 ICP-MS	2	0.0013	В	mg/L	0.0004	0.002	06/19/13 9:36	pmc
Beryllium, dissolved	M200.8 ICP-MS	2		U *	mg/L	0.0001	0.0005	06/19/13 9:36	pmc
Cadmium, dissolved	M200.8 ICP-MS	2		U	mg/L	0.0002	0.001	06/19/13 9:36	pmc
Chromium, dissolved	M200.7 ICP	2		U	mg/L	0.02	0.1	06/20/13 21:24	aeb
Cobalt, dissolved	M200.7 ICP	2		U	mg/L	0.02	0.1	06/20/13 21:24	aeb
Copper, dissolved	M200.7 ICP	2		U	mg/L	0.02	0.1	06/20/13 21:24	aeb
Lead, dissolved	M200.8 ICP-MS	2		U	mg/L	0.0002	0.001	06/19/13 9:36	pmc
Magnesium, dissolved	M200.7 ICP	2	92.6		mg/L	0.4	2	06/20/13 21:24	aeb
Molybdenum, dissolved	M200.7 ICP	2	0.07	В	mg/L	0.04	0.2	06/20/13 21:24	aeb
Nickel, dissolved	M200.8 ICP-MS	2		U	mg/L	0.001	0.006	06/19/13 9:36	pmc
Selenium, dissolved	M200.8 ICP-MS	2	0.0007		mg/L	0.0002	0.0005	06/19/13 9:36	pmc
Thallium, dissolved	M200.8 ICP-MS	2		U	mg/L	0.0002	0.001	06/19/13 9:36	pmc
Wet Chemistry									
Parameter	EPA Method	Dilution	Result	Qual XQ	Units	MDL	PQL	Date	Analyst
Fluoride	SM4500F-C	1	0.2	В	mg/L	0.1	0.5	06/21/13 17:22	abm
Nitrate/Nitrite as N	M353.2 - H2SO4 preserved	1	1.22		mg/L	0.02	0.1	06/26/13 0:23	pjb
Residue, Filterable (TDS) @180C	SM2540C	1	2800		mg/L	10	20	06/15/13 9:29	mss3
Sulfate	D516-02 - Turbidimetric	50	1720	*	mg/L	50	300	07/02/13 14:27	tcd

ACZ	Laboratories, Inc.
2773 Downhill Drive	Steamboat Springs, CO 80487 (800) 334-5493

FMI Gold & Copper - Sierrita Project ID: ZS00000308

riojectib.	23000003Q0
Sample ID:	PZ-8

ACZ Sample ID: L12705-03 Date Sampled: 06/11/13 09:45 Date Received: 06/14/13 Sample Matrix: Ground Water

Wet Chemistry										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Sulfate	M300.0 - Ion Chromatography	10	380		*	mg/L	5	25	06/25/13 16:20	tcd

ACZ	Laboratories, Inc.
2773 Downhill Drive	Steamboat Springs, CO 80487 (800) 334-5493

Project ID:	ZS000003Q8
Sample ID:	MO-2007-5B

ACZ Sample ID: L12705-04 Date Sampled: 06/12/13 10:07 Date Received: 06/14/13 Sample Matrix: Ground Water

Wet Chemistry										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Sulfate	M300.0 - Ion Chromatography	10	430		*	mg/L	5	25	06/25/13 16:38	3 tcd

ACZ	Laboratories, Inc.
2773 Downhill Drive	Steamboat Springs, CO 80487 (800) 334-5493

Project ID:	ZS000003Q8
Sample ID:	CW-3

ACZ Sample ID: L12705-05 Date Sampled: 06/13/13 07:43 Date Received: 06/14/13 Sample Matrix: Ground Water

Wet Chemistry										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Sulfate	M300.0 - Ion Chromatography	1	70.8		*	mg/L	0.5	2.5	06/25/13 16:55	5 tcd

ACZ	Laboratories, Inc.
2773 Downhill Drive	Steamboat Springs, CO 80487 (800) 334-5493

Project ID:	ZS000003Q8
Sample ID:	MO-2007-5C

ACZ Sample ID: L12705-06 Date Sampled: 06/13/13 13:01 Date Received: 06/14/13 Sample Matrix: Ground Water

Wet Chemistry										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Sulfate	M300.0 - Ion Chromatography	5	251		*	mg/L	2.5	12.5	06/25/13 17:13	3 tcd



Inorganic Reference

Batch	Explanations									
Found	A distinct set of samples analyzed at a specific time									
Found	Value of the QC Type of interest									
Limit	Upper limit for RPD, in %.									
Lower	Lower Recovery Limit, in % (except for LCSS, mg/Kg)	All								
MDL	Method Detection Limit. Same as Minimum Reporting Limit. Allows for instrument and annual fluctuations.									
PCN/SCN										
PQL										
QC	True Value of the Control Sample or the amount added to the	•								
Rec	Recovered amount of the true value or spike added, in % (ex		/Kg)							
RPD	Relative Percent Difference, calculation used for Duplicate Q	C Types								
Upper Sample	Upper Recovery Limit, in % (except for LCSS, mg/Kg) Value of the Sample of interest									
	·									
C Sample Typ		100000	Laboratory Control Compley Water Durlingt							
AS	Analytical Spike (Post Digestion)	LCSWD	Laboratory Control Sample - Water Duplicate							
ASD	Analytical Spike (Post Digestion) Duplicate	LFB	Laboratory Fortified Blank							
CCB	Continuing Calibration Blank	LFM	Laboratory Fortified Matrix							
CCV	Continuing Calibration Verification standard	LFMD	Laboratory Fortified Matrix Duplicate							
DUP	Sample Duplicate	LRB	Laboratory Reagent Blank							
ICB	Initial Calibration Blank	MS	Matrix Spike							
ICV	Initial Calibration Verification standard	MSD	Matrix Spike Duplicate							
ICSAB	Inter-element Correction Standard - A plus B solutions	PBS	Prep Blank - Soil							
LCSS	Laboratory Control Sample - Soil	PBW	Prep Blank - Water							
LCSSD LCSW	Laboratory Control Sample - Soil Duplicate Laboratory Control Sample - Water	PQV SDL	Practical Quantitation Verification standard Serial Dilution							
Duplicates Spikes/Forti	ified Matrix Determines sample matrix interferer									
Standard	Verifies the validity of the calibration	l.								
Z Qualifiers	(Qual)									
_										
В	Analyte concentration detected at a value between MDL and	PQL. The associat	ed value is an estimated quantity.							
В Н	Analyte concentration detected at a value between MDL and Analysis exceeded method hold time. pH is a field test with a									
	-	an immediate hold t								
н	Analysis exceeded method hold time. pH is a field test with a	an immediate hold t egative threshold.	ime.							
H L	Analysis exceeded method hold time. pH is a field test with a Target analyte response was below the laboratory defined ne	an immediate hold t egative threshold. ne level of the asso	ime. iciated value.							
H L	Analysis exceeded method hold time. pH is a field test with a Target analyte response was below the laboratory defined ne The material was analyzed for, but was not detected above the The associated value is either the sample quantitation limit or	an immediate hold t egative threshold. ne level of the asso	ime. iciated value.							
H L U	Analysis exceeded method hold time. pH is a field test with a Target analyte response was below the laboratory defined ne The material was analyzed for, but was not detected above the The associated value is either the sample quantitation limit or	in immediate hold t egative threshold. ne level of the asso the sample detect	ime. iciated value. ion limit.							
H L U	Analysis exceeded method hold time. pH is a field test with a Target analyte response was below the laboratory defined ne The material was analyzed for, but was not detected above the The associated value is either the sample quantitation limit or nces	an immediate hold t egative threshold. The level of the asso the sample detect and Wastes, Marc	ime. iciated value. ion limit. h 1983.							
H L U ethod Referen	Analysis exceeded method hold time. pH is a field test with a Target analyte response was below the laboratory defined ne The material was analyzed for, but was not detected above th The associated value is either the sample quantitation limit or nces EPA 600/4-83-020. Methods for Chemical Analysis of Water	an immediate hold t egative threshold. The level of the asso the sample detect and Wastes, Marc nic Substances in l	ime. iciated value. ion limit. h 1983. Environmental Samples, August 1993.							
H L U ethod Referen (1) (2)	Analysis exceeded method hold time. pH is a field test with a Target analyte response was below the laboratory defined ne The material was analyzed for, but was not detected above th The associated value is either the sample quantitation limit or nces EPA 600/4-83-020. Methods for Chemical Analysis of Water EPA 600/R-93-100. Methods for the Determination of Inorga	an immediate hold t egative threshold. The level of the asso the sample detect and Wastes, Marc nic Substances in l	ime. iciated value. ion limit. h 1983. Environmental Samples, August 1993.							
H L U ethod Referen (1) (2) (3)	Analysis exceeded method hold time. pH is a field test with a Target analyte response was below the laboratory defined ne The material was analyzed for, but was not detected above th The associated value is either the sample quantitation limit or nces EPA 600/4-83-020. Methods for Chemical Analysis of Water EPA 600/R-93-100. Methods for the Determination of Inorga EPA 600/R-94-111. Methods for the Determination of Metals	an immediate hold t egative threshold, ne level of the asso the sample detect and Wastes, Marc nic Substances in I s in Environmental S	ime. iciated value. ion limit. h 1983. Environmental Samples, August 1993.							
H L U ethod Referen (1) (2) (3) (4)	Analysis exceeded method hold time. pH is a field test with a Target analyte response was below the laboratory defined ne The material was analyzed for, but was not detected above th The associated value is either the sample quantitation limit or nces EPA 600/4-83-020. Methods for Chemical Analysis of Water EPA 600/R-93-100. Methods for the Determination of Inorga EPA 600/R-94-111. Methods for the Determination of Metals EPA SW-846. Test Methods for Evaluating Solid Waste.	an immediate hold t egative threshold, ne level of the asso the sample detect and Wastes, Marc nic Substances in I s in Environmental S	ime. iciated value. ion limit. h 1983. Environmental Samples, August 1993.							
H L U (1) (2) (3) (4) (5)	Analysis exceeded method hold time. pH is a field test with a Target analyte response was below the laboratory defined ne The material was analyzed for, but was not detected above th The associated value is either the sample quantitation limit or nces EPA 600/4-83-020. Methods for Chemical Analysis of Water EPA 600/R-93-100. Methods for the Determination of Inorga EPA 600/R-94-111. Methods for the Determination of Metals EPA SW-846. Test Methods for Evaluating Solid Waste.	an immediate hold t egative threshold. The level of the asso the sample detect and Wastes, Marc nic Substances in I s in Environmental s rater.	ime. iciated value. ion limit. h 1983. Environmental Samples, August 1993. Samples - Supplement I, May 1994.							
H L U ethod Referen (1) (2) (3) (4) (5) emments	Analysis exceeded method hold time. pH is a field test with a Target analyte response was below the laboratory defined ne The material was analyzed for, but was not detected above th The associated value is either the sample quantitation limit or nces EPA 600/4-83-020. Methods for Chemical Analysis of Water EPA 600/R-93-100. Methods for the Determination of Inorga EPA 600/R-94-111. Methods for the Determination of Metals EPA SW-846. Test Methods for Evaluating Solid Waste. Standard Methods for the Examination of Water and Wastew	an immediate hold t egative threshold. The level of the asso the sample detect and Wastes, Marc nic Substances in l is in Environmental s rater.	ime. iciated value. ion limit. h 1983. Environmental Samples, August 1993. Samples - Supplement I, May 1994.							
H L U (1) (2) (3) (4) (5) mments (1)	Analysis exceeded method hold time. pH is a field test with a Target analyte response was below the laboratory defined ne The material was analyzed for, but was not detected above th The associated value is either the sample quantitation limit or nces EPA 600/4-83-020. Methods for Chemical Analysis of Water EPA 600/R-93-100. Methods for the Determination of Inorga EPA 600/R-94-111. Methods for the Determination of Metals EPA SW-846. Test Methods for Evaluating Solid Waste. Standard Methods for the Examination of Water and Wastew QC results calculated from raw data. Results may vary slight	an immediate hold t egative threshold. In level of the associate the sample detect and Wastes, Marc nic Substances in l s in Environmental s vater.	ime. iciated value. ion limit. h 1983. Environmental Samples, August 1993. Samples - Supplement I, May 1994.							
H L U (1) (2) (3) (4) (5) (1) (2)	Analysis exceeded method hold time. pH is a field test with a Target analyte response was below the laboratory defined ne The material was analyzed for, but was not detected above th The associated value is either the sample quantitation limit or nces EPA 600/4-83-020. Methods for Chemical Analysis of Water EPA 600/R-93-100. Methods for the Determination of Inorga EPA 600/R-94-111. Methods for the Determination of Metals EPA SW-846. Test Methods for Evaluating Solid Waste. Standard Methods for the Examination of Water and Wastew QC results calculated from raw data. Results may vary slight Soil, Sludge, and Plant matrices for Inorganic analyses are re	an immediate hold t egative threshold. The level of the asso the sample detect and Wastes, Marc nic Substances in l a in Environmental s vater.	ime. ciated value. ion limit. h 1983. Environmental Samples, August 1993. Samples - Supplement I, May 1994. slues are used in the calculations. sight basis.							
H L U (1) (2) (3) (4) (5) (1) (2) (1) (2) (3)	Analysis exceeded method hold time. pH is a field test with a Target analyte response was below the laboratory defined ne The material was analyzed for, but was not detected above th The associated value is either the sample quantitation limit or nces EPA 600/4-83-020. Methods for Chemical Analysis of Water EPA 600/R-93-100. Methods for the Determination of Inorga EPA 600/R-94-111. Methods for the Determination of Metals EPA SW-846. Test Methods for Evaluating Solid Waste. Standard Methods for the Examination of Water and Wastew QC results calculated from raw data. Results may vary slight Soil, Sludge, and Plant matrices for Inorganic analyses are re Animal matrices for Inorganic analyses are reported on an "a	an immediate hold t egative threshold. The level of the asso the sample detect and Wastes, Marc nic Substances in l a in Environmental s vater.	ime. ciated value. ion limit. h 1983. Environmental Samples, August 1993. Samples - Supplement I, May 1994. slues are used in the calculations. sight basis.							
H L U (1) (2) (3) (4) (5) (1) (2) (1) (2) (3)	Analysis exceeded method hold time. pH is a field test with a Target analyte response was below the laboratory defined ne The material was analyzed for, but was not detected above th The associated value is either the sample quantitation limit or nces EPA 600/4-83-020. Methods for Chemical Analysis of Water EPA 600/R-93-100. Methods for the Determination of Inorga EPA 600/R-94-111. Methods for the Determination of Metals EPA SW-846. Test Methods for Evaluating Solid Waste. Standard Methods for the Examination of Water and Wastew QC results calculated from raw data. Results may vary slight Soil, Sludge, and Plant matrices for Inorganic analyses are re Animal matrices for Inorganic analyses are reported on an "a An asterisk in the "XQ" column indicates there is an extended	an immediate hold t egative threshold. The level of the assor the sample detect and Wastes, Marc nic Substances in l is in Environmental s rater. Idy if the rounded va eported on a dry we is received" basis. d qualifier and/or ce	ime. ciated value. ion limit. h 1983. Environmental Samples, August 1993. Samples - Supplement I, May 1994. slues are used in the calculations. sight basis.							

REP001.09.12.01

Antimony, diss	olved		M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG345917													
WG345917ICV	ICV	06/19/13 8:00	MS130416-2	.02		.02124	mg/L	106.2	90	110			
WG345917ICB	ICB	06/19/13 8:03				U	mg/L		-0.0012	0.0012			
WG345917LFB	LFB	06/19/13 8:06	MS130614-1	.01		.00983	mg/L	98.3	85	115			
L12704-01AS	AS	06/19/13 9:11	MS130614-1	.01	U	.00958	mg/L	95.8	70	130			
L12704-01ASD	ASD	06/19/13 9:20	MS130614-1	.01	U	.00951	mg/L	95.1	70	130	0.73	20	
Arsenic, dissol	ved		M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG345917													
WG345917ICV	ICV	06/19/13 8:00	MS130416-2	.05		.0522	mg/L	104.4	90	110			
WG345917ICB	ICB	06/19/13 8:03				U	mg/L		-0.0006	0.0006			
WG345917LFB	LFB	06/19/13 8:06	MS130614-1	.05005		.04907	mg/L	98	85	115			
L12704-01AS	AS	06/19/13 9:11	MS130614-1	.05005	U	.05455	mg/L	109	70	130			
L12704-01ASD	ASD	06/19/13 9:20	MS130614-1	.05005	U	.05393	mg/L	107.8	70	130	1.14	20	
Beryllium, diss	olved		M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG345917													
WG345917ICV	ICV	06/19/13 8:00	MS130416-2	.05		.04759	mg/L	95.2	90	110			
WG345917ICB	ICB	06/19/13 8:03		.00		U	mg/L	00.2	-0.00015	0.00015			
WG345917LFB	LFB	06/19/13 8:06	MS130614-1	.0501		.04732	mg/L	94.5	85	115			
L12704-01AS	AS	06/19/13 9:11	MS130614-1	.0501	.00408	.05722	mg/L	106.1	70	130			
L12704-01ASD	ASD	06/19/13 9:20	MS130614-1	.0501	.00408	.0549	mg/L	101.4	70	130	4.14	20	
Cadmium, diss	olved		M200.8 IC	P-MS			-						
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG345917													
	ICV	06/19/13 8:00	MS130416-2	.05		.05095		101.9	90	110			
WG345917ICV WG345917ICB	ICB	06/19/13 8:00	1013130410-2	.05		.05095 U	mg/L	101.9	-0.0003	0.0003			
			MS130614-1	0501			mg/L	00.2					
WG345917LFB	LFB AS	06/19/13 8:06	MS130614-1 MS130614-1	.0501	0121	.04972	mg/L	99.2	85 70	115			
L12704-01AS L12704-01ASD	ASD	06/19/13 9:11 06/19/13 9:20	MS130614-1 MS130614-1	.0501 .0501	.0131 .0131	.05932 .05938	mg/L mg/L	92.3 92.4	70	130 130	0.1	20	
		00/10/10 0.20			.0101		ing/E	02.1	10	100	0.1	20	
Chromium, dis: ACZ ID	SOIVed Type	Analyzed	M200.7 IC PCN/SCN	QC	Sample	Found	Unite	Rec	Lower	Upper	RPD	Limit	Qual
	Type	Analyzeu			Sample		onits	- Ket	Lower	opper		-Emile	Guai
WG346081													
WG346081ICV	ICV	06/20/13 20:10	II130510-1	2		1.973	mg/L	98.7	95	105			
WG346081ICB	ICB	06/20/13 20:16				U	mg/L		-0.03	0.03			
WG346081LFB	LFB	06/20/13 20:28	II130617-2	.5		.503	mg/L	100.6	85	115			
L12736-01AS	AS	06/20/13 21:50	II130617-2	.5	U	.501	mg/L	100.2	85	115			
L12736-01ASD	ASD	06/20/13 21:53	II130617-2	.5	U	.507	mg/L	101.4	85	115	1.19	20	

Cobalt, dissolve	d		M200.7 IC	CP									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG346081													
WG346081ICV	ICV	06/20/13 20:10	II130510-1	2.002		2.02	mg/L	100.9	95	105			
WG346081ICB	ICB	06/20/13 20:16				U	mg/L		-0.03	0.03			
WG346081LFB	LFB	06/20/13 20:28	II130617-2	.5		.496	mg/L	99.2	85	115			
L12736-01AS	AS	06/20/13 21:50	II130617-2	.5	U	.5	mg/L	100	85	115			
L12736-01ASD	ASD	06/20/13 21:53	II130617-2	.5	U	.503	mg/L	100.6	85	115	0.6	20	
Copper, dissolv	ed		M200.7 I	CP									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG346081													
WG346081ICV	ICV	06/20/13 20:10	II130510-1	2		1.964	mg/L	98.2	95	105			
WG346081ICB	ICB	06/20/13 20:16				U	mg/L		-0.03	0.03			
WG346081LFB	LFB	06/20/13 20:28	II130617-2	.5		.502	mg/L	100.4	85	115			
L12736-01AS	AS	06/20/13 21:50	II130617-2	.5	U	.501	mg/L	100.2	85	115			
L12736-01ASD	ASD	06/20/13 21:53	II130617-2	.5	U	.5	mg/L	100	85	115	0.2	20	
Fluoride			SM4500F	-C									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG346131													
WG346131ICV	ICV	06/21/13 11:00	WC130618-	2.002		1.92	mg/L	95.9	95	105			
WG346131ICB	ICB	06/21/13 11:04		2.002		U	mg/L	0010	-0.3	0.3			
WG346162													
WG346162LFB1	LFB	06/21/13 14:31	WC130313-	5.005		4.57	mg/L	91.3	90	110			
WG346162LFB2	LFB	06/21/13 16:44	WC130313-	5.005		4.67	mg/L	93.3	90	110			
L12704-02AS	AS	06/21/13 16:52	WC130313-	5.005	9.3	14.11	mg/L	96.1	90	110			
L12704-02DUP	DUP	06/21/13 16:55			9.3	9.37	mg/L				0.7	20	
Lead, dissolved			M200.8 I	CP-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG345917													
VG345917ICV	ICV	06/19/13 8:00	MS130416-2	.05		.05131	mg/L	102.6	90	110			
NG345917ICB	ICB	06/19/13 8:03				.00101 U	mg/L		-0.0003	0.0003			
WG345917LFB	LFB	06/19/13 8:06	MS130614-1	.05005		.04914	mg/L	98.2	85	115			
L12704-01AS	AS	06/19/13 9:11	MS130614-1	.05005	U	.04981	mg/L	99.5	70	130			
_12704-01ASD	ASD	06/19/13 9:20	MS130614-1	.05005	U	.04905	mg/L	98	70	130	1.54	20	
Magnesium, dis	solved		M200.7 I	CP									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG346081													
WG346081ICV	ICV	06/20/13 20:10	II130510-1	100		98.01	mg/L	98	95	105			
WG3460811CB	ICB	06/20/13 20:10	1100010-1	100		90.01 U	mg/L	50	-0.6	0.6			
			II130617-2	49.99941		48.33	mg/L	96.7	-0.0	115			
	I FR	06/20/13 20:28											
WG346081LFB L12736-01AS	LFB AS	06/20/13 20:28 06/20/13 21:50	II130617-2 II130617-2	49.99941	.6	48.95	mg/L	96.7	85	115			

Molybdenum, di	ssolved		M200.7 IC	P									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG346081													
WG346081ICV	ICV	06/20/13 20:10	II130510-1	2		2.005	mg/L	100.3	95	105			
WG346081ICB	ICB	06/20/13 20:16				U	mg/L		-0.06	0.06			
WG346081LFB	LFB	06/20/13 20:28	II130617-2	.5		.494	mg/L	98.8	85	115			
L12736-01AS	AS	06/20/13 21:50	II130617-2	.5	U	.496	mg/L	99.2	85	115			
L12736-01ASD	ASD	06/20/13 21:53	II130617-2	.5	U	.498	mg/L	99.6	85	115	0.4	20	
Nickel, dissolve	d		M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG345917													
WG345917ICV	ICV	06/19/13 8:00	MS130416-2	.05		.05013	mg/L	100.3	90	110			
WG345917ICB	ICB	06/19/13 8:03				U	mg/L		-0.0018	0.0018			
WG345917LFB	LFB	06/19/13 8:06	MS130614-1	.05005		.0486	mg/L	97.1	85	115			
L12704-01AS	AS	06/19/13 9:11	MS130614-1	.05005	.0422	.08848	mg/L	92.5	70	130			
L12704-01ASD	ASD	06/19/13 9:20	MS130614-1	.05005	.0422	.08791	mg/L	91.3	70	130	0.65	20	
Nitrate/Nitrite as	N		M353.2 - H	H2SO4 pr	eserved								
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG346412													
WG346412ICV	ICV	06/25/13 22:37	WI130411-3	2.416		2.398	mg/L	99.3	90	110			
WG346412ICB	ICB	06/25/13 22:38				U	mg/L		-0.06	0.06			
WG346417							-						
WG346417LFB1	LFB	06/26/13 0:09	WI130215-3	2		2.027	mg/L	101.4	90	110			
NG346417LFB2	LFB	06/26/13 0:44	WI130215-3	2		2.011	mg/L	100.6	90	110			
L12544-01AS	AS	06/26/13 0:53	WI130215-3	40	21.9	62.6	mg/L	101.8	90	110			
L12544-02DUP	DUP	06/26/13 0:55			22	22.35	mg/L				1.6	20	
Residue, Filteral	ble (TDS) @180C	SM2540C										
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG345706													
NG345706PBW	PBW	06/15/13 9:10				U	mg/L		-20	20			
NG345706LCSW	LCSW	06/15/13 9:10	PCN42169	260		254	mg/L	97.7	80	120			
L12705-02DUP	DUP	06/15/13 9:29	1 01142103	200	2800	2780	mg/L	51.1	00	120	0.7	10	
Selenium, disso	lved		M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG345917													
		06/10/12 0:00	M0120440.0	05		05404	m = //	100 7	00	140			
WG345917ICV	ICV	06/19/13 8:00	MS130416-2	.05		.05184	mg/L	103.7	90	110			
WG345917ICB	ICB	06/19/13 8:03	MOADOOAAAA	05005		U	mg/L	100.0	-0.0003	0.0003			
WG345917LFB	LFB	06/19/13 8:06	MS130614-1	.05005	000-	.05045	mg/L	100.8	85	115			
L12704-01AS	AS	06/19/13 9:11	MS130614-1	.05005	.0005	.06345	mg/L	125.8	70	130			
L12704-01ASD	ASD	06/19/13 9:20	MS130614-1	.05005	.0005	.06146	mg/L	121.8	70	130	3.19	20	



Inorganic QC Summary

FMI Gold & Copper - Sierrita

Sulfate			D516-02 -	Turbidim	etric								
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG346882													
WG346882ICB	ICB	07/02/13 10:31				U	mg/L		-3	3			
WG346882ICV	ICV	07/02/13 10:31	WI130621-8	20		19.5	mg/L	97.5	90	110			
WG346882LFB	LFB	07/02/13 14:05	WI130416-3	9.99		10.9	mg/L	109.1	90	110			
L12709-01AS	AS	07/02/13 14:12	SO4TURB5	10	166	178.4	mg/L	124	90	110			M3
L12705-02DUP	DUP	07/02/13 14:27			1720	1740	mg/L				1.2	20	
Sulfate			M300.0 - I	on Chrom	atography	,							
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG346168													
WG346168ICV	ICV	06/24/13 18:44	WI130624-1	50		50.2	mg/L	100.4	90	110			
WG346168ICB	ICB	06/24/13 19:01				U	mg/L		-1.5	1.5			
WG346231													
WG346231LFB1	LFB	06/25/13 9:03	WI130501-1	30		31.6	mg/L	105.3	90	110			
L12686-09DUP	DUP	06/25/13 13:43			55.3	51	mg/L				8.1	20	
L12686-10AS	AS	06/25/13 14:18	WI130501-1	600	1080	1610	mg/L	88.3	90	110			M2
WG346231LFB2	LFB	06/25/13 17:30	WI130501-1	30		30.1	mg/L	100.3	90	110			
Thallium, disso	lved		M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG345917													
WG345917ICV	ICV	06/19/13 8:00	MS130416-2	.05		.05391	mg/L	107.8	90	110			
WG345917ICB	ICB	06/19/13 8:03				U	mg/L		-0.0003	0.0003			
WG345917LFB	LFB	06/19/13 8:06	MS130614-1	.05005		.05158	mg/L	103.1	85	115			
L12704-01AS	AS	06/19/13 9:11	MS130614-1	.05005	U	.05331	mg/L	106.5	70	130			
L12704-01ASD	ASD	06/19/13 9:20	MS130614-1	.05005	U	.05295	mg/L	105.8	70	130	0.68	20	



(800) 334-5493

FMI Gold & Copper - Sierrita

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L12705-01	WG346231	Sulfate	M300.0 - Ion Chromatography	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
L12705-02	WG345917	Beryllium, dissolved	M200.8 ICP-MS	VC	CCV recovery was above the acceptance limits. Target analyte was not detected in the sample [< MDL].
	WG346882	Sulfate	D516-02 - Turbidimetric	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
L12705-03	WG346231	Sulfate	M300.0 - Ion Chromatography	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
L12705-04	WG346231	Sulfate	M300.0 - Ion Chromatography	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
L12705-05	WG346231	Sulfate	M300.0 - Ion Chromatography	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
L12705-06	WG346231	Sulfate	M300.0 - Ion Chromatography	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.



