

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

April 19, 2013

Via Certified Mail # 7011 1150 0000 0283 8980 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 Fourth Quarter 2012 and <u>First Quarter 2013. Mitigation Order on Consent Docket No. P-50-06</u>

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 Fourth Quarter 2012 and First Quarter 2013, prepared by Clear Creek Associates for Freeport-McMoRan Sierrita Inc. (Sierrita). This document provides results of groundwater monitoring conducted during the fourth quarter of 2012 and the first quarter of 2013, as agreed upon and described on letter from ADEQ to Sierrita dated April 17, 2009.

Please do not hesitate to contact me at (520) 393-2514 if you have any question regarding this submittal.

Sincerely,

attle

Martha G. Mottley Chief Environmental Engineer Freeport-McMoRan Sierrita Inc.

MGM/ms Attachment 20130419_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 FOURTH QUARTER 2012 AND FIRST QUARTER 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

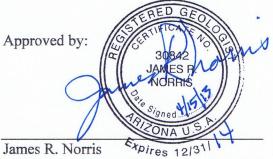
April 15, 2013

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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



Arizona Registered Geologist No. 30842

April 15, 2013

TABLE OF CONTENTS

| 1. | | DDUCTION Scope of Groundwater Monitoring | |
|----|-------|---|---|
| 2. | | NDWATER MONITORING | |
| | 2.1 | Monitoring Results | 2 |
| | | Quality Assurance/Quality Control Review | |
| 3. | FINDI | NGS | 3 |
| 4. | REFE | RENCES | 5 |

TABLES

| 1 | C 1' | 0 1 1 1 | C D | -Implementation | α 1 α | N <i>T</i> I I I I I I I I I I |
|---|--------------|----------|----------|-----------------|---------------------|--|
| | Sampling | Nchedule | tor Pre | Implementation | l -roundwater | VIOnitoring |
| 1 | Samonne | Schould | IOI I IC | -monunuuon | | MUMIUME |
| | ···· · · · · | | | | | · · · 0 |

- 2 Analytical Results for Fourth Quarter 2012 and First Quarter 2013 Groundwater Monitoring
- 3 Groundwater Elevation Data for Fourth Quarter 2012 and First Quarter 2013

FIGURES

- 1 Sampling Locations for Pre-Implementation Groundwater Monitoring
- 2 Sulfate Concentrations in Groundwater Fourth Quarter 2012
- 3 Sulfate Concentrations in Groundwater First Quarter 2013
- 4 Groundwater Elevations Fourth Quarter 2012
- 5 Groundwater Elevations First Quarter 2013

APPENDICES

- A Data Verification Report
- B Analytical Data Reports
- C Time Series Graphs of Sulfate Concentration
- D Time Series Graphs of Groundwater Elevation



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1. INTRODUCTION

This report provides the results of groundwater monitoring conducted in the fourth quarter 2012 and first quarter 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 was to document sulfate concentrations and water levels to determine the lateral and vertical extent of the sulfate plume and provide data for the development of 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 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 outlined 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.



2. GROUNDWATER MONITORING

2.1 Monitoring Results

Analytical results and groundwater elevation data for the fourth quarter 2012 and first quarter 2013 are tabulated in Table 2 and Table 3, respectively. Figure 2 shows the concentrations of dissolved sulfate in the wells sampled in the fourth quarter 2012. 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 first quarter 2013. The highest sulfate concentrations are reported as received from the laboratory with no modifications to the number of significant figures. Groundwater elevations in the fourth quarter 2012 and first quarter 2013 are presented on Figures 4 and 5, respectively. Groundwater elevations were calculated using the depth to water measurements taken under non-pumping conditions whenever possible. Fourth quarter 2012 and first quarter 2013 groundwater elevation data are too sparse for contouring; however, the groundwater elevations are consistent with historical data.

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 fourth quarter 2012 and first quarter 2013, and is included as Appendix A. Analytical laboratory reports for samples collected in fourth quarter 2012 and first quarter 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.

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 maximum distances of 1,280 feet for fourth quarter 2012 and 1,380 feet for first quarter 2013, 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 distance migrated was calculated based on groundwater velocity of 394 feet per year determined using an average hydraulic gradient of 0.00871 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-2009-1 wells.



3. FINDINGS

This semiannual data report provides the results of groundwater monitoring conducted in the vicinity of the STI for the fourth quarter 2012 and first quarter 2013. Groundwater samples were collected from 28 plume area wells and depth to water measurements were collected from 29 wells during the fourth quarter 2012. In the first quarter 2013, groundwater samples and depth to water measurements were collected from 14 plume area wells. All wells were sampled according to the schedule presented in the pre-implementation groundwater monitoring plan except ESP-1, which was not operational during fourth quarter 2012.

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 fourth quarter 2012 and the first 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. The time series graphs for water supply wells CW-9, CW-10, and GV-01-GVDWID indicate that sulfate concentrations are steady over time and less than the interim action trigger level of 135 mg/L (HGC, 2006b). Sulfate concentrations at CW-6 appear to have an increasing trend after 2010, but are variable in magnitude and require additional measurements to confirm the trend. The time series graph for GV-02-GVDWID indicates that sulfate concentrations have been generally declining since first quarter 2011.
- 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, MO-2007-6A and MO-2009-1; decrease at MO-2007-3C and
 MO-2007-6B; and increase at NP-2 and MO-2007-4C. The October 2012 sample from
 MO-2007-4A appears to be anomalous and was not considered in determining 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 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. The apparent decline in concentration for the last sample at MO-2007-1C 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 these wells are relatively steady over time. 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 were 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 | | \checkmark | | |
| IW-23 | 200555 | Sierrita | | \checkmark | | |
| IW-24 | 200556 | Sierrita | | \checkmark | | |
| M-8 | 87390 | TBPI | | \checkmark | | ✓ |
| M-9 | 501652 | TBPI | | \checkmark | | |
| M-10 | 501653 | TBPI | | \checkmark | | ✓ |
| M-20 | 906595 | TBPI | | \checkmark | | |
| 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 | | \checkmark | | |
| MH-13A | 904071 | Sierrita | | \checkmark | | |
| MH-13B | 904072 | Sierrita | | ✓ | | |
| MH-13C | 904073 | Sierrita | | \checkmark | | |
| 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 | | \checkmark | | |
| MH-26B | 208427 | Sierrita | | ✓ | | |
| MH-26C | 208428 | Sierrita | | \checkmark | | |
| MH-28 | 903648 | Sierrita | | \checkmark | | ✓ |
| MH-29 | 903649 | Sierrita | | ✓ | | ✓ |
| MH-30 | 903884 | Sierrita | | \checkmark | | |
| MO-2007-1A | 907342 | Sierrita | | \checkmark | | ✓ |
| MO-2007-1B | 907210 | 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 |
|-------------------------|------------------------------------|-------------|--|---|--|--|
| MO-2007-1C | 907209 | Sierrita | | \checkmark | | \checkmark |
| MO-2007-2 | 906765 | Sierrita | | \checkmark | | |
| MO-2007-3B ¹ | 906816 | Sierrita | \checkmark | \checkmark | \checkmark | \checkmark |
| MO-2007-3C ¹ | 906817 | Sierrita | ✓ | \checkmark | ✓ | \checkmark |
| MO-2007-4A ² | 907213 | Sierrita | ✓ | \checkmark | ✓ | ✓ |
| MO-2007-4B ² | 907212 | Sierrita | ✓ | \checkmark | ✓ | ✓ |
| MO-2007-4C ² | 907211 | Sierrita | \checkmark | \checkmark | ✓ | \checkmark |
| MO-2007-5B | 907456 | Sierrita | | \checkmark | | \checkmark |
| MO-2007-5C | 907457 | Sierrita | | \checkmark | | \checkmark |
| MO-2007-6A ³ | 907607 | Sierrita | ✓ | \checkmark | ✓ | \checkmark |
| MO-2007-6B ³ | 907606 | Sierrita | \checkmark | \checkmark | \checkmark | \checkmark |
| MO-2009-1 ⁴ | 910458 | Sierrita | ✓ | \checkmark | ✓ | \checkmark |
| NP-2 ¹ | 605898 | CWC | ✓ | \checkmark | ✓ | ✓ |
| PZ-7 | 561870 | Sierrita | | \checkmark | | |
| PZ-8 | 561866 | Sierrita | | \checkmark | | |
| TMM-1 | 616156 | Pima County | | \checkmark | | ✓ |
| 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



TABLE 2

Analytical Results for Fourth Quarter 2012 and First Quarter 2013 Groundwater Monitoring

| Well Name | ADWR 55 Registry No. | Sample Date | pH (SU) | Temperature (deg C) | Specific Conductance (µS/cm) | Sulfate, Dissolved (mg/L) |
|--------------|-------------------------|---------------|------------|------------------------|------------------------------------|---------------------------------|
| CW-3 | 627483 | 12/13/12 | 7.64 | 24.1 | 473 | 63.84 |
| 000-5 | 027483 | 12/13/12 DUP | 7.64 | 24.1 | 473 | 64.04 |
| CW-6 | 627485 | 12/12/12 | 7.47 | 23.6 | 541 | 82.98 |
| 011-0 | 027400 | 2/6/13 | 7.32 | 24.0 | 457 | 76.54 |
| CW-9 | 588121 | 12/12/12 | 7.75 | 26.6 | 382 | 42.14 |
| 011 3 | 300121 | 2/6/13 | 7.43 | 26.7 | 325 | 39.87 |
| CW-10 | 207982 | 12/12/12 | 7.77 | 29.3 | 392 | 52.33 |
| 01110 | 201002 | 2/6/13 | 7.52 | 29.3 | 332 | 47.91 |
| ESP-1 | 623102 | NS - P | ump ou | t of service due | to electrical probl | ems |
| ESP-2 | 623103 | 11/21/12 | 7.55 | 28.8 | 333 | 26.79 |
| ESP-3 | 623104 | 11/21/12 | 7.59 | 28.4 | 327 | 35.4 |
| ESP-4 | 623105 | 11/12/12 | 7.60 | 26.3 | 1337 | 618.5 |
| GV-01-GVDWID | 603428 | 11/15/12 | 7.27 | 23.9 | 450 | 33.95 |
| | 000120 | 1/29/13 | 7.34 | 24.9 | 373 | 38.61 |
| | | 11/15/12 | 7.55 | 23.4 | 543 | 63.97 |
| GV-02-GVDWID | 603429 | 1/29/13 | 7.35 | 22.7 | 457 | 61.02 |
| | | 1/29/2013 DUP | 7.35 | 22.7 | 457 | 61.23 |
| M-8 | 87390 | 10/29/12 | 7.62 | 25.7 | 419 | 16.45 |
| M-10 | 501653 | 10/29/12 | 7.88 | 27.0 | 645 | 158 |
| MH-28 | 903648 | 10/9/12 | 6.97 | 26.8 | 2980 | 1900 |
| MH-29 | 903649 | 10/9/12 | 6.97 | 26.3 | 2710 | 1700 |
| MO-2007-1A | 907342 | 10/24/12 | 7.69 | 25.1 | 368 | 16.5 |
| MO-2007-1B | 907210 | 10/24/12 | 7.56 | 26.2 | 1460 | 975.8 |
| MO-2007-1C | 907209 | 10/24/12 | 8.40 | 26.5 | 694 | 239.2 |
| WO-2007-TC | 907209 | 10/24/12 DUP | 8.40 | 26.5 | 694 | 235.26 |
| MO-2007-3B | 906816 | 10/10/12 | 7.94 | 28.1 | 390 | 37.01 |
| WO-2007-3D | 300010 | 1/8/13 | 8.10 | 27.0 | 374 | 33.77 |
| | | 10/10/12 | 8.04 | 29.4 | 487 | 99.13 |
| MO-2007-3C | 906817 | 1/8/13 | 8.09 | 26.5 | 431 | 62.35 |
| | | 1/8/13 DUP | 8.09 | 26.5 | 431 | 62.62 |
| MO-2007-4A | 907213 | 10/23/12 | 7.48 | 27.2 | 380 | 94.87 |
| | 301210 | 2/21/13 | 7.53 | 28.6 | 337 | 33.48 |
| MO-2007-4B | 907212 | 10/23/12 | 7.72 | 27.9 | 364 | 34.37 |
| | 507212 | 2/21/13 | 7.75 | 25.7 | 299 | 32.01 |



4/10/2013 Page 1 of 2

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TABLE 2

Analytical Results for Fourth Quarter 2012 and First Quarter 2013 Groundwater Monitoring

| Well Name | ADWR 55 Registry No. | Sample Date | pH (SU) | Temperature (deg C) | Specific Conductance (µS/cm) | Sulfate, Dissolved (mg/L) |
|-------------|-------------------------|--------------|------------|------------------------|------------------------------------|---------------------------------|
| MO-2007-4C | 907211 | 10/23/12 | 8.86 | 28.5 | 436 | 94.65 |
| 100-2007-40 | 907211 | 2/21/13 | 7.97 | 28.4 | 384 | 90.93 |
| MO-2007-5B | 907456 | 11/6/12 | 7.53 | 26.6 | 1420 | 453.9 |
| MO-2007-5C | 907457 | 11/6/12 | 8.43 | 26.3 | 763 | 262.57 |
| MO-2007-6A | 907607 | 10/18/12 | 7.77 | 28.8 | 368 | 30.42 |
| WO-2007-0A | 907007 | 1/8/13 | 7.70 | 27.6 | 354 | 25.17 |
| MO-2007-6B | 907606 | 10/18/12 | 7.82 | 29.8 | 383 | 50.70 |
| WIO-2007-6B | 907606 | 1/8/13 | 7.68 | 27.2 | 380 | 37.31 |
| MO-2009-1 | 910458 | 11/29/12 | 8.64 | 26.5 | 480 | 94.26 |
| 100-2009-1 | 910436 | 1/8/13 | 8.79 | 27.0 | 522 | 98.57 |
| NP-2 | 605898 | 11/29/12 | 8.02 | 24.1 | 396 | 70.13 |
| INF-2 | 000090 | 2/20/13 | 7.94 | 23.6 | 376 | 69.34 |
| TMM-1 | 616156 | 11/23/12 | 7.64 | 22.8 | 479 | <0.5 |
| | 010100 | 11/23/12 DUP | 7.64 | 22.8 | 479 | <0.5 |

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

NS = not sampled

DUP = Duplicate sample



TABLE 3Groundwater Elevation Data for Fourth Quarter 2012 and First Quarter 2013

| 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-3 | 627483 | HGC | 3523809.985 | 500047.663 | 2941.71 | 12/13/12 | 278.81 | 2662.90 |
| CW-6 | 627485 | CWC | 3525794.239 | 500891.072 | 2867.00 | 12/12/12 | 256.33 | 2610.67 |
| 000-0 | 027405 | 000 | 5525794.259 | 500091.072 | 2007.00 | 2/6/13 | 254.67 | 2612.33 |
| CW-9 | 588121 | CWC | 3528740.784 | 501072.040 | 2834.30 | 12/12/12 | 317.48 | 2516.82 |
| 011-9 | 500121 | 0000 | 5526740.764 | 501072.040 | 2004.00 | 2/6/13 | 313.90 | 2520.40 |
| CW-10 | 207982 | CWC | 3523455.502 | 500913.364 | 2868.50 | 12/12/12 | 199.93 | 2668.57 |
| 000-10 | 201902 | 0000 | 5525455.502 | 500915.504 | 2000.00 | 2/6/13 | 197.87 | 2670.63 |
| ESP-1 | 623102 | Sierrita | 3526448.677 | 499969.682 | 2953.43 | 11/21/12 | 358.70 | 2594.73 |
| ESP-2 | 623103 | Sierrita | 3526924.656 | 500241.637 | 2934.60 | 11/21/12 | 348.11 | 2586.49 |
| ESP-3 | 623104 | Sierrita | 3527377.239 | 500234.067 | 2935.80 | 11/21/12 | 357.92 | 2577.88 |
| ESP-4 | 623105 | Sierrita | 3526132.758 | 499916.830 | 2958.60 | 11/12/12 | 358.92 | 2599.68 |
| GV-01-GVDWID | 603428 | GVDWID | 3522254.157 | 499812.869 | 2942.35 | 11/15/12 | 239.00 | 2703.35 |
| GV-01-GVDVVID | 003420 | GVDVVD | 3522254.157 | 499012.009 | 2942.30 | 1/29/13 | 238.61 | 2703.74 |
| GV-02-GVDWID | 603429 | GVDWID | 3521654.457 | 499786.207 | 2930.47 | 11/15/12 | 214.51 | 2715.96 |
| GV-02-GVDVVID | 003429 | GVDVID | 3521654.457 | 499700.207 | 2930.47 | 1/29/13 | 209.49 | 2720.98 |
| M-8 | 87390 | Sierrita | 3529692.237 | 499658.916 | 2999.53 | 10/29/12 | 472.66 | 2526.87 |
| M-10 | 501653 | Sierrita | 3530143.114 | 499659.027 | 3005.68 | 10/29/12 | 486.64 | 2519.04 |
| MH-28 | 903548 | Sierrita | 3524609.980 | 497471.427 | 3142.18 | 10/9/12 | 403.77 | 2738.41 |
| MH-29 | 903649 | Sierrita | 3522805.518 | 497604.326 | 3123.15 | 10/9/12 | 365.70 | 2757.45 |
| MO-2007-1A | 907342 | Sierrita | 3529331.380 | 500016.947 | 2967.65 | 10/24/12 | 435.12 | 2532.53 |
| MO-2007-1B | 907210 | Sierrita | 3529325.119 | 500021.574 | 2966.82 | 10/24/12 | 435.62 | 2531.20 |
| MO-2007-1C | 907209 | Sierrita | 3529328.959 | 500013.405 | 2968.58 | 10/24/12 | 433.08 | 2535.50 |
| MO-2007-3B | 906816 | Sierrita | 3528508.801 | 500522.491 | 2912.15 | 10/10/12 | 420.52 | 2491.63 |
| 10-2007-38 | 900010 | Siema | 5526506.001 | 300322.491 | 2912.15 | 1/8/13 | 362.33 | 2549.82 |
| MO-2007-3C | 906817 | Sierrita | 3528508.743 | 500529.713 | 2911.90 | 10/10/12 | 366.50 | 2545.40 |
| 10-2007-30 | 900017 | Siemia | 3528508.743 | 500529.715 | 2911.90 | 1/8/13 | 362.59 | 2549.31 |
| MO-2007-4A | 907213 | Sierrita | 3525634.956 | 500383.682 | 2923.63 | 10/23/12 | 314.17 | 2609.46 |
| WIO-2007-4A | 907213 | Siema | 3323034.930 | 500505.002 | 2923.03 | 2/21/13 | 311.70 | 2611.93 |
| MO-2007-4B | 907212 | Sierrita | 3525613.952 | 500380.947 | 2923.57 | 10/23/12 | 315.28 | 2608.29 |
| WIC-2007-4B | 307212 | Siemia | 5525015.852 | 500500.947 | 2923.31 | 2/21/13 | 311.79 | 2611.78 |
| MO-2007-4C | 907211 | Sierrita | 3525624.484 | 500382.217 | 2923.66 | 10/23/12 | 316.47 | 2607.19 |
| 10-2007-40 | 307211 | Siemid | 5525024.404 | 500502.217 | 2923.00 | 2/21/13 | 312.89 | 2610.77 |
| MO-2007-5B | 907456 | Sierrita | 3523743.376 | 500013.850 | 2944.35 | 11/6/12 | 280.33 | 2664.02 |
| MO-2007-5C | 907457 | Sierrita | 3523736.459 | 500014.152 | 2944.91 | 11/6/12 | 286.84 | 2658.07 |



TABLE 3 Groundwater Elevation Data for Fourth Quarter 2012 and First Quarter 2013

| 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) |
|------------|----------------------------|------------------|------------------|-----------------|--|----------|------------------------------|---------------------------------------|
| MO-2007-6A | 907607 | Sierrita | 3521842.050 | 498367.161 | 3043.37 | 10/18/12 | 316.94 | 2726.43 |
| MO-2007-0A | 907007 | Siema | 5521642.050 | 490307.101 | 3043.37 | 1/8/13 | 321.98 | 2721.39 |
| MO-2007-6B | 907606 | Sierrita | 3521849.495 | 498367.887 | 3043.05 | 10/18/12 | 332.52 | 2710.53 |
| MO-2007-0B | 307000 | Siema | 5521649.495 | 490307.007 | 3043.03 | 1/8/13 | 333.92 | 2709.13 |
| MO-2009-1 | 910458 | Sierrita | 3523369.438 | 500534.089 | 2890.78 | 11/29/12 | 229.30 | 2661.48 |
| 10-2009-1 | 910430 | Siemia | 3323309.430 | 500554.089 | 2890.78 | 1/8/13 | 229.63 | 2661.15 |
| NP-2 | 605898 | HGC | 3528517.116 | 500582.904 | 82.904 2906.56 | 11/29/12 | 360.79 | 2545.77 |
| INF -2 | 003090 | 190 | 5520517.110 | 500502.904 | | 2/20/13 | 356.92 | 2549.64 |
| TMM-1 | 616156 | HGC | 3529736.231 | 500018.323 | 2967.08 | 11/23/12 | 443.30 | 2523.78 |

Notes:

ADWR = Arizona Department of Water Resources

amsl = above mean sea level

CWC = Community Water Company of Green Valley

ft = feet

GVDWID = Green Valley Domestic Water Improvement District

HGC = Hydro Geo Chem, Inc.

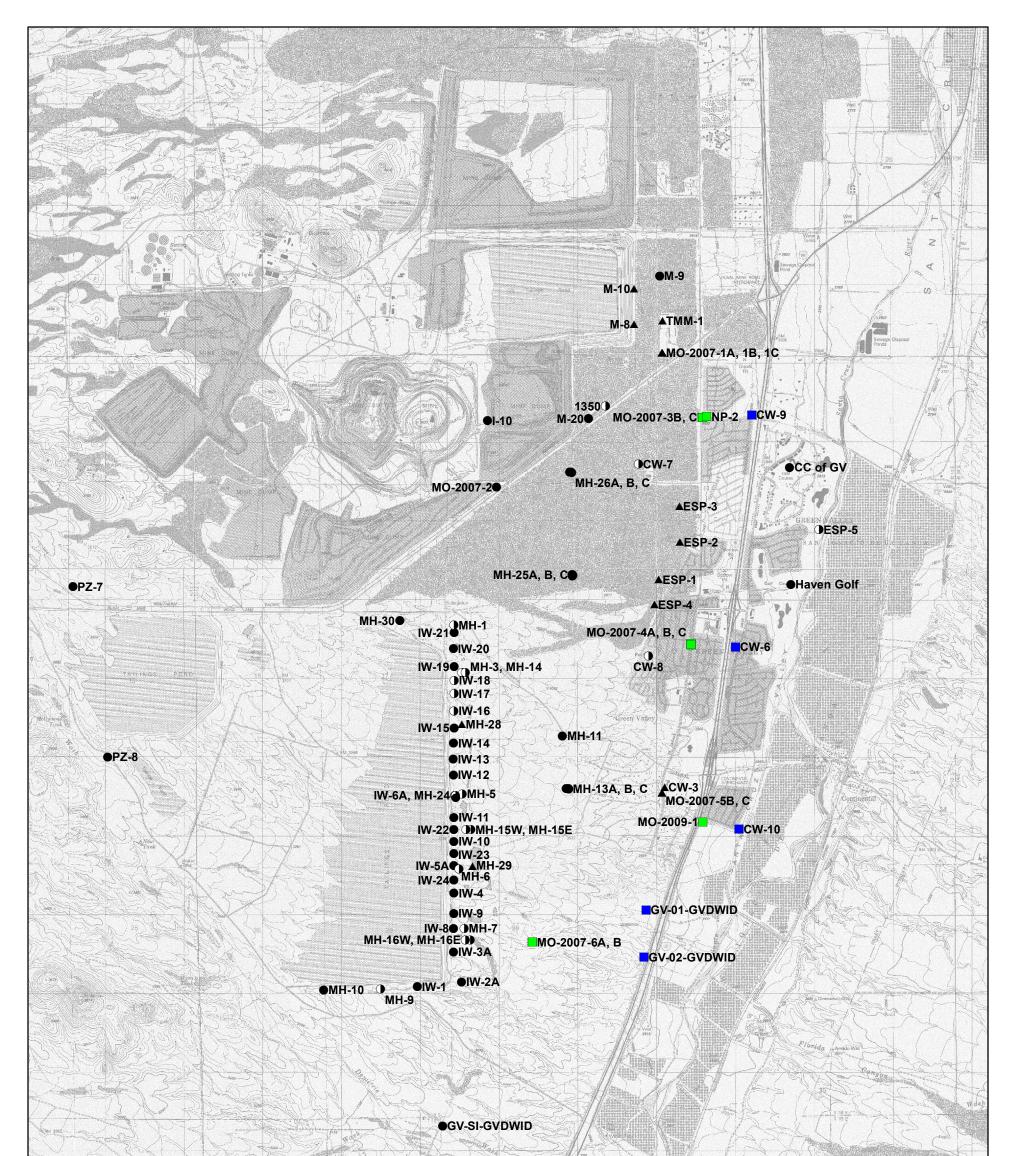
m = meters

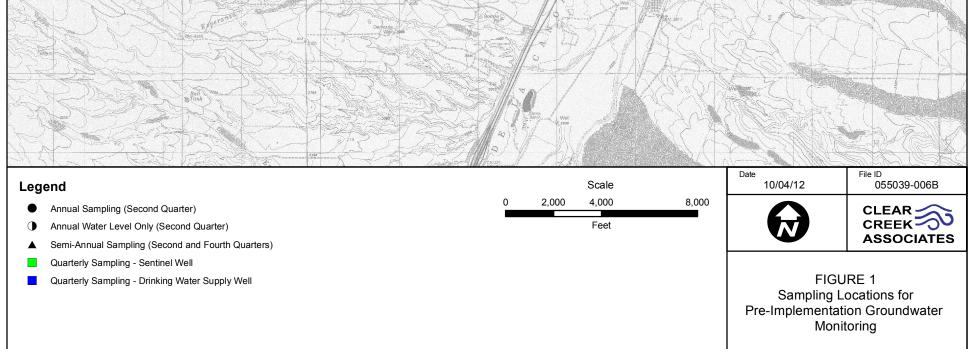
Sierrita = Freeport-McMoRan Sierrita Inc.

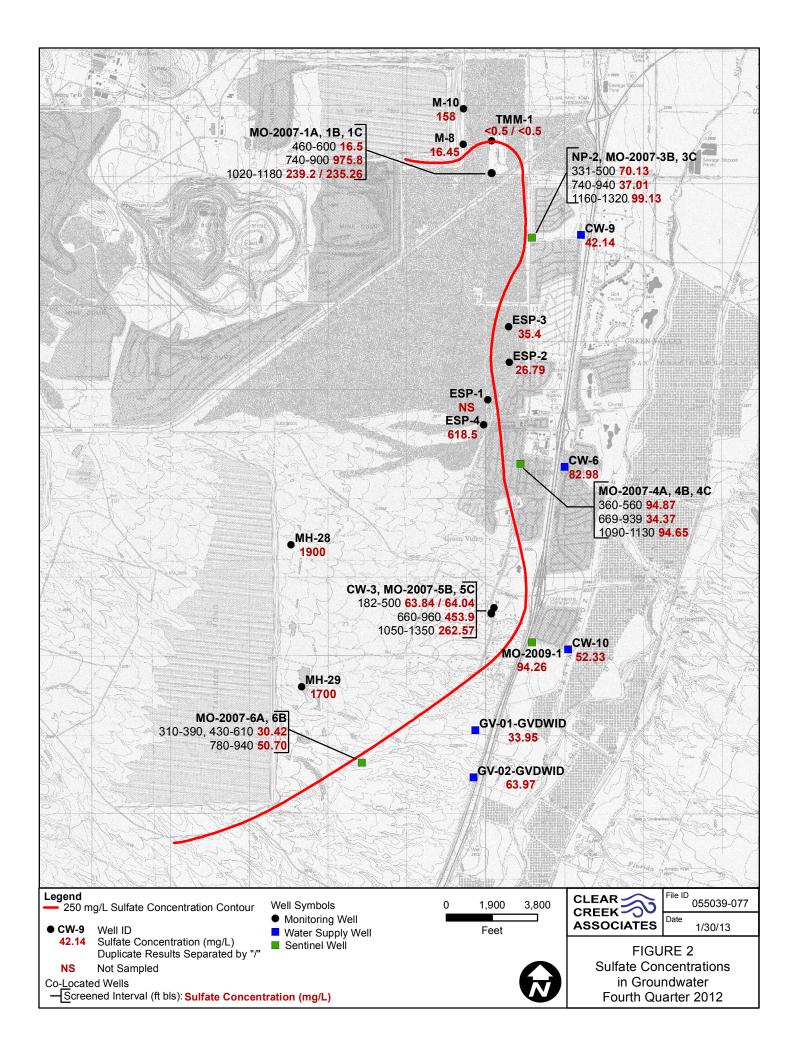
UTM = Universal Transverse Mercator, Zone 12 North American Datum 1983 (NAD83)

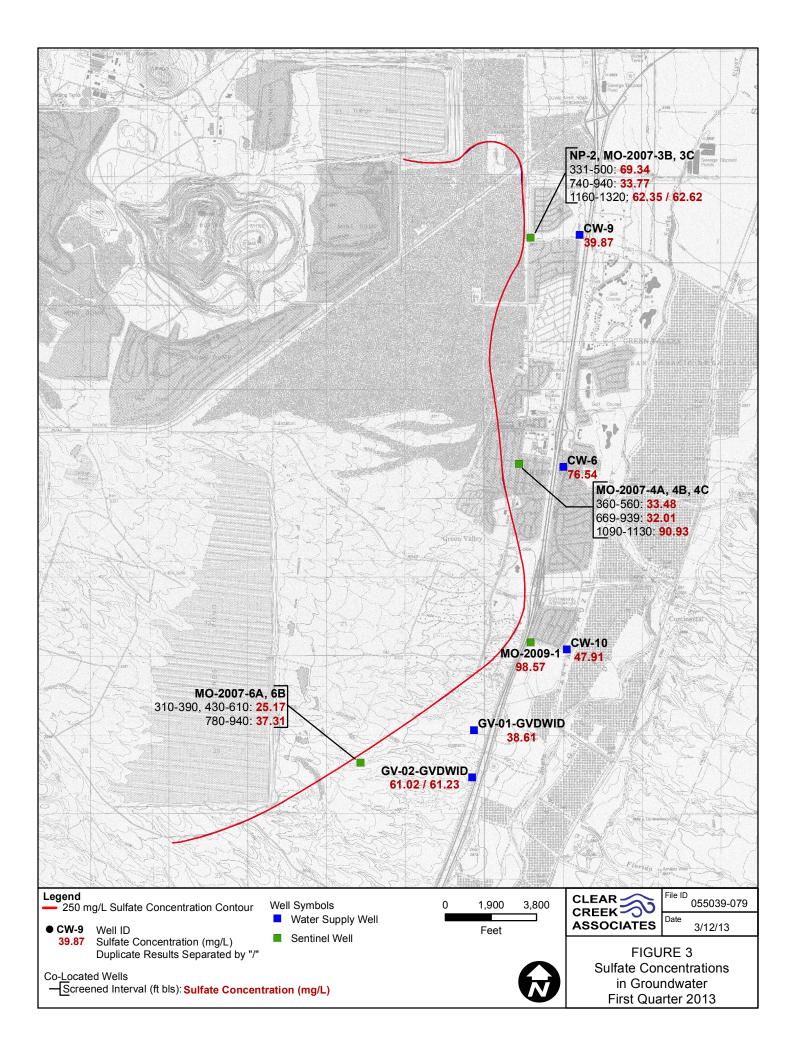


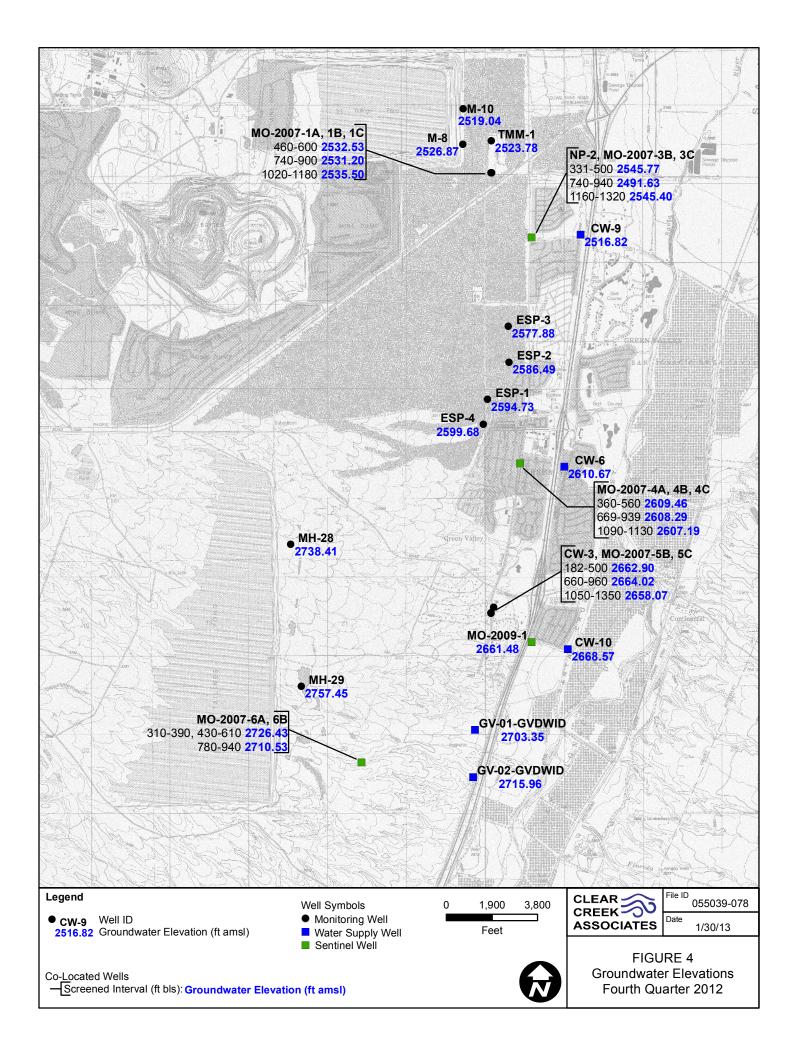
FIGURES

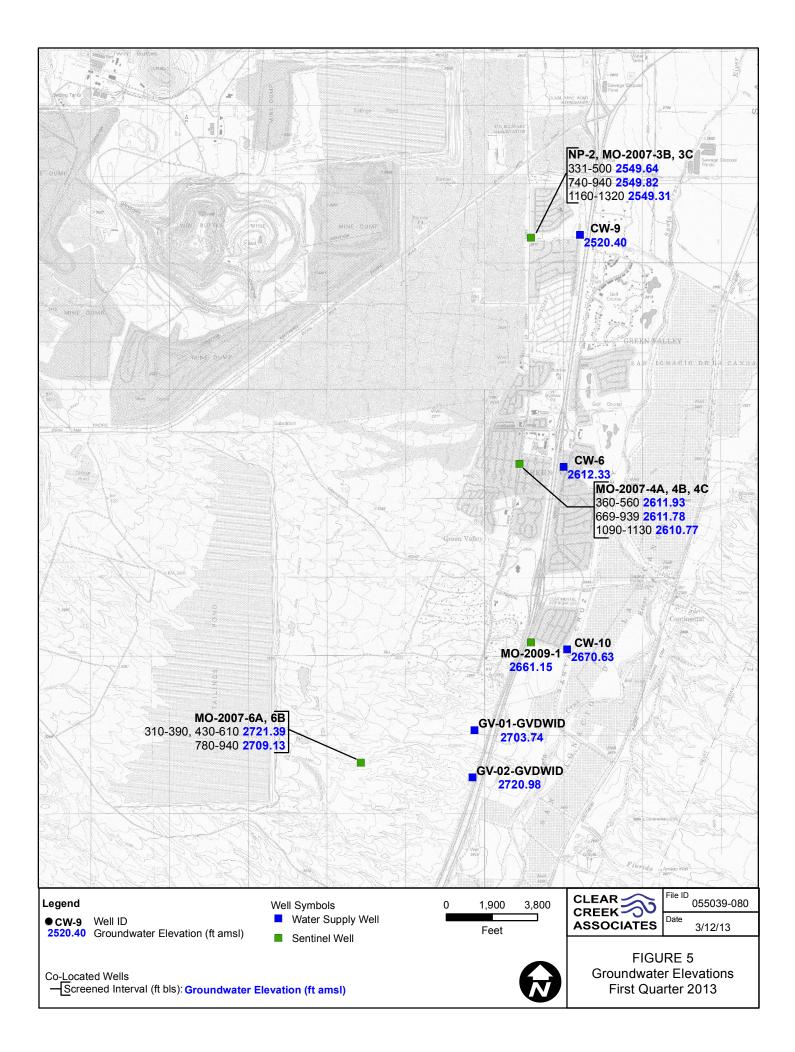












APPENDIX A

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

April 15, 2013

TABLE OF CONTENTS

| 1. | INTR | ODUCTION | 1 |
|----|------|--|---|
| 2. | | DRATORY QUALITY CONTROL | |
| | 2.1 | Licensure | |
| | 2.2 | Analytical Methods | |
| | 2.3 | Method Detection Limits (MDLs) and Practical Quantification Limits (PQLs) | |
| | 2.4 | Timeliness | |
| | 2.5 | Quality Control Measurements | 4 |
| | | 2.5.1 Preparation Blanks, Calibration Blanks, and Calibration Verification Standards | 4 |
| | | 2.5.2 Analytical Spikes and Analytical Spike Duplicates | 5 |
| | | 2.5.3 Laboratory Control Samples | |
| | | 2.5.4 Laboratory Duplicate Samples | |
| 3. | DATA | A QUALITY INDICATORS | 6 |
| | 3.1 | Precision | |
| | 3.2 | Bias | 7 |
| | 3.3 | Accuracy | |
| | 3.4 | Representativeness | |
| | 3.5 | Comparability | |
| | 3.6 | Completeness | |
| | 3.7 | Sensitivity | |
| 4. | REFE | RENCES | 9 |