ACZ Project ID: L12705

No certification qualifiers associated with this analysis

AGZ Laboratories, Inc. 2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Sample Receipt

S000003Q8 Date Received: 06/14/2013 10:45 Received By: ks Date Printed: 6/14/2013 teceipt Verification 6/14/2013 1) Is a foreign soil permit included for applicable samples? X 2) Is the Chain of Custody or other directive shipping papers present? X 3) Does this project require special handling procedures such as CLP protocol? X 4) Are any samples NRC licensable material? X 5) If samples are received past hold time, proceed with requested short hold time analyses? X 7) Were any changes made to the Chain of Custody prior to ACZ receiving the samples? X amples/Containers YES NO 8) Are all containers intact and with no leaks? X X 9) Are all labels on containers and are they intact and legible? X X 10) Do the sample labels and Chain of Custody match for Sample ID, Date, and Time? X X 11) For preserved bottle types, was the pH checked and within limits? X X 12) Is there sufficient sample volume to perform all requested work? X X 13) Is the custody seal intact on all containers? X X 14) Are samples that require zero headspace acceptable? X <t< th=""><th>FMI Gold & Copper - Sierrita</th><th>ACZ Proje</th><th>ct ID:</th><th></th><th>L12705</th></t<>	FMI Gold & Copper - Sierrita	ACZ Proje	ct ID:		L12705
Date Printed: 6/14/2013 Receipt Verification YES NO NA 1) Is a foreign soil permit included for applicable samples? X X 2) Is the Chain of Custody or other directive shipping papers present? X X 3) Does this project require special handling procedures such as CLP protocol? X X 4) Are any samples NRC licensable material? X X 5) If samples are received past hold time, proceed with requested short hold time analyses? X X 6) Is the Chain of Custody complete and accurate? X X X 7) Were any changes made to the Chain of Custody prior to ACZ receiving the samples? X X X 8) Are all containers intact and with no leaks? Y X X X 9) Are all labels on containers and are they intact and legible? X X X X 10) Do the sample labels and Chain of Custody match for Sample ID, Date, and Time? X X X X 11) For preserved bottle types, was the pH checked and within limits? X X X X X 12) Is there sufficient sample volume to perform all requested work? X X X X <	ZS00003Q8	Date Rece	eived: (06/14/201	13 10:45
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12) Is there sufficient sample volume to perform all requested work? X 13) Is the custody seal intact on all containers? X 14) Are samples that require zero headspace acceptable? X 15) Are all sample containers appropriate for analytical requirements? X 16) Is there an Hg-1631 trip blank present? X 17) Is there a VOA trip blank present? X 18) Were all samples received within hold time? X 18) Were all samples received within hold time? X	10) Do the sample labels and Chain of Custody match for Sample ID, Date, and Time	e?	Х		
13) Is the custody seal intact on all containers? X 14) Are samples that require zero headspace acceptable? X 15) Are all sample containers appropriate for analytical requirements? X 16) Is there an Hg-1631 trip blank present? X 17) Is there a VOA trip blank present? X 18) Were all samples received within hold time? X Chain of Custody Related Remarks X	11) For preserved bottle types, was the pH checked and within limits?		Х		
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	18) Were all samples received within hold time?		Х		
lient Contact Remarks	Chain of Custody Related Remarks				
	Client Contact Remarks				

Shipping Containers

Cooler	Id
3937	

Rad ($\mu R/Hr$) _____ 13

Custody Seal Intact? -----Yes

Was ice present in the shipment container(s)?

Yes - Wet ice was present in the shipment container(s).

Temp (°C)

2.4

Client must contact an ACZ Project Manager if analysis should not proceed for samples received outside of their thermal preservation acceptance criteria.

ame: Jon Anderson Address: 6200 W. Duval Mine Road ompany: Freeport-McMoRan Sierrita Inc.	if insufficient with requested instruction. If ed analyses, e g?	d short f neithe even if l	Telepi E-mail Telepi Addre Telepi nains to HT anal r "YES" HT is ex	Gre none: 1 bdais bone: 1 ss: none: 1 compl yses? nor "N	een Valley 520-393-2 gneau@clo 520-622-3	r, AZ 850 714 earcreek 222	614 associat	YES		
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FRMAD050.01.15.09

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White - Return with sample. Yellow - Retain for your records.

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Analytical Report

June 27, 2013

Report to: Jon Anderson FMI Gold & Copper - Sierrita 6200 West Duval Mine Rd. Green Valley, AZ 85614

cc: Ben Daigneau

Bill to: Accounts Payable FMI Gold & Copper - Sierrita P.O. Box 2671 Phoenix, AZ 85002-2671

Project ID: ZS000003Q8 ACZ Project ID: L12808

Jon Anderson:

Enclosed are the analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on June 19, 2013. This project has been assigned to ACZ's project number, L12808. Please reference this number in all future inquiries.

All analyses were performed according to ACZ's Quality Assurance Plan. The enclosed results relate only to the samples received under L12808. Each section of this report has been reviewed and approved by the appropriate Laboratory Supervisor, or a qualified substitute.

Except as noted, the test results for the methods and parameters listed on ACZ's current NELAC certificate letter (#ACZ) meet all requirements of NELAC.

This report shall be used or copied only in its entirety. ACZ is not responsible for the consequences arising from the use of a partial report.

All samples and sub-samples associated with this project will be disposed of after July 27, 2013. If the samples are determined to be hazardous, additional charges apply for disposal (typically \$11/sample). If you would like the samples to be held longer than ACZ's stated policy or to be returned, please contact your Project Manager or Customer Service Representative for further details and associated costs. ACZ retains analytical raw data reports for ten years.

If you have any questions or other needs, please contact your Project Manager.

S. Habermehl

Scott Habermehl has reviewed and approved this report.







Project ID:	ZS000003Q8
Sample ID:	CCGV

ACZ Sample ID: L12808-01 Date Sampled: 05/14/13 09:58 Date Received: 06/19/13 Sample Matrix: Ground Water

Wet Chemistry									
Parameter	EPA Method	Dilution	Result	Qual XQ	Units	MDL	PQL	Date	Analyst
Sulfate	M300.0 - Ion Chromatography	/ 10	129	Н *	mg/L	5	25	06/26/13 7:31	tcd

Note: This report is for the re-analysis of the sample previously reported as ACZ project L12127-01.



Inorganic Reference

Batch	Explanations						
Found	Value of the QC Type of interest						
Limit	Upper limit for RPD, in %.						
Lower	Lower Recovery Limit, in % (except for LCSS, mg/Kg)	A II	and an all successful to the stand stand				
MDL	Method Detection Limit. Same as Minimum Reporting Limit.						
PCN/SCN	A number assigned to reagents/standards to trace to the man	iutacturer's certific	ate of analysis				
PQL	Practical Quantitation Limit, typically 5 times the MDL.	0.1					
QC	True Value of the Control Sample or the amount added to the	•					
Rec	Recovered amount of the true value or spike added, in % (exc		/Kg)				
RPD	Relative Percent Difference, calculation used for Duplicate QC	Types					
Upper Sample	Upper Recovery Limit, in % (except for LCSS, mg/Kg) Value of the Sample of interest						
	· ·						
C Sample Typ		1.0014/0	Laboratory Control Compley Water Durlingt				
AS	Analytical Spike (Post Digestion)	LCSWD	Laboratory Control Sample - Water Duplicate				
ASD	Analytical Spike (Post Digestion) Duplicate	LFB	Laboratory Fortified Blank				
CCB	Continuing Calibration Blank	LFM	Laboratory Fortified Matrix				
CCV	Continuing Calibration Verification standard	LFMD	Laboratory Fortified Matrix Duplicate				
DUP	Sample Duplicate	LRB	Laboratory Reagent Blank				
ICB	Initial Calibration Blank	MS	Matrix Spike				
ICV	Initial Calibration Verification standard	MSD	Matrix Spike Duplicate				
ICSAB	Inter-element Correction Standard - A plus B solutions	PBS	Prep Blank - Soil				
LCSS	Laboratory Control Sample - Soil	PBW	Prep Blank - Water				
LCSSD LCSW	Laboratory Control Sample - Soil Duplicate Laboratory Control Sample - Water	PQV SDL	Practical Quantitation Verification standard Serial Dilution				
Duplicates Spikes/Forti	ified Matrix Determines sample matrix interferen						
Standard	Verifies the validity of the calibration.						
Z Qualifiers	(Qual)						
В	Analyte concentration detected at a value between MDL and F						
н	Analysis exceeded method hold time. pH is a field test with an						
H L	-	n immediate hold t					
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L U ethod Referent (1) (2) (3) (4) (5) 0 mments (1) (2) (3)	Analysis exceeded method hold time. pH is a field test with an Target analyte response was below the laboratory defined neg The material was analyzed for, but was not detected above th The associated value is either the sample quantitation limit or nces EPA 600/4-83-020. Methods for Chemical Analysis of Water a EPA 600/R-93-100. Methods for the Determination of Inorgan EPA 600/R-94-111. Methods for the Determination of Metals EPA SW-846. Test Methods for Evaluating Solid Waste. Standard Methods for the Examination of Water and Wastewa QC results calculated from raw data. Results may vary slight Soil, Sludge, and Plant matrices for Inorganic analyses are rep Animal matrices for Inorganic analyses are reported on an "as An asterisk in the "XQ" column indicates there is an extended	n immediate hold t gative threshold. e level of the asso the sample detect and Wastes, Marc nic Substances in 1 in Environmental s ater. y if the rounded va ported on a dry we s received" basis. qualifier and/or ce	ime. ciated value. ion limit. h 1983. Environmental Samples, August 1993. Samples - Supplement I, May 1994. slues are used in the calculations. sight basis.				

REP001.09.12.01

Sulfate			M300.0 - Io	on Chron	natography	/							
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG346168													
WG346168ICV	ICV	06/24/13 18:44	WI130624-1	50		50.2	mg/L	100.4	90	110			
WG346168ICB	ICB	06/24/13 19:01				U	mg/L		-1.5	1.5			
WG346374													
WG346374LFB	LFB	06/25/13 23:21	WI130501-1	30		29.1	mg/L	97	90	110			
L12764-05AS	AS	06/26/13 6:38	WI130501-1	30	14.5	36.8	mg/L	74.3	90	110			N
L12764-04DUP	DUP	06/26/13 16:03			17.9	17.8	mg/L				0.6	20	



(800) 334-5493

FMI Gold & Copper - Sierrita

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L12808-01	WG346374	Sulfate	M300.0 - Ion Chromatography	H3	Sample was received and analyzed past holding time.
			M300.0 - Ion Chromatography		Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.



ACZ Project ID: L12808

No certification qualifiers associated with this analysis

HLIZ Laboratories, Inc. 2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Sample Receipt

-MI Gold & Copper - Sierrita	ACZ Proje	ct ID:		L12808
ZS00003Q8	Date Rece	eived: 0	6/19/201	3 14:02
	Receive			gao
	Date Pri	inted:	6/	19/2013
Receipt Verification		VEC	NO	
1) Is a foreign soil permit included for applicable samples?		YES	NO	NA X
2) Is the Chain of Custody or other directive shipping papers present?		Х		-
3) Does this project require special handling procedures such as CLP protocol?				Х
4) Are any samples NRC licensable material?				Х
5) If samples are received past hold time, proceed with requested short hold time	e analyses?	Х		
6) Is the Chain of Custody complete and accurate?		Х		
7) Were any changes made to the Chain of Custody prior to ACZ receiving the se	amples?		Х	
Samples/Containers				
		YES	NO	NA
8) Are all containers intact and with no leaks?		Х		
9) Are all labels on containers and are they intact and legible?		Х		
10) Do the sample labels and Chain of Custody match for Sample ID, Date, and	Time?	Х		
11) For preserved bottle types, was the pH checked and within limits?				Х
12) Is there sufficient sample volume to perform all requested work?		Х		
13) Is the custody seal intact on all containers?				Х
14) Are samples that require zero headspace acceptable?				Х
15) Are all sample containers appropriate for analytical requirements?		Х		
16) Is there an Hg-1631 trip blank present?				Х
17) Is there a VOA trip blank present?				Х
			Х	
18) Were all samples received within hold time? Some parameters were received past hold time.				

Re-analysis of L12127-01

Client Contact Remarks

Shipping Containers

Cooler Id _____ UNKNOWN

Temp (°C) _____

Rad ($\mu R/Hr$) _____

Custody Seal Intact? _____

Was ice present in the shipment container(s)?

Yes - Wet ice was present in the shipment container(s).

Client must contact an ACZ Project Manager if analysis should not proceed for samples received outside of their thermal preservation acceptance criteria.

			Addres	ه. 670	0 W. D	uvai Mi	ne Roa	d	
Name: Jon Anderson	MaDan Signita Inc	-	70010			ey, AZ			
Company: Freeport-Mo E-mail:jonathan_ander			Telept	ione: 5					
		- []	E-mail	· bdaig	ncau@	clearcre	ekassoo	ciates.com	l
Name: Ben Daigneau				ione: 5					
Company: Clear Creek									-
			Addre						
Name:		-							
Company:		-	Telepi	none:					
E-mail:	st holding time (HT), or if insuffici	ent HTrên			ete			YES	
seclusis before expiratio	n, shall ACZ proceed with reques	Sted Short	m rana	Ascel				NO	
	ntact client for further instruction poceed with the requested analyse	Irnescue	I TEO	1101 14	U" Ind data	a will be	qualified	•	
is indicated, ACZ will pro	Compliance Monitoring?	3, 010(1111							
if yes, please include sta	te forms. Results will be reporte	d to PQL.						NO	×
Provide Contraction			·	10			1.4		
Quote #:		4	en.	A 37!					
Project/PO #: ZS0000	03Q8	_	iner	Б Б	-				
Reporting state for con	pliance testing:	_	onta	8	P				
Sampler's Name: Jeff		_	of Containers	â	<u>a</u>		ļ		
Are any samples NRC	licensable material? Yes No		*	SOM by EPA 300 or EPA 375	Quarterly				
Anna (11) B		GW		×	<u> </u>	mit			
• <u>CCGV</u>	5/14/13:0958	GW	3		×				
1W-3A	5/14/13 : 1050 5/14/13 : 1100	GW	3	1	×				
IW-8	5/14/13 : 1140	GW	3	<u> </u>	×				
IW-12	5/14/13 : 1150	GW	3	1	×				<u> </u>
(IW-15	5/14/13 : 1158	GW	3	1	×				┶
GW-19	5/15/13:0851	GW	1	×					
5 CW-10 2 CW-6	5/15/13 : 0943	GW	1	×					╉═╾╄
GCW-9	5/15/13 : 1050	GW	1	×					╶ ╋╴ <u>─</u> ╺┝
	5/15/13 - 0000	GW	1	×					
Merrin SW (Surface)	Neter) - GW (Ground Water) - WW (Was	te Water) · C)W (Drini	ting Wate	r) · SL (8	Sludge) · S	0 (Soil) · (OL (Oil) · Oth	er (Specify)
	Neter) - GW (Ground Water) - WW (Was								
RELIZERK									
UPS Tracking # 1Z 8	67 7E4 23 1001 171 8								
				onted o	n the n	averse s	ide of th	is COC.	
	Please refer to ACZ's terms	a condi							

FRMAD050.01.15.09

White - Return with sample.

.



Analytical Report

July 08, 2013

Report to: Jon Anderson FMI Gold & Copper - Sierrita 6200 West Duval Mine Rd. Green Valley, AZ 85614

cc: Ben Daigneau

Bill to: Accounts Payable FMI Gold & Copper - Sierrita P.O. Box 2671 Phoenix, AZ 85002-2671

Project ID: ZS000003Q8 ACZ Project ID: L12833

Jon Anderson:

Enclosed are the analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on June 20, 2013. This project has been assigned to ACZ's project number, L12833. Please reference this number in all future inquiries.

All analyses were performed according to ACZ's Quality Assurance Plan. The enclosed results relate only to the samples received under L12833. Each section of this report has been reviewed and approved by the appropriate Laboratory Supervisor, or a qualified substitute.

Except as noted, the test results for the methods and parameters listed on ACZ's current NELAC certificate letter (#ACZ) meet all requirements of NELAC.

This report shall be used or copied only in its entirety. ACZ is not responsible for the consequences arising from the use of a partial report.

All samples and sub-samples associated with this project will be disposed of after August 07, 2013. If the samples are determined to be hazardous, additional charges apply for disposal (typically \$11/sample). If you would like the samples to be held longer than ACZ's stated policy or to be returned, please contact your Project Manager or Customer Service Representative for further details and associated costs. ACZ retains analytical raw data reports for ten years.

If you have any questions or other needs, please contact your Project Manager.

S. Habermehl

Scott Habermehl has reviewed and approved this report.





ACZ 2773 Downhill Driv	Laboratorie ve Steamboat Springs, CC	es, Inc. 80487 (800) 33	94-5493				Inc		iic Anal Results	ytical
FMI Gold & Co	opper - Sierrita					ACZ	Sample I	D: L1	2833-01	
Project ID:	ZS000003Q8					Dat	e Sample	d: 06	/17/13 10:1	6
Sample ID:	NP-2					Date	e Receive	d: 06,	/20/13	
						San	nple Matr	x: Gr	ound Wate	r
Wet Chemistry										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst

mg/L

0.5

2.5

07/01/13 18:28

tcd

71.6

1

Arizona license number: AZ0102

M300.0 - Ion Chromatography

Sulfate



Project ID:	ZS000003Q8
Sample ID:	IW-20

Inorganic Analytical Results

ACZ Sample ID:	L12833-02
Date Sampled:	06/17/13 11:10
Date Received:	06/20/13
Sample Matrix:	Ground Water

Metals Analysis									
Parameter	EPA Method	Dilution	Result	Qual XQ	Units	MDL	PQL	Date	Analyst
Antimony, dissolved	M200.8 ICP-MS	2		U	mg/L	0.0008	0.004	07/03/13 4:43	pmc
Arsenic, dissolved	M200.8 ICP-MS	2	0.0021		mg/L	0.0004	0.002	07/03/13 4:43	pmc
Beryllium, dissolved	M200.8 ICP-MS	2		U	mg/L	0.0001	0.0005	07/03/13 4:43	pmc
Cadmium, dissolved	M200.8 ICP-MS	2		U	mg/L	0.0002	0.001	07/03/13 4:43	pmc
Chromium, dissolved	M200.7 ICP	2		U	mg/L	0.02	0.1	06/29/13 1:35	aeb
Cobalt, dissolved	M200.7 ICP	2		U	mg/L	0.02	0.1	06/29/13 1:35	aeb
Copper, dissolved	M200.7 ICP	2		U	mg/L	0.02	0.1	06/29/13 1:35	aeb
Lead, dissolved	M200.8 ICP-MS	2		U	mg/L	0.0002	0.001	07/03/13 4:43	pmc
Magnesium, dissolved	M200.7 ICP	2	126		mg/L	0.4	2	06/29/13 1:35	aeb
Molybdenum, dissolved	M200.7 ICP	2		U	mg/L	0.04	0.2	06/29/13 1:35	aeb
Nickel, dissolved	M200.8 ICP-MS	2		U	mg/L	0.001	0.006	07/03/13 4:43	pmc
Selenium, dissolved	M200.8 ICP-MS	2	0.0010		mg/L	0.0002	0.0005	07/03/13 4:43	pmc
Thallium, dissolved	M200.8 ICP-MS	2		U	mg/L	0.0002	0.001	07/03/13 4:43	pmc
Wet Chemistry									
Parameter	EPA Method	Dilution	Result	Qual XQ	Units	MDL	PQL	Date	Analyst
Fluoride	SM4500F-C	1	0.2	В *	mg/L	0.1	0.5	06/27/13 17:44	abm
Nitrate/Nitrite as N	M353.2 - H2SO4 preserved	1	1.62		mg/L	0.02	0.1	06/28/13 22:12	pjb
Residue, Filterable (TDS) @180C	SM2540C	1	2950		mg/L	10	20	06/22/13 12:50	khw
Sulfate	D516-02 - Turbidimetric	120	1900	*	mg/L	100	600	07/01/13 8:57	bsu



Project ID:	ZS000003Q8
Sample ID:	DUP20130617A

Inorganic Analytical Results

ACZ Sample ID:	L12833-03
Date Sampled:	06/17/13 00:00
Date Received:	06/20/13
Sample Matrix:	Ground Water

Metals Analysis									
Parameter	EPA Method	Dilution	Result	Qual XQ	Units	MDL	PQL	Date	Analyst
Antimony, dissolved	M200.8 ICP-MS	2		U	mg/L	0.0008	0.004	07/03/13 4:46	pmc
Arsenic, dissolved	M200.8 ICP-MS	2	0.0022		mg/L	0.0004	0.002	07/03/13 4:46	pmc
Beryllium, dissolved	M200.8 ICP-MS	2		U	mg/L	0.0001	0.0005	07/03/13 4:46	pmc
Cadmium, dissolved	M200.8 ICP-MS	2		U	mg/L	0.0002	0.001	07/03/13 4:46	pmc
Chromium, dissolved	M200.7 ICP	2		U	mg/L	0.02	0.1	06/29/13 1:38	aeb
Cobalt, dissolved	M200.7 ICP	2		U	mg/L	0.02	0.1	06/29/13 1:38	aeb
Copper, dissolved	M200.7 ICP	2		U	mg/L	0.02	0.1	06/29/13 1:38	aeb
Lead, dissolved	M200.8 ICP-MS	2		U	mg/L	0.0002	0.001	07/03/13 4:46	pmc
Magnesium, dissolved	M200.7 ICP	2	124		mg/L	0.4	2	06/29/13 1:38	aeb
Molybdenum, dissolved	d M200.7 ICP	2		U	mg/L	0.04	0.2	06/29/13 1:38	aeb
Nickel, dissolved	M200.8 ICP-MS	2		U	mg/L	0.001	0.006	07/03/13 4:46	pmc
Selenium, dissolved	M200.8 ICP-MS	2	0.0009		mg/L	0.0002	0.0005	07/03/13 4:46	pmc
Thallium, dissolved	M200.8 ICP-MS	2		U	mg/L	0.0002	0.001	07/03/13 4:46	pmc
Wet Chemistry									
Parameter	EPA Method	Dilution	Result	Qual XQ	Units	MDL	PQL	Date	Analyst
Fluoride	SM4500F-C	1	0.2	В	mg/L	0.1	0.5	06/27/13 17:58	abm
Nitrate/Nitrite as N	M353.2 - H2SO4 preserved	1	1.63		mg/L	0.02	0.1	06/28/13 22:14	pjb
Residue, Filterable (TDS) @180C	SM2540C	1	2930		mg/L	10	20	06/22/13 12:51	khw
Sulfate	D516-02 - Turbidimetric	100	1800	*	mg/L	100	500	07/01/13 8:44	bsu

ACZ	Laboratories, Inc.
2773 Downhill Drive	Steamboat Springs, CO 80487 (800) 334-5493

Project ID:	ZS000003Q8
Sample ID:	TMM-1

ACZ Sample ID: L12833-04 Date Sampled: 06/19/13 09:51 Date Received: 06/20/13 Sample Matrix: Ground Water