1. INTRODUCTION

This report summarizes the data verification review of groundwater samples collected and analyzed during the fourth quarter 2012 and first quarter 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 47 samples collected are contained in 14 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 | | | | | | |
|---------------------|--|--|--|--|--|--|--|
| Fourth Quarter 2012 | | | | | | | |
| Number of well | samples collected: 28 | | | | | | |
| | licate samples collected: 3 | | | | | | |
| Total number of | of samples collected: 31 | | | | | | |
| L97324 | MO-2007-3B, MO-2007-3C | | | | | | |
| L97433 | MO-2007-6A, MO-2007-6B | | | | | | |
| L97745 | MO-2007-5B, MO-2007-5C | | | | | | |
| L97624 | M-8, M-10 | | | | | | |
| L97916 | ESP-4, GV-1, GV-2 | | | | | | |
| L98019 | ESP-2, ESP-3, TMM-1, DUP20121123A | | | | | | |
| L98130 | NP-2, MO-2009-1 | | | | | | |
| L97554 | MO-2007-4A, MO-2007-4B, MO-2007-4C, MO-2007-1A, MO-2007-1B, MO-2007-1C, DUP20121024A | | | | | | |
| L98363 | CW-10, CW-6, CW-9, CW-3, DUP20121213A | | | | | | |
| L97323 | MH-28, MH-29, | | | | | | |
| First Quarter 2 | 013 | | | | | | |
| | samples collected: 14 | | | | | | |
| | licate samples collected: 2 | | | | | | |
| Total number of | Total number of samples collected: 16 | | | | | | |
| L10127 | MO-2007-3B, MO-2007-6B, MO-2007-3C, MO-2007-6A, MO-2009-1, | | | | | | |
| | DUP20120108A | | | | | | |
| L10460 | GV-1, GV-2, DUP20130129A | | | | | | |
| L10576 | CW-10, CW-6, CW-9 | | | | | | |
| L10813 | NP-2, MO-2007-4B, MO-2007-4A, MO-2007-4C | | | | | | |

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 EPA 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 twenty-eight day holding time specified by each of the methods used for analysis.

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 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 L97324. The "M2" qualifier was not used in fourth quarter 2012 or first quarter 2013. The "M3" qualifier was used on the L97555, L97624, and L97323 reports. In all cases where an "M1" or "M3" 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.



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, five field duplicate samples were collected by Sierrita for filtered sulfate analysis. Three were collected in the fourth quarter 2012 (DUP20121123A, DUP20121024A, and DUP20121213A) and two were collected in the first quarter 2013 (DUP20130108A and DUP20130129A). The collection of three field duplicate samples in the fourth quarter 2012 and two field duplicate samples in first quarter 2013 meets the QA/QC goal of collecting one

CLEAR CREEK ASSOCIATES

6

April 15, 2013 055039-1.0 duplicate sample for every ten groundwater samples collected, as stated in Section 6 of Sierrita's quality assurance quality control plan.

Results of the field duplicate samples collected are provided in the table below. The range of RPD values was 0 to 1.66 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 |
|-----------------|------------|--------------|------------------|---------------------|-------|
| L98019 | TMM-1 | DUP20121123A | <0.5 | <0.5 | 0.00% |
| L87554 | MO-2007-1C | DUP20121024A | 239.2 | 235.26 | 1.66% |
| L98363 | CW-3 | DUP20121213A | 63.84 | 64.04 | 0.31% |
| L10127 | MO-2007-3C | DUP20130108A | 62.35 | 62.82 | 0.75% |
| L10460 | GV-2 | DUP20130129A | 61.02 | 61.23 | 0.34% |

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 S Appendix A Data Verification Report

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APPENDIX B

ANALYTICAL DATA REPORTS



January 16, 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: ZS0000033Y ACZ Project ID: L10127

Jon Anderson:

Enclosed are the analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on January 10, 2013. This project has been assigned to ACZ's project number, L10127. 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 L10127. 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 February 16, 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 |

ACZ Sample ID: L10127-01

FMI Gold & Copper - Sierrita

| Project ID: | ZS0000033Y | Date Sampled: | 01/08/13 10:25 |
|-------------|------------|----------------|----------------|
| Sample ID: | MO-2007-3B | Date Received: | 01/10/13 |
| | | Sample Matrix: | Ground Water |

| Wet Chemistry | | | | | | | | |
|---------------|-----------------------------|--------|---------|-------|-----|-----|----------------|---------|
| Parameter | EPA Method | Result | Qual XQ | Units | MDL | PQL | Date | Analyst |
| Sulfate | M300.0 - Ion Chromatography | 33.77 | | mg/L | 0.5 | 2.5 | 01/11/13 14:47 | ' lhb |

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

| Project ID: | ZS0000033Y | D |
|-------------|------------|----|
| Sample ID: | MO-2007-6B | Da |
| | | S. |

ACZ Sample ID: L10127-02 Date Sampled: 01/08/13 12:25 Date Received: 01/10/13 Sample Matrix: Ground Water

| Wet Chemistry | | | | | | | | |
|---------------|-----------------------------|--------|---------|-------|-----|-----|----------------|---------|
| Parameter | EPA Method | Result | Qual XQ | Units | MDL | PQL | Date | Analyst |
| Sulfate | M300.0 - Ion Chromatography | 37.31 | | mg/L | 0.5 | 2.5 | 01/11/13 15:29 |) lhb |

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

| Project ID: | ZS0000033Y |
|-------------|------------|
| Sample ID: | MO-2007-3C |

ACZ Sample ID: L10127-03 Date Sampled: 01/08/13 13:22 Date Received: 01/10/13 Sample Matrix: Ground Water

| Wet Chemistry | | | | | | | | |
|---------------|-----------------------------|--------|---------|---------|-----|-----|----------------|---------|
| Parameter | EPA Method | Result | Qual XC | Q Units | MDL | PQL | Date | Analyst |
| Sulfate | M300.0 - Ion Chromatography | 62.35 | | mg/L | 0.5 | 2.5 | 01/15/13 11:48 | lhb |

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

| FMI Gold & Cop | per - Sierrita | ACZ Sample ID: | L10127-04 |
|----------------|----------------|----------------|----------------|
| Project ID: | ZS0000033Y | Date Sampled: | 01/08/13 13:36 |
| Sample ID: | MO-2007-6A | Date Received: | 01/10/13 |
| | | Sample Matrix: | Ground Water |

| Wet Chemistry | | | | | | | | |
|---------------|-----------------------------|--------|---------|-------|-----|-----|----------------|---------|
| Parameter | EPA Method | Result | Qual XQ | Units | MDL | PQL | Date | Analyst |
| Sulfate | M300.0 - Ion Chromatography | 25.17 | | mg/L | 0.5 | 2.5 | 01/11/13 17:15 | 5 lhb |

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

| Project ID: | ZS0000033Y |
|-------------|------------|
| Sample ID: | MO-2009-1 |

ACZ Sample ID: L10127-05 Date Sampled: 01/08/13 15:10 Date Received: 01/10/13 Sample Matrix: Ground Water

| Wet Chemistry | | | | | | | | |
|---------------|-----------------------------|--------|---------|-------|-----|-----|----------------|---------|
| Parameter | EPA Method | Result | Qual XQ | Units | MDL | PQL | Date | Analyst |
| Sulfate | M300.0 - Ion Chromatography | 98.57 | | mg/L | 1 | 5 | 01/11/13 17:36 | 6 lhb |

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

| Project ID: | ZS0000033Y |
|-------------|--------------|
| Sample ID: | DUP20120108A |

ACZ Sample ID: L10127-06 Date Sampled: 01/08/13 00:00 Date Received: 01/10/13 Sample Matrix: Ground Water

| Wet Chemistry | | | | | | | | |
|---------------|-----------------------------|--------|---------|-------|-----|-----|----------------|---------|
| Parameter | EPA Method | Result | Qual XQ | Units | MDL | PQL | Date | Analyst |
| Sulfate | M300.0 - Ion Chromatography | 62.62 | | mg/L | 0.5 | 2.5 | 01/11/13 17:57 | ' lhb |



Inorganic Reference

| Batch | Explanations | | | | | | | | |
|---|---|--|---|--|--|--|--|--|--|
| Found | A distinct set of samples analyzed at a specific time Value of the QC Type of interest | | | | | | | | |
| Found | | | | | | | | | |
| Limit | Upper limit for RPD, in %. | Lower Recovery Limit, in % (except for LCSS, mg/Kg) | | | | | | | |
| Lower | Method Detection Limit. In % (except for LCSS, hig/kg) Method Detection Limit. Same as Minimum Reporting Limit. Allows for instrument and annual fluctuations. | | | | | | | | |
| MDL | | | | | | | | | |
| 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 | Relative Percent Difference, calculation used for Duplicate QC Types | | | | | | | | |
| RPD | • | 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. | | | | | | |
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REP001.09.12.01

ACZ Project ID: L10127

| Sulfate | | | M300.0 - Io | on Chron | natography | / | | | | | | | |
|--------------|------|----------------|-------------|----------|------------|--------|-------|-------|-------|-------|-----|-------|------|
| ACZ ID | Туре | Analyzed | PCN/SCN | QC | Sample | Found | Units | Rec | Lower | Upper | RPD | Limit | Qual |
| WG334290 | | | | | | | | | | | | | |
| WG334290ICV | ICV | 11/15/12 19:21 | WI120912-1 | 50 | | 51.75 | mg/L | 103.5 | 90 | 110 | | | |
| WG334290ICB | ICB | 11/15/12 19:42 | | | | U | mg/L | | -1.5 | 1.5 | | | |
| WG337156 | | | | | | | | | | | | | |
| WG337156LFB | LFB | 01/11/13 12:41 | WI121018-8 | 30 | | 30.32 | mg/L | 101.1 | 90 | 110 | | | |
| L10127-01DUP | DUP | 01/11/13 15:08 | | | 33.77 | 33.7 | mg/L | | | | 0.2 | 20 | |
| L10127-02AS | AS | 01/11/13 15:50 | WI121018-8 | 30 | 37.31 | 66.9 | mg/L | 98.6 | 90 | 110 | | | |
| L10127-06DUP | DUP | 01/11/13 18:18 | | | 62.62 | 62.79 | mg/L | | | | 0.3 | 20 | |
| L10149-01AS | AS | 01/15/13 12:31 | WI121018-8 | 150 | 193.93 | 336.93 | mg/L | 95.3 | 90 | 110 | | | |



Inorganic Extended Qualifier Report

ACZ Project ID: L10127

FMI Gold & Copper - Sierrita

| ACZ ID | WORKNUM PARAMETER | METHOD | QUAL DESCRIPTION | |
|--------|-------------------|--------|------------------|--|

No extended qualifiers associated with this analysis



ACZ Project ID: L10127

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 | ct ID: | | L10127 |
|--|------------------|--------|----------|---------|
| ZS0000033Y | Date Rece | | 1/10/201 | 3 10:23 |
| | Receive | • | | ksj |
| Receipt Verification | Date Pri | nted: | 1/ | 10/2013 |
| | | 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 protoc | col? | | | 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 t | he 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 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 | | | | |
| | Custody Seal Int | | | |
| | | | | |

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

Yes

13

3224

1

| Name: Jon Anderson Address: 6200 W. Duval Mine Road Company: Freeport-McMoRan Sierrita Inc. Green Valley, AZ 85614 E-mail: Jonathan_Anderson@fmi.com Telephone: 520-648-8844 Engl: of Adjanation E-mail: bdaigneau@clearcreekassociates.com Company: Clear Creek Associates E-mail: bdaigneau@clearcreekassociates.com Name: Address: Company: E-mail: bdaigneau@clearcreekassociates.com Name: Company: E-mail: Mddress: If 'NO' then AC2 will conceed with the requested short HT analyses? NO If 'NO' then AC2 will conceed with the requested short HT analyses? NO If 'NO' then AC2 will conceed with the requested short HT analyses? NO Resamples for CO DW Compliance Monitoring? YES If 'NO' then AC2 will concead with the requested to POL. NO PROJECT INFORMATION YAM YSES Routh'S I D Addab kisk eram variation of the start analyses and the will be reported to POL. NO Reporting state for compliance testing: Sample's Name: Jeff Joy AAAM YSES Routh'S I D Addab kisk eram variation of the start and the will be reported to POL. MO-2007-3B 1/8/13 : 1025 GW I K I I MO-2007-6A 1/ | | | | | | | | | | | |
|--|---|---|--|------------------|---------------------|------------|----------|----------------|------------|----------|--------|
| E-mail: Jonathan_Anderson@fmi.com Telephone: 520-648-8844 Name: E-mail: bdaigneau@clearcreekassociates.com Company: Clear Creek Associates Telephone: 520-622-3222 Invoine to: Address: Name: Address: Company: E-mail: bdaigneau@clearcreekassociates.com Telephone: Telephone: 520-622-3222 Invoine to: Name: Company: E-mail: bdaigneau@clearcreekassociates.com Telephone: Telephone: 520-622-3222 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? NO 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? NO 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? YES Yes, Project/PO #: ZS0000033Y YE Reporting state for compliance testing: Sampler's Name: Jeff Joy SAMIPLE IDENTIFICATION DATH TIMI Mo-2007-3B 1/8/13 : 1025 GW X | Name: Jon Anderson | | | Addre | ess: 620 | 0 W. 3 | Duval I | Mine F | load | | |
| Corp y: of : K0port 1::: E-mail: bdaigneau@clearcreekassociates.com Name: E-mail: bdaigneau@clearcreekassociates.com Company: Clear Creek Associates Telephone: 520-622-3222 Invoice to: Address: Company: E-mail: bdaigneau@clearcreekassociates.com Telephone: S20-622-3222 Invoice to: Address: Company: E-mail: E-mail: Address: Telephone: Telephone: If sample(s) received past holding time (HT), or if insufficient HT remins to complete analysis before expiration, shall AC2 proceed with requested short HT analyses? NO If "NO" then ACZ will contact client for further instruction. If neither "YES" nor "NO" YES Is indicated, ACZ will proceed with the requested analyses, even if HT is expired, and data will be qualified. XAM YSPS RHOUPSTID (chieft Fist or and qualified). Are samples for CO DW Compliance Monitoring? YES NO PROJECT INFORMATION DATE TIMI Matex Quote #: """""""""""""""""""""""""""""""""""" | Company: Freeport-Mc | MoRan Sierrita Inc. | | | Gre | en Va | lley, A | Z 856 1 | l 4 | | |
| Name: E-mail: bidigneau@clearcreckassociates.com Name: Address: Company: Address: Company: Address: Company: E-mail: Mame: Address: Company: E-mail: E-mail: Address: If sample(s) received past holding time (HT), or if insufficient HT remains to complete YES analysis before expiration, shall ACZ proceed with requested short HT analyses? NO If NO then ACZ will contact client for further instruction. if neither "YES" nor "NO" NO is indicated, ACZ will proceed with the requested analyses, even if HT is expired, and data will be qualified. XAAr YSFS REOURSED 0 (Address: Roy ECT INFORMATION AAAr YSFS REOURSED 0 (Address in the instruction of the reported to PQL. NO Project/PO #: ZS0000033Y XAAr YSFS REOURSED 0 (Address in the instruction of the reported to PQL. NO SAMPLL IDENTIFICATION DATH TIMI MAte x Image: X NO MO-2007-3B 1/8/13 : 1025 GW 1 X Image: X Image: X MO-2007-6A 1/8/13 : 1322 GW 1 X Image: X Image: X MO-2007 | E-mail: Jonathan_Ander | rson@fmi.com | | Telep | hone: : | 520-64 | 8-8844 | ŀ | | | |
| Company: Clear Creek Associates Telephone: 520-622-3222 Involuce to: Address: Address: Company: E-mail: Telephone: Telephone: If sample(s) received past holding time (HT), or if insufficient HT remains to complete analyses? YES NO analysis before expiration, shall ACZ proceed with requested short HT analyses? NO YES is indicated, ACZ will proceed with the requested analyses, even if HT is expired, and data will be qualified. NO XES Are samples for CO DW Compliance Monitoring? YES NO X PROJECT INFORMATION ANAT YSFS REQUESTED (Attack hist of naw qualified) XAAT YSFS REQUESTED (Attack hist of naw qualified) Quote #: Project/PO #: ZS0000033 Y X YES X MO-2007-3B 1/8/13 : 1025 GW 1 X I I MO-2007-6B 1/8/13 : 1322 GW 1 X I <td< td=""><td>Copy of Report to:</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<> | Copy of Report to: | | | | | | | | | | |
| Name: Address: Company: Image: E-mail: Image: If sample(s) received past holding time (HT), or if insufficient HT remains to complete YES analysis before expiration, shall ACZ proceed with requested short HT analyses? NO If "NO" then ACZ will contact client for further instruction. If neither "YES" nor "NO" NO is indicated. ACZ will proceed with the requested analyses, even if HT is expired, and data will be qualified. NO Are samples for CO DW Compliance Monitoring? YES NO Project/PO #: ZS0000033Y Reporting state for compliance testing: NO XAI YSES REOUPSTED (Match list or ansorted by the requested short HT analyses) Sampler's Name: Jeff Joy Are any samples NRC licensable material? Yes NO YES YES Are any samples NRC licensable material? Yes NO YES YES YES MO-2007-3B 1/8/13 : 1025 GW 1 X Image: Colored col | Name: Ben Daigneau | | | E-ma | il: bdaig | gneau(| a)cleare | reekas | sociat | es.com | |
| Name: Address: Company: Image: Company: 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? NO analysis before expiration, shall ACZ proceed with requested short HT analyses? NO is indicated, ACZ will contact client for further instruction. If neither "YES" nor "NO" NO is indicated, ACZ will proceed with the requested analyses, even if HT is expired, and data will be qualified. YES Are samples for CO DW Compliance Monitoring? YES NO ff yes, please include state forms. Results will be reported to PQL. NO YES PROJECT INFORMATION ANAT YSI-STREOURSTID (diract list or and quartified) YES Quote #: YES YES YES Project/PO #: ZS0000033Y Telephone: YES YES Sample's Name: Jeff Joy Are any samples NRC licensable material? Yes No YES YES YES MO-2007-3B 1/8/13 : 1025 GW 1 X Image: Complex on the set of the set o | Company: Clear Creek | Associates | | Telep | hone: | 520-62 | 2-3222 | 2 | | | |
| Company: Telephone: E-mail: Telephone: If sample(s) received past holding time (HT), or if insufficient HT remains to complete analysis before expiration, shall AC2 proceed with requested short HT analyses? NO 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. NO Are samples for CO DW Compliance Monitoring? YES NO PROJECT INFORMATION VES NO Quote #: YES NO Project/PO #: ZS0000033Y Reporting state for compliance testing: Sampler's Name: Jeff Joy Are any samples NRC licensable material? Yes No Yes No Yes No SAMPLL IDENTIFICATION DATE TIMI MREx MO-2007-3B 1/8/13 : 1025 GW 1 X 0 0 0 MO-2007-6A 1/8/13 : 1322 GW 1 X 0 0 0 0 MO-2009-1 1/8/13 : 1510 GW 1 X 0 0 0 0 0 0 0 0 0 0 </td <td>Invoice to:</td> <td></td> | Invoice to: | | | | | | | | | | |
| 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? NO If "NO" then ACZ will contact client for further instruction. If neither "YES" nor "NO" NO is indicated, ACZ will proceed with the requested analyses, even if HT is expired, and data will be qualified. YES Are samples for CO DW Compliance Monitoring? YES NO If yes, please include state forms. Results will be reported to PQL. NO X PROJECT INFORMATION ANAI YSI-S RFOUL-STD (attach list or accorded on part of the project/PO #: ZS0000033Y NO X Reporting state for compliance testing: Sampler's Name: Jeff Joy Analysis Yes Image: Some state for compliance testing: Image: Some state for compliance testing: </td <td>Name:</td> <td></td> <td></td> <td>Addre</td> <td>ess:</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> | Name: | | | Addre | ess: | | | | | | |
| 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? YES analysis before expiration, shall ACZ proceed with requested short HT analyses? NO 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. YES Are samples for CO DW Compliance Monitoring? YES NO If yes, please include state forms. Results will be reported to PQL. NO X PROJECTINFORMATION AbAit YSES REQUESTED Catach list or use year X Quote #: YES YES X Project/PO #: ZS0000033Y X X X X Are any samples NRC licensable material? Yes No YES YES YES SAMPLL IDENTIFICATION DATE TIME YES YES YES MO-2007-3B 1/8/13 : 1025 GW 1 X Image: State in the image: State in t | Company: | | | | | | | | | | |
| analysis before expiration, shall ACZ proceed with requested short HT analyses? NO 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? YES If yes, please include state forms. Results will be reported to PQL. NO Reporting state for compliance testing: Sampler's Name: Jeff Joy Are any samples NRC licensable material? Yes No SAMIPLL IDENTIFICATION DATE TIME Mate x MO-2007-3B 1/8/13 : 1225 GW 1 MO-2007-6B 1/8/13 : 1322 GW 1 MO-2007-6A 1/8/13 : 1336 GW 1 MO-2007-6A 1/8/13 : 1510 GW 1 MO-2009-1 1/8/13 : 1510 GW 1 MO-2009 | E-mail: | | | Telep | hone: | | | | | | |
| If yes, please include state forms. Results will be reported to PQL. NO X PROJECT INFORMATION AMAI YSES REOURS IED (attach list of as organ) Quote #: Project/PO #: ZS0000033Y Reporting state for compliance testing: Sampler's Name: Jeff Joy Are any samples NRC licensable material? Yes No X X Image: SAMPLL IDENTIFICATION DATE TIMI Mai: x NO X MO-2007-3B 1/8/13 : 1025 GW 1 X Image: Colspan="6">Image: Colspan="6" Image: Colspa="6" Image: Colspa="5" Image: Colspan="6" Image: Colspan="6" Imag | analysis before expiration If "NO" then ACZ will con is indicated, ACZ will pro | n, shall ACZ proceed with tact client for further instr ceed with the requested a | requested short ruction. If neither | HT ana r "YES | alyses? " nor "N | 0 " | a will b | e qualif | ïed. | NO | |
| PROJECT INFORMATION ANALYSES REQUESTED (attach list or use que Quote #: Project/PO #: ZS0000033Y Image: Compliance testing: | | | enorted to POI | | | | | | | | × |
| Project/PO #: ZS0000033Y Reporting state for compliance testing: Sampler's Name: Jeff Joy Are any samples NRC licensable material? Yes No SAMPL L. IDENTIFICATION DATE TIMI MO-2007-3B 1/8/13 : 1025 GW 1 X <td< td=""><td></td><td></td><td></td><td></td><td>ANAi Y</td><td>′SES R</td><td>FOULS</td><td>IED (J</td><td>ttach lis</td><td></td><td>, ,</td></td<> | | | | | ANAi Y | ′SES R | FOULS | IED (J | ttach lis | | , , |
| Project/PO #: ZS0000033Y Reporting state for compliance testing: Sampler's Name: Jeff Joy Are any samples NRC licensable material? Yes No SAMPLL IDENTIFICATION DATE TIMI MO-2007-3B 1/8/13 : 1025 GW 1 MO-2007-6B 1/8/13 : 1322 GW 1 MO-2007-6A 1/8/13 : 1336 GW 1 X MO-2009-1 1/8/13 : 1510 | Quote #: | | | | 375 | | | | | | |
| Reporting state for compliance testing: Sampler's Name: Jeff Joy Sampler's Name: Jeff Joy Material? Yes No SAMPLE IDENTIFICATION DATE TIMI MO-2007-3B 1/8/13 : 1025 GW 1 MO-2007-6B 1/8/13 : 1225 MO-2007-3C 1/8/13 : 1322 MO-2007-6A 1/8/13 : 1336 GW 1 X MO-2007-10 1/8/13 : 1326 | Project/PO #: ZS00000 |)33Y | | ers | EPA | | | | | | |
| Are any samples NRC licensable material? Yes No Image: Constraint of the state of the sta | | | | | 6 | | l | | | | |
| Are any samples NRC licensable material? Yes No material? ma | Sampler's Name: Jeff Jo | | | | EPA 3 | | | | 1 | |] |
| MO-2007-3B 1/8/13 : 1025 GW 1 X Image: Constraint of the state of th | Are any samples NRC li | censable material? Yes | No | | ≦ | | | | | | |
| MO-2007-6B 1/8/13 : 1225 GW 1 X Image: Constraint of the state of th | SAMPLE IDENTIFICA | | | | 4 | | L | | | <u> </u> | ļ |
| MO-2007-3C 1/8/13 : 1322 GW 1 X Image: Constraint of the state of th | | | | - | | | | | | | |
| MO-2007-6A 1/8/13 : 1336 GW 1 X Image: Constraint of the second | | | | | + | | | | | | |
| MO-2009-1 1/8/13 : 1510 GW 1 X | | | | | - · | | <u> </u> | | | | |
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| Matrix SW (Surface Water) · GW (Ground Water) · WW (Waste Water) · DW (Drinking Water) · SL (Sludge) · SO (Soil) · OL (Oil) · Other (Spec | · · · · · · · · · · · · · · · · · · · | test . GIN (Crossed Minter) | V (Waste Water) · D) | N (Drink | ina Water | 1.91 (9 | ludae) - | | <u> </u> | | |

FRMAD050.01.15.09



February 12, 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: L10460

Jon Anderson:

Enclosed are the analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on February 01, 2013. This project has been assigned to ACZ's project number, L10460. 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 L10460. 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 March 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.