Wet Chemistry									
Parameter	EPA Method	Dilution	Result	Qual XQ	Units	MDL	PQL	Date	Analyst
Sulfate	M300.0 - Ion Chromatography	1	1.43	В	mg/L	0.5	2.5	07/01/13 18:46	6 tcd



Inorganic Reference

Batch	Explanations		
Fourd	A distinct set of samples analyzed at a specific time		
Found	Value of the QC Type of interest		
Limit	Upper limit for RPD, in %.		
Lower	Lower Recovery Limit, in % (except for LCSS, mg/Kg)	A II	and an all successful to the second
MDL	Method Detection Limit. Same as Minimum Reporting Limit.		
PCN/SCN	A number assigned to reagents/standards to trace to the man	iutacturer's certific	ate of analysis
PQL	Practical Quantitation Limit, typically 5 times the MDL.	0.1	
QC	True Value of the Control Sample or the amount added to the	•	
Rec	Recovered amount of the true value or spike added, in % (exc		/Kg)
RPD	Relative Percent Difference, calculation used for Duplicate QC	Types	
Upper Sample	Upper Recovery Limit, in % (except for LCSS, mg/Kg) Value of the Sample of interest		
	· ·		
C Sample Typ		1.0014/0	Laboratory Control Compley Water Durlingt
AS	Analytical Spike (Post Digestion)	LCSWD	Laboratory Control Sample - Water Duplicate
ASD	Analytical Spike (Post Digestion) Duplicate	LFB	Laboratory Fortified Blank
CCB	Continuing Calibration Blank	LFM	Laboratory Fortified Matrix
CCV	Continuing Calibration Verification standard	LFMD	Laboratory Fortified Matrix Duplicate
DUP	Sample Duplicate	LRB	Laboratory Reagent Blank
ICB	Initial Calibration Blank	MS	Matrix Spike
ICV	Initial Calibration Verification standard	MSD	Matrix Spike Duplicate
ICSAB	Inter-element Correction Standard - A plus B solutions	PBS	Prep Blank - Soil
LCSS	Laboratory Control Sample - Soil	PBW	Prep Blank - Water
LCSSD LCSW	Laboratory Control Sample - Soil Duplicate Laboratory Control Sample - Water	PQV SDL	Practical Quantitation Verification standard Serial Dilution
Duplicates Spikes/Forti	ified Matrix Determines sample matrix interferen		
Standard	Verifies the validity of the calibration.		
Z Qualifiers	(Qual)		
В	Analyte concentration detected at a value between MDL and F		
	,	PQL. The associat	ed value is an estimated quantity.
н	Analysis exceeded method hold time. pH is a field test with an		
H L	-	n immediate hold t	
	Analysis exceeded method hold time. pH is a field test with an	n immediate hold t gative threshold.	ime.
L	Analysis exceeded method hold time. pH is a field test with an Target analyte response was below the laboratory defined neg	n immediate hold t gative threshold. e level of the asso	ime. iciated value.
L	Analysis exceeded method hold time. pH is a field test with ar Target analyte response was below the laboratory defined neg The material was analyzed for, but was not detected above th The associated value is either the sample quantitation limit or	n immediate hold t gative threshold. e level of the asso	ime. iciated value.
L U	Analysis exceeded method hold time. pH is a field test with ar Target analyte response was below the laboratory defined neg The material was analyzed for, but was not detected above th The associated value is either the sample quantitation limit or	n immediate hold t gative threshold. e level of the asso the sample detect	ime. iciated value. ion limit.
L U ethod Referei	Analysis exceeded method hold time. pH is a field test with an Target analyte response was below the laboratory defined neg The material was analyzed for, but was not detected above th The associated value is either the sample quantitation limit or nces	n immediate hold t gative threshold. e level of the asso the sample detect and Wastes, Marc	ime. iciated value. ion limit. h 1983.
L U ethod Referen	Analysis exceeded method hold time. pH is a field test with ar Target analyte response was below the laboratory defined neg The material was analyzed for, but was not detected above th The associated value is either the sample quantitation limit or nces EPA 600/4-83-020. Methods for Chemical Analysis of Water a	n immediate hold t gative threshold. e level of the asso the sample detect and Wastes, Marc nic Substances in l	ime. iciated value. ion limit. h 1983. Environmental Samples, August 1993.
L U ethod Referen (1) (2)	Analysis exceeded method hold time. pH is a field test with ar Target analyte response was below the laboratory defined neg The material was analyzed for, but was not detected above th The associated value is either the sample quantitation limit or nces EPA 600/4-83-020. Methods for Chemical Analysis of Water a EPA 600/R-93-100. Methods for the Determination of Inorgan	n immediate hold t gative threshold. e level of the asso the sample detect and Wastes, Marc nic Substances in l	ime. iciated value. ion limit. h 1983. Environmental Samples, August 1993.
L U ethod Referen (1) (2) (3)	Analysis exceeded method hold time. pH is a field test with an Target analyte response was below the laboratory defined neg The material was analyzed for, but was not detected above th The associated value is either the sample quantitation limit or nces EPA 600/4-83-020. Methods for Chemical Analysis of Water a EPA 600/R-93-100. Methods for the Determination of Inorgan EPA 600/R-94-111. Methods for the Determination of Metals	n immediate hold t gative threshold. e level of the asso the sample detect and Wastes, Marc nic Substances in l in Environmental S	ime. iciated value. ion limit. h 1983. Environmental Samples, August 1993.
L U ethod Referen (1) (2) (3) (4)	Analysis exceeded method hold time. pH is a field test with an Target analyte response was below the laboratory defined neg The material was analyzed for, but was not detected above th The associated value is either the sample quantitation limit or nces EPA 600/4-83-020. Methods for Chemical Analysis of Water a EPA 600/R-93-100. Methods for the Determination of Inorgan EPA 600/R-94-111. Methods for the Determination of Metals EPA SW-846. Test Methods for Evaluating Solid Waste.	n immediate hold t gative threshold. e level of the asso the sample detect and Wastes, Marc nic Substances in l in Environmental S	ime. iciated value. ion limit. h 1983. Environmental Samples, August 1993.
L U ethod Referen (1) (2) (3) (4) (5)	Analysis exceeded method hold time. pH is a field test with an Target analyte response was below the laboratory defined neg The material was analyzed for, but was not detected above th The associated value is either the sample quantitation limit or nces EPA 600/4-83-020. Methods for Chemical Analysis of Water a EPA 600/R-93-100. Methods for the Determination of Inorgan EPA 600/R-94-111. Methods for the Determination of Metals EPA SW-846. Test Methods for Evaluating Solid Waste.	n immediate hold t gative threshold. e level of the asso the sample detect and Wastes, Marc nic Substances in I in Environmental s ater.	ime. iciated value. ion limit. h 1983. Environmental Samples, August 1993. Samples - Supplement I, May 1994.
L U ethod Referen (1) (2) (3) (4) (5) emments	Analysis exceeded method hold time. pH is a field test with an Target analyte response was below the laboratory defined neg The material was analyzed for, but was not detected above th The associated value is either the sample quantitation limit or nces EPA 600/4-83-020. Methods for Chemical Analysis of Water a EPA 600/R-93-100. Methods for the Determination of Inorgar EPA 600/R-94-111. Methods for the Determination of Metals EPA SW-846. Test Methods for Evaluating Solid Waste. Standard Methods for the Examination of Water and Wastewar	n immediate hold t gative threshold. e level of the asso the sample detect and Wastes, Marc nic Substances in l in Environmental s ater. y if the rounded va	ime. iciated value. ion limit. h 1983. Environmental Samples, August 1993. Samples - Supplement I, May 1994.
L U (1) (2) (3) (4) (5) mments (1)	Analysis exceeded method hold time. pH is a field test with an Target analyte response was below the laboratory defined neg The material was analyzed for, but was not detected above th The associated value is either the sample quantitation limit or nces EPA 600/4-83-020. Methods for Chemical Analysis of Water a EPA 600/R-93-100. Methods for the Determination of Inorgan EPA 600/R-94-111. Methods for the Determination of Metals EPA SW-846. Test Methods for Evaluating Solid Waste. Standard Methods for the Examination of Water and Wasteward QC results calculated from raw data. Results may vary slight	n immediate hold t gative threshold. e level of the asso the sample detect and Wastes, Marc nic Substances in l in Environmental s ater. y if the rounded va ported on a dry we	ime. iciated value. ion limit. h 1983. Environmental Samples, August 1993. Samples - Supplement I, May 1994.
L U ethod Referen (1) (2) (3) (4) (5) 0 mments (1) (2)	Analysis exceeded method hold time. pH is a field test with an Target analyte response was below the laboratory defined neg The material was analyzed for, but was not detected above th The associated value is either the sample quantitation limit or nces EPA 600/4-83-020. Methods for Chemical Analysis of Water a EPA 600/R-93-100. Methods for the Determination of Inorgan EPA 600/R-94-111. Methods for the Determination of Metals EPA SW-846. Test Methods for Evaluating Solid Waste. Standard Methods for the Examination of Water and Wastewar QC results calculated from raw data. Results may vary slight Soil, Sludge, and Plant matrices for Inorganic analyses are results	n immediate hold t gative threshold. e level of the asso the sample detect and Wastes, Marc nic Substances in l in Environmental s ater. y if the rounded va ported on a dry we s received" basis.	ime. ciated value. ion limit. h 1983. Environmental Samples, August 1993. Samples - Supplement I, May 1994. slues are used in the calculations. sight basis.
L U ethod Referent (1) (2) (3) (4) (5) 0 mments (1) (2) (3)	Analysis exceeded method hold time. pH is a field test with an Target analyte response was below the laboratory defined neg The material was analyzed for, but was not detected above th The associated value is either the sample quantitation limit or nces EPA 600/4-83-020. Methods for Chemical Analysis of Water a EPA 600/R-93-100. Methods for the Determination of Inorgan EPA 600/R-94-111. Methods for the Determination of Metals EPA SW-846. Test Methods for Evaluating Solid Waste. Standard Methods for the Examination of Water and Wastewar QC results calculated from raw data. Results may vary slight Soil, Sludge, and Plant matrices for Inorganic analyses are rep Animal matrices for Inorganic analyses are reported on an "as	n immediate hold t gative threshold. e level of the asso the sample detect and Wastes, Marc nic Substances in l in Environmental s ater. y if the rounded va ported on a dry we s received" basis.	ime. ciated value. ion limit. h 1983. Environmental Samples, August 1993. Samples - Supplement I, May 1994. slues are used in the calculations. sight basis.
L U ethod Referen (1) (2) (3) (4) (5) 0 mments (1) (2) (3)	Analysis exceeded method hold time. pH is a field test with an Target analyte response was below the laboratory defined neg The material was analyzed for, but was not detected above th The associated value is either the sample quantitation limit or nces EPA 600/4-83-020. Methods for Chemical Analysis of Water a EPA 600/R-93-100. Methods for the Determination of Inorgan EPA 600/R-94-111. Methods for the Determination of Metals EPA SW-846. Test Methods for Evaluating Solid Waste. Standard Methods for the Examination of Water and Wastewar QC results calculated from raw data. Results may vary slight Soil, Sludge, and Plant matrices for Inorganic analyses are rep Animal matrices for Inorganic analyses are reported on an "as An asterisk in the "XQ" column indicates there is an extended	n immediate hold t gative threshold. e level of the asso the sample detect and Wastes, March nic Substances in 1 in Environmental s ater. y if the rounded va ported on a dry we s received" basis. qualifier and/or ce	ime. ciated value. ion limit. h 1983. Environmental Samples, August 1993. Samples - Supplement I, May 1994. slues are used in the calculations. sight basis.

REP001.09.12.01

Antimony, diss	olved		M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG346826													
NG346826ICV	ICV	07/03/13 3:13	MS130416-2	.02		.0215	mg/L	107.5	90	110			
WG346826ICB	ICB	07/03/13 3:16				U	mg/L		-0.0012	0.0012			
WG346826LFB	LFB	07/03/13 3:20	MS130614-1	.01		.00936	mg/L	93.6	85	115			
L12713-01AS	AS	07/03/13 4:11	MS130614-1	.01	U	.00904	mg/L	90.4	70	130			
_12713-01ASD	ASD	07/03/13 4:14	MS130614-1	.01	U	.00916	mg/L	91.6	70	130	1.32	20	
Arsenic, dissolv	ved		M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG346826													
NG346826ICV	ICV	07/03/13 3:13	MS130416-2	.05		.0534	mg/L	106.8	90	110			
WG346826ICB	ICB	07/03/13 3:16				U	mg/L		-0.0006	0.0006			
WG346826LFB	LFB	07/03/13 3:20	MS130614-1	.05005		.0488	mg/L	97.5	85	115			
L12713-01AS	AS	07/03/13 4:11	MS130614-1	.05005	.0014	.05375	mg/L	104.6	70	130			
L12713-01ASD	ASD	07/03/13 4:14	MS130614-1	.05005	.0014	.05379	mg/L	104.7	70	130	0.07	20	
Beryllium, diss	olved		M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
NG346826													
WG346826ICV	ICV	07/03/13 3:13	MS130416-2	.05		.05252	mg/L	105	90	110			
WG346826ICB	ICB	07/03/13 3:16				U	mg/L		-0.00015	0.00015			
WG346826LFB	LFB	07/03/13 3:20	MS130614-1	.0501		.04968	mg/L	99.2	85	115			
L12713-01AS	AS	07/03/13 4:11	MS130614-1	.0501	U	.04845	mg/L	96.7	70	130			
L12713-01ASD	ASD	07/03/13 4:14	MS130614-1	.0501	U	.0481	mg/L	96	70	130	0.73	20	
Cadmium, diss	olved		M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG346826													
NG346826ICV	ICV	07/03/13 3:13	MS130416-2	.05		.0517	mg/L	103.4	90	110			
NG346826ICB	ICB	07/03/13 3:16				U	mg/L		-0.0003	0.0003			
WG346826LFB	LFB	07/03/13 3:20	MS130614-1	.0501		.04841	mg/L	96.6	85	115			
_12713-01AS	AS	07/03/13 4:11	MS130614-1	.0501	U	.04853	mg/L	96.9	70	130			
_12713-01ASD	ASD	07/03/13 4:14	MS130614-1	.0501	U	.04784	mg/L	95.5	70	130	1.43	20	
	solved		M200.7 IC	P									
Chromium, diss		Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
	Туре	/ lialy20a											
ACZ ID	Туре	Junalyzou											
ACZ ID WG346583			1130510-1	2		1 98	ma/l	QQ	95	105			
ACZ ID WG346583 WG346583ICV	ICV	06/28/13 23:59	II130510-1	2		1.98	mg/L mg/l	99	95 -0.03	105 0.03			
Chromium, diss ACZ ID WG346583 WG346583ICV WG346583ICB WG346583I EB	ICV ICB	06/28/13 23:59 06/29/13 0:05				U	mg/L		-0.03	0.03			
ACZ ID WG346583 WG346583ICV	ICV	06/28/13 23:59	II130510-1 II130621-2 II130621-2	2 .5 .5	U		-	99 104.6 104					

Cobalt, dissolve	d		M200.7 I	CP									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG346583													
WG346583ICV	ICV	06/28/13 23:59	II130510-1	2.002		2.029	mg/L	101.3	95	105			
WG346583ICB	ICB	06/29/13 0:05				U	mg/L		-0.03	0.03			
WG346583LFB	LFB	06/29/13 0:17	II130621-2	.5		.516	mg/L	103.2	85	115			
L12826-06AS	AS	06/29/13 1:07	II130621-2	.5	.01	.529	mg/L	103.8	85	115			
L12826-06ASD	ASD	06/29/13 1:10	II130621-2	.5	.01	.526	mg/L	103.2	85	115	0.57	20	
Copper, dissolv	ed		M200.7 I	CP									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG346583													
WG346583ICV	ICV	06/28/13 23:59	II130510-1	2		1.956	mg/L	97.8	95	105			
WG346583ICB	ICB	06/29/13 0:05		-		U	mg/L		-0.03	0.03			
WG346583LFB	LFB	06/29/13 0:17	II130621-2	.5		.519	mg/L	103.8	85	115			
L12826-06AS	AS	06/29/13 1:07	II130621-2	.5	U	.521	mg/L	104.2	85	115			
L12826-06ASD	ASD	06/29/13 1:10	II130621-2	.5	U	.521	mg/L	104.2	85	115	0	20	
Fluoride			SM4500F	-C									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG346596													
WG346596ICV	ICV	06/27/13 15:41	WC130621-	2.002		1.96	mg/L	97.9	95	105			
WG346596ICB	ICB	06/27/13 15:46	110100021	2.002		U	mg/L	07.0	-0.3	0.3			
WG346596LFB1	LFB	06/27/13 15:55	WC130313-	5.005		4.71	mg/L	94.1	90	110			
L12821-01AS	AS	06/27/13 17:03	WC130313-	5.005	7.8	12.62	mg/L	96.3	90	110			
L12821-01DUP	DUP	06/27/13 17:06			7.8	7.76	mg/L				0.5	20	
L12833-02AS	AS	06/27/13 17:47	WC130313-	5.005	.2	4.82	mg/L	92.3	90	110			
L12833-02DUP	DUP	06/27/13 17:50			.2	.23	mg/L				14	20	R
WG346596LFB2	LFB	06/27/13 17:55	WC130313-	5.005		4.69	mg/L	93.7	90	110			
Lead, dissolved			M200.8 I	CP-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG346826													
WG346826ICV	ICV	07/03/13 3:13	MS130416-2	.05		.0546	mg/L	109.2	90	110			
WG346826ICB	ICB	07/03/13 3:16		.00		U	mg/L	100.2	-0.0003	0.0003			
WG346826LFB	LFB	07/03/13 3:20	MS130614-1	.05005		.04938	mg/L	98.7	85	115			
L12713-01AS	AS	07/03/13 4:11	MS130614-1	.05005	U	.05133	mg/L	102.6	70	130			
L12713-01ASD	ASD	07/03/13 4:14	MS130614-1	.05005	U	.05172	mg/L	103.3	70	130	0.76	20	
Magnesium, dis	solved		M200.7 I	CP									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG346583													
WG346583ICV	ICV	06/28/13 23:59	II130510-1	100		98.31	mg/L	98.3	95	105			
WG346583ICB	ICB	06/29/13 0:05				.2	mg/L	00.0	-0.6	0.6			
	LFB	06/29/13 0:17	II130621-2	49.99941		. <u>~</u> 50.72	mg/L	101.4	-0.0	115			
WG346583I FB							····9' –		50				
WG346583LFB L12826-06AS	AS	06/29/13 1:07	II130621-2	49.99941	7.8	58.25	mg/L	100.9	85	115			

Molybdenum, di	ssolved		M200.7 IC	P									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG346583													
WG346583ICV	ICV	06/28/13 23:59	II130510-1	2		2.009	mg/L	100.5	95	105			
WG346583ICB	ICB	06/29/13 0:05				U	mg/L		-0.06	0.06			
WG346583LFB	LFB	06/29/13 0:17	II130621-2	.5		.526	mg/L	105.2	85	115			
L12826-06AS	AS	06/29/13 1:07	II130621-2	.5	U	.514	mg/L	102.8	85	115			
L12826-06ASD	ASD	06/29/13 1:10	II130621-2	.5	U	.52	mg/L	104	85	115	1.16	20	
Nickel, dissolve	d		M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG346826													
WG346826ICV	ICV	07/03/13 3:13	MS130416-2	.05		.053	mg/L	106	90	110			
WG346826ICB	ICB	07/03/13 3:16				U	mg/L		-0.0018	0.0018			
WG346826LFB	LFB	07/03/13 3:20	MS130614-1	.05005		.04867	mg/L	97.2	85	115			
L12713-01AS	AS	07/03/13 4:11	MS130614-1	.05005	U	.04762	mg/L	95.1	70	130			
L12713-01ASD	ASD	07/03/13 4:14	MS130614-1	.05005	U	.04787	mg/L	95.6	70	130	0.52	20	
Nitrate/Nitrite as	N		M353.2 - I	H2SO4 pr	eserved								
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG346710													
WG346710ICV	ICV	06/28/13 17:41	WI130411-3	2.416		2.44	mg/L	101	90	110			
WG346710ICB	ICB	06/28/13 17:42				U	mg/L		-0.06	0.06			
WG346716													
WG346716LFB1	LFB	06/28/13 21:54	WI130215-3	2		2.027	mg/L	101.4	90	110			
L12833-02AS	AS	06/28/13 22:13	WI130215-3	2	1.62	3.544	mg/L	96.2	90	110			
L12833-03DUP	DUP	06/28/13 22:15			1.63	1.621	mg/L				0.6	20	
Residue, Filteral	ble (TDS) @180C	SM2540C										
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG346208													
WG346208PBW	PBW	06/22/13 12:45				U	mg/L		-20	20			
WG346208LCSW	LCSW	06/22/13 12:46	PCN42881	260		250	mg/L	96.2	80	120			
L12866-03DUP	DUP	06/22/13 13:00			160	158	mg/L				1.3	10	
Selenium, disso	lved		M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG346826													
WG346826ICV	ICV	07/03/13 3:13	MS130416-2	.05		.05366	mg/L	107.3	90	110			
WG346826ICV WG346826ICB	ICB	07/03/13 3:16	WIG 1004 10-2	.00		.05300 U	mg/L	107.5	-0.0003	0.0003			
WG346826LFB	LFB	07/03/13 3:10	MS130614-1	.05005		.05152	mg/L	102.9	-0.0003 85	115			
L12713-01AS	AS	07/03/13 3.20	MS130614-1 MS130614-1	.05005	.0005	.05396	mg/L	102.9	85 70	130			
L12713-01AS	AS ASD	07/03/13 4:11	MS130614-1 MS130614-1	.05005	.0005	.05396	-	106.8	70 70	130	1.07	20	
L12/10-01A0D	A3D	01103/13 4.14	1013130014-1	.00000	.0005	.00404	mg/L	100	10	130	1.07	20	



Inorganic QC Summary

FMI Gold & Copper - Sierrita

Sulfate			D516-02 ·	- Turbidime	tric								
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG346746													
WG346746ICB	ICB	07/01/13 6:46				U	mg/L		-3	3			
WG346746ICV	ICV	07/01/13 6:46	WI130621-8	20		19.4	mg/L	97	90	110			
WG346746LFB	LFB	07/01/13 8:16	WI130416-3	9.99		10.8	mg/L	108.1	90	110			
L12824-01DUP	DUP	07/01/13 8:43			320	330	mg/L				3.1	20	
L12833-02AS	AS	07/01/13 8:57	SO4TURB12	10.000008	1900	1850	mg/L	-500	90	110			M3
Sulfate M300.0 - Ion Chromatography													
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG346168													
WG346168ICV	ICV	06/24/13 18:44	WI130624-1	50		50.2	mg/L	100.4	90	110			
WG346168ICB	ICB	06/24/13 19:01				U	mg/L		-1.5	1.5			
WG346776													
WG346776LFB1	LFB	07/01/13 12:56	WI130501-1	30		31.1	mg/L	103.7	90	110			
L12832-04DUP	DUP	07/01/13 17:36			23.7	23.6	mg/L				0.4	20	
L12832-05AS	AS	07/01/13 18:11	WI130501-1	30	15.7	46.7	mg/L	103.3	90	110			
WG346776LFB2	LFB	07/02/13 18:41	WI130501-1	30		30.7	mg/L	102.3	90	110			
Thallium, dissolved M200.8 ICP-MS													
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG346826													
WG346826ICV	ICV	07/03/13 3:13	MS130416-2	.05		.05467	mg/L	109.3	90	110			
WG346826ICB	ICB	07/03/13 3:16				U	mg/L		-0.0003	0.0003			
WG346826LFB	LFB	07/03/13 3:20	MS130614-1	.05005		.04942	mg/L	98.7	85	115			
L12713-01AS	AS	07/03/13 4:11	MS130614-1	.05005	U	.05043	mg/L	100.8	70	130			
L12713-01ASD	ASD	07/03/13 4:14	MS130614-1	.05005	U	.05114	mg/L	102.2	70	130	1.4	20	



(800) 334-5493

FMI Gold & Copper - Sierrita

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L12833-02	WG346596	Fluoride	SM4500F-C	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG346746	Sulfate	D516-02 - Turbidimetric	М3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
L12833-03	WG346746	Sulfate	D516-02 - Turbidimetric	М3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.



ACZ Project ID: L12833

No certification qualifiers associated with this analysis

AGAZ Laboratories, Inc. 2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Sample Receipt

FMI Gold & Copper - Sierrita	ACZ Proje	ct ID:		L12833
••	Date Rece	eived: (06/20/201	3 10:29
	Receive	d By:		gac
	Date Pri	nted:	6/2	20/2013
Receipt Verification				
1) Is a foreign soil permit included for applicable samples?		YES	NO	NA X
2) Is the Chain of Custody or other directive shipping papers present?		Х		
3) Does this project require special handling procedures such as CLP protocol?				Х
4) Are any samples NRC licensable material?				Х
5) If samples are received past hold time, proceed with requested short hold time ana	lyses?	Х		
6) Is the Chain of Custody complete and accurate?		Х		
7) Were any changes made to the Chain of Custody prior to ACZ receiving the sample	es?		Х	
Samples/Containers				
		YES	NO	NA
8) Are all containers intact and with no leaks?		Х		
9) Are all labels on containers and are they intact and legible?		Х		
10) Do the sample labels and Chain of Custody match for Sample ID, Date, and Time	?	Х		
11) For preserved bottle types, was the pH checked and within limits?		Х		
12) Is there sufficient sample volume to perform all requested work?		Х		
13) Is the custody seal intact on all containers?				Х
14) Are samples that require zero headspace acceptable?				Х
15) Are all sample containers appropriate for analytical requirements?		Х		
16) Is there an Hg-1631 trip blank present?				Х
17) Is there a VOA trip blank present?				Х
18) Were all samples received within hold time?		Х		
Chain of Custody Related Remarks				

Client Contact Remarks

Shipping Containers

Cooler Id	Temp
3338	0.6

(°C) Rad (μ R/Hr) ____ _____ 15

Yes

Custody Seal Intact? _____

Was ice present in the shipment container(s)?