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

| Project ID: | ZS000003Q8 |
|-------------|------------|
| Sample ID: | GV-1 |

ACZ Sample ID: L10460-01 Date Sampled: 01/29/13 08:32 Date Received: 02/01/13 Sample Matrix: Ground Water

| Wet Chemistry | | | | | | | | |
|---------------|-----------------------------|--------|---------|-------|-----|-----|----------------|---------|
| Parameter | EPA Method | Result | Qual XQ | Units | MDL | PQL | Date | Analyst |
| Sulfate | M300.0 - Ion Chromatography | 38.61 | | mg/L | 0.5 | 2.5 | 02/07/13 14:53 | lhb |

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

| Project ID: | ZS000003Q8 |
|-------------|------------|
| Sample ID: | GV-2 |

ACZ Sample ID: L10460-02 Date Sampled: 01/29/13 09:05 Date Received: 02/01/13 Sample Matrix: Ground Water

| Wet Chemistry | | | | | | | | | |
|---------------|-----------------------------|--------|------|----|-------|-----|-----|----------------|---------|
| Parameter | EPA Method | Result | Qual | XQ | Units | MDL | PQL | Date | Analyst |
| Sulfate | M300.0 - Ion Chromatography | 61.02 | | | mg/L | 0.5 | 2.5 | 02/07/13 15:35 | lhb |

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

| Project ID: | ZS000003Q8 |
|-------------|--------------|
| Sample ID: | DUP20130129A |

ACZ Sample ID: L10460-03 Date Sampled: 01/29/13 00:00 Date Received: 02/01/13 Sample Matrix: Ground Water

| Wet Chemistry | | | | | | | | | |
|---------------|-----------------------------|--------|------|----|-------|-----|-----|----------------|---------|
| Parameter | EPA Method | Result | Qual | XQ | Units | MDL | PQL | Date | Analyst |
| Sulfate | M300.0 - Ion Chromatography | 61.23 | | | mg/L | 0.5 | 2.5 | 02/07/13 15:56 | lhb |



Inorganic Reference

| FoundValue of the QCLimitUpper limit for RLowerLower RecoveryMDLMethod DetectionPCN/SCNA number assigPQLPractical QuantitiQCTrue Value of theRecRecovered amoreRPDRelative PercentUpperUpper RecoverySampleValue of the SampleCSample TypesASAnalytical Spike | V Limit, in % (except for LCSS, mg/Kg) on Limit. Same as Minimum Reporting Limit ned to reagents/standards to trace to the man tation Limit, typically 5 times the MDL. e Control Sample or the amount added to the unt of the true value or spike added, in % (exc t Difference, calculation used for Duplicate QC V Limit, in % (except for LCSS, mg/Kg) | nufacturer's certific Spike cept for LCSS, mg | | | | | | | | |
|--|---|---|--|--|--|--|--|--|--|--|
| LimitUpper limit for RLowerLower RecoveryMDLMethod DetectionPCN/SCNA number assigPQLPractical QuantiQCTrue Value of theRecRecovered amoreRPDRelative PercentUpperUpper RecoverySampleValue of the SameCSample TypesASAnalytical Spike | AD, in %. / Limit, in % (except for LCSS, mg/Kg) on Limit. Same as Minimum Reporting Limit ned to reagents/standards to trace to the man tation Limit, typically 5 times the MDL. e Control Sample or the amount added to the ount of the true value or spike added, in % (exc t Difference, calculation used for Duplicate QC / Limit, in % (except for LCSS, mg/Kg) | nufacturer's certific Spike cept for LCSS, mg | | | | | | | | |
| Lower Lower Recovery MDL Method Detector PCN/SCN A number assig PQL Practical Quanti QC True Value of th Rec Recovered amor RPD Relative Percent Upper Upper Recovery Sample Value of the Sam Sample Types AS Analytical Spike | V Limit, in % (except for LCSS, mg/Kg) on Limit. Same as Minimum Reporting Limit ned to reagents/standards to trace to the man tation Limit, typically 5 times the MDL. e Control Sample or the amount added to the unt of the true value or spike added, in % (exc t Difference, calculation used for Duplicate QC V Limit, in % (except for LCSS, mg/Kg) | nufacturer's certific Spike cept for LCSS, mg | | | | | | | | |
| MDL Method Detection PCN/SCN A number assig PQL Practical Quanti QC True Value of the Rec Recovered amore RPD Relative Percent Upper Upper Recovered Sample Value of the Same C Sample Types AS Analytical Spike | on Limit. Same as Minimum Reporting Limit. ned to reagents/standards to trace to the man tation Limit, typically 5 times the MDL. e Control Sample or the amount added to the unt of the true value or spike added, in % (exc t Difference, calculation used for Duplicate QC / Limit, in % (except for LCSS, mg/Kg) | nufacturer's certific Spike cept for LCSS, mg | | | | | | | | |
| PCN/SCN A number assig PQL Practical Quanti QC True Value of the Rec Recovered amore RPD Relative Percent Upper Upper Recovery Sample Value of the Same C Sample Types AS Analytical Spike | ned to reagents/standards to trace to the man tation Limit, typically 5 times the MDL. e Control Sample or the amount added to the unt of the true value or spike added, in % (exc t Difference, calculation used for Duplicate QC / Limit, in % (except for LCSS, mg/Kg) | nufacturer's certific Spike cept for LCSS, mg | | | | | | | | |
| PQL Practical Quanti QC True Value of th Rec Recovered amo RPD Relative Percen Upper Upper Recovery Sample Value of the Same C Sample Types AS Analytical Spike | tation Limit, typically 5 times the MDL. e Control Sample or the amount added to the unt of the true value or spike added, in % (exc t Difference, calculation used for Duplicate QC / Limit, in % (except for LCSS, mg/Kg) | Spike cept for LCSS, mg | ate of analysis | | | | | | | |
| QCTrue Value of thRecRecovered amoRPDRelative PercenUpperUpper RecoverySampleValue of the SamC Sample TypesASAnalytical Spike | e Control Sample or the amount added to the ount of the true value or spike added, in % (exc t Difference, calculation used for Duplicate QC / Limit, in % (except for LCSS, mg/Kg) | cept for LCSS, mg | | | | | | | | |
| Rec Recovered amore RPD Relative Percent Upper Upper Recovery Sample Value of the Same C Sample Types AS | unt of the true value or spike added, in % (ex t Difference, calculation used for Duplicate QC / Limit, in % (except for LCSS, mg/Kg) | cept for LCSS, mg | | | | | | | | |
| RPD Relative Percent Upper Upper Recovery Sample Value of the Sample C Sample Types AS | t Difference, calculation used for Duplicate QC / Limit, in % (except for LCSS, mg/Kg) | | True Value of the Control Sample or the amount added to the Spike | | | | | | | |
| Upper Upper Recovery Sample Value of the Sai Sample Types AS Analytical Spike | / Limit, in % (except for LCSS, mg/Kg) | | Recovered amount of the true value or spike added, in % (except for LCSS, mg/Kg) | | | | | | | |
| Sample Value of the Sample Sample Types AS Analytical Spike | | o i shee | | | | | | | | |
| Sample Types AS Analytical Spike | | | | | | | | | | |
| AS Analytical Spike | | | | | | | | | | |
| , , | (Post Digestion) | | Laboratory Control Sample - Water Durlingto | | | | | | | |
| ACD Analytical Oritic | | LCSWD | Laboratory Control Sample - Water Duplicate | | | | | | | |
| | (Post Digestion) Duplicate | LFB | Laboratory Fortified Blank | | | | | | | |
| CCB Continuing Calib | | LFM | Laboratory Fortified Matrix | | | | | | | |
| - | oration Verification standard | LFMD | Laboratory Fortified Matrix Duplicate | | | | | | | |
| DUP Sample Duplica | | LRB | Laboratory Reagent Blank | | | | | | | |
| ICB Initial Calibration | | MSD | Matrix Spike | | | | | | | |
| | Verification standard | MSD | Matrix Spike Duplicate | | | | | | | |
| | prrection Standard - A plus B solutions | PBS | Prep Blank - Soil | | | | | | | |
| - | trol Sample - Soil | PBW | Prep Blank - Water | | | | | | | |
| - | trol Sample - Soil Duplicate trol Sample - Water | PQV SDL | Practical Quantitation Verification standard Serial Dilution | | | | | | | |
| Duplicates Spikes/Fortified Matrix | Verifies the precision of the instrume Determines sample matrix interferen | | | | | | | | | |
| Standard | Verifies the validity of the calibration. | | | | | | | | | |
| Z Qualifiers (Qual) | | | | | | | | | | |
| B Analyte concent | ration detected at a value between MDL and | PQL. The associat | ed value is an estimated quantity. | | | | | | | |
| H Analysis exceed | led method hold time. pH is a field test with a | n immediate hold t | ime. | | | | | | | |
| L Target analyte r | esponse was below the laboratory defined neg | gative threshold. | | | | | | | | |
| U The material wa | s analyzed for, but was not detected above th | e level of the asso | ciated value. | | | | | | | |
| The associated | value is either the sample quantitation limit or | the sample detect | ion limit. | | | | | | | |
| ethod References | | | | | | | | | | |
| (1) EPA 600/4-83-0 | 20. Methods for Chemical Analysis of Water | and Wastes, Marc | h 1983. | | | | | | | |
| (2) EPA 600/R-93-7 | 100. Methods for the Determination of Inorgan | nic Substances in I | Environmental Samples, August 1993. | | | | | | | |
| (3) EPA 600/R-94-7 | 111. Methods for the Determination of Metals | in Environmental | Samples - Supplement I, May 1994. | | | | | | | |
| (4) EPA SW-846. | Fest Methods for Evaluating Solid Waste. | | | | | | | | | |
| (5) Standard Metho | ds for the Examination of Water and Wastewa | ater. | | | | | | | | |
| omments | | | | | | | | | | |
| (1) QC results calcu | lated from raw data. Results may vary slight | ly if the rounded va | lues are used in the calculations. | | | | | | | |
| | d Plant matrices for Inorganic analyses are re | | <i>i</i> ght basis. | | | | | | | |
| (3) Animal matrices | for Inorganic analyses are reported on an "as | s received" basis. | | | | | | | | |
| | e "XQ" column indicates there is an extended | qualifier and/or ce | rtification qualifier | | | | | | | |
| (4) An asterisk in th | the result | | | | | | | | | |
| (4) An asterisk in th associated with | une result. | | | | | | | | | |
| associated with | Is the PQL or the MDL column is omitted, the | PQL is the reporting | ng limit. | | | | | | | |

REP001.09.12.01



ACZ Project ID: L10460

| Sulfate | M300.0 - Ion Chromatography | | | | | | | | | | | | |
|--------------|-----------------------------|----------------|------------|----|--------|--------|-------|------|-------|-------|-----|-------|------|
| ACZ ID | Туре | Analyzed | PCN/SCN | QC | Sample | Found | Units | Rec | Lower | Upper | RPD | Limit | Qual |
| WG337946 | | | | | | | | | | | | | |
| WG337946ICV | ICV | 01/24/13 14:08 | WI130122-1 | 50 | | 49.8 | mg/L | 99.6 | 90 | 110 | | | |
| WG337946ICB | ICB | 01/24/13 14:29 | | | | U | mg/L | | -1.5 | 1.5 | | | |
| WG338617 | | | | | | | | | | | | | |
| WG338617LFB | LFB | 02/07/13 13:49 | WI121018-8 | 30 | | 30.29 | mg/L | 101 | 90 | 110 | | | |
| L10453-02DUP | DUP | 02/07/13 14:31 | | | 123.21 | 123.58 | mg/L | | | | 0.3 | 20 | |
| L10460-01AS | AS | 02/07/13 15:14 | WI121018-8 | 30 | 38.61 | 68.12 | mg/L | 98.4 | 90 | 110 | | | |



(800) 334-5493

ACZ Project ID: L10460

FMI Gold & Copper - Sierrita

| ACZ ID | WORKNUM PARAMETER | METHOD | QUAL DESCRIPTION | |
|--------|-------------------|--------|------------------|--|

No extended qualifiers associated with this analysis



ACZ Project ID: L10460

No certification qualifiers associated with this analysis

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

Sample Receipt

| FMI Gold & Copper - Sierrita | ACZ Proje | | | L10460 |
|---|--------------|--------|----------|----------|
| ZS00003Q8 | Date Rece | | 2/01/201 | |
| | Receive | | | ksj |
| Receipt Verification | Date Pr | intea: | 2 | 2/1/2013 |
| | | 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 | 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 | | | | |
| | ody Seal Int | | | |

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

Yes

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3739

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| Tele E-ma Tele Adda Tele I remains hort HT an hort HT an hither "YES n if HT is QL. | Gree phone: 5 ail: bdaig phone: 5 ress: to comple alyses? S' nor "NC expired, an ANA. Y | en Valley, . 20-648-884 neau@clea 20-622-32 ate | AZ 8561 44 rcreekas 22 | 14 ssociate | YES | | |
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| Tele Tremains hort HT an bither "YES n if HT is of QL. QL. So To To To To To To To To To T | phone: to comple alyses? S" nor "NC expired, al ANA Y | D" nd data will | be quali | fied. | | | |
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| hort HT an hither "YES n if HT is o QL. QL. Superior O O O O O O O O O O O O O O O O O O O | alyses? S' nor "NC expired, a ANA. Y S E & & & & & & & & & & & & & & & & & & | D" nd data will | be quali | fied. | NO | | |
| n if HT is o QL. # of Containers # | expired, a ANA. Y 3/2 Eby 312 | nd data will | be quali | fied. | | | |
| T P | EPA 375 | | | | | | |
| # of Containers | EPA 375 | SES REOUE | | | YES | | |
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FRMAD050.01.15.09



February 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: L10576

Jon Anderson:

Enclosed are the analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on February 08, 2013. This project has been assigned to ACZ's project number, L10576. 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 L10576. 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 March 20, 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: | CW-10 |

ACZ Sample ID: L10576-01 Date Sampled: 02/06/13 08:51 Date Received: 02/08/13 Sample Matrix: Ground Water

| Wet Chemistry | | | | | | | | |
|---------------|-----------------------------|--------|---------|---------|-----|-----|----------------|---------|
| Parameter | EPA Method | Result | Qual XC | Q Units | MDL | PQL | Date | Analyst |
| Sulfate | M300.0 - Ion Chromatography | 47.91 | | mg/L | 0.5 | 2.5 | 02/18/13 23:07 | tcd |

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| Project ID: | ZS000003Q8 |
|-------------|------------|
| Sample ID: | CW-6 |

ACZ Sample ID: L10576-02 Date Sampled: 02/06/13 09:21 Date Received: 02/08/13 Sample Matrix: Ground Water

| Wet Chemistry | | | | | | | | |
|---------------|-----------------------------|--------|---------|-------|-----|-----|----------------|---------|
| Parameter | EPA Method | Result | Qual XQ | Units | MDL | PQL | Date | Analyst |
| Sulfate | M300.0 - Ion Chromatography | 76.54 | | mg/L | 0.5 | 2.5 | 02/18/13 23:28 | tcd |



| Project ID: | ZS000003Q8 |
|-------------|------------|
| Sample ID: | CW-9 |

ACZ Sample ID: L10576-03 Date Sampled: 02/06/13 10:09 Date Received: 02/08/13 Sample Matrix: Ground Water

| Wet Chemistry | | | | | | | | |
|---------------|-----------------------------|--------|---------|-------|-----|-----|----------------|---------|
| Parameter | EPA Method | Result | Qual XQ | Units | MDL | PQL | Date | Analyst |
| Sulfate | M300.0 - Ion Chromatography | 39.87 | | mg/L | 0.5 | 2.5 | 02/18/13 23:49 | tcd |



Inorganic Reference

| FoundValue of the QCLimitUpper limit for RLowerLower RecoveryMDLMethod DetectionPCN/SCNA number assigPQLPractical QuantitiQCTrue Value of theRecRecovered amoreRPDRelative PercentUpperUpper RecoverySampleValue of the SampleCSample TypesASAnalytical Spike | / Limit, in % (except for LCSS, mg/Kg) on Limit. Same as Minimum Reporting Limit ned to reagents/standards to trace to the man tation Limit, typically 5 times the MDL. e Control Sample or the amount added to the unt of the true value or spike added, in % (exc t Difference, calculation used for Duplicate QC / Limit, in % (except for LCSS, mg/Kg) | nufacturer's certific Spike cept for LCSS, mg | |
|--|---|---|---|
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| Lower Lower Recovery MDL Method Detector PCN/SCN A number assig PQL Practical Quanti QC True Value of th Rec Recovered amor RPD Relative Percent Upper Upper Recovery Sample Value of the Sam Sample Types AS Analytical Spike | V Limit, in % (except for LCSS, mg/Kg) on Limit. Same as Minimum Reporting Limit ned to reagents/standards to trace to the man tation Limit, typically 5 times the MDL. e Control Sample or the amount added to the unt of the true value or spike added, in % (exc t Difference, calculation used for Duplicate QC V Limit, in % (except for LCSS, mg/Kg) | nufacturer's certific Spike cept for LCSS, mg | |
| MDL Method Detection PCN/SCN A number assig PQL Practical Quanti QC True Value of the Rec Recovered amore RPD Relative Percent Upper Upper Recovered Sample Value of the Same C Sample Types AS Analytical Spike | on Limit. Same as Minimum Reporting Limit. ned to reagents/standards to trace to the man tation Limit, typically 5 times the MDL. e Control Sample or the amount added to the unt of the true value or spike added, in % (exc t Difference, calculation used for Duplicate QC / Limit, in % (except for LCSS, mg/Kg) | nufacturer's certific Spike cept for LCSS, mg | |
| PCN/SCN A number assig PQL Practical Quanti QC True Value of the Rec Recovered amore RPD Relative Percent Upper Upper Recovery Sample Value of the Same C Sample Types AS Analytical Spike | ned to reagents/standards to trace to the man tation Limit, typically 5 times the MDL. e Control Sample or the amount added to the unt of the true value or spike added, in % (exc t Difference, calculation used for Duplicate QC / Limit, in % (except for LCSS, mg/Kg) | nufacturer's certific Spike cept for LCSS, mg | |
| PQL Practical Quanti QC True Value of th Rec Recovered amo RPD Relative Percen Upper Upper Recovery Sample Value of the Same C Sample Types AS Analytical Spike | tation Limit, typically 5 times the MDL. e Control Sample or the amount added to the unt of the true value or spike added, in % (exc t Difference, calculation used for Duplicate QC / Limit, in % (except for LCSS, mg/Kg) | Spike cept for LCSS, mg | ate of analysis |
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| Rec Recovered amore RPD Relative Percent Upper Upper Recovery Sample Value of the Same C Sample Types AS | unt of the true value or spike added, in % (ex t Difference, calculation used for Duplicate QC / Limit, in % (except for LCSS, mg/Kg) | cept for LCSS, mg | |
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| Sample Value of the Sample Sample Types AS Analytical Spike | | o i shee | |
| Sample Types AS Analytical Spike | | | |
| AS Analytical Spike | | | |
| , , | (Post Digestion) | | Laboratory Control Sample - Water Durlingto |
| ACD Analytical Oritic | | LCSWD | Laboratory Control Sample - Water Duplicate |
| | (Post Digestion) Duplicate | LFB | Laboratory Fortified Blank |
| CCB Continuing Calib | | LFM | Laboratory Fortified Matrix |
| - | oration Verification standard | LFMD | Laboratory Fortified Matrix Duplicate |
| DUP Sample Duplica | | LRB | Laboratory Reagent Blank |
| ICB Initial Calibration | | MSD | Matrix Spike |
| | Verification standard | MSD | Matrix Spike Duplicate |
| | prrection Standard - A plus B solutions | PBS | Prep Blank - Soil |
| - | trol Sample - Soil | PBW | Prep Blank - Water |
| - | trol Sample - Soil Duplicate trol Sample - Water | PQV SDL | Practical Quantitation Verification standard Serial Dilution |
| Duplicates Spikes/Fortified Matrix | Verifies the precision of the instrume Determines sample matrix interferen | | |
| Standard | Verifies the validity of the calibration. | | |
| Z Qualifiers (Qual) | | | |
| B Analyte concent | ration detected at a value between MDL and | PQL. The associat | ed value is an estimated quantity. |
| H Analysis exceed | led method hold time. pH is a field test with a | n immediate hold t | ime. |
| L Target analyte r | esponse was below the laboratory defined neg | gative threshold. | |
| U The material wa | s analyzed for, but was not detected above th | e level of the asso | ciated value. |
| The associated | value is either the sample quantitation limit or | the sample detect | ion limit. |
| ethod References | | | |
| (1) EPA 600/4-83-0 | 20. Methods for Chemical Analysis of Water | and Wastes, Marc | h 1983. |
| (2) EPA 600/R-93-7 | 100. Methods for the Determination of Inorgan | nic Substances in I | Environmental Samples, August 1993. |
| (3) EPA 600/R-94-7 | 111. Methods for the Determination of Metals | in Environmental | Samples - Supplement I, May 1994. |
| (4) EPA SW-846. | Fest Methods for Evaluating Solid Waste. | | |
| (5) Standard Metho | ds for the Examination of Water and Wastewa | ater. | |
| omments | | | |
| (1) QC results calcu | lated from raw data. Results may vary slight | ly if the rounded va | lues are used in the calculations. |
| | d Plant matrices for Inorganic analyses are re | | <i>i</i> ght basis. |
| (3) Animal matrices | for Inorganic analyses are reported on an "as | s received" basis. | |
| | e "XQ" column indicates there is an extended | qualifier and/or ce | rtification qualifier |
| (4) An asterisk in th | the result | | |
| (4) An asterisk in th associated with | une result. | | |
| associated with | Is the PQL or the MDL column is omitted, the | PQL is the reporting | ng limit. |

REP001.09.12.01



ACZ Project ID: L10576

| Sulfate | | | M300.0 - Io | on Chron | natography | , | | | | | | | |
|--------------|------|----------------|-------------|----------|------------|-------|-------|-------|-------|-------|-----|-------|------|
| ACZ ID | Туре | Analyzed | PCN/SCN | QC | Sample | Found | Units | Rec | Lower | Upper | RPD | Limit | Qual |
| WG337946 | | | | | | | | | | | | | |
| WG337946ICV | ICV | 01/24/13 14:08 | WI130122-1 | 50 | | 49.8 | mg/L | 99.6 | 90 | 110 | | | |
| WG337946ICB | ICB | 01/24/13 14:29 | | | | U | mg/L | | -1.5 | 1.5 | | | |
| WG339146 | | | | | | | | | | | | | |
| WG339146LFB1 | LFB | 02/18/13 18:33 | WI121018-8 | 30 | | 30.6 | mg/L | 102 | 90 | 110 | | | |
| L10533-01DUP | DUP | 02/18/13 19:15 | | | 87.86 | 90.7 | mg/L | | | | 3.2 | 20 | |
| L10550-02AS | AS | 02/18/13 22:46 | WI121018-8 | 30 | 4.29 | 34.74 | mg/L | 101.5 | 90 | 110 | | | |
| L10576-03DUP | DUP | 02/19/13 0:10 | | | 39.87 | 39.92 | mg/L | | | | 0.1 | 20 | |
| L10627-04AS | AS | 02/19/13 0:53 | WI121018-8 | 30 | 1.39 | 31.65 | mg/L | 100.9 | 90 | 110 | | | |
| WG339146LFB2 | LFB | 02/19/13 4:45 | WI121018-8 | 30 | | 30.66 | mg/L | 102.2 | 90 | 110 | | | |



(800) 334-5493

ACZ Project ID: L10576

FMI Gold & Copper - Sierrita

| ACZ ID | WORKNUM PARAMETER | METHOD | QUAL DESCRIPTION | |
|--------|-------------------|--------|------------------|--|

No extended qualifiers associated with this analysis



ACZ Project ID: L10576

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 Rec | | L1057 02/08/2013 10:3 | |
|--|-----------------------|--------|--------------------------|---------|
| | Receive | ed By: | | ks |
| | rinted: | 2 | 2/8/2013 | |
| Receipt Verification | | 2/50 | | |
| 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 protoco | pl? | | | Х |
| 4) Are any samples NRC licensable material? | | | | Х |
| 5) If samples are received past hold time, proceed with requested short hold t | 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 th | e 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, a | nd 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 | | | | |
| | ustody Seal In | | | |
| | | | | |

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

Yes

15

2446

3.4

| Company: Freeport-McMoRan Sierrita Inc. Green Valley, AZ 85614 E-mail: Jonathan_Anderson@fmi.com Telephone: 520-648-8844 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 Name: Address: Company: E-mail: bdaigneau@clearcreekassociates.com Telephone: 520-622-3222 War ce to: Telephone: Name: Address: Company: E-mail: bdaigneau@clearcreekassociates.com E-mail: Telephone: If sample(s) received past holding time (HT), or if insufficient HT remains to complete YES If sample(s) received past holding time (HT), or if insufficient HT remains to complete YES If 'NO' then ACZ will contact client for further instruction. If neither 'YES' nor 'NO'' If 'NO' then ACZ will proceed with the requested short HT analyses? Yes, plaese include state forms. Results will be reported to PQL. NO X PROJLCT INFORMATION ANALYSIS RI QUESTED GMadh Ist GR GR graver Quote #: Yes Yes Yes Yes <t< th=""><th>Report to</th><th>aboratories, In amboat Springs, CO 80487 (800</th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th></t<> | Report to | aboratories, In amboat Springs, CO 80487 (800 | | | | | | | | |
|--|-----------------------|--|--------------|----------|---------------|-----------|-----------|-------------|----------|---------|
| Company: Freeport-McMoRan Sierrita Inc. Green Valley, AZ 85614 E-mail: Jonathan_Anderson@fmi.com Telephone: 520-648-8844 Company: Clear Creek Associates E-mail: bdaigneau@clearcreekassociates.com Company: Clear Creek Associates Telephone: 520-622-3222 hware: Address: Company: Telephone: 520-622-3222 hware: Address: Company: Telephone: 520-622-3222 hware: Company: E-mail: Telephone: 520-622-3222 hware: Company: E-mail: Telephone: 520-622-3222 hware: Company: E-mail: Telephone: fi sample(s) received past holding time (HT), or if insufficient HT remains to complete YES analysis before expiration, shall ACZ proceed with requested short HT analyses? NO if 'NO' then ACZ will proceed with the requested analyses, even if HT is expired, and date will be qualified. Are samples for CO DW Compliance Monitoring? YES if yes, please include state forms. Results will be reported to POL. NO PROJECT INFORMATION ANALYSIS RE OUEST ED (adapti liston onegatority is generated for compliance testing: Sampler's Name: Jeff Joy Yes No </th <th>Name: Jon Anderson</th> <th></th> <th></th> <th>Addr</th> <th>ess: 6200</th> <th>W. Duva</th> <th>d Mine 1</th> <th>Road</th> <th></th> <th></th> | Name: Jon Anderson | | | Addr | ess: 6200 | W. Duva | d Mine 1 | Road | | |
| E-mail: Jonathan_Anderson@fmi.com Telephone: 520-648-8844 Carpy of Repart to Name: Ben Daigneau E-mail: bdaigneau@clearcreekassociates.com Company: Clear Creck Associates E-mail: bdaigneau@clearcreekassociates.com Name: Address: Company: E-mail: Name: Address: Company: E-mail: E-mail: Telephone: Telephone: No 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? NO If No? then ACZ will contact client for further instruction. If neither "YES" nor "NO" NO is indicated, ACZ will proceed with the requested analyses, even if HT is expired, and data will be qualified. X Are samples for CO DW Compliance Monitoring? YES NO If yes, please include state forms. Results will be reported to POL. NO X PROJECT INFORMATION ANALYSIS REQUESTED attack list entresognation of Sampler's Name: Leff Joy Yes Yes Are any samples NRC licensable material? Yes No Yes Yes Yes Yes SAMPLET DENTIFICATION DATE_TIMI Yes rat Yes Yes | Company: Freeport-M | CMoRan Sierrita Inc. | | | | | | | | |
| Name: E-mail: bdaigneau@clearcreekassociates.com Company: Clear Creek Associates Telephone: 520-622-3222 Invoice to: Address: Name: Address: Company: E-mail: E-mail: Address: Telephone: Telephone: E-mail: Telephone: #** No #** No #** No #** No #** No *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** **** *** **** | E-mail: Jonathan_And | erson@fmi.com | | Telep | | | | | | |
| Company: Clear Creek Associates Telephone: 520-622-3222 Name: Address: Company: Address: Company: Telephone: 520-622-3222 Name: Address: Company: Telephone: 520-622-3222 If sample(s) received past holding time (HT), or if insufficient HT remains to complete 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" is indicated, AC2 will proceed with the requested analyses, even if HT is expired, and data will be qualified. Ace samples for CO DW Compliance Monitoring? If yes, please include state forms. Results will be reported to PQL. NO X PROJECT INFORMATION ANALYSIS REQUESTED (atlach list or uso graver Quote #: Yes X Project/PO #: ZS000003Q8 Yes X Reporting state for compliance testing: Xer any samples NRC licensable material? Yes No Yes SAMPLE IDENTIFICATION DATE-TIME Kerrix X OC Z/6/13 : 0921 GW X Image: Complex or comp | Copy of Report to | | | | | | | | | |
| Name: Address: Company: Telephone: E-mail: Telephone: If sample(s) received past holding time (HT), or if insufficient HT remains to complete YES analysis before expiration, shall ACZ proceed with requested short HT analyses? NO If "NO" then ACZ will contact client for further instruction. If neither "YES" nor "NO" NO is indicated, ACZ will proceed with the requested analyses, even if HT is expired, and data will be qualified. Atre samples for CO DW Compliance Monitoring? If yes, please include state forms. Results will be reported to PQL. NO X PROJECT INFORMATION ANALYSIS REQUESTED (attack list or use quow of the second secon | Name: Ben Daigneau | | | E-ma | il: bdaigne | eau@clea | arcreeka | ssociat | es.com | |
| Name: Address: Company: | Company: Clear Creel | Associates | | Telep | hone: 52 | 0-622-32 | 22 | | | |
| 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? NO If "NO" then ACZ will contact client for further instruction. If neither "YES" nor "NO" is is indicated, ACZ will proceed with the requested analyses, even if HT is expired, and data will be qualified. YES Are samples for CO DW Compliance Monitoring? YES NO ff yes, please include state forms. Results will be reported to PQL. NO X PROJECT INFORMATION ANALYSIS REQUESTED (attach list or use group of the project/PO #: ZS000003Q8 NO X Reporting state for compliance testing: Stampler's Name: Jeff Joy Stample Yes No Stample Yes No Stample Yes No SAMPLETIDENTIFICATION DATE: TIMI Material X Image: CW-6 2/6/13 : 0851 GW Image: CW-6 | lavo ce to: | | | | | | | | | |
| 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? YES analysis before expiration, shall ACZ proceed with requested short HT analyses? NO is indicated, ACZ will contact client for further instruction. If neither "YES" nor "NO" NO is indicated, ACZ will proceed with the requested analyses, even if HT is expired, and data will be qualified. NO Are samples for CO DW Compliance Monitoring? YES NO If yes, please include state forms. Results will be reported to PQL. NO X PROJECT INFORMATION ANALYSIS REQUESTED (stract list or user power the proceed to PQL. NO X Quote #: YES YES YES YES YES Oute #: YES | Name: | | | Addre | ess: | | | | | |
| If sample(s) received past holding time (HT), or if insufficient HT remains to complete YES analysis before expiration, shall ACZ proceed with requested short HT analyses? NO If "NO" then ACZ will contact client for further instruction. If neither "YES" nor "NO" NO Is indicated, ACZ will proceed with the requested analyses, even if HT is expired, and data will be qualified. YES Are samples for CO DW Compliance Monitoring? YES NO If yes, please include state forms. Results will be reported to PQL. NO X PROJECT INFORMATION ANALYSE: REQUESTED (attach list or use gaoe in the requested for compliance testing: Sampler's Name: Jeff Joy X Are any samples NRC licensable material? Yes No X Sample: IDENTIFICATION DATE.TIME SAMPLE IDENTIFICATION 2/6/13 : 0851 GW 1 X Image: CW-6 CW-6 2/6/13 : 0921 GW 1 X Image: CW-6 Image: CW-6 | Company: | | | | | | | | | |
| analysis before expiration, shall ACZ proceed with requested short HT analyses? NO fill 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? YES NO X PROJLCT INFORMATION ANALYSIS REQUESTED (attach list or use quare n Quote #: Project/PO #: ZS000003Q8 Reporting state for compliance testing: Sampler's Name: Jeff Joy Are any samples NRC licensable material? Yes No SAMPLE IDENTIFICATION DATE: TIME Matrix CW-10 CW-6 2/6/13 : 0921 GW 1 X | E-mail: | | | Telep | hone: | | | | | |
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| 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 INFORMATION AnALYSE: REQUESTED (attach list or use quo, end Ana and atta will be requested to | | | | | | | | | NO | |
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| Reporting state for compliance testing: image: compliance testing: Sampler's Name: Jeff Joy image: compliance testing: Are any samples NRC licensable material? Yes No image: compliance testing: SAMPLE IDENTIFICATION DATE: TIMP Vertix image: compliance testing: CW-10 2/6/13 : 0851 GW CW-6 2/6/13 : 0921 GW CW-0 2/6/13 : 0921 GW | ······ | | | 2 | A 37 | | | | | |
| SAMPLE IDENTIFICATION DATE: TIME Watrix ** ** ** CW-10 2/6/13 : 0851 GW 1 × CW-6 2/6/13 : 0921 GW 1 × | | | | aine | 8 | | | | | |
| SAMPLE IDENTIFICATION DATE: TIME Watrix ** ** ** CW-10 2/6/13 : 0851 GW 1 × CW-6 2/6/13 : 0921 GW 1 × | | | | onta | ₹ 300 | | | | | |
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| CW-10 2/6/13 : 0851 GW 1 X CW-6 2/6/13 : 0921 GW 1 X | | | | | 5 N | | | | | |
| CW-6 2/6/13:0921 GW 1 🗶 | CW-10 | 2/6/13:0851 | | | ┢╾┯┅╼┥┷ | | | | | |
| CW-9 2/6/13:1009 GW 1 X Image: Comparison of the system of the s | CW-6 | 2/6/13:0921 | | 1 | × | | | | | |
| Image: state of the state | CW-9 | 2/6/13 : 1009 | GW | 1 | × | | | | | |
| Image: Sector of the sector | | | | | | | | | | |
| Image: Sector of the sector | | | | | | | | | | |
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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) | | | | | | | | | | |
| | | | | | | | | | | |
| REMARKS | UPS Tracking # 1Z 86 | 7 7E4 23 1001 094 2 | | | | | | | | |
| UPS Tracking # 1Z 867 7E4 23 1001 094 2 | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| UPS Tracking # 1Z 867 7E4 23 1001 094 2 | | | | ons loca | | | | his CO | 0. | |
| | | | | | | | | | | |

FRMAD050.01.15.09

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



March 05, 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: L10813

Jon Anderson:

Enclosed are the analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on February 22, 2013. This project has been assigned to ACZ's project number, L10813. 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 L10813. 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 April 05, 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: | NP-2 |

ACZ Sample ID: L10813-01 Date Sampled: 02/20/13 10:57 Date Received: 02/22/13 Sample Matrix: Ground Water

| Wet Chemistry | | | | | | | | |
|---------------|-----------------------------|--------|---------|-------|-----|-----|----------------|---------|
| Parameter | EPA Method | Result | Qual XQ | Units | MDL | PQL | Date | Analyst |
| Sulfate | M300.0 - Ion Chromatography | 69.34 | | mg/L | 0.5 | 2.5 | 03/01/13 20:50 |) jlf |



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

ACZ Sample ID: L10813-02 Date Sampled: 02/21/13 11:08 Date Received: 02/22/13 Sample Matrix: Ground Water

| Wet Chemistry | | | | | | | | |
|---------------|-----------------------------|--------|---------|-------|-----|-----|----------------|---------|
| Parameter | EPA Method | Result | Qual XQ | Units | MDL | PQL | Date | Analyst |
| Sulfate | M300.0 - Ion Chromatography | 32.01 | | mg/L | 0.5 | 2.5 | 03/01/13 21:32 | 2 jlf |

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

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

ACZ Sample ID: L10813-03 Date Sampled: 02/21/13 12:13 Date Received: 02/22/13 Sample Matrix: Ground Water

| Wet Chemistry | | | | | | | | |
|---------------|-----------------------------|--------|---------|-------|-----|-----|----------------|---------|
| Parameter | EPA Method | Result | Qual XQ | Units | MDL | PQL | Date | Analyst |
| Sulfate | M300.0 - Ion Chromatography | 33.48 | | mg/L | 0.5 | 2.5 | 03/01/13 22:15 | i jlf |

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

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

ACZ Sample ID: L10813-04 Date Sampled: 02/21/13 12:25 Date Received: 02/22/13 Sample Matrix: Ground Water

| Wet Chemistry | | | | | | | | |
|---------------|-----------------------------|--------|---------|-------|-----|-----|----------------|---------|
| Parameter | EPA Method | Result | Qual XQ | Units | MDL | PQL | Date | Analyst |
| Sulfate | M300.0 - Ion Chromatography | 90.93 | | mg/L | 0.5 | 2.5 | 03/01/13 22:36 | 6 jlf |



Inorganic Reference

| Batch | Explanations | | | | | | | | |
|--|--|---|---|--|--|--|--|--|--|
| Fourd | A distinct set of samples analyzed at a specific time Value of the QC Type of interest | | | | | | | | |
| Found | | | | | | | | | |
| Limit | Upper limit for RPD, in %. | | | | | | | | |
| Lower | Lower Recovery Limit, in % (except for LCSS, mg/Kg) Method Detection Limit. Same as Minimum Reporting Limit. Allows for instrument and annual fluctuations. | | | | | | | | |
| MDL | | | | | | | | | |
| 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 | | | | | | | | |
| 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 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 | | | | | | | | |
| | Analyte concentration detected at a value between MDL and PQL. The associated 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 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

ACZ Project ID: L10813

| Sulfate | | M300.0 - Ion Chromatography | | | | | | | | | | | |
|--------------|------|-----------------------------|------------|----|--------|-------|-------|-------|-------|-------|-----|-------|------|
| ACZ ID | Туре | Analyzed | PCN/SCN | QC | Sample | Found | Units | Rec | Lower | Upper | RPD | Limit | Qual |
| WG337946 | | | | | | | | | | | | | |
| WG337946ICV | ICV | 01/24/13 14:08 | WI130122-1 | 50 | | 49.8 | mg/L | 99.6 | 90 | 110 | | | |
| WG337946ICB | ICB | 01/24/13 14:29 | | | | U | mg/L | | -1.5 | 1.5 | | | |
| WG339734 | | | | | | | | | | | | | |
| L10813-01DUP | DUP | 03/01/13 21:11 | | | 69.34 | 68.62 | mg/L | | | | 1 | 20 | |
| L10813-02AS | AS | 03/01/13 21:53 | WI121018-8 | 30 | 32.01 | 60.22 | mg/L | 94 | 90 | 110 | | | |
| WG339734LFB | LFB | 03/02/13 1:46 | WI121018-8 | 30 | | 31.15 | mg/L | 103.8 | 90 | 110 | | | |



Inorganic Extended Qualifier Report

ACZ Project ID: L10813

FMI Gold & Copper - Sierrita

| ACZ ID | WORKNUM PARAMETER | METHOD | QUAL DESCRIPTION | |
|--------|-------------------|--------|------------------|--|

No extended qualifiers associated with this analysis



ACZ Project ID: L10813

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 | | L10813 | | |
|---|--------------------|--------|------------|----------------|--|
| ZS00003Q8 | | | 2/22/201 | | |
| | Receive Date Pr | | 2/ | ksj 22/2013 | |
| Receipt Verification | Balori | intoo. | — / | / _ 0 10 | |
| | | 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 | d 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 Int | | | | |
| | | | | | |

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

Yes

13

3224

0.4

| 2773 Downhill Drive Steambo Report to | oat Springs, CO 80487 (800 | 1) 334- <u>0413</u> | $\mathbf{X} \mathbf{\Delta}$ | | | | | | | |
|---|---|---------------------|------------------------------|------------------|----------------|-----------|-------------|-----------|-----------|---------|
| Name: Jon Anderson | | | Address | s: 6200 | W. Duval | Mine R | oad | | | |
| Company: Freeport-McM | oRan Sierrita Inc. | | | | n Valley, A | | | | | |
| E-mail: jonathan_anderson | | | Telepho | | 0-393-271 | _ | | | | |
| Copy of Report to | | | | | | | | | | |
| | | | E-mail [.] | hdaion | eau@clear | creekas | sociates | s.com | | |
| Name: Ben Daigneau Company: Clear Creek A | endoistes | | | | 0-622-322 | | | | | |
| | | i | | <u> ///0. 52</u> | .0 022 322 | | | | | |
| Invoice to: | - , | | | | | | | | | |
| Name: | | | Addres | s: | | | | | | |
| Company: | · · · · · · · · · · · · · · · · · · · | | | | | | | | | |
| E-mail: | | | Telepho | | | | <u> </u> | YES | | |
| If sample(s) received past t analysis before expiration, | iolding time (HT), or it insu shall ACZ proceed with rei | micient H1 rem | nains to (HT analv | complei ses? | le | | | NO | | |
| If "NO" then ACZ will conte | ct client for further instruc | tion. If neither | r "YES" r | nor "NO | м | | | • | | |
| is indicated, ACZ will proce | | lyses, even if l | IT is exp | ired, an | d data will l | be qualif | ied. | YES | I | |
| Are samples for CO DW Co If yes, please include state | | orted to POI | | | | | | NO | × | |
| PROJECT INFORMATIO | | | / | NALYS | - SES REOUE | STED (a: | ttach list | or ase | quotes | stailei |
| Quote #: | ······································ | | | | | | | 1 | | |
| Project/PO #: ZS00000 | 308 | | s S | | | | | | | |
| Reporting state for compl | | | of Containers | തി | | | | | | |
| Sampler's Name: JEFF | | | <u>5</u> | at | | | | | | |
| Are any samples NRC lice | | lo | 5 | Sulfate | | | | | | |
| SAMPLE IDENTIFICAT | | | * | ທົ | | | | | | |
| NP-2 | 2/20/13 : 1057 | GW | 1 | × | | | | | | |
| MO-2007-4B | 2/21/13 : 1108 | GW | 1 | × | | | | | | |
| MO-2007-4A | 2/21/13 : 1213 | GW | 1 | × | | | | | | |
| MO-2007-4C | 2/21/13 : 1225 | GW | 1 | × | | | | | | |
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| ō | | | | | | | | | | |
| <u> </u> | | | | | | | | | | |
| e G | | | | | | | | _ | | |
| Matrix SW (Surface Wate | er) · GW (Ground Water) · WW (| Waste Water) · D | W (Drinkin | g Water) | SL (Sludge) | SO (Soil |) · OL (Oil |) · Other | (Specify) | |
| Matrix SW (Surface Water REMARKS | | | | | | | | | | |
| Copy of report to Ben D | aigneau contains only " | SO4" results v | with OC | Summ | агу. | | | | | |
| Copy of report to Don 2 | | | | | • | | | | | |
| UPS Tracking # 1Z 867 | 7E4 23 1001 096 0 | | | | | | | | | |
| | | | | | | | | | | |
| | Please refer to ACZ's te | rms & conditio | ons loca | ited on | the reverse | side of | this CC | C. | | |
| RELINQUISH | | ATE: TIML | | | ECEIVI:D B | | | | DAT | a um |
| THE FIGURE AND A STATE | | | | | | | | | | |

FRMAD050.01.15.09



October 22, 2012

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: ZS000002PM ACZ Project ID: L97324

Jon Anderson:

Enclosed are the analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on October 12, 2012. This project has been assigned to ACZ's project number, L97324. 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 L97324. 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 November 22, 2012. 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: | ZS000002PM |
|-------------|------------|
| Sample ID: | MO-2007-3B |

ACZ Sample ID: **L97324-01** Date Sampled: 10/10/12 10:54 Date Received: 10/12/12 Sample Matrix: Ground Water

| Wet Chemistry | | | | | | | | | |
|---------------|-----------------------------|--------|------|----|-------|-----|-----|---------------|---------|
| Parameter | EPA Method | Result | Qual | XQ | Units | MDL | PQL | Date | Analyst |
| Sulfate | M300.0 - Ion Chromatography | 37.01 | | | mg/L | 0.5 | 2.5 | 10/18/12 3:31 | lhb |

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

| Project ID: | ZS000002PM |
|-------------|------------|
| Sample ID: | MO-2007-3C |

ACZ Sample ID: **L97324-02** Date Sampled: 10/10/12 13:57 Date Received: 10/12/12 Sample Matrix: Ground Water

| Wet Chemistry | | | | | | | | | |
|---------------|-----------------------------|--------|------|----|-------|-----|------|---------------|---------|
| Parameter | EPA Method | Result | Qual | XQ | Units | MDL | PQL | Date | Analyst |
| Sulfate | M300.0 - Ion Chromatography | 99.13 | | * | mg/L | 2.5 | 12.5 | 10/18/12 4:13 | lhb |



Laboratories, Inc.

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

Report Header Explanations

| 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 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 |
| 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 | Upper Recovery Limit, in % (except for LCSS, mg/Kg) |
| Sample | Value of the Sample of interest |
| | |

QC Sample Types

| QU | Sample Typ | les | | |
|----|------------|--|-------|--|
| | 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 |
| | | | | |

QC Sample Type Explanations

| Blanks | 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. |

ACZ Qualifiers (Qual)

| В | Analyte concentration detected at a value between MDL and PQL. The associated value is an estimated quantity. |
|---|---|
| Н | Analysis 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 limit or the sample detection limit. |

Method References (1) EPA 600/4-83-020. Methods for Chemical Analysis of Water and Wastes, March 1983. (2) EPA 600/R-93-100. Methods for the Determination of Inorganic Substances in Environmental Samples, August 1993. (3) EPA 600/R-94-111. Methods for the Determination of Metals in Environmental Samples - Supplement I, May 1994. (4) EPA SW-846. Test Methods for Evaluating Solid Waste. (5) Standard Methods for the Examination of Water and Wastewater. Comments QC results calculated from raw data. Results may vary slightly if the rounded values are used in the calculations. (1) (2) Soil, Sludge, and Plant matrices for Inorganic analyses are reported on a dry weight basis. Animal matrices for Inorganic analyses are reported on an "as received" basis. (3) (4) An asterisk in the "XQ" column indicates there is an extended qualifier and/or certification qualifier associated with the result.

(5) If the MDL equals the PQL or the MDL column is omitted, the PQL is the reporting limit.

For a complete list of ACZ's Extended Qualifiers, please click:

http://www.acz.com/public/extquallist.pdf

ACZ Project ID: L97324

| Sulfate | fate M300.0 - Ion Chromatography | | | | | | | | | | | | |
|--------------|----------------------------------|----------------|------------|-------|--------|-------|-------|-------|-------|-------|-----|-------|------|
| ACZ ID | Туре | Analyzed | PCN/SCN | QC | Sample | Found | Units | Rec | Lower | Upper | RPD | Limit | Qual |
| WG329935 | | | | | | | | | | | | | |
| WG329935ICV | ICV | 09/12/12 14:16 | WI120912-1 | 50 | | 51.68 | mg/L | 103.4 | 90 | 110 | | | |
| WG329935ICB | ICB | 09/12/12 14:37 | | | | U | mg/L | | -1.5 | 1.5 | | | |
| WG332358 | | | | | | | | | | | | | |
| L97298-01DUP | DUP | 10/18/12 1:03 | | | U | U | mg/L | | | | 0 | 20 | RA |
| L97299-01AS | AS | 10/18/12 1:45 | WI120822-4 | 15000 | 22717 | 40039 | mg/L | 115.5 | 90 | 110 | | | M1 |
| L97324-01AS | AS | 10/18/12 3:52 | WI120822-4 | 30 | 37.01 | 69.96 | mg/L | 109.8 | 90 | 110 | | | |
| WG332358LFB | LFB | 10/18/12 13:38 | WI120822-4 | 30 | | 30.98 | mg/L | 103.3 | 90 | 110 | | | |



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

FMI Gold & Copper - Sierrita

ACZ Project ID: L97324

| ACZ ID | WORKNUM | PARAMETER | METHOD | QUAL | DESCRIPTION |
|-----------|----------|-----------|-----------------------------|------|---|
| L97324-02 | WG332358 | Sulfate | M300.0 - Ion Chromatography | | Matrix spike recovery was high, the recovery of the associated control sample (LCS or LFB) was acceptable. |
| | | | 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: L97324

No certification qualifiers associated with this analysis

| AGZ Laboratories, Inc. 2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493 | | ample | |
|--|--------------|----------|----------|
| FMI Gold & Copper - Sierrita ACZ | Project ID: | | L97324 |
| | Received: | 10/12/20 | 12 10:10 |
| | eceived By: | | ksj |
| | ate Printed: | 10/ | /13/2012 |
| Receipt Verification | 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? | 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 | ? X | | |
| 6) Is the Chain of Custody complete and accurate? | | Х | |
| The 'sampled by' field on the Chain of Custody was not completed. | L | | |
| 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 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? |
|-----------|-----------|--------------------|----------------------|
| | | | |
| NA16387 | 4.5 | 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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FRMAD050.01.15.09

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October 29, 2012

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: ZS0000033Y ACZ Project ID: L97433

Jon Anderson:

Enclosed are the analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on October 19, 2012. This project has been assigned to ACZ's project number, L97433. 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 L97433. 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 November 29, 2012. 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: | ZS0000033Y |
|-------------|------------|
| Sample ID: | MO-2007-6A |

ACZ Sample ID: L97433-01 Date Sampled: 10/18/12 11:28 Date Received: 10/19/12 Sample Matrix: Ground Water

| Wet Chemistry | | | | | | | | |
|---------------|-----------------------------|--------|---------|-------|-----|-----|----------------|---------|
| Parameter | EPA Method | Result | Qual XQ | Units | MDL | PQL | Date | Analyst |
| Sulfate | M300.0 - Ion Chromatography | 30.42 | | mg/L | 0.5 | 2.5 | 10/25/12 19:28 | tcd |

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

| Project ID: | ZS0000033Y |
|-------------|------------|
| Sample ID: | MO-2007-6B |

ACZ Sample ID: **L97433-02** Date Sampled: 10/18/12 11:37 Date Received: 10/19/12 Sample Matrix: Ground Water

| Wet Chemistry | | | | | | | | |
|---------------|-----------------------------|--------|---------|---------|-----|-----|----------------|---------|
| Parameter | EPA Method | Result | Qual XC | Q Units | MDL | PQL | Date | Analyst |
| Sulfate | M300.0 - Ion Chromatography | 50.70 | | mg/L | 0.5 | 2.5 | 10/25/12 20:10 |) 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. | | |
| 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 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 | 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) 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. |
| 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: L97433

| Sulfate | | M300.0 - Ion Chromatography | | | | | | | | | | | |
|--------------|------|-----------------------------|------------|----|--------|-------|-------|-------|-------|-------|-----|-------|------|
| ACZ ID | Туре | Analyzed | PCN/SCN | QC | Sample | Found | Units | Rec | Lower | Upper | RPD | Limit | Qual |
| WG329935 | | | | | | | | | | | | | |
| WG329935ICV | ICV | 09/12/12 14:16 | WI120912-1 | 50 | | 51.68 | mg/L | 103.4 | 90 | 110 | | | |
| WG329935ICB | ICB | 09/12/12 14:37 | | | | U | mg/L | | -1.5 | 1.5 | | | |
| WG332923 | | | | | | | | | | | | | |
| WG332923LFB | LFB | 10/25/12 18:46 | WI120822-4 | 30 | | 32.41 | mg/L | 108 | 90 | 110 | | | |
| L97433-01DUP | DUP | 10/25/12 19:49 | | | 30.42 | 30.43 | mg/L | | | | 0 | 20 | |
| L97433-02AS | AS | 10/25/12 20:31 | WI120822-4 | 30 | 50.7 | 80.11 | mg/L | 98 | 90 | 110 | | | |



(800) 334-5493

ACZ Project ID: L97433

FMI Gold & Copper - Sierrita

| ACZ ID | WORKNUM PARAMETER | METHOD | QUAL DESCRIPTION | |
|--------|-------------------|--------|------------------|--|

No extended qualifiers associated with this analysis



ACZ Project ID: L97433

No certification qualifiers associated with this analysis

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

Sample Receipt

| MI Gold & Copper - Sierrita ACZ Proj ZS0000033Y Date Ber | | | L9743 | |
|---|---------------------|--------|------------------|---------------|
| ZS0000033Y | | | d: 10/19/2012 09 | |
| | Receive Date Pri | • | 10/ | ks 19/2012 |
| Receipt Verification | Dale FI | intea. | 10/ | 19/2012 |
| | | 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 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 (µR/Hr) Custody | Seal Int | act? | | |

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

15

Yes

NA16428

3.6

| 2773 Downhill Drive Steam | aboratories, Inc aboat Springs, CO 80487 (800) 3 | 34-5484 | | | | | | | | | |
|--|---|--------------------------------|---------------|-------------------|------------------|------------|----------------------|------------|-----------------|---|---|
| Name: Jon Anderson | | | Addre | uss: 62(| 00 W. E | Duval] | Mine I | Road_ | | | |
| Company: Freeport-McM | MoRan Sierrita Inc. | –] ′ | | | een Val | | | | | | <u>-</u> |
| E-mail: Jonathan_Anders | | | Telep | | 520-64 | | | | | | |
| Contract Report | | | | | | | | | | | |
| Name: Ben Daigneau | | <u> </u> | E-mai | I: bdai | gneau@ | Dclear(| creeka | ssociat | tes.com | | |
| Company: Clear Creek A | Associates | ' | Telep | none: (| 520-62 | 2-3227 | 2 | | | | |
| No. 2010 B. No. | | | | | | | | | | | |
| Name: | | ' | Addre | /SS: · | | | | | | | |
| Company: | | ['] | | | | | | | | | |
| E-mail: | | | Telept | | | | | <u> </u> | | | т |
| | holding time (HT), or if insuffic , shall ACZ proceed with reque | | | | | | | | YES NO | ' | 4 |
| If "NO" then ACZ will cont | tact client for further instruction | on. If neither | er "YES" | " nor "N | 10" | | | | | | 1 |
| | ceed with the requested analyse | es, even if l | ris ex | (pired, r | and data | a will b | e qualif | fied. | | , | |
| Are samples for CO DW Co If yes, please include state | compliance Monitoring? e forms. Results will be reporte | ed to PQL. | | | | | | | YES NO | × | ł |
| PROJECT INFORMATIC | | | | ANAD | YSES R | LOUES | att D.G. | tt where | star c.e | | |
| Quote #: | | , | | 375 | , 1 | | | T | T | | |
| Project/PO #: ZS000003 | 33Y | | 1ers | EPA 375 | ! | 1 | | | / | ' | 1 |
| Reporting state for comp | | | of Containers | 8 8 | 1 ! | 1 | l | | ! | 1 ' | 1 |
| Sampler's Name: J Joy | | | l S | EPA 3 | ' | Í. | | | 1 1 | | ł |
| Are any samples NRC lic SAMPLE IDENTIFICA | censable material? Yes No | Natr⇒ | * | SO4 by EPA 300 or | | | | | | | |
| MO-2007-6A | 10/18/12 : 1128 | GW | 1 | × | | | | | <u> </u> | | |
| MO-2007-6B | 10/18/12 : 1137 | GW | 1' | × | <u> '</u> | ' | _ | <u> </u> | <u> '</u> | ' | |
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| | | ' | ' | ' | ′ | ' | — | ↓ | ' | ' | ↓ |
| | | <u> </u> | ' | ' | ↓ / | ' | | – | ∔' | ' | <u> </u> |
| | | ' | ' | ' | ├ ──/ | ┣── | ╂── | ╂── | + ′ | ' | ł |
| · · · · · · · · · · · · · · · · · · · | | ' | ' | ' | ॑ ───┦ | — | ┼── | ╂── | + | { | + |
| ś ——— | | ' | <u> </u> | ' | <u> </u> | | ┼── | + | ╃ ──╯ | <u> </u> | ╂─── |
| <u>;</u> | | | \vdash | <u> </u> | | | + | + | + | \vdash | ┟─── |
| Matrix SW (Surface Wat | ter) · GW (Ground Water) · WW (Was | ن <u>ان</u> ste Water) · D' | /W (Drink' | ing Wate | يت r) · SL (S | iludge) · | <u>)</u> SO (Soil | I) · OL (C | Jil) · Other | r (Specify | ا ــــــــــــــــــــــــــــــــــــ |
| EMARKS JPS Tracking # 1Z 867 | | | Ż | Ż | | | | | | | |
| JPS Tracking # 1Z 867 | 7754 23 1000 8026 | | | | | | | | | | |
| ງ /Γວ Πανκιής ກຳລະວະ. ງ ສ | 124 23 1000 0020 | | | | | | | | | | |
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| 1 | | | | | | | | | | | |
| | Please refer to ACZ's terms | s & conditir | ons loc | ated or | n the re | verse : | side of | i this C(| OC. | | _ |
| RFLINQUISH | | | | | RECEIV | | | | | DAT | E 182 |
| | | | | | A | | | | 4 | | |

FRMAD050.01.15.09

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



November 09, 2012

Report to: Jon Anderson FMI Gold & Copper - Sierrita 6200 West Duval Mine Rd. Green Valley, AZ 85614 Bill to: Accounts Payable FMI Gold & Copper - Sierrita P.O. Box 2671 Phoenix, AZ 85002-2671

Project ID: ZS0000033Y ACZ Project ID: L97554

Jon Anderson:

Enclosed are the analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on October 26, 2012. This project has been assigned to ACZ's project number, L97554. 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 L97554. 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 December 09, 2012. 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: | ZS0000033Y |
|-------------|------------|
| Sample ID: | MO-2007-4A |

ACZ Sample ID: **L97554-01** Date Sampled: 10/23/12 15:21 Date Received: 10/26/12 Sample Matrix: Ground Water

| Wet Chemistry | | | | | | | | |
|---------------|-----------------------------|--------|---------|-------|-----|-----|----------------|---------|
| Parameter | EPA Method | Result | Qual XQ | Units | MDL | PQL | Date | Analyst |
| Sulfate | M300.0 - Ion Chromatography | 94.87 | | mg/L | 0.5 | 2.5 | 11/02/12 23:06 | 6 lhb |

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

| Project ID: | ZS0000033Y |
|-------------|------------|
| Sample ID: | MO-2007-4B |

ACZ Sample ID: **L97554-02** Date Sampled: 10/23/12 14:38 Date Received: 10/26/12 Sample Matrix: Ground Water

| Wet Chemistry | | | | | | | | |
|---------------|-----------------------------|--------|---------|-------|-----|-----|----------------|---------|
| Parameter | EPA Method | Result | Qual XQ | Units | MDL | PQL | Date | Analyst |
| Sulfate | M300.0 - Ion Chromatography | 34.37 | | mg/L | 0.5 | 2.5 | 11/02/12 23:48 | 3 lhb |

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

| Project ID: | ZS0000033Y |
|-------------|------------|
| Sample ID: | MO-2007-4C |

ACZ Sample ID: **L97554-03** Date Sampled: 10/23/12 15:56 Date Received: 10/26/12 Sample Matrix: Ground Water

| Wet Chemistry | | | | | | | | | |
|---------------|-----------------------------|--------|--------|----|-------|-----|-----|---------------|---------|
| Parameter | EPA Method | Result | Qual > | XQ | Units | MDL | PQL | Date | Analyst |
| Sulfate | M300.0 - Ion Chromatography | 94.65 | | | mg/L | 0.5 | 2.5 | 11/03/12 1:12 | lhb |

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

| Project ID: | ZS0000033Y |
|-------------|------------|
| Sample ID: | MO-2007-1A |

ACZ Sample ID: **L97554-04** Date Sampled: 10/24/12 14:33 Date Received: 10/26/12 Sample Matrix: Ground Water

| Wet Chemistry | | | | | | | | |
|---------------|-----------------------------|--------|--------|---------|-----|-----|---------------|---------|
| Parameter | EPA Method | Result | Qual X | Q Units | MDL | PQL | Date | Analyst |
| Sulfate | M300.0 - Ion Chromatography | 16.50 | | mg/L | 0.5 | 2.5 | 11/03/12 1:34 | lhb |

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

| Project ID: | ZS0000033Y |
|-------------|------------|
| Sample ID: | MO-2007-1B |

ACZ Sample ID: **L97554-05** Date Sampled: 10/24/12 13:52 Date Received: 10/26/12 Sample Matrix: Ground Water

| Wet Chemistry | | | | | | | | |
|---------------|-----------------------------|--------|---------|-------|-----|-----|----------------|---------|
| Parameter | EPA Method | Result | Qual XQ | Units | MDL | PQL | Date | Analyst |
| Sulfate | M300.0 - Ion Chromatography | 975.8 | | mg/L | 10 | 50 | 11/05/12 18:04 | 1 lhb |

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

| Project ID: | ZS0000033Y |
|-------------|------------|
| Sample ID: | MO-2007-1C |

ACZ Sample ID: **L97554-06** Date Sampled: 10/24/12 16:33 Date Received: 10/26/12 Sample Matrix: Ground Water

| Wet Chemistry | | | | | | | | |
|---------------|-----------------------------|--------|---------|-------|-----|-----|---------------|---------|
| Parameter | EPA Method | Result | Qual XQ | Units | MDL | PQL | Date | Analyst |
| Sulfate | M300.0 - Ion Chromatography | 239.2 | | mg/L | 5 | 25 | 11/03/12 2:16 | lhb |

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

| Project ID: | ZS0000033Y |
|-------------|--------------|
| Sample ID: | DUP20121024A |

| ACZ Sample ID: | L97554-07 |
|----------------|----------------|
| Date Sampled: | 10/24/12 00:00 |
| Date Received: | 10/26/12 |
| Sample Matrix: | Ground Water |

| Wet Chemistry | | | | | | | | |
|---------------|-----------------------------|--------|---------|-------|-----|------|----------------|---------|
| Parameter | EPA Method | Result | Qual XQ | Units | MDL | PQL | Date | Analyst |
| Sulfate | M300.0 - Ion Chromatography | 235.26 | | mg/L | 2.5 | 12.5 | 11/05/12 18:25 | 5 lhb |



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 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 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, March nic Substances in l 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

ACZ Project ID: L97554

| Sulfate | M300.0 - Ion Chromatography | | | | | | | | | | | | |
|--------------|-----------------------------|----------------|------------|----|--------|-------|-------|-------|-------|-------|-----|-------|------|
| ACZ ID | Туре | Analyzed | PCN/SCN | QC | Sample | Found | Units | Rec | Lower | Upper | RPD | Limit | Qual |
| WG329935 | | | | | | | | | | | | | |
| WG329935ICV | ICV | 09/12/12 14:16 | WI120912-1 | 50 | | 51.68 | mg/L | 103.4 | 90 | 110 | | | |
| WG329935ICB | ICB | 09/12/12 14:37 | | | | U | mg/L | | -1.5 | 1.5 | | | |
| WG333398 | | | | | | | | | | | | | |
| WG333398LFB1 | LFB | 11/02/12 12:54 | WI121018-8 | 30 | | 31.84 | mg/L | 106.1 | 90 | 110 | | | |
| WG333398LFB2 | LFB | 11/02/12 22:45 | WI121018-8 | 30 | | 30.47 | mg/L | 101.6 | 90 | 110 | | | |
| L97554-01DUP | DUP | 11/02/12 23:27 | | | 94.87 | 94.54 | mg/L | | | | 0.3 | 20 | |
| L97554-02AS | AS | 11/03/12 0:51 | WI121018-8 | 30 | 34.37 | 64.6 | mg/L | | 90 | 110 | | | |



(800) 334-5493

ACZ Project ID: L97554

FMI Gold & Copper - Sierrita

| ACZ ID | WORKNUM PARAMETER | METHOD | QUAL DESCRIPTION | |
|--------|-------------------|--------|------------------|--|

No extended qualifiers associated with this analysis



ACZ Project ID: L97554

No certification qualifiers associated with this analysis

| ACZ Laboratories, Inc. 2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493 | | | ample eceipt | |
|---|------------|-------|-----------------|---------|
| FMI Gold & Copper - Sierrita ACZ | Z Project | ID: | | L97554 |
| | e Receive | ed: 1 | 0/26/201 | 2 10:47 |
| | leceived E | • | | ksj |
| | ate Printe | ed: | 10/2 | 26/2012 |
| Receipt Verification | | (= 0 | | |
| 1) Is a foreign soil permit included for applicable samples? | , | YES | NO | NA X |
| | | Х | | ~ |
| 2) Is the Chain of Custody or other directive shipping papers present? | | ~ | | |
| 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 | s? | 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 samples? | | | Х | |
| Samples/Containers | | | | |
| | Ň | 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?

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? |
|-----------|-----------|--------------------|----------------------|
| | | | |
| 3621 | 0.5 | 16 | 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

Х

| Name: Jon Ander 30- Company: | | | Addre | ISS: | | | | | |
|---|--|-------------------|-------------------|--------------------|------------------|--------------------|--------------------|-------------|----------|
| E-mail: Imathan-an | dersone Fmille | m | Telep | hone: | ı | | | | |
| Name: Ben Daigne Company: | αJ | | E-mai Telepi | 1: 6) / hone: 3 | 20-62 | <u>C 4</u> 2-32 | <u>rcTee</u> 22 | kass | lociate |
| Name: | | | Addre | SS: | | | | | |
| Company: | | | / laar o | | | | | | |
| E-mail: | ······································ | | Telepi | hone: | <u> </u> | | | | |
| f sample(s) received past holdin analysis before expiration, shall "NO1 then ACZ will contact client for further instru- indicated, ACZ will proceed with the requested an | ACZ proceed with requeste | ed short | | | ete | | YES NO | | |
| Are samples for SDWA Complian | nce Monitoring? | | Yes | | No | | | | |
| f yes, please include state forms | | o PQL fo | | rado. | | | | 1 7 | |
| Sampler's Name: | _ Sampler's site Information | | State | | Zip code | l Ti | me Zone | | |
| Project/PO #: $Z S B Q Q$ Reporting state for compliance test Check box if samples include NRC MO - 2007 - 4A MO - 2007 - 4B MO - 2007 - 4C MO - 2007 - 1A | ing: licensed material? 10/23/12 1521 10/23/12 1438 10/23/12 1556 10/24/12 1433 | Kul Kul Kul | + + of Containers | XXXX X SUFL | | | | | |
| MU-20-07-10 | 10/24/12 1352 | | | X | | | | + | |
| 10-2007-1C DUPZ0121024A | 10/24/12_1633 10/24/12_ | 61 61 | 1 | X | | ++- | _ | + | |
| | | | | | | + | | 1 | |
| | | | | | | | | | |
| Matrix SW (Surface Water) · GV | V (Ground Water) · WW (Waste V | Vater) · D | W (Drink | ing Wate | r) · SL (Sludge) | · SO (Soil) · C | L (Oil) · Oth | er (Specify | () |
| UAS 12 867 | 7E4 23 / | | | | roverse side | of this CO | G | | |
| Diogeo r | | uitionia i | vcalou | | Teverse side | | 0. | | |
| Please re | | | | | | | | | |
| | | 195 | | | 07 | | 10:2 | 20.13 | 10:44 |

L97554 Chain of Custody

Yellow - Retain for your records.

FRMAD050.02.11.11

White - Return with sample.