Yes - Wet ice was present in the shipment container(s).

Client must contact an ACZ Project Manager if analysis should not proceed for samples received outside of their thermal preservation acceptance criteria.

2773 Downhill Drive Steam	aboratories, Inc boat Springs, CO 80487 (800) \$		-10)&	5	$\frac{2}{3}$	C	ΉΛI	N of	CUS	STO
Roport to:	Doar opinigs, or other (tes, p	1 3-1- 0-160									
Name: Jon Anderson			Addre	62(00 W. D	uval N	fine R	oad			
Company: Freeport-Mc	MoRan Sierrita Inc.		Audic		een Vall						
E-mail: jonathan_anders		\dashv	Telep		520-393		- 0201	-			
Copy of Report to:			النينية. الم								<u> </u>
Name: Ben Daigneau			E-ma	il: bdai	gneau@	clearc	reekas	sociat	es.com		
Company: Clear Creek	Associates	-			520-622						
Invoice to:				·							
Name:			Addre	ess:							
Company:		-									
E-mail:		7	Telep	hone:							
If sample(s) received past	holding time (HT), or if insuffic	ient HT rei	mains t	o comp	lete				YES		
	h, shall ACZ proceed with reque tact client for further instruction				ا ں				NO		
	ceed with the requested analyse					will be	qualif	ied.			
Are samples for CO DW C									YES		
If yes, please include state PROJECT INFORMATION	e forms. Results will be reporte	ed to PQL.			YSES RE	uur si	f [] 7.2	ttaab lii	NO	× n ministra	nanber
Quote #:			ſ								
	308		ers	EPA 3							
	Project/PO #: ZS000003Q8 Reporting state for compliance testing:										
Sampler's Name: Jeff Jo		\neg	Containers	SO4 by EPA 300 or EPA 375	Quarterly						
	censable material? Yes No	-1	# of	PA EI	n n						
SAMPLE IDENTIFICA	TION DATE: TIME	Matrix		s04	Ø						
NP-2	6/17/13 : 1016	GW	1	×							
IW-20	6/17/13 : 1110	GW	3	_	×				<u> </u>		
DUP20130617A	6/17/13 : 0000	GW	3		×				<u> </u>		
TMM-1	6/19/13 : 0951	GW	1	×	┝──┼				<u> </u>		
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FRMAD050.01.15.09

White - Return with sample. Yellow - Retain for your records.



Jon Anderson FMI Gold & Copper - Sierrita P.O. Box 527 6200 West Duval Mine Road Green Valley, AZ 85622-0527

Cc: Ben Daigneau

Project ID: ZS000003Q8 ACZ Project ID: L13140- SULFATE ONLY

Jon Anderson:

Enclosed are analytical reports for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on July 9, 2013. This project was assigned to ACZ's project number, **L13140**. Please reference this number in all future inquiries.

At the request of Phelps Dodge Sierrita, Inc. (PDSI), this laboratory report has been prepared to contain only information specific to samples and analytes identified by PDSI as evaluated pursuant to Mitigation Order No. P-500-06 with Arizona Department of Environmental Quality. Samples and analytes unrelated to the Mitigation Order, but which may be identified on the chain of custody and sample receipt, have been reported to PDSI in a separate report.

All analyses were performed according to ACZ's Quality Assurance Plan. The enclosed results relate only to the samples received under **L13140**. Each section of this report has been reviewed and approved by the appropriate Laboratory Supervisor, or a qualified substitute. Except as noted, the test results for the methods and parameters listed on ACZ's current NELAC certificate letter (#ACZ) meet all the requirements of NELAC.

This report should be used or copied only in its entirety. ACZ is not responsible for the consequences arising from the use of a partial report.

ACZ disposes of samples and sub-samples thirty days after the analytical results are reported to the client. That time frame has elapsed for this project. If the samples are determined to be hazardous, additional charges apply for disposal (typically less than \$10/sample). If you would like the samples to be held longer than ACZ's stated policy or to be returned, please contact your Project Manager or Customer Service Representative for further details and associated costs. ACZ retains analytical reports for five years. Please notify your Project Manager if you have other needs. If you have any questions, please contact your Project Manager or Customer Service Representative.

S. Habermehl

Scott Habermehl has reviewed and approved this report.



REPAD.01.11.00.01



Analytical

Report

ACZ	Laboratories, Inc.
	Steamboat Springs, CO 80487 (800) 334-5493

Project ID:	ZS000003Q8
Sample ID:	MH-27

ACZ Sample ID: L13140-01 Date Sampled: 07/05/13 09:00 Date Received: 07/09/13 Sample Matrix: Ground Water

Wet Chemistry										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Sulfate	D516-02 - Turbidimetric	100	1080		*	mg/L	100	500	07/12/13 12:55	5 bsu

Arizona license number: AZ0102



Inorganic Reference

Batch	Explanations		
Found	A distinct set of samples analyzed at a specific time		
Found	Value of the QC Type of interest		
Limit	Upper limit for RPD, in %.		
Lower	Lower Recovery Limit, in % (except for LCSS, mg/Kg)	All	and an all successful to the stand stand
MDL	Method Detection Limit. Same as Minimum Reporting Limit.		
PCN/SCN	A number assigned to reagents/standards to trace to the mar	nutacturer's certific	ate of analysis
PQL	Practical Quantitation Limit, typically 5 times the MDL.	0.1	
QC	True Value of the Control Sample or the amount added to the	•	
Rec	Recovered amount of the true value or spike added, in % (ex		/Kg)
RPD	Relative Percent Difference, calculation used for Duplicate Q	C Types	
Upper Sample	Upper Recovery Limit, in % (except for LCSS, mg/Kg) Value of the Sample of interest		
	·		
C Sample Typ		100000	Laboratory Control Compley Water Durlingt
AS	Analytical Spike (Post Digestion)	LCSWD	Laboratory Control Sample - Water Duplicate
ASD	Analytical Spike (Post Digestion) Duplicate	LFB	Laboratory Fortified Blank
CCB	Continuing Calibration Blank	LFM	Laboratory Fortified Matrix
CCV	Continuing Calibration Verification standard	LFMD	Laboratory Fortified Matrix Duplicate
DUP	Sample Duplicate	LRB	Laboratory Reagent Blank
ICB	Initial Calibration Blank	MS	Matrix Spike
ICV	Initial Calibration Verification standard	MSD	Matrix Spike Duplicate
ICSAB	Inter-element Correction Standard - A plus B solutions	PBS	Prep Blank - Soil
LCSS	Laboratory Control Sample - Soil	PBW	Prep Blank - Water
LCSSD LCSW	Laboratory Control Sample - Soil Duplicate Laboratory Control Sample - Water	PQV SDL	Practical Quantitation Verification standard Serial Dilution
Duplicates Spikes/Forti	ified Matrix Determines sample matrix interferer		
Standard	Verifies the validity of the calibration	l.	
Z Qualifiers	(Qual)		
_			
В	Analyte concentration detected at a value between MDL and	PQL. The associat	ed value is an estimated quantity.
В Н	Analyte concentration detected at a value between MDL and Analysis exceeded method hold time. pH is a field test with a		
	-	an immediate hold t	
н	Analysis exceeded method hold time. pH is a field test with a	an immediate hold t egative threshold.	ime.
H L	Analysis exceeded method hold time. pH is a field test with a Target analyte response was below the laboratory defined ne	an immediate hold t egative threshold. ne level of the asso	ime. iciated value.
H L	Analysis exceeded method hold time. pH is a field test with a Target analyte response was below the laboratory defined ne The material was analyzed for, but was not detected above the The associated value is either the sample quantitation limit or	an immediate hold t egative threshold. ne level of the asso	ime. iciated value.
H L U	Analysis exceeded method hold time. pH is a field test with a Target analyte response was below the laboratory defined ne The material was analyzed for, but was not detected above the The associated value is either the sample quantitation limit or	in immediate hold t egative threshold. ne level of the asso the sample detect	ime. iciated value. ion limit.
H L U	Analysis exceeded method hold time. pH is a field test with a Target analyte response was below the laboratory defined ne The material was analyzed for, but was not detected above the The associated value is either the sample quantitation limit or nces	an immediate hold t egative threshold. The level of the asso the sample detect and Wastes, Marc	ime. iciated value. ion limit. h 1983.
H L U ethod Referen (1)	Analysis exceeded method hold time. pH is a field test with a Target analyte response was below the laboratory defined ne The material was analyzed for, but was not detected above th The associated value is either the sample quantitation limit or nces EPA 600/4-83-020. Methods for Chemical Analysis of Water	an immediate hold t egative threshold. The level of the asso the sample detect and Wastes, Marc nic Substances in l	ime. iciated value. ion limit. h 1983. Environmental Samples, August 1993.
H L U ethod Referen (1) (2)	Analysis exceeded method hold time. pH is a field test with a Target analyte response was below the laboratory defined ne The material was analyzed for, but was not detected above th The associated value is either the sample quantitation limit or nces EPA 600/4-83-020. Methods for Chemical Analysis of Water EPA 600/R-93-100. Methods for the Determination of Inorga	an immediate hold t egative threshold. The level of the asso the sample detect and Wastes, Marc nic Substances in l	ime. iciated value. ion limit. h 1983. Environmental Samples, August 1993.
H L U ethod Referen (1) (2) (3)	Analysis exceeded method hold time. pH is a field test with a Target analyte response was below the laboratory defined ne The material was analyzed for, but was not detected above th The associated value is either the sample quantitation limit or nces EPA 600/4-83-020. Methods for Chemical Analysis of Water EPA 600/R-93-100. Methods for the Determination of Inorga EPA 600/R-94-111. Methods for the Determination of Metals	an immediate hold t egative threshold. The level of the associate the sample detect and Wastes, Marc nic Substances in l s in Environmental S	ime. iciated value. ion limit. h 1983. Environmental Samples, August 1993.
H L U ethod Referen (1) (2) (3) (4)	Analysis exceeded method hold time. pH is a field test with a Target analyte response was below the laboratory defined ne The material was analyzed for, but was not detected above th The associated value is either the sample quantitation limit or nces EPA 600/4-83-020. Methods for Chemical Analysis of Water EPA 600/R-93-100. Methods for the Determination of Inorga EPA 600/R-94-111. Methods for the Determination of Metals EPA SW-846. Test Methods for Evaluating Solid Waste.	an immediate hold t egative threshold. The level of the associate the sample detect and Wastes, Marc nic Substances in l s in Environmental S	ime. iciated value. ion limit. h 1983. Environmental Samples, August 1993.
H L U (1) (2) (3) (4) (5)	Analysis exceeded method hold time. pH is a field test with a Target analyte response was below the laboratory defined ne The material was analyzed for, but was not detected above th The associated value is either the sample quantitation limit or nces EPA 600/4-83-020. Methods for Chemical Analysis of Water EPA 600/R-93-100. Methods for the Determination of Inorga EPA 600/R-94-111. Methods for the Determination of Metals EPA SW-846. Test Methods for Evaluating Solid Waste.	an immediate hold t egative threshold. The level of the associate the sample detect and Wastes, Marconic Substances in l s in Environmental st rater.	ime. iciated value. ion limit. h 1983. Environmental Samples, August 1993. Samples - Supplement I, May 1994.
H L U ethod Referen (1) (2) (3) (4) (5) emments	Analysis exceeded method hold time. pH is a field test with a Target analyte response was below the laboratory defined ne The material was analyzed for, but was not detected above th The associated value is either the sample quantitation limit or nces EPA 600/4-83-020. Methods for Chemical Analysis of Water EPA 600/R-93-100. Methods for the Determination of Inorga EPA 600/R-94-111. Methods for the Determination of Metals EPA SW-846. Test Methods for Evaluating Solid Waste. Standard Methods for the Examination of Water and Wastew	an immediate hold t egative threshold. The level of the asso the sample detect and Wastes, Marc nic Substances in l is in Environmental s rater.	ime. iciated value. ion limit. h 1983. Environmental Samples, August 1993. Samples - Supplement I, May 1994.
H L U (1) (2) (3) (4) (5) mments (1)	Analysis exceeded method hold time. pH is a field test with a Target analyte response was below the laboratory defined ne The material was analyzed for, but was not detected above th The associated value is either the sample quantitation limit or nces EPA 600/4-83-020. Methods for Chemical Analysis of Water EPA 600/R-93-100. Methods for the Determination of Inorga EPA 600/R-94-111. Methods for the Determination of Metals EPA SW-846. Test Methods for Evaluating Solid Waste. Standard Methods for the Examination of Water and Wastew QC results calculated from raw data. Results may vary slight	an immediate hold t egative threshold. In level of the associate the sample detect and Wastes, Marc nic Substances in l s in Environmental s vater.	ime. iciated value. ion limit. h 1983. Environmental Samples, August 1993. Samples - Supplement I, May 1994.
H L U (1) (2) (3) (4) (5) (1) (2)	Analysis exceeded method hold time. pH is a field test with a Target analyte response was below the laboratory defined ne The material was analyzed for, but was not detected above th The associated value is either the sample quantitation limit or nces EPA 600/4-83-020. Methods for Chemical Analysis of Water EPA 600/R-93-100. Methods for the Determination of Inorga EPA 600/R-94-111. Methods for the Determination of Metals EPA SW-846. Test Methods for Evaluating Solid Waste. Standard Methods for the Examination of Water and Wastew QC results calculated from raw data. Results may vary slight Soil, Sludge, and Plant matrices for Inorganic analyses are re	an immediate hold t egative threshold. The level of the asso the sample detect and Wastes, Marc nic Substances in l a in Environmental s vater.	ime. iciated value. ion limit. h 1983. Environmental Samples, August 1993. Samples - Supplement I, May 1994.
H L U (1) (2) (3) (4) (5) (1) (2) (1) (2) (3)	Analysis exceeded method hold time. pH is a field test with a Target analyte response was below the laboratory defined ne The material was analyzed for, but was not detected above th The associated value is either the sample quantitation limit or nces EPA 600/4-83-020. Methods for Chemical Analysis of Water EPA 600/R-93-100. Methods for the Determination of Inorga EPA 600/R-94-111. Methods for the Determination of Metals EPA SW-846. Test Methods for Evaluating Solid Waste. Standard Methods for the Examination of Water and Wastew QC results calculated from raw data. Results may vary slight Soil, Sludge, and Plant matrices for Inorganic analyses are re Animal matrices for Inorganic analyses are reported on an "a	an immediate hold t egative threshold. The level of the asso the sample detect and Wastes, Marc nic Substances in l a in Environmental s vater.	ime. iciated value. ion limit. h 1983. Environmental Samples, August 1993. Samples - Supplement I, May 1994.
H L U (1) (2) (3) (4) (5) (1) (2) (1) (2) (3)	Analysis exceeded method hold time. pH is a field test with a Target analyte response was below the laboratory defined ne The material was analyzed for, but was not detected above th The associated value is either the sample quantitation limit or nces EPA 600/4-83-020. Methods for Chemical Analysis of Water EPA 600/R-93-100. Methods for the Determination of Inorga EPA 600/R-94-111. Methods for the Determination of Metals EPA SW-846. Test Methods for Evaluating Solid Waste. Standard Methods for the Examination of Water and Wastew QC results calculated from raw data. Results may vary slight Soil, Sludge, and Plant matrices for Inorganic analyses are re Animal matrices for Inorganic analyses are reported on an "a An asterisk in the "XQ" column indicates there is an extended	an immediate hold t egative threshold. The level of the assor the sample detect and Wastes, Marc nic Substances in l is in Environmental s rater. Idy if the rounded va eported on a dry we is received" basis. d qualifier and/or ce	ime. ciated value. ion limit. h 1983. Environmental Samples, August 1993. Samples - Supplement I, May 1994. slues are used in the calculations. sight basis.

REP001.09.12.01

Antimony, diss	olved		M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG347770													
WG347770ICV	ICV	07/18/13 0:11	MS130717-9	.02		.02129	mg/L	106.5	90	110			
WG347770ICB	ICB	07/18/13 0:14				.00057	mg/L		-0.0012	0.0012			
WG347770LFB	LFB	07/18/13 0:17	MS130717-1	.01		.01048	mg/L	104.8	85	115			
L13141-02AS	AS	07/18/13 0:45	MS130717-1	.02	U	.02314	mg/L	115.7	70	130			
L13141-02ASD	ASD	07/18/13 0:55	MS130717-1	.02	U	.02176	mg/L	108.8	70	130	6.15	20	
Arsenic, dissol	ved		M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG347663													
WG347663ICV	ICV	07/16/13 20:43	MS130416-2	.05		.05282	mg/L	105.6	90	110			
WG347663ICB	ICB	07/16/13 20:46				U	mg/L		-0.0006	0.0006			
WG347663LFB	LFB	07/16/13 20:50	MS130614-1	.05005		.04919	mg/L	98.3	85	115			
L13104-08AS	AS	07/16/13 21:44	MS130614-1	.05005	.002	.05248	mg/L	100.9	70	130			
L13104-08ASD	ASD	07/16/13 21:47	MS130614-1	.05005	.002	.0542	mg/L	104.3	70	130	3.22	20	
Beryllium, diss	olved		M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG347663													
WG347663ICV	ICV	07/16/13 20:43	MS130416-2	.05		.04901	mg/L	98	90	110			
WG347663ICB	ICB	07/16/13 20:46		.00		U	mg/L	00	-0.00015	0.00015			
WG347663LFB	LFB	07/16/13 20:50	MS130614-1	.0501		.04624	mg/L	92.3	85	115			
L13104-08AS	AS	07/16/13 21:44	MS130614-1	.0501	U	.05256	mg/L	104.9	70	130			
L13104-08ASD	ASD	07/16/13 21:47	MS130614-1	.0501	U	.05218	mg/L	104.2	70	130	0.73	20	
Cadmium, diss	olved		M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG347663													
WG347663ICV	ICV	07/16/13 20:43	MS130416-2	.05		.05199	ma/l	104	90	110			
WG347663ICB	ICB	07/16/13 20:43	1013130410-2	.05		.05199 U	mg/L	104	-0.0003	0.0003			
WG347663LFB	LFB	07/16/13 20:40	MS130614-1	.0501		.04834	mg/L	96.5	-0.0003 85	115			
L13104-08AS	AS	07/16/13 20:50	MS130614-1 MS130614-1	.0501	U	.04034	mg/L mg/L	90.5 98.1	85 70	130			
L13104-08ASD	ASD	07/16/13 21:47	MS130614-1 MS130614-1	.0501	U	.04823	mg/L	96.3	70	130	1.89	20	
Chromium, dise			M200.7 IC										
ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
													- e, a a i
WG347549													
WG347549ICV	ICV	07/15/13 9:20	II130711-2	2		1.928	mg/L	96.4	95	105			
WG347549ICB	ICB	07/15/13 9:26				U	mg/L		-0.03	0.03			
WG347549LFB	LFB	07/15/13 9:39	II130708-3	.5015		.489	mg/L	97.5	85	115			
L13139-02AS	AS	07/15/13 9:48	II130708-3	.5015	U	.484	mg/L	96.5	85	115			
L13139-02ASD	ASD	07/15/13 9:51	II130708-3	.5015	U	.482	mg/L	96.1	85	115	0.41	20	

Cobalt, dissolve	ed		M200.7 I	CP									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG347549													
WG347549ICV	ICV	07/15/13 9:20	II130711-2	2.002		2.009	mg/L	100.3	95	105			
WG347549ICB	ICB	07/15/13 9:26				U	mg/L		-0.03	0.03			
WG347549LFB	LFB	07/15/13 9:39	II130708-3	.5		.478	mg/L	95.6	85	115			
L13139-02AS	AS	07/15/13 9:48	II130708-3	.5	U	.475	mg/L	95	85	115			
L13139-02ASD	ASD	07/15/13 9:51	II130708-3	.5	U	.469	mg/L	93.8	85	115	1.27	20	
Copper, dissolv	ved		M200.7 I	CP									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG347549													
WG347549ICV	ICV	07/15/13 9:20	II130711-2	2		1.936	mg/L	96.8	95	105			
WG347549ICB	ICB	07/15/13 9:26				U	mg/L		-0.03	0.03			
WG347549LFB	LFB	07/15/13 9:39	II130708-3	.5		.494	mg/L	98.8	85	115			
L13139-02AS	AS	07/15/13 9:48	II130708-3	.5	U	.502	mg/L	100.4	85	115			
L13139-02ASD	ASD	07/15/13 9:51	II130708-3	.5	U	.502	mg/L	100.4	85	115	0	20	
Fluoride			SM4500F	-C									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG347637													
WG347637ICV	ICV	07/16/13 11:43	WC130710-	2.002		1.91	mg/L	95.4	95	105			
WG347637ICB	ICB	07/16/13 11:48	10100/10	2.002		U	mg/L	50.4	-0.3	0.3			
WG347637LFB1	LFB	07/16/13 11:56	WC130313-	5.005		4.64	mg/L	92.7	90	110			
L13139-06AS	AS	07/16/13 13:05	WC130313-	5.005	.7	5.37	mg/L	93.3	90	110			
L13139-06DUP	DUP	07/16/13 13:10			.7	.72	mg/L				2.8	20	R
WG347637LFB2	LFB	07/16/13 15:36	WC130313-	5.005		4.64	mg/L	92.7	90	110	2.0	20	
Lead, dissolved	1		M200.8 I	CP-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG347663													
	ICV	07/16/12 20:42	MS130416-2	05		05000	m a /l	104 E	00	110			
WG347663ICV		07/16/13 20:43	1013130410-2	.05		.05223	mg/L	104.5	90				
WG347663ICB WG347663LFB	ICB LFB	07/16/13 20:46 07/16/13 20:50	MS130614-1	.05005		U .04665	mg/L	93.2	-0.0003 85	0.0003 115			
	AS	07/16/13 20:50				.04005	mg/L		85 70	130			
L13104-08AS L13104-08ASD	AS ASD	07/16/13 21:44	MS130614-1 MS130614-1	.05005 .05005	U U	.04552	mg/L mg/L	90.9 90.2	70 70	130	0.82	20	
		07/10/13 21.47			0	.0-010	iiig/L	30.2	10	100	0.02	20	
Magnesium, dis ACZ ID		Analyzed	M200.7 10 PCN/SCN	JP QC	Sample	Found	Unito	Rec	Lower	Upper	RPD	Limit	Qual
	Туре	Anaryzeu			Sample		omis	- Kec	Lower	opper		-cmm-	Quar
WG347549													
WG347549ICV	ICV	07/15/13 9:20	II130711-2	100		98.66	mg/L	98.7	95	105			
WG347549ICB	ICB	07/15/13 9:26				U	mg/L		-0.6	0.6			
WG347549LFB	LFB	07/15/13 9:39	II130708-3	49.99752		49.37	mg/L	98.7	85	115			
L13139-02AS	AS	07/15/13 9:48	II130708-3	49.99752	62.7	112.6	mg/L	99.8	85	115			
L13139-02ASD	ASD	07/15/13 9:51	II130708-3	49.99752	62.7	112.2	mg/L	99	85	115	0.36	20	

Molybdenum, di	ssolved		M200.7 IC	P									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG347549													
WG347549ICV	ICV	07/15/13 9:20	II130711-2	2		1.987	mg/L	99.4	95	105			
WG347549ICB	ICB	07/15/13 9:26				U	mg/L		-0.06	0.06			
WG347549LFB	LFB	07/15/13 9:39	II130708-3	.5		.502	mg/L	100.4	85	115			
L13139-02AS	AS	07/15/13 9:48	II130708-3	.5	2.78	3.214	mg/L	86.8	85	115			
L13139-02ASD	ASD	07/15/13 9:51	II130708-3	.5	2.78	3.192	mg/L	82.4	85	115	0.69	20	М
Nickel, dissolve	d		M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG347663													
WG347663ICV	ICV	07/16/13 20:43	MS130416-2	.05		.05158	mg/L	103.2	90	110			
WG347663ICB	ICB	07/16/13 20:46				U	mg/L		-0.0018	0.0018			
WG347663LFB	LFB	07/16/13 20:50	MS130614-1	.05005		.04717	mg/L	94.2	85	115			
L13104-08AS	AS	07/16/13 21:44	MS130614-1	.05005	.0013	.04542	mg/L	88.2	70	130			
L13104-08ASD	ASD	07/16/13 21:47	MS130614-1	.05005	.0013	.04458	mg/L	86.5	70	130	1.87	20	
Nitrate/Nitrite as	Ν		M353.2 - H	H2SO4 pr	eserved								
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG347780													
WG347780ICV	ICV	07/17/13 22:54	WI130712-3	2.416		2.35	mg/L	97.3	90	110			
WG347780ICB	ICB	07/17/13 22:55	11100112.0	2.110		U	mg/L	07.0	-0.06	0.06			
WG347781							0						
WG347781LFB1	LFB	07/17/13 23:51	WI130215-3	2		1.975	mg/L	98.8	90	110			
L13139-02DUP	DUP	07/17/13 23:56		_	.2	.2	mg/L				0	20	
WG347781LFB2	LFB	07/18/13 0:25	WI130215-3	2		1.973	mg/L	98.7	90	110	Ū	20	
L13139-01AS	AS	07/18/13 0:44	WI130215-3	2	.08	1.982	mg/L	95.1	90	110			
Residue, Filteral	ble (TDS) @180C	SM2540C										
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG347428													
WG347428PBW	PBW	07/11/13 15:05				U	mg/L		-20	20			
WG347428LCSW	LCSW	07/11/13 15:07	PCN42879	260		244	mg/L	93.8	80	120			
L13210-02DUP	DUP	07/11/13 15:38	1 01142073	200	260	278	mg/L	33.0	00	120	6.7	10	
Selenium, disso	lved		M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG347663													
		07/16/10 00:40	M0120440.0	05		05444	m = //	100.0	00	140			
WG347663ICV	ICV	07/16/13 20:43	MS130416-2	.05		.05444	mg/L	108.9	90	110			
WG347663ICB	ICB	07/16/13 20:46	M0400044.4	05005		U	mg/L	400.4	-0.0003	0.0003			
WG347663LFB	LFB	07/16/13 20:50	MS130614-1	.05005		.0501	mg/L	100.1	85	115			
L13104-08AS	AS	07/16/13 21:44	MS130614-1	.05005	U	.04987	mg/L	99.6	70	130	0.5	00	
L13104-08ASD	ASD	07/16/13 21:47	MS130614-1	.05005	U	.04962	mg/L	99.1	70	130	0.5	20	



Inorganic QC Summary

FMI Gold & Copper - Sierrita

Sulfate			D516-02	- Turbidime	tric								
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG347494													
WG347494ICB	ICB	07/12/13 11:59				U	mg/L		-3	3			
WG347494ICV	ICV	07/12/13 11:59	WI130708-8	20		19.7	mg/L	98.5	90	110			
WG347494LFB	LFB	07/12/13 12:08	WI130416-3	9.99		10.1	mg/L	101.1	90	110			
L13141-02AS	AS	07/12/13 12:58	SO4TURB12	10.000008	1240	1250	mg/L	100	90	110			
L13141-01DUP	DUP	07/12/13 13:10			1150	1160	mg/L				0.9	20	RA
Thallium, disso	lved		M200.8 I	CP-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG347663													
WG347663ICV	ICV	07/16/13 20:43	MS130416-2	.05		.05209	mg/L	104.2	90	110			
WG347663ICB	ICB	07/16/13 20:46				U	mg/L		-0.0003	0.0003			
WG347663LFB	LFB	07/16/13 20:50	MS130614-1	.05005		.04701	mg/L	93.9	85	115			
L13104-08AS	AS	07/16/13 21:44	MS130614-1	.05005	U	.04598	mg/L	91.9	70	130			
L13104-08ASD	ASD	07/16/13 21:47	MS130614-1	.05005	U	.04579	mg/L	91.5	70	130	0.41	20	



ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L13140-01	WG347770	Antimony, dissolved	M200.8 ICP-MS	DD	Sample required dilution due to matrix color or odor.
	WG347663	Arsenic, dissolved	M200.8 ICP-MS	DD	Sample required dilution due to matrix color or odor.
		Beryllium, dissolved	M200.8 ICP-MS	DD	Sample required dilution due to matrix color or odor.
		Cadmium, dissolved	M200.8 ICP-MS	DD	Sample required dilution due to matrix color or odor.
		Lead, dissolved	M200.8 ICP-MS	DD	Sample required dilution due to matrix color or odor.
	WG347549	Molybdenum, dissolved	M200.7 ICP	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
	WG347663	Nickel, dissolved	M200.8 ICP-MS	DD	Sample required dilution due to matrix color or odor.
		Selenium, dissolved	M200.8 ICP-MS	EF	Sample contains sulfur/organic compounds that may cause false high bias for Selenium results by ICPMS. The sulfur/organic compounds were detected due to matrix odor. Se concentration is estimated.
		Thallium, dissolved	M200.8 ICP-MS	DD	Sample required dilution due to matrix color or odor.
	WG347637	Fluoride	SM4500F-C	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG347428	Residue, Filterable (TDS) @180C	SM2540C	QA	Sample container with preservation type specified by the method was not available for analysis. Alternate sample container was used.
	WG347494	Sulfate	D516-02 - Turbidimetric	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).