November 26, 2012

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: ZS0000033Y ACZ Project ID: L97745

Jon Anderson:

Enclosed are the analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on November 08, 2012. This project has been assigned to ACZ's project number, L97745. 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 L97745. 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 December 26, 2012. 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: | ZS0000033Y |
|-------------|------------|
| Sample ID: | MO-2007-5B |

ACZ Sample ID: **L97745-01** Date Sampled: 11/06/12 10:39 Date Received: 11/08/12 Sample Matrix: Ground Water

| Wet Chemistry | | | | | | | | |
|---------------|-----------------------------|--------|---------|-------|-----|-----|----------------|---------|
| Parameter | EPA Method | Result | Qual XQ | Units | MDL | PQL | Date | Analyst |
| Sulfate | M300.0 - Ion Chromatography | 453.9 | | mg/L | 5 | 25 | 11/20/12 14:32 | 2 lhb |

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

| Project ID: | ZS0000033Y |
|-------------|------------|
| Sample ID: | MO-2007-5C |

ACZ Sample ID: **L97745-02** Date Sampled: 11/06/12 15:14 Date Received: 11/08/12 Sample Matrix: Ground Water

| Wet Chemistry | | | | | | | | |
|---------------|-----------------------------|--------|---------|-------|-----|-----|----------------|---------|
| Parameter | EPA Method | Result | Qual XQ | Units | MDL | PQL | Date | Analyst |
| Sulfate | M300.0 - Ion Chromatography | 262.57 | | mg/L | 1.5 | 7.5 | 11/20/12 14:53 | 3 lhb |



Inorganic Reference

| eport Head | ler Explanations | | |
|--|--|---|---|
| | A distinct set of samples a | nalyzed at a specific time | |
| | Value of the QC Type of in | nterest | |
| | Upper limit for RPD, in %. | | |
| | Lower Recovery Limit, in % | % (except for LCSS, mg/Kg) | |
| | Method Detection Limit. S | ame as Minimum Reporting Limit. Allows | for instrument and annual fluctuations. |
| | A number assigned to reag | gents/standards to trace to the manufactu | rer's certificate of analysis |
| | Practical Quantitation Limi | t, typically 5 times the MDL. | |
| | True Value of the Control S | Sample or the amount added to the Spike | |
| | Recovered amount of the | true value or spike added, in % (except fo | r LCSS, mg/Kg) |
| | Relative Percent Differenc | e, calculation used for Duplicate QC Type | s |
| | Upper Recovery Limit, in % | % (except for LCSS, mg/Kg) | |
| | Value of the Sample of inte | erest | |
| C Sample 1 | Турез | | |
| | Analytical Spike (Post Dige | estion) | Laboratory Control Sample - Water Duplicate |
| | Analytical Spike (Post Dige | | Laboratory Fortified Blank |
| | Continuing Calibration Bla | | Laboratory Fortified Matrix |
| | Continuing Calibration Ver | | Laboratory Fortified Matrix Duplicate |
| | Sample Duplicate | - | Laboratory Reagent Blank |
| | Initial Calibration Blank | | Matrix Spike |
| | Initial Calibration Verificatio | on standard | Matrix Spike Duplicate |
| | | Standard - A plus B solutions | Prep Blank - Soil |
| | Laboratory Control Sample | • | Prep Blank - Water |
| | Laboratory Control Sample | | Practical Quantitation Verification standard |
| | , , | • | |
| Blanks | | /erifies that there is no or minimal contami | Serial Dilution |
| Blanks Control S Duplicate | Type Explanations V Samples V Ses V | /erifies that there is no or minimal contami /erifies the accuracy of the method, includ /erifies the precision of the instrument and | nation in the prep method or calibration procedure. ing the prep procedure. //or method. |
| Blanks Control S Duplicate | Type Explanations | /erifies that there is no or minimal contami /erifies the accuracy of the method, includ | nation in the prep method or calibration procedure. ing the prep procedure. //or method. |
| Blanks Control S Duplicate Spikes/F Standard | Type Explanations | /erifies that there is no or minimal contami /erifies the accuracy of the method, includ /erifies the precision of the instrument and Determines sample matrix interferences, if | nation in the prep method or calibration procedure. ing the prep procedure. //or method. |
| Blanks Control S Duplicate Spikes/F | Type Explanations | /erifies that there is no or minimal contami /erifies the accuracy of the method, includ /erifies the precision of the instrument and Determines sample matrix interferences, if /erifies the validity of the calibration. | nation in the prep method or calibration procedure. ing the prep procedure. //or method. any. |
| Blanks Control S Duplicate Spikes/F Standard | Type Explanations | /erifies that there is no or minimal contami /erifies the accuracy of the method, includ /erifies the precision of the instrument and Determines sample matrix interferences, if /erifies the validity of the calibration. | nation in the prep method or calibration procedure. ing the prep procedure. //or method. any. "he associated value is an estimated quantity. |
| Blanks Control S Duplicate Spikes/F Standard CZ Qualifie B | Type Explanations | /erifies that there is no or minimal contami /erifies the accuracy of the method, includ /erifies the precision of the instrument and Determines sample matrix interferences, if /erifies the validity of the calibration. ected at a value between MDL and PQL. T d hold time. pH is a field test with an imme | nation in the prep method or calibration procedure. ing the prep procedure. //or method. any. The associated value is an estimated quantity. ediate hold time. |
| Blanks Control S Duplicate Spikes/F Standard CZ Qualifie B H L | Type Explanations | /erifies that there is no or minimal contami /erifies the accuracy of the method, includ /erifies the precision of the instrument and Determines sample matrix interferences, if /erifies the validity of the calibration. ected at a value between MDL and PQL. T d hold time. pH is a field test with an imme vas below the laboratory defined negative | nation in the prep method or calibration procedure. ing the prep procedure. //or method. any. The associated value is an estimated quantity. ediate hold time. threshold. |
| Blanks Control S Duplicate Spikes/F Standard CZ Qualifie B H | Type Explanations | /erifies that there is no or minimal contami /erifies the accuracy of the method, includ /erifies the precision of the instrument and Determines sample matrix interferences, if /erifies the validity of the calibration. ected at a value between MDL and PQL. T d hold time. pH is a field test with an imme | nation in the prep method or calibration procedure. ing the prep procedure. l/or method. any. The associated value is an estimated quantity. ediate hold time. threshold. I of the associated value. |
| Blanks Control S Duplicate Spikes/F Standard B H L U | Type Explanations | /erifies that there is no or minimal contami /erifies the accuracy of the method, includ /erifies the precision of the instrument and Determines sample matrix interferences, if /erifies the validity of the calibration. ected at a value between MDL and PQL. T d hold time. pH is a field test with an imme vas below the laboratory defined negative d for, but was not detected above the leve | nation in the prep method or calibration procedure. ing the prep procedure. l/or method. any. The associated value is an estimated quantity. ediate hold time. threshold. I of the associated value. |
| Blanks Control S Duplicate Spikes/F Standard CZ Qualifie B H L U | Type Explanations | /erifies that there is no or minimal contami /erifies the accuracy of the method, includ /erifies the precision of the instrument and Determines sample matrix interferences, if /erifies the validity of the calibration. ected at a value between MDL and PQL. T d hold time. pH is a field test with an imme vas below the laboratory defined negative d for, but was not detected above the leve ther the sample quantitation limit or the sa | nation in the prep method or calibration procedure. ing the prep procedure. l/or method. any. The associated value is an estimated quantity. ediate hold time. threshold. I of the associated value. mple detection limit. |
| Blanks Control S Duplicate Spikes/F Standard CZ Qualifie B H L U U ethod Refe | Type Explanations Samples Samp | /erifies that there is no or minimal contami /erifies the accuracy of the method, includ /erifies the precision of the instrument and Determines sample matrix interferences, if /erifies the validity of the calibration. ected at a value between MDL and PQL. T d hold time. pH is a field test with an imme vas below the laboratory defined negative d for, but was not detected above the leve ther the sample quantitation limit or the sa | nation in the prep method or calibration procedure. ing the prep procedure. l/or method. any. The associated value is an estimated quantity. ediate hold time. threshold. I of the associated value. mple detection limit. Pastes, March 1983. |
| Blanks Control S Duplicate Spikes/F Standard CZ Qualifie B H L U U ethod Refe (1) (2) | Type Explanations | /erifies that there is no or minimal contami /erifies the accuracy of the method, includ /erifies the precision of the instrument and Determines sample matrix interferences, if /erifies the validity of the calibration. ected at a value between MDL and PQL. The d hold time. pH is a field test with an imme vas below the laboratory defined negative d for, but was not detected above the leve ther the sample quantitation limit or the sample pods for Chemical Analysis of Water and W oods for the Determination of Inorganic Sut | Ination in the prep method or calibration procedure. I/or method. any. The associated value is an estimated quantity. ediate hold time. threshold. I of the associated value. mple detection limit. lastes, March 1983. ostances in Environmental Samples, August 1993. |
| Blanks Control S Duplicate Spikes/F Standard CZ Qualifie B H L U U ethod Refe (1) (2) (3) | Type Explanations | /erifies that there is no or minimal contami /erifies the accuracy of the method, includ /erifies the precision of the instrument and Determines sample matrix interferences, if /erifies the validity of the calibration. ected at a value between MDL and PQL. The d hold time. pH is a field test with an imme- vas below the laboratory defined negative d for, but was not detected above the leve ther the sample quantitation limit or the sample pods for Chemical Analysis of Water and W oods for the Determination of Inorganic Sut ods for the Determination of Metals in Env | nation in the prep method or calibration procedure. ing the prep procedure. l/or method. any. The associated value is an estimated quantity. ediate hold time. threshold. I of the associated value. mple detection limit. Pastes, March 1983. |
| Blanks Control S Duplicate Spikes/F Standard CZ Qualifie B H L U U ethod Refe (1) (2) | Type Explanations | /erifies that there is no or minimal contami /erifies the accuracy of the method, includ /erifies the precision of the instrument and Determines sample matrix interferences, if /erifies the validity of the calibration. ected at a value between MDL and PQL. The d hold time. pH is a field test with an imme vas below the laboratory defined negative d for, but was not detected above the leve ther the sample quantitation limit or the sample pods for Chemical Analysis of Water and W oods for the Determination of Inorganic Sut | Ination in the prep method or calibration procedure. I/or method. any. The associated value is an estimated quantity. ediate hold time. threshold. I of the associated value. mple detection limit. lastes, March 1983. ostances in Environmental Samples, August 1993. |
| Blanks Control S Duplicate Spikes/F Standard C2 Qualifie B H L U ethod Refe (1) (2) (3) (4) | Type Explanations | /erifies that there is no or minimal contami /erifies the accuracy of the method, includ /erifies the precision of the instrument and Determines sample matrix interferences, if /erifies the validity of the calibration. ected at a value between MDL and PQL. The d hold time. pH is a field test with an immediate vas below the laboratory defined negative d for, but was not detected above the leve ther the sample quantitation limit or the sample pods for Chemical Analysis of Water and W ods for the Determination of Inorganic Sut ods for the Determination of Metals in Environ ods for Evaluating Solid Waste. | Ination in the prep method or calibration procedure. I/or method. any. The associated value is an estimated quantity. ediate hold time. threshold. I of the associated value. mple detection limit. lastes, March 1983. ostances in Environmental Samples, August 1993. |
| Blanks Control S Duplicate Spikes/F Standard CZ Qualifie B H L U U ethod Refe (1) (2) (3) (4) (5) | Type Explanations | /erifies that there is no or minimal contami /erifies the accuracy of the method, includ /erifies the precision of the instrument and Determines sample matrix interferences, if /erifies the validity of the calibration. ected at a value between MDL and PQL. T d hold time. pH is a field test with an imme vas below the laboratory defined negative d for, but was not detected above the leve ther the sample quantitation limit or the sa bods for Chemical Analysis of Water and W ods for the Determination of Inorganic Sut ods for the Determination of Metals in Env ods for Evaluating Solid Waste. Examination of Water and Wastewater. | Ination in the prep method or calibration procedure. I/or method. any. The associated value is an estimated quantity. ediate hold time. threshold. I of the associated value. mple detection limit. lastes, March 1983. ostances in Environmental Samples, August 1993. |
| Blanks Control S Duplicate Spikes/F Standard CZ Qualifie B H L U U ethod Refe (1) (2) (3) (4) (5) Domments (1) | Type Explanations | /erifies that there is no or minimal contami /erifies the accuracy of the method, includ /erifies the precision of the instrument and Determines sample matrix interferences, if /erifies the validity of the calibration. ected at a value between MDL and PQL. T d hold time. pH is a field test with an imme vas below the laboratory defined negative d for, but was not detected above the leve ther the sample quantitation limit or the sa bods for Chemical Analysis of Water and W ods for the Determination of Inorganic Sut ods for the Determination of Metals in Env ods for Evaluating Solid Waste. Examination of Water and Wastewater. | ination in the prep method or calibration procedure. ing the prep procedure. I/or method. any. The associated value is an estimated quantity. ediate hold time. threshold. I of the associated value. mple detection limit. States, March 1983. Distances in Environmental Samples, August 1993. ironmental Samples - Supplement I, May 1994. Prounded values are used in the calculations. |
| Blanks Control S Duplicate Spikes/F Standard CZ Qualifie B H L U U ethod Refe (1) (2) (3) (4) (5) Domments (1) (2) | Type Explanations Samples Samples Samples Samples Samples Samples Samples Samples Samples Samples Samples Samples Samples Samples Samples Samples Samples Sa | /erifies that there is no or minimal contami /erifies the accuracy of the method, includ /erifies the precision of the instrument and Determines sample matrix interferences, if /erifies the validity of the calibration. ected at a value between MDL and PQL. The d hold time. pH is a field test with an imme vas below the laboratory defined negative d for, but was not detected above the leve ther the sample quantitation limit or the satisfies for Chemical Analysis of Water and W ods for Chemical Analysis of Water and W ods for the Determination of Inorganic Sut ods for the Determination of Metals in Env ods for Evaluating Solid Waste. Examination of Water and Wastewater. | ination in the prep method or calibration procedure. ing the prep procedure. I/or method. any. The associated value is an estimated quantity. ediate hold time. threshold. I of the associated value. mple detection limit. I astes, March 1983. bistances in Environmental Samples, August 1993. ironmental Samples - Supplement I, May 1994. I rounded values are used in the calculations. on a dry weight basis. |
| Blanks Control S Duplicate Spikes/F Standard CZ Qualifie B H L U U ethod Refe (1) (2) (3) (4) (5) Domments (1) (2) (3) | Type Explanations | /erifies that there is no or minimal contami /erifies the accuracy of the method, includ /erifies the precision of the instrument and Determines sample matrix interferences, if /erifies the validity of the calibration. ected at a value between MDL and PQL. The d hold time. pH is a field test with an imme vas below the laboratory defined negative d for, but was not detected above the leve ther the sample quantitation limit or the satisfies for Chemical Analysis of Water and W ods for Chemical Analysis of Water and W ods for the Determination of Inorganic Sut ods for the Determination of Metals in Env ods for Evaluating Solid Waste. Examination of Water and Wastewater. | ination in the prep method or calibration procedure. ing the prep procedure. I/or method. any. The associated value is an estimated quantity. ediate hold time. threshold. I of the associated value. mple detection limit. astes, March 1983. ostances in Environmental Samples, August 1993. ironmental Samples - Supplement I, May 1994. erounded values are used in the calculations. on a dry weight basis. ved" basis. |
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| Blanks Control S Duplicate Spikes/F Standard CZ Qualifie B H L U U ethod Refe (1) (2) (3) (4) (5) Domments (1) (2) (3) | Type Explanations Samples Samples es vortified Matrix I Analyte concentration deter Analyte concentration deter Analysis exceeded method Target analyte response w The material was analyzed The associated value is eit PPA 600/4-83-020. Methor EPA 600/R-93-100. Methor EPA 600/R-94-111. Methor EPA SW-846. Test Methor Standard Methods for the QC results calculated from Soil, Sludge, and Plant ma Animal matrices for Inorga An asterisk in the "XQ" col associated with the result. | /erifies that there is no or minimal contami /erifies the accuracy of the method, includ /erifies the precision of the instrument and Determines sample matrix interferences, if /erifies the validity of the calibration. ected at a value between MDL and PQL. The d hold time. pH is a field test with an imme vas below the laboratory defined negative d for, but was not detected above the leve ther the sample quantitation limit or the satisfies for Chemical Analysis of Water and W ods for Chemical Analysis of Water and W ods for the Determination of Inorganic Sut ods for the Determination of Metals in Env ods for Evaluating Solid Waste. Examination of Water and Wastewater. | ination in the prep method or calibration procedure. ing the prep procedure. //or method. any. The associated value is an estimated quantity. ediate hold time. threshold. I of the associated value. mple detection limit. astes, March 1983. bostances in Environmental Samples, August 1993. ironmental Samples - Supplement I, May 1994. e rounded values are used in the calculations. on a dry weight basis. ved" basis. er and/or certification qualifier |

REP001.09.12.01



ACZ Project ID: L97745

| Sulfate | | | M300.0 - Io | - Ion Chromatography | | | | | | | | | |
|--------------|------|----------------|-------------|----------------------|--------|-------|-------|-------|-------|-------|-----|-------|------|
| ACZ ID | Туре | Analyzed | PCN/SCN | QC | Sample | Found | Units | Rec | Lower | Upper | RPD | Limit | Qual |
| WG334290 | | | | | | | | | | | | | |
| WG334290ICV | ICV | 11/15/12 19:21 | WI120912-1 | 50 | | 51.75 | mg/L | 103.5 | 90 | 110 | | | |
| WG334290ICB | ICB | 11/15/12 19:42 | | | | U | mg/L | | -1.5 | 1.5 | | | |
| WG334463 | | | | | | | | | | | | | |
| WG334463LFB1 | LFB | 11/20/12 13:49 | WI121018-8 | 30 | | 29.55 | mg/L | 98.5 | 90 | 110 | | | |
| L97747-01DUP | DUP | 11/20/12 15:35 | | | 17.3 | 17.3 | mg/L | | | | 0 | 20 | |
| WG334463LFB2 | LFB | 11/21/12 0:02 | WI121018-8 | 30 | | 30.42 | mg/L | 101.4 | 90 | 110 | | | |
| L97747-02AS | AS | 11/21/12 11:18 | WI121018-8 | 30 | 7.34 | 37.59 | mg/L | 100.8 | 90 | 110 | | | |

5493



Inorganic Extended Qualifier Report

ACZ Project ID: L97745

FMI Gold & Copper - Sierrita

| ACZ ID WORKNUM PARAMETER METHOD QUAL DESCRIPTION | | | | |
|--|--------|-------------------|--------|------------------|
| | ACZ ID | WORKNUM PARAMETER | METHOD | QUAL DESCRIPTION |

5493

No extended qualifiers associated with this analysis



ACZ Project ID: L97745

No certification qualifiers associated with this analysis

5493

| ACZ | Laboratories, Inc. |
|-----|---|
| | Oto and a st Oradiana OO 00407 (000) 004 5400 |

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

Sample Receipt

| FMI Gold & Copper - Sierrita | ACZ Proje | ct ID: | | L97745 |
|--|-----------------|----------|----------|---------|
| ZS0000033Y | Date Rece | eived: 1 | 1/08/201 | 2 09:56 |
| | Receive | | | ksj |
| | Date Pr | inted: | 11 | /8/2012 |
| Receipt Verification | | YES | NO | NA |
| 1) Is a foreign soil permit included for applicable samples? | | 0 | 110 | 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 protoco | ol? | | | Х |
| 4) Are any samples NRC licensable material? | | | | Х |
| 5) If samples are received past hold time, proceed with requested short hold t | ime 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 | e 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, a | nd 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 | | | | |
| | ustody Seal Int | | | |
| | | | | |

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

Yes

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| | aboratories, Inc | · LC | 17- | 740 | \leq | (| CHA N | of CU | $S\left(\left(\right) \right) \in \mathbb{N}$ |
|---------------------------------------|---|---------------|------------------------|----------------|------------|---------------|-----------------|----------------|---|
| 2773 Downnill Drive Stear | nboat Springs, CO 80487 (800) 3 | 334-5493 | | | | | | | |
| Report to | | | | | | | | | |
| Name: Jon Anderson | | | Addre | | 0 W. Duv | | | <u> </u> | |
| Company: Freeport-Mo | | | Green Valley, AZ 85614 | | | | | | |
| E-mail: Jonathan_Ander | son@fmi.com | | Telep | hone: 5 | 20-648-8 | 844 | | | ····· |
| Copy of Report for | | | _ | | | | | | |
| Name: Ben Daigneau | | | E-mai | I: bdaig | neau@cle | earcreeka | ssociates. | com | |
| Company: Clear Creek | Associates | | Telep | hone: 5 | 20-622-3 | 222 | | | |
| Invoice to: | | | | | | | | | |
| Name: | | | Addre | SS: | | - | | | |
| Company: | ······································ | | | | | | | | |
| E-mail: | | | Telep | hone: | | | | | |
| If sample(s) received pas | t holding time (HT), or if insuffic | | | | ete | | • | YES | |
| | n, shall ACZ proceed with reque | | | | | | | |] |
| | itact client for further instruction ceed with the requested analyse | | | | | ll be quali | fied | | |
| Are samples for CO DW (| | 00,000,11 | | ipnou, a | | n bo quan | | YES | T |
| | te forms. Results will be reporte | ed to PQL. | | | | | | NO X | 1 |
| PROJECT INFORMATI | ON | | | ANA Y | SES REQU | រានា-២ក្ | ittach list e | ar use quoi | e numbar) |
| Quote #: | | | | 375 | | | | | |
| Project/PO #: ZS0000 |)33Y | | Containers | EPA 375 | | | | | |
| Reporting state for com | pliance testing: | | Itair | 8 | | | | | |
| Sampler's Name: Jeffre | y Joy | | | PA3 | | | | | |
| Are any samples NRC I | icensable material? Yes No | | Å | SO4 by EPA 300 | | | | | |
| SAMPLE IDEN HFICA | ATION DATE: TIME | Matrix | 6 | ģ | | | | | |
| MO-2007-5B | 11/6/12 : 1039 | GW | 1 | × | | | | | |
| MO-2007-5C | 11/6/12 : 1514 | GW | 1 | × | | | | | |
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| a a | | | | | | | | | |
| Matrix SW (Surface Wi | ater) · GW (Ground Water) · WW (Was | te Water) · D | W (Drinki | ng Water) | SL (Sludge | e) · SO (Soil | I) · OL (Oil) · | Other (Specify | y) |
| REMARKS | | | | | | | | | |
| Matrix SW (Surface Waterian SW) | 7 754 22 1001 075 5 | | | | | | | | |
| UPS Tracking # 1Z 86 | / /E4 25 1001 075 5 | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | Please refer to ACZ's terms | | ons loc | | | | this COC | | THE A |
| RELINQUISH | | a eime. | | R | | 15 Y : | | | |
| | 11/7/12 : | 1530 | <u> </u> | | 10 |) | [] | 1812 | <u>7:54</u> |
| · · · · · · · · · · · · · · · · · · · | | | ┣── | | | | | | |
| L | | | 1 | | | | | | |

FRMAD050.01.15.09



November 29, 2012

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: ZS0000033Y ACZ Project ID: L97916

Jon Anderson:

Enclosed are the analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on November 16, 2012. This project has been assigned to ACZ's project number, L97916. 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 L97916. 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 December 29, 2012. 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: | ZS0000033Y |
|-------------|------------|
| Sample ID: | ESP-4 |

ACZ Sample ID: **L97916-01** Date Sampled: 11/12/12 09:27 Date Received: 11/16/12 Sample Matrix: Ground Water

| Wet Chemistry | | | | | | | | |
|---------------|-----------------------------|--------|---------|-------|-----|-----|----------------|---------|
| Parameter | EPA Method | Result | Qual XQ | Units | MDL | PQL | Date | Analyst |
| Sulfate | M300.0 - Ion Chromatography | 618.5 | | mg/L | 5 | 25 | 11/26/12 23:35 | 5 lhb |

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

| Project ID: ZS00 | 000331 |
|------------------|--------|
| Sample ID: GV-1 | |

ACZ Sample ID: **L97916-02** Date Sampled: 11/15/12 09:11 Date Received: 11/16/12 Sample Matrix: Ground Water

| Wet Chemistry | | | | | | | | |
|---------------|-----------------------------|--------|---------|-------|-----|-----|----------------|---------|
| Parameter | EPA Method | Result | Qual XQ | Units | MDL | PQL | Date | Analyst |
| Sulfate | M300.0 - Ion Chromatography | 33.95 | | mg/L | 0.5 | 2.5 | 11/26/12 23:56 | 6 lhb |

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

| Project ID: | ZS0000033Y |
|-------------|------------|
| Sample ID: | GV-2 |

ACZ Sample ID: **L97916-03** Date Sampled: 11/15/12 09:50 Date Received: 11/16/12 Sample Matrix: Ground Water

| Wet Chemistry | | | | | | | | |
|---------------|-----------------------------|--------|---------|-------|-----|-----|---------------|---------|
| Parameter | EPA Method | Result | Qual XQ | Units | MDL | PQL | Date | Analyst |
| Sulfate | M300.0 - Ion Chromatography | 63.97 | | mg/L | 0.5 | 2.5 | 11/27/12 0:17 | lhb |



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. 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 | • | | | | | | | |
| 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 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, March nic Substances in l 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

ACZ Project ID: L97916

| Sulfate | | M300.0 - Ion Chromatography | | | | | | | | | | | |
|--------------|------|-----------------------------|------------|-----|--------|--------|-------|-------|-------|-------|-----|-------|------|
| ACZ ID | Туре | Analyzed | PCN/SCN | QC | Sample | Found | Units | Rec | Lower | Upper | RPD | Limit | Qual |
| WG334290 | | | | | | | | | | | | | |
| WG334290ICV | ICV | 11/15/12 19:21 | WI120912-1 | 50 | | 51.75 | mg/L | 103.5 | 90 | 110 | | | |
| WG334290ICB | ICB | 11/15/12 19:42 | | | | U | mg/L | | -1.5 | 1.5 | | | |
| WG334651 | | | | | | | | | | | | | |
| WG334651LFB | LFB | 11/26/12 18:18 | WI121018-8 | 30 | | 27.77 | mg/L | 92.6 | 90 | 110 | | | |
| L97936-01DUP | DUP | 11/27/12 1:00 | | | 23.33 | 22.83 | mg/L | | | | 2.2 | 20 | |
| L97938-01AS | AS | 11/27/12 1:42 | WI121018-8 | 150 | 128 | 266.59 | mg/L | 92.4 | 90 | 110 | | | |



(800) 334-5493

ACZ Project ID: L97916

FMI Gold & Copper - Sierrita

| ACZ ID | WORKNUM PARAMETER | METHOD | QUAL DESCRIPTION | |
|--------|-------------------|--------|------------------|--|

No extended qualifiers associated with this analysis



ACZ Project ID: L97916

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 | ect ID: | | L97916 |
|---|--------------|---------|----------|---------|
| ZS0000033Y | Date Rece | | 1/16/201 | 2 09:16 |
| | Receive | • | | ksj |
| Receipt Verification | Date Pr | inted: | 11/ | 16/2012 |
| | | 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 | |
| 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 (µR/Hr) Cust | ody Seal Int | act? | | |

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

17

Yes

NA16591

5.2

| Name: Jon Anderson | | | Addres | s: 6200 | W. Duva | Mine F | Road | | |
|--------------------------------------|---|--------------------------|---------------------|-------------------------|-------------|------------|-------------|--------------|-----------|
| | McMoRan Sierrita Inc. | | | | n Valley, | | 14 | | |
| E-mail: Jonathan_And | derson@fmi.com | | Teleph | ione: 52 | 0-648-88 | 44 | | | |
| Copy of Report to | | | | | | | | | |
| Name: Ben Daignea | | E-mail | bdaign | eau@clea | rcreeka | ssociate | es.com | | |
| Company: Clear Cre | | Teleph | ione: 52 | 20-622-32 | 22 | | | | |
| Invo de tot | | | | | | | | | |
| Name: | | | Addres | SS: | | | | | |
| Company: | · | | | | | | | | |
| E-mail: | <u></u> | | Teleph | | | | | VEA | |
| If sample(s) received p | past holding time (HT), or if insufficition, shall ACZ proceed with request | ent HT rer sted short | nains to HT anal | complet vses? | le | | | YES NO | |
| If "NO" then ACZ will o | contact client for further instruction | . If neithe | r "YES" | nor "NO | ۳ | _ | | | |
| | proceed with the requested analyse | s, even if l | HT is ex | pired, an | d data will | be quali | fied. | YES | |
| | W Compliance Monitoring? state forms. Results will be reporte | d to PQL. | | | | | | NO | × |
| PROJECT INFORM | | | | ANA YS | SES REQU | -STED (| ittach II. | st or and | ranne n |
| Quote #: | | | | 375 | | | 1 | | |
| Project/PO #: ZS00 | 00033Y | | Containers | or EPA | | | | | |
| Reporting state for co | ompliance testing: | | ntai | 300 0 | | | | | |
| Sampler's Name: Jef | f Joy | | o C | EPA 300 | | | | | |
| Are any samples NR SAMPLE IDENTIF | C licensable material? Yes No | Matrix | # | SO4 by | | | | | |
| ESP-4 | 11/12/12 : 0927 | GW | 1 | × | | | - | ┼╌╌ | |
| GV-1 | 11/12/12 : 092/ | GW | $\frac{1}{1}$ | × | | | <u> </u> | | |
| GV-2 | 11/15/12 : 0950 | GW | 1 | × | | | | | |
| | | | | | | | | | |
| | | | <u> </u> | | | | | <u> </u> | ┞──┼ |
| | | | ļ | | | | <u> </u> | <u> </u> | |
| · | | | | $\downarrow \downarrow$ | | | | | ┣┈─┠ |
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| | | | | ┟──┤ | | | | | ┝─┼ |
| <u> </u> | | | W (Drinki | | SL (Sludoe | | i) - OL (C |)il) - Other | (Specify) |
| | e Water) · GW (Ground Water) · WW (Was | te vvater) · D | | nd Aaret) | or lounde | y - 60 (60 | | | (00000) |
| REMARKS | | | | | | _ | ÷ | | |
| UPS Tracking # 1Z | 867 7E4 23 1001 076 4 | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | ~~ | |
| | Please refer to ACZ's terms | 0 | lana lan | atad an | the rever | | 7 Minie (1 | E M 1 | |

FRMAD050.01.15.09



December 10, 2012

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: ZS0000033Y ACZ Project ID: L98019

Jon Anderson:

Enclosed are the analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on November 27, 2012. This project has been assigned to ACZ's project number, L98019. 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 L98019. 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 January 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. |
|-----|--|
| | Steamboat Springs, CO 80487 (800) 334-5493 |

| FMI Gold & Copp | per - Sierrita | ACZ Sample ID: | L98019-01 |
|-----------------|----------------|----------------|----------------|
| Project ID: | ZS0000033Y | Date Sampled: | 11/21/12 11:04 |
| Sample ID: | ESP-2 | Date Received: | 11/27/12 |
| | | Sample Matrix: | Ground Water |

| Wet Chemistry | | | | | | | | |
|---------------|-----------------------------|--------|---------|-------|-----|-----|----------------|---------|
| Parameter | EPA Method | Result | Qual XQ | Units | MDL | PQL | Date | Analyst |
| Sulfate | M300.0 - Ion Chromatography | 26.79 | | mg/L | 0.5 | 2.5 | 12/04/12 14:08 | tcd |

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

| Project ID: | ZS0000033Y |
|-------------|------------|
| Sample ID: | ESP-3 |

ACZ Sample ID: **L98019-02** Date Sampled: 11/21/12 13:26 Date Received: 11/27/12 Sample Matrix: Ground Water

| Wet Chemistry | | | | | | | | |
|---------------|-----------------------------|--------|---------|-------|-----|-----|----------------|---------|
| Parameter | EPA Method | Result | Qual XQ | Units | MDL | PQL | Date | Analyst |
| Sulfate | M300.0 - Ion Chromatography | 350.4 | | mg/L | 5 | 25 | 12/04/12 14:29 | tcd |

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

| Project ID: | ZS0000033Y |
|-------------|------------|
| Sample ID: | TMM-1 |

ACZ Sample ID: L98019-03 Date Sampled: 11/23/12 11:39 Date Received: 11/27/12 Sample Matrix: Ground Water

| Wet Chemistry | | | | | | | | | |
|---------------|-----------------------------|--------|------|----|-------|-----|-----|----------------|---------|
| Parameter | EPA Method | Result | Qual | XQ | Units | MDL | PQL | Date | Analyst |
| Sulfate | M300.0 - Ion Chromatography | | U | | mg/L | 0.5 | 2.5 | 12/04/12 14:50 |) tcd |

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

| Project ID: | ZS0000033Y |
|-------------|--------------|
| Sample ID: | DUP20121123A |

ACZ Sample ID: **L98019-04** Date Sampled: 11/23/12 00:00 Date Received: 11/27/12 Sample Matrix: Ground Water

| Wet Chemistry | | | | | | | | |
|---------------|-----------------------------|--------|---------|-------|-----|-----|----------------|---------|
| Parameter | EPA Method | Result | Qual XQ | Units | MDL | PQL | Date | Analyst |
| Sulfate | M300.0 - Ion Chromatography | | U | mg/L | 0.5 | 2.5 | 12/04/12 15:54 | 4 tcd |



Inorganic Reference

| Batch | Explanations | | | | | | | |
|--|--|--|---|--|--|--|--|--|
| Fourd | A distinct set of samples analyzed at a specific time Value of the QC Type of interest | | | | | | | |
| Found | | | | | | | | |
| 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. 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 | | | | | | | |
| 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 | | | | | | | |
| | Analyte concentration detected at a value between MDL and PQL. The associated 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 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, 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

ACZ Project ID: L98019

| Sulfate | | | M300.0 - I | on Chron | natography | / | | | | | | | |
|--------------|------|----------------|------------|----------|------------|-------|-------|-------|-------|-------|-----|-------|------|
| ACZ ID | Туре | Analyzed | PCN/SCN | QC | Sample | Found | Units | Rec | Lower | Upper | RPD | Limit | Qual |
| WG334290 | | | | | | | | | | | | | |
| WG334290ICV | ICV | 11/15/12 19:21 | WI120912-1 | 50 | | 51.75 | mg/L | 103.5 | 90 | 110 | | | |
| WG334290ICB | ICB | 11/15/12 19:42 | | | | U | mg/L | | -1.5 | 1.5 | | | |
| WG335183 | | | | | | | | | | | | | |
| WG335183LFB1 | LFB | 12/04/12 12:01 | WI120822-4 | 30 | | 30.03 | mg/L | 100.1 | 90 | 110 | | | |
| L98001-01DUP | DUP | 12/04/12 12:44 | | | 3799 | 3767 | mg/L | | | | 0.8 | 20 | |
| L98001-02AS | AS | 12/04/12 13:26 | WI120822-4 | 3000 | 4207 | 7121 | mg/L | 97.1 | 90 | 110 | | | |
| WG335183LFB2 | LFB | 12/04/12 22:13 | WI120822-4 | 30 | | 31 | mg/L | 103.3 | 90 | 110 | | | |



(800) 334-5493

ACZ Project ID: L98019

FMI Gold & Copper - Sierrita

| ACZ ID | WORKNUM PARAMETER | METHOD | QUAL DESCRIPTION | |
|--------|-------------------|--------|------------------|--|

No extended qualifiers associated with this analysis



ACZ Project ID: L98019

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 | | | L98019 |
|---|---------------------|--------|---------------|----------------|
| ZS0000033Y | | | ed: 11/27/201 | |
| | Receive Date Pri | • | 11/ | gac 28/2012 |
| Receipt Verification | Datern | intea. | 11/2 | 20/2012 |
| | | 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 | 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 Temp (°C) Rad (µR/Hr) Cus | tody Seal Int | act? | | |
| 2292 4.1 16 Yes | | | | |

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

| Report for | | | | | | | | | | |
|---|---|---------------------|----------------------------------|----------------|----------------|--------------------|-----------------|-----------|-----------------|--|
| Name: Jonathan And | | | Address: 6200 W. Duval Mine Road | | | | | | | |
| | McMoRan Sierrita Inc. | | | | Valley, A | | | | | |
| E-mail: Jonathan_Ar | derson@fmi.com | | Telept | нопе: 520- | -648-8844 | ļ | | | | |
| Cop. of Report to | | | . | | | | | | <u>.</u> | |
| Name: Ben Daignea | u | | | | | | ciates.com | | | |
| Company: Clear Cre | ek Associates | | Telepi | hone: 520- | -622-3222 | 2 | · | | | |
| Invoice to | | | | | | | | | | |
| Name: | | | Addre | SS: | | | | | | |
| Company: | | | | | | | | | | |
| E-mail: | | | Telepi | hone: | | | | , | | |
| | past holding time (HT), or | | | | | | YES | | | |
| | ation, shall ACZ proceed w contact client for further in | | | | | | NO | | | |
| | proceed with the requeste | | | | data will b | e qualifie | d. | | | |
| | W Compliance Monitoring | | | - | | | YES | | | |
| lf yes, please include | state forms. Results will t | e reported to PQL. | | | | | NO | × | | |
| PROJECT INFORM | AHON | | _ | AN/C MSE | S REQUES | HED (otto | ich list or as | e quote. | numbere | |
| Quote #: | | | 6 | EPA 375 | | | | | | |
| Project/PO #: ZS00 | 00033Y | | Dec | Ë | | | | | | |
| Reporting state for c | ompliance testing: | | of Containers | 300 or | | | | | | |
| Sampler's Name: Jei | ff Joy | | 8 | EPA 300 | | 1 | | | | |
| | C licensable material? | | # | SO4 by | | | | | | |
| SAMPLE IDENTIF | | | | ம் × | | | | | | |
| ESP - 2 | 11/21/12 : 1 | | 1 | × | _ | | _ | | | |
| ESP - 3 | 11/21/12 : 1 | | $\frac{1}{1}$ | × | | | | + - + | | |
| TMM - 1 | 11/23/12 1 | 139 GW GW | 1 | × | | ┝──┼╴ | | ╂───┤ | | |
| DUP20121123A | 11/25/12 | 0 | | | - | ┝──┼ | | ┼──┤ | | |
| | | | | ┢──┟─ | | ┟╌╌┠ | | | | |
| · · · · · · · · · · · · · · · · · · · | | | ┨──── | ╉──╂─ | | ┢──┼ | | ┢──┤ | | |
| Matrix SW (Surfac REMARKS UPS Tracking # 12 | | | | | | ┝──┼╸ | | | | |
| بہ ۷ | · · · · · · · · · · · · · · · · · · · | ····· | | ┨┈╉─ | | ┼─┼ | | | | |
| ت ا | | | | <u> </u> | | ╞──┼ | | ┟┈╶┨ | | |
| Matrix SW (Surfac | e Water) · GW (Ground Water) · | | W (Orioki | ing Water) · S | l (Sludge) · : | 1 SO (Sail) - (| OL (Oil) • Othe | (Specify) | | |
| REMARKS | | | | | - (| | , | | | |
| | | | | | | | | | | |
| UPS Tracking # 1Z | 867 7E4 23 1001 078 2 | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | Please refer to AC | Z's terms & conditi | ons loca | ated on the | e reverse s | side of th | is COC. | | | |
| | ISHED BY: | DATE: HM | | | CERVED BY | | | | ::TH W 3 | |

FRMAD050.01.15.09

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



December 10, 2012

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: ZS0000033Y ACZ Project ID: L98130

Jon Anderson:

Enclosed are the analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on November 30, 2012. This project has been assigned to ACZ's project number, L98130. 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 L98130. 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 January 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 | | ACZ Sample ID: | L98130-01 | |
|------------------------------|------------|----------------|----------------|--|
| Project ID: | ZS0000033Y | Date Sampled: | 11/29/12 10:16 | |
| Sample ID: | NP-2 | Date Received: | 11/30/12 | |
| | | Sample Matrix: | Ground Water | |

| Wet Chemistry | | | | | | | | |
|---------------|-----------------------------|--------|---------|-------|-----|-----|---------------|---------|
| Parameter | EPA Method | Result | Qual XQ | Units | MDL | PQL | Date | Analyst |
| Sulfate | M300.0 - Ion Chromatography | 70.13 | | mg/L | 0.5 | 2.5 | 12/05/12 2:27 | tcd |

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

| Project ID: | ZS0000033Y |
|-------------|------------|
| Sample ID: | MO-2009-1 |

ACZ Sample ID: L98130-02 Date Sampled: 11/29/12 12:54 Date Received: 11/30/12 Sample Matrix: Ground Water

| Wet Chemistry | | | | | | | | |
|---------------|-----------------------------|--------|---------|-------|-----|-----|---------------|---------|
| Parameter | EPA Method | Result | Qual XQ | Units | MDL | PQL | Date | Analyst |
| Sulfate | M300.0 - Ion Chromatography | 94.26 | | mg/L | 1 | 5 | 12/05/12 2:48 | 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) | | | | | | |
| 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 | | | | | |
| | Analyte concentration detected at a value between MDL and PQL. The associated 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 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 | 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 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 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 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 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. | | | | |
| L U ethod Referen (1) (2) (3) (4) (5) emments | 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 EPA SW-846. Test Methods for Evaluating Solid Waste. Standard Methods for the Examination of Water and Wasteward | 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. | | | | |
| 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. | | | | |
| 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. | | | | |
| 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

| Sulfate | | | M300.0 - Io | on Chron | natography | / | | | | | | | |
|--------------|------|----------------|-------------|----------|------------|-------|-------|-------|-------|-------|-----|-------|------|
| ACZ ID | Туре | Analyzed | PCN/SCN | QC | Sample | Found | Units | Rec | Lower | Upper | RPD | Limit | Qual |
| WG334290 | | | | | | | | | | | | | |
| WG334290ICV | ICV | 11/15/12 19:21 | WI120912-1 | 50 | | 51.75 | mg/L | 103.5 | 90 | 110 | | | |
| WG334290ICB | ICB | 11/15/12 19:42 | | | | U | mg/L | | -1.5 | 1.5 | | | |
| WG335183 | | | | | | | | | | | | | |
| WG335183LFB1 | LFB | 12/04/12 12:01 | WI120822-4 | 30 | | 30.03 | mg/L | 100.1 | 90 | 110 | | | |
| WG335183LFB2 | LFB | 12/04/12 22:13 | WI120822-4 | 30 | | 31 | mg/L | 103.3 | 90 | 110 | | | |
| L98110-03DUP | DUP | 12/04/12 22:56 | | | 45.66 | 45.58 | mg/L | | | | 0.2 | 20 | |
| L98110-04AS | AS | 12/05/12 13:33 | WI120822-4 | 30 | U | 29.85 | mg/L | 99.5 | 90 | 110 | | | |



(800) 334-5493

ACZ Project ID: L98130

FMI Gold & Copper - Sierrita

| ACZ ID | WORKNUM PARAMETER | METHOD | QUAL DESCRIPTION | |
|--------|-------------------|--------|------------------|--|

No extended qualifiers associated with this analysis



ACZ Project ID: L98130

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 ZS0000033Y | ACZ Proje Date Rec | | 1/20/201 | L98130 |
|---|-----------------------|-----|----------|---------|
| 2300000331 | Receive | | 1/30/201 | ksj |
| | Date Pr | • | 11/ | 30/2012 |
| 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 proto | pcol? | | | Х |
| 4) Are any samples NRC licensable material? | | | | Х |
| 5) If samples are received past hold time, proceed with requested short hol | d 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 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 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 (µR/Hr) | Custody Seal Int | | | |
| | | | | |

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

Yes

13

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| AC | Z Labor | atories, | Inc. | | 12 | 12 | 5 | | () | HA | Not | CU | ST ()) | × . |
|-----------------|---------------------------------------|--------------------|---------------|---------------|------------------------|----------|------------|------------|-----------|------------|------------|----------|---------------|-----------|
| 2773 Downhill D | rive Steamboat Sp | rings, CO 80487 | 7 (800) 334- | 5493 | | | - L | | | | | | | |
| isopot o | | | | | | | | | | | | | | |
| Name: Jon An | | | | | Addres | | 0 W. I | | | | | | | |
| | eport-McMoRan | | | | Green Valley, AZ 85614 | | | | | | | | | |
| E-mail: Jonath | an_Anderson@fr | ni.com | | | Teleph | ione: 1 | 520-64 | 8-8844 | l | | | | | |
| Copy of Repo | 0.1 Met | | ···· • | | | | | | <u>.</u> | | | | | |
| Name: Ben D | aigneau | | | | E-mail | : bdaig | gneau@ | clearc | reekas | sociate | s.com | | | |
| Company: Cle | ear Creek Associa | ates | | | Teleph | ione: 1 | 520-62 | 2-3222 | 2 | | | - | | |
| Involae for | · · · · · | | | | | | · | | | | | | | |
| Name: | | | | | Addre | ss: | | | | | | | | |
| Company: | | | | 1 | | | | | | | | | | |
| E-mail: | · · · · | | | 1 | Teleph | none: | | | | | | | | |
| | ceived past holding | g time (HT), or if | f insufficien | - t HT ren | · · · · | | ete | - | | | YES | | | |
| analysis before | e expiration, shall A | ACZ proceed wi | th requeste | d short | HT anal | yses? | | | | | NO | | l | |
| | CZ will contact clie | | | | | | | | a | 1 | | | | |
| | CZ will proceed wit | | | even if I | tT is ex | pired, a | and data | a will b | e qualif | Ied. | VEO | | | |
| | r CO DW Complian | | | | | | | | | | YES NO | × | | |
| | nclude state forms | . Results will be | e reported t | o PQL. | | ANALS | /SES RI | OTES | 16077 | then to | | | nember | |
| PROJECT INF | | | | | | | | | | | | | | |
| Quote #: | | | | 4 | γ | A 375 | | | | | | | | |
| Project/PO #: | ZS0000033Y | | - · | 4 | of Containers | or EPA | | | | | | | | |
| Reporting stat | e for compliance | testing: | | | nta | 300 | | | | | l | | | |
| Sampler's Nar | me: Jeff Joy | | | | ပီ | EPA (| | | 1 | | | | | |
| Are any samp | les NRC licensab | le material? Y | es No | | # of | à | | | | | | | | |
| SAMPLEID | LNTIFICATION | DATE | LIMI. | Matrix | | SQ4 | | | | | | | | |
| NP-2 | | 11/29/12:10 | 016 | GW | 1 | × | | | | | | | | |
| MO-2009-1 | | 11/29/12 : 12 | 254 | GW | 1 | × | | - | | | | | | |
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| Matrix SW | (Surface Water) · GW | (Ground Water) | WW (Waste V | Vater) D | N (Drinki | ng Water | r) · SL (S | ludge) · : | SO (Soil) |) · OL (Oi | I) · Other | (Specify |) | |
| REMARKS | | | | | | | | | | | | | | |
| LIBS Trockin | g # 1Z 867 7E4 2 | 23 1001 079 1 | | | | | | | | | | | | |
| UPS Hackin | g # 12. 607 71.42 | .5 1001 075 1 | | | | | | | | | | | | |
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| | 10 | se refer to ACZ | | | ons loci | | | | | this CC |)C. | | | |
| RL: | LINQUISHED BY | | DATE T | IME. | | 1 | RECEIV | 7EDB' | Ϋ́. | | | DAL | E E HIMP | |
| Jeffrey Joy | 1 / | <u> </u> | 1/29/12:1 | 530 | <u> </u> | | () | 2 | | | <u>ш-г</u> | 51 CC | <u>) IDi</u> | <u>40</u> |
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L98130 Chain of Custody

FRMAD050.01.15.09



January 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: ZS0000033Y ACZ Project ID: L98363

Jon Anderson:

Enclosed are the analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on December 14, 2012. This project has been assigned to ACZ's project number, L98363. 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 L98363. 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 February 02, 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. Havermehl

Scott Habermehl has reviewed and approved this report.





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

ACZ Sample ID: L98363-01

FMI Gold & Copper - Sierrita

| Project ID: | ZS0000033Y | Date Sampled: | 12/12/12 08:33 |
|-------------|------------|----------------|----------------|
| Sample ID: | CW-10 | Date Received: | 12/14/12 |
| | | Sample Matrix: | Ground Water |

| Wet Chemistry | | | | | | | | |
|---------------|-----------------------------|--------|---------|-------|-----|-----|----------------|---------|
| Parameter | EPA Method | Result | Qual XQ | Units | MDL | PQL | Date | Analyst |
| Sulfate | M300.0 - Ion Chromatography | 52.33 | | mg/L | 0.5 | 2.5 | 12/26/12 12:15 | tcd |

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

FMI Gold & Copper- SierritaProject ID:ZS0000033Y

CW-6

| ACZ Sample ID: | L98363-02 |
|----------------|----------------|
| Date Sampled: | 12/12/12 09:09 |
| Date Received: | 12/14/12 |
| Sample Matrix: | Ground Water |

| Wet Chemistry | | | | | | | | |
|---------------|-----------------------------|--------|---------|-------|-----|-----|----------------|---------|
| Parameter | EPA Method | Result | Qual XQ | Units | MDL | PQL | Date | Analyst |
| Sulfate | M300.0 - Ion Chromatography | 82.98 | | mg/L | 1 | 5 | 12/27/12 11:55 | tcd |

Arizona license number: AZ0102

Sample ID:

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

FMI Gold & Copper - SierritaProject ID:ZS0000033YSample ID:CW-9

ACZ Sample ID: **L98363-03** Date Sampled: 12/12/12 09:50 Date Received: 12/14/12 Sample Matrix: Ground Water

| Wet Chemistry | | | | | | | | |
|---------------|-----------------------------|--------|---------|-------|-----|-----|----------------|---------|
| Parameter | EPA Method | Result | Qual XQ | Units | MDL | PQL | Date | Analyst |
| Sulfate | M300.0 - Ion Chromatography | 42.14 | | mg/L | 0.5 | 2.5 | 12/26/12 13:40 |) tcd |

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

| Project ID: | ZS0000033Y | Date Sampled: |
|-------------|------------|----------------|
| Sample ID: | CW-3 | Date Received: |
| | | Sample Matrix |

ACZ Sample ID: L98363-04 Date Sampled: 12/13/12 09:36 Date Received: 12/14/12 Sample Matrix: Ground Water

| Wet Chemistry | | | | | | | | |
|---------------|-----------------------------|--------|---------|-------|-----|-----|----------------|---------|
| Parameter | EPA Method | Result | Qual XQ | Units | MDL | PQL | Date | Analyst |
| Sulfate | M300.0 - Ion Chromatography | 63.84 | | mg/L | 0.5 | 2.5 | 12/26/12 14:01 | tcd |

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

| Project ID: | ZS0000033Y |
|-------------|--------------|
| Sample ID: | DUP20121213A |

ACZ Sample ID: **L98363-05** Date Sampled: 12/13/12 00:00 Date Received: 12/14/12 Sample Matrix: Ground Water

| Wet Chemistry | | | | | | | | |
|---------------|-----------------------------|--------|---------|-------|-----|-----|----------------|---------|
| Parameter | EPA Method | Result | Qual XQ | Units | MDL | PQL | Date | Analyst |
| Sulfate | M300.0 - Ion Chromatography | 64.04 | | mg/L | 0.5 | 2.5 | 12/26/12 14:22 | 2 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) | Method Detection Limit. Same as Minimum Reporting Limit. Allows for instrument and annual fluctuations. | | | | | | | | | |
| MDL | | A number assigned to reagents/standards to trace to the manufacturer's certificate of analysis | | | | | | | | | |
| PCN/SCN | | 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. | | | | | | | | |
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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 |
| WG334290 | | | | | | | | | | | | | |
| WG334290ICV | ICV | 11/15/12 19:21 | WI120912-1 | 50 | | 51.75 | mg/L | 103.5 | 90 | 110 | | | |
| WG334290ICB | ICB | 11/15/12 19:42 | | | | U | mg/L | | -1.5 | 1.5 | | | |
| WG336320 | | | | | | | | | | | | | |
| WG336320LFB | LFB | 12/26/12 11:54 | WI121018-8 | 30 | | 30.37 | mg/L | 101.2 | 90 | 110 | | | |
| L98363-01DUP | DUP | 12/26/12 12:36 | | | 52.33 | 52.22 | mg/L | | | | 0.2 | 20 | |
| L98363-02AS | AS | 12/27/12 12:16 | WI121018-8 | 60 | 82.98 | 145.01 | mg/L | 103.4 | 90 | 110 | | | |



(800) 334-5493

ACZ Project ID: L98363

FMI Gold & Copper - Sierrita

| ACZ ID | WORKNUM PARAMETER | METHOD | QUAL DESCRIPTION | |
|--------|-------------------|--------|------------------|--|

No extended qualifiers associated with this analysis



ACZ Project ID: L98363

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: | | L98363 |
|---|---------------|---------|----------|---------|
| ZS0000033Y | Date Rece | | 2/14/201 | |
| | Receive | • | 10/ | ks |
| Receipt Verification | Date Pr | inted: | 12/ | 14/2012 |
| | | 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 | 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? | | 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? | | | | |
| 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 (µR/Hr) Cust | cody Seal Int | act? | | |

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

15

Yes

3670

1.4

| Quote #: Project/PO #: ZS0000033Y Reporting state for compliance testing: Sampler's Name: Jeff Joy Are any samples NRC licensable material? Yes No SAMPLE. IDENTIFICATION DATE TIME: Material CW - 10 12/12/12 : 0833 GW 1 CW - 6 12/12/12 : 0909 GW 1 X | Company: Freeport-McMoRan Sierrita Inc. Green Valley, AZ 85614 E-mail: Jonathan_Anderson@fmi.com Telephone: 520-648-8844 Name: Ben Daigneau E-mail: bdaigneau@clearcreekassociates.com Company: Clear Creek Associates Telephone: 520-622-3222 INVINCED Address: Company: E-mail: bdaigneau@clearcreekassociates.com Company: Company: E-mail: Address: Company: Telephone: INVINCED Address: Company: 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. AAX YSE SRI GULSTED reference/refer | Company: Freeport-McMoRan Sierrita Inc. Green Valley, AZ 85614 E-mail: Jonathan_Anderson@fmi.com Telephone: 520-648-8844 Company: Clear Creek Associates E-mail: bdaigneau@clearcreekassociates.com Company: Clear Creek Associates E-mail: bdaigneau@clearcreekassociates.com Name: Address: Company: E-mail: Invente-tri Address: 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 requested short HT analyses? NO 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? YES Project/PO #: ZS0000033Y YES Reporting state for compliance testing: Set the set of t | Company: Freeport-McMc E-mail: Jonathan_Anderson | oRan Sierrita Inc. | | | | | | | | | |
|--|---|--|---|----------------------|-----------|----------|----------|----------|-------------|-----------|--|---------|------------|
| E-mail: Jonathan_Anderson@fmi.com Telephone: 520-648-8844 Wame: Ben Daigneau E-mail: bdaigneau@clearcreekassociates.com Company: Clear Creek Associates Telephone: 520-622-3222 INvoice on Address: Company: Address: Company: Felephone: E-mail: Address: Company: Felephone: 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? NO If "N0" 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. Xes samples for CO DW Compliance Monitoring? If yes, please include state forms. Results will be reported to PQL. NO X PROJECT INFORMATION DATE THX: NO X Quote #: Sompler's Name: Jeff Joy Xes samples NRC licensable material? Yes No Xes samples NRC licensable material? Yes No Xes samples Some samples NRC licensable material? Yes No Xes samples Some samples NRC licensable material? Yes No Xes samples Some samples Some sample Some samples NRC licensable material? Yes No Xes sample sample sample sample sample samaly samalesa samples Some sample sample sample samples | E-mail: Jonathan_Anderson@fmi.com Telephone: 520-648-8844 Name: Ben Daigneau E-mail: bdaigneau@clearcreekassociates.com Company: Clear Creek Associates Telephone: 520-622-3222 Inverse: Address: Company: E-mail: bdaigneau@clearcreekassociates.com Company: E-mail: bdaigneau@clearcreekassociates.com Company: E-mail: bdaigneau@clearcreekassociates.com Company: E-mail: bdaigneau@clearcreekassociates.com If sample(s) received past holding time (HT), or if insufficient HT remains to complete YES analysis before expiration, shall AC2 proceed with requested analyses, even if HT is expired, and data will be qualified. NO Are samples for CO DW Compliance Monitoring? YES NO If 'NO' then AC2 will proceed with the requested analyses, even if HT is expired, and data will be qualified. NO Are samples for CO DW Compliance Monitoring? YES NO If yes, please include state forms. Results will be reported to PQL. NO X Project/PO #: ZS0000033Y YES NO Sampler's Name: Jeff Joy Ane any samples NRC licensable material? Yes NO YE YE Sampler's Name: Jeff Joy DY DY YE D | E-mail: Jonathan_Anderson@fmi.com Telephone: 520-648-8844 Cerpary: Clear Creek Associates E-mail: bdaigneau@clearcreekassociates.com Company: Clear Creek Associates E-mail: bdaigneau@clearcreekassociates.com Mame: Address: Company: E-mail: bdaigneau@clearcreekassociates.com E-mail: Address: Company: E-mail: E-mail: Address: Company: E-mail: E-mail: Address: Company: E-mail: E-mail: Address: Company: Felephone: E-mail: Matrix: If sample(s) received past holding time (HT), or if insufficient HT remains to complete YES If 'NO' then ACZ will contact client for further instruction. If neither 'YES' nor 'NO' NO Is indicated, ACZ will proceed with the requested analyses, even if HT is expired, and data will be qualified. YES Are samples for CO DW Compliance Monitoring? YES NO If yes, please include state forms. Results will be reported to PQL. NO X Project/PO #: ZS0000033Y YES YES Sampler's Name: Jeff Jov Matext YES YES <td>E-mail: Jonathan_Anderson</td> <td>oRan Sierrita Inc.</td> <td></td> <td>Addre</td> <td>ss: 620</td> <td>00 W. Du</td> <td>val Mine</td> <td>Road</td> <td></td> <td></td> <td></td> | E-mail: Jonathan_Anderson | oRan Sierrita Inc. | | Addre | ss: 620 | 00 W. Du | val Mine | Road | | | |
| Company: Clear Creek Associates E-mail: bdaigneau@clearcreekassociates.com Name: Telephone: 520-622-3222 Invoice to Address: Company: E-mail: bdaigneau@clearcreekassociates.com 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? NO If "NO" then ACZ will contact client for further instruction. If neither "YES" nor "NO" NO is indicated, ACZ will proceed with the requested analyses, even if HT is expired, and data will be qualified. Acre samples for CO DW Compliance Monitoring? If yes, please include state forms. Results will be reported to PQL. NO X PROJECT INI ORMATION ANAL YSE XE OULS DED related to state forms. Results will be reported to PQL. NO X Quote #: 9 9 9 9 9 9 9 Project/PO #: ZS000033Y Reporting state for compliance testing: Sample's Name: Jeff Joy Motex X Image: Company of the state form of the state for compliance testing: X Image: Company of the state form of the state for compliance testing: X | Company: Clear Creek Associates E-mail: bdaigneau@clearcreekassociates.com Invorter to Telephone: 520-622-3222 Invorter to Address: Company: E-mail: If sample(s) received past holding time (HT), or if insufficient HT remains to complete analysis before expiration, shall AC2 proceed with requested short HT analyses? NO If sample(s) received past holding time (HT), or if insufficient HT remains to complete 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" is indicated, AC2 will proceed with the requested short 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. NO X IPROJUCT INI ORMATION NNA: YSES KI COUS SIZD reflect INSER or angle analyse include state forms. Results will be reported to PQL. NO X Project/PO #: ZS0000033Y Reporting state for compliance testing: S S S S Sampler's Name: Jeff Joy DATI' TIN: Mitex S S S S CW - 10 12/12/12 : 0833 GW 1 X S S S CW - 6 12/12/12 : 0936 GW | Corpored Report to: Name: Ben Daigneau Company: Clear Creek Associates Inventorio Name: Company: E-mail: Inventorio Name: 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 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. PROJUCT INFORMATION Quote #: Project/PO #: ZS0000033Y Reporting state for compliance testing: Sample's Name: Jeff Joy Are any samples NRC licensable material? Yes No SAMPLE IDENTIFICATION DATE TINE: SAMPLE IDENTIFICATION DATE TINE: CW - 0 12/12/12: 0930 CW - 6 12/12/12: 0950 CW - 9 12/12/12: 0936 CW - 3 12/13/12: 0936 | | | 4 | | | | | | | | |
| Name: Ben Daigneau Company: Clear Creek Associates Invoite: Telephone: Summe: Address: Company: E-mail: Invoite: Address: Company: E-mail: E-mail: Address: 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. NO Are samples for CO DW Compliance Monitoring? YES NO If yes, please include state forms. Results will be reported to PQL. NO PROJECT INFORMATION ANA YSFISTRICULATION EXPENDENCIAL STEPT INFORMATION NAA YSFISTRICULATION EXPENDENCIAL STEPT INFORMATION Quote #: Yes Yes Yes Project/PO #: ZS0000033Y Yes No Yes SAMPLE IDENTIFICATION DATIT TINE Notext Yes CW - 10 12/12/12: 0833 GW I X Image: Co | Name: Ben Daigneau Company: Clear Creek Associates Invoice o Telephone: Name: Address: Company: Company: Name: Address: Company: Felephone: E-mail: Address: Company: Felephone: E-mail: Telephone: Famil: Telephone: If sample(s) received past holding time (HT), or if insufficient HT remains to complete YES If NO" then ACZ will contact client for further instruction. If neither "YES" nor "NO" NO Is incleated. ACZ will contact client for further instruction. If neither "YES" nor "NO" NO Is incleated. ACZ will proceed with the requested analyses, even if HT is expired, and data will be qualified. NO Are asples include state forms. Results will be reported to PQL. NO X Project/PO #: ZS0000033Y YES NO X Reporting state for compliance testing: S S S S Sampler's Name: Jeff Jov No Y S S Are any samples NRC licensable material? Yes No S S S S< | Name: Ben Daigneau Company: Clear Creek Associates Invoite to Telephone: Sample(s) Address: Company: Freail: E-mail: Address: Company: Freail: E-mail: Address: Company: Freail: E-mail: Telephone: If sample(s) received past holding time (HT), or if insufficient HT remains to complete YES If NO" then ACZ will contact client for further instruction. If neither "YES" nor "NO" NO is indicated, ACZ will proceed with the requested analyses, even if HT is expired, and data will be qualified. NO Are samples for CO DW Compliance Monitoring? YES NO If yes, please include state forms. Results will be reported to PQL. NO X PROJECT INFORMATION ANA YSES REQUESTED obtach heter and quintering Quote #: Project/PO #: ZS0000033Y Yes No Yes No Sampler's Name: Jeff Joy Ana ysamples NRC licensable material? Yes No Yes No Yes No Yes No SAMPLE.IDENTIFICATION DATI TIK's Natex No Yes No Yes No Yes No SAMPL & IDENTIFICATION | a target and December of the | n@fmi.com | | Telep | hone: | 520-648- | 8844 | | | | |
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| Invoice to Name: Address: Company: Telephone: E-mail: Telephone: If sample(s) received past holding time (HT), or if insufficient HT remains to complete yES analysis before expiration, shall ACZ proceed with requested short HT analyses? NO 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. NO X PROJLCT INFORMATION ANA: YSE'S REFORE SET OULS TED reliable to second analyses, even if HT is expired, and data will be qualified. X Quote #: YES X Project/PO #: ZS0000033Y X X Reporting state for compliance testing: Sampler's Name: Jeff Joy X Are any samples NRC licensable material? Yes No X X SAMPLE IDENTIFICATION DATE TIME Material X CW - 10 12/12/12: 0930 GW X Image: Complex of Comple | Invoice to Name: Company: E-mail: If sample(s) received past holding time (HT), or if insufficient HT remains to complete yes 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. PROJECTINI ORMATION Quote #: Project/PO #: ZS0000033Y Reporting state for compliance testing: Sampler's Name: Jeff Joy Are any samples NRC licensable material? Yes No SAMPLE IDENTIFICATION DATIT TIN! CW - 0 12/12/12 : 0833 CW - 6 12/12/12 : 0950 CW - 9 12/12/12 : 0936 CW - 3 12/13/12 : 0936 | Invoice to Name: Company: E-mail: If sample(s) received past holding time (HT), or if insufficient HT remains to complete yES 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. PROJECT INI ORMATION Quote #: Project/PO #: ZS0000033Y Reporting state for compliance testing: Sampler's Name: Jeff Jov Are any samples NRC licensable material? Yes No SAMPLE: IDENTIFICATION DATT TIN: Klatex CW - 10 12/12/12 : 0833 CW - 6 12/12/12 : 0950 CW - 3 12/13/12 : 0936 GW 1 X | Name: Ben Daigneau | | | E-mai | il: bdai | gneau@c | learcreel | associat | es.com | | |
| Name: Address: Company: Image: Company: E-mail: Telephone: If sample(s) received past holding time (HT), or if insufficient HT remains to complete samples for complete samples for contact client for further instruction. If neither "YES" nor "NO" No is indicated, ACZ will contact client for further instruction. If neither "YES" nor "NO" NO is indicated, ACZ will proceed with the requested analyses, even if HT is expired, and data will be qualified. NO Are samples for CO DW Compliance Monitoring? YES NO If yes, please include state forms. Results will be reported to PQL. NO X PROJLCT INFORMATION ANA: YSFS RE OULSTED remember list error with the requested state for compliance testing: Sampler's Name: Jeff Joy Anare any samples NRC licensable material? Yes No Yes Sampler's Name: Jeff Joy Anter Maters Maters Sampler's Name: Jeff Joy Anares Image: Sample's NRC licensable material? Yes No Yes Image: Sample's NRC licensable material? Yes No Image: Sample's NRC licensable material? Yes No Image: Sample's Name: Jeff Joy I | Name: Address: Company: Image: Company: E-mail: Telephone: If sample(s) received past holding time (HT), or if insufficient HT remains to complete state force expiration, shall AC2 proceed with requested short HT analyses? NO analysis before expiration, shall AC2 proceed with requested short HT analyses? NO is indicated, 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. Ava: YSE S RE OULSTED refere to PQL. Are asamples for CO DW Compliance Monitoring? YES YES If yes, please include state forms. Results will be reported to PQL. NO X PROJECT INFORMATION Ava: YSE S RE OULSTED refere to PQL. NO X Quote #: YES YES YES YES Project/PO #: ZS0000033 Y YES NO YES YES YES Sampler's Name: Jeff Joy Anter was amples NRC licensable material? Yes No YES YES YES SAMPLETIDENTIFICATION DATE TINE Mater YES YES YES YES CW - 10 12/12/12 : 0930 GW YES YES | Name: Address: Company: E-mail: 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? NO If NO" then ACZ will contact client for further instruction. If neither "YES" nor "NO" NO is indicated, ACZ will proceed with the requested analyses, even if HT is expired, and data will be qualified. NO Are samples for CO DW Compliance Monitoring? YES NO If yes, please include state forms. Results will be reported to PQL. NO X PROJECT INFORMATION ANA: YSES REPUBLISTED reliables to explain the second plain the second | Company: Clear Creek As | sociates | | Telep | hone: | 520-622- | 3222 | | | · | |
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| Are any samples for chemisable material? Pes for ** # | Are any samples NRC itcensable materiar/ Yes NO ** 3 SAMPLE IDENTIFICATION DATE TIKE Material CW - 10 12/12/12 : 0833 GW 1 X CW - 6 12/12/12 : 0909 GW 1 X | Are any samples NRC incensable material? Yes No ** 5 SAMPLE IDENTIFICATION DATE THM: Materix CW - 10 12/12/12 : 0833 GW 1 CW - 6 12/12/12 : 0909 GW 1 X CW - 9 12/12/12 : 0950 GW 1 X CW - 3 12/13/12 : 0936 GW 1 X | | · · | _ | aine | b | | | | | | |
| Are any samples NRC incensable material? Yes NO ** # | Are any samples NRC itcensable materiar/ Yes No ** 3 SAMPLE IDENTIFICATION DATT TIKE Material CW - 10 12/12/12 : 0833 GW 1 X CW - 6 12/12/12 : 0909 GW 1 X | Are any samples NRC itcensable materiar yes No ** 3 SAMPLE IDENTIFICATION DATE TIME Materia CW - 10 12/12/12 : 0833 GW 1 X CW - 6 12/12/12 : 0909 GW 1 X | | ince testing: | - | onta | A 300 | | | | | | |
| Are any samples NRC incensable material? Yes No ** # | Are any samples NRC incensable inaterial? Yes No ** ** ** ** SAMPLE IDENTIFICATION DATE THM: Material CW - 10 12/12/12 : 0833 GW 1 CW - 6 12/12/12 : 0909 GW 1 X CW - 9 12/12/12 : 0950 GW 1 X CW - 3 12/13/12 : 0936 GW 1 X | Are any samples NRC incensable inaterial? Yes No ** 5 SAMPLE IDENTIFICATION DATE THM: Material CW - 10 12/12/12 : 0833 GW 1 CW - 6 12/12/12 : 0909 GW 1 X CW - 9 12/12/12 : 0950 GW 1 X CW - 3 12/13/12 : 0936 GW 1 X | | | - | | λEΡ/ | Ì | | | | | |
| CW - 6 12/12/12 : 0909 GW 1 X CW - 9 12/12/12 : 0950 GW 1 X CW - 3 12/13/12 : 0936 GW 1 X | CW - 6 12/12/12:0909 GW 1 X | CW - 6 12/12/12:0909 GW 1 X | | | Matrix | | SQ4 b | | | | | | |
| CW - 9 12/12/12 : 0950 GW 1 X CW - 3 12/13/12 : 0936 GW 1 X | CW - 9 12/12/12 : 0950 GW 1 X CW - 3 12/13/12 : 0936 GW 1 X | CW - 9 12/12/12 : 0950 GW 1 X CW - 3 12/13/12 : 0936 GW 1 X | CW - 10 | 12/12/12 : 0833 | GW | 1 | × | | | | <u>† </u> | | |
| CW - 3 12/13/12 : 0936 GW 1 🗶 | CW-3 12/13/12:0936 GW 1 🗶 | CW-3 12/13/12:0936 GW 1 🗶 | CW - 6 | 12/12/12:0909 | GW | 1 | × | | | | | | |
| | | | CW - 9 | 12/12/12 : 0950 | GW | 1 | × | | | | | | |
| DUP20121213A 12/13/12:0000 GW 1 K | DUP20121213A 12/13/12:0000 GW 1 X Image: Constraint of the second secon | DUP20121213A 12/13/12:0000 GW 1 X | CW - 3 | 12/13/12 : 0936 | GW | 1 | × | | | | | | |
| | | | DUP20121213A | 12/13/12:0000 | GW | 1 | × | | | | | | |
| | | | | | | | | | | | | | |
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FRMAD050.01.15.09



January 8, 2013

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: ZS000002PM ACZ Project ID: L97323– SULFATE ONLY

Jon Anderson:

Enclosed are analytical reports for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on October 12, 2012. This project was assigned to ACZ's project number, **L97323**. 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 **L97323**. 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.