ACZ Project ID: L13140

No certification qualifiers associated with this analysis

AGE Laboratories, Inc. 2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

FMI Gold & Copper - Sierrita	ACZ Proje	ct ID:		L13140
ZS000003Q8	Date Rece	vived: 0	7/09/201	3 10:2
	Receive	d By:		mtl
	Date Pri	nted:	7	7/9/2013
Receipt Verification			NO	
1) Is a foreign soil permit included for applicable samples?		YES	NO	NA X
2) Is the Chain of Custody or other directive shipping papers present?		Х		
3) Does this project require special handling procedures such as CLP protocol?				Х
4) Are any samples NRC licensable material?				Х
5) If samples are received past hold time, proceed with requested short hold time and	alyses?	Х		
6) Is the Chain of Custody complete and accurate?		Х		
7) Were any changes made to the Chain of Custody prior to ACZ receiving the sample	es?		Х	
Samples/Containers				
		YES	NO	NA
8) Are all containers intact and with no leaks?		Х		
9) Are all labels on containers and are they intact and legible?		Х		
10) Do the sample labels and Chain of Custody match for Sample ID, Date, and Time	?	Х		
11) For preserved bottle types, was the pH checked and within limits?		Х		
12) Is there sufficient sample volume to perform all requested work?		Х		
13) Is the custody seal intact on all containers?				Х
14) Are samples that require zero headspace acceptable?				Х
15) Are all sample containers appropriate for analytical requirements?		Х		
16) Is there an Hg-1631 trip blank present?				Х
17) Is there a VOA trip blank present?				Х
18) Were all samples received within hold time?		Х		
Chain of Custody Related Remarks				

Client Contact Remarks

Shipping Containers

Cooler	Id
3565	

Rad ($\mu R/Hr$) -----17

Custody Seal Intact? -----Yes

Was ice present in the shipment container(s)?

Yes - Wet ice was present in the shipment container(s).

Temp (°C)

4.7

Client must contact an ACZ Project Manager if analysis should not proceed for samples received outside of their thermal preservation acceptance criteria.

	ACZ Labor 2773 Downhill Drive Steamboat Sp	atories, Inc.	4.5403	13	14	ク		CHA	IN of	CUST	ODY	
	Report to:	nngs, CO 80487 (800) 332	4-5493									
	Name: Jonathan Anderson			Addre	ss: 620	0 W D	uval Mine	e Rd				
	Company: Freeport McMoRan	-Sierrita		/			ey, AZ 8					
	E-mail: Jonathan_anderson@fn		-	Telep			93-2714					
	Copy of Report to:											
	Name: Ben Daigneau			E mai	l bdaio	meau@	clearcree	kassociat	es com			
	Company: Clear Creek Associa	ites	-			520-622		Kassociai	cs.com			
				Teleb	none	020-022						
	Invoice to:								÷			
	Name:		-	Address:								
	Company:				h							
	E-mail: If sample(s) received past holding	time (HT) or if insufficie	 Int HT ron	Telep		oto			YES		<u>-</u>	
	analysis before expiration, shall A				•	ele			NO			
	If "NO" then ACZ will contact clie								•			
	is indicated, ACZ will proceed wit Are samples for CO DW Compliar	· · · ·	, even if I	HT is ex	pired, a	ind data	will be qu	alified.	YES			
	If yes, please include state forms	•	to PQL.						NO			
	PROJECT INFORMATION	·····			ANALY	SES RE	QUESTED) (attach li	st or use	e quote num	ıber)	
	Quote #:											
	Project/PO #: ZS000003Q8			lers								
	Reporting state for compliance t	esting:		ntair	er							
	Sampler's Name: Jeff Joy			of Containers	Quarterly							
	Are any samples NRC licensable	e material? Yes No		# of	na							
	SAMPLE IDENTIFICATION	DATE: TIME	Matrix		Ø							
	MH-27	7/5/13:0900	GW	3	×							
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stod.	Matrix SW (Surface Water) GW	(Ground Water) · WW (Waste V	Water) · D\	N (Drinki	ng Water) - SL (Sh	Idae) - SO (S	Soil) : OE (O	il) · Other ((Specify)		
	REMARKS			IT (Brinne	ing trater) 02(010	luge) 00 (t		ny other (opeeny		
				•						-		
2	(POC Wells) Page 2 of 2 UPS Tracking # 1Z 867 7E4 2	3 1001 105 8										
er er	Please filter samples MH-22 (2/13), no	preser	vatives	in gree	en dot					
140 Chain of	Please copy Ben Daigneau this					C						
M H		e refer to ACZ's terms &	conditic	ne loc	ated on	the rev	orco sido	of this C(٦C			
	RELINQUISHED BY:			113 1000			ED BY:					
	Jeff Joy	7/8/13:153				1						
			-	1	/ k	,),	~	10		21-		
					K!		2-9-	15	170	1,16		



Analytical Report

July 25, 2013

Report to: Jon Anderson FMI Gold & Copper - Sierrita 6200 West Duval Mine Rd. Green Valley, AZ 85614

cc: Ben Daigneau

Bill to: Accounts Payable FMI Gold & Copper - Sierrita P.O. Box 2671 Phoenix, AZ 85002-2671

Project ID: ZS000003Q8 ACZ Project ID: L13273

Jon Anderson:

Enclosed are the analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on July 12, 2013. This project has been assigned to ACZ's project number, L13273. Please reference this number in all future inquiries.

All analyses were performed according to ACZ's Quality Assurance Plan. The enclosed results relate only to the samples received under L13273. Each section of this report has been reviewed and approved by the appropriate Laboratory Supervisor, or a qualified substitute.

Except as noted, the test results for the methods and parameters listed on ACZ's current NELAC certificate letter (#ACZ) meet all requirements of NELAC.

This report shall be used or copied only in its entirety. ACZ is not responsible for the consequences arising from the use of a partial report.

All samples and sub-samples associated with this project will be disposed of after August 24, 2013. If the samples are determined to be hazardous, additional charges apply for disposal (typically \$11/sample). If you would like the samples to be held longer than ACZ's stated policy or to be returned, please contact your Project Manager or Customer Service Representative for further details and associated costs. ACZ retains analytical raw data reports for ten years.

If you have any questions or other needs, please contact your Project Manager.

S. Habermehl

Scott Habermehl has reviewed and approved this report.





	Laboratories, Inc. Ve Steamboat Springs, CO 80487 (800) 334-5493	Inoi	ganic Analyt Results
FMI Gold & C	opper - Sierrita	ACZ Sample ID	L13273-01
Project ID:	ZS000003Q8	Date Sampled	: 07/10/13 09:30
Sample ID:	MO-2007-4B	Date Received	: 07/12/13
		Sample Matrix	Ground Water
Wet Chemistry			

Units Parameter EPA Method Qual XQ MDL PQL Date Analyst M300.0 - Ion Chromatography Sulfate 4.51 mg/L 0.5 1 2.5 07/22/13 18:45 tcd

Arizona license number: AZ0102

lytical

Dilution Result

	Laboratories, ve Steamboat Springs, CO 804		34-5493				In		nic Analy Results	tical
FMI Gold & Co	opper - Sierrita					ACZ	Sample	ID: <i>L</i>	.13273-02	
Project ID:	ZS000003Q8					Dat	e Sample	ed: 0	7/10/13 09:52	
Sample ID:	MO-2007-4C					Date	e Receive	ed: 0	7/12/13	
						San	nple Mat	rix: G	Ground Water	
Wet Chemistry										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Sulfate	M300.0 - Ion Chromatography	1	66.7			mg/L	0.5	2.5	07/22/13 19:37	/ tcd

Arizona license number: AZ0102

	Laboratories, ve Steamboat Springs, CO 804		34-5493				In		nic Analy Results	rtical
FMI Gold & Co	opper - Sierrita					ACZ	Sample	ID: <i>L</i>	13273-03	
Project ID:	ZS000003Q8					Dat	e Sample	ed: 0	7/10/13 10:12	•
Sample ID:	MO-2007-4A					Date	e Receive	ed: 0	7/12/13	
						Sar	nple Mat	rix: G	Fround Water	
Wet Chemistry										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Sulfate	M300.0 - Ion Chromatography	1	36.6			mg/L	0.5	2.5	07/22/13 19:5	5 tcd

Arizona license number: AZ0102

	AGZ Laboratories, Inc. 2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493						Ind	Inorganic Analytical Results			
FMI Gold & Co	opper - Sierrita					ACZ	Sample I	ID: <i>L</i>	13273-04		
Project ID:	ZS000003Q8					Date	e Sample	ed: 0	7/10/13 11:2	23	
Sample ID:	MO-2007-6A					Date	Receive	ed: 0	07/12/13		
						San	ple Matr	ix: G	round Wate	r	
Wet Chemistry											
Parameter	EPA Method	Dilution	Result	Qual X	Q	Units	MDL	PQL	Date	Analyst	

mg/L

0.5

2.5

07/22/13 20:12

tcd

18.3

1

Arizona license number: AZ0102

M300.0 - Ion Chromatography

Sulfate

	Laboratories, Inc. ve Steamboat Springs, CO 80487 (800) 334-5493	Ind
FMI Gold & Co Project ID:	opper - Sierrita ZS000003Q8	ACZ Sample Date Sample
Sample ID:	MO-2007-6B	Date Sample

ACZ Sample ID:	L13273-05
Date Sampled:	07/10/13 12:16
Date Received:	07/12/13
Sample Matrix:	Ground Water

Wet Chemistry										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Sulfate	M300.0 - Ion Chromatography	1	42.0			mg/L	0.5	2.5	07/22/13 20:30) tcd

Arizona license number: AZ0102

ACZ 2773 Downhill Driv	Laboratorie			ic Anal esults	Analytical sults				
FMI Gold & Co	opper - Sierrita				ACZ	Sample II	D: L1 ;	3273-06	
Project ID:	ZS000003Q8				Dat	e Sample	d: 07/	11/13 08:5	55
Sample ID:	GV-1				Date	e Receive	d: 07/	12/13	
					San	nple Matri	x: Gro	ound Wate	r
Wet Chemistry									
Parameter	EPA Method	Dilution	Result	Qual XC) Units	MDL	PQL	Date	Analyst

mg/L

0.5

2.5

07/22/13 20:47

tcd

Arizona license number: AZ0102

M300.0 - Ion Chromatography

1

42.6

Sulfate

ACZ 2773 Downhill Driv	ACCZ Laboratories, Inc. 2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493 FMI Gold & Copper - Sierrita Project ID: ZS000003Q8					Inorganic A Resi					
FMI Gold & C	opper - Sierrita				ACZ	Sample II	D: L1 :	3273-07			
Project ID:	ZS000003Q8				Dat	e Sample	d: 07/	11/13 09:2	29		
Sample ID:	GV-2				Dat	e Receive	d: 07/	12/13			
					Sar	nple Matri	x: Gro	ound Wate	r		
Wet Chemistry											
Parameter	EPA Method	Dilution	Result	Qual XC) Units	MDL	PQL	Date	Analyst		

64.2

1

mg/L

0.5

2.5

07/22/13 21:05

tcd

Arizona license number: AZ0102

Sulfate

M300.0 - Ion Chromatography

ACZ Laboratories, Inc. 2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493						Ino		ic Anal esults	ytical
FMI Gold & C	opper - Sierrita				ACZ S	ample ID): L1 3	273-08	
Project ID:	ZS000003Q8				Date	Sampled	l: 07/	11/13 11:2	26
Sample ID:	MO-2009-1				Date I	Received	l: 07/	12/13	
					Samp	ole Matrix	:: Gro	und Wate	r
Wet Chemistry			B #						
Parameter	EPA Method	Dilution	Result	Qual XQ	Units	MDL	PQL	Date	Analyst

118

mg/L

1

5

07/23/13 11:02

tcd

Arizona license number: AZ0102

M300.0 - Ion Chromatography

2

Sulfate

	Laboratories, re Steamboat Springs, CO 804				Ine		nic Analy Results	rtical		
FMI Gold & Co Project ID: Sample ID:	opper - Sierrita ZS000003Q8 DUP20130711A					Dat Date	e Sample e Receive	ed: 0 ed: 0	13273-09 7/11/13 00:00 7/12/13 Ground Water)
Wet Chemistry Parameter Sulfate	EPA Method M300.0 - Ion Chromatography	Dilution	Result 42.5	Qual	XQ	Units mg/L	MDL 0.5	PQL 2.5	Date 07/22/13 22:1	Analyst 5 tcd

Arizona license number: AZ0102



Inorganic Reference

Batch	• Explanations								
Found	A distinct set of samples analyzed at a specific time								
Found	Value of the QC Type of interest	Upper limit for RPD, in %.							
Limit									
Lower	Lower Recovery Limit, in % (except for LCSS, mg/Kg) Mathed Datastian Limit, Same as Minimum Paparting Limit, Allows for instrument and appual fluctuations								
MDL	Method Detection Limit. Same as Minimum Reporting Limit. Allows for instrument and annual fluctuations.								
PCN/SCN	A number assigned to reagents/standards to trace to the manufacturer's certificate of analysis								
PQL	Practical Quantitation Limit, typically 5 times the MDL.								
QC	True Value of the Control Sample or the amount added to the Spike Recovered amount of the true value or spike added, in % (except for LCSS, mg/Kg)								
Rec			/Kg)						
RPD	Relative Percent Difference, calculation used for Duplicate QC	Types							
Upper Sample	Upper Recovery Limit, in % (except for LCSS, mg/Kg) Value of the Sample of interest								
C Sample Ty	nes								
AS	Analytical Spike (Post Digestion)	LCSWD	Laboratory Control Sample - Water Duplicate						
ASD	Analytical Spike (Post Digestion) Analytical Spike (Post Digestion) Duplicate	LESWD	Laboratory Fortified Blank						
CCB	Continuing Calibration Blank	LFB	Laboratory Fortified Matrix						
CCV	Continuing Calibration Blank Continuing Calibration Verification standard	LFMD	Laboratory Fortified Matrix Duplicate						
DUP	Sample Duplicate	LFMD LRB	Laboratory Reagent Blank						
ICB	Initial Calibration Blank	MS	Matrix Spike						
ICV	Initial Calibration Verification standard	MSD	Matrix Spike Duplicate						
ICSAB	Inter-element Correction Standard - A plus B solutions	PBS	Prep Blank - Soil						
LCSS	Laboratory Control Sample - Soil	PBW	Prep Blank - Water						
LCSSD	Laboratory Control Sample - Soil Duplicate	PQV	Practical Quantitation Verification standard						
LCSW	Laboratory Control Sample - Water	SDL	Serial Dilution						
Duplicates Spikes/Fort	tified Matrix Determines sample matrix interferen								
Standard	Verifies the validity of the calibration.								
Z Qualifiers									
В	Analyte concentration detected at a value between MDL and I		ed value is an estimated quantity.						
Н	Analysis exceeded method hold time. pH is a field test with an	Analysis exceeded method hold time. pH is a field test with an immediate hold time.							
	Target analyte response was below the laboratory defined negative threshold.								
L		gative threshold.							
	The material was analyzed for, but was not detected above th	gative threshold. e level of the asso	ciated value.						
L		gative threshold. e level of the asso	ciated value.						
L U ethod Refere	The material was analyzed for, but was not detected above th The associated value is either the sample quantitation limit or inces	gative threshold. e level of the asso the sample detect	iciated value. ion limit.						
L U ethod Refere (1)	The material was analyzed for, but was not detected above th The associated value is either the sample quantitation limit or Inces EPA 600/4-83-020. Methods for Chemical Analysis of Water	gative threshold. e level of the asso the sample detect and Wastes, Marc	iciated value. ion limit. h 1983.						
L U ethod Refere (1) (2)	The material was analyzed for, but was not detected above th The associated value is either the sample quantitation limit or inces EPA 600/4-83-020. Methods for Chemical Analysis of Water EPA 600/R-93-100. Methods for the Determination of Inorgan	gative threshold. e level of the asso the sample detect and Wastes, Marc hic Substances in l	iciated value. ion limit. h 1983. Environmental Samples, August 1993.						
L U ethod Refere (1) (2) (3)	The material was analyzed for, but was not detected above th The associated value is either the sample quantitation limit or inces EPA 600/4-83-020. Methods for Chemical Analysis of Water EPA 600/R-93-100. Methods for the Determination of Inorgan EPA 600/R-94-111. Methods for the Determination of Metals	gative threshold. e level of the asso the sample detect and Wastes, Marc hic Substances in l	iciated value. ion limit. h 1983. Environmental Samples, August 1993.						
L U ethod Refere (1) (2) (3) (4)	The material was analyzed for, but was not detected above th The associated value is either the sample quantitation limit or inces EPA 600/4-83-020. Methods for Chemical Analysis of Water EPA 600/R-93-100. Methods for the Determination of Inorgar EPA 600/R-94-111. Methods for the Determination of Metals EPA SW-846. Test Methods for Evaluating Solid Waste.	gative threshold. e level of the asso the sample detect and Wastes, Marc hic Substances in I in Environmental S	iciated value. ion limit. h 1983. Environmental Samples, August 1993.						
L U ethod Refere (1) (2) (3) (4) (5)	The material was analyzed for, but was not detected above th The associated value is either the sample quantitation limit or inces EPA 600/4-83-020. Methods for Chemical Analysis of Water EPA 600/R-93-100. Methods for the Determination of Inorgan EPA 600/R-94-111. Methods for the Determination of Metals	gative threshold. e level of the asso the sample detect and Wastes, Marc hic Substances in I in Environmental S	iciated value. ion limit. h 1983. Environmental Samples, August 1993.						
L U ethod Refere (1) (2) (3) (4) (5) emments	The material was analyzed for, but was not detected above th The associated value is either the sample quantitation limit or inces EPA 600/A-83-020. Methods for Chemical Analysis of Water EPA 600/R-93-100. Methods for the Determination of Inorgar EPA 600/R-94-111. Methods for the Determination of Metals EPA SW-846. Test Methods for Evaluating Solid Waste. Standard Methods for the Examination of Water and Wastewa	gative threshold. e level of the asso the sample detect and Wastes, Marc nic Substances in I in Environmental s ater.	ciated value. ion limit. h 1983. Environmental Samples, August 1993. Samples - Supplement I, May 1994.						
L U (1) (2) (3) (4) (5) (1)	The material was analyzed for, but was not detected above th The associated value is either the sample quantitation limit or inces EPA 600/A-83-020. Methods for Chemical Analysis of Water EPA 600/R-93-100. Methods for the Determination of Inorgar EPA 600/R-94-111. Methods for the Determination of Metals EPA SW-846. Test Methods for Evaluating Solid Waste. Standard Methods for the Examination of Water and Wastewa QC results calculated from raw data. Results may vary slight	gative threshold. e level of the asso the sample detect and Wastes, Marc nic Substances in I in Environmental s ater. y if the rounded va	ciated value. ion limit. h 1983. Environmental Samples, August 1993. Samples - Supplement I, May 1994.						
L U ethod Refere (1) (2) (3) (4) (5) omments (1) (2)	The material was analyzed for, but was not detected above th The associated value is either the sample quantitation limit or inces EPA 600/4-83-020. Methods for Chemical Analysis of Water & EPA 600/R-93-100. Methods for the Determination of Inorgar EPA 600/R-94-111. Methods for the Determination of Metals EPA SW-846. Test Methods for Evaluating Solid Waste. Standard Methods for the Examination of Water and Wastewar QC results calculated from raw data. Results may vary slight Soil, Sludge, and Plant matrices for Inorganic analyses are results	gative threshold. e level of the asso the sample detect and Wastes, Marc nic Substances in 1 in Environmental s ater. y if the rounded va ported on a dry we	ciated value. ion limit. h 1983. Environmental Samples, August 1993. Samples - Supplement I, May 1994.						
L U ethod Refere (1) (2) (3) (4) (5) 0 mments (1) (2) (3)	The material was analyzed for, but was not detected above the The associated value is either the sample quantitation limit or inces EPA 600/4-83-020. Methods for Chemical Analysis of Water at EPA 600/R-93-100. Methods for the Determination of Inorgan EPA 600/R-94-111. Methods for the Determination of Metals EPA SW-846. Test Methods for Evaluating Solid Waste. Standard Methods for the Examination of Water and Wastewar QC results calculated from raw data. Results may vary slight! Soil, Sludge, and Plant matrices for Inorganic analyses are rep Animal matrices for Inorganic analyses are reported on an "as	gative threshold. e level of the asso the sample detect and Wastes, March in Environmental s ater. y if the rounded va ported on a dry we s received" basis.	ciated value. ion limit. h 1983. Environmental Samples, August 1993. Samples - Supplement I, May 1994.						
L U ethod Refere (1) (2) (3) (4) (5) omments (1) (2)	The material was analyzed for, but was not detected above the The associated value is either the sample quantitation limit or inces EPA 600/4-83-020. Methods for Chemical Analysis of Water at EPA 600/R-93-100. Methods for the Determination of Inorgan EPA 600/R-94-111. Methods for the Determination of Metals EPA SW-846. Test Methods for Evaluating Solid Waste. Standard Methods for the Examination of Water and Wastewar QC results calculated from raw data. Results may vary slight Soil, Sludge, and Plant matrices for Inorganic analyses are rep Animal matrices for Inorganic analyses are reported on an "as An asterisk in the "XQ" column indicates there is an extended	gative threshold. e level of the asso the sample detect and Wastes, March in Environmental s ater. y if the rounded va ported on a dry we s received" basis.	ciated value. ion limit. h 1983. Environmental Samples, August 1993. Samples - Supplement I, May 1994.						
L U ethod Refere (1) (2) (3) (4) (5) 0 mments (1) (2) (3)	The material was analyzed for, but was not detected above the The associated value is either the sample quantitation limit or inces EPA 600/4-83-020. Methods for Chemical Analysis of Water at EPA 600/R-93-100. Methods for the Determination of Inorgan EPA 600/R-94-111. Methods for the Determination of Metals EPA SW-846. Test Methods for Evaluating Solid Waste. Standard Methods for the Examination of Water and Wastewar QC results calculated from raw data. Results may vary slight! Soil, Sludge, and Plant matrices for Inorganic analyses are rep Animal matrices for Inorganic analyses are reported on an "as	gative threshold. e level of the asso the sample detect and Wastes, Marc in Environmental s ater. y if the rounded va ported on a dry we s received" basis. qualifier and/or ce	ciated value. ion limit. h 1983. Environmental Samples, August 1993. Samples - Supplement I, May 1994. Hues are used in the calculations. right basis.						

REP001.09.12.01



Inorganic QC Summary

FMI Gold & Copper - Sierrita

Sulfate	M300.0 - Ion Chromatography												
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG346168													
WG346168ICV	ICV	06/24/13 18:44	WI130624-1	50		50.2	mg/L	100.4	90	110			
WG346168ICB	ICB	06/24/13 19:01				U	mg/L		-1.5	1.5			
WG347962													
WG347962LFB1	LFB	07/22/13 12:55	WI130501-1	30		29.3	mg/L	97.7	90	110			
L13272-03DUP	DUP	07/22/13 17:35			81.3	81.4	mg/L				0.1	20	
L13272-04AS	AS	07/22/13 18:10	WI130501-1	30	11.5	42.9	mg/L	104.7	90	110			
WG347962LFB2	LFB	07/22/13 21:22	WI130501-1	30		29.8	mg/L	99.3	90	110			
L13273-08DUP	DUP	07/22/13 21:57			115	115	mg/L				0	20	
L13398-01AS	AS	07/23/13 1:27	WI130501-1	30	10.8	41.7	mg/L	103	90	110			
L13273-08DUP	DUP	07/23/13 11:20			118	118	mg/L				0	20	



Inorganic Extended **Qualifier Report**

ACZ Project ID: L13273

FMI Gold & Copper - Sierrita

ACZ ID	WORKNUM PARAMETER	METHOD	QUAL DESCRIPTION	

No extended qualifiers associated with this analysis



ACZ Project ID: L13273

No certification qualifiers associated with this analysis

ACZ	Laboratories, Inc.

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Sample Receipt

FMI Gold & Copper - Sierrita	ACZ Proje	ct ID:		L13273
ZS00003Q8	Date Rece	eived: 0	7/12/201	3 10:18
	Receive	•		mtb
	Date Pr	inted:	7/	15/2013
Receipt Verification)/E0	NO	N14
1) Is a foreign soil permit included for applicable samples?		YES	NO	NA X
2) Is the Chain of Custody or other directive shipping papers present?		Х		
3) Does this project require special handling procedures such as CLP protocol?				Х
4) Are any samples NRC licensable material?				Х
5) If samples are received past hold time, proceed with requested short hold time	e analyses?	Х		
6) Is the Chain of Custody complete and accurate?		Х		
7) Were any changes made to the Chain of Custody prior to ACZ receiving the s	amples?		Х	
Samples/Containers				
		YES	NO	NA
8) Are all containers intact and with no leaks?		Х		
9) Are all labels on containers and are they intact and legible?		Х		
10) Do the sample labels and Chain of Custody match for Sample ID, Date, and	Time?	Х		
11) For preserved bottle types, was the pH checked and within limits?				Х
12) Is there sufficient sample volume to perform all requested work?		Х		
13) Is the custody seal intact on all containers?				Х
14) Are samples that require zero headspace acceptable?				Х
15) Are all sample containers appropriate for analytical requirements?		Х		
16) Is there an Hg-1631 trip blank present?				Х
17) Is there a VOA trip blank present?				Х
18) Were all samples received within hold time?		Х		
Chain of Custody Related Remarks				
Client Contact Remarks				

Shipping Containers

Cooler Id	
NA17977	

Rad (µR/Hr) -----13

Custody Seal Intact? -----Yes

Was ice present in the shipment container(s)?

Yes - Wet ice was present in the shipment container(s).

Temp (°C)

1.2

Client must contact an ACZ Project Manager if analysis should not proceed for samples received outside of their thermal preservation acceptance criteria.

/	ACZ Laboratories, Inc.			2	176	2	CHA	IN of	CUS	STODY	
2773	Downhill Drive Steamboat Spi		4-5493		\sim						
Repo	ort to:		i							<u> </u>	Į
	e: Jon Anderson		4	Address: 6200 W. Duval Mine Road							
	Company: Freeport-McMoRan Sierrita Inc.			Green Valley, AZ 85614							_
E-ma	E-mail: jonathan_anderson@fmi.com			Telepl	hone: 5	20-393-2714					
Сору	of Report to:							<u>.</u>			
Name	e: Ben Daigneau			E-mail	I: bdaig	neau@clearcr	eekassocia	ates.com			
Com	pany: Clear Creek Associa	tes		Teleph	hone: 5	20-622-3222					
Invoi	ce to:									<u>.</u>	
Name	e:			Addre	ss:						
Com	pany:]								
E-ma	iil:]	Telepl	hone:						
	nple(s) received past holding					ete		YES			
	sis before expiration, shall A D" then ACZ will contact clier	•				٥.		NO			
	icated, ACZ will proceed wit						qualified.				
	amples for CO DW Complian							YES			1
	, please include state forms.	Results will be reported	to PQL.					NO	×		
PRO	JECT INFORMATION				· · ·	SES REQUEST	ED (attach	list or us	e quote	number)	Į
Quot			4	s	EPA 375						
Proje	ct/PO #: ZS000003Q8		4	iner	or EP,						
	orting state for compliance t	esting:	4	Containers	300 6						
	oler's Name: Jeff Joy		4	of Co	EPA 300						
	iny samples NRC licensabl			#	SO4 by						
	MPLE IDENTIFICATION	DATE:TIME	Matrix		├───┼						-
	-2007-4B	7/10/13 : 0930	GW	1	×						-
	-2007-4C	7/10/13:0952	GW		×						-
· ······	-2007-4A	7/10/13 : 1012	GW	1	×						+
<u>MO-</u>	-2007-6A	7/10/13 : 1123	GW	1	×						-
	-2007-6B	7/10/13 : 1216	GW	1	×						-
GV-		7/11/13:0855	GW	1	×		<u> </u>				\mathbf{I}
GV-		7/11/13:0929	GW	1	×						┨
	-2009-1	7/11/13:1126	GW	1	×						-
DUr	20130711A	7/11/13:0000	GW	1	×						-
	CINI (Surface Water) - CINI	(Ground Water) · WW (Waste \		Al (Drinkir				Cil) Other	(Specify)		-
Ма	, , , , , , , , , , , , , , , , , , ,	(Ground vvater) · vvvv (vvaste v	Mater) · Di		ng water,	· SL (Sludge) · St) (SOII) · UL (v		(Specity)		
REM	ARKS										٩
MO	Wells										
LIDC	Tuesday # 17 9(7 7E4 3	2 1001 107 (
UPS	Tracking # 1Z 867 7E4 2	3 1001 107 6									
Pleas	se copy Ben Daigneau sult Pleas	fate results for all wells e refer to ACZ's terms &	on this	CoC ons loca	ated on t	the reverse si	de of this C	OC.			
	RELINQUISHED BY:					ECEIVED BY:			DAT	E:TIME	
Jeff	Joy	7/11/13 : 15	530		ĺ	th		4.12	a.13	10:18	1
										<u></u>	1
				1							1



Analytical Report

July 31, 2013

Report to: Jon Anderson FMI Gold & Copper - Sierrita 6200 West Duval Mine Rd. Green Valley, AZ 85614

cc: Ben Daigneau

Bill to: Accounts Payable FMI Gold & Copper - Sierrita P.O. Box 2671 Phoenix, AZ 85002-2671

Project ID: ZS000003Q8 ACZ Project ID: L13390

Jon Anderson:

Enclosed are the analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on July 19, 2013. This project has been assigned to ACZ's project number, L13390. Please reference this number in all future inquiries.

All analyses were performed according to ACZ's Quality Assurance Plan. The enclosed results relate only to the samples received under L13390. Each section of this report has been reviewed and approved by the appropriate Laboratory Supervisor, or a qualified substitute.

Except as noted, the test results for the methods and parameters listed on ACZ's current NELAC certificate letter (#ACZ) meet all requirements of NELAC.

This report shall be used or copied only in its entirety. ACZ is not responsible for the consequences arising from the use of a partial report.

All samples and sub-samples associated with this project will be disposed of after August 30, 2013. If the samples are determined to be hazardous, additional charges apply for disposal (typically \$11/sample). If you would like the samples to be held longer than ACZ's stated policy or to be returned, please contact your Project Manager or Customer Service Representative for further details and associated costs. ACZ retains analytical raw data reports for ten years.

If you have any questions or other needs, please contact your Project Manager.

Live Wellen

Sue Webber has reviewed and approved this report.





ACZ 2773 Downhill Driv			Inorg	anic Analy Results	ytical			
FMI Gold & Co	opper - Sierrita				ACZ Sam	ple ID:	L13390-01	
Project ID:	ZS000003Q8				Date Sa	mpled:	07/17/13 08:48	8
Sample ID:	CW-10				Date Red	ceived:	07/19/13	
					Sample	Matrix:	Ground Water	
Wet Chemistry			-					
Parameter	EPA Method	Dilution	Result	Qual XQ	Units M	DL PC	QL Date	Analyst

54.8

mg/L

0.5

2.5

07/26/13 2:50

jlf

Arizona license number: AZ0102

M300.0 - Ion Chromatography

1

Sulfate

ACZ	Laboratories, Inc.
2773 Downhill Drive	Steamboat Springs, CO 80487 (800) 334-5493

Project ID:	ZS000003Q8
Sample ID:	CW-6

ACZ Sample ID: L13390-02 Date Sampled: 07/17/13 09:38 Date Received: 07/19/13 Sample Matrix: Ground Water

Wet Chemistry									
Parameter	EPA Method	Dilution	Result	Qual X	Q U	nits MDL	PQL	Date	Analyst
Sulfate	M300.0 - Ion Chromatography	1	91.6	ł	, m	ng/L 0.5	2.5	07/26/13 3:25	jlf

Arizona license number: AZ0102

ACZ	Laboratories, Inc.
2773 Downhill Drive	Steamboat Springs, CO 80487 (800) 334-5493

Project ID:	ZS000003Q8
Sample ID:	CW-9

ACZ Sample ID: L13390-03 Date Sampled: 07/17/13 10:31 Date Received: 07/19/13 Sample Matrix: Ground Water

Wet Chemistry										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Sulfate	M300.0 - Ion Chromatography	1	43.7		*	mg/L	0.5	2.5	07/26/13 4:00	jlf

Arizona license number: AZ0102



Inorganic Reference

FoundValue of fLimitUpper limLowerLower ReMDLMethod DPCN/SCNA numbeePQLPracticalQCTrue ValueRecRecovereRPDRelative IUpperUpper Re	e of the Control Sample or the amount added to the amount of the true value or spike added, in % (e	anufacturer's certifica									
LimitUpper limLowerLower ReMDLMethod DPCN/SCNA numbePQLPracticalQCTrue ValuRecRecovereRPDRelative DUpperUpper Re	it for RPD, in %. scovery Limit, in % (except for LCSS, mg/Kg) betection Limit. Same as Minimum Reporting Limit. r assigned to reagents/standards to trace to the ma Quantitation Limit, typically 5 times the MDL. se of the Control Sample or the amount added to the ad amount of the true value or spike added, in % (e	anufacturer's certifica									
LowerLower ReMDLMethod DPCN/SCNA numberPQLPracticalQCTrue ValueRecRecovereRPDRelative IUpperUpper Re	ecovery Limit, in % (except for LCSS, mg/Kg) betection Limit. Same as Minimum Reporting Limit. r assigned to reagents/standards to trace to the ma Quantitation Limit, typically 5 times the MDL. he of the Control Sample or the amount added to the ed amount of the true value or spike added, in % (et	anufacturer's certifica									
MDLMethod IDPCN/SCNA numberPQLPracticalQCTrue ValueRecRecovereRPDRelative IDUpperUpper Recovere	Petection Limit. Same as Minimum Reporting Limit. r assigned to reagents/standards to trace to the ma Quantitation Limit, typically 5 times the MDL. He of the Control Sample or the amount added to the ed amount of the true value or spike added, in % (et	anufacturer's certifica									
PCN/SCNA numberPQLPracticalQCTrue ValueRecRecovereRPDRelative IUpperUpper Re	r assigned to reagents/standards to trace to the ma Quantitation Limit, typically 5 times the MDL. he of the Control Sample or the amount added to the ed amount of the true value or spike added, in % (et	anufacturer's certifica									
PQLPracticalQCTrue ValueRecRecovereRPDRelative IUpperUpper Re	Quantitation Limit, typically 5 times the MDL. ie of the Control Sample or the amount added to the ed amount of the true value or spike added, in % (e		ate of analysis								
QCTrue ValueRecRecoveredRPDRelative IUpperUpper Red	e of the Control Sample or the amount added to the amount of the true value or spike added, in % (e	ne Spike									
RecRecoveredRPDRelative IUpperUpper Red	d amount of the true value or spike added, in % (e	пе Spike	Practical Quantitation Limit, typically 5 times the MDL.								
RPD Relative I Upper Upper Re	• • •	True Value of the Control Sample or the amount added to the Spike									
Upper Upper Re	Percent Difference, calculation used for Duplicate C	Recovered amount of the true value or spike added, in % (except for LCSS, mg/Kg)									
	Relative Percent Difference, calculation used for Duplicate QC Types										
	covery Limit, in % (except for LCSS, mg/Kg) he Sample of interest										
	····										
C Sample Types	Calles (Deat Direction)		Laboratory Control Complex Water Durlingt								
	Spike (Post Digestion)	LCSWD	Laboratory Control Sample - Water Duplicate								
	Spike (Post Digestion) Duplicate	LFB	Laboratory Fortified Blank								
	g Calibration Blank	LFM	Laboratory Fortified Matrix								
	g Calibration Verification standard	LFMD	Laboratory Fortified Matrix Duplicate								
DUP Sample [LRB	Laboratory Reagent Blank								
	bration Blank	MS	Matrix Spike								
	bration Verification standard	MSD	Matrix Spike Duplicate								
	nent Correction Standard - A plus B solutions	PBS	Prep Blank - Soil								
	ry Control Sample - Soil	PBW	Prep Blank - Water								
	y Control Sample - Soil Duplicate y Control Sample - Water	PQV SDL	Practical Quantitation Verification standard Serial Dilution								
Duplicates Spikes/Fortified Matrix	Verifies the precision of the instrum Determines sample matrix interfere										
Standard	Verifies the validity of the calibratio	ın.									
Z Qualifiers (Qual)											
B Analyte c	oncentration detected at a value between MDL and	d PQL. The associat	ed value is an estimated quantity.								
H Analysis	exceeded method hold time. pH is a field test with	an immediate hold ti	ime.								
L Target ar	alyte response was below the laboratory defined n	egative threshold.									
U The mate	rial was analyzed for, but was not detected above	the level of the asso	ciated value.								
The asso	ciated value is either the sample quantitation limit c	or the sample detecti	ion limit.								
ethod References											
(1) EPA 600	4-83-020. Methods for Chemical Analysis of Wate	er and Wastes, Marc	h 1983.								
(2) EPA 600	R-93-100. Methods for the Determination of Inorga	anic Substances in I	Environmental Samples, August 1993.								
(3) EPA 600	R-94-111. Methods for the Determination of Metal	ls in Environmental S	Samples - Supplement I, May 1994.								
(4) EPA SW	846. Test Methods for Evaluating Solid Waste.										
(5) Standard	Methods for the Examination of Water and Waster	water.									
omments											
(1) QC result	s calculated from raw data. Results may vary sligh	ntly if the rounded va	lues are used in the calculations.								
(2) Soil, Slud	ge, and Plant matrices for Inorganic analyses are r	reported on a dry we	ight basis.								
	atrices for Inorganic analyses are reported on an "	as received" basis.									
(3) Animal m		d qualifier and/or oo	rtification qualifier								
. ,	sk in the "XQ" column indicates there is an extende	sa quanner anu/or ce									
(4) An asteri	sk in the "XQ" column indicates there is an extende d with the result.	שליים אינייים אינייים אינייים אינייים איניים איני	d								
(4) An asteria associate											

REP001.09.12.01

Sulfate	M300.0 - Ion Chromatography												
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG346168													
WG346168ICV	ICV	06/24/13 18:44	WI130624-1	50		50.2	mg/L	100.4	90	110			
WG346168ICB	ICB	06/24/13 19:01				U	mg/L		-1.5	1.5			
WG348254													
WG348254LFB1	LFB	07/25/13 18:40	WI130501-1	30		32.9	mg/L	109.7	90	110			
WG348254LFB2	LFB	07/26/13 3:08	WI130501-1	30		31.4	mg/L	104.7	90	110			
L13390-02DUP	DUP	07/26/13 3:43			91.6	90.8	mg/L				0.9	20	
L13390-03AS	AS	07/26/13 4:53	WI130501-1	30	43.7	78.5	mg/L	116	90	110			M1
L13385-01AS	AS	07/26/13 14:39	WI130501-1	300	319	638	mg/L	106.3	90	110			
L13385-03DUP	DUP	07/26/13 15:14			220	223	mg/L				1.4	20	



(800) 334-5493

FMI Gold & Copper - Sierrita

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L13390-02	WG348254	Sulfate	M300.0 - Ion Chromatography	M1	Matrix spike recovery was high, the recovery of the associated control sample (LCS or LFB) was acceptable.
L13390-03	WG348254	Sulfate	M300.0 - Ion Chromatography	M1	Matrix spike recovery was high, the recovery of the associated control sample (LCS or LFB) was acceptable.



FMI Gold & Copper - Sierrita

ACZ Project ID: L13390

No certification qualifiers associated with this analysis

ACZ	Laboratories, Inc.
	Other when the Constrainty OC 00407 (000) 004 540

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Sample Receipt

FMI Gold & Copper - Sierrita	ACZ Proje	ect ID:		L13390
ZS000003Q8	Date Rece	eived:	07/19/20	13 10:2
	Receive	•		mt
	Date Pr	inted:	7/	/19/2013
Receipt Verification		VEO	NO	NIA
1) Is a foreign soil permit included for applicable samples?		YES	NO	NA X
2) Is the Chain of Custody or other directive shipping papers present?		X		
3) Does this project require special handling procedures such as CLP protocol?				Х
4) Are any samples NRC licensable material?				Х
5) If samples are received past hold time, proceed with requested short hold time	analyses?	Х		
6) Is the Chain of Custody complete and accurate?		Х		
7) Were any changes made to the Chain of Custody prior to ACZ receiving the sa	mples?		Х	
Samples/Containers				
		YES	NO	NA
8) Are all containers intact and with no leaks?		X		
9) Are all labels on containers and are they intact and legible?		X		
10) Do the sample labels and Chain of Custody match for Sample ID, Date, and T	ïme?	Х		
11) For preserved bottle types, was the pH checked and within limits?				Х
12) Is there sufficient sample volume to perform all requested work?		Х		
13) Is the custody seal intact on all containers?				Х
14) Are samples that require zero headspace acceptable?				Х
15) Are all sample containers appropriate for analytical requirements?		Х		
16) Is there an Hg-1631 trip blank present?				Х
17) Is there a VOA trip blank present?				Х
18) Were all samples received within hold time?		Х		
Chain of Custody Related Remarks				
Client Contact Remarks				

Client Contact Remarks

Shipping Containers

Cooler	Id
3679	

Rad (µR/Hr) -----12 Custody Seal Intact? -----Yes

Was ice present in the shipment container(s)?

Yes - Wet ice was present in the shipment container(s).

Temp (°C)

3.7

Client must contact an ACZ Project Manager if analysis should not proceed for samples received outside of their thermal preservation acceptance criteria.

	eamboat Springs, CO 80487 (800)	334-5493			\subseteq	/ 					
Report to:			A status	ess: 620		Duual	Mino I	Dood			
Name: Jon Andersor		_	Addre								
-mail: jonathan_and	McMoRan Sierrita Inc.		<u> </u>				Z 856	14			
			Telep	hone: ź	520-35	93-271	4				
Copy of Report to:						_			_		
lame: Ben Daignea	u		E-ma	il: bdaig	gneau(a)clear	creeka	ssociat	es.com		
Company: Clear Cre	ek Associates		Telep	hone: 5	520-62	22-322	2				
nvoice to:											
lame:			Addre	ess:							
Company:											
-mail:			Telep	hone:							
sample(s) received p	east holding time (HT), or if insuffi	cient HT rer	mains t	o compl	ete				YES		
•	tion, shall ACZ proceed with requ			•	.				NO		
	contact client for further instructio proceed with the requested analys					ta will h	e quali	fied			
	W Compliance Monitoring?						quan		YES		
	state forms. Results will be report	ted to PQL.							NO	×	
PROJECT INFORMA	TION			ANALY	SES R	EQUES	STED (a	ttach li	st or us	e quote	number)
Quote #:				375							
Project/PO #: ZS000	0003Q8		of Containers	EPA							
Reporting state for co	ompliance testing:		ntair	300 or							
Sampler's Name: Jef	f Joy		Col	EPA 3							
Are any samples NR	C licensable material? Yes No		# of	þ							
SAMPLE IDENTIFI	CATION DATE: TIME	Matrix		S04							
CW-10	7/17/13:0848	GW	1	×							
CW-6	7/17/13:0938	GW	1	×							
CW-9	7/17/13 : 1031	GW	1	×							
								1			
									1		
Matrix SW (Surface	Water) · GW (Ground Water) · WW (Was	ste Water) · D	W (Drink	ing Water) · SL (S	Sludge) ·	SO (Soil)) · OL (O	il) · Other	(Specify)	
REMARKS											
MO Wells											
MO wens											
UPS Tracking # 1Z	867 7E4 23 1001 108 5										
		_									
	Please refer to ACZ's term		ons loc					this CO	DC.	0.4	
RELINQUI	SHED BY: DATE	E:TIME		F	RECEN	VED B	Y:			DATE	E:TIME
Jeff Joy 🥖									4.1		

FRMAD050.01.15.09



September 18, 2013

Report to: Jon Anderson FMI Gold & Copper - Sierrita 6200 West Duval Mine Rd. Green Valley, AZ 85614

cc: Ben Daigneau

Bill to: Accounts Payable FMI Gold & Copper - Sierrita P.O. Box 2671 Phoenix, AZ 85002-2671

Project ID: ZS000003Q8 ACZ Project ID: L14121

Jon Anderson:

Enclosed are the analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on August 28, 2013. This project has been assigned to ACZ's project number, L14121. Please reference this number in all future inquiries.

All analyses were performed according to ACZ's Quality Assurance Plan. The enclosed results relate only to the samples received under L14121. Each section of this report has been reviewed and approved by the appropriate Laboratory Supervisor, or a qualified substitute.

Except as noted, the test results for the methods and parameters listed on ACZ's current NELAC certificate letter (#ACZ) meet all requirements of NELAC.

This report shall be used or copied only in its entirety. ACZ is not responsible for the consequences arising from the use of a partial report.

All samples and sub-samples associated with this project will be disposed of after October 18, 2013. If the samples are determined to be hazardous, additional charges apply for disposal (typically \$11/sample). If you would like the samples to be held longer than ACZ's stated policy or to be returned, please contact your Project Manager or Customer Service Representative for further details and associated costs. ACZ retains analytical raw data reports for ten years.

If you have any questions or other needs, please contact your Project Manager.

re gripell

Sue Webber has reviewed and approved this report.