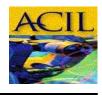
ACZ disposes of samples and sub-samples thirty days after the analytical results are reported to the client. That time frame has elapsed for this project. If the samples are determined to be hazardous, additional charges apply for disposal (typically less than \$10/sample). If you would like the samples 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.









| Project ID: | ZS0000033Y |
|-------------|------------|
| Sample ID: | MH-14 |

ACZ Sample ID: L97323-01 Date Sampled: 10/09/12 11:02 Date Received: 10/12/12 Sample Matrix: Ground Water

| Wet Chemistry | | | | | | | | |
|---------------|-------------------------|--------|---------|-------|-----|-----|----------------|---------|
| Parameter | EPA Method | Result | Qual XQ | Units | MDL | PQL | Date | Analyst |
| Sulfate | D516-02 - Turbidimetric | 1600 | * | mg/L | 100 | 500 | 10/23/12 10:33 | tcd |



| Project ID: | ZS0000033Y |
|-------------|------------|
| Sample ID: | MH-28 |

ACZ Sample ID: L97323-02 Date Sampled: 10/09/12 11:42 Date Received: 10/12/12 Sample Matrix: Ground Water

| Wet Chemistry | | | | | | | | |
|---------------|-------------------------|--------|---------|-------|-----|-----|----------------|---------|
| Parameter | EPA Method | Result | Qual XQ | Units | MDL | PQL | Date | Analyst |
| Sulfate | D516-02 - Turbidimetric | 1900 | * | mg/L | 100 | 500 | 10/23/12 11:55 | tcd |



| Project ID: | ZS0000033Y |
|-------------|------------|
| Sample ID: | MH-15W |

ACZ Sample ID: L97323-03 Date Sampled: 10/09/12 13:11 Date Received: 10/12/12 Sample Matrix: Ground Water

| Wet Chemistry | | | | | | | | |
|---------------|-------------------------|--------|---------|-------|-----|-----|----------------|---------|
| Parameter | EPA Method | Result | Qual XQ | Units | MDL | PQL | Date | Analyst |
| Sulfate | D516-02 - Turbidimetric | 1800 | * | mg/L | 100 | 500 | 10/23/12 11:55 | tcd |



| Project ID: | ZS0000033Y |
|-------------|------------|
| Sample ID: | MH-29 |

ACZ Sample ID: L97323-04 Date Sampled: 10/09/12 14:04 Date Received: 10/12/12 Sample Matrix: Ground Water

| Wet Chemistry | | | | | | | | |
|---------------|-------------------------|--------|---------|-------|-----|-----|----------------|---------|
| Parameter | EPA Method | Result | Qual XQ | Units | MDL | PQL | Date | Analyst |
| Sulfate | D516-02 - Turbidimetric | 1700 | * | mg/L | 100 | 500 | 10/23/12 11:57 | tcd |



| Project ID: | ZS0000033Y |
|-------------|------------|
| Sample ID: | MH-16W |

ACZ Sample ID: L97323-05 Date Sampled: 10/09/12 15:02 Date Received: 10/12/12 Sample Matrix: Ground Water

| Wet Chemistry | | | | | | | | |
|---------------|-------------------------|--------|---------|-------|-----|-----|----------------|---------|
| Parameter | EPA Method | Result | Qual XQ | Units | MDL | PQL | Date | Analyst |
| Sulfate | D516-02 - Turbidimetric | 1800 | * | mg/L | 100 | 500 | 10/23/12 11:57 | 7 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) | All | |
| 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 Qu | Ciypes | |
| 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 | 1. | |
| Z Qualifiers | (Qual) | | |
| | () | | |
| В | Analyte concentration detected at a value between MDL and | PQL. The associat | ed value is an estimated quantity. |
| B H | | | |
| | Analyte concentration detected at a value between MDL and | an immediate hold t | |
| 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 egative threshold. | ime. |
| H L | 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 ne | an immediate hold t egative threshold. he level of the asso | ime. ciated value. |
| H L | 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 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. he level of the asso | ime. ciated value. |
| H L U | 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 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. he level of the asso r the sample detect | ime. ciated value. ion limit. |
| H L U | 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 ne The material was analyzed for, but was not detected above th The associated value is either the sample quantitation limit or nces | an immediate hold t egative threshold. he level of the asso r the sample detect r and Wastes, Marc | ime. ciated value. ion limit. h 1983. |
| H L U ethod Referen | 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 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. he level of the asso r the sample detect r and Wastes, Marc inic Substances in l | ime. ciated value. ion limit. h 1983. Environmental Samples, August 1993. |
| H L U ethod Referen (1) (2) | 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 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. he level of the asso r the sample detect r and Wastes, Marc inic Substances in l | ime. ciated value. ion limit. h 1983. Environmental Samples, August 1993. |
| H L U ethod Referen (1) (2) (3) | 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 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. he level of the asso r the sample detect and Wastes, Marc inic Substances in l s in Environmental S | ime. ciated value. ion limit. h 1983. Environmental Samples, August 1993. |
| H L U (1) (2) (3) (4) | 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 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. he level of the asso r the sample detect and Wastes, Marc inic Substances in l s in Environmental S | ime. ciated value. ion limit. h 1983. Environmental Samples, August 1993. |
| H L U (1) (2) (3) (4) (5) | 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 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. he level of the asso r the sample detect and Wastes, Marc unic Substances in I s in Environmental s vater. | ime. ciated value. ion limit. h 1983. Environmental Samples, August 1993. Samples - Supplement I, May 1994. |
| H L U (1) (2) (3) (4) (5) mmments | 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 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. he level of the asso r the sample detect and Wastes, Marc unic Substances in l s in Environmental s vater. | ime. ciated value. ion limit. h 1983. Environmental Samples, August 1993. Samples - Supplement I, May 1994. |
| H L U (1) (2) (3) (4) (5) mments (1) | 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 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. he level of the asso r the sample detect and Wastes, Marc unic Substances in l s in Environmental s vater. | ime. ciated value. ion limit. h 1983. Environmental Samples, August 1993. Samples - Supplement I, May 1994. |
| H L U (1) (2) (3) (4) (5) mments (1) (2) | 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 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. he level of the asso r the sample detect and Wastes, Marc unic Substances in l s in Environmental s vater. tly if the rounded va eported on a dry we is received" basis. | ime. ciated 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) | 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 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. he level of the asso r the sample detect and Wastes, Marc unic Substances in l s in Environmental s vater. tly if the rounded va eported on a dry we is received" basis. | ime. ciated 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) | 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 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. he level of the asso r the sample detect and Wastes, Marc inic Substances in 1 s in Environmental s vater. tly 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. lues are used in the calculations. ight basis. |

REP001.09.12.01

| Antimony, dissolved ACZ ID Type | | | M200.8 IC | 0.8 ICP-MS | | | | | | | | | |
|------------------------------------|-------|----------------|--------------------------|------------|--------|-------------------|----------------------|---------------|-------------------|--------------------|------|-------|------|
| ACZ ID | Туре | Analyzed | PCN/SCN | QC | Sample | Found | Units | Rec | Lower | Upper | RPD | Limit | Qual |
| WG332545 | | | | | | | | | | | | | |
| WG332545ICV | ICV | 10/20/12 0:43 | MS121001-5 | .02 | | .0218 | mg/L | 109 | 90 | 110 | | | |
| WG332545ICB | ICB | 10/20/12 0:47 | | | | U | mg/L | | -0.0012 | 0.0012 | | | |
| WG332545LFB | LFB | 10/20/12 0:50 | MS121009-6 | .01 | | .01105 | mg/L | 110.5 | 85 | 115 | | | |
| L97318-01AS | AS | 10/20/12 0:57 | MS121009-6 | .02 | U | .02054 | mg/L | 102.7 | 70 | 130 | | | |
| _97318-01ASD | ASD | 10/20/12 1:00 | MS121009-6 | .02 | U | .02132 | mg/L | 106.6 | 70 | 130 | 3.73 | 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 |
| NG332545 | | | | | | | | | | | | | |
| VG332545ICV | ICV | 10/20/12 0:43 | MS121001-5 | .05 | | .05315 | mg/L | 106.3 | 90 | 110 | | | |
| WG332545ICB | ICB | 10/20/12 0:47 | | | | U | mg/L | | -0.0006 | 0.0006 | | | |
| WG332545LFB | LFB | 10/20/12 0:50 | MS121009-6 | .05005 | | .05224 | mg/L | 104.4 | 85 | 115 | | | |
| L97318-01AS | AS | 10/20/12 0:57 | MS121009-6 | .1001 | U | .10396 | mg/L | 103.9 | 70 | 130 | | | |
| L97318-01ASD | ASD | 10/20/12 1:00 | MS121009-6 | .1001 | U | .10082 | mg/L | 100.7 | 70 | 130 | 3.07 | 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 |
| WG332545 | | | | | | | | | | | | | |
| WG332545ICV | ICV | 10/20/12 0:43 | MS121001-5 | .05 | | .04855 | mg/L | 97.1 | 90 | 110 | | | |
| WG332545ICB | ICB | 10/20/12 0:47 | | | | U | mg/L | | -0.00015 | 0.00015 | | | |
| WG332545LFB | LFB | 10/20/12 0:50 | MS121009-6 | .0501 | | .05004 | mg/L | 99.9 | 85 | 115 | | | |
| L97318-01AS | AS | 10/20/12 0:57 | MS121009-6 | .1002 | .0005 | .09628 | mg/L | 95.6 | 70 | 130 | | | |
| L97318-01ASD | ASD | 10/20/12 1:00 | MS121009-6 | .1002 | .0005 | .09656 | mg/L | 95.9 | 70 | 130 | 0.29 | 20 | |
| Cadmium, disso | olved | | M200.8 IC | P-MS | | | | | | | | | |
| ACZ ID | Туре | Analyzed | PCN/SCN | QC | Sample | Found | Units | Rec | Lower | Upper | RPD | Limit | Qual |
| NG332545 | | | | | | | | | | | | | |
| NG332545ICV | ICV | 10/20/12 0:43 | MS121001-5 | .05 | | .05083 | mg/L | 101.7 | 90 | 110 | | | |
| VG332545ICB | ICB | 10/20/12 0:47 | | .00 | | U | mg/L | 101.1 | -0.0003 | 0.0003 | | | |
| WG332545LFB | LFB | 10/20/12 0:50 | MS121009-6 | .0501 | | .05105 | mg/L | 101.9 | 85 | 115 | | | |
| _97318-01AS | AS | 10/20/12 0:57 | MS121009-6 | .1002 | .002 | .10118 | mg/L | 99 | 70 | 130 | | | |
| _97318-01ASD | ASD | 10/20/12 1:00 | MS121009-6 | .1002 | .002 | .10244 | mg/L | 100.2 | 70 | 130 | 1.24 | 20 | |
| Chromium. diss | olved | | M200.7 IC | P | | | | | | | | | |
| ACZ ID | Туре | Analyzed | PCN/SCN | QC | Sample | Found | Units | Rec | Lower | Upper | RPD | Limit | Qual |
| | | | | | | | | | | | | | |
| WG332228 | | | II120914-1 | 2 | | 1 050 | ma/l | 00 | 05 | 105 | | | |
| | | | 11/19/14-1 | 2 | | 1.959 | mg/L | 98 | 95 | 105 | | | |
| WG332228 WG332228ICV | ICV | 10/16/12 19:41 | 11200111 | | | | m~// | | 0 0 0 | 0 00 | | | |
| WG332228ICV WG332228ICB | ICB | 10/16/12 19:47 | | ~ | | U | mg/L | 100.4 | -0.03 | 0.03 | | | |
| WG332228ICV | | | II121001-3 II121001-3 | .5 .5 | U | U .502 .493 | mg/L mg/L mg/L | 100.4 98.6 | -0.03 85 85 | 0.03 115 115 | | | |



| Cobalt, dissolve | əd | | M200.7 I | CP | | | | | | | | | |
|------------------|--------|----------------|------------|----------|--------|------------|-------|-------|---------|--------|------|-------|------|
| ACZ ID | Туре | Analyzed | PCN/SCN | QC | Sample | Found | Units | Rec | Lower | Upper | RPD | Limit | Qual |
| WG332228 | | | | | | | | | | | | | |
| WG332228ICV | ICV | 10/16/12 19:41 | II120914-1 | 2 | | 2.018 | mg/L | 100.9 | 95 | 105 | | | |
| WG332228ICB | ICB | 10/16/12 19:47 | | | | U | mg/L | | -0.03 | 0.03 | | | |
| WG332228LFB | LFB | 10/16/12 20:00 | II121001-3 | .5 | | .495 | mg/L | 99 | 85 | 115 | | | |
| L97321-01AS | AS | 10/16/12 20:09 | II121001-3 | .5 | U | .486 | mg/L | 97.2 | 85 | 115 | | | |
| L97321-01ASD | ASD | 10/16/12 20:12 | ll121001-3 | .5 | U | .494 | mg/L | 98.8 | 85 | 115 | 1.63 | 20 | |
| Copper, dissolv | ed | | M200.7 I | CP | | | | | | | | | |
| ACZ ID | Туре | Analyzed | PCN/SCN | QC | Sample | Found | Units | Rec | Lower | Upper | RPD | Limit | Qual |
| WG332228 | | | | | | | | | | | | | |
| WG332228ICV | ICV | 10/16/12 19:41 | II120914-1 | 2 | | 1.972 | mg/L | 98.6 | 95 | 105 | | | |
| WG332228ICB | ICB | 10/16/12 19:47 | | | | U | mg/L | | -0.03 | 0.03 | | | |
| WG332228LFB | LFB | 10/16/12 20:00 | II121001-3 | .5 | | .504 | mg/L | 100.8 | 85 | 115 | | | |
| L97321-01AS | AS | 10/16/12 20:09 | II121001-3 | .5 | U | .5 | mg/L | 100 | 85 | 115 | | | |
| L97321-01ASD | ASD | 10/16/12 20:12 | II121001-3 | .5 | U | .501 | mg/L | 100.2 | 85 | 115 | 0.2 | 20 | |
| Fluoride | | | SM4500F | -C | | | | | | | | | |
| ACZ ID | Туре | Analyzed | PCN/SCN | QC | Sample | Found | Units | Rec | Lower | Upper | RPD | Limit | Qual |
| WG332483 | | | | | | | | | | | | | |
| WG332483ICV | ICV | 10/19/12 10:04 | WC121017- | 2.002 | | 2 | mg/L | 99.9 | 95 | 105 | | | |
| WG332483ICB | ICB | 10/19/12 10:12 | | 2.002 | | U | mg/L | 0010 | -0.3 | 0.3 | | | |
| WG332505 | | | | | | | | | | | | | |
| WG332505ICV | ICV | 10/19/12 11:59 | WC121017- | 2.002 | | 1.89 | mg/L | 94.7 | 95 | 105 | | | |
| WG332505ICB | ICB | 10/19/12 12:06 | | | | U | mg/L | | -0.3 | 0.3 | | | |
| WG332505LFB1 | LFB | 10/19/12 12:21 | WC121017- | 5.005 | | 4.98 | mg/L | 99.5 | 90 | 110 | | | |
| WG332505LFB2 | LFB | 10/19/12 16:01 | WC121017- | 5.005 | | 5.07 | mg/L | 101.3 | 90 | 110 | | | |
| L97318-05AS | AS | 10/19/12 16:16 | WC121017- | 5.005 | 2.1 | 4.1 | mg/L | 40 | 90 | 110 | | | N |
| L97318-05DUP | DUP | 10/19/12 16:23 | | | 2.1 | 2.03 | mg/L | | | | 3.4 | 20 | |
| Lead, dissolved | | | M200.8 I | CP-MS | | | | | | | | | |
| ACZ ID | Туре | Analyzed | PCN/SCN | QC | Sample | Found | Units | Rec | Lower | Upper | RPD | Limit | Qual |
| WG332545 | | | | | | | | | | | | | |
| WG332545ICV | ICV | 10/20/12 0:43 | MS121001-5 | .05 | | .0502 | mg/L | 100.4 | 90 | 110 | | | |
| WG332545ICB | ICB | 10/20/12 0:47 | | | | .0002 U | mg/L | | -0.0003 | 0.0003 | | | |
| WG332545LFB | LFB | 10/20/12 0:50 | MS121009-6 | .05005 | | .04697 | mg/L | 93.8 | 85 | 115 | | | |
| L97318-01AS | AS | 10/20/12 0:57 | MS121009-6 | .1001 | U | .09608 | mg/L | 96 | 70 | 130 | | | |
| L97318-01ASD | ASD | 10/20/12 1:00 | MS121009-6 | .1001 | U | .0951 | mg/L | 95 | 70 | 130 | 1.03 | 20 | |
| Magnesium, dis | solved | | M200.7 I | CP | | | | | | | | | |
| ACZ ID | Туре | Analyzed | PCN/SCN | QC | Sample | Found | Units | Rec | Lower | Upper | RPD | Limit | Qual |
| WG332228 | | | | | | | | | | | | | |
| WG332228ICV | ICV | 10/16/12 19:41 | II120914-1 | 100 | | 100.65 | mg/L | 100.7 | 95 | 105 | | | |
| WG332228ICB | ICB | 10/16/12 19:47 | | | | U | mg/L | | -0.6 | 0.6 | | | |
| WG332228LFB | LFB | 10/16/12 20:00 | II121001-3 | 50.00131 | | 50.73 | mg/L | 101.5 | 85 | 115 | | | |
| L97321-01AS | AS | 10/16/12 20:09 | II121001-3 | 50.00131 | .3 | 50.53 | mg/L | 100.5 | 85 | 115 | | | |
| L97321-01ASD | ASD | 10/16/12 20:12 | II121001-3 | 50.00131 | .3 | 49.24 | mg/L | 97.9 | 85 | 115 | 2.59 | 20 | |

| Molybdenum, di | ssolved | | M200.7 IC | P | | | | | | | | | |
|-----------------------------|-------------|----------------------------------|--------------------------|-----------------|----------|-----------------------|----------------------|----------------|---------------------|----------------------|------|-------|------|
| ACZ ID | Туре | Analyzed | PCN/SCN | QC | Sample | Found | Units | Rec | Lower | Upper | RPD | Limit | Qual |
| WG332228 | | | | | | | | | | | | | |
| WG332228ICV | ICV | 10/16/12 19:41 | II120914-1 | 2 | | 1.999 | mg/L | 100 | 95 | 105 | | | |
| WG332228ICB | ICB | 10/16/12 19:47 | | | | U | mg/L | | -0.03 | 0.03 | | | |
| WG332228LFB | LFB | 10/16/12 20:00 | II121001-3 | .5 | | .512 | mg/L | 102.4 | 85 | 115 | | | |
| L97321-01AS | AS | 10/16/12 20:09 | II121001-3 | .5 | U | .506 | mg/L | 101.2 | 85 | 115 | | | |
| L97321-01ASD | ASD | 10/16/12 20:12 | II121001-3 | .5 | U | .488 | mg/L | 97.6 | 85 | 115 | 3.62 | 20 | |
| Nickel, dissolve | b | | M200.8 IC | P-MS | | | | | | | | | |
| ACZ ID | Туре | Analyzed | PCN/SCN | QC | Sample | Found | Units | Rec | Lower | Upper | RPD | Limit | Qual |
| WG332545 | | | | | | | | | | | | | |
| WG332545ICV | ICV | 10/20/12 0:43 | MS121001-5 | .05 | | .05061 | mg/L | 101.2 | 90 | 110 | | | |
| WG332545ICB | ICB | 10/20/12 0:47 | | | | U | mg/L | | -0.0018 | 0.0018 | | | |
| WG332545LFB | LFB | 10/20/12 0:50 | MS121009-6 | .05005 | | .0508 | mg/L | 101.5 | 85 | 115 | | | |
| L97318-01AS | AS | 10/20/12 0:57 | MS121009-6 | .1001 | .019 | .12 | mg/L | 100.9 | 70 | 130 | | | |
| L97318-01ASD | ASD | 10/20/12 1:00 | MS121009-6 | .1001 | .019 | .1145 | mg/L | 95.4 | 70 | 130 | 4.69 | 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 |
| WG332724 | | | | | | | | | | | | | |
| WG332724ICV | ICV | 10/23/12 18:55 | WI121009-1 | 2.416 | | 2.491 | mg/L | 103.1 | 90 | 110 | | | |
| WG332724ICB | ICB | 10/23/12 18:56 | | | | U | mg/L | | -0.06 | 0.06 | | | |
| WG332734 | | | | | | | - | | | | | | |
| WG332734LFB1 | LFB | 10/23/12 23:28 | WI120814-9 | 2 | | 2.09 | mg/L | 104.5 | 90 | 110 | | | |
| L97217-06AS | AS | 10/23/12 23:30 | WI120814-9 | 2 | .45 | 2.56 | mg/L | 104.5 | 90 | 110 | | | |
| L97321-01DUP | DUP | 10/23/12 23:33 | W1120014 0 | 2 | .40 U | U | mg/L | 100.0 | 50 | 110 | 0 | 20 | R |
| WG332734LFB2 | LFB | 10/24/12 0:03 | WI120814-9 | 2 | U | 2.084 | mg/L | 104.2 | 90 | 110 | Ū | 20 | |
| Residue, Filteral | ble (TDS |) @180C | SM2540C | | | | | | | | | | |
| ACZ ID | Туре | Analyzed | PCN/SCN | QC | Sample | Found | Units | Rec | Lower | Upper | RPD | Limit | Qual |
| WG332021 | | | | | | | | | | | | | |
| WG332021PBW | PBW | 10/12/12 13:00 | | | | U | ma/l | | -20 | 20 | | | |
| WG332021FBW WG332021LCSW | LCSW | 10/12/12 13:00 | PCN41151 | 260 | | 244 | mg/L mg/L | 93.8 | -20 80 | 120 | | | |
| L97323-04DUP | DUP | 10/12/12 13:01 | F CIN41151 | 200 | 2970 | 2968 | mg/L | 93.0 | 00 | 120 | 0.1 | 20 | |
| WG332102 | 001 | 10/12/12 10:23 | | | 2010 | 2000 | iiig/L | | | | 0.1 | 20 | |
| WG332102PBW | | 10/15/12 11:45 | | | | 16 | ma/l | | 20 | 20 | | | |
| WG332102PBW WG332102LCSW | PBW | | DONALLEA | 260 | | 16 270 | mg/L | 103.8 | -20 80 | 20 120 | | | |
| L97332-08DUP | LCSW DUP | 10/15/12 11:45 10/15/12 11:59 | PCN41151 | 260 | 4060 | 4072 | mg/L mg/L | 103.6 | 80 | 120 | 0.3 | 20 | |
| Selenium, disso | | | M200.8 IC | DMS | | | | | | | | | |
| ACZ ID | Туре | Analyzed | PCN/SCN | QC | Sample | Found | Units | Rec | Lower | Upper | RPD | Limit | Qual |
| | | | | | | | | | | | | | |
| WG332545 | | 10/20/12 0:43 | MS121001-5 | .05 | | .05143 | mg/L | 102.9 | 90 | 110 | | | |
| WG332545 WG332545ICV | ICV | 10/20/12 0.45 | | | | | - | | | | | | |
| WG332545ICV | ICV ICB | | | | | U | ma/L | | -0.0003 | 0.0003 | | | |
| WG332545ICV WG332545ICB | ICB | 10/20/12 0:47 | MS121009-6 | .05005 | | U .05096 | mg/L ma/L | 101 8 | -0.0003 85 | 0.0003 115 | | | |
| WG332545ICV | | | MS121009-6 MS121009-6 | .05005 .1001 | .0006 | U .05096 .10106 | mg/L mg/L mg/L | 101.8 100.4 | -0.0003 85 70 | 0.0003 115 130 | | | |



Inorganic QC Summary

FMI Gold & Copper - Sierrita

| Sulfate | | | D516-02 - | Turbidime | etric | | | | | | | | |
|-----------------|------|----------------|------------|-----------|--------|--------|-------|-------|---------|--------|------|-------|------|
| ACZ ID | Туре | Analyzed | PCN/SCN | QC | Sample | Found | Units | Rec | Lower | Upper | RPD | Limit | Qual |
| WG332667 | | | | | | | | | | | | | |
| WG332667ICB | ICB | 10/23/12 8:16 | | | | U | mg/L | | -3 | 3 | | | |
| WG332667ICV | ICV | 10/23/12 8:16 | WI121015-8 | 20 | | 21.9 | mg/L | 109.5 | 90 | 110 | | | |
| WG332667LFB | LFB | 10/23/12 10:05 | WI120508-1 | 10 | | 9.6 | mg/L | 96 | 90 | 110 | | | |
| L97310-01DUP | DUP | 10/23/12 10:08 | | | 3 | 2.4 | mg/L | | | | 22.2 | 20 | RA |
| L97311-02AS | AS | 10/23/12 10:08 | WI120508-1 | 10 | 11 | 21.5 | mg/L | 105 | 90 | 110 | | | |
| WG332680 | | | | | | | | | | | | | |
| WG332680ICB | ICB | 10/23/12 8:16 | | | | U | mg/L | | -3 | 3 | | | |
| WG332680ICV | ICV | 10/23/12 8:16 | WI121015-8 | 20 | | 21.9 | mg/L | 109.5 | 90 | 110 | | | |
| WG332680LFB | LFB | 10/23/12 10:59 | WI120508-1 | 10 | | 9.5 | mg/L | 95 | 90 | 110 | | | |
| L97323-02DUP | DUP | 10/23/12 11:55 | | | 1900 | 1810 | mg/L | | | | 4.9 | 20 | |
| L97323-03AS | AS | 10/23/12 11:55 | SO4TURB10 | 10 | 1800 | 1790 | mg/L | -100 | 90 | 110 | | | M3 |
| Thallium, disso | lved | | M200.8 IC | P-MS | | | | | | | | | |
| ACZ ID | Туре | Analyzed | PCN/SCN | QC | Sample | Found | Units | Rec | Lower | Upper | RPD | Limit | Qual |
| WG332545 | | | | | | | | | | | | | |
| WG332545ICV | ICV | 10/20/12 0:43 | MS121001-5 | .05 | | .05015 | mg/L | 100.3 | 90 | 110 | | | |
| WG332545ICB | ICB | 10/20/12 0:47 | | | | U | mg/L | | -0.0003 | 0.0003 | | | |
| WG332545LFB | LFB | 10/20/12 0:50 | MS121009-6 | .05005 | | .04888 | mg/L | 97.7 | 85 | 115 | | | |
| L97318-01AS | AS | 10/20/12 0:57 | MS121009-6 | .1001 | U | .10126 | mg/L | 101.2 | 70 | 130 | | | |
| L97318-01ASD | ASD | 10/20/12 1:00 | MS121009-6 | .1001 | U | .0997 | mg/L | 99.6 | 70 | 130 | 1.55 | 20 | |



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

FMI Gold & Copper - Sierrita

| ACZ ID | WORKNUM | PARAMETER | METHOD | QUAL | DESCRIPTION |
|-----------|----------|----------------------|--------------------------|------|---|
| L97323-01 | WG332505 | Fluoride | SM4500F-C | M2 | Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable. |
| | WG332734 | Nitrate/Nitrite as N | M353.2 - H2SO4 preserved | RA | Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL). |
| | WG332667 | 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). |
| L97323-02 | WG332545 | Beryllium, dissolved | M200.8 ICP-MS | VC | CCV recovery was above the acceptance limits. Target analyte was not detected in the sample [< MDL]. |
| | WG332505 | Fluoride | SM4500F-C | M2 | Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable. |
| | WG332734 | Nitrate/Nitrite as N | M353.2 - H2SO4 preserved | RA | Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL). |
| | WG332680 | 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. |
| L97323-03 | WG332545 | Beryllium, dissolved | M200.8 ICP-MS | VC | CCV recovery was above the acceptance limits. Target analyte was not detected in the sample [< MDL]. |
| | WG332505 | Fluoride | SM4500F-C | M2 | Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable. |
| | WG332734 | Nitrate/Nitrite as N | M353.2 - H2SO4 preserved | RA | Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL). |
| | WG332680 | 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. |
| L97323-04 | WG332545 | Beryllium, dissolved | M200.8 ICP-MS | VC | CCV recovery was above the acceptance limits. Target analyte was not detected in the sample [< MDL]. |
| | WG332505 | Fluoride | SM4500F-C | M2 | Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable. |
| | WG332734 | Nitrate/Nitrite as N | M353.2 - H2SO4 preserved | RA | Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL). |
| | WG332680 | 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. |
| L97323-05 | WG332545 | Beryllium, dissolved | M200.8 ICP-MS | VC | CCV recovery was above the acceptance limits. Target analyte was not detected in the sample [< MDL]. |
| | WG332505 | Fluoride | SM4500F-C | M2 | Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable. |
| | WG332734 | Nitrate/Nitrite as N | M353.2 - H2SO4 preserved | RA | Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL). |
| | WG332680 | 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: L97323

No certification qualifiers associated with this analysis

| AGZ Laboratories, Inc. 2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493 | | imple eceipt | |
|---|---------|-----------------|---------|
| FMI Gold & Copper - Sierrita ACZ Proje | ect ID: | | L97323 |
| ZS00002PM Date Rec | | 0/12/201 | 2 10:10 |
| Receive | • | 10/ | ksj |
| Date Pr Receipt Verification | inted: | 10/ | 13/2012 |
| | 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 | |
| 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? | | 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 (µR/Hr) | Custody Seal Intact? |
|-----------|-----------|-------------|----------------------|
| | | | |
| NA16387 | 4.5 | 15 | Yes |

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

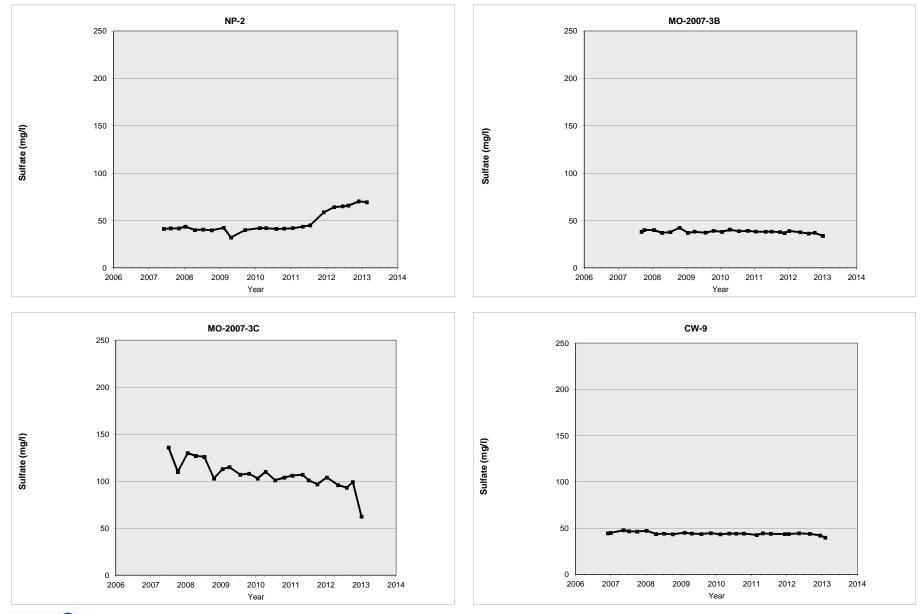
| Report to: | | | | (00) | | al Min - 1 | Dood | | | |
|---------------------------|---|---------------------------|---------------------|-----------------|---|--------------|--------------|-----------|-----------|-----|
| Name: Jon Anderson | Manager Classic Las | ┥┝ | Addres | |) W. Duv | | | | | — |
| Company: Freeport-Me | | -{ ŀ | Teleph | | en Valley 20-393-2 | | 14 | | | |
| E-mail: jonathan_ander | son@mir.com | | Төгерп | Une. J | 20-373-2 | · · · · | | | | |
| Copy of Report to: | | | | | | | | | | |
| Name: | | - } | E-mail: | | | | | | | |
| Company: | | | Teleph | one: | | | | | | |
| Invoice to: | | | | | | | | | | |
| Name: | <u></u> | _ | Addres | 3S: | | | | | | |
| Company: | | _ | | | - • • • • • • • • • • • • • • • • • • • | <u> </u> | | | | |
| E-mail: | | | Teleph | | | | | | | |
| If sample(s) received pa | st holding time (HT), or if insufficie on, shall ACZ proceed with reques | ent HT rem ted short b | nains to HT anal | comple | ete | | | YES NO | | |
| If "NO" then ACZ will co | ntact client for further instruction. | If neither | "YES" | nor "N(| 0" | | | ···• L | | |
| is indicated, ACZ will pr | oceed with the requested analyses | i, even if ⊢ | IT is ex | pired, a | ind data w | ili be quai | ified. | | | |
| | Compliance Monitoring? | | | | | | | YES NO | × | |
| PROJECT INFORMAT | ate forms. Results will be reported | | | ANALY | SES REQ | UESTED (| attach li | | quote nun | nba |
| Quote #: | | | | | | i i | | | | |
| Project/PO #: ZS0000 | 002PM | | ers | 2 | | | | | | |
| Reporting state for cor | | - | Containers | SL | | | | | | |
| Sampler's Name: | | - | Б 0 | Ť | | | | | | |
| | licensable material? Yes No | - | # of • | Quarterly | | | 4 | | | |
| SAMPLE IDENTIFIC | | Matrix | | Ø | | | | | | |
| MH-14 | 10/09/12 : 1102 | GW | 3 | × | | | | | | |
| MH-28 | 10/09/12 : 1142 | GW | 3 | × | | | | | | |
| MH-15W | 10/09/12 : 1311 | GW | 3 | × | | | | | <u>-</u> | |
| МН-29 | 10/09/12 : 1404 | GW | 3 | × | L | | | | └ <u></u> | |
| MH-16W | 10/09/12 : 1502 | GW | 3 | × | | | | | | |
| MH-22 | 10/11/12 : 1303 | GW | 3 | <u>×</u> | | | | | ┝ | |
| | | | ļ | | ┨ | | | | | |
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| · | | | | <u> </u> | ┟.──┼- | | | | | |
| 0 F | | | | <u> </u> | | | <u> </u> | | (Seesify) | — |
| Matrix SW (Surface | Water) · GW (Ground Water) · WW (Wast | e Water) · D' | W (Drinki | ing Wale | r) · SL (Slud | ge) SO (S | 5ii) · OL (C | | (Specity) | |
| Metrix SW (Surface | | | | | | | | | | |
| UPS Tracking # 1Z | 867 7E4 23 1000 8017 | | _ | _ | | _ | | | | |
| **PLEASE RUSH A | NALYTICAL FOR MH-22 | | \bigcap | $\gamma \gamma$ | \mathbb{D}^{2} | \mathbb{N} | * | | | |
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| | • | | | | | | | | | |
| | Please refer to ACZ's terms SHED 5Y: DATE | | ons loc | | | | of this C | :OC. | DATE:1 | |
| | | TIME | | | RECEIVE | :D BY: | | | DATEN | |