	Laboratorie ve Steamboat Springs, CO		4-5493			Ino		ic Anal esults	ytical
FMI Gold & Co	opper - Sierrita				ACZ	Sample ID): L14	121-01	
Project ID:	ZS000003Q8				Date	e Sampleo	l: 08/2	27/13 08:4	17
Sample ID:	NP-2				Date	Received	l: 08/2	28/13	
					San	ple Matrix	: Gro	ound Wate	r
Wet Chemistry									
Parameter	EPA Method	Dilution	Result	Qual XQ	Units	MDL	PQL	Date	Analyst

mg/L

0.5

2.5

09/13/13 1:00

tcd

64.3

1

Arizona license number: AZ0102

Sulfate

M300.0 - Ion Chromatography

	Laboratories, re Steamboat Springs, CO 804		34-5493				In		nic Analy Results	tical
FMI Gold & Co	opper - Sierrita					ACZ	Sample	ID: <i>L</i> :	14121-02	
Project ID:	ZS000003Q8					Dat	e Sampl	ed: 08	3/27/13 10:48	
Sample ID:	MO-2007-3B					Date	e Receiv	ed: 08	3/28/13	
						San	nple Mat	rix: G	round Water	
Wet Chemistry										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Sulfate	M300.0 - Ion Chromatography	1	3.47			mg/L	0.5	2.5	09/13/13 1:54	tcd

Arizona license number: AZ0102

	Laboratories		34-5493				In		nic Analy Results	tical
FMI Gold & Co	opper - Sierrita					ACZ	Sample	ID: <i>L</i>	14121-03	
Project ID:	ZS000003Q8					Dat	e Sampl	ed: 0	8/27/13 11:59	
Sample ID:	MO-2007-3C					Date	e Receiv	ed: 0	8/28/13	
						Sar	nple Mat	rix: G	Fround Water	
Wet Chemistry										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analys
Sulfate	M300.0 - Ion Chromatogra	aphy 1	47.0			mg/L	0.5	2.5	09/13/13 2:12	to

Arizona license number: AZ0102

/st

tcd

	Laboratories, re Steamboat Springs, CO 804		34-5493				In		nic Analy Results	tical
FMI Gold & Co Project ID: Sample ID:	opper - Sierrita ZS000003Q8 DUP20130827A					Dat Date	e Sample e Receive	ed: 08 ed: 08	14121-04 8/27/13 00:00 8/28/13 cround Water	
Wet Chemistry Parameter Sulfate	EPA Method M300.0 - Ion Chromatography	Dilution	Result 4.13	Qual	XQ	Units mg/L	MDL 0.5	PQL 2.5	Date 09/13/13 2:30	Analyst tcd

Arizona license number: AZ0102



Inorganic Reference

Batch	Explanations		
Fourd	A distinct set of samples analyzed at a specific time		
Found	Value of the QC Type of interest		
Limit	Upper limit for RPD, in %.		
Lower	Lower Recovery Limit, in % (except for LCSS, mg/Kg)	A II	and an all successful to the stand stand
MDL	Method Detection Limit. Same as Minimum Reporting Limit.		
PCN/SCN	A number assigned to reagents/standards to trace to the man	iutacturer's certific	ate of analysis
PQL	Practical Quantitation Limit, typically 5 times the MDL.	0.1	
QC	True Value of the Control Sample or the amount added to the	•	
Rec	Recovered amount of the true value or spike added, in % (exc		/Kg)
RPD	Relative Percent Difference, calculation used for Duplicate QC	Types	
Upper Sample	Upper Recovery Limit, in % (except for LCSS, mg/Kg) Value of the Sample of interest		
	· ·		
C Sample Typ		1.0014/0	Laboratory Control Compley Water Durlingt
AS	Analytical Spike (Post Digestion)	LCSWD	Laboratory Control Sample - Water Duplicate
ASD	Analytical Spike (Post Digestion) Duplicate	LFB	Laboratory Fortified Blank
CCB	Continuing Calibration Blank	LFM	Laboratory Fortified Matrix
CCV	Continuing Calibration Verification standard	LFMD	Laboratory Fortified Matrix Duplicate
DUP	Sample Duplicate	LRB	Laboratory Reagent Blank
ICB	Initial Calibration Blank	MS	Matrix Spike
ICV	Initial Calibration Verification standard	MSD	Matrix Spike Duplicate
ICSAB	Inter-element Correction Standard - A plus B solutions	PBS	Prep Blank - Soil
LCSS	Laboratory Control Sample - Soil	PBW	Prep Blank - Water
LCSSD LCSW	Laboratory Control Sample - Soil Duplicate Laboratory Control Sample - Water	PQV SDL	Practical Quantitation Verification standard Serial Dilution
Duplicates Spikes/Forti	ified Matrix Determines sample matrix interferen		
Standard	Verifies the validity of the calibration.		
Z Qualifiers	(Qual)		
В	Analyte concentration detected at a value between MDL and F		
	,	PQL. The associat	ed value is an estimated quantity.
н	Analysis exceeded method hold time. pH is a field test with an		
H L	-	n immediate hold t	
	Analysis exceeded method hold time. pH is a field test with an	n immediate hold t gative threshold.	ime.
L	Analysis exceeded method hold time. pH is a field test with an Target analyte response was below the laboratory defined neg	n immediate hold t gative threshold. e level of the asso	ime. iciated value.
L	Analysis exceeded method hold time. pH is a field test with ar Target analyte response was below the laboratory defined neg The material was analyzed for, but was not detected above th The associated value is either the sample quantitation limit or	n immediate hold t gative threshold. e level of the asso	ime. iciated value.
L U	Analysis exceeded method hold time. pH is a field test with ar Target analyte response was below the laboratory defined neg The material was analyzed for, but was not detected above th The associated value is either the sample quantitation limit or	n immediate hold t gative threshold. e level of the asso the sample detect	ime. iciated value. ion limit.
L U ethod Referei	Analysis exceeded method hold time. pH is a field test with an Target analyte response was below the laboratory defined neg The material was analyzed for, but was not detected above th The associated value is either the sample quantitation limit or nces	n immediate hold t gative threshold. e level of the asso the sample detect and Wastes, Marc	ime. iciated value. ion limit. h 1983.
L U ethod Referen	Analysis exceeded method hold time. pH is a field test with ar Target analyte response was below the laboratory defined neg The material was analyzed for, but was not detected above th The associated value is either the sample quantitation limit or nces EPA 600/4-83-020. Methods for Chemical Analysis of Water a	n immediate hold t gative threshold. e level of the asso the sample detect and Wastes, Marc nic Substances in l	ime. iciated value. ion limit. h 1983. Environmental Samples, August 1993.
L U ethod Referen (1) (2)	Analysis exceeded method hold time. pH is a field test with ar Target analyte response was below the laboratory defined neg The material was analyzed for, but was not detected above th The associated value is either the sample quantitation limit or nces EPA 600/4-83-020. Methods for Chemical Analysis of Water a EPA 600/R-93-100. Methods for the Determination of Inorgan	n immediate hold t gative threshold. e level of the asso the sample detect and Wastes, Marc nic Substances in l	ime. iciated value. ion limit. h 1983. Environmental Samples, August 1993.
L U ethod Referen (1) (2) (3)	Analysis exceeded method hold time. pH is a field test with an Target analyte response was below the laboratory defined neg The material was analyzed for, but was not detected above th The associated value is either the sample quantitation limit or nces EPA 600/4-83-020. Methods for Chemical Analysis of Water a EPA 600/R-93-100. Methods for the Determination of Inorgan EPA 600/R-94-111. Methods for the Determination of Metals	n immediate hold t gative threshold. e level of the asso the sample detect and Wastes, Marc nic Substances in l in Environmental S	ime. iciated value. ion limit. h 1983. Environmental Samples, August 1993.
L U ethod Referen (1) (2) (3) (4)	Analysis exceeded method hold time. pH is a field test with an Target analyte response was below the laboratory defined neg The material was analyzed for, but was not detected above th The associated value is either the sample quantitation limit or nces EPA 600/4-83-020. Methods for Chemical Analysis of Water a EPA 600/R-93-100. Methods for the Determination of Inorgan EPA 600/R-94-111. Methods for the Determination of Metals EPA SW-846. Test Methods for Evaluating Solid Waste.	n immediate hold t gative threshold. e level of the asso the sample detect and Wastes, Marc nic Substances in l in Environmental S	ime. iciated value. ion limit. h 1983. Environmental Samples, August 1993.
L U ethod Referen (1) (2) (3) (4) (5)	Analysis exceeded method hold time. pH is a field test with an Target analyte response was below the laboratory defined neg The material was analyzed for, but was not detected above th The associated value is either the sample quantitation limit or nces EPA 600/4-83-020. Methods for Chemical Analysis of Water a EPA 600/R-93-100. Methods for the Determination of Inorgan EPA 600/R-94-111. Methods for the Determination of Metals EPA SW-846. Test Methods for Evaluating Solid Waste.	n immediate hold t gative threshold. e level of the asso the sample detect and Wastes, Marc nic Substances in I in Environmental s ater.	ime. iciated value. ion limit. h 1983. Environmental Samples, August 1993. Samples - Supplement I, May 1994.
L U ethod Referen (1) (2) (3) (4) (5) emments	Analysis exceeded method hold time. pH is a field test with an Target analyte response was below the laboratory defined neg The material was analyzed for, but was not detected above th The associated value is either the sample quantitation limit or nces EPA 600/4-83-020. Methods for Chemical Analysis of Water a EPA 600/R-93-100. Methods for the Determination of Inorgar EPA 600/R-94-111. Methods for the Determination of Metals EPA SW-846. Test Methods for Evaluating Solid Waste. Standard Methods for the Examination of Water and Wastewar	n immediate hold t gative threshold. e level of the asso the sample detect and Wastes, Marc nic Substances in l in Environmental s ater. y if the rounded va	ime. iciated value. ion limit. h 1983. Environmental Samples, August 1993. Samples - Supplement I, May 1994.
L U (1) (2) (3) (4) (5) mments (1)	Analysis exceeded method hold time. pH is a field test with an Target analyte response was below the laboratory defined neg The material was analyzed for, but was not detected above th The associated value is either the sample quantitation limit or nces EPA 600/4-83-020. Methods for Chemical Analysis of Water a EPA 600/R-93-100. Methods for the Determination of Inorgan EPA 600/R-94-111. Methods for the Determination of Metals EPA SW-846. Test Methods for Evaluating Solid Waste. Standard Methods for the Examination of Water and Wasteward QC results calculated from raw data. Results may vary slight	n immediate hold t gative threshold. e level of the asso the sample detect and Wastes, Marc nic Substances in l in Environmental s ater. y if the rounded va ported on a dry we	ime. iciated value. ion limit. h 1983. Environmental Samples, August 1993. Samples - Supplement I, May 1994.
L U ethod Referen (1) (2) (3) (4) (5) 0 mments (1) (2)	Analysis exceeded method hold time. pH is a field test with an Target analyte response was below the laboratory defined neg The material was analyzed for, but was not detected above th The associated value is either the sample quantitation limit or nces EPA 600/4-83-020. Methods for Chemical Analysis of Water a EPA 600/R-93-100. Methods for the Determination of Inorgan EPA 600/R-94-111. Methods for the Determination of Metals EPA SW-846. Test Methods for Evaluating Solid Waste. Standard Methods for the Examination of Water and Wastewar QC results calculated from raw data. Results may vary slight Soil, Sludge, and Plant matrices for Inorganic analyses are results	n immediate hold t gative threshold. e level of the asso the sample detect and Wastes, Marc nic Substances in 1 in Environmental s ater. y if the rounded va ported on a dry we s received" basis.	ime. ciated value. ion limit. h 1983. Environmental Samples, August 1993. Samples - Supplement I, May 1994. slues are used in the calculations. sight basis.
L U ethod Referen (1) (2) (3) (4) (5) 0 mments (1) (2) (3)	Analysis exceeded method hold time. pH is a field test with an Target analyte response was below the laboratory defined neg The material was analyzed for, but was not detected above th The associated value is either the sample quantitation limit or nces EPA 600/4-83-020. Methods for Chemical Analysis of Water a EPA 600/R-93-100. Methods for the Determination of Inorgan EPA 600/R-94-111. Methods for the Determination of Metals EPA SW-846. Test Methods for Evaluating Solid Waste. Standard Methods for the Examination of Water and Wastewar QC results calculated from raw data. Results may vary slight Soil, Sludge, and Plant matrices for Inorganic analyses are rep Animal matrices for Inorganic analyses are reported on an "as	n immediate hold t gative threshold. e level of the asso the sample detect and Wastes, Marc nic Substances in 1 in Environmental s ater. y if the rounded va ported on a dry we s received" basis.	ime. ciated value. ion limit. h 1983. Environmental Samples, August 1993. Samples - Supplement I, May 1994. slues are used in the calculations. sight basis.
L U ethod Referen (1) (2) (3) (4) (5) 0 mments (1) (2) (3)	Analysis exceeded method hold time. pH is a field test with an Target analyte response was below the laboratory defined neg The material was analyzed for, but was not detected above th The associated value is either the sample quantitation limit or nces EPA 600/4-83-020. Methods for Chemical Analysis of Water a EPA 600/R-93-100. Methods for the Determination of Inorgan EPA 600/R-94-111. Methods for the Determination of Metals EPA SW-846. Test Methods for Evaluating Solid Waste. Standard Methods for the Examination of Water and Wastewar QC results calculated from raw data. Results may vary slight Soil, Sludge, and Plant matrices for Inorganic analyses are rep Animal matrices for Inorganic analyses are reported on an "as An asterisk in the "XQ" column indicates there is an extended	n immediate hold t gative threshold. e level of the asso the sample detect and Wastes, March nic Substances in 1 in Environmental s ater. y if the rounded va ported on a dry we s received" basis. qualifier and/or ce	ime. ciated value. ion limit. h 1983. Environmental Samples, August 1993. Samples - Supplement I, May 1994. slues are used in the calculations. sight basis.

REP001.09.12.01

FMI Gold & Copper - Sierrita

ACZ Project ID: L14121

Sulfate	M300.0 - Ion Chromatography												
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG350873													
WG350873ICV	ICV	09/09/13 21:16	WI130823-1	50		51.7	mg/L	103.4	90	110			
WG350873ICB	ICB	09/09/13 21:34				U	mg/L		-1.5	1.5			
WG350998													
WG350998LFB1	LFB	09/12/13 19:02	WI130501-1	30		30.8	mg/L	102.7	90	110			
L14107-01DUP	DUP	09/12/13 23:48			53.8	53.8	mg/L				0	20	
WG350998LFB2	LFB	09/13/13 3:41	WI130501-1	30		29.6	mg/L	98.7	90	110			
L14114-01AS	AS	09/13/13 11:58	WI130501-1	1500	1770	3340	mg/L	104.7	90	110			



Inorganic Extended Qualifier Report

ACZ Project ID: L14121

FMI Gold & Copper - Sierrita

ACZ ID	WORKNUM PARAMETER	METHOD	QUAL DESCRIPTION	

No extended qualifiers associated with this analysis



FMI Gold & Copper - Sierrita

ACZ Project ID: L14121

No certification qualifiers associated with this analysis

AGE Laboratories, Inc. 2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Sample Receipt

FMI Gold & Copper - Sierrita	ACZ Proje			L14121
ZS00003Q8	Date Rec		08/28/201	
	Receive	-	.	mtb
Receipt Verification	Date Pr	inted:	8/	28/2013
		YES	NO	NA
1) Is a foreign soil permit included for applicable samples?				X
2) Is the Chain of Custody or other directive shipping papers present?		Х		
3) Does this project require special handling procedures such as CLP protocol?				Х
4) Are any samples NRC licensable material?				Х
5) If samples are received past hold time, proceed with requested short hold time	analyses?	Х		
6) Is the Chain of Custody complete and accurate?		Х		
7) Were any changes made to the Chain of Custody prior to ACZ receiving the sa	amples?		Х	
amples/Containers				
		YES	NO	NA
8) Are all containers intact and with no leaks?8) Are all labels are containers and one threaters and labels 2.		X		
9) Are all labels on containers and are they intact and legible?	F : 0	X		
10) Do the sample labels and Chain of Custody match for Sample ID, Date, and	lime?	X		
11) For preserved bottle types, was the pH checked and within limits?				Х
12) Is there sufficient sample volume to perform all requested work?		Х		
13) Is the custody seal intact on all containers?				Х
14) Are samples that require zero headspace acceptable?				Х
15) Are all sample containers appropriate for analytical requirements?		Х		
16) Is there an Hg-1631 trip blank present?				Х
17) Is there a VOA trip blank present?				Х
18) Were all samples received within hold time?		Х		
Chain of Custody Related Remarks				
Client Contact Remarks				

Shipping Containers

Cooler	Id
3310	

Rad ($\mu R/Hr$) _____ 15

Custody Seal Intact? -----Yes

Was ice present in the shipment container(s)?

Yes - Wet ice was present in the shipment container(s).

Temp (°C)

0.9

Client must contact an ACZ Project Manager if analysis should not proceed for samples received outside of their thermal preservation acceptance criteria.

Name: Jon Anderson										
			Address: 6200 W. Duval Mine Road							
Company: Freeport-McN	IoRan Sierrita Inc.			Gree	n Valley,	AZ 856	14	-		
E-mail: jonathan_anderso	n@fmi.com		Telep	hone: 52	0-393-27	14				
Copy of Report to:			,							
Name: Ben Daigneau			E-ma	il: bdaign	eau@clea	ırcreeka	ssociat	es.com	1	
Company: Clear Creek A	ssociates		Telep	hone: 52	0-240-30	57				
Invoice to:										
Name:		1	Addre	ess:						
Company:										
E-mail:			Telep	hone:						
	holding time (HT), or if insuffi			•	e			YES		
	shall ACZ proceed with requences act client for further instruction				,			NO	Ц—	I
	eed with the requested analys					be quali	fied.			
Are samples for CO DW Co	mpliance Monitoring?							YES		
	forms. Results will be report	ted to PQL.						NO	×	
PROJECT INFORMATIO	Ν		Ţ		ES REQUE	ESTED (á	attach li	st or us	e quote	numt
Quote #:			s	EPA 375						
Project/PO #: ZS000003	Q8		iner	x EP,		1				Į
Reporting state for compl		Containers	EPA 300 or						[
Sampler's Name: Jeff Joy	1			EPA						
	ensable material? Yes No		# of	Â						
SAMPLE IDENTIFICAT		Matri	ĸ	SO4			 	ļ	↓	
NP-2	8/27/13:0847	GW	1	×			<u> </u>			
MO-2007-3B	8/27/13:1048	GW	1	×		_				
MO-2007-3C	8/27/13:1159	GW	1	×				ļ	ļ	
DUP20130827A	8/27/13:0000	GW	1	×						
								ļ		



August 13, 2013

Report to: Jon Anderson FMI Gold & Copper - Sierrita 6200 West Duval Mine Rd. Green Valley, AZ 85614

cc: Ben Daigneau

Bill to: Accounts Payable FMI Gold & Copper - Sierrita P.O. Box 2671 Phoenix, AZ 85002-2671

Project ID: ZS000003Q8 ACZ Project ID: L13569

Jon Anderson:

Enclosed are the analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on July 31, 2013. This project has been assigned to ACZ's project number, L13569. Please reference this number in all future inquiries.

All analyses were performed according to ACZ's Quality Assurance Plan. The enclosed results relate only to the samples received under L13569. Each section of this report has been reviewed and approved by the appropriate Laboratory Supervisor, or a qualified substitute.

Except as noted, the test results for the methods and parameters listed on ACZ's current NELAC certificate letter (#ACZ) meet all requirements of NELAC.

This report shall be used or copied only in its entirety. ACZ is not responsible for the consequences arising from the use of a partial report.

All samples and sub-samples associated with this project will be disposed of after September 12, 2013. If the samples are determined to be hazardous, additional charges apply for disposal (typically \$11/sample). If you would like the samples to be held longer than ACZ's stated policy or to be returned, please contact your Project Manager or Customer Service Representative for further details and associated costs. ACZ retains analytical raw data reports for ten years.

If you have any questions or other needs, please contact your Project Manager.

S. Habermehl

Scott Habermehl has reviewed and approved this report.





	Laboratorie ve Steamboat Springs, CO		4-5493			In	orga	anic Analy Results	rtical
FMI Gold & Co	opper - Sierrita				ACZ	Sample	ID:	L13569-01	
Project ID:	ZS000003Q8				Dat	e Sample	ed:	07/10/13 09:30)
Sample ID:	MO-2007-4B				Dat	e Receive	ed:	07/31/13	
					Sar	nple Mat	rix:	Ground Water	
Wet Chemistry									
Parameter	EPA Method	Dilution	Result	Qual XQ	Units	MDL	PQL	_ Date	Analyst

4.53

mg/L

0.5

2.5

08/06/13 18:39

Arizona license number: AZ0102

M300.0 - Ion Chromatography

1

Sulfate

yst

jlf

ACZ 2773 Downhill Driv	Laboratories, re Steamboat Springs, CO 804	Inc. 87 (800) 33	84-5493				In	orga	anic Analy Results	tical
FMI Gold & Co	opper - Sierrita					ACZ	Sample	ID:	L13569-02	
Project ID:	ZS000003Q8					Dat	e Sample	ed: (07/10/13 09:52	
Sample ID:	MO-2007-4C					Date	e Receiv	ed: (07/31/13	
						San	nple Mat	rix: (Ground Water	
Wet Chemistry										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	. Date	Analyst
Sulfate	M300.0 - Ion Chromatography	1	65.6			mg/L	0.5	2.5	08/06/13 18:57	′ jlf

Arizona license number: AZ0102

	Laboratories, ve Steamboat Springs, CO 804		34-5493				In		nic Analy Results	rtical
FMI Gold & Co	opper - Sierrita					ACZ	Sample	ID: <i>L</i>	13569-03	
Project ID:	ZS000003Q8					Dat	e Sample	ed: 0	7/10/13 11:23	}
Sample ID:	MO-2007-6A					Date	e Receiv	ed: 0	7/31/13	
						San	nple Mat	rix: G	Fround Water	
Wet Chemistry										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Sulfate	M300.0 - Ion Chromatography	1	19.1			mg/L	0.5	2.5	08/06/13 19:1	4 jlf

Arizona license number: AZ0102



Inorganic Reference

FoundValue ofLimitUpper linLowerLower RMDLMethodPCN/SCNA numberPQLPracticalQCTrue ValRecRecoverRPDRelativeUpperUpper R	t set of samples analyzed at a specific time the QC Type of interest nit for RPD, in %. ecovery Limit, in % (except for LCSS, mg/Kg) Detection Limit. Same as Minimum Reporting Limit er assigned to reagents/standards to trace to the ma I Quantitation Limit, typically 5 times the MDL. ue of the Control Sample or the amount added to the ed amount of the true value or spike added, in % (education of the true value or spike added, in % (education of the true value or spike added, in % (education of the true value or spike added, in % (education of the true value or spike added, in % (education of the true value or spike added, in % (education of the true value or spike added, in % (education of the true value or spike added, in % (education of the true value or spike added, in % (education of the true value or spike added) in % (education		
LimitUpper limitLowerLower RMDLMethodPCN/SCNA numberPQLPracticalQCTrue ValRecRecoverRPDRelativeUpperUpper R	nit for RPD, in %. ecovery Limit, in % (except for LCSS, mg/Kg) Detection Limit. Same as Minimum Reporting Limit er assigned to reagents/standards to trace to the ma I Quantitation Limit, typically 5 times the MDL. ue of the Control Sample or the amount added to the		
LowerLower RMDLMethodPCN/SCNA numberPQLPracticalQCTrue ValRecRecoverRPDRelativeUpperUpper R	ecovery Limit, in % (except for LCSS, mg/Kg) Detection Limit. Same as Minimum Reporting Limit er assigned to reagents/standards to trace to the m I Quantitation Limit, typically 5 times the MDL. ue of the Control Sample or the amount added to th		
MDLMethodPCN/SCNA numberPQLPracticalQCTrue ValRecRecoverRPDRelativeUpperUpper R	Detection Limit. Same as Minimum Reporting Limit er assigned to reagents/standards to trace to the mil I Quantitation Limit, typically 5 times the MDL. ue of the Control Sample or the amount added to th		
PCN/SCNA numberPQLPracticalQCTrue ValRecRecoverRPDRelativeUpperUpper R	er assigned to reagents/standards to trace to the ma Quantitation Limit, typically 5 times the MDL. ue of the Control Sample or the amount added to the		
PQLPracticalQCTrue ValRecRecoverRPDRelativeUpperUpper R	Quantitation Limit, typically 5 times the MDL. ue of the Control Sample or the amount added to the	anutacturer's certifica	ate of analysis
QCTrue ValRecRecoverRPDRelativeUpperUpper R	ue of the Control Sample or the amount added to the		
RecRecoverRPDRelativeUpperUpper R	•		
RPD Relative Upper Upper R	ed amount of the true value or spike added in % (e	•	
Upper Upper R			'Kg)
	Percent Difference, calculation used for Duplicate (QC Types	
Sample Value or	ecovery Limit, in % (except for LCSS, mg/Kg) the Sample of interest		
-			
Sample Types	Northe (Deet Direction)	LCSW/D	Laboratory Control Complex Water Durlingt
-	al Spike (Post Digestion)	LCSWD	Laboratory Control Sample - Water Duplicate
-	al Spike (Post Digestion) Duplicate	LFB	Laboratory Fortified Blank
	ng Calibration Blank	LFM	Laboratory Fortified Matrix
	ng Calibration Verification standard	LFMD	Laboratory Fortified Matrix Duplicate
	Duplicate	LRB	Laboratory Reagent Blank
	libration Blank	MS	Matrix Spike
	libration Verification standard	MSD	Matrix Spike Duplicate
	ment Correction Standard - A plus B solutions	PBS	Prep Blank - Soil
	bry Control Sample - Soil	PBW	Prep Blank - Water
	ory Control Sample - Soil Duplicate ory Control Sample - Water	PQV SDL	Practical Quantitation Verification standard Serial Dilution
Duplicates Spikes/Fortified Matrix	Verifies the precision of the instrur Determines sample matrix interference		
Standard	Verifies the validity of the calibration	on.	
Z Qualifiers (Qual)			
B Analyte	concentration detected at a value between MDL an	d PQL. The associat	ed value is an estimated quantity.
H Analysis	exceeded method hold time. $ {\rm pH}$ is a field test with	an immediate hold ti	ime.
L Target a	nalyte response was below the laboratory defined r	negative threshold.	
U The mat	erial was analyzed for, but was not detected above	the level of the asso	ciated value.
The ass	ociated value is either the sample quantitation limit of	or the sample detecti	ion limit.
thod References			
(1) EPA 600	0/4-83-020. Methods for Chemical Analysis of Wate	er and Wastes, Marc	h 1983.
(2) EPA 600	0/R-93-100. Methods for the Determination of Inorg	janic Substances in F	Environmental Samples, August 1993.
(3) EPA 600	0/R-94-111. Methods for the Determination of Meta	als in Environmental S	Samples - Supplement I, May 1994.
(4) EPA SW	/-846. Test Methods for Evaluating Solid Waste.		
(5) Standard	d Methods for the Examination of Water and Waste	water.	
omments			
(1) QC resu	Its calculated from raw data. Results may vary slig	htly if the rounded va	lues are used in the calculations.
(0) 0 1 0	dge, and Plant matrices for Inorganic analyses are	reported on a dry we	ight basis.
(2) Soil, Slu	natrices for Inorganic analyses are reported on an "	'as received" basis.	
			rtification qualifier
(3) Animal r	isk in the "XQ" column indicates there is an extended	ed qualifier and/or ce	
(3)Animal r(4)An aster	isk in the "XQ" column indicates there is an extended ed with the result.	ed qualifier and/or ce	nuncauon quanner
(3) Animal r(4) An asterassociat		-	

REP001.09.12.01

FMI Gold & Copper - Sierrita

ACZ Project ID: L13569

Sulfate			M300.0 - Io	on Chron	natography	1							
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG346168													
WG346168ICV	ICV	06/24/13 18:44	WI130624-1	50		50.2	mg/L	100.4	90	110			
WG346168ICB	ICB	06/24/13 19:01				U	mg/L		-1.5	1.5			
WG348949													
WG348949LFB1	LFB	08/06/13 16:54	WI130501-1	30		32	mg/L	106.7	90	110			
L13558-01DUP	DUP	08/06/13 17:29			1280	1320	mg/L				3.1	20	
L13558-02AS	AS	08/06/13 18:04	WI130501-1	600	1000	1560	mg/L	93.3	90	110			
WG348949LFB2	LFB	08/07/13 1:22	WI130501-1	30		32.4	mg/L	108	90	110			



(800) 334-5493

ACZ Project ID: L13569

FMI Gold & Copper - Sierrita

ACZ ID	WORKNUM PARAMETER	METHOD	QUAL DESCRIPTION	

No extended qualifiers associated with this analysis



FMI Gold & Copper - Sierrita

ACZ Project ID: L13569

No certification qualifiers associated with this analysis

AGE Laboratories, Inc. 2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Sample Receipt

FMI Gold & Copper - Sierrita	ACZ Proje	ect ID:		L13569
ZS000003Q8	Date Rece	eived: 0	7/31/201	3 07:43
	Receive	•		mtb
	Date Pr	inted:	7/3	31/2013
Receipt Verification		YES	NO	NIA
1) Is a foreign soil permit included for applicable samples?		TEO	NO	NA X
2) Is the Chain of Custody or other directive shipping papers present?		X		
3) Does this project require special handling procedures such as CLP protocol?				Х
4) Are any samples NRC licensable material?				Х
5) If samples are received past hold time, proceed with requested short hold time an	alyses?	Х		
6) Is the Chain of Custody complete and accurate?		Х		
7) Were any changes made to the Chain of Custody prior to ACZ receiving the same	les?		Х	
Samples/Containers				
		YES	NO	NA
8) Are all containers intact and with no leaks?		Х		
9) Are all labels on containers and are they intact and legible?		Х		
10) Do the sample labels and Chain of Custody match for Sample ID, Date, and Time	e?	Х		
11) For preserved bottle types, was the pH checked and within limits?				Х
12) Is there sufficient sample volume to perform all requested work?		Х		
13) Is the custody seal intact on all containers?				Х
14) Are samples that require zero headspace acceptable?				Х
15) Are all sample containers appropriate for analytical requirements?		Х		
16) Is there an Hg-1631 trip blank present?				Х
17) Is there a VOA trip blank present?				Х
18) Were all samples received within hold time?		Х		
Chain of Custody Related Remarks				
Relog of L13273.				
Client Contact Remarks				

Shipping Containers

Cooler Id _____ UNKNOWN

Temp (°C) _____

Rad $(\mu R/Hr)$ _____

Custody Seal Intact? _____

Was ice present in the shipment container(s)?

Yes - Wet ice was present in the shipment container(s).

Client must contact an ACZ Project Manager if analysis should not proceed for samples received outside of their thermal preservation acceptance criteria.

L13569"Relog"

Report to:												
Name: Jon Anderson			Addre) W. Duva				_			
Company: Freeport-Mcl			Green Valley, AZ 85614 Telephone: 520-393-2714									
E-mail: jonathan_anderso	5n@ffm.com		Telep	hone: 5.	20-393-27	14						
Copy of Report to:												
Name: Ben Daigneau					neau@clea		ssociates	.com				
Company: Clear Creek A	Associates		Telep	hone: 52	20-622-32	22						
Invoice to:												
Name:			Addre	ess:								
Company:]										
E-mail:			Telep	hone:								
	holding time (HT), or if insuffi				te			YES	4			
	, shall ACZ proceed with requ act client for further instruction)"							
	eed with the requested analys					be quali	fied.					
Are samples for CO DW C								YES				
If yes, please include state	ted to PQL.					attach list	NO 🔀					
PROJECT INFORMATIO							or use quot					
Quote #:			s	or EPA 375								
Project/PO #: ZS00000			Containers	م ۳								
Reporting state for comp			onti	EPA 300								
Sampler's Name: Jeff Jo			of C	by EP/								
SAMPLE IDENTIFICA	censable material? Yes No TION DATE:TIME	Matrix	*	SO4 b								
MO-2007-4B	7/10/13 : 0930	GW	1	×		_			+			
MO-2007-4C	7/10/13 : 0952	GW	1	×		-			1			
MO-2007-4A	7/10/13 : 1012	GW	1	×								
MO-2007-6A	7/10/13 : 1123	GW	1	X ² .					-			
MO-2007-6B	7/10/13 : 1216	GW	1	×								
GV-1	7/11/13:0855	GW	1	×					1			
GV-2	7/11/13 : 0929	GW	1	×								
MO-2009-1	7/11/13 : 1126	GW	1	×								
DUP20130711A	7/11/13 : 0000	GW	1	×								
Matrix SW (Surface Wat	er) · GW (Ground Water) · WW (Wa	ste Water) · D	W (Drinki	ing Water)	· SL (Sludge)	· SO (Soil) · OL (Oil) ·	Other (Specif	y)			
REMARKS												
MO Wells												
UPS Tracking # 1Z 867	7E4 23 1001 107 6											
	eau sulfate results for all we	lle on this	CoC									
Diagra come Don Doi		THE OTHER PARTY.	s . s 28 .									

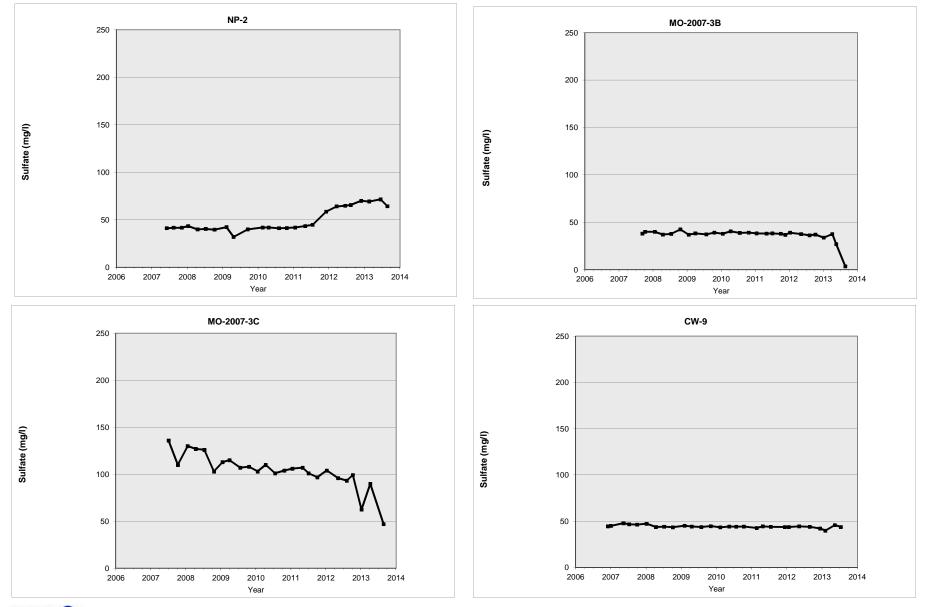
FRMAD050.01.15.09

White - Return with sample. Yellow - Retain for your records.

APPENDIX C

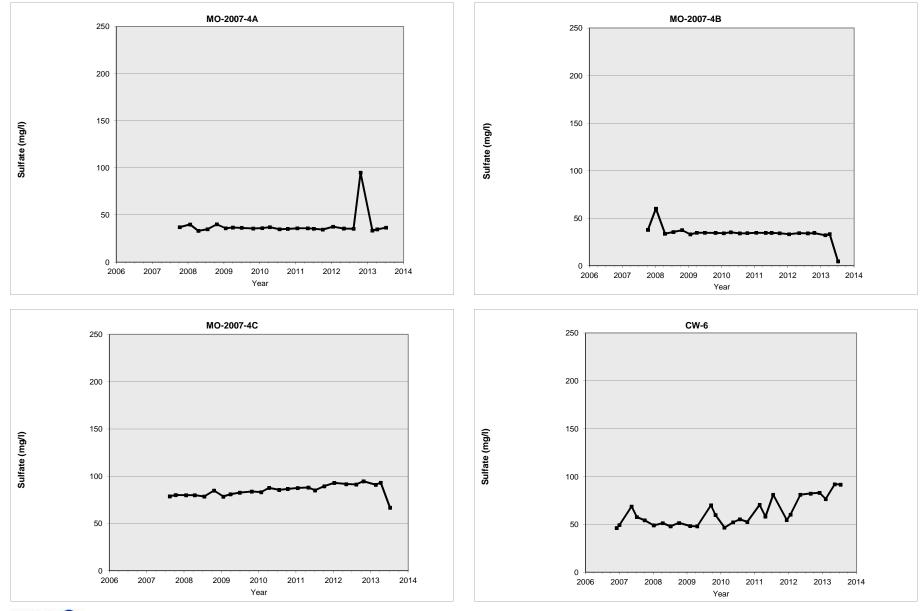
TIME SERIES GRAPHS OF SULFATE CONCENTRATION

FIGURE C.1 SULFATE CONCENTRATION OVER TIME FOR WELLS NP-2, MO-2007-3B, MO-2007-3C, AND CW-9



N:Projects\G & K\055039_Sierrita Mitigation Order\Groundwater Monitoring\Groundwater Monitoring Reports\2013 Q2 and Q3 Semiannual Report\2013 Q2 and Q3 SA Sierrita Appendix C.xls

FIGURE C.2 SULFATE CONCENTRATION OVER TIME FOR WELLS MO-2007-4A, MO-2007-4B, MO-2007-4C, AND CW-6



N:Projects\G & K\055039_Sierrita Mitigation Order\Groundwater Monitoring\Groundwater Monitoring Reports\2013 Q2 and Q3 Semiannual Report\2013 Q2 and Q3 SA Sierrita Appendix C.xls

FIGURE C.3 SULFATE CONCENTRATION OVER TIME FOR WELLS MO-2009-1 AND CW-10

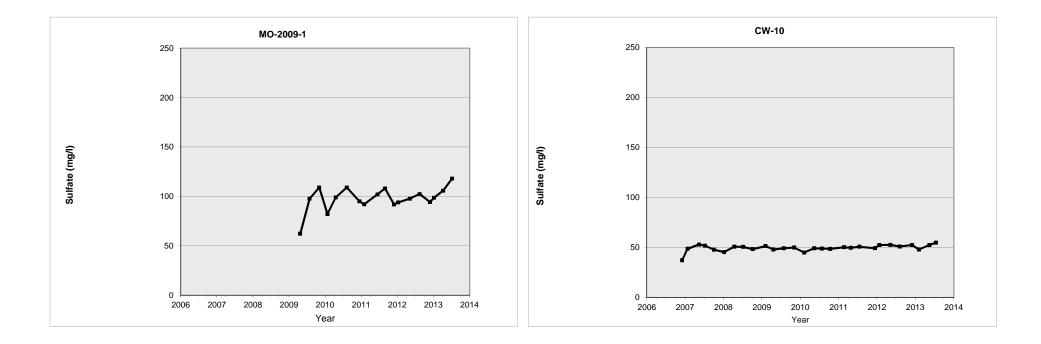
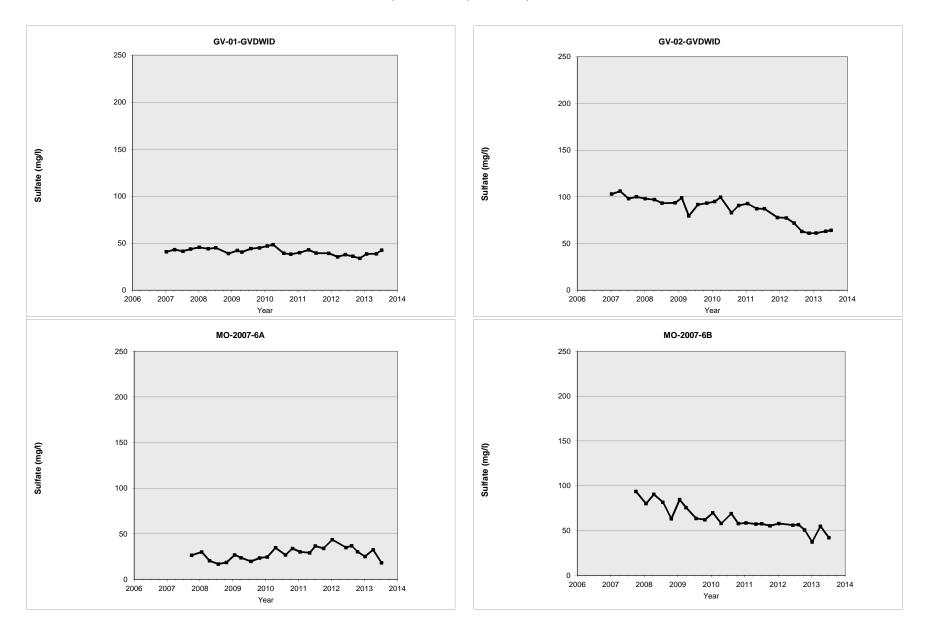
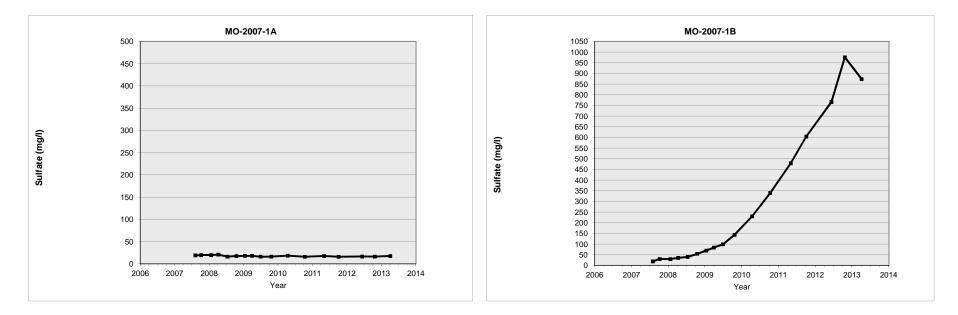


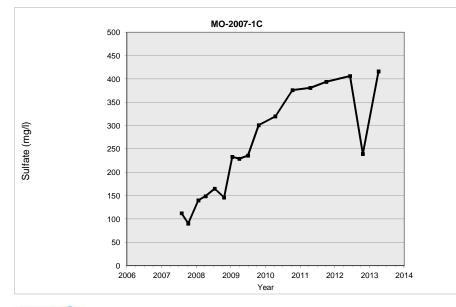
FIGURE C.4 SULFATE CONCENTRATION OVER TIME FOR WELLS GV-01-GVDWID, GV-02-GVDWID, MO-2007-6A, AND MO-2007-6B



CLEAR CREEK CREEK ASSOCIATES N\Projects\G & K\055039_Sierrita Mitigation Order\Groundwater Monitoring\Groundwater Monitoring Reports\2013 Q2 and Q3 Semiannual Report\2013 Q2 and Q3 SA Sierrita Appendix C.xls

FIGURE C.5 SULFATE CONCENTRATION OVER TIME FOR WELLS MO-2007-1A, MO-2007-1B, AND MO-2007-1C

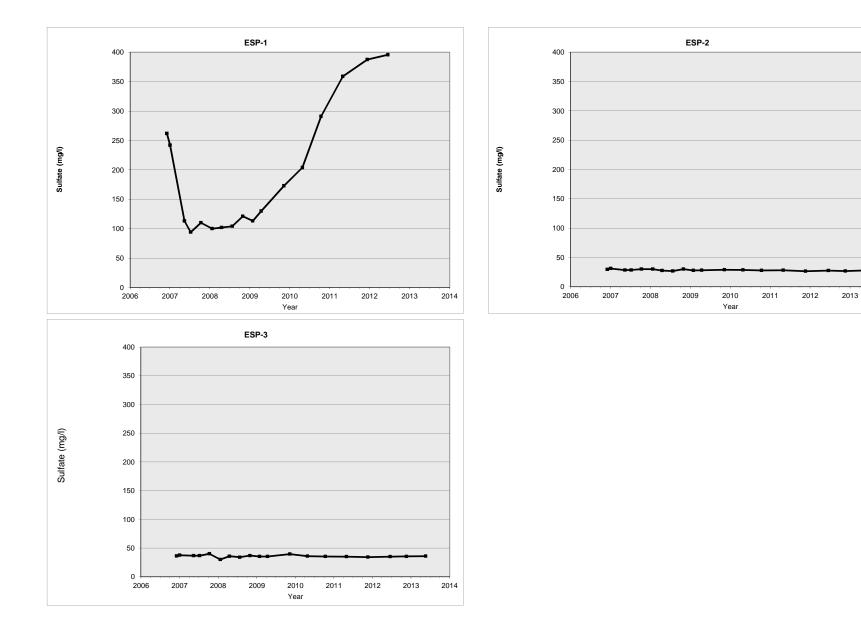




CLEAR CREEK ASSOCIATES ASSOCIATES N:\Projects\G & K\055039_Sierrita Mitigation Order\Groundwater Monitoring\Groundwater Monitoring Reports\2013 Q2 and Q3 Semiannual Report\2013 Q2 and Q3 SA Sierrita Appendix C.xls

FIGURE C.6 SULFATE CONCENTRATION OVER TIME FOR WELLS ESP-1, ESP-2, AND ESP-3

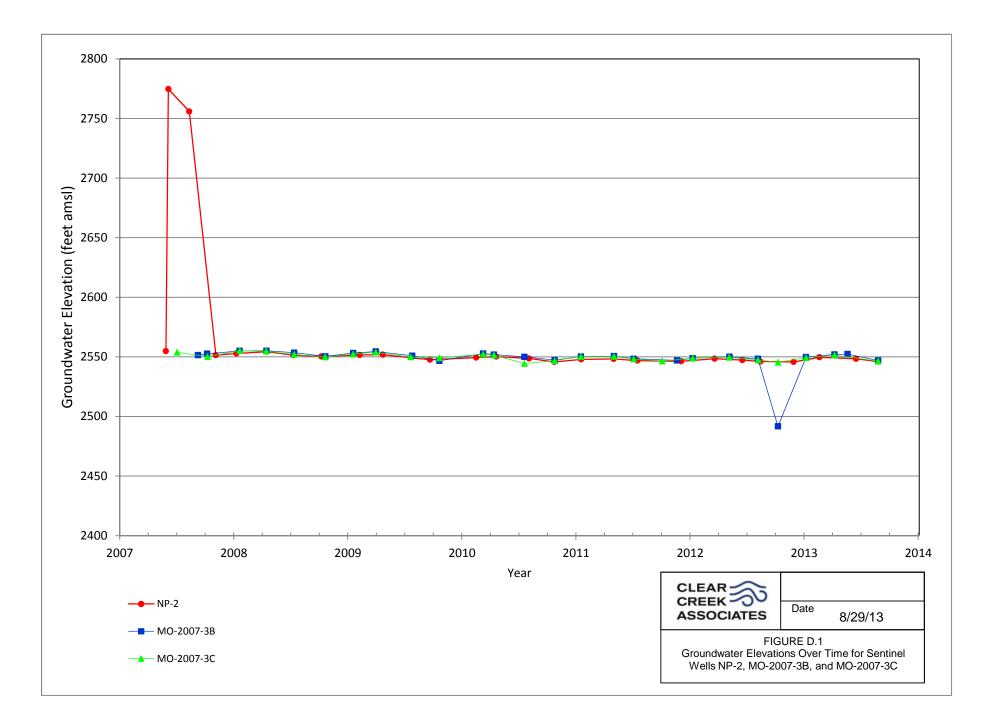
2014

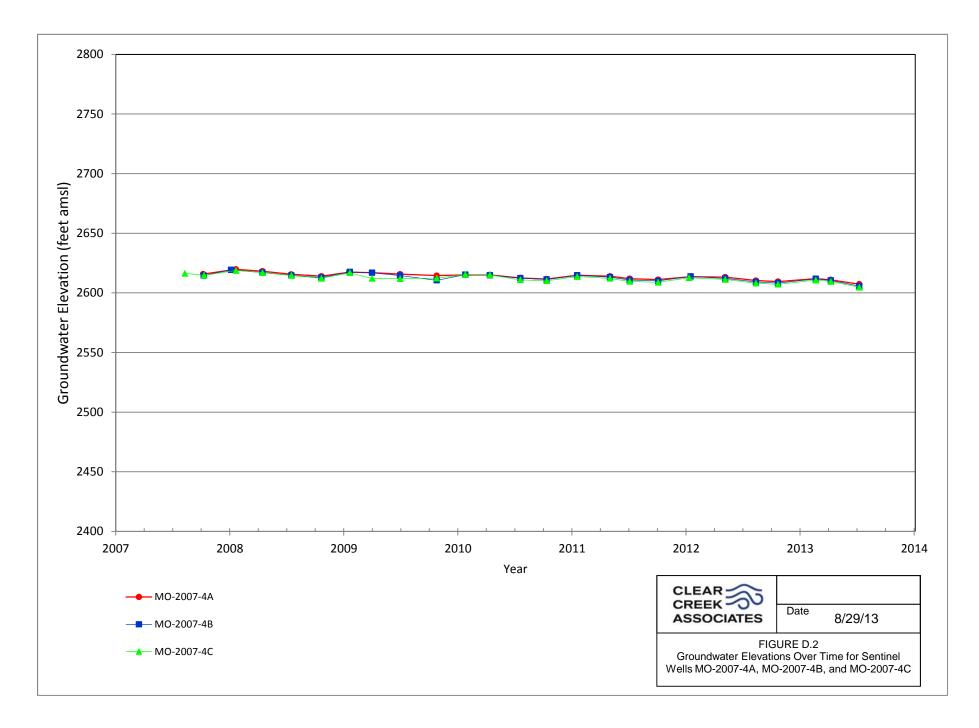


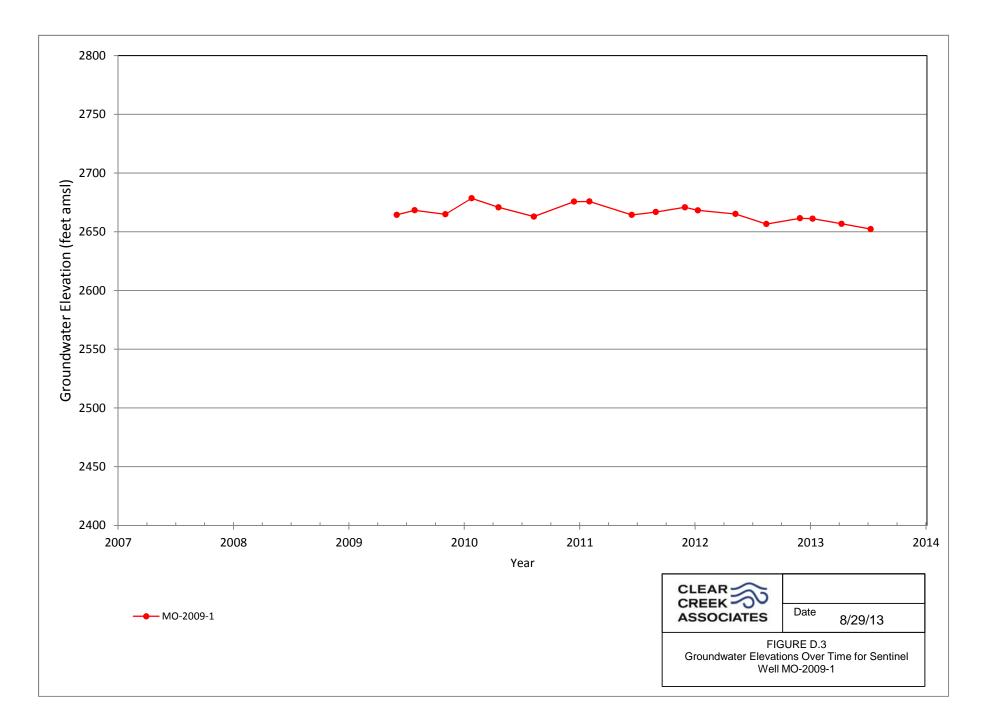
CLEAR CREEK CREEK

APPENDIX D

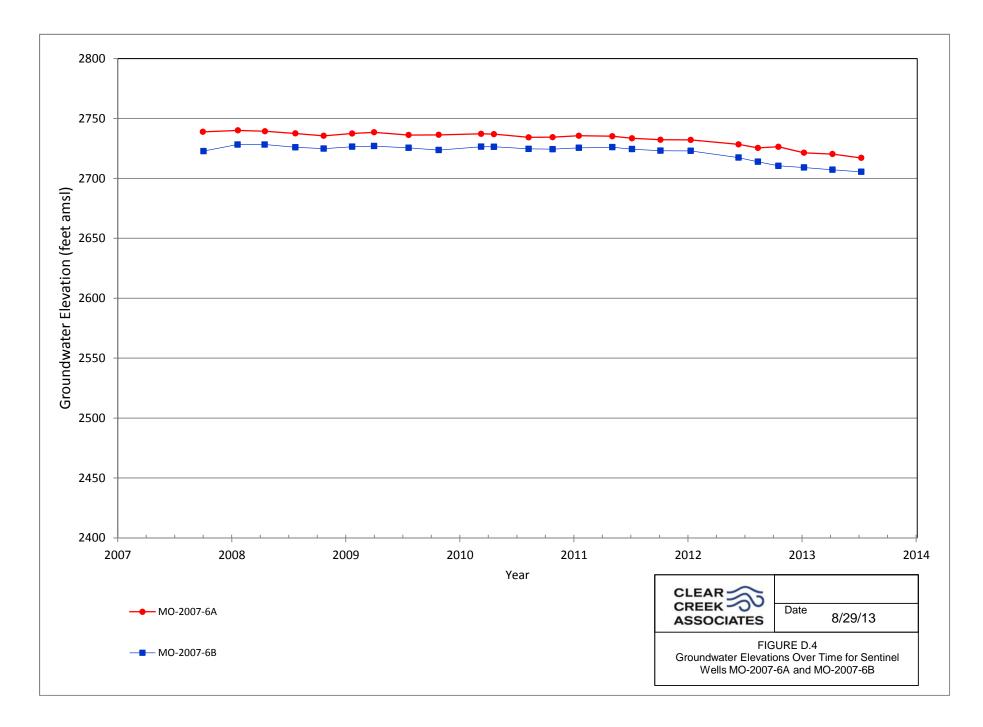
TIME SERIES GRAPHS OF GROUNDWATER ELEVATION







N:\Projects\G & K\055039_Sierrita Mitigation Order\Groundwater Monitoring\Groundwater Monitoring Reports\2013 Q2 and Q3 Semiannual Report\GW Elevation Time Series for Sentinel Wells.xls



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