•

APPENDIX C

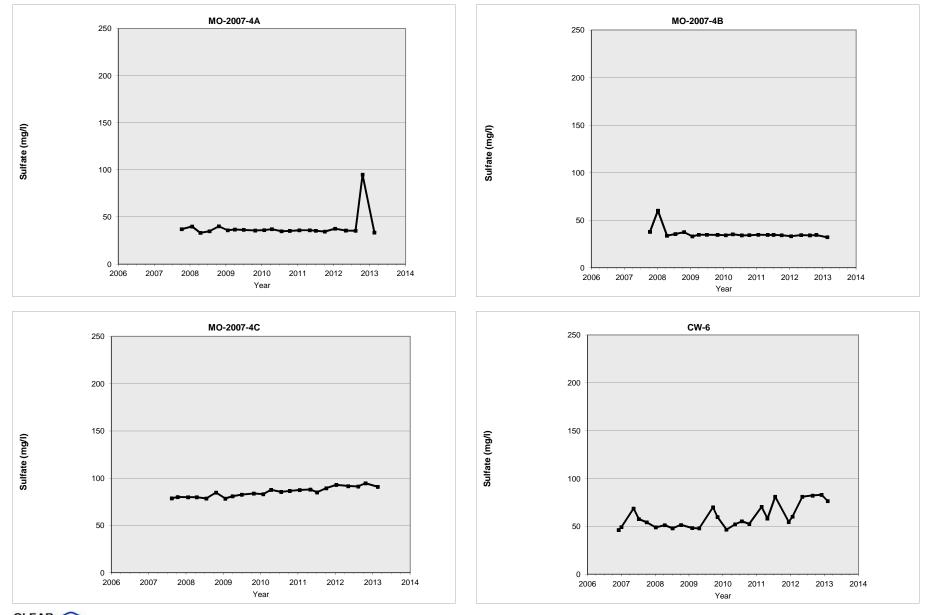
TIME SERIES GRAPHS OF SULFATE CONCENTRATION

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



\TUC-FILE2\Tucson\Data\Projects\G & K\055039_Sierrita Mitigation Order\Groundwater Monitoring\Groundwater Monitoring Reports\2012 Q4 and 2013 Q1 SA Sierrita Appendix C

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



\TUC-FILE2\Tucson\Data\Projects\G & K\055039_Sierrita Mitigation Order\Groundwater Monitoring\Groundwater Monitoring Reports\2012 Q4 and 2013 Q1 SA Sierrita Appendix C

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

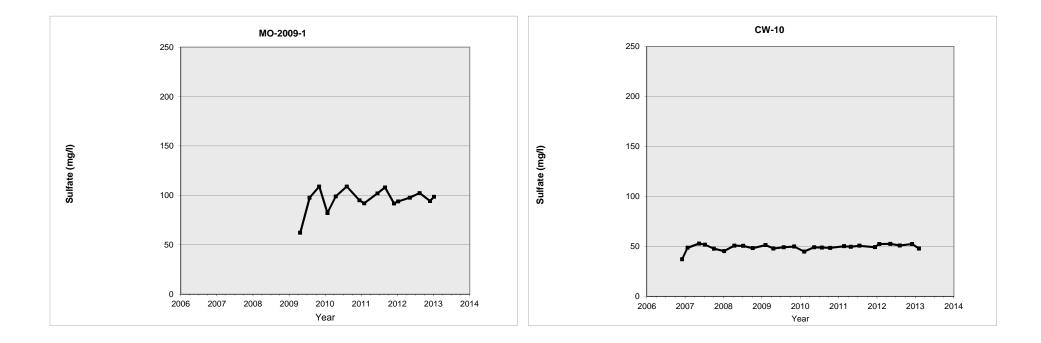
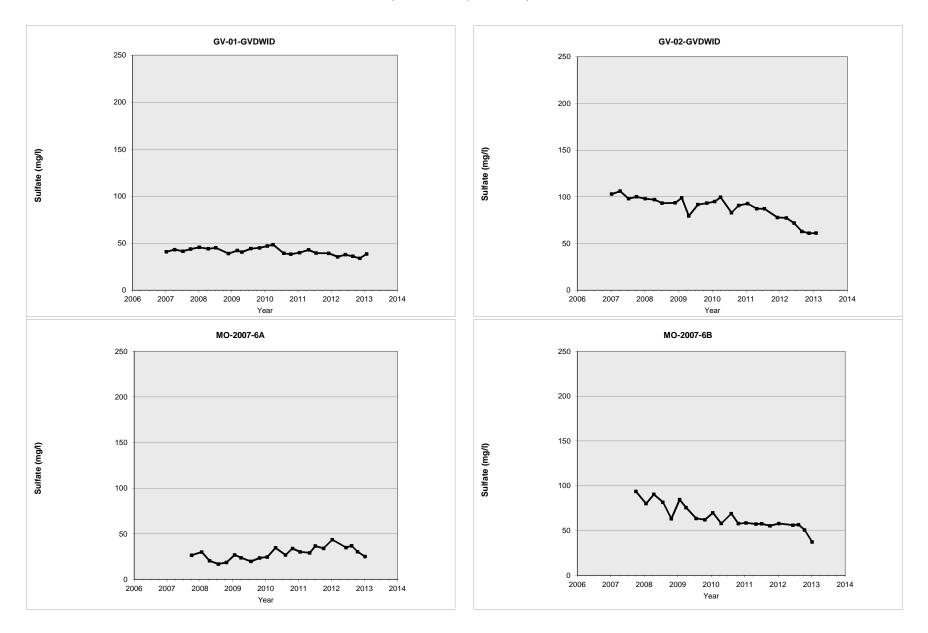
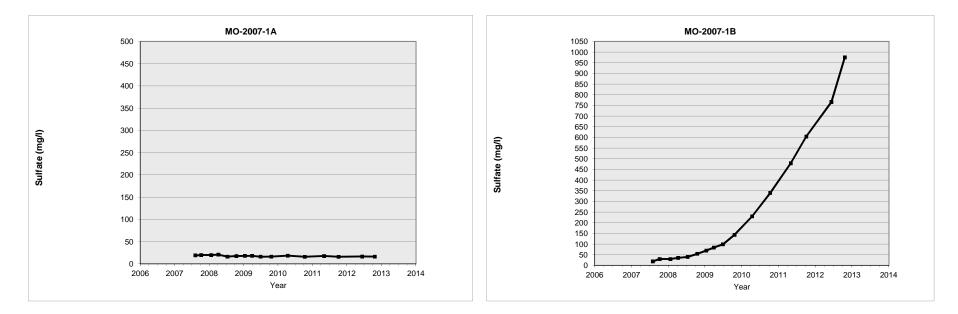


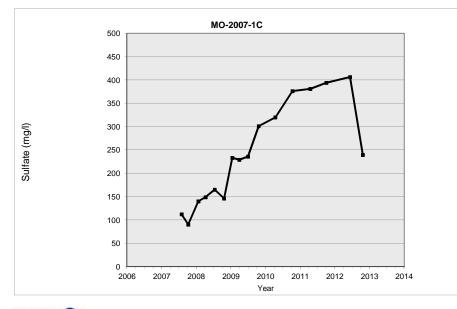
FIGURE C.4 SULFATE CONCENTRATION OVER TIME FOR WELLS GV-01-GVDWID, GV-02-GVDWID, MO-2007-6A, AND MO-2007-6B



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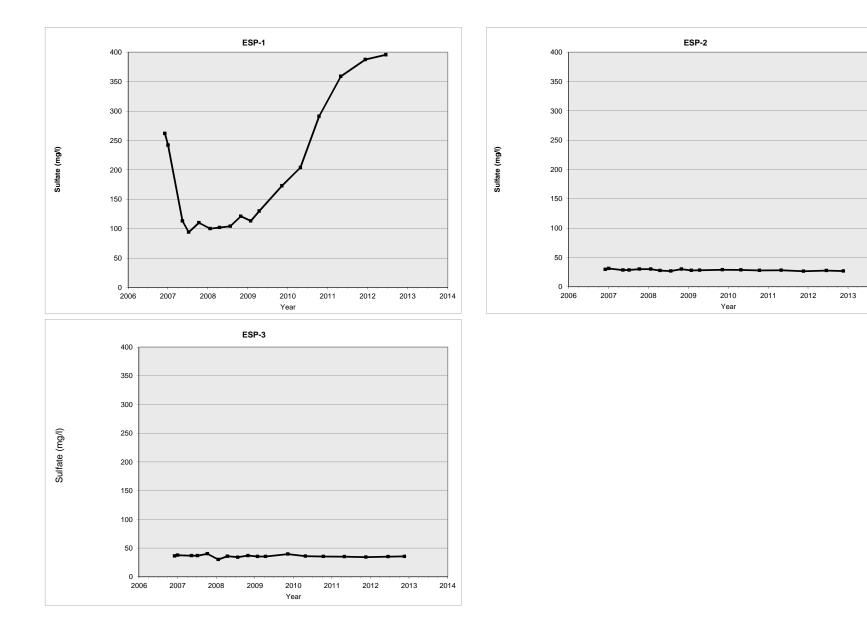
FIGURE C.5 SULFATE CONCENTRATION OVER TIME FOR WELLS MO-2007-1A, MO-2007-1B, AND MO-2007-1C





CLEAR CREEK ASSOCIATES

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



2014

| | Dissolved sulfate concentration reported in milligrams per liter (mg/l) | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------|---|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|--------------------|-------------------|-------------------|--------------------|---------------------|--------------------|
| Well ID | Q4 2006 | Q1 2007 | Q2 2007 | Q3 2007 | Q4 2007 | Q1 2008 | Q2 2008 | Q3 2008 | Q4 2008 | Q1 2009 | Q2 2009 | Q3 2009 | Q4 2009 | Q1 2010 | Q2 2010 | Q3 2010 | Q4 2010 | Q1 2011 | Q2 2011 | Q3 2011 | Q4 2011 | Q12012 | Q22012 | Q32012 | Q42012 | Q12013 |
| CW-6 | 12/04/06 46.2 | 01/03/07 49.2 | 05/14/07 68.7 | 07/10/07 57.6 | 10/02/07 54.2 | 01/08/08 48.9 | 04/15/08 51.2 | 07/08/08 47.9 | 10/07/08 51.5 | 02/06/09 48.2 | 04/22/09 47.9 | 09/17/09 70 | 11/05/09 59.7 | 02/10/10 46.6 | 05/14/10 52.1 | 07/27/10 55.2 | 10/14/10 52.5 | 02/24/11 70.3 | 04/28/11 58.1 | 07/20/11 81 | 12/14/11 54.5 | 1/24/12 60.17 | 5/9/12 80.99 | 8/29/2012 82.24 | 12/12/2012 82.98 | 2/6/2013 76.54 |
| CW-9 | 12/04/06 44.5 | 01/03/07 | 05/14/07 47.8 | 07/10/07 46.7 | 10/02/07 46.4 | 01/08/08 47.3 | 04/15/08 43.7 | 07/08/08 | 10/07/08 43.5 | 02/06/09 45.1 | 04/22/09 44.3 | 07/30/09 43.8 | 11/05/09 44.7 | | 05/14/10 44.2 | 07/27/10 44.1 | 10/14/10 44.2 | 02/24/11 42.7 | 04/28/11 44.4 | 07/20/11 43.9 | 12/14/11 43.8 | 1/24/12 43.8 | 5/9/12 44.39 | 8/29/2012 43.94 | 12/12/2012 42.14 | 2/6/2013 39.87 |
| CW-10 | 12/04/06 37.2 | 01/24/07 48.6 | 05/14/07 52.8 | 07/10/07 51.7 | 10/02/07 47.7 | 01/08/08 45.3 | 04/15/08 50.8 | 07/08/08 50.5 | 10/07/08 48.3 | 02/06/09 51.3 | 04/22/09 47.9 | 07/30/09 49.2 | 11/20/09 49.9 | 02/10/10 44.9 | 05/14/10 49.1 | 07/27/10 48.9 | 10/14/10 48.5 | 02/24/11 50.2 | 04/28/11 49.6 | 07/20/11 50.7 | 12/14/11 49.24 | 1/24/12 52.32 | 5/9/12 52.51 | 8/7/2012 50.95 | 12/12/2012 52.33 | 2/6/2013 47.91 |
| ESP-1 | 12/04/06 262 | 01/03/07 242 | 05/14/07 113 | 07/10/07 94 | 10/12/07 110 | 01/23/08 100 | 04/18/08 102 | 07/25/08 104 | 10/30/08 121 | 01/29/09 | 04/16/09 130 | NS | 11/10/09 173 | NS | 4/28/10 204 | NS | 10/15/10 291 | | 05/03/11 359 | NS | 12/13/11 387.52 | NS | 6/19/12 395.72 | NS | NS | NS |
| ESP-2 | 12/04/06 29.6 | 01/03/07 31.3 | 05/14/07 28.4 | 07/10/07 28.6 | 10/12/07 30 | 01/23/08 30 | 04/18/08 27.6 | 07/25/08 26.8 | 10/30/08 30.1 | 01/29/09 27.8 | 04/16/09 28.2 | NS | 11/10/09 28.9 | NS | 4/28/10 28.7 | NS | 10/15/10 27.9 | NS | 05/03/11 28.1 | NS | 11/22/11 26.65 | NS | 6/19/12 27.75 | NS | 11/21/2012 26.79 | NS |
| ESP-3 | 12/04/06 36.2 | 01/03/07 37.5 | 05/14/07 36.6 | 07/10/07 36.6 | 10/12/07 40 | 01/23/08 30 | 04/18/08 35.7 | 07/25/08 34 | 10/30/08 36.8 | 01/29/09 35.2 | 04/16/09 35.3 | NS | 11/12/09 39.5 | NS | 4/28/10 35.8 | NS | 10/15/10 35.2 | NS | 05/03/11 35.1 | NS | 11/22/11 34.18 | NS | 6/19/12 34.98 | NS | 11/21/2012 35.4 | NS |
| GV-01-GVDWID | | 01/09/07 40.9 | 04/10/07 43.2 | 07/11/07 41.5 | 10/03/07 43.8 | 01/07/08 45.7 | 04/16/08 44.1 | 07/07/08 45.2 | 11/25/08 39 | 03/03/09 42.3 | 04/22/09 40.6 | 07/29/09 44.3 | 11/04/09 45.1 | 01/27/10 47.0 | 04/01/10 48.5 | 07/28/10 39.4 | 10/14/10 38.4 | 01/20/11 40.0 | 04/28/11 42.9 | 07/20/11 39.6 | 12/7/11 39.31 | 3/14/12 35.56 | 6/7/12 37.87 | 8/29/2012 36.15 | 11/15/2012 33.95 | 1/29/2013 38.61 |
| GV-02-GVDWID | | 01/09/07 103 | 04/10/07 106 | 07/11/07 98 | 10/03/07 100 | 01/07/08 98 | 04/16/08 97 | 07/07/08 93.2 | 11/25/08 93.5 | 02/04/09 98.8 | 04/22/09 79.5 | 07/29/09 91.6 | 11/04/09 93.2 | 01/27/10 94.9 | 04/01/10 99.5 | 07/28/10 83 | 10/14/10 90.7 | 01/20/11 92.7 | 04/28/11 87.3 | 07/20/11 87.2 | 12/7/11 77.88 | 3/14/12 77.35 | 6/7/12 71.78 | 8/29/2012 62.98 | 11/15/2012 63.97 | 1/29/2013 61.02 |
| MO-2007-1A | | | | 08/08/07 19.2 | 10/09/07 20 | 01/24/08 20 | 04/09/08 21 | 07/14/08 16.6 | 10/17/08 17.9 | 01/16/09 18.1 | 04/01/09 18.2 | 07/01/09 16.3 | 10/22/09 16.6 | NS | 04/16/10 18.5 | NS | 10/13/10 16 | NS | 05/05/11 17.9 | NS | 10/6/11 16.143 | NS | 6/12/12 16.98 | NS | 10/24/2012 16.5 | NS |
| MO-2007-1B | | | | 08/02/07 18.9 | 10/09/07 30 | 01/24/08 30 | 04/09/08 35 | 07/14/08 39.8 | 10/17/08 54.3 | 01/16/09 69.7 | 04/01/09 84.1 | 07/01/09 99 | 10/22/09 143 | NS | 04/16/10 230 | NS | 10/13/10 340 | NS | 05/05/11 479 | NS | 10/6/11 604.67 | NS | 6/12/12 766.0 | NS | 10/24/2012 975.8 | NS |
| MO-2007-1C | | | | 07/31/07 112 | 10/09/07 90 | 01/24/08 140 | 04/09/08 149 | 07/14/08 165 | 10/21/08 146 | 01/16/09 233 | 04/01/09 229 | 07/01/09 236 | 10/22/09 301 | NS | 04/16/10 320 | NS | 10/13/10 376 | NS | 04/20/11 381 | NS | 10/6/11 393.94 | NS | 6/12/12 406.4 | NS | 10/24/2012 239.2 | NS |
| MO-2007-3B | | | | 09/10/07 38 | 10/09/07 40 | 01/21/08 40 | 04/16/08 37 | 07/14/08 37.8 | 10/22/08 42.4 | 01/19/09 36.9 | 04/01/09 38.2 | 07/27/09 37.2 | 10/22/09 39.1 | 01/20/10 37.9 | 04/22/10 41.9 | 07/21/10 38.7 | 10/26/10 39.1 | 01/18/11 38.2 | 05/04/11 38.1 | 07/06/11 38.3 | 10/5/11 37.822 | 1/11/12 39 | 5/8/12 37.64 | 8/7/2012 36.26 | 10/10/2012 37.01 | 1/8/2013 33.77 |
| MO-2007-3C | | | | 07/05/07 136 | 10/10/07 110 | 01/21/08 130 | 04/15/08 127 | 07/14/08 126 | 10/21/08 103 | 01/19/09 113 | 04/01/09 115 | 07/22/09 107 | 10/22/09 108 | 01/20/10 103 | 04/14/10 110 | 07/21/10 101 | 10/26/10 104 | 01/18/11 106 | 05/04/11 107 | 07/06/11 101 | 10/5/11 96.818 | 1/11/12 104.03 | 5/7/12 95.99 | 8/7/2012 93.25 | 10/10/2012 99.13 | 1/8/2013 62.35 |
| MO-2007-4A | | | | | 10/09/07 37 | 01/22/08 40 | 04/16/08 33.1 | 07/17/08 34.8 | 10/22/08 40.1 | 01/19/09 35.9 | 04/02/09 36.7 | 07/01/09 36.3 | 10/26/09 35.7 | 01/26/10 36.0 | 04/14/10 37.0 | 07/21/10 34.9 | 10/13/10 35.2 | 01/19/11 35.8 | 05/04/11 35.9 | 07/06/11 35.3 | 10/5/11 34.47 | 1/17/12 37.55 | 5/7/12 35.62 | 8/13/2012 35.33 | 10/23/2012 94.87 | 2/21/2013 33.48 |
| MO-2007-4B | | | | | 10/11/07 37.6 | 01/07/08 60 | 04/16/08 33.6 | 07/18/08 35.5 | 10/22/08 37.4 | 01/21/09 32.9 | 04/02/09 34.6 | 07/01/09 34.7 | 10/26/09 34.5 | 01/26/10 34.1 | 04/14/10 35.1 | 07/21/10 34 | 10/13/10 34.2 | 01/19/11 34.6 | 05/04/11 34.5 | 07/06/11 34.4 | 10/5/11 34.194 | 1/17/12 33.14 | 5/7/12 34.25 | 8/13/2012 34.02 | 10/23/2012 34.37 | 2/21/2013 32.01 |
| MO-2007-4C | | | | 08/16/07 78.7 | 10/12/07 80.1 | 01/22/08 80 | 04/16/08 80 | 07/18/08 78.6 | 10/22/08 84.9 | 01/21/09 78.5 | 04/02/09 81 | 07/01/09 82.7 | 10/26/09 83.9 | 01/26/10 83.2 | 04/14/10 87.7 | 07/21/10 85.6 | 10/13/10 86.5 | 01/19/11 87.6 | 05/04/11 88.1 | 07/06/11 85 | 10/5/11 89.355 | 1/12/12 92.92 | 5/7/12 91.7 | 8/13/2012 91.22 | 10/23/2012 94.65 | 2/21/2013 90.93 |
| MO-2007-6A | | | | | 10/02/07 26.5 | 01/22/08 30 | 04/18/08 20.5 | 07/24/08 16.9 | 10/23/08 18.6 | 01/22/09 26.9 | 04/02/09 23.7 | 07/22/09 19.8 | 10/26/09 23.5 | 01/20/10 24.6 | 04/21/10 34.7 | 08/10/10 26.8 | 10/26/10 33.9 | 01/18/11 30.2 | 05/05/11 29.2 | 07/07/11 36.6 | 10/6/11 34.109 | 1/11/12 43.51 | 6/12/12 34.98 | 8/13/2012 36.91 | 10/18/2012 30.42 | 1/8/2013 25.17 |
| MO-2007-6B | | | | | 10/04/07 93.6 | 01/22/08 80 | 04/17/08 90.4 | 07/24/08 81.5 | 10/23/08 63.2 | 01/22/09 84.5 | 04/02/09 75.7 | 07/22/09 63.5 | 10/26/09 62.1 | 69.7 | 04/21/10 57.9 | 08/10/10 68.8 | 10/26/11 57.7 | 01/18/11 58.5 | 05/05/11 57.2 | 07/07/11 57.5 | 10/6/11 55.342 | 1/11/12 57.78 | 6/12/12 55.99 | 8/13/2012 56.54 | 10/18/2012 50.70 | 1/8/2013 37.31 |
| MO-2009-1 | | | | | | | | | | | 04/24/09 62.1 | 07/29/09 97.7 | 11/03/09 109 | 01/25/10 82.1 | 04/20/10 99 | 08/10/10 109 | 12/15/10 94 | 02/02/11 92 | 06/16/11 102 | 08/31/11 108 | 12/1/11 91.82 | 1/11/12 93.84 | 5/9/12 97.69 | 8/15/2012 102.4 | 11/29/2012 94.26 | 1/8/2013 98.57 |
| NP-2 | | | 06/04/07 41.2 | 08/13/07 41.7 | 11/06/07 41.7 | 01/11/08 43.5 | 04/17/08 40 | 07/11/08 40.5 | 10/09/08 39.7 | 02/09/09 42.4 | 04/24/09 32.1 | 09/17/09 40 | NS | NS | 04/22/10 41.9 | 08/05/10 41.2 | 10/25/10 41.4 | 01/19/11 41.9 | 05/03/11 43.5 | 07/18/11 44.8 | 12/5/11 58.63 | 3/21/12 64.11 | 6/18/12 64.9 | 8/15/2012 65.72 | 11/29/2012 70.13 | 2/20/2013 69.34 |

NS = No sample

Q1 = First Quarter

Q2 = Second Quarter Q3 = Third Quarter

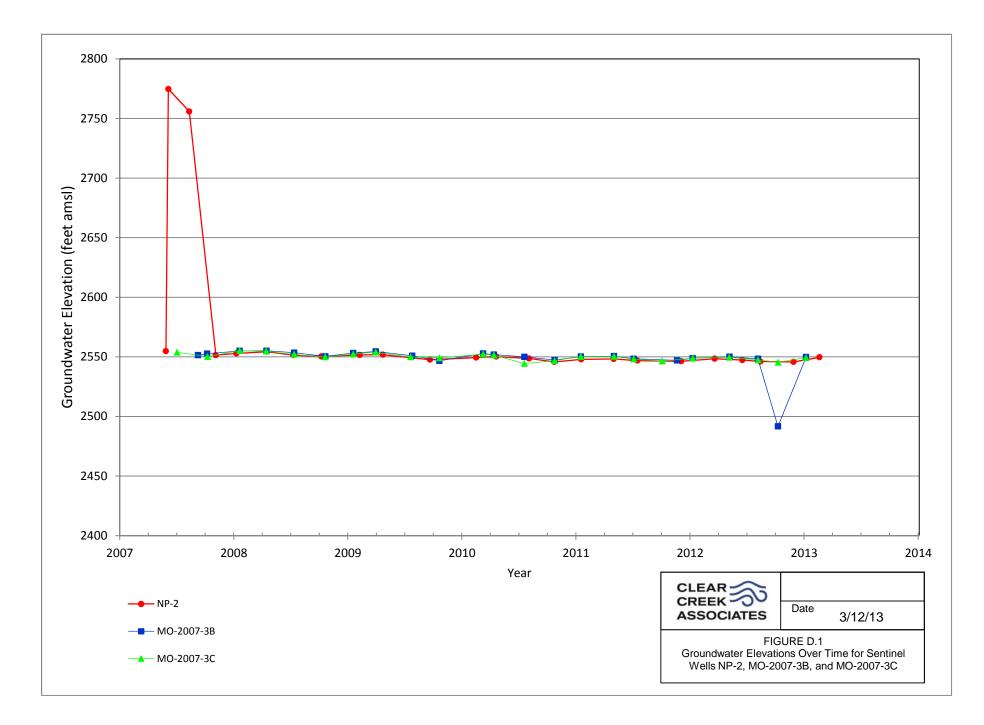
Q4 = Fourth Quarter

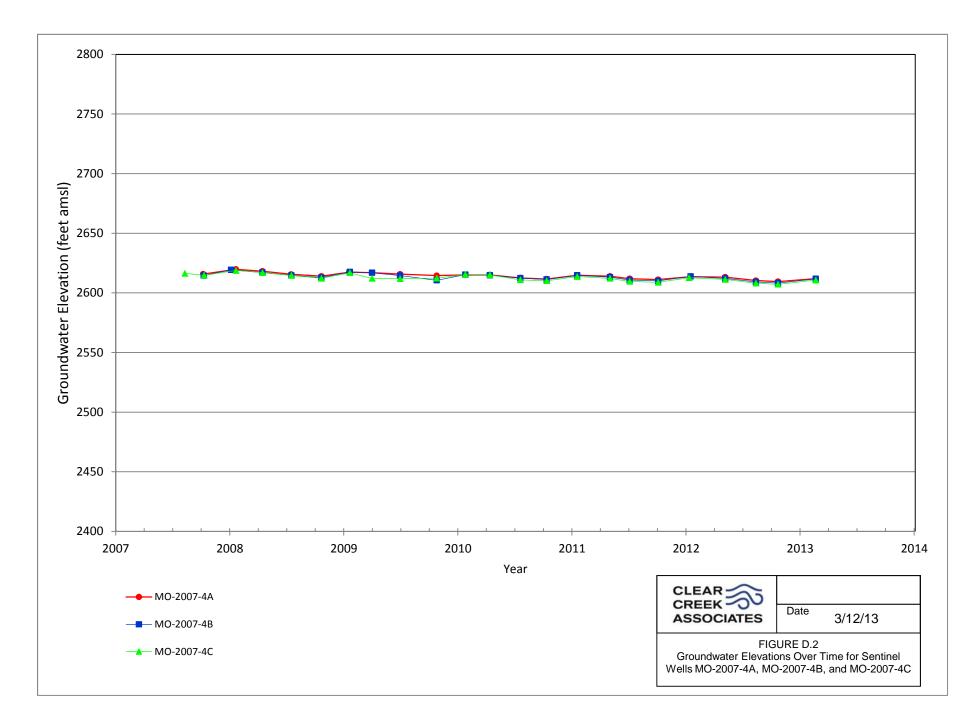
CLEAR CREEK CREEK

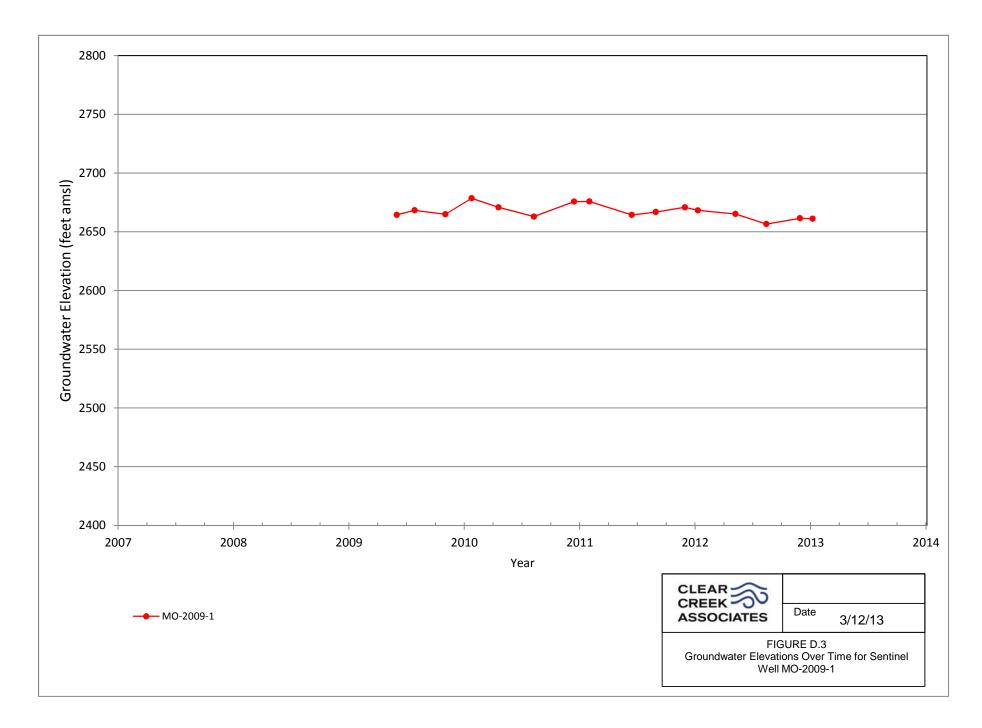


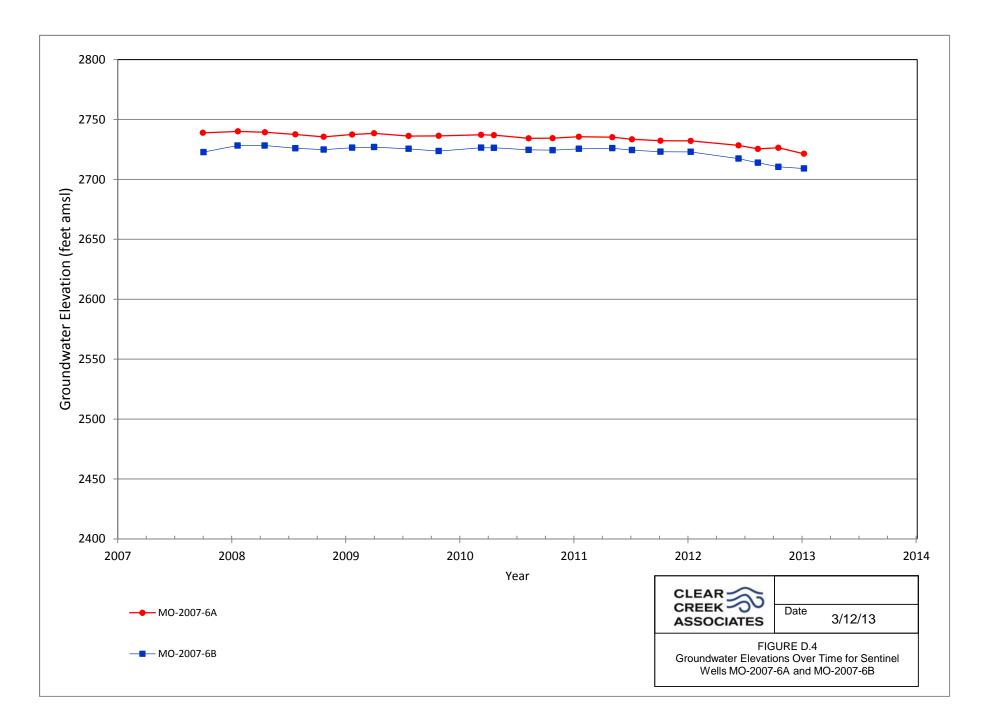
APPENDIX D

TIME SERIES GRAPHS OF GROUNDWATER ELEVATION









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